



Research article

An investigation of the factors underlying informal settlement growth: The case of Burayu City, Ethiopia

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ABSTRACT

Informal settlements in developing countries' cities are becoming more and more widespread. The city of Burayu is no exception to this trend. To address the challenges involved, it is important to understand the reasons for the prevalence and perseverance of informal settlement. However, there is a lack of institutional and actor perspectives to investigate the process and factors driving the growth of informal settlement in Burayu city. This study investigates the process and precipitating factors underlying the growth of informal settlements based on institutions, structure and agency and social non-compliance perspectives. Primary data for this study were gathered via key informant interviews, questionnaires, and observations. Secondary data were obtained from the empirical data. This study revealed that local informal institutions such as social networking play a crucial role in the growth process of informal settlement by fostering an informal written contract of sale. The study also identified rural-urban migration, speculation, locational choice, and lack of good governance as precipitating causes for the growth of informal settlement. In addition, actors use formal institutional loopholes to engage in informal buildings. Therefore, along with government structure ineffectiveness, the behavior of informal actors' was also identified as an important, albeit often neglected, factor in the growth of informal settlements. Identifying the impact of various informal actors' behaviors on the proliferation of informal settlements is vital not only for improving relationships among actors but also for introducing relevant institutions to control informal actors to improve land governance.

1. Introduction

Rapid urban development is a hot subject in developing countries, as providing housing for a rapidly expanding urban population is challenging. This challenge is particularly great when urban development is escorted by unplanned urban growth [1]. Developing countries are currently facing a housing crisis because of an ineffective legal housing supply to accommodate the growing population [2]. Because of this situation, many people have resorted to informal settlements to make a living [3]. Informal settlements often refer to illegal land occupation, houses constructed devoid of land use authorization or planning permission from the government, or housing development on land that does not conform with land use planning and regulation or local building codes [4,5]. Informal settlement has become an inseparable part of the urbanization practices in developing countries [6]. It is estimated that the percentage of the urban population in developing countries residing in informal settlements ranges from 30 to 50 % [7]. According to Bekele et al.

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[8] greater than 54 % of the house are recognized as informal in Burayu City.

Many people use informal housing as an alternative to formal housing [9,10] because it is affordable and construction costs are low [11,12]. There has been an influx of new residents into informal house development, particularly in Africa, as requests for urban land have outstripped its provision, which has led to the growth of informal settlements [13,14]. In Ethiopia, informal settlements are marked by many difficulties, such as poverty, unequal income distribution, limited means to basic infrastructure services, and tenure insecurity [15]. The growth of informal settlements continues despite government efforts to address the problem by implementing preventive and remedial measures [16]. These settlements are expanding largely in the peri-urban areas of cities, taking over open spaces and agricultural land [17].

In the urban areas of Ethiopia, the difficulty of getting affordable residential housing forces people to look for alternatives, such as informal settlements. However, this is contrary to the Ethiopian constitution, which states that land is not for sale [18] and that land acquisition should be official and follow due process. This indicates that the Ethiopian legal system prohibits the informal ownership of land and the development of urban areas. As a result, most of the time, land-related conflicts are common in land administration processes and government reactions are usually unpleasant. The current scenario in Ethiopia has shown that the government has demolished informal settlements and left a lot of people without houses. This also exacerbates social, economic and political problems. Conversely, public provision of land is limited and does not invite all levels of economic status.

In many African countries, such as Ethiopia, informal settlements persist to grow and contribute to the residential housing supply for the growing population [19]. In recent decades, the figure of informal settlements in the peripheral areas has been numerous across Ethiopia's urban areas and has increased occasionally [20]. To tackle informal settlement proliferation the government has taken a demolition strategy in various parts of the country. For example in Adama in 2018 3751 were demolished. Moreover, in Southern, Nations, Nationalities and peoples' Region towns and cities between 2018 and 2022, 5823 were demolished. The demolition caused considerable agitation and disappointment, particularly in Addis Ababa and its surroundings, like Burayu City.

The informal settlement also generates broader socio-economic challenges for the city's development. Generally, informal land transactions resulted in significant income losses due to the government's inability to collect land use charges and building permits because land is transferred under the guise of informality. This decreases the source of income for the city administration and affects its efforts to make available infrastructure development [21].

According to De Soto, informal land transfer is referred to as "dead capital" because land without rights is locked for potential capital access [22]. Concerning informal property loss, the city land use administration documents indicated that in 2018 alone, 16, 636 informal houses were demolished. The speedy growth of informal settlements in the city is thus one of the challenges in implementing the city plan as the government has undertaken demolition and eviction without the engagement of non-state actors. However, informal land transactions continue to grow as they are governed by locally established rules and social practices that regulate the rights and accountabilities of the actors. The informal actors lent and copied the formal guidelines and processes and adjusted them to the prevailing conditions of the local urban areas [23]. The key actors in informal land dealings are not only sellers and buyers but also mediators who enable the practice by providing information and persuading the actors to reach an consensus and securing the implementation of the land transaction [24,25]. Mediators are relatives, land brokers, and elders who have a special reputation in the area [26].

Although the existing scenario and literature provide insight into the problems, there is scarce research-based evidence on the process and factors of informal settlements in Burayu City from the perspective of institution, structure and agency, and societal non-compliance. Researchers working on informal settlements have emphasized the administrative or formal rules and the function of economic forces that facilitate the growth of informal settlements. For example, some believe informal settlement is distinctively connected to the non-success of government administration and the growth of urban poverty. According to Huchzermeyer [27] and Zhu and Simarmata [28] for example, the growth of informal settlements is not only owing to urban land administration problems but also a response to urban poverty.

Moreover, most existing studies on informal settlement in Ethiopia have focused on structural factors, such as the ineffectiveness of formal rules. These studies neglect other aspects that can trigger informal settlements, such as institutions and actors' behavioral factors [29–31]. For example, in Addis Ababa, which borders Burayu to the west, the roles of institutions and actors' behavior in the growth of informal settlements have not been adequately documented and studied [31]. In the same vein, the process and actors' behavior, and institutional factors underlying the growth of informal settlements have not been adequately studied in Burayu City.

An exclusive emphasis on administrative or formal rules and economic factors such as inefficient land delivery systems and poverty to illuminate the growth of informal settlements is utterly defective and fails to notice the practices of legal and social arrangements that order the behavior of the major actors and the rule-ordering processes in informal land acquisition. The processes and factors of informal development in Burayu City are multifaceted and complex [32]. It is, therefore, wrong to regularly attribute the development of informal settlements solely to administrative inefficiency and low income. To address this one-sided perspective. This study, therefore, looks at the factors of informal settlements from a pluralistic viewpoint, focusing on the perspective of institutions' and actors'. This is essential to investigate the rules that govern the process and how institutions and actors' behaviors have led to the expansion of informal settlements.

The purpose of this study is therefore to investigate the process, and factors that drive the growth of informal settlements from institutional, structure and agency and social non-complaint perspectives. To achieve this objective the study tries to combine generic insights from these three lines of thought into an empirical level analysis that allows us to capture the institutional and actors' behavior around the growth of informal settlement as a guiding investigation. To achieve the general objective of the study, the following particular objectives were pursued.

1. To scrutinize the land acquisition process in informal settlement development in the study area.
2. To examine the roles of institutional and actors' behavior in driving the proliferation of informal settlements in the study area.

2. Explanation of conceptual terms and theoretical framework

2.1. Definition of informal settlement

As a result of population growth, informal settlement has evolved as a concept that is increasingly important around the world. It is a notable phenomenon that has intrigued scholars and stakeholders from all areas and has led to conflicting responses regarding the rate of potential urban population growth [33]. The concept "informal settlements" incorporates numerous terms, including "spontaneous settlements," "shantytowns," "squats," and "slums" [34–36] and subnormal [37], thus, choosing a single definition is very difficult.

