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Stakeholder perspectives on farmers' resistance towards urban land-use changes in Bahir Dar, Ethiopia

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ABSTRACT

Owing to growing uncontrolled land-use change and urban expansion, farmers in urban fringes are struggling to sustain their livelihood. Farmers have been expressing their dissatisfaction at different times. This study analyzes the stakeholders' perspectives on the causes and outcomes of farmers' resistance to land-use change and urban expansion processes by zooming in on Bahir Dar, Ethiopia. The paper is based on focus group discussions with farmers in the neighboring villages, local agricultural extension experts, and, subsequently, key informant interviews of local government officials. Juxtaposing farmers' and local experts' positions reveals that inadequate compensations during land expropriation, lack of good governance in the urban expansion process, and inaccessibility of infrastructures are primary reasons for the farmers' struggle against urban expansion in the urban fringes. This study provides insights into the consequences of unplanned urban development challenges and may inform research and policymaking on sustainable urban development in the area and beyond.

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1. Introduction

Unplanned land-use conversions, often occurring in the urban fringes of fast-expanding cities of low-income countries, affect the share of other land-use types, such as farmland (Fitawok et al., 2020, 2022; S. Wang et al., 2021). However, farmers in low-income countries mostly, if not entirely, rely on farming activities and rarely have access to alternative sources of income, resulting in the households' reliance on their farmland. As a result, continuous farmland conversions into the built environment often create livelihood shifts and instabilities for farmers, leading to farmers' resistance to farmland conversions and urban expansion (Fitawok et al., 2022; Y. Wang et al., 2019). Farmers' resistance refers to the farmers' opposition and appeal, which can range from small-scale uprisings to mass demonstrations against the farmland conversion programs that have been affecting livelihoods. In fact, the livelihood impact of such land-use conversions differs across countries and cities. For example, a recent study found that in China, which arguably has similar land tenure system with Ethiopia the overall gains exceed losses in government-led expropriation (S. Wang et al., 2021): agricultural production deterioration is countered by land acquisition, stimulating wider farmland in

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nearby rural areas and paving the way for mechanization and efficiency improvements. At the same time, Ethiopian research on the livelihood of farmers who faced land-use conversions and livelihood shocks suggested that land-expropriated farmers became food insecure and jobless (Dires et al., 2021; Wayessa, 2020).

One recurring theme in this literature is that governmental actors play a central role in urban land-use changes in many rapidly expanding cities. However, government regulations and performance in controlling the impacts of land-use changes on livelihood and the environment in the urban fringes are varying across countries. In its quota system, which requires land compensation for confiscated farmland, China, has made efforts to protect prime farmland conversion and crop production loss (Li et al., 2015; Zhong et al., 2018). Yet, in most countries and cities, farmers are not informed or asked to consent to the urban land change plan and process, causing unexpected loss of their key asset: land (Chen et al., 2018; Mabe et al., 2019). Taking Ethiopia as an example, land-use change is becoming a source of conflict in many African countries due to a lack of a transparent land information system and the absence of active participation of farmers in land-use management (Ariti et al., 2018; Baye et al., 2020; Kleemann et al., 2017). This goes hand in hand with the minimal role of farmers and other urban actors, such as local experts, in the formal land-use change process, causing ever-growing informal land use transfers (Jianhua et al., 2017; McMichael, 2016).

Farmers have put up resistance to the government for a number of reasons, including a lack of market opportunity, political representation, input affordability, and accessibility because it is believed that the government at various levels has a crucial responsibility (Admasu et al., 2019; Hui et al., 2013; S. Wang et al., 2021). For example, in Ethiopia, Dersseh et al. (2016) found that farmers complained about having difficulty obtaining farm inputs such as inorganic fertilizer due to the shortage and high prices. Perhaps most crucially, there are economic reasons underlying the resistance to urban expansion, broadly related to land compensation and the valuation techniques used to calculate it (Liping et al., 2017). This is because compensation is tied to farmers' livelihood, including acquiring food and getting a job in the cities after expropriation. Previous studies have also found social exclusion in cities might drive farmers to refuse to give away their land for other purposes, such as settlement expansion (Hui et al., 2013). Additionally, in countries like Ethiopia, where agriculture is land-intensive and cities are expanding to urban peripheries in an unplanned manner, excluding farmers from land-use decision-making worsens farmers' resistance in the present and future urban development process. In reality, the government dominates the formal land transfer and expansion, while land brokers, both legal and illegal agents, set out informal ways of dealing with this. Farmers often feel unsatisfied by their negligible, either formal or informal, role in the urban expansion process. As a result, increased farmers' resistance is related to land-use conversions and, most likely, livelihood shifts, including a decline in farm income and a rise in expenditure for food items (Abo-El-Wafa et al., 2018; Alem, 2021; Fitawok et al., 2022; Wayessa, 2019).

Many previous studies have focused on measuring land-use conversions (Fitawok et al., 2020; Petrov & Sugumaran, 2005), assessing land valuation techniques (Admasu et al., 2019), or identifying the roles of various stakeholders in the urban land-use change process (Nuhu, 2019). To the best of our knowledge, only a few studies have focused on farmers' perspectives on land use planning processes (Kalabamu, 2019; Pue et al., 2021; Šūmane et al., 2018), but without explicit consideration of exactly why they resist urban expansion. Against this backdrop, by incorporating the perspectives of farmers, experts, and local officials, this study explores the causes and outcomes of farmers' resistance to urban expansion by zooming in on the case of Bahir Dar, one of the most rapidly growing cities in Ethiopia. Thus it complements the work of others (Fitawok et al., 2022; Kusiluka et al., 2011; Qian, 2019) who found notable differences in farmers' livelihood in relation to local urbanization. Our research findings and the ensuing policy implications are essential for arriving at a better understanding of challenges in governing the urban development of rapidly growing cities like Bahir Dar. In our research, we sought answers to the following set of questions:

(1) What are the primary causes of farmers' resistance to land-use change?
(2) What are the local agricultural extension experts' perspectives on the farmers' resistance?
(3) What is the government's response to the resistance?

The remainder of this paper is organized as follows. The second section specifies the research scope, data, and methodology. In the third section, we present the main findings identified from the group discussions and the key informant interviews. The fourth section discusses the policy implication of our research findings. Finally, in the fifth section, we summarize our findings and discuss possible avenues for further research.

