Practice and challenge of urban land governance: an empirical study in Tigrai, East Africa

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Abstract

The purpose of the study was to assess the practices and challenges of urban land governance in the Tigrai Region. This study employed a concurrent nested design. Data were collected from 177 officeholders and customers through questionnaires. Besides, interviews were conducted with purposefully selected officeholders. The results of the data analysis were presented using mean, standard deviation, Pearson correlation, and logistic regression to see the relationship between the independent variables and the dependent variable. The major findings showed that the elements of good urban governance (participation, responsiveness, accountability, transparency, equity, and efficiency and effectiveness) are not practiced appropriately. The major challenges in good urban land governance are lack of resources, commitment, human resources, clear rules and regulations, modern service delivery, materials, budget, and rent-seeking behavior. As a result, citizens are not satisfied with the urban land governance system and implementation process. Thus, the government should reconsider strengthening urban land institutions.

Keywords Urban land · Good governance · Challenges · Practices · Tigrai

1 Introduction

1.1 Background

"Governance" has gained excessive usage in contemporary public administration (UNESC, 2006). The concept of governance relates to the quality of the relationship between the government and the citizens whom it serves and protects (Afegbua &

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Adejuwon, 2012). Governance has been around in political and academic discourse for a long time, referring in a generic sense to running a government or any other appropriate entity, for example, a nation (Afegbua & Adejuwon, 2012). However, the shift from the notion of governance to *good* governance implies an additional normative dimension of the quality of governance (Friedle & Silke, 2006). Good governance and its concept emerged because the practices of bad governance, characterized by corruption, unaccountable governments, and a lack of respect for human rights, had become dangerous, and the need to intervene in such cases had become urgent (Tagesse, 2015). The notion of good governance originated from the practice of international donor agencies, particularly by the World Bank, but not in any academic discourse or context (Friedle & Silke, 2006).

Urban land governance is all about decision-making. Whether the decision goes bad or good, favorable or against the beneficiary, it is all about governance. Sound land governance is fundamental to achieving sustainable development and poverty reduction (Enemark et al., 2009). Therefore, good governance in land management is crucial for a well-functioning urban land delivery system (Sungena et al., 2014). However, urban governance practice in Ethiopia has not shown improvement from time to time, and several complications accompany it. Despite reforms and government variance in the country, this problem remains the same. Daily, urban dwellers complain about urban land governance. This problem is becoming more acute with a high population growth rate and a frequent influx of youth immigration into urban areas. As a result, cities in Ethiopia face a severe challenge of land governance (Sungena et al., 2014). Hence, urban land governance needs to be evaluated to identify the strengths and weaknesses of policy formulation, implementation, and outcomes (Alemie et al., 2015). It is also wise to make balanced progress in land governance practices since land is the vital asset of all Ethiopians (Belachew & Aytenfisu, 2010).

Because of political instability in the country, many internally displaced people live in the towns of Tigrai. Despite the regional government's efforts to provide land to the displaced individuals, many still have fake identity cards and claim to be displaced to get land. This issue has become a challenge for the urban land institutions of the region. Thus, investigating the practices and challenges of urban land governance in the urban areas of Tigrai is an unreserved demand.

1.2 Statement of the problem

The Mo Ibrahim Index of African Governance (IIAG) in 2017 provided an annual assessment of the quality of governance in African countries. It categorized Ethiopia as the least practicing good governance. Ethiopia scored 46.5 and was ranked 35th out of the 54 countries. This rank falls below the average African score for overall governance. Its score showed that the country is performing poorly in overall governance. Beyond that, the country suffers from a lack of services in every public sector. Even though complaints about governance issues are often referred to the concerned bodies, the public's voice has been ignored, and the public institutions seem ownerless. This practice is the worst case in urban land administration.