In the literature on the various empirical studies, a clear distinction is made between the terms slum and informal settlement. However, it is common to use these two terms interchangeably. The words informal settlement and slum have occasionally been used interchangeably in prior literature [38] because most of the features of these environments, whether slums or informal, do not occur independently and lead to multiple stages of poverty for the residents of slums. Nevertheless, some claim that slums and informal settlements are not the same [39,40]. For instance, according to City Alliance [41] a slum is a derelict section of towns/cities where living and housing conditions are extremely deprived. Moreover, Dovey et al. [42] found that informal settlements rapidly expanded whereas slums did not. Therefore, to comprehend informal settlement as a prevailing form of urban expansion, we should not use it interchangeably with the term slum. Therefore, this study adopts the view that informal settlements and slums are different. Moreover, in the study areas, informal settlements can have good housing conditions but lack legal documents.

Informal settlements are residential areas that have been established without adhering to relevant formal rules to which the residents have no legal entitlement [9]. However, the most broadly accepted definition of informal settlements are areas occupied by residential houses where often the residents have no secure title for buildings or land; communities particularly lacking social and economic services; housing that does not comply with the rules of development and planning and is mainly sited in geographically and ecologically dangerous areas [19].

In Ethiopia, an informal settlement is a residential house constructed on government or private land without legal authorization or construction approval. Whereas the first emphasizes the lack of approved rights to the land where the house is built, the second emphasizes the need for appropriate planning and building permits [43]. In Ethiopia, therefore, the term informal settlement refers to an area that has been settled without the permission of the relevant organizations and residential buildings that do not abide by the structural plan of the city [44]. In Ethiopia, informal settlements are mentioned as illegal settlements, or especially as "Moon shine house" as individuals occupy land at night [45].

2.2. Informal settlement growth actors

The actors in the informal land market are numerous and multifaceted; they are frequently composed of government officials, individual developers/private/, urban landholders, urban inhabitants, landless youth and new migrants in urban areas [25]. They can make their own decisions. They may or may not be disorganized, well organized and well-coordinated [46].

The actors can act in a network with common goals [47]. These goals enable them to establish strong bonds with each other. Perceptions, objectives, and resources influence how actors interact. Perception is the ideological view of the performance and its outcomes regarding networks, policy, and features [46]. The objective provides a roadmap for actors to follow to solve a specific problem and achieve desired outcomes [46,48]. Resources are tools that enable actors to realize their objectives be they financial, or non-financial means or network positions.

The actors' ability to influence decisions in a network depends on their resources [49]. Resources are thus linked with power and the capacity to govern resources is influenced by the power of the actors. According to Hermans [46], perception influences the objective, and resources enable actions. Actions taken by actors, no matter how minor, affect other actor in the networks. Institutions determine the actions of the actors and the actors in turn can often impact the institutions.

The process of informal settlements involves many steps undertaken by the actors participating in the informal settlement proliferation [23]. The involvement of many actors in informal land is for housing, speculation, or for other development purpose. The interactions among actors in the informal land transactions system are diverse, which has economic and social implications. It has economic implications as it involves informal market transactions. It also has a social implication as it involves kinship ties and reciprocity [23]. In this case, the institution has a bigger function in influencing the behavior of actors in a land transaction.

2.3. Institutions, structure-agency and non-compliance theory

This study draws insight from the behavior of the numerous actors in the informal settlement and the underlying regulations and customs that govern the interactions between the actors during the land exchange. To address these issues this paper looks at aspects of societal non-compliance, institution and structure and agency, to uncover the process and factors underlying the expansion of informal settlements in Burayu City.

Institution includes state-formulated restrictions as well as social norms and ethical values that properly shape the behavior and decision-making of persons [50]. They act both as a constraint and an enabler on the actions of actors [26]. Institutions as enablers can

influence the way judgements can be made in favor of actors and regulate their activities [51,52], while restrictors can necessitate actors to follow recognized procedures and principles [53,54]. Institutions can create both negative and positive consequences for actors [55]. Two different forms of institutions exist. Formal institutions refer to legal frameworks, rules, regulations, or laws embedded in written constitutional laws, while informal institutions comprise socially constructed common norms and values that shape actors' thoughts and behaviors and are exercised outside legal systems [55–57].

Structure and agency focus on the decision-making, actions, and power relationships of the actors and their impacts on each other [58,59]. The term structure denotes the regular arrangements that affect or limit the opportunities and choices obtainable. This can be a set of rules and measures that are used in the endorsement or reproduction of social practices. The term agency relates to human capacity to act and is used to define the function of an individual who is both active and aware within a social system. Human agency is described as people's capabilities as well as how they act and behave [58,59]. The focus of agency is, therefore, on the selections, judgments, and actions of actors to achieve a desired objective within the prevailing structure.

While social non-compliance refers to actors' attempts to affect formal regulations. Most factors in informal settlement are attributed to social non-compliance. The capacity of actors in these settlements to informally acquire land under the government regulations often benefits from inconsistencies and uncertainties in the state's rules and implementation plans [60].

Until recently, urban land use development in Ethiopia was often assumed to coincide with formal institutions or administrative issues. Thus, urban-based research has inclined toward urban land from the viewpoints of the government administrative rules and the relationship between the government and actors. Nevertheless, this one-sided view in the study of urban land development implies a single perspective. Namely, this view, emphasizes administrative rules over socially constructed rules and the behavior of actors in the process and drivers of the growth of informal settlements. Although formal administrative rules and regulations have an important impact in facilitating or constraining informal settlement development, they are not the only factors that affect the practice of informal settlements [26,61].

For example, in a place where formal rules are unable to provide land for people, people look for informal means of getting land as an alternative [31]. This means that actors use their agency (capabilities) and instructional gaps or inconsistency that allow them to access land informally, as they would otherwise, remain homeless. In summary, the process and drivers of informal settlement growth go beyond administrative issues and economic reasons, requiring an investigating of the socially constructed institutions and actor behavior that drive informal settlement growth.

In general, the growth of informal settlements is a multifaceted process involving manifold factors [32]. Thus, investigating the factors of informal settlement and its processes, therefore, requires rules that regulate the agency and behavior of actors, with regard to how individual actors get land for housing. Institutional theory focuses on formal and informal rules, norms and conventions that influence human behavior. Structure-agency theory emphasizes the interplay between social structure and individual action. Non-compliance theory is concerned with the reasons why people do not adhere to formal rules or regulations. The three perspectives described above offer highly complementary insights into understanding the rise of informal settlements in the urban arena. The remainder of this study will, therefore, attempt to combine general insights from these three schools of thought in an empirical analysis that allows for the capture of the institutional and actor behaviors related to the growth of informal settlement as a guide for this study (Fig. 1).

In Ethiopia and some East African countries, such institutions are composed of land market actors, often consisting of government officials, traditional leaders, community-based organizations, private real estate developers, urban dwellers, urban land holders, informal brokers, and new arrivals to the city [20,25] showing that the development of informal settlements in the country setting is conditioned by the actors and institutions. Socially constructed institutions shape the behavior of actors in the informal land market and lead to the proliferation of informal settlements.

It follows from the above that, the definition of institution in this study is understood as the system of rules and standards of behavior according to which actors interact and the administrative or organizational body that enforces these rules and norms of

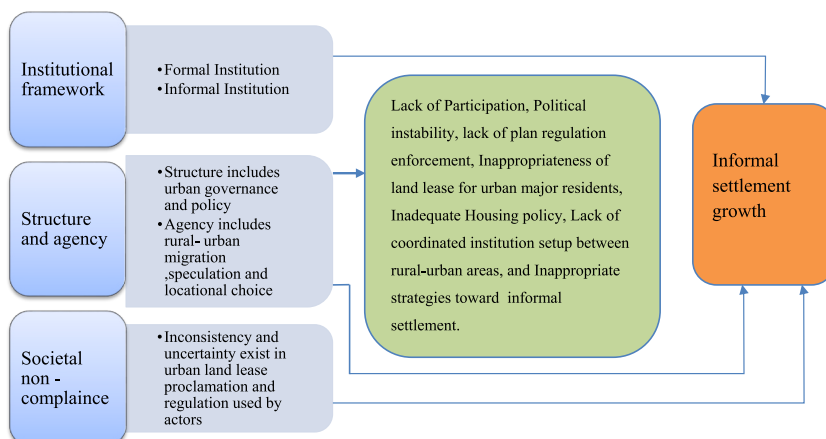


Fig. 1. Conceptual framework for the study.

behavior which may be informal or formal institutions. In this context, informal institutions are understood as the system of rules/ socially constructed norms that are related to the rules and procedures by which land is made presented for informal land development. On the other hand, actors refer to either the state structure that engages in informal land transfer in the shadow of the formal rules or non-state who participated in the informal settlements growth and manipulate the formal rules.