2. Materials and methods

Study area description

The agricultural sector in Ethiopia constitutes more than 90% of the total export earnings in the economy – coffee, cut flowers, oil seeds, and minerals such as Gold are the main export items (Debela et al., 2020). In the past two decades, the country has experienced rapid economic growth by implementing consecutive sectoral transformation programs, such as agricultural development leading to industrialization (ADLI) and growth transformation plans (GTP) (Tenaw, 2021). ADLI began in 1993 to realize the country's industrialization process by enhancing agricultural productivity and encouraging the industrial sector through giving incentives such as providing free investment land for manufacturers and investors in the prioritized agro-processing economic sector (Debela et al., 2020). Following ADLI, the government implemented the GTP in two phases (I in 2010–2015 and II in 2015–2020) to achieve sectoral transformations in the economy (GTPII, 2015; Wayessa, 2020). In these policies, whether directly or indirectly, the government has supported urban development, including by establishing industrial zones that created more employment opportunities in major cities, including Bahir Dar.

Bahir Dar is one of the largest and most rapidly growing cities in Ethiopia. Located in the northwestern part of Ethiopia, based on the central statistics agency (CSA) projection, the city was home to 180'000 inhabitants in the 2007 census and currently for more than 400'000 people, implying a rapid population growth. The city is the administrative center for the Amhara national regional state (ANRS) and is one of the country's major historical and economic hubs. For example, Lake Tana, the Blue Nile River, the Blue Nile Falls, the Tana monasteries, and Bezawit Hill are among the city's historical, religious, tourist attractions and scenic beauty spots. This, in turn, attracts investors and individuals from various parts of the country to participate in the city's development (Admasu et al., 2019). As a result, the city's spatial coverage has been expanding, primarily in the form of residential settlements and industries such as the government-funded industry zone in the southwest and northeast. Except for the WerebKol Kebele[1] (local village) in the east, the city's other three neighboring Kebeles: Zenzelima in the northeast, Weramit in the west, and Addis Alem in the south, have faced massive land-use changes, mainly from farmland to the built environment (Fitawok et al., 2020) (Figure 1). Although there has been deforestation for cultivation in the WerebKol, the area has been less hard-hit than other Kebeles due to the steep slopes.

Following the city's unprecedented growth and the associated land-use changes, farmers in the neighboring villages of Bahir Dar have experienced substantial livelihood changes. Previous studies have identified the multifaceted social, economic, and political challenges that farmers face due to land expropriation programs and unanticipated urban expansion (Adam, 2014; Kindu et al., 2020). Given the dominance of smallholder farming in the area, implying the use of small and fragmented plots of land to produce farm products, land-use change considerably influences the farmers' livelihood. As a result, farmers respond in a variety of ways to land-use change programs, sometimes including disputes with the government (Alem, 2021; Nikuze et al., 2020). Often farmers' resistance ranges from denial and appeals at an individual level to mass demonstrations against the program.

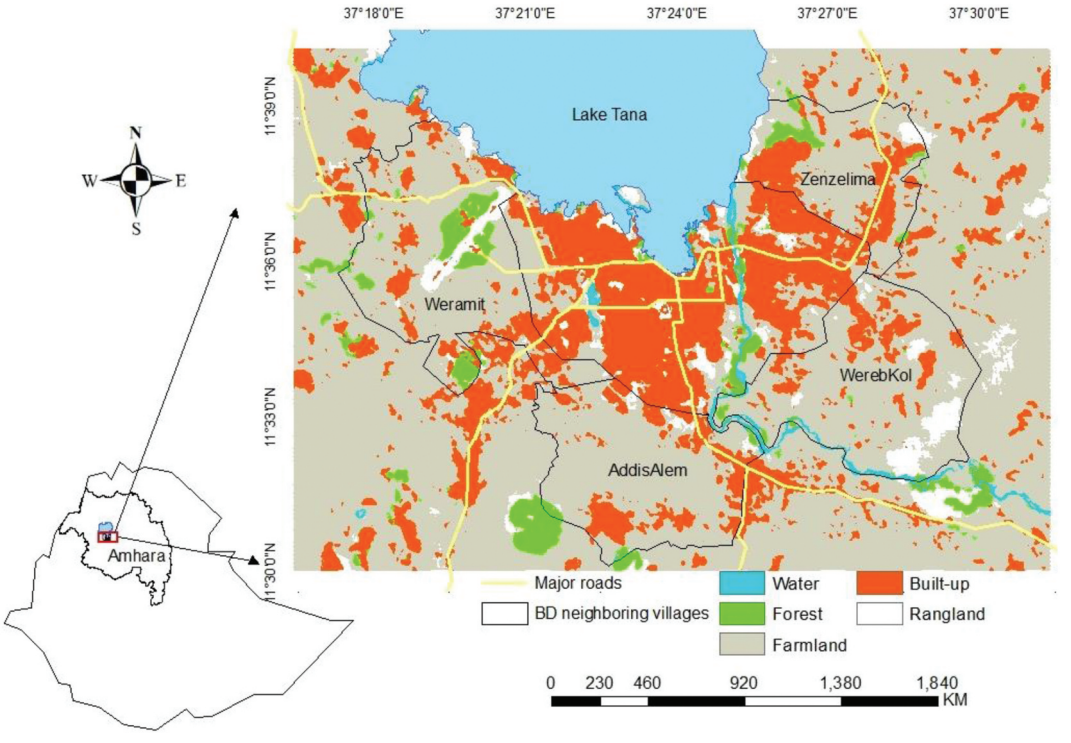

Figure 1. Bahir Dar city and the study area. Source: Environmental systems research institute (ESRI) 2020 Land Cover, Inc.

Land expropriation and compensation

Land expropriation refers to land use and ownership transfer from one economic actor to another. In Ethiopia, the national land expropriation proclamation states that landholders, whether individuals, private organizations, or government units, should be compensated in cash, kind, or combination at the moment of expropriation (FDRE Proclamation, 2005). Expropriation could arise when the city administration or the applicable government authority decides to use the land for other development and public purposes and pays the landholders compensation in advance. The proclamation further states that the city administration will form a committee to determine the amount of compensation. According to the proclamation, the government authority has to clearly notify the landowner in a written letter indicating when the land has to be vacated and the amount of compensation to be paid at least three months before the expropriation. The amount of compensation for permanent land expropriation should be equivalent to ten times the average annual income the landholder secured during the five years preceding the expropriation of the land. The landowner may appeal to a land value committee and then to the ordinary court system if there is a disagreement over the amount of compensation (Holden & Bezu, 2016; World Bank, 2015).

