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The Practice of Peri-Urban Land Acquisition by Expropriation for Housing Purposes and the Implications: The Case of Bahir Dar, Ethiopia

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Abstract: Urban land acquisition is a fundamental precondition to sustaining the socio-economic livelihood of urban residents. In Ethiopia, with the high rate of peri-urbanization, the demand for urban land for various urban uses, such as housing development, is responded to by expropriating peri-urban landholdings from the farming community through paying compensation to the farmers. The paper highlights Ethiopia's urbanization pace and the associated urban land acquisition scenarios, mainly for housing purposes. Thus, it aims to analyze the peri-urban land acquisition scenarios through the expropriation of peri-urban land holdings used for agricultural purposes in Bahir Dar and the associated adverse effect on the farming community. To address the intended aim, data were collected by interviewing senior officials, experts, and elder farm households of the study area who were more knowledgeable about the study issue. There were focus group discussions with selected farming communities, and an extended field observation was conducted intending to triangulate the data collected by other techniques. Moreover, the Geographic Information System (GIS) was utilized to analyze satellite images of Bahir Dar City to demonstrate the extent of peri-urban land conversion from 2011 to 2021. The result of this study revealed that there is a 7% urban population growth rate, which resulted in 8% of Bahir Dar being converted from peri-urban between the stated period, and hence a considerable size of land had been expropriated in the peri-urban areas of Bahir Dar with expropriation measures. This study exposed that the compensation for expropriated agricultural landholdings often fails to adequately account for the full range of livelihoods and economic activities that farmers engage in, leaving them struggling to adapt to urban life. The urban development in the study area of Bahir Dar is taking place by jeopardizing the livelihoods of the farming community, and the urban expansion is seen as a threat to them.



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1. Introduction

In recent decades, there has been an acceleration in the pace of urbanization globally. According to reports by the United Nations Department of Economic and Social Affairs [1,2], by the year 2050, the world's population will reach around nine billion. As of 2015, urban regions were home to 54%, or four billion, of the world's total population. It is anticipated that the urban population will keep growing, and by the year 2050, the global population will be roughly the reverse ratio of the global rural–urban population distribution during the middle of the twentieth century, with one-third of the world's population living in rural areas (34%) and two-thirds of the people living in urban areas (66%) [3]. As the urban population increases, the land area occupied by cities has increased even more. A global sample of 120 cities observed between 1990 and 2000 shows that while the population grew at a rate of 17 percent on average, the built-up area grew by 28 percent [4]. It has been

projected that by 2030, the urban population of developing countries will double while the area covered by cities will triple [4].

Most Africans are likely to eventually make their homes in various urban areas throughout the continent. By the middle of the 2030s, 50% of Africans will live in urban areas [3,5]. The number of people living in Africa's cities almost doubled over the last 20 years, rising from 237 million in 1995 to 472 million in 2015; between the years 2015 and 2035, the urban population is projected to roughly triple [6,7]. Similarly, it is anticipated that the overall population of sub-Saharan Africa will expand faster than any other area in the next decades, doubling from 823 million in 2010 to 1.9 billion in 2050 [3,8].

Though its level of urbanization is one of the lowest in the world, Ethiopia has one of the fastest-growing urban populations even when compared to the Sub-Saharan standard [9]. The World Bank predicts that between 2012 and 2032, the population of Ethiopia's cities will rise from 17.4% to 30% urban, with a 5.4% annual growth rate, and nearly triple, from 16 million to more than 42 million people between the stated time frame [1,9,10]. The territorial expansion of large and medium towns from year to year is not negligible in Ethiopia. In Ethiopia's horizontally expanding urbanization process, peri-urbanization, demand, and supply for urban land are important considerations. With a fast-expanding population and rising urbanization rates, the demand for urban land for housing is rising quickly, particularly in peri-urban regions [11,12]. There is a significant lack of affordable housing and an increase in informal settlements in peri-urban regions as a consequence of the extremely high demand and poor supply of urban land for housing [13,14]. Inadequately addressing the strong demand for urban property has also resulted in unlawful land transactions and the growth of informal communities.

According to [15], The urban centers of Ethiopia are experiencing an unprecedented demand for urban land and housing due to their rapid growth. As a result of this, peri-urban regions have become vital sources of land for the expanding urban areas, and the conversion of rural land into urban land use has occurred at an unprecedented pace [16,17]. To accommodate the land demand of such a quickly growing urban population, there is the mass conversion of peri-urban land from rural to urban use through the expropriation tool of the government [18–20]. In the country, farmland is the primary source of agricultural production and farmers' livelihoods and serves as a socio-economic security measure for them [15]. In addition, unrestricted urban growth compels urban governments to search for more land, often from adjacent rural areas [5,15,21–23]. The Federal Democratic Republic Ethiopia (FDRE) Constitution explicitly states that compensation must be paid in advance to any person who lost property due to an expropriation order. A legal process for expropriation, from declaring public interest to paying compensation, is also described in Proclamation No.1161/2019.

However, due to the high demand for urban land and its slow supply by the urban governments, the price of peri-urban land is escalating alarmingly in the informal market many times greater than in the formal one, and hence peri-urban farmers prefer to supply their landholdings in the informal market to private developers before the government formally expropriate their land holding [16,17]. There are two urban land market scenarios in peri-urban areas: the formal market driven by the municipalities and the informal market by the peri-urban farmer landholders [18].

The study area, Bahir Dar City, which is the capital city of the Amhara Region in Ethiopia, located in the northwestern part of the country on the southern shore of Lake Tana, the largest lake in Ethiopia, is a rapidly growing city. Based on the population and housing censuses conducted in Ethiopia in 1984, 1994, and 2007, the population of Bahir Dar has experienced a significant increase. In 1984, the population was approximately 54,766 [24], which grew to 96,140 in 1994 [25] and 180,174 in 2007 [26], tripling in just two decades. Although no further census data have been collected since 2007, population projections have been made for the years 2012–2037 [27,28]. These projections indicate that the population of Bahir Dar is expected to continue to grow fast, with an estimated population of 313,997 in 2017 and 455,901 in 2022.

This rapid growth of Bahir Dar has led to increasing demand for housing, which has resulted in the practice of peri-urban land acquisition for housing and other land use purposes [21–23,29]. However, this practice has raised concerns about its implications, including the displacement of local communities and the proliferation of informal settlements [30].

The lack of understanding of these implications has resulted in limited policy interventions to regulate the practice of peri-urban land acquisition for housing purposes.

The study of peri-urban land acquisition by expropriation for housing purposes relies on a number of conceptual frameworks, including land tenure systems, urbanization, and social justice. The study of peri-urban land acquisition must take into account the different land tenure systems that exist in the area under study. This includes understanding how land is owned, used, and transferred, as well as the legal frameworks that govern these processes. The process of peri-urban land acquisition is driven by urbanization, which refers to the growth of urban areas and the resulting demand for housing and infrastructure. Understanding the patterns and drivers of urbanization is critical to understanding the practice of peri-urban land acquisition. Finally, the study of peri-urban land acquisition must also take into account social justice concerns, including the potential for displacement of existing communities and the impact of the practice on vulnerable populations. This involves an analysis of power dynamics and the distribution of benefits and costs associated with peri-urban land acquisition.