3. Materials and methods

3.1. Description of the study areas

This study was undertaken in Burayu, one of a large city in the Oromia region of Ethiopia. The city was selected for this study because it has a high prevalence of informal housing compared to its neighboring cities and may continue to grow in the future due to its proximity to Addis Ababa [62]. According to the regional land use administration's assessments on the growth of informal settlements in Oromia special zone towns as of June 2019, as shown in Fig. 2 below, informal settlements are widespread in Burayu compared to the other cities in the Oromia special zone.

The city has a scattered physical morphology type of urban settlement, which forms six kebeles. The name of these kebeles are Gefersa Guje, Leku Keta, Gefersa Nono, Melka Gefersa Burayu Keta and Burayu Gefersa (Fig. 3). In this study Kebele represents the lowest level of administrative units in Ethiopia.

Informal settlements emerge and develop rapidly in the study area. According to Bekele et al. [8] greater than 54 % of the houses are documented as informal housing. Despite the fact that these houses are built on land owned by farmers and the government, they are not recognized by the city administration.

3.2. Research design

This study used a case study research design as the process of informal settlement growth and its driving factors are multifaceted and dynamic requiring a nuanced comprehension of the local situation and detailed breakdown and analysis of the informal settlement [14]. Thus, it was analyzed, presented and understood in a real context. Moreover, the researchers utilized a mixed-method approach which, enabled the collection of various sources of data through interviews, documents, surveys and observations [63,64]. Although a mixed method was used in this research, it is largely a qualitative analysis, which is commonly used in grounded theory research to show that there were questions that could not easily be identified using quantitative approaches.

The grounded theory is appropriate for the study because the researchers want to learn from the records of residents' responses as they reflect on their experiences of daily life in the informal settlement areas [65]. This theory is suitable for this study because the researchers used a technique of data collection through interactions between residents and researchers, and the description of this research process was based on the responses of the residents.

Both qualitative and quantitative data were gathered in tandem as the data needed for the study were cross-sectional data and independent of each other, and both were needed to adequately address the research questions [66]. It is, therefore, deemed appropriate to use a mixed research approach with a case study as the main strategy to achieve the study's objective, since mixed methods and case study research offer unique methodological benefits to researchers trying to solve complex research problems and questions [67]. A case study and a mixed research method are not isolated entities; rather, the border between them is fluid, so that both can either support or guide a research project [68].

In accordance with the mixed case study strategy, an amalgamation of descriptive and explanatory methods of research was utilized [14,69]. The descriptive case study offers a comprehensive description of an issues in its actual situation [70], whereas the explanatory case study be can used to show the cause-and-effect relations of an issues with the aim of finding how events happen and which events

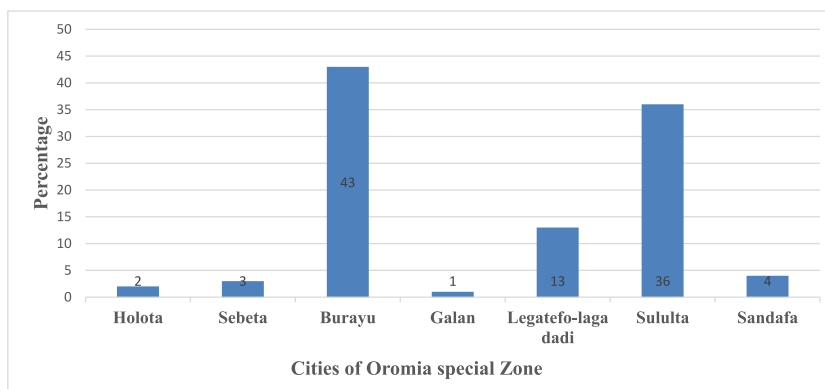


Fig. 2. Informal settlers in cities of Oromia Special Zone Surrounding Addis Ababa/Finfine

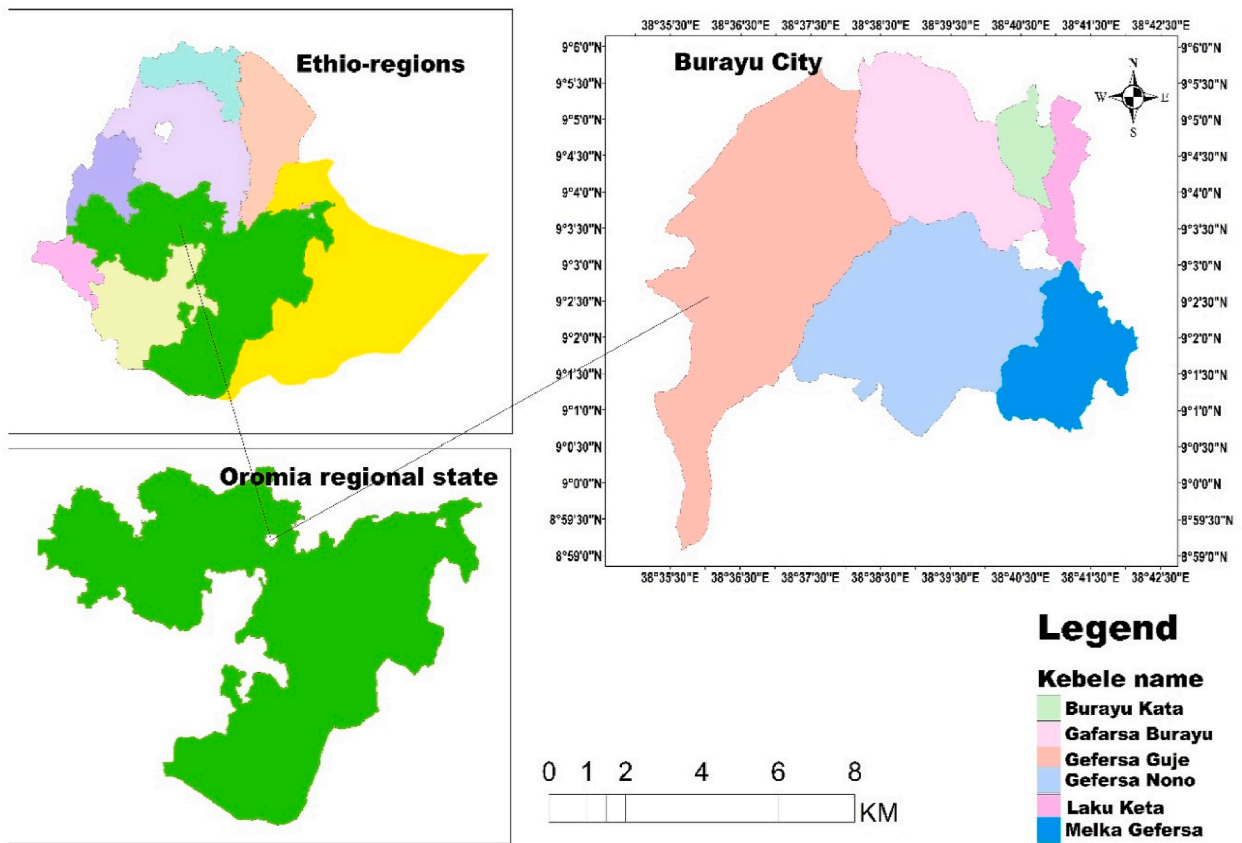


Fig. 3. Location map of the study area.

may impact certain outcomes. Therefore, the descriptive type of research was employed to comprehensively describe the course of informal settlement growth while the explanatory type of research was used to find out the causes for the growth of informal settlements in the city under study.

