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Informal land access for housing and associated settlement developments in Bahir Dar City, Ethiopia

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Bahir Dar city, a rapidly urbanizing city in Ethiopia, faces acute housing and urban land demand, resulting in the prevalence of informal land acquisition and housing development. Therefore, this study aims to examine the informal land acquisition for housing in Bahir Dar, resulting in informal settlement expansion, focusing on the conditions, contributing factors, participants, and procedures of informal land transaction settlements. Data were collected by interview from purposefully selected key informants, including land sellers, buyers, brokers, urban land administrators, and code enforcement officers, supplemented by field observations and desk reviews. The study reveals that informal land transactions are the primary means of urban land acquisition for housing in Bahir Dar city, especially in peri-urban rural expansion areas, because the formal system of land access lags far behind. The key causes for this are high urbanization rates, inefficient urban land administration, which fails to supply formal residential plots, and low compensation payments to peri-urban landholders. Peri-urban farmers are the leading land sellers, inner-city residents in rental homes are the primary buyers, and brokers facilitate the transactions, with local administrators often legitimizing informal acquisitions. The study recommends that the government improve the efficiency of formal urban land supply and provide affordable housing to alleviate informal land developments and settlements.

KEYWORDS

urbanization, informal land acquisition, informal settlements, housing demand, land transaction procedures, Ethiopia

1 Introduction

Affordable housing is one of the basic needs of human beings and is recognized as a fundamental human right under international human rights law ([Equality and Human Rights Commission, 2018](#)). Failure to identify, protect, and ensure the Right to Adequate Housing leads to the breach of many fundamental rights, including the Right to Work, Education, Health, and Security ([UN-Habitat, 2020](#)). However, this right is increasingly risky in developing countries, where rapid urbanization results in a housing demand that far exceeds the capacity of urban governments to provide formal land for housing ([Berto et al., 2020](#)). Again, this led to the majority of the urban population, who are predominantly low- and middle-income level inhabitants, relying on informal land acquisition for housing and developing informal settlements ([Adam, 2014a](#); [Bayuma and Abebe, 2023](#); [Chitengi, 2018](#)).

Land access for affordable housing is a prerequisite (World Bank, 2019). Access to this natural resource is a human right, as human beings have a human right to have adequate housing recognized as one of the basic needs of human beings (UN-Habitat, 2020). Beyond that, the land is a natural resource that the governments have an administrative responsibility to distribute fairly to all human beings, especially to address the right to adequate and affordable housing (Ambaye, 2012). Land access is perceived as a means to ensure good governance and democracy (Derso and Gebremichael, 2023).

Informal land acquisition and associated settlement developments are understood as areas where housing is constructed without legal ownership or compliance with land use regulations and building permits, essentially disregarding official laws regarding land use, subdivision, transfer, and construction permits (Adam, 2014a; Mottelson, 2020; Ono and Kidokoro, 2020; Satterthwaite et al., 2020; UN-Habitat, 2015a). Governments' limited supply of affordable land for housing and inefficiency of guiding urban developments are the main reasons for the emergence of informal settlements in inaccessible peri-urban areas (Alemieneh, 2022; Mohammed, 2018; Nkurunziza, 2007; Sunikka-Blank et al., 2021). Informal land acquisition practice is prevalent in the urban areas of developing countries as the majority of the settlers are low-income immigrants who cannot afford the highly expensive and in-demand formal land access to urban land (Cao et al., 2020; Jain et al., 2016; Muhabaw and Gashu, 2019; Owuoye and Adedeji, 2015; Owusu-Ansah et al., 2019).

Informal land acquisition and associated settlement developments have long been recognized as a significant urban phenomenon in the Global South. These processes are not only a manifestation of rapid urbanization but also reflect systemic governance and planning deficiencies. As highlighted in the original review (Adam, 2014; Mottelson, 2020; Satterthwaite et al., 2020; Sengupta et al., 2018), the inability of formal systems to meet rising housing demands, particularly in peri-urban zones, creates a fertile ground for informal land markets. Recent global studies further reinforce this narrative, particularly emphasizing how informal land markets persist as the *de facto* mechanism for urban expansion due to affordability and accessibility constraints in formal systems. The World Cities Report 2022 by UN-Habitat reveals that over 60% of Africa's urban population currently resides in informal settlements, a trend expected to intensify unless structural transformations in land governance are realized (UN-Habitat, 2022a).

UN-Habitat's Global Land Tool Network (GLTN) and its Valuation of Unregistered Land manual offer critical frameworks for understanding these informal dynamics (Freilich and Shultz, 2018; Zhao et al., 2017). The GLTN notes that traditional land tools often fail to capture informal tenure's layered and negotiated nature, advocating for inclusive valuation and land readjustment approaches that account for local realities. Similarly, Participatory and Inclusive Land Readjustment (PILaR) has emerged as a promising model, encouraging community involvement and equity in urban land management, a tool particularly relevant to contexts like Bahir Dar, where legitimacy often arises from local, not statutory, sources (UN-Habitat, 2015b). Case studies from Latin America and Africa also echo these patterns. In Argentina's Chaco Salteño, informal tenure forms the bedrock of livelihood resilience under precarious conditions (Collins et al., 2024). Meanwhile, in Ghana and Tanzania, informal land transactions serve as both housing solutions and pathways for wealth accumulation, albeit outside regulatory frameworks, often

fuelled by speculative land banking and market distortions (Agyabeng et al., 2022; Bhanjee and Zhang, 2019; Nzau and Trillo, 2020).

Scholars in the Springer Land Issues series similarly highlight the systemic inefficiencies and socio-economic drivers behind informality. For example, Amin et al. (2021) argue that informal urban expansion is often a rational response to planning exclusion and a rigid land governance structure that fails to adapt to grassroots realities. These complementary insights affirm the need to critique informal systems and integrate them into forward-looking, reform-oriented urban land policies. Recognizing informal land acquisition as an enduring feature, rather than a temporary failure, can open pathways for hybrid solutions that enhance tenure security, planning legitimacy, and inclusive urban development.

Since 1950, the world has undergone rapid urbanization, with the global urban population rising from 751 million to 4.2 billion by 2018, equating to 55% of the world's population residing in urban areas. Africa's urban population ascended from 33 million to 548 million between 1950 and 2018, a more than 16-fold increase (UN-DESA, 2019). By 2050, Africa's urban population is forecasted to nearly triple 2018, reaching 1.5 billion urban dwellers. This has resulted in 61.7% of Africa's urban population living in informal settlements, with projections indicating a growth from 400 million to 1.2 billion by 2050. Sub-Saharan Africa (SSA), among other regions of the continent, not only stands as Africa's standard but also stands as the world's fastest urbanizing region, with the urban population share projected to rise to 60% by 2050 from the current 40% (UN-Habitat, 2022b).