In addition, bid rent theory can be a useful conceptual framework for understanding the practice of peri-urban land acquisition by expropriation for housing purposes and its implications. This theory is based on the idea that the value of land is determined by its location and accessibility, and that the rent paid for land is a function of its proximity to urban centers and other desirable amenities [31–34]. In the context of peri-urban land acquisition, bid rent theory can help to explain why land in these areas is being targeted for development, such as housing. As urban areas expand, the demand for housing and other amenities increases, driving up the rent that developers are willing to pay for land in peri-urban areas. This can lead to a situation where existing communities are displaced, as developers are able to outbid them for access to land. Furthermore, bid rent theory can also help to explain the implications of peri-urban land acquisition.

Some studies have investigated peri-urban land management and access-related issues in sub-Saharan Africa [35–41]. However, these studies are limited in their scope as they fail to provide a comprehensive analysis of the practice of peri-urban land acquisition by expropriation for housing and its implications for displaced farming households. For instance, one study [35] explored the practices for sustainable urban and peri-urban agriculture in rapidly urbanizing Ghanaian cities, with a focus on potential solutions for preserving and promoting agriculture in these areas. Another study [36] examined the impact of agricultural land loss on rural livelihoods in Sebougou, Mali, analyzing the consequences of urbanization on the livelihoods of peri-urban residents. However, this study did not adequately address the demand and supply of urban land for housing or the process of peri-urban land acquisition by expropriation.

A study by [37] investigated urbanization-induced displacements in peri-urban areas and clashes between customary tenure and statutory practices in the Ugbo-Okonkwo Community in Enugu, Nigeria. The study revealed that peri-urban communities and poor residents in many expanding capital cities in Nigeria remained at the mercy of government and market forces. Similarly, a study by [41] explored peri-urban land governance in developing countries, with a focus on identifying the actors in peri-urban land governance as the state, peri-urban residents, and private land developers. However, this study did not examine the effects of peri-urban land acquisition for housing on peri-urban farmers.

Moreover, local studies have been conducted in Ethiopia, such as those by [42,43], which examined peri-urban land expropriation and compensation practices in the towns of Sebeta and Debre Markos. These studies focused on how land acquisition for industrialization and other urban development projects affected peri-urban farmers. In contrast,

the present study focused specifically on the effects of peri-urban land acquisition by expropriation for housing purposes in one of the largest cities in Ethiopia, Bahir Dar.

However, the present paper builds on these previous studies intended to provide a comprehensive analysis of the practice of peri-urban land acquisition by expropriation for housing purposes and its implications on the peri-urban farmers in Bahir Dar, Ethiopia, which has not yet been conducted. Hence, the issue under study in Bahir Dar is a significant one that requires attention. This study intended to provide policymakers, urban planners, and other stakeholders with a better understanding of the practice of peri-urban land acquisition for housing purposes and its implications, which will inform the development of policies and strategies to address the challenges associated with this practice. Moreover, it can be used as literature for those who want to review it to conduct similar studies in other urban areas.

Therefore, this study aimed to examine the practice of peri-urban land acquisition in Bahir Dar and its implications for housing purposes, and sought to address the following fundamental research questions;

- (1) What is the current peri-urbanization, demand, and supply of urban land for housing in Ethiopia, especially in Bahir Dar?
- (2) In what manner is expropriation utilized for peri-urban land acquisitions for housing in the study area?
- (3) What social and economic impacts did the expropriation of peri-urban land for housing have on the agricultural community in the study area?

2. Materials and Methods

2.1. Study Area Description

Ethiopia is situated in the Horn of Africa, sharing borders with Eritrea, Djibouti, Somalia, Kenya, South Sudan, and Sudan. The country is composed of eleven regional states and two chartered cities, namely Addis Ababa and Dire Dawa. The research site, Bahir Dar, is the capital city of the Amhara Regional state, located in the northwestern part of Ethiopia, with an area coverage of approximately 76.5 square kilometers (km^2). Bahir Dar's absolute location is within the tropics of the Northern Hemisphere, situated at $11^{\circ}27' \text{ N}$ to $11^{\circ}43' \text{ north latitudes}$ and $37^{\circ}14' \text{ E}$ to $37^{\circ}38' \text{ east longitudes}$ [22]. As it is shown in the map of the study area (Figure 1), the city comprises the central city of Bahir Dar, peri-urban and rural administrative kebeles, which are the smallest administrative region in Ethiopia, and three satellite towns, namely Zegie Town in the North, Meshenti Town in the Southwest, and Tis Abay Town in the Southeast. The central city includes six sub-cities, namely Atse Tewodros, Gishe Abaye, Belay Zelke, Dagmarwi Menelik, Tana, and Fasilo, and six peri-urban rural administrative kebeles, namely Zenzelma (Northeast), Woreb Kol (East), Sebatamit (Southeast), Addis Alem (South), Yibab (Southwest), and Woramit (Northwest). Bahir Dar is approximately 563 km Northwest of the capital city, Addis Ababa, along the Addis Ababa–Debre Markos–Gondar Road.

Bahir Dar is situated on a flat highland topography along the shoreline of Lake Tana and Abay (Blue Nile) River. The city's terrain is primarily plain land with an average altitude of 1800 m above sea level (masl), classifying it as high land. The climate of Bahir Dar is determined by altitude rather than latitude. It has a warm, semi-arid, and cool sub-humid climate, also known as '*kolla*' and '*Weina Dega*' climate. The average yearly rainfall in Bahir Dar is 1020.4 mm (mm), while the monthly average temperature ranges from 9.2°C (January) to 30.1°C (March and April).

The population of Bahir Dar has grown rapidly over the years. According to the Bahir Dar City Communication Affairs Office (BCCAO), the population was 12,272 and 27,940 in 1968 and 1973, respectively. The population doubled in less than five years. In 1984, the first national population and housing census indicated a population of 54,766. The second census of 1994 showed a population of 94,235, representing an increase of about 72% in a decade. In 2019, the projected population of Bahir Dar, excluding the satellite towns, was 390,124, resulting in high population growth rates and accelerated peri-urbanization.