Data collection and analysis

We opted for a qualitative research design as this allows a better grasping of various participants' perceptions on land expropriation programs from diverse viewpoints. Thus, focus group discussions and key informant interviews were used to incorporate a broad range of societal perspectives. Focus group discussion is a technique involving semi-structured group interviews or discussions of participants who share some characteristics (Carson et al., 2011; Friedman et al., 2014; Rabiee, 2004). A purposive selection approach was applied to finding each participant using predefined

criteria (Gwan & Ndzifon Kimengsi, 2020; Rabiee, 2004). In applying the group discussion and interviews, choosing a convenient time and place for the participants to conduct the discussion is key (Che et al., 2020; Vanhonacker et al., 2010).

Drawing on Carson et al. (2011), in each of the three group discussions, we gathered eight to fifteen volunteer land-expropriated farmers from Zenzelima, Weramit, and Addis Alem Kebeles (see Figure 1). As a result, we used agricultural development agents (DAs), subject matter experts in the area, to help us purposefully select 32 land-expropriated farmers who had lost their land due to the expropriation programs (Gwan & Ndzifon Kimengsi, 2020). Most of these farmers lost their land in the expropriation programs over the past twenty years, particularly in 2006 and 2011, for residential and investment purposes. Farmers selected in this study owned an average of 2.32 hectares of farmland, which was mostly used to grow crops like maize, teff, and chat. Indeed, before data collection, based on previous studies showing land-use conflict in the urbanization process, we identified recurring sub-topics and used this as input for the group discussions and interview questions (Harper & Makatouni, 2002; Rabiee, 2004; Xuecao et al., 2021). These recurring sub-topics are the compensation system, land valuation techniques, basic infrastructure accessibility, and good governance. Group discussions were conducted in January 2021 and consisted of open-ended and a few probe questions. These questions emphasize gathering farmers' perspectives on the ongoing urban land-use change, response to urban land-use change (ULUC), compensation scale and packages, government responses, participants in the resistance, and future expectations. After the farmers' discussion, a separate group discussion was held with agricultural development agents from the three kebeles and the city administration-one from each kebele and three from the city administration. In this discussion, we grasp their insights on land-related concerns mentioned in farmer focus groups. In addition to farmers' concerns, local experts were also asked about their opinions on the justifiability of these concerns, that is, whether they agreed or not with farmers' claims. Following participants' consent, we tape-recorded the session, which was later transcribed and coded. In addition, we also took notes to support the development of categories and themes in which the opinions of various participants on that specific topic are presented (Carson et al., 2011; Gwan & Ndzifon Kimengsi, 2020; Rabiee, 2004). On average, group discussions took nearly one hour.

We conducted interviews in February 2021 to grasp the perspective of appointed local government officials who work in the land-related divisions of the city administration and local villages about the main concerns raised in farmers' group discussions. First, we contacted them by telephone to get their permission and interview. After successive calls and reminders, we successfully interviewed four volunteer government officials at the city level. Key informants were selected using a snowball approach (Gwan & Ndzifon Kimengsi, 2020). In the interviews, in addition to group discussion questions, we added probes, including what has been done and what needs to be done to ensure accommodative urban development in neighboring areas. The interviews lasted an average of 45 minutes and were conducted in Amharic, as were the focus groups, before being transcribed and coded. We then used the NVivo 12 package to summarize the data. Accordingly, at the outset, related ideas were categorized into a theme represented as 'node' in NVivo. Then, the pattern of ideas and themes is represented by the tree of nodes based on the earlier literature (Che et al., 2020; Harper & Makatouni, 2002). This node tree was created to summarize actors' perspectives on the causes of farmers' resistance to the land-use change process. In analyzing the data, we anonymized names and presented the perspectives of farmers, local experts, and government officials by quoting from their responses (Carson et al., 2011; Rabiee, 2004).

3. Results

In response to whether urban development benefits neighboring villages or not, all respondents appear to agree on the potential of both benefits, mainly emphasizing the improved accessibility of services such as health facilities and drawbacks, listing the growing unemployment. Over the past few years, farmers in neighboring villages of Bahir Dar have resisted the implementation of several

land expropriation programs and appealing for their reform. In the next subsections, we present recurring responses on the causes, participants in the resistance, and outcomes of farmers' resistance from the perspectives of farmers, experts, and government officials.

3.1. Causes of farmers' resistance

In response to the probe question asking the underpinning causes of farmers' resistance, many discussants in the group gave a variety range of responses by mentioning individual cases in their area. During the group discussions, three primary reasons were identified as recurring answers: a flawed compensation system, a lack of good land governance, such as corruption in land-related issues, and inaccessible infrastructures.

3.1.1. Land compensation

The majority of farmers said they felt subjugated by the local government officials and land developers because of the lower compensation during the expropriation program. For example, farmers in Addis Alem repeatedly expressed their dissatisfaction due to inadequate monetary compensation and the absence of replacement land as compensation. Also, farmers in Weramit have mentioned similar challenges during the airport expansion in their area. Even in recent years, real estate and other investment expansions in Weramit have resulted in increased farmers' dissatisfaction, given the problems with the compensation system.

> *"I am only left with my homestead because all my farmland has vanished. Sadly, the land compensation could not even be for a bonus, let alone restoring our livelihoods and going about our daily lives." (a farmer)*

> *"It has now been more than ten years for me in a continued resistance but without appropriate compensation." (a farmer)*

Local experts agree on many of the concerns of farmers' resistance, adding that farmers were not consulted about the land requisition plan and were forced to accept compensation for their land. Bringing these concerns together, we found two main reasons that lead farmers to resist. First, farmers believe that they have not received adequate money for their confiscated land. Second, they are unhappy because the compensation scheme lacks other critical components, such as replacement land and the incorporation of their children.

Inadequate monetary compensation. The majority of discussants in the experts' discussion share the farmers' perceptions of the arbitrary land valuation process and the failure of the compensation calculation, adding that local government officials inconsistently determine or heavily influence compensation estimation. Experts also mentioned compensation money to the farmers is insufficient to the point where the farmers who received the money could not cover their routine expenditures for a year. One farmer told us about his experience with land valuation:

> *"Land valuation was led by the will of the officer who arbitrarily decided the amount of compensation to my farmland by saying 15'000 birr[2] is enough while I recently received 45'000 birr after he was arrested due to corruption, and I appealed." (a farmer)*

> *"The existing ten-year compensation scale, which multiplies the average price of an agricultural product produced in the area by ten times the harvesting year, is outdated and rigid because it does not incorporate the land features and price changes in commodities." (local expert)*

On the other hand, despite their different reasoning, local authorities agree that there is a gap between farmers' expectations and the actual level of compensation. They also believe that the current land compensation scale must be modified. However, as the quote below shows, key informants (KI) stated that this problem results from the national land valuation proclamation. Regarding the 10-year scale of land valuation, one key informant mentioned that the federal government is modifying it to a 15-years compensation scale.