The rapid urbanization in SSA has led to ever-increasing populations, escalating land scarcity, and urban expansion into rural areas. The demand for urban housing land in sub-Saharan Africa is boosted by rapid urbanization and informal land acquisition in urban areas. In sub-Saharan Africa, informal housing constitutes approximately 75% of the housing stock (UN-Habitat, 2019). In-migrants typically settle customarily or informally at the outskirts of cities (Adam, 2020). While customary land tenure prevails in rural areas, emerging urban land markets require formality to attract intensive investment (Amin et al., 2021; Henderson and Liu, 2023).

With a high urbanization rate of 3.8%, Ethiopia has only 21% of its population living in urban areas, and about 70% of these urban dwellers reside in informal housing (Ozlu et al., 2015). Comparatively, Nigeria has over 52% urban inhabitants in 2020 urbanization growing at 4.1% rate with more than 60% in informal settlements (Aliu et al., 2021; UN-Habitat, 2023), Ghana has 56% urbanization with around 65% informal dwellers (Agyemang and Morrison, 2018), and Tanzania has 34% urbanization with over 70% in informal settlements (Bhanjee and Zhang, 2019; Magina et al., 2020). In contrast, South Africa, with a 67% urbanization rate, has only 23% in informal settlements (Agyabeng et al., 2022; Reed et al., 2010), while Kenya, with 27% urbanization, has over 61% in informal housing (Ono and Kidokoro, 2020; Simiyu et al., 2019; World Bank, 2019). These comparisons highlight the diverse urbanization patterns and the widespread challenge of informal settlements, with South Africa's relatively lower percentage indicating more effective urban planning.

This comparison revealed that Ethiopia's urbanization is not supported by formal access to urban land for housing, resulting in informal urban land access accompanying the growing urban land demand (Derso, 2020; Nega, 2021; Tassie, 2018; Wubie et al., 2021). The formal way of urban land acquisition is dependent solely on the acquisition of land via expropriation of peri-urban farmland holdings.

Today, the use of advanced geospatial technologies, particularly satellite imagery and machine learning algorithms, has significantly enhanced the capability to monitor, assess, and retrieve land use and land cover changes. These gears offer dependable, temporally-rich, and spatially-detailed understandings of the bearings of urbanization on land use, particularly in rapidly growing secondary urban areas in the Global South. In the context of Bahir Dar, these machineries can support policy formulation and land management by providing empirical evidence on the scale and pattern of informal development. Several studies prove the potential of remote sensing and artificial intelligence in supporting urban planning, such as through spatiotemporal modeling of land use change (Chaturvedi and de Vries, 2021; Din and Mak, 2021; Li et al., 2021).

Ethiopia has a public land tenure system for rural and urban areas, as established by the Federal Democratic Republic of Ethiopia's (FDRE's) constitution (FDRE, 1995). The urban land supply is managed through a lease system, which is the sole formal method for obtaining urban land use rights according to the urban lease proclamation. The Ethiopian Urban Land Lease Proclamation 721/2011, Article 5(1) states that the lease system is the sole method for obtaining urban land use rights in Ethiopia in a formal way (FDRE, 2011). The government acquires urban land by expropriating peri-urban agricultural landholdings, compensating the owners for their economic loss (Ambaye, 2015; Mohammed, 2018). However, urban governments have faced challenges in efficiently providing sufficient affordable housing plots, particularly in large cities (Derso, 2020; Yimam et al., 2022). This has led to an acute shortage of urban land and housing. As a result, demanders have resorted to engaging in informal urban land transactions, as the formal system is unable to meet their land for housing demand (Bayuma and Abebe, 2023).

Among the large urban centers that experience a high rate of urbanization in Ethiopia is Bahir Dar City, which is the political center of Amhara National Regional State (ANRS) and is the second largest in terms of population in Ethiopia (Appelhans, 2017; Fitawok et al., 2020). The municipality of Bahir Dar City, like other urban areas of Ethiopia, is engaged in the expropriation of mass land from the peri-urban land holding and transfer to the urban users for housing and other urban uses (Admasu et al., 2019; Temesgen, 2020; Adigeh and Abebe, 2023a). Expropriation is the tool used by the municipalities of Ethiopia to access land for urban use (Ambaye, 2015; FDRE, 1995; FDRE, 2019).

The rationale of this study is to uncover the existing informal urban land access scenario for housing in Bahir Dar city, providing insights crucial for informing policymakers, urban administrators, and NGOs involved in housing supply concerns across Ethiopia. By focusing on Bahir Dar city as a case study, this research aims to address various critical issues. These include examining the prevalence of informal urban land acquisition, identifying key driving factors in the informal land market, and analyzing the participants and procedures involved in informal transactions. Understanding these dynamics is essential for developing effective strategies to improve urban land governance, enhance housing accessibility, and foster sustainable urban development in Ethiopia. To achieve a detailed understanding of informal land acquisition dynamics in Bahir Dar city and to inform strategies and policies for sustainable urban development and equitable land access, this study aims to address the following objectives:

- 1) Describe the situational condition of informal land acquisition and the associated informal settlement scenario in Bahir Dar city, Ethiopia.
- 2) Investigate the drivers of informal land acquisition for housing development in the study area.
- 3) Analyze stakeholder participation in informal land transactions and the process of urban land transactions in the study area.

2 Materials and methods

2.1 Description of the study area

Bahir Dar city, one of the largest cities in northwest Ethiopia and the capital of the Amhara Regional State, is strategically located on the southern shore of Lake Tana at the junction of the Blue Nile River, about 563 km from Addis Ababa. The city is known for its palm tree-lined main road along the lake shore. In 2022, Bahir Dar city's population was 455,901 (BDCSPO, 2022).