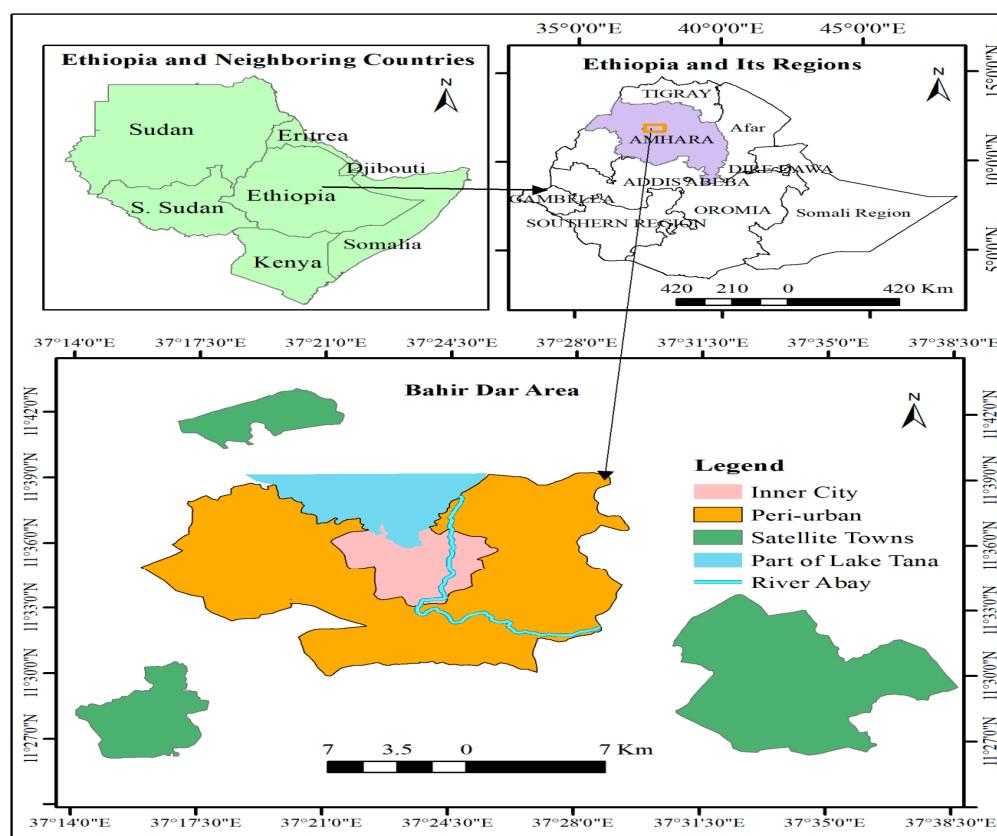


Figure 1. Map of the study area (Bahir Dar).

According to the 1984 census, the number of housing units in Bahir Dar was 9206. The 1994 census indicated 20,857 households and 19,808 dwelling units. Assuming the same ratio in 2005, the number of dwelling units was expected to reach 35,566, with 37,344 households. The ratio was anticipated to reach one-to-one by 2015, resulting in 61,570 housing units and the same number of households. To achieve this ratio, 26,004 dwelling units needed to be constructed in ten years of planning. Assuming the same number of housing units to be developed each year, a minimum of 2600 housing units need to be built annually, according to the BCCAO.

2.2. Research Methods

This study aims to examine the acquisition of peri-urban land for housing and its socio-economic impact on agricultural communities in peri-urban Bahir Dar City. The city has undergone rapid urbanization over the past two decades, leading to the expropriation of agricultural land holdings in peri-urban areas.

2.3. Case Study Approach of This Study

To achieve the research objective, a descriptive research design with a case study strategy and cross-sectional data collection timeframe was used. The case study approach is a qualitative research method that allows researchers to examine a particular case or phenomenon in its real-life context using multiple sources of evidence, such as interviews, documents, and observations [44,45]. This approach is suitable for exploring complex and multifaceted phenomena, such as the practice of peri-urban land acquisition, which involves multiple stakeholders and has various social, economic, and environmental implications. The case study approach allows researchers to gather rich and detailed data about the experiences and perceptions of the affected communities and to identify the underlying causes and dynamics of the land acquisition process. Bahir Dar and two peri-urban kebeles, Zenzenma and Addis Alem, were chosen as the case areas due to their location at the outlet

corridors of Addis Ababa–Gondar main street and their high-level peri-urbanization. The results of the case study are expected to apply not only to these areas but also to other urban areas in Ethiopia urban areas undergoing high peri-urbanization.

2.4. Participant Sampling

For the key informant interviews (KII), a purposive sampling technique was used to identify senior officers and experts from urban and rural land development offices, regulatory offices, peri-urban kebele leaders, and peri-urban farmer households who have a good understanding of the peri-urbanization, land expropriation, and acquisition process. For the focus group discussions (FGDs), a stratified random sampling technique was used to identify peri-urban farmers (who are not participants in the KII) from the case areas who have submitted their agricultural land partly/fully for urban land use. The participants were recruited with the assistance of the local authorities, and they were informed about the purpose and nature of this study. Participation was voluntary, and informed consent was obtained from all participants. All participants were recruited based on their knowledge and experience related to peri-urbanization, land expropriation, and acquisition.

2.5. Data Sources and Collection Procedures

Both primary and secondary data sources were used to assess the issue. KII, FGDs, and field observations (FO) were used as primary sources, while secondary sources included annual reports, rules and regulations, proclamations, lease- and compensation-related documents, and previously published research reports from government offices. Moreover, the satellite images of Bahir Dar City were acquired for two study periods, 2011 and 2021, from the United States Geological Survey website <https://earthexplorer.usgs.gov/> (accessed on 22 August 2022) intended to show the expansion of Bahir Dar City within the above-stated period.

For the KII, a semi-structured interview guide was used to explore the process of peri-urbanization, land expropriation and acquisition processes, and their effects on the farming community. The KII involved a total of 26 participants, including 12 senior officers and experts from urban and rural land development offices, regulatory offices, 4 peri-urban kebele leaders, and 10 farmer households who submitted their land holding by expropriation. For the FGDs, a focus group guide was used to obtain the participants' feelings about peri-urbanization, land submission, livelihoods, and the process of expropriation. Two FGD sessions were conducted, one involving a total of 18 peri-urban farmers (7 females and 11 males) who submitted their agricultural land partly/fully for urban land use, and one FGD session comprising 9 members for each case kebele.

The context of the KII and FGDs, including venues and dates, were jotted down in a notebook. The interviews and discussions were conducted by the researcher with the assistance of a local kebele leader, and the communication was in Amharic, the local language of the study area, and the transcripts were later translated into English. They were held in the participants' preferred venues, which were either their offices or homes/locality. The KII and FGDs lasted an average of 60–90 min and were jotted down using a notebook. An extended direct field visit was also conducted to observe the actual urban expansion and corresponding land acquisition in peri-urban areas of Bahir Dar City. The data collection for this study took place over a period of approximately 7 weeks, from mid-January to the first week of March in the year 2022.

2.6. Data Analysis

Thematic analysis was employed to analyze the data gathered through various methods. This method is frequently utilized to gain insights into the viewpoints, attitudes, and experiences of the participants, and to provide a deeper understanding of the content and the underlying ideas or concepts [46]. The steps followed in the thematic analysis approach were as follows: firstly, the KII and FGD data were transcribed and reviewed to obtain a general understanding of the content. Secondly, breaking down the data into

meaningful segments took place. Thirdly, the data were sorted and grouped together based on their similarities and differences to form themes. Finally, the themes were reviewed and refined until a clear and comprehensive understanding of the themes was achieved. Hence, thematic analysis was used to depict the peri-urban land expropriation and acquisition scenarios and the corresponding effects on the livelihood of the communities in peri-urban Bahir Dar City based on data received from KIIs, FGDs, and desk reviews. In addition, the satellite images of Bahir Dar City were analyzed using Geographic Information System (Arc GIS 10.4) to show the expansion of Bahir Dar City during the above-stated period.

Image Classification

A supervised maximum likelihood algorithm was utilized to classify the satellite images, and to evaluate the accuracy of the resulting classifications, the User's Accuracy, Producer's Accuracy, Overall Accuracy, and Kappa coefficient were computed.