These days, urban land governance has become a severe challenge in Ethiopia (Dube, 2013) because it has become the most exposed area of corruption (Sungena et al., 2014). Ethiopia's source of wealth, conflict, illegal actions, and corruption has been the urban land in recent times. These make urban land governance very complex in the country. Besides these, the political crisis in the country and the out-numbered flow of people to Tigrai from different parts of the country are worsening governance issues. The practical observation of the researcher in various urban areas of the region proved people are grumbling about land issues. Investigating the critical problems and professing potential solutions to this issue calls for sustainable peace and order (Belachew & Aytenfisu, 2010). Thus, this study aims to assess the practices and challenges of urban land governance in Tigrai, Ethiopia.

Different research studies have been done on urban land governance at the national level. However, to the researcher's knowledge, empirical studies in this area are scarce in Tigrai, if not non-existent. For example, a study by Tessema et al. (2016) found that the challenges of urban land governance are low participation in decision-making, lack of transparency, absence of a system, and lack of accountability. The study by Dube (2013) also showed that the archaic land information management system, informal land acquisition, corruption, land speculation, and land-related conflicts are the challenges of urban land governance. Moreover, Alemie et al. (2015) concluded that land governance was weak and surrounded by many weaknesses and threats in Ethiopia. Besides, it is understood that formulating a good land governance policy is a critical challenge for urban development, a pressure that is shared between the federal, regional, and district governments (Dadi et al., 2016). Regardless of these studies and findings in different areas of the country, studies on the Tigrai Region are scanty. The researcher has identified a study conducted by Belay Abraha Teklay in 2018. However, this study was limited in its geographic and content scope.

On the one hand, it was limited to only one town. On the other hand, it only assessed the transparency part of the six urban governance elements. As a result, this study was limited in scope and content, and it failed to conclude urban land governance in the Tigrai Region. Moreover, one can argue that a handful of studies on urban land governance in Tigrai and Ethiopia lack a sound theoretical basis. Thus, this study seeks to fill the gap inherent in the earlier studies by assessing the practices and challenges of urban land governance in Tigrai, Ethiopia. Accordingly, the study addressed the following research questions:

- How does urban land governance practice embrace the elements of good governance in the Tigrai Region?
- What are the factors affecting good urban land governance in the municipalities of the Tigrai Region?
- To what extent do the challenges affect good urban land governance in the Tigrai Region?

1.3 Objectives of the study

The specific objectives of this study were to:

- Assess the urban land governance practices based on the elements of good governance in the Tigrai Region.
- Identify factors affecting good urban land governance in the municipalities of the Tigrai Region.
- Analyze to what extent the challenges affect good urban land governance in the Tigrai Region.

2 Related literature

2.1 Urban land governance

Historically, governance has had diverse meanings, and it is related to government work and decisions. Some international organizations and scholars define governance in different ways. According to DFID (2007), governance is about how a country manages its affairs. It also entails formulating and implementing public policies across organizational and sectoral boundaries through coalitions, contracts, and networks (Page, 2013). It is also seen as a set of values, policies, and institutions through which society manages its economic, political, and social processes at different levels, based on interaction among the government, civil society, and private sector (Afegbua & Adejuwon, 2012). Despite its growing importance to researchers and policymakers, governance is not an end product (Asaduzzaman & Virtanen, 2016). Urban land governance is becoming an essential issue in many developing countries, where corruption and rent-seeking are becoming more common (Sungena et al., 2014; Tessema et al., 2016). Alemie et al. (2015) explain that good governance in urban land administration has a threefold benefit. First, it identifies the exact causes of urban people's urban land problems, like urban land access and urban land use at the local level. Second, good governance enabled different actors to be involved and scrutinize alternative solutions to the identified problems. Third, it creates a common framework to follow up on the proper implementation of the identified solutions.

Roberts and Hohmann (2014) advocate that land governance comprises a multifaceted field of activities concerned with all aspects of land management and development. Historically, land governance was confined to those interested in land administration and management. Poor governance is the critical factor in inefficient and ineffective land management (Sungena et al., 2014). Therefore, urban land is exposed to bad governance because of its capacity to become a source of income. Hence, it is wise to conduct a study on urban land governance.