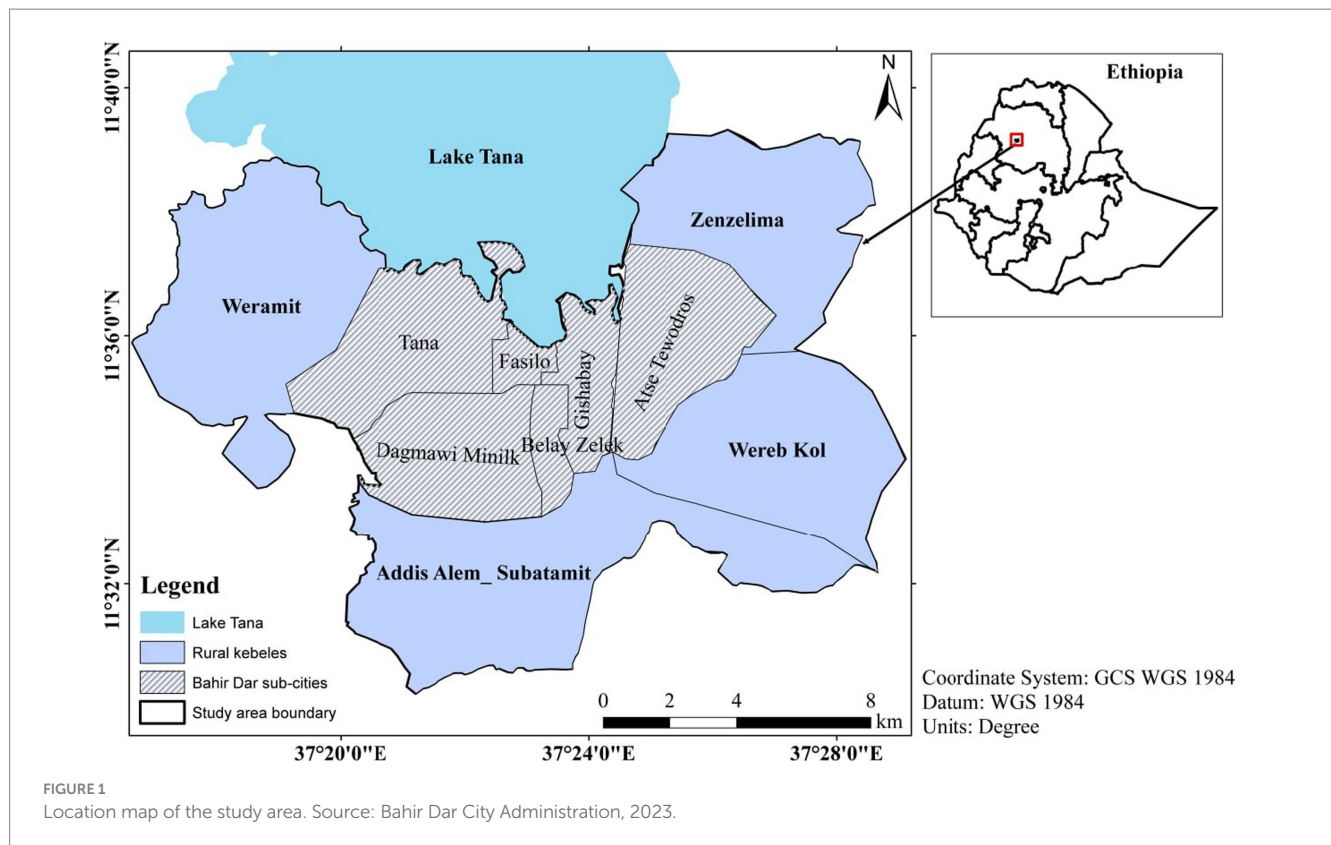
Rapid urbanization in Bahir Dar city has led to a housing shortage and the expansion of informal settlements, impacting the surrounding areas (Alemieneh, 2022). According to the Housing Development and Management Office of Bahir Dar city, the housing stock comprises various types of properties. Government-owned houses include 3,250 low-standard units confiscated by the Derg regime, mostly located in central areas and considered slums, yet are formal due to their legal land tenure. These are predominantly rented to low-income residents. Additionally, the government manages 465 better-quality houses for higher officials and 177 houses constructed for people in absolute poverty. The private housing sector includes 35,556 houses, which incorporate regularized informal units, 485 houses built by real estate developers, up to 7,000 houses constructed by self-help housing cooperatives since 2014, and 3,565 condominium houses, bringing the total housing stock to 55,500 units.

Figure 1 shows that the city comprises six subcities: Tana, Atse Tewodros, Gishe Abay, Belay Zeleke, Dagmawi Menilik, and Fasilo, and rural *kebeles* (the smallest spatial administrative units in Ethiopia), including Adis Alem, Woreb Kol, and Sebatamit (Zenzelma has been included in Atse Tewodros subcity in 2022). Bahir Dar's strategic position, natural beauty, and rich cultural history make it a significant hub for both domestic and international tourists.

2.2 Research methods

The aim of this study is to investigate the informal land acquisition for housing in Bahir Dar city. The study is about describing the current situation of the informal land access scenario, the factors that drive the informal land transaction for housing, and the associated expansion of informal settlements in and around the expansion area of the city, the processes and participants taking part in the informal land transaction.

To achieve the objectives under investigation, a descriptive case study research design is employed. It is a qualitative research methodology that provides a detailed understanding of the context of the specific case to get a comprehensive understanding of the issue under study (Priya, 2021). This design is appropriate to understand the contexts of informal land acquisition for housing in



Bahir Dar city by describing the existing housing demand, the way of formal land acquisition, why informal land acquisition is prevalent, the processes, and the participants in the urban land acquisition in the informal market from a socioeconomic and governance perspective.

The target population for this investigation comprised land sellers and buyers in the informal market, brokers acting as intermediaries, local (*kebele*) administrators, code enforcement experts, and local elders who witness transactions. Participants were selected based on their knowledge and experience with informal land transaction dynamics in the study area. Specifically, the study included 7 land sellers, 10 buyers, 5 brokers, 4 *kebele* administrators, 8 code enforcement workers assigned to regulate each expansion *kebele*, and 3 elders, totalling 37 key informants. Careful consideration was given to ensure participants were drawn from various subcities and rural *kebeles* within the city administration.

The sampling technique employed a combination of purposive sampling and snowball sampling methods. Purposive sampling was used to identify key informants (KI) with in-depth knowledge of the subject matter. Snowball sampling was then applied, where initial participants referred the researcher to other potential participants who met the selection criteria. This approach was useful given the sensitive nature of the topic and the need to gain the community's trust.

The study utilized both primary and secondary sources of data. Key Informant Interviews (KII) and field observations served as the primary data sources. At the same time, secondary data was collected from various documents such as published journal articles, official annual reports of the city administration, proclamations, and other legal and policy documents related to urban land acquisition, housing development, and management.