The kappa coefficient is calculated as follows:

$$K = \frac{N \sum_{i=1}^r xii - \sum_{i=1}^r (xi+)(x+i)}{N^2 - \sum_{i=1}^r (xi+)(x+i)} \quad (1)$$

where K is Kappa coefficient, N is the total number of samples, r is the number of rows in the matrix, xii is the total number of correctly classified pixels (diagonals), $xi+$ are the marginal totals of row i , $x + I$ are the marginal totals of column I [47].

Change Detection

Arc GIS 10.4 software was used to analyze and present the pattern and rate of change in land use land cover. As a result, a LULC matrix was computed for the years 2011 and 2021. To calculate the rate of change in hectares and percentage, the following formula was employed:

$$\text{Change in percent} = \frac{X - Y}{Y} \times 100 \quad (2)$$

$$\text{Rate of Change (ha/year)} = \frac{X - Y}{T} \quad (3)$$

where X is the area of LULC (ha) in the latest/final year, Y is the area of LULC (ha) in prior/initial year, and T is the time interval between X and Y in a year [47].

3. Results and Discussion

This section of the study presents and analyzes the outcomes of the research, which encompass peri-urbanization, peri-urban land acquisition through expropriation, and their impact on the farming communities affected in the peri-urban areas of Bahir Dar. Specifically, we will focus on two peri-urban expansion *kebeles*, *Zenzenma* and *Addis Alem*.

3.1. Current Peri-Urbanization, Demand, and Supply of Urban Land for Housing

3.1.1. Peri-Urbanization, Demand, and Supply for Urban Land in Ethiopia

Ethiopia is one of the most highly urbanizing countries in the world due to the high number of populations that tend to live in urban areas [9,16]. This might be because urban areas have better socio-economic infrastructures that pull people to immigrate to urban areas. The observable fact of the country's urban areas shows a high growth rate in terms of population and land size. As the urban population increases, the land area occupied has increased at an even higher rate; it has been projected that by 2030, the urban population of developing countries will double while the area covered by cities will triple [48]. The current urbanization in the country results in increased and mounting demand for land for residential, commercial, and other urban land use purposes. The growth is mainly taking place horizontally over the peri-urban agricultural land holdings.

The country's land for urban expansion is taken from the peri-urban agricultural land-holders formally and informally. According to [14,49,50], formal land acquisition mainly

took place by the government via expropriation of peri-urban land from the farming community with landholding rights. The country's land tenure system allows the government to acquire land by expropriating farmland in peri-urban areas and supply to meet the growing demand for land for public use and private investment. The FDRE constitution article forty, sub-article three, declares that the state and the people hold ownership rights to land and natural resources, both rural and urban. Individual landholders are not permitted to sell, buy, or exchange. Article forty, sub-article eight, of the FDRE constitution empowers the government to expropriate privately held land for public use upon advance payment of compensation commensurate to the land's economic utility [51].

Two separate policies govern land use and management for rural and urban areas in Ethiopia. The FDRE constitution under article 40/3 and rural land administration proclamation 456/2005 article 5/1 clearly describe rural land use for agriculture and natural resource development purposes. The proclamation states that farmers in the country who rely on agriculture for their livelihood should be provided access to rural land free of charge and without restrictions on how long they may use their land use rights. They have distinct rights on their land holding, such as the use of the land for the intended land use, to bequeath or give as an inheritance to family members, and to acquire property produced on the land [51–53]. If the government expropriates the land for a public purpose, the farmers should be compensated proportionally to the economic interest they lose in the form of substitute land/displacement compensation in cash.

On the other hand, the urban land administration system of the country is governed by a lease system [54]. Since the 1990s, the lease system has become Ethiopia's most widely used mode of urban landholding system. The duration of the lease extends from fifteen years in the case of urban agriculture to ninety-nine years for different social service uses (residential, education, health, technology, etc.). Its introduction dates to 1993 on the ratification of the urban land lease proclamation No. 80/1993 by the federal government to cope with the increasing demand for land in urban centers and to increase its urban revenue. According to the latest updated urban land lease proclamation (proclamation 721/2011) [54], the urban land acquisition modalities through the lease system are tender and allotment. Tender/auction is a lease system by which landholding right is transferred from the government to a bid winner once the winner meets all the necessary preconditions. The allotment modality focuses on providing urban land to government offices, charitable organizations, community development-based nongovernmental organizations (NGOs), religious organizations (for worshipping purposes), manufacturing, educational institutions, health centers, and other infrastructure developments. The government often expropriates agricultural land from peri-urban landholders to fulfill this urban land demand.

In addition to the conventional (formal) method of land acquisition, the unofficial sale of urban land for housing purposes at the edge sites of urban areas is now taking place in an informal modality [21,23]. The dominant mode of transferring land from the government to the users is tendering lease land, which is not affordable for the mass urban population in the middle- and low-income category. Due to the high and unaffordable price of urban land in this modality, urban residents purchase land from peri-urban landholders [55,56]. Moreover, those high-economic sections of society also participate in the informal market with the tendency to speculate and capture the increasing land value without adding anything. Brokers, being in between the holders and purchasers, facilitate the transaction. Informal expansions of residential areas are seen here and there in the peri-urban regions of Ethiopian urban areas.

In conclusion, Ethiopia is experiencing a rapid urbanization process with a high growth rate in terms of population and land size. Urban areas are attracting people due to better socio-economic infrastructures and forced migration, particularly in the Amhara region. However, the current urbanization is resulting in increased and mounting demand for land for residential, commercial, and other urban land use purposes. As a result, peri-urban agricultural land holdings are being acquired formally and informally, mainly through government expropriation. The country's land tenure system allows the government to

acquire land for public use and private investment, and while there are clear policies governing land use and management for rural and urban areas, informal land acquisitions are also occurring. Thus, the challenges of balancing the needs of urbanization with the protection of farmers' rights and sustainable land use practices are of utmost importance.

3.1.2. Urbanization and Peri-Urban Land Expropriation in Bahir Dar

Bahir Dar City has undergone substantial urbanization in recent years, characterized by rapid expansion in both population growth and area coverage.

In terms of population growth, Bahir Dar has seen a significant increase in its urban population over the past few decades. According to the Bahir Dar regiopolitan city structure plan report [18], the urbanization rate in Bahir Dar has been steadily increasing by 7% annually from 2017 to 2022; Table 1 revealed clearly how urbanization in terms of population growth took place in the city. The rise in urbanization could potentially be attributed to the forced migration of individuals from other regions of the country as a result of ethnic-based conflicts [57]. There has been a notable trend of Amhara-ethnic-centered forced migration from Northern, Western, and Southern Ethiopia towards the Amhara region. This influx of migrants has contributed to the rapid urbanization of Bahir Dar City, leading to an increase in both population growth and area coverage. This is supported by the study of [58] that Urban centers in Ghana have undergone rapid expansion due to population growth, economic development, and rural-to-urban migration, resulting in heightened competition for land utilization in urban locations such as Takoradi. A study of the Nigerian case by [59] stated that rapid urbanization and unsustainable resource consumption are posing a growing threat to the ownership and utilization of land. According to the interview and FGD discussants, the city has been significantly affected by forced migration, primarily due to ethnic conflicts in other regions, including Ethiopia's Oromia and Benishangul regions, since 2018. As a result, Bahir Dar has become a crucial destination, particularly for urban migrants seeking better opportunities.