3.3. Sampling design and sample size

The study was conducted using a three-stage sampling method. As a first step, four kebeles were selected from six kebeles taking into account the degree and trend of urban growth, as well as the incidence and practice of informal settlements in periphery areas. After obtaining preliminary field appraisals from the land use administration, the second step involved selecting informal settlement areas. Consequently, seventeen areas were selected i.e. Kilo 25, Magalitu, Silki, Sarti, Sora Hamba, Tolcha, Melka first and second, Hidha Bishan, 105, Tabela first and second, Ane Dima, Lole, Teche, Kusaye first and Sangota were selected by purposive sampling for the study with reference to the number of the informal settlements. Moreover, these places are located in the peripheral areas where a large number of informal housing exist.

Lastly, the sample of informal households were selected at random from within the study area. The city administration secondary data in 2018 indicated that, 27,875 households were categorized as informal settlers. However, of these informal housing, 16,636 were destroyed. Thus, 11,239 informal households made up the study population. A simple random sample technique was employed to guarantee that every informal settler had an equal probability of being nominated for the study.

To calculate the household sample for the analysis, the Yamane [71] sample size determination was used since it enables us to acquire a representative sample of the population with the requisite precision. Based on the scale measurement provided, the respondent’s responses were utilized to analyze the occurrences or the degree of agreement with the concerns highlighted by the research question.

$$n = \frac{N}{1 + N(e^2)} \quad N \text{ is the population size}$$

e is the level of precision of the sampling error margin, which is ±5 %

$$1 = \text{constant } n = \frac{N}{1 + N(e^2)} = 11239 / 629.0975 = 386$$

Table 1
Groups and number of sampled respondents.

Groups of the respondents	Sample size of the respondents
Informal settler households	386
Land use officials	2
Land speculators	3
Land brokers	2
Informal settlers household	8
Land use experts	12
Total	413

The total number of informal households chosen for this study was 386. This number was then divided proportionately between the four kebeles based on their population size. Then a sample size number was found for every kebele. For instance for Gefersa Guje, 171 households, for Gefersa Burayu 85 households, for Melka Gefersa 120 households and for Gefersa Nono 10 households were calculated.

The interviewees of the informal Key interviews were selected using a purposive sampling technique. Therefore, sampling principles were defined for the respondents. Informal settlers who had lived there for at least five years were selected. It was assumed that the longer they had lived there, the better they would be able to understand and identify the process and factors underlying the growth of informal settlement. Although informal settlers in informal settlement areas are unlawful, they have social recognition as *informal* housing construction is an acknowledged *social* norm in Burayu City. Therefore, informal settlers had no problems labeling themselves as informal. A total of 27 key informants were chosen, which include the city land administration officials, land manager, land speculators, urban planner, land brokers, land administrator and informal households. The details are shown in Table 1.

3.4. Data sources and methods

3.4.1. Data sources

Both primary and secondary sources of data were gathered, and then combined to strengthen the arguments presented in each source and create a cohesive picture [72]. Primary data was derived from field observations, questionnaire surveys, and key informant interviews. Key informant interviews and observations were utilized to gather qualitative data while the questionnaire was employed to gather quantitative data.

3.4.2. Data collection method

Closed-ended questionnaires are a data collection tool that uses a series of structured questions to gather statistical information on characteristics such as respondents' perceptions, attitudes, experiences or actions [73]. A questionnaire survey was prepared to gather data from informal settlers on socio-economic characteristics, methods of land acquisition, factors contributing to informal settlement growth, types of land markets, and types of informal settlement strategies implemented. This closed-ended structured questionnaire with fixed-responses was employed to gather data on the field where the study participants were interviewed face-to-face. The questionnaire took on average between 35 and 40 min to complete.

As part of the data collection instrument, a key informant interview was held with 27 chosen respondents. For the data collection, open-ended questions were organized for the key informant interview, as they give the respondents the freedom to answer in their own words [74]. The key informant interviews intended to collect data on the stages of the informal settlement development process and the reasons for choosing informal settlement areas in the city administration. Key informant interviews were held with 12 experts and 2 senior officials in the land use administration office. The experts come from planning, management and legal backgrounds and have more than five years of experience in city land administration. In addition, key informant interviews were held with 8 informal households, 3 land speculators and 2 land brokers. All interviewees involved in the study have resided in the city for at least five years. The Key informant interview was administered by the first author. On average the KII took between 55 and 60 min to complete.

The site observation method was also used for data collection. The practice of informal settlement policy implementation was assessed through quantitative analysis based on the practices observed in different locations in the city. Therefore, field pictures were used to supplement the findings of the study. The sites visited were divided into two informal settlement sites where major demolitions and evictions were taking place. The field observation enabled data triangulation, which robustly supported the findings.

The data was gathered from September 30 to November 30, 2021. The entire research questionnaire was prepared in English then converted into Afan Oromo or Amharic for greater comprehension by the respondents. The qualitative data was gathered by the corresponding author. The quantitative data was gathered by 7 trained data collectors using questionnaires in informal settlement areas, where each question was asked and completed after the informed consent of each respondent.

The secondary data sources used for the study include books, legal and political documents, city administration reports, declarations and regulations on land lease, articles, urban structure plans, land use regulation and the FDRE Constitution. The purpose of utilizing these legal and policy documents was to gain a deeper comprehension of the institutional and legal structures that oversee land transactions, as well as the methods by which informal actors influence them.

3.5. Ethical approval

This study adhered to the 2019 statute of the Addis Ababa University Senate, which deals with the regulations and guidelines pertaining to professional ethics, research standards, norms, and duties. In accordance with, this legislation, the Ethiopian Institute of Architecture, Building Construction, and City Development under its Directorate for Research and Technology Transfer's ethics committee permitted the authors to conduct a survey questionnaire and Key informant interview in Burayu city administration.

The ethical considerations were taken into account by the researchers when they conducted this investigation. Every protocol that the institution stipulated was adhered to. The approval letter from the Ethiopian Institute of Architecture, Building Construction, and Urban Development was obtained by the researchers and presented to the Burayu City government prior to beginning fieldwork. To protect the privacy and anonymity of all participants, the nature and goal of the study were orally explained to the respondents prior to the start of the questionnaire survey and interviews. The responders were given the assurance by the researchers that their information would only be utilized for study. When the information was shared, confidentiality was also upheld. Therefore, informed consent was acquired from each study participant.

3.6. Method of data analysis

The quantitative data gathered from the samples of informal households were analyzed using SPSS version 23.00. This was done after appropriate coding and editing of the data was entered into SPSS. Descriptive statistics, such as frequency distribution tables, percentages, and charts, were used to present the analysis's findings. On the other hand, content analysis was used to analyze the qualitative data. The first phase of the scrutiny was to reduce a large amount of data to a well-organized set of subtopics to construct groups that reflected the content of the data and the topic of the study. Through the process of content analysis, data were synthesized, harmonized, and used in descriptive and narrative texts.

Finally, the qualitative data collected was analyzed by contrasting and comparing situations that happened and explaining the demonstration of such a response, to validate the quantifiable data and provide a complete rationale for each research question. This means the findings from the qualitative data were used to complement the quantitative analysis.

4. Results

4.1. Means of informal land acquisition and steps involved in the informal settlements development

The actors in the informal process use different techniques to obtain land informally from the land market. Numerous households acquire land by the informal market system, as depicted in [Table 2](#).

The mechanism of land acquisition in the Ethiopian legal context depends on land ownership rights. According to Ethiopian land policy, the government owns the land and can only be transferred by the government. The empirical evidence indicates that the landholders instead transfer their land informally in several ways. As indicated in [Table 2](#) the majority of informal land transactions were made by landholders/farmers. The key informant pointed out that the main source of informal land is agricultural land held by farmers due to their fear of government expropriation with little compensation. The key informant pointed out that, the informal purchase of land from farmers is a lower risk than claiming government land.

According to the key informants interviewed, the development of informal settlement involves the following steps: farmers informally subdivide the land with the help of planning technicians; land acquisition by informal actors; informal subdivision of the prepared plot and block; informal land transaction with the help of land brokers; transfer of the plot through an informal written contract of sale; informal house construction; social networking and settlers begin forming symbolic relationships by building infrastructure, services, and utilities as a group. This is illustrated in [Fig. 4](#).

Table 2
Means of land acquisition in Burayu City.