The interview method was believed suitable for this sensitive investigation, as it allowed participants to express their feelings, experiences, and opinions more openly than in a group setting (Alemineh, 2022). Prior to the interviews, full consent was obtained from each participant by communicating the purpose of the study and assuring them of the confidential use of their interview data. The key informant interviews (KIIs) were conducted at times and venues preferred by the interviewees, which included offices, cafes, and open spaces within the settlement. The duration of each interview ranged from 45 min to 1.5 h. The interviews were conducted in Amharic, the local language. The informants did not allow audio recording, so their perspectives and contextual information were documented using handwritten notes.

The collected data via interview, field observation, and secondary data sources were analyzed based on thematic analysis. Thematic analysis is a qualitative research method for investigating complex phenomena, understanding respondents' viewpoints, and analyzing data from interviews, focus groups, and texts (Creswell, 2014; Naeem et al., 2023; Priya, 2021). The interviews were translated into English, and the related themes were classified into a single category. The themes were reviewed and documented concurrently with the data collected from the secondary sources.

To assure the quality and reliability of data gathered via KIIs and field observations, the study employed a set of quality assurance (QA) and quality control (QC) measures. Standardized interview guides were used after pretesting through pilot interviews to refine question clarity, and were administered self-administered across the KIIs to maintain consistency. Observational data were collected using standardized checklists to ensure uniformity. A purposive sampling method was used to select informants, including municipal officials,

urban planners, and local community representatives with direct knowledge of informal urban land acquisition and housing development dynamics in the study area. Data triangulation was applied by cross-validating KIIs with field observations and secondary sources, and inconsistencies were addressed through follow-up checks to improve data credibility.

In conclusion, this research report is based on data collected through a descriptive case study design. Purposive and snowball sampling methods were used to select 37 key informants for interviews to fully understand the dynamics of informal land acquisition for housing. Informants were chosen for their experience, knowledge, and understanding of the subject. They provided insights into the situation, driving forces, participants, and procedures for informal land access for housing.

3 Results and discussion

3.1 The situation of informal land acquisition for housing in Bahir Dar City

Bahir Dar City is one of the large urban areas of Ethiopia, experiencing a rapid urbanization rate and suffering much from insufficient urban land production and housing supply (Emiru et al., 2023; Dadi, 2018). This urbanization is primarily driven by involuntary migration due to push factors in the countryside, predominantly affecting the young population. Consequently, there is a noticeable shortage of land for the younger generation. According to Appelhans (2017), 67% of all migrants in Bahir Dar City are first-time migrants, coming directly from their areas of origin. These migrants originate from various locations, including surrounding rural areas and other cities across the country.

One of the dominant problems arising from rapid urbanization is the housing shortage. Newcomers depend on the existing housing stock of the city, with less than 30% of urban settlers living in their own homes and the remaining 70% in rental homes (Derso and Gebremichael, 2023). The influx of people increases rental home prices, making affordability a significant issue, especially for renters with families. The government's formal urban land and housing supply falls far short of demand, and land values and building standards are unaffordable except for a few high-income groups who can participate in the lease land acquisition tender process. The study by Yimam et al. (2022) pointed out that the main bottlenecks hindering sufficient urban land supply in the formal channel include challenges in land rights expropriation and compensation processes, financial shortages for compensating landholders, the absence of a well-organized cadastral information system, and a shortage of qualified human resources. As a result, many home seekers turn to informal land acquisition and settlements in the city. This shift has led to a significant expansion of informal settlements, which accommodate the housing needs of a large portion of the city's residents.

3.1.1 Informal land access in the subcities

According to the Bahir Dar City Code Enforcement Office, 5,380 informal housing constructions occurred in Bahir Dar City between the 2014 and 2021 fiscal years (Table 1). Informal land acquisition arises from various sources, including purchases, the invasion of pocket lands within the city, and the unauthorized construction of

homes on self-held lands. These constructions are carried out without formal permission and do not adhere to the city's building standards. In this support, interviews with code enforcement experts clarified that land purchases for housing typically occur in the city's expansion areas. Invasion of pocket lands usually happens in open spaces reserved for greenery, buffer zones along the shore of Lake Tana, and swampy lands within the city. Additionally, the interviewees highlighted that inner-city households often build homes on parts of their residential land plots to rent out or sell due to the sharply increasing rental and sale prices of residential housing. Some homeowners also participate in this informal construction to provide housing for their extended families, mainly their children.

The data indicates that the Tana subcity had the highest number of informal constructions, with 3230 units built between 2014 and 2021, primarily on land held by the settlers themselves without formal building permits, suggesting that many residents chose to build without official approval due to bureaucratic hurdles or inadequate formal land supply. The subcity located in the northwestern part of Bahir Dar has a long boundary exposed to the city's expansion areas. According to interviews with local elders, the weak enforcement by the local administration—often supportive of informal land transactions—contributed significantly to the initiation and expansion of informal land acquisition and housing development. As shown in Table 1, Tana subcity was the first to engage in such practices, setting a precedent for other subcities to follow. This trend started early in Tana and spread to other subcities over time.

In contrast, the Atse-Tewodros subcity recorded the fewest informal constructions, with only 178 units, mostly acquired through informal land purchases, highlighting a different pattern of land acquisition and a gradual increase in informal constructions, particularly after 2018. The government's formal land acquisition for cooperative housing in this subcity discouraged informal land transactions, as residents feared eviction if they engaged in informal practices. Additionally, the subcity is strategically located along the main roads connecting Bahir Dar to Addis Ababa and Gondar, which increases its potential for more formal and planned urban development. Gishe-Abay subcity, centrally located and surrounded by other subcities, recorded 602 informal constructions. A significant portion of these were acquired through purchase (381 units) and invasion (91 units). The subcity experienced a notable increase in informal constructions beginning in 2018, primarily driven by the availability of land for purchase and opportunities for land invasion. However, informal transactions were largely confined to slum holdings, as Gishe-Abay is the oldest part of the city.

Belay Zeleke recorded 429 informal constructions, with the majority acquired through invasion (218 units) and self-holding (146 units). The subcity is found along the Abay River, which is suitable for informal land transactions. The increase in informal constructions in this subcity began in 2017 and peaked in 2019, reflecting a delayed response to the urbanization pressures experienced earlier in Tana. Dagmawi Menilik saw a significant rise in informal constructions in 2019, with 862 units built, predominantly through self-holding (745 units), indicating that landholders began utilizing their land for residential purposes in response to increasing housing demand and urbanization pressures. In contrast, Fasilo subcity, like Gishe-Abay, is centrally located and surrounded by other subcities. However, unlike Gishe-Abay, Fasilo has been developed in accordance with formal urban planning, with developments largely

TABLE 1 Informal residential house constructions in each subcity of Bahir Dar city between 2014 and 2021.