2.2 Urban land governance in Ethiopia

Ethiopia is an ancient state in the world that has suffered from poor governance for an extended period and suffered from undemocratic administration. The current government has introduced a democratic system and other reforms to ensure economic and political stability. However, even though the government is doing its best with the international community's assistance in developing and realizing good governance, Ethiopia's current state of good governance is not satisfactory (Tagesse, 2015). The factors that have halted the development of good governance in the country are structural and ideologically motivated government policies that have encouraged patronage rather than merited principles (Shimelis, 2015).

Urban land is the most exposed area to conflict and encountered with complex management in Ethiopia because it is a major socioeconomic asset, and there is a struggle over who controls the land, which is the same as the question of handling power, which has played a significant role in the history of Ethiopia and could continue to do so (Melkamu & Shewakena, 2010). Therefore, sound land governance needs effective good governance, which has become a significant area of focus for the government of Ethiopia. However, there is still a gap in applying the principles of good governance in urban land administration (Kebede, 2017). According to Tessema et al. (2016), the major challenges to good governance in Ethiopia's urban lands include corruption and rent-seeking, a lack of commitment by officials and experts, and the lack of a mechanism to hold municipal officials accountable for their misdeeds. In a nutshell, one cannot but agree with Tessema et al. that urban land officials appear to work more to satisfy their political masters than to work in the interest of the larger population.

2.3 Practices and challenges of urban land governance in Ethiopia

The practice of urban land governance in Ethiopia is unsatisfactory. Empirical studies have shown that the elements of good governance are not effectively implemented in urban land offices. For instance, Belay (2014) found that good urban governance practice concerning the principles of good governance (transparency, accountability, participation, and the rule of law) has not been successfully implemented by municipalities. As a result, land and development offices lack the required good governance dimensions of participation, transparency, accountability, equity, efficiency, and effectiveness (Melese, 2016; Tesfaye, 2018). Due to weak good governance practices, customers are discontented with urban land management offices (Aimro, 2015). Thus, the poor application of good governance resulted in the ineffectiveness and inefficiency of land administration in the municipalities (Belay, 2014).

Dube (2013) identified the challenges of urban land governance as land-related conflicts, archaic land information management, informal land acquisition, proliferate slums and squatters, and land speculation. According to Belay (2018), enacting land titling and registration systems with no clear objectives and institutional

capacity constraints are some major challenges to urban land governance. According to Tessema et al. (2016), the major challenges of urban land governance are corruption and rent-seeking behavior, negligence of officials, lagging response, lack of monitoring and responsibility, political patronage, lack of financial and material human resources, and lack of institutional capacity. Hadush (2019) has also found petty corruption and rent-seeking activities, negligence by some officials and workers of the administrative office, delays in responding to some fundamental issues related to land, lack of institutional capacity and accessibility of information, discrimination, bureaucracy, lack of adequate material and human power, and partisan bureaucrats. In addition, the lack of a mechanism to deal with administrative mandates regarding the mission and vision of the urban land office is a challenge. And leaders run a risk of getting political loyalty from their higher bosses to sustain or maintain their positions or get any promotion rather than working to solve community problems as one of the major challenges accounting for urban land governance.

Empirical studies show that urban land governance practices are inappropriately implemented in the country's urban management and development offices. Moreover, several challenges have been identified in different areas, as stated above. Most of the studies have been conducted in a single town/city or sub-cities, which did not represent the entire country or region. Thus, I can argue that the findings of this study suggest a sound theoretical contribution because of its broad scope and thorough investigation.

2.4 Conceptual framework

The conceptual framework was designed based on the characteristics of good urban governance developed by FAO in 2007. Of course, the major elements of good governance stated by UNDP, the World Bank, and FAO are participation, transparency, accountability, equity, responsiveness, and effectiveness and efficiency. Therefore, the conceptual framework for this study was adopted per the international organizations mentioned above (Fig. 1).

FAO has described the characteristics of good urban governance as follows:

Participatory: Enables citizens to participate fully in governance through consensus-building and engages with civil society without curbs on the media or freedom of expression and association.

Transparent: Open.

Accountable: Demonstrates stewardship by responding to questions, explaining its actions, and providing evidence of its functions.

Responsive: It delivers the services that citizens want and need.