Methods of obtaining land	Number of the participants	Percent of the participants
Buy from farmer	164	42.5
Buy from land speculators	116	30.1
Inhabiting government land	83	21.5
Inheritance	17	4.4
Government provision	6	1.6
Total	386	100.0

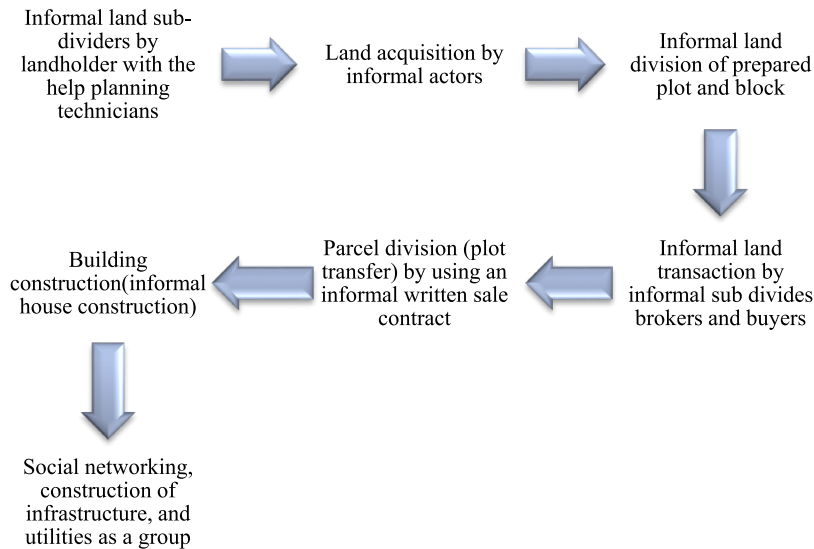


Fig. 4. The informal settlement growth process.

4.2. The factors that propel the growth of informal settlements

As mentioned in the conceptual framework, this study is conceptualized and discussed with reference to the terms "institution", "structure-agency" and "societal non-compliance".

4.2.1. Population growth and rural-urban migration

Burayu has experienced many demographic changes. The population size of the study area was 4139 in 1984, 10,028 in 1994, 63,874 in 2007, 100,201 in 2010, and 150,010 in 2014 [75]. Established on the 2007 census population projection, the city population was 280,000 in 2017, and the growth rate was 15.5 % per year [62].

In addition, the Burayu City Profile [62], shows that migrants in the city make up 60 % of the total population. The results of the questionnaire survey also show that 88.9 % of the residents of the informal settlements are migrants, while only 11.1 % are from Burayu City. This shows that most informal settlers come from other parts of the country.

Such an inflow of people leads to an increase in the city's population, which will unavoidably affect the obtainability of land for housing. In particular, the city's ever rising population and the inefficient allocation of land to those in need have contributed to informal land transactions. In Burayu, land allocation through leasehold systems has come to a standstill since 2018 for unknown reasons, but housing cooperatives to meet people's needs, are also lagging. In 2017, for example, 1335 housing cooperatives applied for land. Each cooperative has 24 members; this means that 32,400 people are waiting for a plot of land for their housing. Of these, only 120 cooperatives received land for housing (16,800 m²). This means that the city was only able to cover 8 % of its land requirements. Therefore, migrants use their capacities (agencies) to get land for houses informally in the periphery areas of the city; otherwise, formal land is out of reach for them.

4.2.2. Motive for speculation

In the city, both non-farmers and farmers participated in land speculation. Land speculators in the city reported that they bought large plots of land including brownfield land (land previously used for agricultural activities) from farmers and then subdivided the land immediately after purchase or within a year. They fenced and built houses from simple local materials, and then hoarded the land and took it off the market for a long time to make more profit from the land. For example, speculators in the city bought land at a cheap price (US\$ 3733 per m²) from pro-urban farmers in 2016, and after hoarding it for two years, they sold it for up to US\$ 9119. This shows that land speculators use their power to engage in informal land transactions to achieve their profit-making objectives.

Additionally, farmers in and around the city operate as land speculators, fearing the loss of their land use rights due to expropriation and uncertainty about the future of their land rights. It is vital to recognize that farmers may have less or no land after expropriation. Because of this, farmers consider their land as temporary dwellings. As a consequence, farmers use their agency to informally subdivide their land and make it available for sale on the informal market, which brings in more money than the compensation they receive.

4.2.3. Locational choices

As can be seen from the results of the questionnaire survey in Fig. 5, most residents prefer to reside in informal settlement regions due to the social network, low cost of living, and easy means to get land for housing construction, respectively.

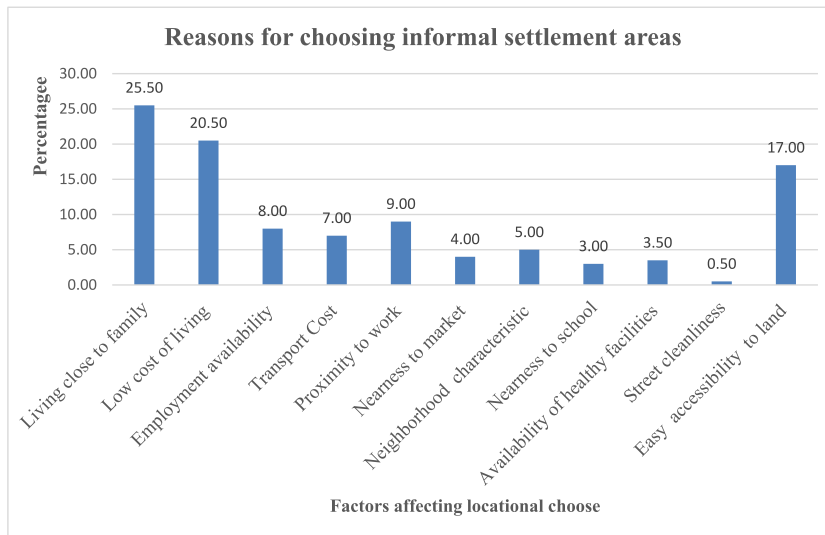


Fig. 5. Reason for choosing informal settlement areas.

In terms of access to information about the informal settlements, most households (65 %) in informal settlement sites received information from relatives, family members, local residents, and peers at work. While 35 % of respondents obtained information from a local broker. Regarding the decision to reside in informal settlements, the results of the questionnaire survey confirmed that 77.2 % of people opted for an informal settlement after receiving advice from relatives, family members, and peers at work, while 22.8 % received advice from local agents. Consequently, social networks play a key function as a source of information as well as a decision-making mechanism compared to broker roles.

The interview data collected from the household shows a remarkable similarity with the questionnaire data shown in Fig. 5. The interviews show that living near friends and family is one of the most significant sources of information for choosing an informal settlement. Households living in the Guje and Bero informal settlements indicated that they belong to the same ethnic group and community (the Gurage and Gamo ethnic groups). They chose to these informal settlement areas because many of the co-inhabitants are from the same place of origin.

The low costs of living in the informal settlement areas was another factor that impacted the choice of location in the "Magaltu" informal settlement sites. The respondents interviewed stated that the lower cost of living in the informal settlement areas compared to a planned neighborhood attracted people here. Magaltu is one of the informal settlement areas in Burayu where many people reside in informal houses and engage in informal trading activities where prices are much lower than those of formal trading activities. For example, the rent for two rooms is US\$ 61.13¹ while residents of the Diaspora areas pay US\$183.38 for two rooms. Therefore households from the planned area and Addis Ababa have moved to these areas.

The household interviewed in "Anne Dimma" informal settlement areas stated that people prefer informal settlements because it is easier to build their own house by acquiring land for housing construction. Land acquisition for housing construction here is easier than the government procedure. Moreover, they have full freedom to construct their house by developing different designs and using local materials which, lowers the costs of building. Moreover, unlike formal land provision, households in the informal settlement sites can buy a large plot of land as much as they can. In general, the above description and report show that informal settlers acted independently and made their own free decisions (agency) to obtain land to build their house.