"Land proclamations, including the expropriation, are made by the federal council of ministers, even if regional administrations have the right to establish administrative procedures. We do not have the authority to change the compensation at the city level." (KI3)

"I am sad that the inflation burden on farmers is not adequately assessed and resolved, but I have to obey the land expropriation proclamation and serve the government." (KI1)

Inflexible compensation scheme. Farmers stated that the current compensation scheme, which only offers replacement land to landowners whose homesteads are taken away, is a cause to oppose the land-use change. In their discussions, both farmers and experts mentioned two principal compensation scheme-related concerns. As has been raised in all focused group discussions, the first is the farmers' growing need for replacement land rather than compensation money. For example, farmers in Weramit have stated that receiving a specific amount of compensation money is worthless compared to getting compensation land as the land prices are rising. This seems convincing to experts and key informants:

"As compensation money is insufficient for various reasons, I believe there should be alternatives so farmers can choose between a land replacement, job opportunity, and monetary compensation." (KI2)

The second concern raised by farmers is the failure of a compensation scheme to consider farmers' children during expropriation. In response to this, local government officials stated that policymakers and higher-level authorities play a pivotal role in adjusting land compensation regulations. Thus, it is a common view amongst participants that the compensation scheme has to embrace various issues, including incorporating a broader range of items with higher market prices, in-kind compensation rather than a purely monetary-dominated format, and inclusion of children.

3.1.2. Lack of good land governance

Concerning the causes of farmers' resistance, we also identified a lack of transparency, accountability, and inconsistency problems in the land valuation process, manifesting a lack of good land governance. The farmers and local experts in the area affirmed these problems are common at the lowest hierarchical levels of local village and city administration. A discussant in Weramit expressed his concern about land transfer in their area.

"An investor obtained multiple plots in various sections of the city without any actual development, but the land remained vacant for years." (a farmer)

Most of the discussants stated their disappointment with the corruption in receiving the land registration certificate, which is supposed to be free of charge to all landowners. In all discussion sessions, farmers and experts mentioned several individual corruption cases, such as getting priority for land registration certificates and grabbing large parcels of land while others are vying for a few. Experts stressed the malfunctioning of land-related department officials and surveyors in land registration certificates, land transfers to investors, land valuation, and compensation calculations.

"I can see that the land valuation process in the city is also very subjective and open to bias by the officials, which are supposed to be determined by committees." (local expert)

Additionally, farmers and experts agreed on the prevalence of delays in the land valuation and resolving land-related issues, causing many years-long backlogs of complaints. The responses during key informant interviews also supported this idea and forced them to lose trust in the administration.

"There may be cases and individuals everywhere who are not lawfully performing their duties." (KI4)

"Although there are political reasons, our division and the city administration are accountable for not resolving the backlog of farmers' cases." (KI2)

3.1.3. Inaccessible infrastructures

Farmers mentioned that government officials at various ranks recognized these needs for a long time, and even some promised to provide them, albeit with weak implementation. Given this, discussants are bitterly disappointed, for example, with access to drinking water in Weramit and Zenzelima, and road and electricity in Addis Alem. The majority of farmers said that although they have paid the required money to access such utilities, government officials who frequently change administration positions are not supporting them. This lack of basic infrastructure has exacerbated farmers' resistance to urban expansion and land expropriation programs. According to experts' reflections in the discussion, farmers' sparse settlement and the city administration's lack of commitment and budget led to infrastructure inaccessibility. Local government officials appear to have fully agreed on the dire infrastructure accessibility. Figure 2 shows the main categories of the causes of farmer resistance and government official responses.

3.2. Participants in farmers' resistance and outcomes

In terms of who has been involved in the resistance, we found that farmers are the dominant, if not the only, actor. Sadly, farmers have little say in how land use decisions are formally made. As a result, government reactions to farmer-led complaints and subsequent settlement of their issues frequently fall short. As a result, despite a few individual success stories raised in their discussion, the vast majority of complaints have been ineffective in offering solutions to the farmers. Most of the discussants realized that their individual and collective claims have failed to engage various city stakeholders to find long-term solutions to their land-use concerns. Farmers in Zenzelima, for

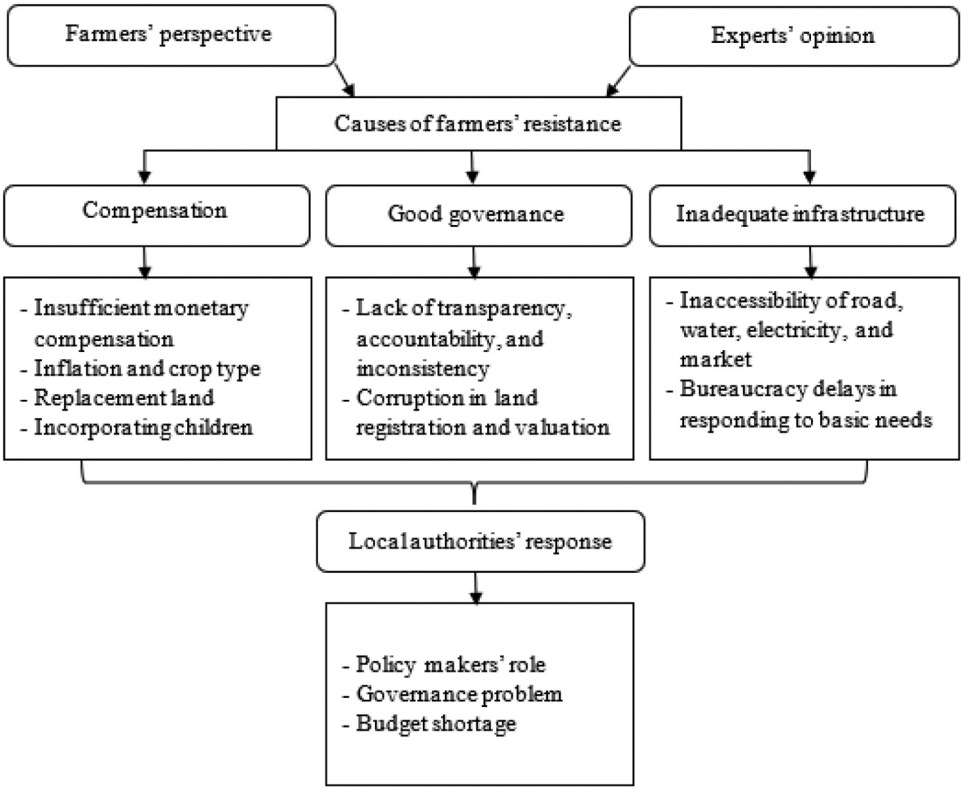

Figure 2. Perspectives on farmers' resistance.