Table 1. Bahir Dar City population growth from 2017 to 2022 [57].

Year	Bahir Dar City Population			Urbanization Rate
	Both Sexes	Male	Female	
2017	313,996	156,867	157,129	7%
2018	335,994	169,317	166,677	7%
2019	359,651	180,840	178,811	7%
2020	385,036	193,197	191,839	7%
2021	412,189	206,412	205,777	7%
2022	441,149	220,497	220,652	7%

The rapid increase in population has also led to a significant expansion in the city's physical size. This expansion has been driven by the conversion of agricultural land to urban use, particularly in the peri-urban areas surrounding the city. This was confirmed by the focus group discussion participants, who reported that there had been a growing number of migrants approaching peri-urban farmers to acquire land through informal channels, seeking to establish informal settlements in peri-urban areas. In this regard, studies [14,21,60,61] disclosed that the mass of the peri-urban areas of sub-Saharan countries is being converted to urban in an informal settlement manner. A similar study in Mali [62] confirmed that the peri-urban situation in Mali involved the rural poor abandoning farming and turning towards peri-urban areas where land prices are relatively lower, but land prices in peri-urban zones rise as local migrants increase.

When the urban population increases, the area occupied by the people will also increase at an even faster rate [4]. As shown in Table 2, built-up areas in Bahir Dar increased by 8.3% (1778.2 hectares (ha)) in a decade, which is higher than all other conversions,

followed by farmland, which declined by 7.7% (1644.2 ha). The change has mainly been attributed to the expansion of built areas towards farmland and vegetation-covered areas. The other land use land cover conversions were insignificant, and were less than 3%. Built-up areas increased from 10.5% (2238.6 ha) in 2011 to nearly 19% (4016.7 ha) in 2021. However, farmland has declined from 61.4% (13,077.5 ha) to 53.7% (11433.2 ha) in the same period. The change in the other land use land cover classes was insignificant, and was below 3%. In support of this, the KII and FGD discussants expressed that they observed Bahir Dar expanding alarmingly and explored vast peri-urban agricultural land holdings. Similar studies such as [8,29,63–65] confirmed that the pace of urbanization in terms of area coverage is faster than the population growth pace.

Table 2. Land use land cover change from 2011 to 2021.

LULC Type	2011		2021		LULC Change between 2011 and 2021	
	Area (ha)	%	Area (ha)	%	Area (ha) per %	
Built-up	2238.6	10.5	4016.7	18.9	1778.2	8.3
Farm Land	13,077.5	61.4	11,433.2	53.7	-1644.2	-7.7
Open Space	1269.2	6.0	645.4	3.0	-623.8	-2.9
vegetation	4027.6	18.9	4235.8	19.9	208.2	1.0
Water Body	693.4	3.3	975.0	4.6	281.6	1.3
Total	21,306.2	100.0	21,306.2	100.0		

In addition, the LULC map shows (Figures 2 and 3) the spatial distribution of LULC types, in which the farmland has been shrinking and the built-up areas are expanding. It is revealed that the conversion of agricultural land holdings mainly took place in the *Zenzelma* (eastern) and *Addis Alem* (western) directions, where the exit corridors of the Addis Ababa–Gondar main road were.

According to the bid rent theory, land value tends to decrease as the distance from commercial business districts (CBD) and major infrastructure corridors increases. In Bahir Dar, the rapid population growth has led to a surge in demand for urban land, especially for residential purposes [31–34]. However, due to a lack of available vacant land within the inner city, only a small group of high-income individuals can afford vertical development options. As a result, the majority of low-income populations have been compelled to settle in the peri-urban areas, where the land value is relatively cheaper due to the low level of infrastructure development and distance from the existing built-up areas. To this end, the local government has been relying on peri-urban land to meet the rising demand for residential areas through expropriation. The interviews and focus group discussions (FGD) also revealed that the locals had lost their agricultural land to government expropriation with meager compensation.

In conclusion, Bahir Dar City has experienced significant urbanization in recent years, with both population growth and area coverage expanding rapidly. The rise in urbanization has been attributed to the forced migration of individuals from other regions of the country due to ethnic-based conflicts. The city has become a crucial destination for urban migrants seeking better opportunities. This rapid increase in population has also led to a significant expansion in the city's physical size, particularly in the peri-urban areas surrounding the city, where agricultural land has been converted to urban use. This conversion has been driven by the expansion of built areas toward farmland and vegetation-covered areas. The decline in farmland has been accompanied by a corresponding increase in built-up areas, which has changed the spatial distribution of land use land cover types in the city. As Bahir Dar continues to urbanize, it will be important to manage this growth sustainably to ensure that the city remains livable and economically viable for its residents.

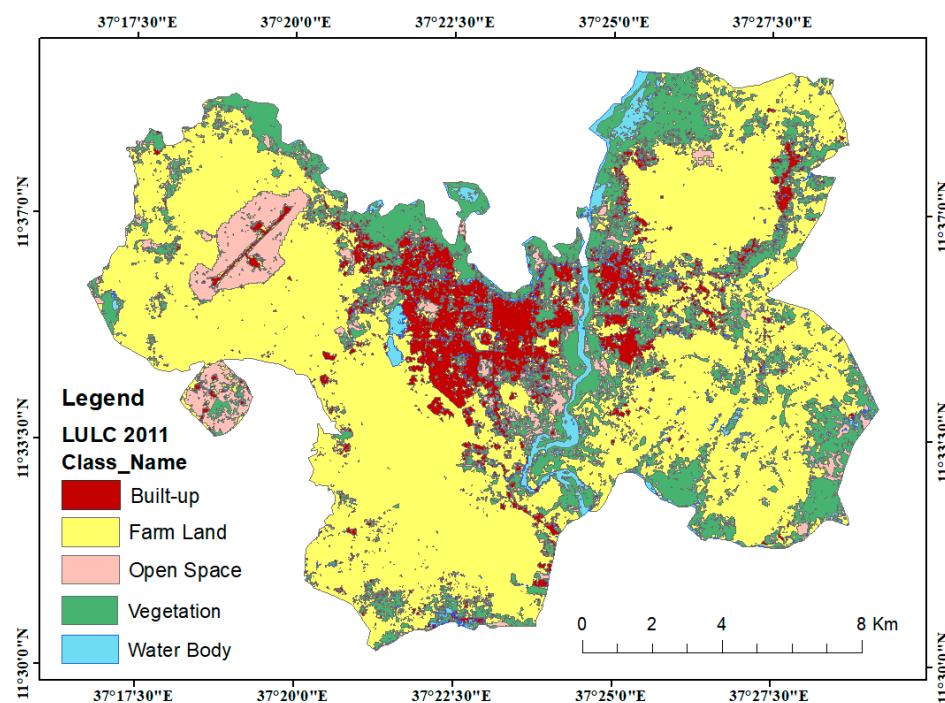


Figure 2. LULC map of Bahir Dar (2011).