4.2.4. Poor urban land governance

Decision-making plays a decisive role in urban land governance. Decision-making is about governance, whether it is good or bad for the beneficiary. To ensure the smooth functioning of urban land delivery systems, good urban land governance is essential [76]. Lack of participation, limited political will, political instability, incapability to implement planning regulations, unnecessary bureaucracy, and poor functioning of the formal land market have been identified as the main factors for the growth of informal settlements. Besides, insufficient housing and compensation policies are other factors, causing the spread of informal settlements.

a. Lack of participation

Ethiopian cities have the authority to develop draft, adopt, and implement their municipal plans as part of the decentralization process [44]. Nevertheless, the regional urban planning institute has prepared the relevant plans for Burayu City. There is no

¹ 1US\$=32.7178 Birr in February 2020. Birr is the unit of currency in Ethiopia.

experience of resident participation in the preparation of city planning. Therefore, the non-existence of obeying policies and regulations of planning can be associated with the ignorance of the residents about the plan, even inhabitants did not have the prospect to partake in the stages of plan preparation. Inhabitants' understanding of planning practices and rules is critical, as their involvement promotes the execution of planning regulations and affects the extent to which they are followed by citizens.

Moreover, legal frameworks have been adopted in Burayu City at various times to control informal settlements through legalization that meets the conditions set out in the rule for example compliance with the urban land use. Nevertheless, these rules and regulations are not sufficiently introduced to residents. This shows the absence of commitment among city officials and experts to facilitate resident participation for effective policy implementation.

b. Political instability

The city's land use officer mentioned that during the political instability in the country, particularly between 2014 and 2017, informal settlers occupied 115 ha of government land. Additionally, informal transactions in the land market increased before and after the election. The official added that the high turnover of officials in the mayoral seat is another problem that creates a gap in the continuous enforcement of rules for the execution of the city plan and contributes to informal settlement.

c. Lack of plan regulation enforcement

Information obtained from land use administration officials and experts revealed that the city structural plan was subject to illegal behavior and absence of commitment from the city administration officials and experts to enforce the execution of the city plan, which led to an informal settlement expansion. The pervasiveness of informal settlements is because of a lack of proactive planning. For example, Guje kebele was a rural kebele in the city until it was incorporated into the city in 2012 during the preparation of the structure plan. However, due to the delay in the transfer of administration from the rural kebele to the Burayu city administration, many informal settlements have emerged.

d. Inappropriateness of land lease for urban major residents

Proclamation No. 272/2011 on the Urban Land Lease of Ethiopia states that urban land is public property and may only be transferred using the lease method. The goal is to transfer urban land to various urban land users at a reasonable price. Despite this, the reality prevailing on the ground is that lease auctions have become beyond the reach of the majority of residents. For example, according to a lease bid document acquired from the city in 2014, the city's minimum and highest auction bids were US\$187.31²/m², and US\$988.62/m², respectively. The interviewee from the land use administration indicated that the rise in land prices was partially due to an absence of consistent land supply, contradicting land leasing regulations, which state that land must be available through lease continuously.

Transferring land and changing the name of the owner is another challenge for residents, as it is a time-consuming and wasteful process. Informal settlers reported that it can take up to six months for title deeds to be finalized land purchases by donation or house purchase. The required documents are unclear and burdensome. As a result, the majority of inhabitants choose to reside in an informal settlement. This procedure and high lease prices, make legal land acquisition inaccessible to people of low-income classes.

e. Inadequate Housing policy

The city administration has attempted to address the housing deficit by providing land for cooperative housing construction. Nevertheless, the land demand for land for housing construction is increasing. As a result, city dwellers are forced to look for alternative methods of acquiring urban land, such as on the informal land market or through squatting. Moreover, while real estate development is taking place in the city, it is not absorbing the urban poor. According to an interview with a land use administration expert, the provision of urban land through leasehold and a city condominium is not working. As a result, many residents and government employees enrolled for cooperative housing.

In 2017, the number of housing cooperatives applied for housing development was 1335 (186,900 m²). Each cooperative has 24 individuals. Therefore, 32,400 individuals are waiting for land to construct housing. From these only, 120 cooperatives received land for housing construction (16,800 m²). This means the city can only meet 8 % of the demand. The problem with the housing policy is not only that there is no continuous supply of land for building housing, but also that the cost of providing land exceeds people's purchasing power. To get a plot of land for cooperative housing, one should have to pay US\$ 1650 in 2020, which exceeds the income of residents. As shown in [Table 3](#), the income of most respondents' is between US\$ 31 and US\$ 91 which, accounts for 42.7 %.

According to the above figures, the mean monthly income of most respondents was US\$ 61 and 30 % of the mean monthly income of these respondents was US\$ 18. Thus to get a plot of land for housing by cooperative housing, one would have to save 18 US\$ for 91 years to pay US\$ 1650.

² 1US\$=19.2186 the Birr in February 2014.

Table 3
Monthly income ranges of sampled household.

Monthly Income (ETB)	Number of participants	Percent of participants
<1000	131	33.9
1001-3000	165	42.7
3001-5000	68	17.6
5001-10000	15	3.9
>10000	7	1.9
Total	386	100.0

f. Inadequate expropriation and compensation policy

Due to land scarcity in urban areas, Ethiopian municipalities are most likely to expropriate land to address issues related to land for different development purposes [77,78]. To achieve this objective constitutional law under Article 40(8) states that the government has the authority to take individual property for community use as long as compensation is equivalent to the property's value paid in advance. The law emphasizes compensation should be paid in full prior to expropriation and should be commensurate with the property's worth.

The survey results showed that only 3 % of respondents believed that the payment or compensation was fair and comparable, while 97 % did not. The compensation given to the farmers by the government for expropriated land is below informal market prices. This can be illustrated as follows. The compensation paid in the city upon expropriation was US\$ 2.13/m² in 2017, while key informants estimate that the average price in the informal market was US\$ 35.15/m². As a result, farmers are compelled to participate in informal land transactions to avoid being paid insufficient compensation. Therefore, inadequate compensation to farmers is another recognized factor for the proliferation of informal settlements in Burayu City.

g. Unnecessary bureaucracy in the formal land market

The acquirement and provision of land for urban development is totally under the jurisdiction of the government which assumes that landownership in Ethiopia belongs to its people and the government [18]. In contrast, as the survey results show, most respondents have purchased land through informal means for housing (88.1 %) owing to the low cost and procedures required. On the other hand, only 11.9 % of the respondents got land through the formal market.

According to the land use officer, the formal land market (lease) is full of unnecessary bureaucracy. The practice of transferring land and changing the named owner is cumbersome and inefficient. Moreover, informal settlers confirmed that it takes up to six months to finalize title deeds for land acquisition through lease or house purchase. The required documents are unclear and burdensome. Consequently, most inhabitants have opted to reside in an informal settlement to avoid the bureaucracy.

h. Lack of co-ordinated institution setup between rural-urban areas

In the city, land use is administered by Oromia urban land lease regulation No.182/2016 and directive No.05/2016 whereas, rural land is governed by rural land administration proclamation No. 130/2007. This duality of administration of rural and urban land has led to a lack of effective administration between the two institutions on land issues and has promoted illegal subdivisions and construction in the peripheral urban areas. The establishment of two distinct and independent organizations for land administration as well as an absence of clarity in the two institutions' responsibilities for peri-urban land issues, have produced a favorable environment for informal settlement growth.

For instance, the city government adopted a new master plan in 2006 to incorporate the rural Kebele of Guje into the city center without incorporating its administration and land into the land bank, as a result the newly formed Kebele did not fall under either urban or rural authority. Due to the power vacuum created in the periphery, farmers are attempting to convert their farmland into residential land use by subdividing and selling the plots without notifying the administration. This is one of the reasons for the growth of informal settlements in Burayu city.

i. Inappropriate strategies toward informal settlement

The most common methods used to manage and improve informal settlements are laissez-faire, sites-and-services programs, slum upgrading, tenure security, cities deprived of slums action plans, and demolition and eviction [79]. The results of the survey presented in Table 4 show that, demolition, eviction and lassies-faire strategies are the predominant approaches in dealing with informal settlements in Burayu City. Thus, informal settlement policies in the study area have wavered between destruction and tolerance/accommodation.