example, have recently hired an attorney for their lawsuit, despite it also becoming futile and inoperable due to malpractices in the legal system, such as accepting bribes to lose a case in the court system. Consequently, some farmers have openly stated that they have given up on the judicial system to resolve their claims and have chosen self-defendant, which includes refusing to cede land. This also pertains to their opinion that the government is profiting from the leasing system following the takeover, which often far outweighs their compensation.

Discussions of experts showed that they became despondent in assisting farmers during their conflict with government authorities due to the government's lack of dedication and responsibility. They explained farmers' attempts to maximize their land compensation through various methods, including deliberately building houses for their children and relatives and cultivating perennial crops before the expropriation program in their area. Local experts supported the claim of farmers in Addis Alem by raising the case of the government's hesitance to listen to their voices about the need for a rehabilitation program. They also figured out that government officials at the lower levels often make elusive promises to persuade farmers for their short-term political gains.

We learned from the government officials' interviews that they were well aware of these issues. As in the case of many societal problems, they scapegoated farmers' questions on other former employees rather than committing to their best level. Key informants of government officials also believe that sharing experiences from other cities is necessary to solve problems and ensure sustainable urban development.

3.3. *Future urban land-use changes*

One recurring idea among many discussants regarding future urban expansion in the area was that the urbanization process would be unlikely to be easy and welcomed by the farmers unless actors, mainly the government, took immediate corrective measures. Farmers have mentioned in their conversations that they expect land compensation improvements, including replacement land and their children in the compensation system. At the same time, according to experts, farmers exert efforts to convert their cereal crop production into high-value permanent cash crops (i.e. crops that can be harvested multiple times (years) without replantation), such as mango, chat, and coffee, expecting better compensation levels. Farmers are also increasingly refusing to participate in various projects, regardless of their type or purpose. In light of this, experts believe that achieving farmers' growing and high expectations from the government is unlikely to be fulfilled in the short run. In support of the experts' reflection, the local authorities urged that the land compensation scheme needs to be readjusted, and they expect adjustment from the national policymakers and politicians.

4. Discussion and policy implications

Despite the fact that many rapidly growing cities experience land-use conflict during urban expansion, little is known in the literature about the causes of farmers' resistance from various perspectives, i.e. farmers, experts, and government officials (Adam, 2014; Alem, 2021; Gwan & Ndzifon Kimengsi, 2020). The results show that inadequate compensation is one of the main reasons for farmers' resistance to land use change. Indeed, numerous earlier studies have found that landowners, particularly farmers, were dissatisfied with inadequate compensation during land-use changes (Dires et al., 2021; Huang et al., 2017). According to Huang et al. (2017), land lost farmers received lower compensation levels in China, making them vulnerable to livelihood instability. In aligning with previous studies, primarily farmers and experts agreed that monetary compensation has been inadequate given price hikes in other products, including consumer items (Hui et al., 2013; Nguyen et al., 2019). Key informants also affirmed the inadequate monetary compensation despite claiming it was not their legal power to adjust it. On the other hand, most of the discussants mentioned that the compensation scheme should also be adjusted to include land replacement and farmers' children in the system. Because of this, farmers' participation in land-related decision-making is of the utmost

importance to understand their concerns and resolve the potential upcoming land use conflict (Sreeja et al., 2017; Wubie et al., 2021). Cao and Zhang (2018) found that besides the level of compensation, participation in the land acquisition process is critical to the farmers' level of satisfaction. Meanwhile, Dires et al. (2021) found that most farmers in Ethiopia have been victims of the compensation system during land acquisition since they were not participating in the decision-making of land valuation.

Therefore, policymakers at the national and regional levels should practice a bottom-up approach in land use planning and urban land governance to contextualize the compensation valuation and update the existing realities in the research area. This can be done by empowering the lower-level government offices and enabling farmers to participate actively in the decision-making process of urban land-use change.

Another important finding was that the lack of good land governance in urban expansion and land-use change management had aggravated farmers' resistance. This result supports the findings of Wubie et al. (2021), which indicated that land-related offices at various levels have also experienced a dearth of land-related database management, resulting in corruption and malfunctioning in the sector. Previous studies, especially in Sub-Saharan Africa, have found that farmers have become dissatisfied and lost trust in the government system as a result of widespread corruption in land-related issues (Ariti et al., 2018; Nuhu, 2019; Wubneh, 2018). Given that corruption was exhibited in various forms in the study area, local government officials admitted that the government must build a transparent and responsive land governance structure, especially in the city administration. One of the solutions could be reestablishing an influential ombudsman office dedicated to facilitating and resolving land-related legal issues from the farmers. Indeed, making the land valuation process in a committee-led approach, which could embrace the active role of the local community and experts rather than an official-led one, will be critical to improving transparency and consistency. In relation to this, informal institutions such as *Idir* and *Iqub* played a key role in expanding the built environment and land use conflict management (Adam, 2014). Idir is an informal organization that primarily serves social functions for its members, such as weddings and funerals. Iqub, on the other hand, principally serves to assist its members financially.

In addition, this study uncovered the growing pressure of unmet infrastructure needs in the study area, another catalytic cause of farmers' resistance. This corroborates the earlier findings showing the burden of uncontrolled and rapid urbanization in Ethiopia (Mohamed et al., 2020). In light of this, prioritizing the infrastructural supply, and empowering communities and civil society through easing bureaucracy, would support resolving the accumulated farmers' complaints. In overall, without tackling a lack of accountability, disintegrated governance, and a backlog of complaints, future urban development in the area and beyond appears to be difficult (Ruoso & Plant, 2018; Spataru et al., 2020; Zhang et al., 2021).