Subcity	Year of construction							Total		Land acquisition scenario				
	2014	2015	2016	2017	2018	2019	2020	2021	Number	%	Buying	Invasion	Self-holding	Not confirmed
Tana	207	198	240	360	760	837	628	9	3,239	60.2	406	55	2,780	-
Atse Tewodros	-	-	1	8	8	18	129	14	178	3.3	112	8	43	15
Gishe Abay	-	-	1	1	152	323	113	12	602	11.2	381	91	116	14
Belay Zeleke	-	-	1	23	29	306	65	5	429	8	218	65	146	-
Dagmawi Memilik	-	-	-	-	-	641	215	6	862	16	107	10	745	-
Fasilo	-	-	-	-	-	-	61	12	73	1.4	-	-	73	-
Aggregate Total	207	198	243	392	949	2,125	1,211	58	5,380	100	1,220	229	3,903	29

Source: Bahir Dar City Code Enforcement Office, 2022.

aligned with the official plan. This has left little room for informal land transactions, except in a few open spaces. Fasilo recorded the fewest informal constructions, totalling only 73 units, all acquired through self-holding. This suggests either limited land availability for informal acquisition or stricter enforcement of land use regulations compared to other subcities.

Generally, the data revealed that informal land acquisition and residential construction in Bahir Dar City have been on the rise since 2014, with notable variations across different subcities. The primary modes of land acquisition include buying from peri-urban farmers or city residents with large plots, invading free state lands, and using one's own farm landholdings. The trends indicate a pressing need for the city administration to address the challenges associated with informal settlements by improving urban land supply mechanisms, enhancing housing policies, and ensuring fair compensation for expropriated land to mitigate the issues faced by informal settlers.

3.1.2 Informal land access scenario in rural Kebeles of the city administration

The rural *kebeles* included in the city's structural plan are designated for future expropriation and serve as sources for city expansion.

Table 2 above revealed that Adis Alem had a total of 111 informal constructions, all of which occurred in 2019, although this *kebele* had prior permissions for constructions before 2016, these developments did not comply with the current land use plans or building standards. Zenzelma reported the highest number of informal constructions, totalling 978 units, with significant construction activity occurring in 2017 and 2018 and a notable peak of 540 units in 2019. Since 2022, Zenzelma has been incorporated into the Atse Tewodros subcity, which may affect future data and planning.

Woreb Kol saw a total of 746 informal constructions, with the majority occurring in 2017 (378 units) and a noticeable drop in subsequent years. This *kebele* experienced irregular construction patterns with fluctuating activity over the years. Sebatamit recorded the highest number of informal constructions, with a total of 1,562 units, peaking in 2016 with 609 units, followed by substantial numbers in subsequent years, including 775 units in 2021, indicating ongoing significant informal development despite legal constraints. Woramit had 211 informal constructions, with the majority of the construction activities occurring from 2019 onward and peaking in 2021 with 1,269 units, reflecting a significant rise in informal construction efforts.

The data in Table 2 illustrate a marked increase in informal construction across these rural *kebeles*, especially in *Sebatamit* and *Zenzelma*. This rise in construction activities is manifest, although the legal prohibition on regularizing informal settlements set by Lease Proclamation 721/2011 is stated to end by 2015 (FDRE Proclamation 721/2011, 2011). The varying levels of informal construction across the *kebeles* highlight challenges in enforcing land use regulations and suggest a need for more effective management strategies to address informal settlements.

Regarding the characteristics, there is no standard land plot size or housing type in the area; plot sizes vary based on buyers' income levels. Higher-income purchasers typically acquire larger plots, while lower-income buyers access smaller ones. A study by Alemineh (2022) revealed that as plot sizes increase, the price per square meter decreases, and vice versa, in the study area. The study revealed that the

TABLE 2 Informal house constructions in the rural *Kebele* administrations of the city between 2016 and 2021.

Rural administrative <i>Kebeles</i>	Year of construction						Total
	2016	2017	2018	2019	2020	2021	
Adis Alem	–	–	–	111	–	–	111
Zenzelma	–	137	201	540	100	–	978
Woreb Kol	–	378	131	23	206	14	746
Sebatamit	609	336	225	302	90	–	1,562
Woramit	–	11	42	100	58	32	211
Total	606	862	398	1,076	454	46	3,608

Source: Bahir Dar City Code Enforcement Office, 2022.



FIGURE 2

The irregular physical layout of informal housing developments in Bahir Dar city, at the expansion area of Tana subcity, Bahir Dar. Source: Google Earth, May 2024.

speculators often buy large plots, anticipating future increases in land value due to high urbanization and rising urban land demand. It is proven that land prices in the informal market have been growing over time. Those who purchased informal land and constructed their homes earlier secured larger plots at lower prices. Consequently, they often subdivide their land and allow other developers to build within their compounds.

Figure 2 demonstrates the spatial dispersal and growth patterns of informal land acquisition and associated housing developments in the south-western section of the study area, in the Tana subcity of Bahir Dar city. The figure highlights key flashpoint areas where informal settlements have expanded, particularly along the urban periphery. The concentration of informal settlements in these zones reflects the irregular pattern and crowdedness, the inadequacy of formal housing supply, and weak enforcement of urban planning regulations. This visualization provides crucial evidence of the disconnect between official land use plans and actual land development practices, reinforcing the study's argument about the structural drivers behind informal urban expansion.

The majority of the houses are constructed from local materials, featuring wooden walls coated with mud, tin roofs, and occasionally cemented floors, though the majority are not. Studies showed that these houses are built this way to minimize costs due to the risk of

demolition (Adam, 2014a, Adam, 2014; Zhang et al., 2020). The majority of the buyers are low-income settlers, often employed by government and private institutions or engaged in small-scale informal trade (Derso and Gebremichael, 2023). They usually finance land purchases through contributions from family and friends, as no formal credit options are available. No banks in the country provide credit for land acquisition, which is particularly unsurprising for informal land purchases. As a result, informal settlements in the expansion areas of Bahir Dar city's subcities and the city's rural administrative *kebeles* are highly congested, as depicted by Figure 2, which can help readers to have a better visualization of what the existing informal housing developments in the study area are like.