In addition, the data obtained through observation and presented in Fig. 6 depicts how demolition and eviction took place in Burayu City.

Experts in Burayu City said that the reaction of the City administration to the expansion of informal settlements was mainly to either ignore them or demolish them. Moreover, local governments' toleration of informal housing as a self-help measure to solve

Table 4
Type of Informal settlement policies implemented in Burayu city.

Type of IS policy implement	Number of respondents	Per cent of respondents
Lassies -faire	121	31
Sites and services program	8	2
Slum upgrading program	6	2
Regularization/Tenure security	53	14
Cities without slums action plan	5	1
Demolition and eviction	193	50
Total	386	100



Fig. 6. Demolishing operation in Burayu city.

housing problems, together with their limitations in providing official housing, has aided its further expansion. There is a saying among informal settlers that an informal house that cannot be demolished seven times, cannot be called informal. This indicates that the strategy of demolition could not prevent the construction of informal housing. Thus, one of the factors for the growth of informal settlement in Burayu is related to the inappropriate (formal) actions taken by the state to manage and improve informal settlement.

4.2.5. Manipulation of land use policy implementation

One of the challenges with land management in the City is the way in which the actors understood the land lease regulation. The government viewed the lease policy as a solution to control the spread of informal settlements. In contrast, the informal actors saw some loopholes in the lease policy as an opportunity to their advantage. For example, the land lease regulation of Oromia regional state No.155/2013 allowed informal landholdings to be converted into formal landholdings if they met two criteria or requirements namely that the settlement should take place before the law comes into force and must comply with planning and parceling standards. If this is not the case, they are destroyed without receiving compensation or new land.

To circumvent this rule, most informal actors in the study areas made their contractual agreements as if they had bought them before the regulation came into force. The result of the survey shows that 95 % of the informal settlers set contracts with old dates as if they bought before the issuance of the regulation, and only 5 % of set contracts with the current date. Moreover, the urban land leases holding proclamation, Article 6(4), states that the legalization process is to be commenced no later than four years after the lease proclamation's enactment. However, according to the key informant, some informal actors still make hidden relationships with land experts to regularize land that was informally occupied.

Furthermore, confirmation of the building with a master plan was another essential factor evaluated by the regulation for a property claim. The rule only considered settlements that did not substantially violate the master plan. To take advantage of this, informal actors began to explore the harmonization of informal land subdivisions with a master plan by establishing a strong link with the experts of the city government.

5. Discussion

The discussion section of this paper is organized around two related themes: the process of informal settlement and the drivers of informal settlement growth, focusing on institutions and actor behaviors. The results show that most of the respondents stated that actors in the informal process use various methods to informally acquire land from the informal land market. The majority of informal land acquirers buy land from farmers (Table 2). The farmers hire professional land surveyors to subdivide the land in compliance with

the city's existing urban plan. This indicates that the functions of informal institutions in informal land acquisition are great. The government needs to rethink how to incorporate informal institutions in urban land administration.

In Ethiopia, urban land is obtained from periphery farmers, by the re-allocation of land to private investors and others by land leasing under the framework of either tender or allotment [80]. From the above, it is clear that the informal land acquisition processes are not performed by informal actors alone but also by professionals from the formal government administrative body who benefit from the informal land transactions. Furthermore, this also depicts that the informal land acquisition process takes place within the interplay between formal and informal activities. Therefore, this demands the inclusion of informal actors in urban administration to fetch their constructive contribution to land policy design.

The development of the informal settlement in the city passes through various stages. These stages start by informally subdividing the land with the help of planning technicians, up to establishing social networking and forming symbolic relationships in the settlements (Fig. 4). This social networking enables them to create social pressure on the government to provide infrastructure like cobblestone, water, and electricity. These informal settlements have a strong social cohesion, similar to that of planned areas. The informal acquirement of land operates in line with established social rules that are recognized by the actors participating in the structure. Therefore, the actors interact with each other on the basis of sets of rules called institutions.

The process of informal settlement growth outlined above also aligns with the finding of Nkurunziza [24], Adam [81] and Morger et al. [82], who show that the informal process of obtaining land is not chaotic, but rather follows a pattern, driven by both informal and formal institutions. In this case, informal means are the predominant mechanism for acquiring land. With regard to the importance of social linkages in informal land transactions, we, therefore, maintain that a nuanced understanding of the development of the process of informal settlements can not only broaden narrow perspectives but also promote networked thoughtful by urban planning institutions.

The development of informal settlements is engineered by many factors. The results of the questionnaire survey show that 88.9 % of the inhabitants of the informal settlements are migrants. Such an influx of people upsurge the town's population, which is bound to affect the availability of plots of land for housing construction. According to Hailemariam and Adugna [83] and Zewdie et al. [84] informal purchase and development of land is an indicator of population change largely due to migration. Remarkably, ever-increasing urban migration and inefficient allocation of land to the needy have contributed to informal land transactions as the migrants use their capacities (agencies) to informally own houses in the outskirts of the city; otherwise, formal land is out of their reach.

In terms of agency, Gondo [85], Fekade [86] and Huchzermeyer and Karam [87] have pointed out that residents, particularly the urban low-income earners and migrants, use their agency and other means to get land outside the formal system when formal institution does not fulfil everyone's requirements. Moreover, Hailemariam and Adugna [83] and Zewdie et al. [84] noted that informal land transactions, leading to informal settlements are an expression of demographic dynamics. This study indicates that farmers use their agency to informally subdivide their land and offer it for sale on the informal market, which offers more money than the compensation paid to them. Moreover, land speculators in the city bought land at a cheap price (US\$ 3733.62 per m²) from pro-urban farmers, and after hoarding them for two years, they sold them for up to US\$ 9119.09. This shows that both farmers and land speculators are using their agencies to engage in informal land transactions to achieve their profit-making objectives.

In view of the problems of land speculation, the country passed a land use rule in 1993 to meet the challenge of land speculation and reduce the occurrence of rising land prices, mainly due to speculative activities. Nonetheless, the problem of large-scale acquisitions and land shortages persists in many urban and suburban areas of the country and seems far from being solved [88].

One of the factors that fuel the growth of informal settlement is related to the need for social connection, low cost of living and easy access to land for building housing respectively (see Fig. 5).

This result shows that social networks have a crucial function both as a source of information and as a decision-making mechanism. The above result also aligns with the findings of Nakanishi [89] and Singh and Gadgil [90], who found that informal settlers rely on community relationships as social safety nets. These social relationships can be established through blood relations, places of origin, and workplaces. Moreover, neighbors can also help each other with child care and emergencies. The networks established through social relationships are used to gain information about job prospects, and markets for vendors and share knowledge about the techniques of constructing houses from scrap waste and how to manage the informal utility supply. This shows that informal settlers use their network establishment capabilities to form a conducive setting for the first residents in informal settlement areas.

The growth of informal settlement is also driven by weak urban land governance. The findings of the study indicate that the legal frameworks that aim to control informal settlements through legalization are not sufficiently communicated to residents. This shows that there is an absence of commitment among city officials and experts to facilitate resident participation for effective policy implementation. This results in widespread social discontent with land management, which spurs informal settlement growth. Moreover, the study shows that during the political instability, for instance, 115 ha of government land were occupied by informal settlers. This result is consistent with UN-Habitat [91] and Niebergal et al. [92], who claim that political insecurity contributes to informal settlements.

Due to the delay in the transfer of administration from rural Kebele to Burayu city administration, many informal housing areas have emerged in Guje Kebele. This is mainly related to the lack of planning rules and regulatory enforcement. It has been argued that one factor that backs the growth of informal settlements in developing countries is the lack of resources available to the city administration to implement planning regulations [93].

The land lease proclamation states that residents in the urban areas should get land for housing construction at a reasonable price. Despite this, the reality prevailing on the ground is that lease auctions have become beyond the reach of the majority of residents. As it is grounded in a market-based competitive process, the highest bidder is declared the winner based on price and advance payment [80]. Therefore, low-income residents are forced to turn to informal land markets. This finding complements the finding of Polyzos and

Minetos [94] and Marutlulle [95] who find that high prices, poor and red tape in land administration practices have contributed to the growth of informal settlements. From the above discussion, we can understand that because of formal institutions' ineffectiveness, informal actors use informal means of accessing land for housing construction. Therefore, the government should learn from the informal institution to make the formal institution more effective and adaptable for the majority of the residents.