Based on the findings in this study, government officials have been making impractical promises and deceiving the people due to a lack of clear regulations, accountability, and active citizen participation. Subsequently, the city's neighboring communities, mainly previously expropriated farmers, resist in many forms that would contain the further expansion of the built environment to the fringes, implying the likelihood of accelerated densification in the city. This, in turn, will put more strain on the already-scarce infrastructure in rapidly expanding cities, possibly causing congestion. As a result of these findings, further research is required to assess the proper urban planning approach and urban development frameworks, aiming for planned urban expansion in the area and similar fast-growing cities. Yet, because this study did not include the perspective of national policymakers on the raised farmers' concerns in its analysis, future studies should fill this vacuum by incorporating as many actors as possible and comparing the situation in different cities. This would make it easier to understand how different cities and regions have managed urban expansion and how the land expropriation program as a whole has performed. It is also recommended to incorporate reflections from land developers on farmers' concerns, such as land inefficiencies.

5. Conclusions

Due to uncontrolled urbanization in many low-income countries, such as Ethiopia, farmers are experiencing the loss of their main farmlands and changes in livelihood. This goes hand in hand with the rising mismatch between farmers' compensation expectations and the government's offer, which has resulted in a loss of confidence. In light of this, there has been little research about the actors' perspectives on the farmers' responses, particularly their resistance, to the land-use changes in rapidly growing cities. Against this backdrop, this research aimed to contribute to a clearer understanding of the causes and outcomes of farmers' resistance and the future of urban land use change by zooming in on the case of Bahir Dar, Ethiopia. To this end, we gathered data from farmers, local agricultural experts, and government officials using focused group discussions and key informant interviews.

This research found an increasing tendency towards land expropriated farmers' resistance in a variety of forms, ranging from appealing cases in legal systems to direct confrontation with government agencies not to give away land. By raising individual experiences in their discussions, both farmers and local experts have identified the major reasons for the resistance in the area. Accordingly, primarily farmers and local experts have been asking for the revision of land valuation and compensation packages, eradication of corruption in the land-related sector, and accessibility of infrastructures. Given the differences with farmers on the degree and way forward, local government authorities in the interviews agreed that these issues are present in the urban governance of the area. However, local government authorities relate these challenges to the absence of power to adjust the compensation system, malfunctioning at an individual level, and budget shortages, respectively. Regarding the outcomes of resistance, this study has found that generally, farmers believed their questioning had not been much effective, claiming its continuation regardless of the current minimal outcomes at the individual or group level. In fact, farmers agreed that they did not act in a systematic and well-organized way. Experts, on the other way, insisted on remedies to the growing pattern of resistance, showing possible worsening challenges for future urban development. One of the significant findings to emerge from this study is that the need for a cooperative urban governance approach that entangles social institutions' active participation and empowers farmers' involvement in the land-related decision-making process of the city is critical.

The findings of the present study have a number of important implications for future research and practices. For example, future research can focus on assessing the effectiveness of urban plans in the area and other similar cities. This will help make feasible compensation packages and a participatory land valuation system and envisage a contextual and transparent land governance system in the area and beyond.

Notes

1. Kebele is the local village and the smallest administrative unit in Ethiopia.
2. Birr is the national currency for Ethiopia that exchange 1USD = 50.94 birr on 25/02/2022.

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References

Abo-El-Wafa, H., Yeshitela, K., & Pauleit, S. (2018). The use of urban spatial scenario design model as a strategic planning tool for addis ababa. *Landscape and Urban Planning*, *180*(August), 308–318. https://doi.org/10.1016/j.landurbplan.2017.08.004

Adam, A.G. (2014). Informal settlements in the peri-urban areas of Bahir Dar, Ethiopia: An institutional analysis. *Habitat International*, *43*, 90–97. https://doi.org/10.1016/j.habitatint.2014.01.014

Admasu, W.F., Van Passel, S., Sewnet Minale, A., Adgo Tsegaye, E., Azadi, H., & Nyssen, J. (2019). Take out the farmer: An economic assessment of land expropriation for urban expansion in Bahir Dar, Northwest Ethiopia. *Land Use Policy*, *87*(June), 104038. https://doi.org/10.1016/j.landusepol.2019.104038

Alem, G. (2021). Urban plans and conflicting interests in sustainable cross-boundary land governance, the case of national urban and regional plans in Ethiopia. *Sustainability (Switzerland)*, *13*(6), 3081. https://doi.org/10.3390/su13063081

Ariti, A.T., van Vliet, J., & Verburg, P.H. (2018). Farmers' participation in the development of land use policies for the central rift valley of Ethiopia. *Land Use Policy*, *71*(April 2017), 129–137. https://doi.org/10.1016/j.landusepol.2017.11.051

Baye, F., Wegayehu, F., & Mulugeta, S. (2020). Drivers of informal settlements at the peri-urban areas of Woldia: Assessment on the demographic and socio-economic trigger factors. *Land Use Policy*, *95*(February), 104573. https://doi.org/10.1016/j.landusepol.2020.104573

Cao, Y., & Zhang, X. (2018). Are they satisfied with land taking? Aspects on procedural fairness, monetary compensation and behavioral simulation in China's land expropriation story. *Land Use Policy*, *74*(July 2017), 166–178. https://doi.org/10.1016/j.landusepol.2017.08.027

Carson, D., Gilmore, A., Perry, C., & Gronhaug, K. (2011). Focus group interviewing. *Qualitative Marketing Research*, (October), 113–131. https://doi.org/10.4135/9781849209625.n8

Che, F.N., David Strang, K., & Rao Vajjhala, N. (2020). Voice of farmers in the agriculture crisis in North-East Nigeria: Focus group insights from extension workers. *International Journal of Development Issues*, *19*(1), 43–61. https://doi.org/10.1108/IJDI-08-2019-0136

Chen, L., Wang, M., & Song, Y. (2018). Vulnerability and livelihood restoration of landless households after land acquisition: Evidence from Peri-Urban China. *Habitat International*, *79*, 109–115. https://doi.org/10.1016/j.habitatint.2018.08.003

Debela, D.D., Stellmacher, T., Azadi, H., Kelboro, G., Lebailly, P., & Ghorbani, M. (2020). The impact of industrial investments on land use and smallholder farmers' livelihoods in Ethiopia. *Land Use Policy*, *99*(December), 105091. https://doi.org/10.1016/j.landusepol.2020.105091

Dersseh, W.M., Tadesse Gebresilase, Y., Schulte, R.P.O., & Struik, P.C. (2016). The analysis of potato farming systems in Chencha, Ethiopia: Input, output and constraints. *American Journal of Potato Research*, *93*(5), 436–447. https://doi.org/10.1007/s12230-016-9521-9

Dires, T., Fentie, D., Hunie, Y., Nega, W., Tenaw, M., Kassaw Agegnehu, S., & Mansberger, R. (2021). Assessing the Impacts of expropriation and compensation on livelihood of farmers: The case of peri-urban Debre Markos, Ethiopia. *Land*, *10*(6), 614. https://doi.org/10.3390/land10060614

FDRE-GTPII. (2015). Federal democratic republic of Ethiopia volume I: Main text: Growth and transformation plan II (GTP II) (2015/16-2019/20) Volume. *I(Gtp II)*.