There is a shortage of basic services like water, electricity, and roads. Residents often extend electricity from formally recognized houses; wells are the primary water source. Informal houses built through subplotting in central areas have better access to these services and can be more easily formalized, leading to higher property values. Many informal constructions before 2015 were integrated into the informal system with the help of *kebele* administrators, who falsely claimed that these houses existed earlier and requested the municipality to provide basic services. Buyers often hope to formalize their properties by bribing *kebele* administration committee members

for false approvals, with brokers facilitating communication between informal land buyers and sellers.

3.2 Causes of informal land acquisition for housing in Bahir Dar City

Bahir Dar city, like many rapidly urbanizing areas in Ethiopia, faces significant challenges in accessing urban land for affordable housing through formal channels. This has led to a default reliance on informal land acquisition for housing. Several interrelated factors drive this trend, including the city's rapid urbanization, which increases housing demand and raises rental prices beyond the reach of the majority of the residents. The inefficiencies and high costs of the formal land acquisition system, which relies on expropriating peri-urban farmers' land with insufficient compensation, further push farmers to supply land informally. The informal land market is also more efficient and affordable than the formal system. Additionally, weak governance and the involvement of local administrators in informal transactions exacerbate the issue. These factors are discussed in detail.

3.2.1 Fast urbanization-led acute demand for affordable urban land and housing

Bahir Dar city, one of the largest urban areas in Ethiopia and the center of the Amhara Regional State, is preferred by immigrants for its socioeconomic advantages and is urbanizing at an alarming rate, with growth rates ranging from 5.4 to 7% (BDCSPO, 2022). The majority of these immigrants are first-time youth migrants from rural areas. According to the study by Appelhans (2017), 67% of these migrants are displaced from the countryside due to a shortage of farmland and are motivated by the city's better services and higher standard of living. These newcomers increase the demand for housing, relying on the existing housing stock, while new formal constructions lag significantly behind demand.

This overcrowding leads to high rental prices and restricted access to essential services such as water, electricity, roads, landfill services, and socioeconomic infrastructures such as health care, education services, and public spaces for tenants, further deteriorating their living conditions. Consequently, rapid urbanization is a key factor driving the prevalence of informal land acquisition in the city. This increased demand negatively affects the supply side, as the formal system is unable to meet the housing demand, leading to unaffordable

housing prices and rental values. As a result, many low-income residents are pushed to seek more affordable alternatives in the informal market.

3.2.2 Bottlenecks in the formal system of land acquisition

One of the dominant functions of urban governments is providing urban services and infrastructures to bring efficient urban life in urban areas. Among the expected services is addressing the affordable housing supply, which is among the basic needs. This basic need affecting the residents' socioeconomic development is contingent on the supply of land in the formalized system, which needs an efficient land administration and governance system. In Ethiopian urban areas, including the case city, Bahir Dar, the urban land tenure system is based on public ownership. Its administration function is given to the government based on a lease system. Accordingly, municipalities are responsible for administering the urban land lease system and bringing efficiency in urban land supply for various urban development uses, among which land for affordable housing is the prominent one.

However, the inefficiency of urban land governance in urban land supply for various purposes, such as residential, results in informal land access to fill the gap. Urban land supply inefficiencies might include land production, eligibility, and transferring related procedures, and affordability from cost and land use regulation and construction standard perspectives.

In Bahir Dar city, residents face a severe shortage of affordable housing primarily due to limitations in the formal urban land supply system. The city's land supply for housing cannot meet the escalating demand, with only a few plots prepared as listed in Table 3. These plots are often unaffordable due to high prices and building standards, and the process to obtain permits and land registrations is lengthy. In Ethiopia, urban land is generally sourced through the expropriation of peri-urban farmland, from farmers having perpetual use rights over the land and requiring compensation from the government (Temesgen, 2020). However, some interviewees from the municipal land administration office revealed that limited municipal revenue hinders the payment of advance compensation needed to free up land for urban use, crippling urban land production. Additionally, the transfer of lease land requires basic utility services and infrastructure, as mandated by the lease proclamation, which also demands significant financial resources. Consequently, despite the rapidly increasing demand for

TABLE 3 Annual residential land plot production for tender plan vs. actual transfers from 2013 to 2022.

S.No.	Fiscal year	Residential lease land plot production plan	Total land size in M ²	Actual number of plots transferred
1	2022	77	11,937	54
2	2021	162	24,330	103
3	2020	124	-	44
4	2019	237	-	201
5	2018	288	-	221
6	2017	-	-	-
7	2016	-	-	-

Source: Bahir Dar City Revenue Office, 2023.

housing, the constraints on formal land supply push many residents to seek alternatives in the informal market.

The responsibility for formal urban land production at the subcity level lies with the municipality. Accordingly, the Bahir Dar city municipality is responsible for preparing urban land for development and providing relevant data to the Revenue Office, from which this information is sourced. The minimum plot size for residential housing in the city has varied over time. In 2014, it was set at 150 m². However, urban land supply lagged behind demand due to the rising demand for urban land for housing, particularly through cooperative mechanisms and the allotment modality (where land is accessed at a benchmark price). As a result, the minimum lot size was reduced to 100 m² between 2015 and 2022. In 2022, the regional planning office conducted a study and reinstated the previous minimum lot size of 150 m² for residential development. However, land transferred through the lease system via tender remains subject to smaller minimum lot sizes, which may vary or exceed the base size depending on the project. Urban lease land production for housing purposes in Bahir Dar city, as revealed by Table 3, from 2016 to 2022, has been highly insufficient compared to the demand. No plots were planned or transferred for transfer in the 2016 and 2017 fiscal years. Although the municipality planned to prepare 288 housing plots in 2018, only 221 were transferred. Similarly, in 2019, despite planning for 237 plots, only 201 were transferred. The situation worsened in 2020, with a plan for 124 plots but only 44 being transferred. In 2021, out of the 162 planned plots, only 103 were transferred; in 2022, only 54 out of the 77 planned plots were delivered. Although the plot sizes varied, the minimum lot size was consistently above the city's residential standard, increasing from 100 m² in 2019 to 150 m² since 2020.