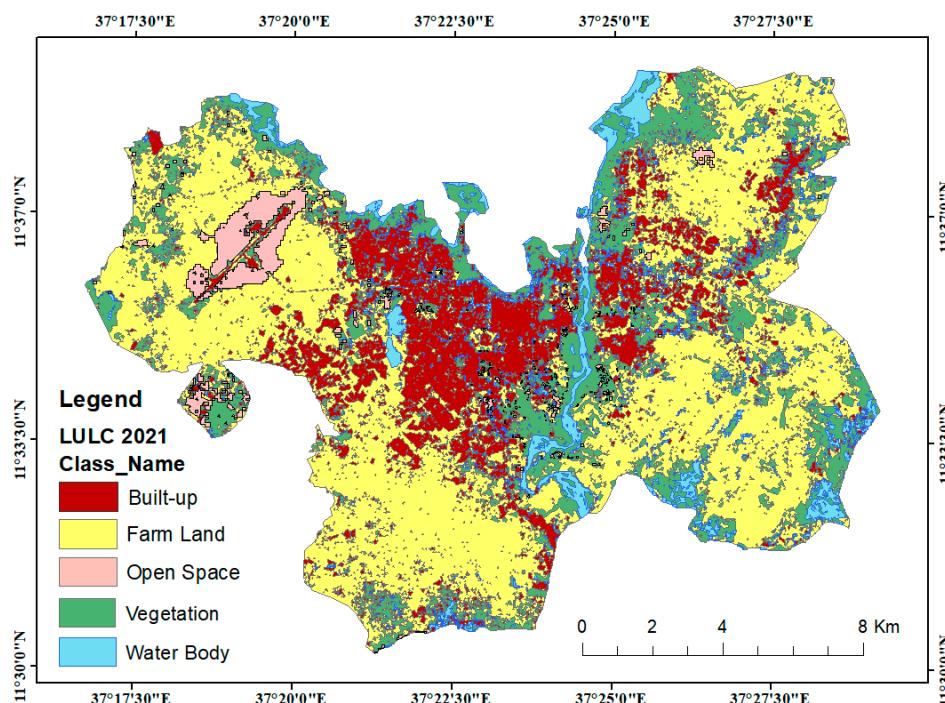


Figure 3. LULC map of Bahir Dar (2021).

3.2. The Process and Practice of Peri-Urban Land Acquisitions by Expropriation in Bahir Dar

As Bahir Dar City undergoes rapid urbanization, the demand for urban land has surged, resulting in rising land prices and the need to acquire peri-urban land for housing development [12,66–68]. The peri-urban areas, located at the edges of urban centers, are often home to smallholder farmers who rely on the land for their livelihoods. In Ethiopia, the expropriation of peri-urban landowners is the official method of acquiring land for urban growth, with advance compensation provided to the affected parties [51,52]. This practice has significant implications for the social and economic well-being of peri-urban

farmers and the wider community. Other studies in Ethiopia and Botswana [69–71] revealed that peri-urban farmers' livelihoods were negatively affected by such a type of urban land acquisition. The government of Ethiopia has employed various methods to acquire land in response to the growing need for urban expansion, with expropriation being the most frequently used. In addition to defining land ownership, the land tenure system in Ethiopia is governed by Article 40 of the 1995 FDRE constitution. This article specifies that the government must provide land to investors at an appropriate cost, taking into account state or public ownership of the land (Art 40 (6)). Furthermore, the government may seize private property, including developed land, for public purposes, provided that the owner receives proportional compensation in the form of cash, assets, or both, equivalent to the value of the property (Art 40 (8)). Likewise, Art 40 (7) says the following:

"Every Ethiopian shall have the full right to the immovable property he builds and the permanent improvements he brings about on the land through his labor or capital. This right shall include the right to alienate, to bequeath and where the right of use expires, to remove his property, transfer his title, or claim compensation for it."

In 2005 a separate proclamation (Proc. No. 455/2005a) was enacted by the Federal government, followed by a regulation (Reg. No. 135/2007) to give direction about expropriation and compensation for respective regional governments [72]. Based on the power provided by these proclamations and regulations, the Amhara National Regional State first declared the general producers of expropriation and compensation in Article 29–33 of Regulation No. 51/2007 (ANRS, 2007). Later, the regional government enacted the detailed directives in regulation No.5/2011 (ANRS, 2011), which worked for peri-urban and rural areas.

Despite the five-step formal expropriation process outlined in Figure 4, the local municipality of Bahir Dar often skips certain steps or grants participants limited decision-making power. Through focus group discussions (FGDs) and key informant interviews (KIIs), it was revealed that farmers are frequently instructed by local leaders to relinquish their land without proper explanation. Those who question the decision are labeled as opponents of development. As a result, evicted farmers who accept the order are typically compensated less than those who do not. Despite their dissatisfaction, farmers opt to comply with the expropriation to avoid further hardship. Likewise, [43,69,73] it is asserted that there is no equivalent amount of compensation even among the farmers, and that farmers have minimal involvement in the decision-making process regarding the expropriation of their land.

Compensation to property, displacement, and land substitution of peri-urban farmers who submit their land holding in Bahir Dar City is considered during expropriation, according to the above-mentioned expropriation and compensation proclamations. The directives declared that the amount of compensation should be commensurate to the property's value. Hence, a variety of formulas and considerations are used to evaluate a property based on the kind of permanent development or improvement on the land. These included residential houses, warehouses, cereal crops, tree crops (mangos, khat, coffee, etc.), plantations (eucalyptus and Cordia Africana), irrigation infrastructures, soil and water conservation work, etc. value additions to the land shall be considered. Moreover, the directives provided the following compensation formulae for peri-urban and rural landholdings:

- i. When the DC is for less than a one-year period: $DC = (cC + ppC + gC)$
- ii. When the DC is for a one- to five-year period: $DC = (cC + ppC + gC) K$
- iii. When the DC is for six years and above or permanently: $DC = (cC + ppC + gC) 15$

Where DC displacement compensation, cC (crop compensation), ppC (perennial or permanent plant (tree crop including eucalyptus) compensation), gC (protected grass and crop residue (fodder crop) compensation), and K is the number of displacement years. It is worth noting that in the case of formula three (iii), for each specific compensation, the average annual income the landholder secured in the past five years before the expropriation year is taken (this means that the average crop yield of the land over the past five years is considered as the land's productivity for compensation purposes). In addition, if

the re-ap perennial plant (ppC) is a eucalyptus tree (ppC), it will be multiplied by three (the concept is rooted in the idea that eucalyptus trees can be harvested every five years for utilization). On the other hand, displacement compensation is not allowed for landholders who received surrogate land.