FDRE Proclamation, Land expropriation. (2005). *FDRE land expropriation proclamation*. House of People Representatives.

Fitawok, M.B., Derudder, B., Sewnet Minale, A., Van Passel, S., Adgo, E., & Nyssen, J. (2020). Modeling the impact of urbanization on land-use change in Bahir Dar City, Ethiopia: An integrated cellular automata-Markov chain approach. *Land*, *9*(4), 115. https://doi.org/10.3390/land9040115

Fitawok, M.B., Derudder, B., Sewnet Minale, A., Van Passel, S., Adgo, E., & Nyssen, J. (2022). Analyzing the impact of land expropriation program on farmers' livelihood in urban fringes of Bahir Dar, Ethiopia. *Habitat International*, *129*, 102674. https://doi.org/10.1016/J.HABITATINT.2022.102674

Friedman, A.L., Oruko, K.O., Habel, M.A., Ford, J., Kinsey, J., Odhiambo, F., Phillips-Howard, P.A., Wang, S.A., Collins, T., Laserson, K.F., & Dunne, E.F. (2014). Preparing for human papillomavirus vaccine introduction in Kenya: Implications from focus-group and interview discussions with caregivers and opinion leaders in Western Kenya. *BMC Public Health*, *14*(1), 1–10. https://doi.org/10.1186/1471-2458-14-855

Gwan, A.S., & Ndzifon Kimengsi, J. (2020). Urban expansion and the dynamics of farmers' livelihoods: Evidence from Bamenda, Cameroon. *Sustainability (Switzerland)*, *12*(14), 1–19. https://doi.org/10.3390/su12145788

Harper, G.C., & Makatouni, A. (2002). Consumer perception of organic food production and farm animal welfare. *British Food Journal*, *104*(3), 287–299. https://doi.org/10.1108/00070700210425723

Holden, S.T., & Bezu, S. (2016). Preferences for land sales legalization and land values in Ethiopia. *Land Use Policy*, *52*, 410–421. https://doi.org/10.1016/j.landusepol.2016.01.002

Huang, X., Huang, X., Yanbing, H., & Yang, X. (2017). Assessment of livelihood vulnerability of land-lost farmers in urban fringes: A case study of Xi'an, China. *Habitat International*, *59*(1), 1–9. https://doi.org/10.1016/j.habitatint.2016.11.001

Hui, E.C.M., Jun Bao, H., & Ling Zhang, X. (2013). The policy and praxis of compensation for land expropriations in China: An appraisal from the perspective of social exclusion. *Land Use Policy*, *32*, 309–316. https://doi.org/10.1016/j.landusepol.2012.11.004

Jianhua, H., Huang, J., & Chun, L. (2017). The evaluation for the impact of land use change on habitat quality: A joint contribution of cellular automata scenario simulation and habitat quality assessment model. *Ecological Modelling*, *366*, 58–67. https://doi.org/10.1016/j.ecolmodel.2017.10.001

Kalabamu, F.T. (2019). Land tenure reforms and persistence of land conflicts in sub-saharan Africa – the case of Botswana. *Land Use Policy*, *81*(November 2018), 337–345. https://doi.org/10.1016/j.landusepol.2018.11.002

Kindu, M., Angelova, D., Schneider, T., Döllerer, M., Teketay, D., & Knoke, T. (2020). Monitoring of urban growth patterns in rapidly growing Bahir Dar City of Northwest Ethiopia with 30 year Landsat imagery record. *ISPRS International Journal of Geo-Information*, *9*(9), 1–19. https://doi.org/10.3390/ijgi9090548

Kleemann, J., Nana Inkoom, J., Thiel, M., Shankar, S., Lautenbach, S., & Fürst, C. (2017). Peri-urban land use pattern and its relation to land use planning in Ghana, West Africa. *Landscape and Urban Planning*, *165*, 280–294. https://doi.org/10.1016/j.landurbplan.2017.02.004

Kusiluka, M.M., Kongela, S., Ayoub Kusiluka, M., Karimuribo, E.D., & Kusiluka, L.J.M. (2011). The negative impact of land acquisition on indigenous communities' livelihood and environment in Tanzania. *Habitat International*, *35*(1), 66–73. https://doi.org/10.1016/j.habitatint.2010.03.001

Liping, S., Yu, A.T.W., & Yuzhe, W. (2017). Strategies for risk management in urban–rural conflict: Two case studies of land acquisition in urbanising China. *Habitat International*, *59*, 90–100. https://doi.org/10.1016/j.habitatint.2016.11.009

Li, Y., Yurui, L., Westlund, H., & Liu, Y. (2015). Urban–rural transformation in relation to cultivated land conversion in China: Implications for optimizing land use and balanced regional development. *Land Use Policy*, *47*, 218–224. https://doi.org/10.1016/j.landusepol.2015.04.011

Mabe, F.N., Nashiru, S., Mummuni, E., & Boateng, V.F. (2019). The nexus between land acquisition and household livelihoods in the Northern Region of Ghana. *Land Use Policy*, *85*(March), 357–367. https://doi.org/10.1016/j.landusepol.2019.03.043

McMichael, G. (2016). Land conflict and informal settlements in Juba, South Sudan. *Urban Studies*, *53*(13), 2721–2737. https://doi.org/10.1177/0042098015612960

Mohamed, A., Worku, H., & Lika, T. (2020). Urban and regional planning approaches for sustainable governance: The case of addis ababa and the surrounding area changing landscape. *City and Environment Interactions*, *8*, 100050. https://doi.org/10.1016/j.cacint.2020.100050

Nguyen, T.T., Hegedus, G., & Long Nguyen, T. (2019). Effect of land acquisition and compensation on the livelihoods of people in Quang Ninh District, Quang Binh Province: Labor and income. *Land*, *8*(6), 91. https://doi.org/10.3390/land8060091