The inefficient land production for housing results in a boom in the price of the land in the tender transfer modality. While the lease benchmark price starts at 350 (Ethiopian Birr) ETB/m² for grade 1 land [near the Central Business District (CBD)] and 150 ETB/m² for grade 5 (expansion areas), actual tender prices have risen from year to year. For instance, according to a study by Yimam et al. (2022), by 2014, the average price was 3,928.5 ETB (\$199.69)/m², which rose to 7,765.5 ETB (\$375.34)/m² by 2015. Although the minimum price dropped to 1,466 ETB (\$67.12)/m² in 2016, the average price increased to 11,788 ETB (\$539.80)/m². In 2017 and 2018, average prices were 17,050.5 ETB (\$711.43)/m² and 26,277.5 ETB (\$950)/m², respectively. This trend continued in 2019 and 2020, with average prices reaching 27,052.5 ETB (\$926.25)/m² and 43,100 ETB (\$1,233.24)/m². While the price of the plots is 150 to 350 ETB/m² if transferred through allotment, the average tender price reached up to 43,100 ETB/m² in 2022. This shows that the mass of the city residents are not able to compete and buy the residential plot in the tender modality, which leads them to search for alternatives in accessing land in the informal market.

The study also exposed that the cost to acquire a minimum land plot of 150 m² via tender in 2022, based on the average plot tender price of 43,100 ETB/m², amounts to 6,465,000 ETB (\$124,441.79). A minimum down payment of 10% is required, up to 646,500 ETB (\$12,444.18). This cost does not include construction permits and other procedural fees. The interviews indicated that the minimum construction cost, based on the city's building standards, ground plus one (G + 1), is at least 3.5 million

ETB (\$67,369.88). Therefore, to build a home on a 150 m² plot acquired via tender, one would need 9,965,000 ETB (\$191,811.67). The sum of the down payment and the construction cost is the immediate costs, while the remaining balance is to be paid monthly or annually over the lease contract period, based on the agreement. This total expense is unaffordable for the majority of urban land and housing demanders.

This limited land production and supply have not met the urban land and housing demand, resulting in high prices and fierce competition. Studies by World Bank (2019) indicate that the number of bidders is 12–24 times higher than the available residential plots. This disparity highlights the substantial need for residential land, as these Figures do not account for lower-income individuals who often do not participate in such auctions. Moreover, the system's shortcomings in terms of affordability further exacerbate the issue. While there is no exact study or record of the annualized number of urban land demanders for housing in Bahir Dar city, an estimate based on population and housing data provides insight. In 2022, Bahir Dar city had a population of 455,900 and 50,500 total residential houses. With an average family size of 3.2, the total number of households is approximately 142,470. Of these, around 79,757 households (56%) are in demand for housing, living in rental housing or sharing existing homes in crowded conditions.

In the city, the eligibility criteria and the building standard are again the other headaches that cannot be afforded. The minimum building standard of the city today is G + 1, which demands up to 2 million Birr in 2021. Still, due to inflation, especially on construction materials, the construction cost demands up to 3–4 million Birr in 2022. The low-income and middle-income inhabitants are again not affordable in the tender, but even in the cooperative housing modality.

3.2.3 Low compensation for land expropriation as a driver of informal land transactions

The source of land for urban expansion in Ethiopia is the expropriation of peri-urban land, which is held by subsistence farmers. The FDRE constitution clearly states that all land is owned by the public holding/use rights are given to individuals, and their rights might be expropriated upon the advance payment of compensation. Therefore, urban land production for lease involves expropriation after paying compensation, a process that suffers opposition from the existing landholders, as the compensation is so low and insufficient.

In Bahir Dar city, the municipality is responsible for preparing urban land by expropriating peri-urban landholders' possession within the planning boundary of the city by providing compensation. When land is designated for urban use, its value ranges between 150 and 350 ETB/m², with an average of 250 ETB/m² for housing land, considering the land development cost. However, the compensation paid to peri-urban landholders has been relatively low, at 54 ETB/m² in 2017, 2018, and 2021 (\$2.25, \$1.95 and \$1.23 for 2017, 2018, and 2021, respectively, due to devaluation), increasing to 99.5 ETB (\$1.92)/m² (rounded to 100 ETB/m²) from 2022 onward (Adigeh and Abebe, 2023b). Despite this, a study by Yimam et al. (2022) revealed that farmers often sell their landholdings at prices significantly higher than the compensation they receive. The study indicates that urban land

prices ranged from 7,000 ETB (\$200.28)/m² to 12,000 ETB (\$343.34)/m², with an average of 9,500 ETB/m², which is 95 times the highest compensation paid in 2020. The interview with a 57-year-old man who lost his farmland for urban expansion in 2017, as provided in the following, revealed that the compensation is insignificant in addressing the economic loss of the farmers.

“... I wish I could forget and not talk about that situation, as that is about, I lost everything. I had one hectare of land, on which I relied for my and family everything. We live on, are cattle, produce milk and crops, ranch oxen, and grow vegetables. I used to earn 350 ETB (\$14.6) per day from milk production, and I would have cattle. I only ploughed half of my land to get the annual crop earnings for my family, while the half was reserved for grass. I was rich. But, in 2017, the government took all my land for ‘industry park development,’ a development that complicated my life. Now, I am too poor to feed my children. I immediately sold my cattle after I was ordered to vacate the land with that compensation. No milk, no money, no land. I always wonder what ‘development’ means and for whom it is. I spend my days thinking about what I lost and how I lost my livelihood. I aged rapidly after that. I now live in a rental home in a crowded urban area, surrounded by people but feeling alone. We farmers are sparse, but we live close to each other. Now, I am alone in a dense mass of people. I would prefer to have died than live such a life ...”

Considering the then compensation rate of 54 ETB/m², the farmer received around 540,000 ETB (\$22,530.7), calculated based on a 10-year average crop market value. However, this calculation does not account for the farmer’s other sources of income, such as dairy farming, ranching, vegetables, and poultry, which are not considered in the compensation proclamation. The compensation received was equivalent to the value of the city’s minimum housing land plot standard if sold on the informal market. The data from the interview of the brokers about the average price of land in the informal market in 2017 was 3500 ETB (146.03)/m². According to the interview, if the farmer’s milk income over 10 years is considered without inflation, he would have earned a total of 1,260,000 ETB (\$52,571.63), 2.3 times more than the compensation he received. This calculation excludes the income from ranching, vegetables, and crops on the other half of his land.

The farmer’s perpetual possession/use rights to the land make the 10-year compensation somewhat vague. In reality, the value of the same land when converted to urban use was 250 ETB (\$10.43)/m² on average at the benchmark price, and it rose to 17,050 ETB (\$711.39)/m² at the average tender price in the same year of the farmer’s expropriation.