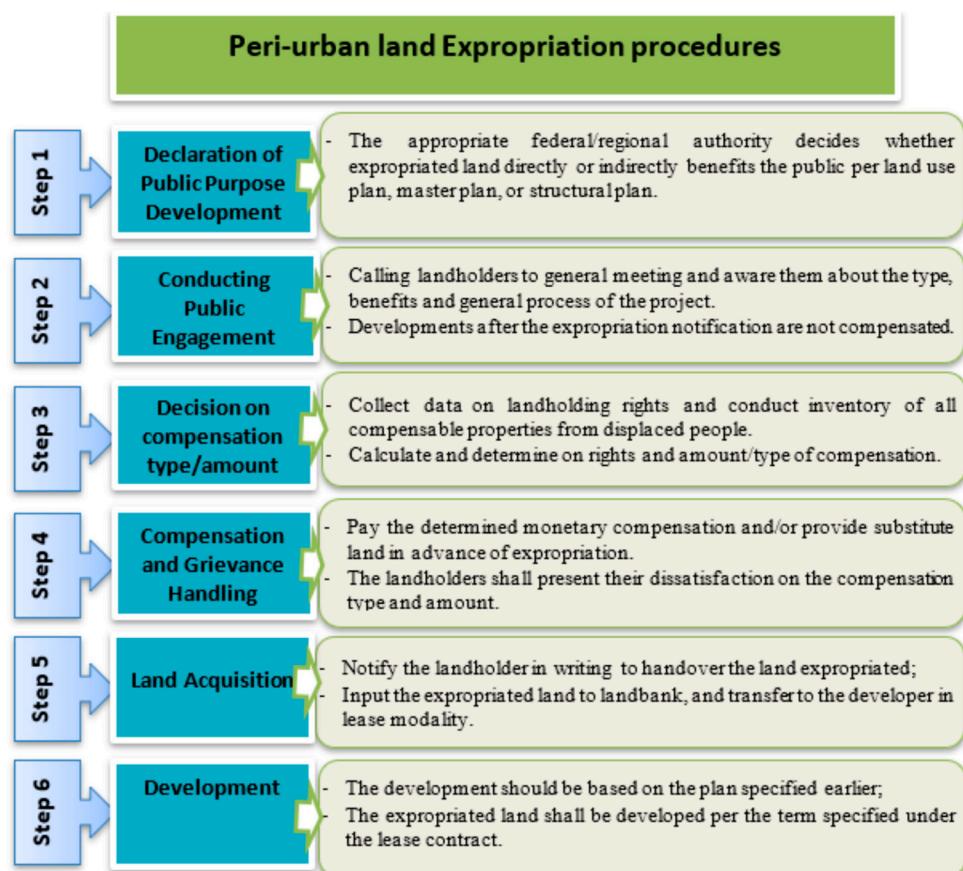


Figure 4. Peri-Urban land expropriation process in Bahir Dar per the FDRE Proclamation 455/2005 and 1161/2019.

Since 2011, different calculations and considerations have been used to determine the amount of compensation to be given to peri-urban landholders in Bahir Dar. Using the general formula, multiplication of the area per hectare (ha), the current price (in quintals) of the crops, the average five years income (productivity) obtained from the crops, and 15 (number of years), different amounts of compensation (in cash) has been given to expropriatees in different periods (Bahir Dar City Land Development and Management Bureau, and Rural Land Development Bureau 2019).

As is presented in Table 3, the amount of compensation given to expropriatees before 2011 was 8 Ethiopian Birr (ETB)/square meter (m^2), which increased to 12 ETB/ m^2 from 2011 to 2013 based on two crops (maize and finger millet). In the same period, the responses during the FGDs and KIs (farmers) showed that the price of land was almost similar for most of the study areas in the informal market. In 2014–2015, the number of crops rose to three with the addition of *teff*, and the price rose to 25 ETB/ m^2 . In line with this, the FGDs mentioned that for the expansion of the Bahir Dar Airport (*Weramit* kebele), the government compensated 25 ETB/ m^2 for expropriatees, which was very low compared to the informal market price. Starting in 2016, the agricultural office of the city has taken the responsibility of compensation estimation and increased the number of crops to five by adding barley and wheat.

Table 3. The amount of compensation given to expropriatees in peri-urban Bahir Dar.

Cropping Year/s	Crop Type	Price/ha (ETB)	Price/m ² (ETB)
Before 2011	Maize and finger millet (Eleusinian coracan)	80,000	8
2011, 2012 and 2013	Maize and finger millet	122,100	12
2014 and 2015	Maize, finger millet, teff (<i>Eragrostis</i> Teff)	250,122	25
2016	Maize, finger millet, teff, barley, wheat	475,460	47.5
2017	Maize, finger millet, teff, barley, wheat	540,260	54
2018, 2019, 2020 and 2021	Maize, finger millet, and teff	530,700	54
2022	Maize, finger millet, and teff	995,062	99.5

Moreover, according to the Bahir Dar City Land Development and Management Bureau report for 2022, as seen in Table 3, if the landholders (households) have a house on the expropriated land, they will obtain 250 m² or 100 m² (if they are children) of surrogate land and the estimated land value. Based on this estimation, the compensation was 47.5 and 54 ETB/m² in 2016 and 2017, respectively. In 2018, the number of crops was reduced to the former three, and the amount of compensation was almost equal (54 ETB/m²) to the previous year. Reference [74] showed that the gap between government and private land valuation was significantly wide, in that private and informal land transaction value is five to twenty-seven times greater than the public valuation for compensation. From the reflection of FGDs and KIs, the price of land in the informal market ranges between 60 ETB/m² in remote areas and 12,000 ETB/m² along the main road (within the existing built-up and developed infrastructure) in peri-urban Bahir Dar.

ETB refers to Ethiopian Birr (local currency), and its average value with respect to USD at different times is: 1 ETB = 0.0592 USD or 1 USD = 16.9 ETB (in 2011); 1 ETB = 0.0365 USD or 1 USD = 27.4 ETB (in 2018); and 1 ETB = 0.0365 USD or 1 USD = 43.5 ETB (in 2021) or 1 USD = 51.5 ETB (in 2022).

Furthermore, in connection with expropriation and compensation, the FGDs and KIs pointed out the following major issues: unfair valuation of property, a minimal amount of compensation, and a time-taking and hectic process. The informants revealed that the compensation process lacks fairness. It was observed that farmers who utilize their land for activities such as poultry, ranching, and dairy farming, which are not related to crop production, are not considered for compensation. In support of this, scholars [42,43] argued that compensation for peri-urban land expropriation does not aim to fully reimburse farmers for all their economic losses. Rather, the compensation should merely serve as a symbol that the land has been taken through expropriation. However, when the land is repurposed for urban use, its value increases by 30 times, and the government collects this increased value [75]. Therefore, this study concluded that peri-urban land acquisition for housing in Bahir Dar is taking place with very little compensation for the farmers. This study's conclusion is that the acquisition of peri-urban land for housing in Bahir Dar is severely impacting farmers' livelihoods due to the inadequate compensation they receive. On the other hand, selling land in the informal market was fair and peaceful.

Likewise, according to the researcher's observations and data gathered during the FGDs and KIs in places near the existing built-up areas and the main road, due to the same reason of high demand for land and comparatively lesser compensation, landholders have been selling portions of their land in the informal market. Studies in this regard disclose that the proliferation of informal settlements in Ethiopian urban areas is the result of less compensation paid to the farmers, forcing them to sell their land to informal settlers who can pay 5 to 12 times greater than the formal compensation [21,76].