Nikuze, A., Sliuzas, R., & Flacke, J. (2020). From closed to claimed spaces for participation: Contestation in urban redevelopment induced-displacements and resettlement in Kigali, Rwanda. *Land*, *9*(7), 1–19. https://doi.org/10.3390/LAND9070212

Nuhu, S. (2019). Peri-urban land governance in developing countries: Understanding the role, interaction and power relation among actors in Tanzania. *Urban Forum*, *30*(1), 1–16. https://doi.org/10.1007/s12132-018-9339-2

Petrov, A.N., & Sugumaran, R. (2005). Monitoring and modeling cropland loss in rapidly growing urban and depopulating rural counties using remotely sensed data and GIS. *Geocarto International*, *20*(4), 45–52. https://doi.org/10.1080/10106040508542363

Pue, D., David, E.K., Mettepenningen, E., & Buysse, J. (2021). A farmers' perspective on farm relocation: Lessons learnt from relocated farmers in Belgium and the Netherlands. *Journal of Environmental Planning and Management*, *64*(8), 1474–1495. https://doi.org/10.1080/09640568.2020.1830043

Qian, Z. (2019). Displaced villagers' adaptation in concentrated resettlement community: A case study of Nanjing, China. *Land Use Policy*, *88*(July), 104097. https://doi.org/10.1016/j.landusepol.2019.104097

Rabiee, F. (2004). Focus-group interview and data analysis. *The Proceedings of the Nutrition Society*, *63*(4), 655–660. https://doi.org/10.1079/pns2004399

Ruoso, L.E., & Plant, R. (2018). A politics of place framework for unravelling peri-urban conflict: An example of peri-urban Sydney, Australia. *Journal of Urban Management*, *7*(2), 57–69. https://doi.org/10.1016/j.jum.2018.05.001

Spataru, A., Faggian, R., & Docking, A. (2020). Principles of multifunctional agriculture for supporting agriculture in metropolitan peri-urban areas: The case of greater Melbourne, Australia. *Journal of Rural Studies*, *74*(October 2019), 34–44. https://doi.org/10.1016/j.jrurstud.2019.11.009

Sreeja, K.G., Madhusoodhanan, C.G., & Eldho, T.I. (2017). Processes of peri-urban resource – livelihood transitions: Glimpses from the periphery of greater Mumbai City, India. *Land Use Policy*, *69*, 49–55. https://doi.org/10.1016/j.landusepol.2017.09.008

Šūmane, S., Kunda, I., Knickel, K., Strauss, A., Tisenkopfs, T., des los Rios, I., Rivera, M., Chebach, T., & Ashkenazy, A. (2018). Local and farmers' knowledge matters! How integrating informal and formal knowledge enhances sustainable and resilient agriculture. *Journal of Rural Studies*, *59*, 232–241. https://doi.org/10.1016/j.jrurstud.2017.01.020

Tenaw, D. (2021). Decomposition and macroeconomic drivers of energy intensity: The case of Ethiopia. *Energy Strategy Reviews*, *35*, 100641. https://doi.org/10.1016/J.ESR.2021.100641

Vanhonacker, F., van Poucke, E., Tuyttens, F., & Verbeke, W. (2010). Citizens' views on farm animal welfare and related information provision: Exploratory insights from Flanders, Belgium. *Journal of Agricultural & Environmental Ethics*, *23*(6), 551–569. https://doi.org/10.1007/s10806-010-9235-9

Wang, S., Bai, X., Zhang, X., Reis, S., Chen, D., Jianming, X., & Baojing, G. (2021). Urbanization can benefit agricultural production with large-scale farming in China. *Nature Food*, *2*(3), 183–191. https://doi.org/10.1038/s43016-021-00228-6

Wang, Y., Wenlong, L., Xiong, J., Ying, L., & Huaqing, W. (2019). Effect of land expropriation on land-lost farmers' health: Empirical evidence from rural China. *International Journal of Environmental Research and Public Health*, *16*(16), 2934. https://doi.org/10.3390/IJERPH16162934

Wayessa, G.O. (2019). 'The master plan is a master killer': Land dispossession and powerful resistance in Oromia, Ethiopia. *Regions and Cohesion*, *9*(2), 31–56. https://doi.org/10.3167/reco.2019.090203

Wayessa, G.O. (2020). Impacts of land leases in Oromia, Ethiopia: Changes in access to livelihood resources for local people. *Land Use Policy*, *97*(April), 104713. https://doi.org/10.1016/j.landusepol.2020.104713

World Bank. (2015). *Ethiopia Urbanization Review: Urban Institutions for a Middle-Income Ethiopia*. Washington, DC.: World Bank. https://openknowledge.worldbank.org/handle/10986/22979

Wubie, A.M., de Vries, W.T., & Kefale Alemie, B. (2021). Synthesizing the dilemmas and prospects for a peri-urban land use management framework: Evidence from Ethiopia. *Land Use Policy*, *100*(September 2020), 105122. https://doi.org/10.1016/j.landusepol.2020.105122

Wubneh, M. (2018). Policies and praxis of land acquisition, use, and development in Ethiopia. *Land Use Policy*, *73*(February 2017), 170–183. https://doi.org/10.1016/j.landusepol.2018.01.017

Xuecao, L., Zhang, J., Zhouyuan, L., Tengyun, H., Qiusheng, W., Yang, J., Huang, J., Wei, S., Zhao, Y., Zhou, Y., Liu, X., Gong, P., & Wang, X. (2021). Critical role of temporal contexts in evaluating urban cellular automata models. *GIScience & Remote Sensing*, *58*(6), 799–811. https://doi.org/10.1080/15481603.2021.1946261

Zhang, X., de Vries, W.T., Guan, L., Yanmei, Y., Zhang, L., Huang, H., & Jiayu, W. (2021). The suitability and sustainability of governance structures in land consolidation under institutional change: A comparative case study. *Journal of Rural Studies*, *87*(August), 276–291. https://doi.org/10.1016/j.jrurstud.2021.09.023

Zhong, T., Qian, Z., Huang, X., Zhao, Y., Zhou, Y., & Zhao, Z. (2018). Impact of the top-down quota-oriented farmland preservation planning on the change of urban land-use intensity in China. *Habitat International*, *77*(November 2017), 71–79. https://doi.org/10.1016/j.habitatint.2017.12.013