The findings of the study demonstrate that the housing policy is inappropriate for residents because the cost of getting land for housing exceeds the resident's monthly income. To obtain land for cooperative housing in the city, one should have to pay US\$1650 in 2020, which cannot be covered by the monthly income of the residents. The result of the survey shows that 42.7 % of the respondents' monthly income lies between 1001 and 3000 ETB or 30–91 US\$ (see Table 3).

According to the above data, the mean monthly income of the majority of the respondents was US\$ 61. To get a plot of land for housing by cooperative housing, one needs to pay US\$ 1650. According to the rule of thumb, residents should not expend greater than 30 % of their monthly income on housing [96]. Since 1981, the government has considered people who expend greater than 30 % of their monthly income on housing to be "cost-burdened". In the study area, 30 % of the household's monthly income was US\$ 18. Thus to get a plot of land for housing, one would have to save 18 US\$ for 91 years to pay US\$ 1650 to obtain land through housing cooperatives. These findings of this study are complimentary with Marutlulle [95] and Wondimu [97], according to whom inadequate housing policy leads to the growth of informal settlement. International consensus dictates that housing policies must embrace an integrated strategy linking the delivery of affordable housing with social service and meeting new housing demands emerging from economic, social and demographic dynamics. In its implementation, it is imperative to clearly clarify intents and entitlement standards to boost the effectiveness of the adopted housing policy.

With regard to the compensation paid to the landholders, the survey revealed that 97 % believe that the compensation is not fair and adequate. The compensation for farmers by the government in case of expropriation is below informal market prices. Therefore, inadequate compensation to farmers is another recognized factor for the expansion of informal settlements in Burayu City. This conclusion is in line with findings of Baye et al. [98] and Dires et al. [99], who found that unfair compensation is one of the contributing factors to the rise of informal settlement.

The study's finding indicate that the majority of the respondents bought land for housing by the process of the informal land market (88.1 %), as cost and procedures required in informal settlement are lower than for formal government allotment. This result is in consistent with another study that discovered that official land delivery entails an excessive number of procedures, making the process of lawfully obtaining land unnecessarily lengthy and that low-income individuals frequently cannot afford the costs associated with adjusting to this system [100,101]. Therefore, residents prefer informal land transactions. Thus, improving unresponsive land administration and bureaucratic structures is very important.

The result of the study indicates that rural and urban land is administered by two different bodies which has led to a lack of coordination between the two institutions. This in turn creates an administrative vacuum in which different informal actors maximize their role to informally access peri-urban areas, which has promoted illegal subdivision and construction in the peripheral urban areas. This finding also in consistent with previous studies by Dires et al. [99], Adam [81] and Li and Wu [102], who found that the widespread practice of informal settlements is due to the dual land governance institutions in rural and urban areas. To avoid the power vacuum between the rural and urban administrations, the two land administrative bodies have to be merged.

The survey results show that demolition, eviction and *lassies-faire* strategies are the predominant approaches in dealing with informal settlements in Burayu City (see Table 4). Thus, informal settlement policies in the study fluctuate between destruction and tolerance or accommodation. The continued failure to implement appropriate informal settlement policies has, in reality, facilitated the rise of informal settlements. This is basically due to the state's inability to completely comprehend the requirements of informal residents and incorporate those demands into the development of relevant policies [86]. At the international level, policies towards informal settlement have changed from negative (forced eviction and involuntary relocation) to positive (self-help and in situ improvement) [103]. Thus, it is imperative to revise government land policies appropriate to the states that are meant to satisfy resident demand.

The finding of the study shows that the informal actors see some loopholes in the lease policy as an opportunity for their advantage. The result of the survey shows that 95 % of the informal settlers have signed a contract as if they had signed a contract before the land lease proclamation enactment in 2011. In this regard, Leduka [60] found that informal actors build operational functions around state rules, frequently by exploiting irregularities and uncertainties in formal rules and implementation strategies. Moreover, in land transactions informal actors are conscious about the environment in which informal land transactions take place. In most circumstances, informal land buyers try to reconcile official planning with the existing land use planning.

This indicates in what way informal actors in the land transaction exploit formal institutions in such a way that they want to claim ownership for themselves. The informal actors know how to manipulate the rules and regulations and exploit loopholes and irregularities in the formal government regulations to have access to land by the informal land transaction process [104]. Accordingly, informal settlement persists and exists in the official shadow of *inconsistencies*. The government needs to identify any gaps in land lease proclamation based on the discussion with stakeholders to stop land lease implementation manipulation by informal actors as well as by experts in land administration.

6. Conclusions

This paper investigated the process and driving factors behind the growth of informal settlements in Burayu City, Ethiopia, from the perspectives of institutions, structure, agency, and societal non-compliance. To see the process of informal settlement growth, the

institutional analysis framework was used. Moreover, to examine the factors driving informal settlement structure-agency and societal non-compliance were used.

The study shows that although the country's land lease policy limits land transactions to formal markets only, most land transactions are conducted through informal channels. The informal institutional setup accelerates the informal land transaction backed by many actors who use informal written sale contracts and social networking. Thus, the informal institution maintains an essential sense of structure and order, which is based on local social networks and interpersonal trust interactions. Conceivably, from this thought, an important realization of this study is that there are misunderstandings about the social legitimacy of informal land transactions in Burayu city.

This study reveals that the factors favouring the growth of informal settlements are expressed in the structural relationships between the actors and the actors' conscious effort to exploit the formal rules to design their coping mechanisms in the shadow of the formal rules. These actors backing informal settlement growth include rural-urban migration, speculation, locational choice, lack of participation, lack of political will, political instability, and inability to enforce planning regulation. In addition, unnecessary bureaucracy, insufficient housing, low compensation payments, inappropriate policies, and a lack of coordinated institutional set-up between rural-urban areas were other precipitating factors in informal settlement growth. Furthermore, actors in informal land subdivisions use the irregularities and ambiguities of urban lease rules as a basis for negotiation, contestation, and enforcement of property claims, thus fostering the rise of informal settlements.

The study implies that the process of informal settlement growth goes beyond state legal norms that take into account existing informal institutions, structures (social order) and the ability to act for a favor (agency) that actors frequently use to obtain land. Effective management of informal settlement growth, therefore, requires consideration of both institutional and actors' behavior. Informal settlement growth is a multifaceted process involving manifold factors and created because of the interaction between social structure and individual agency. Therefore, a multi-dimensional approach that involves both institutional and actor perspectives to understand the process and factors behind the informal settlement growth enables us to identify rules that regulate actors' agency and behavior, in terms of how individual actors get land for housing. Thus, understating these issues helps to improve land governance by promoting non-state actors' importance in mitigating and managing unplanned urbanization to bring sustainable development in urban areas.

This study has added to a new growing body of knowledge globally by showing how institutional manipulations, social relationships, and the actor actions, interests, and dissensions play a significant function in the development of informal settlements. These could provide a better framework for analyzing project development in informal settlements.

7. Limitations of this research

The study has the following limitations which need to be considered in future research.

1. The sample case study areas should increase or go beyond Burayu City to incorporate all aspects of informal settlement issues adequately. This study was focused on non-spatial factors like institutions and actors' behaviors but to gain a comprehensive understanding, further assessment of spatial factors is necessary. Hence, the study recommends further study on spatial factors like nearness to large cities like Addis Ababa.
2. The study identified non-spatial factors behind informal settlement growth, the study also acknowledges the limitation of not being able to conduct factor analysis for identifying critical determinants to fully comprehend the results and suggest solutions according to criticality. This limitation should be addressed in future research accomplishments.

Availability of data

Data included in the article are available upon request.

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CRedit authorship contribution statement

Tefera Beyera Bayuma: Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Birhanu Girma Abebe:** Writing – review & editing, Validation, Supervision, Methodology, Conceptualization.

Declaration of competing interest

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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