Land prices were low in the earlier periods and in places away from the inner city or the existing built-up areas and main roads. These places had been rural in the first decade, but later, they changed their character to that of a peri-urban area. Most of the participants

in the FGDs emphasized that, compared to earlier times, land prices were rocketing up and up. There is no knowing that if you sell a parcel of land today, it will not be sold many times sometime later. I am disturbed that maximum growth in peri-urban Bahir Dar kebeles, such as the *Addis Alem (Sebatamit)*, has seen maximum land rates. This rising price trend will eat up all the farmland where we grow our food.

In conclusion, the rapid urbanization of Bahir Dar has led to an increased demand for urban land, resulting in the expropriation of peri-urban landowners who rely on the land for their livelihoods. The Ethiopian government employs various methods to acquire land, with expropriation being the most commonly used method. The 1995 FDRE constitution guarantees the right to property and compensation for expropriation, with separate proclamations and regulations enacted to provide direction on expropriation and compensation. Compensation is determined by a variety of formulas and considerations based on the kind of permanent development or improvement on the land, and the average annual income the landholder secured in the past five years before the expropriation year is taken into account. The compensation given to expropriees in Bahir Dar has varied over the years, with the amount increasing from 8 ETB/m² to 25 ETB/m². While expropriation may be necessary for urban growth, the social and economic well-being of peri-urban farmers and the wider community must be considered to ensure a just and equitable process.

3.3. Social-Economic Impact of Peri-Urban Land Expropriation on the Farmers

The impacts of urban expansions can be either positive or negative, or both inclusively; these impacts may lead to socio-economic progress or disgrace. The urban expansions in peri-urban areas of cities merely tended to lead to adverse effects due to unplanned land use or informal land invasions. The positive benefits of urban expansion include an increase in economic output, job chances for those who are underemployed or jobless, and improved quality of life as a result of accessing better options, as well as services and ways of living. The development of cities has the potential to improve both basic services (such as transportation, sewage, and water) and specialized services (such as educational and medical facilities), making them available to a greater number of people [77].

Before expropriation, the farmers' way of life depends on agriculture, crop production, planting fruits and perennial plants, and rearing animals. According to the descriptions of the FGD discussants, KIIIs, and the researchers' extended observation, the peri-urban farmers of Bahir Dar City are leading their lives by crop production of maize, finger millet, *teff*, sorghum, and barley. In addition, the farmers practice dairy farming, poultry, and the fattening of oxen and sheep. Again, their proximity to the city helps them cultivate vegetables and fruits. *Khat*, *Gesho*, and eucalyptus trees are dominantly grown in these areas. This shows that the farmers are not dependent only on crop production; other agricultural uses have significant livelihood shares, though not considered in compensation during expropriation.

The compensation for the expropriation of peri-urban agricultural land holdings is only for crop production costs and perennial plants. However, they gain considerable economic interest from rearing animals related to dairy farming, ox fattening, and poultry farming, which are not considered for compensation. The farmers feel discontent about the compensation amount and consideration. This can be seen in the reflection in the following interview.

" My 1.5-hectare land was expropriated in 2016 for industrial use. The municipality compensated me with 540,000 ETB, which I felt was inadequate. Despite not opposing the expropriation, I was accused of being against development. I received compensation equal to two years of income from milk sales and oxen fattening, but I estimate the loss to be closer to two million ETB. As a result, I had to sell my cows, live in a rented house, and feel isolated from my community. This loss of land, which had been passed down through generations, is a source of great sadness for me. . . . " (An expropriated farmer Interviewee, 5 February 2022)

Accordingly, after expropriation, the farmers sold their cattle, rented houses in the city, and changed their socio-economic livelihoods from rural to urban. They strive to sustain

themselves by starting a new way of life, urban life; therefore, parents, even now, lose their socialites; they cannot have the *equib* and *edir* that they used to, with which they could share their socio-economics in bad and good times. They lose their livelihood for public benefit. However, after being displaced, they faced the problem of sustaining the members of such social institutions here and there. The farmers explained that they could neither flourish in other social interactions nor adapt to the newly provided urbanized social structure that troubled their survival. Previous studies [43,69] affirmed that the compensation provided for peri-urban land expropriation is deemed unfair, and the expropriation procedures are not being adhered to, despite being legally required. As a result, those who are evicted from their lands are left with no other option but to start a new urban life with the compensation they are given. In addition to the inadequate compensation, the government provides no support to help the displaced individuals sustain their livelihoods in the future. Consequently, peri-urban farmers face difficulties adapting to their new urban lives, struggling to feed their families and pay for rent using the little compensation they receive.

Hence, the livelihood of farmers after displacement becomes more undetermined. Those wise farmers tried to adapt to the socio-economic environment of the urban areas and revived their livelihood, while those who were confused about how to continue quickly expended their compensation and led uncomfortable lifestyles. Accordingly, the living standards of the dislocated farmers, per the interviewees, were often consistent with the case of dislocated farmers who have finished their compensation amount and are living in worse conditions than ever.

In general, this study found that the expropriation of peri-urban land for housing purposes, formally and informally, has a significant impact on the socio-economic lifestyle of peri-urban farmers. While a few displaced farmers may be able to adjust to the urban way of life, the majority are greatly victimized by the process. This is because they lose their farming land, which is often compensated based on a fifteen-year calculated crop value, even if the constitution grants them an indefinite holding right for agricultural purposes. Furthermore, as a result of the expropriation of their landholding, they are forced to disconnect from their original and familiar way of life. They must adapt to the new urban lifestyle, which may be unfamiliar to them, and compete with urban residents, which can be challenging. This often results in them having to spend their remaining time as lower earners and becoming inhabitants of a lower socio-economic level.

4. Conclusions

This article explored the practice of acquiring peri-urban land through expropriation for housing purposes and the associated implications in Bahir Dar, Ethiopia. Accordingly, it was found that there is a high rate of urbanization, which has led to significant demand for urban land, especially for housing, resulting in the conversion of large amounts of peri-urban land through the expropriation of agricultural land holdings. The findings of this study highlight the adverse effects of this practice on farming communities, as the compensation given to farmers for their expropriated land often fails to consider their full range of livelihoods and economic activities, making it difficult for them to adapt to urban life and sustain their livelihoods.

Overall, this study comprehends the urgency of addressing the challenges of peri-urban land acquisition in a more equitable and sustainable manner, and recommends alternative approaches to urban development, such as promoting infill development and redeveloping existing urban areas, to decrease the negative impacts of peri-urban land acquisition on the livelihood of the evictees. This study extends recommendations on the promotion of sustainable land use practices, along with ensuring that communities affected by peri-urban land acquisition are justly compensated and included in decision-making processes related to urban development. It also underscores the importance of fair compensation to evicted farmland holders to bring sustainable urban development.

These findings have significant implications for policy development and practice in Ethiopia and other areas where peri-urban land acquisition is a growing concern. These

implications are particularly relevant to developing countries in which urbanization rates are high, and the demand for urban land is increasing.

The limitation of this study is its focus on a single case study. Future research should aim to explore peri-urban land acquisition in other parts of Ethiopia and beyond to provide a more comprehensive understanding of the issue. Additionally, future studies could investigate the potential solutions and alternatives to peri-urban land acquisition for housing purposes that better balance the needs of urban development with sustaining the livelihood of peri-urban farming communities.

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