When peri-urban farmers find their land within the city’s planning boundary, they understand that the municipality will take it with minimal compensation. As a result, they view urban expansion as a threat and choose to sell their land on the informal market at significantly higher prices, sometimes 65 times more in 2017 and 95 times more in 2020 than the compensation offered. Therefore, it can be concluded that insufficient compensation for peri-urban landholdings, where farmers have perpetual possession rights, is a major driving factor for informal land acquisition. Consequently, they prefer to subdivide and sell their plots informally to secure more cash. This is why the peri-urban expansion areas of Bahir Dar city are increasingly occupied by informal housing developments.

3.3 Stakeholder participation and procedures in informal land acquisition

Urban land transactions in the informal channel have their own procedures in which different stakeholders take part at various levels in the process. It has its structures, institutions, codes, and processes. The stakeholders include the land suppliers, buyers, brokers, local elders, and local administrators. Research by [Adam \(2014b\)](#) and [Derso and Gebremichael \(2023\)](#) described the participants and their level of participation in the informal land transaction in Bahir Dar city.

Peri-urban farmland holders are the primary suppliers to the informal land market, often selling their land to avoid expropriation by the city administration with inadequate compensation. Sometimes, they sell due to financial difficulties. Interviews with the sellers revealed that the majority of the farmers involved in informal transactions are from expansion areas, seeking to escape inadequate compensation.

The buyers in informal land transactions are typically city residents who face rising rental prices, making housing unaffordable, especially for large families needing more space ([Derso, 2020](#)). These tenants also seek to escape restrictions imposed by homeowners on utilities and social interactions. Additionally, some middle- and high-income urban residents participate in speculating on land, buying larger plots to replot and sell later. In the informal market, land prices decrease as plot sizes increase. In support of this, [Anierobi et al. \(2023\)](#) revealed factors such as inadequate housing supply, high costs of rent and land in formal areas, and insufficient governmental intervention in housing markets.

Brokers are crucial in informal land transactions, acting as intermediaries between sellers, buyers, and local administrators. They provide vital information on land availability and price averages to both buyers and sellers. Sellers rely on brokers to find buyers, providing details about the location, size, and price of the land. Buyers seek brokers to find housing land in the informal market. After facilitating negotiations on price and other parameters, brokers liaise with local administration and code enforcement agents to obtain the necessary permits, thus helping formalize the otherwise informal transactions. In support of this, the study by [Bayuma and Abebe \(2023\)](#) shows land brokers are the most influential, holding pivotal positions in the network due to their high centrality, closeness, betweenness, and eigenvector scores.

Local administrators are key stakeholders in the informal land transaction process. After a deal is concluded between a buyer and a seller, brokers often contact local administrators informally and pay bribes to obtain a letter recognizing the land as having an old house that needs redevelopment. This letter allows them to secure a redevelopment permit, pretending the existing home was constructed before 2015, making it eligible for regularization if it conforms to the land use plan. Buyers also verify that the land use category is residential according to the structural plan through informal information from urban land management staff. Subsequently, either the buyer or seller constructs the house using non-new materials, such as old tin sheets, reused nails, and old wood, to give the appearance of renovation rather than new construction.

Once construction is completed, the agreement between the seller and the buyer focuses on the house rather than the land, as

land sales are illegal under the constitution. This agreement is usually supported by a false loan contract, simulating that the seller took a loan they are unable to repay. Consequently, they agree to hand over the house as repayment. The loan contract is concluded between the buyer and his family, avoiding potential claims by the seller's family, and is witnessed by local elders. The loan amount is set significantly higher than the actual price paid in the informal market to prevent the seller from reclaiming the land in the future due to price increases.

Following this, the seller approaches the local administration to obtain a recommendation letter for the municipality, allowing them to access basic services like electricity and water. Through this process, the informal development gradually becomes formalized. If successful, the property is officially recognized; otherwise, it risks being demolished.

The informal urban land transaction in Bahir Dar city involves peri-urban farmland holders pressured by inadequate compensation, city center inhabitants seeking affordable housing due to rising rental prices, brokers facilitating transactions, and local administrators enabling the process through bribes and permits. Strategic manoeuvres, such as simulated loan agreements and using old construction materials, help avoid legal repercussions. Despite these challenges, the informal market persists due to significant housing demand and the shortcomings of the formal urban land supply system, highlighting the need for more responsive urban land management policies.

4 Conclusion and recommendations

Informal land acquisition and the associated development of informal settlements in urban areas can never be stopped simply by cursing them. There needs to be a positive intervention by examining the factors behind the phenomenon. Informal settlements are known as less accessible and serviced, as they are chosen as the minimum alternative, just as better for living than on the roadside/street. They are usually prone to criminal activities as there is less attention from the administrative support of the government. However, they are still the best options available for many urban inhabitants.

The study identifies that Bahir Dar city predominantly addresses the housing demand of its residents through informal land access and subsequent housing development. The ever-increasing urban population's housing needs are scarcely met through formal urban land supply, leading to the prevalence of informal solutions. Several factors drive this informal urban land acquisition, including low expropriation payments to peri-urban landholders and the shortcomings of formal land administration in supplying adequate urban land and housing.

Participants in informal land transactions for housing include buyers and sellers, brokers, local elders, and trustworthy households as witnesses, and local administrative organs that assist in formalizing informal possessions. These transactions pass through various stages with locally customized norms, institutions, and structures.

Informal land transactions and the development of informal settlements cannot be halted as long as the right to affordable housing, a basic human need and human right, is unmet. Therefore, municipalities should devise policies and strategies to integrate informal settlers into the formal housing system. Regularizing these settlements is the most effective intervention for city governments,

providing a positive way to manage and engage with informal communities.

Urban policy and planning strategies must shift from curative approaches to preventive frameworks to address the existing problem of informal land acquisition and the propagation of informal settlements in Bahir Dar city, urban policy and planning strategies must shift from curative approaches to preventive frameworks. Authorities should work on the regularization and integration of informal settlements into the formal urban system by revising land administration policies that promote efficient formal land supply, ensuring affordable housing provisions, and enhancing coordination among local government bodies. Efforts should be made to address the root causes, such as low compensation for peri-urban landholders, gaps in formal land supply, and institutional inefficiencies, by implementing proactive measures that recognize informal settlers' rights and participation in urban development processes. This approach is essential for achieving sustainable urban growth and equitable access to housing.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving humans were approved by Ethiopian Civil Service University's Research Affairs. The studies were conducted in accordance with the local legislation and institutional requirements. Written informed consent for participation was not required from the participants or the participants' legal guardians/next of kin in accordance with the national legislation and institutional requirements.

Author contributions

DA: Writing – original draft, Writing – review & editing. EM: Writing – review & editing. BA: Writing – review & editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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