Equitable: It deals fairly and impartially with individuals and groups, providing nondiscriminatory access to records and services.

Efficient and effective: It formulates policy and implements it efficiently by delivering services of high quality.

3 Method

3.1 Participants and procedure

There are seven administrative zones in the regional government of Tigray. Ideally, the study could be more rigorous if it included all the seven zonal administrative towns. However, it has taken only four of them due to a lack of time. As a result, three of the six administrative zonal cities were randomly selected for this study. However, Mekelle, the seventh administrative zone, was chosen purposefully because of its status as a regional capital and its high demand for residential and investment land. Therefore, Mekelle, Adi-grat, Axum, and Shire were selected for this study. The employed participants were customers of the urban land management offices. The customers were chosen by a convenience sampling method. Customers who visited the office during the data collection period were selected by a convenient method.

Furthermore, officeholders were selected based on the available sampling methods. Thus, 197 respondents participated in the study. Of the 197 surveys distributed, 177 completed responses were returned, representing an average response rate of 89.8%. Among the 197 selected participants, 150 were direct beneficiaries, while the remaining 47 were officeholders. The 47 officeholders took part in the survey to answer the questions about the factors of urban land governance. Besides, 12 officeholders were recruited using a purposive sampling method for the interviews. Both quantitative and qualitative data were used in this study. Therefore, the study used a concurrent triangulation strategy.

An informative meeting was held with the heads of urban land offices in each town to get permission for the study. The offices allowed the researcher to distribute the questionnaires and conduct interviews with the concerned bodies. The research assistants distributed the questionnaires while the researcher conducted interviews side by side. Research assistants filled out the questionnaires using face-to-face interviews with the customers to tackle the educational barrier. Attached to each questionnaire was a cover letter that explained the study's objective, assured respondents of the confidentiality of their responses, and that participation in the survey was voluntary (Table 1).

3.2 Measurements

Each of the following measurements was constructed for participants to respond to the elements of urban land governance. Respondents were asked to indicate their agreement (5 = strongly agree, 1 = strongly disagree) with all independent variables included in the study. The items that measured the variables and where they were adopted are vividly discussed in the following Table 2.

Table 1 Composition of the sample

Variables	Cases	Frequency	Percentage
Sex	Male	118	66.7
	Female	59	33.3
Age	19–30 years	78	44.1
	31–40 years	86	48.6
	Above 40 years	13	7.3
Educational status	Elementary school	12	6.8
	Secondary school	17	9.6
	Certificate	18	10.2
	Diploma	45	25.4
	Degree	73	41.2
	MA & above	12	6.8
Sample of city/town	Mekelle	45	25.6
	Adigrat	44	24.8
	Shire	44	24.8
	Axum	44	24.8
Total		177	100.0

3.3 Reliability

A reliability test was conducted. First, Cronbach alpha coefficients (α) for each scale were calculated to assess the internal consistency. Table 3 presents the detailed information regarding the internal consistencies (Cronbach's α values) of the observable variables. All scales showed good reliability, presenting Cronbach's α values between 0.83 and 0.93, satisfying the criterion of 0.70. Accordingly, all the variables were retained for further analysis. Therefore, the measurement items meet the required tests of reliability.

3.4 Model specification

This study used a binary logistic regression model. The logistic regression model was applied to evaluate the effectiveness of an urban land governance system based on the elements. This binary logistic regression model answers the question, "how do you evaluate the urban land governance systems in the cities?" The answer is either effective or ineffective. The numerical values of 0 and 1 were assigned to the two outcomes of a binary variable. Hence, 0 represented a negative response, i.e., ineffective, and 1 represented a positive response, i.e., effective. Similar studies employed a binary logistic regression with dichotomous dependent variables successfully (Cf. Braimoh & Onishi, 2007; Diep et al., 2021; Ju et al., 2016; Kindu et al., 2015; Nong & Du, 2011; Salem et al., 2020, 2021; Shu et al., 2014). The logistic regression model can be expressed mathematically as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + u_i.$$

Model variables were therefore defined as follows; Y = is the dependent variable (i.e. evaluating the effectiveness of urban land governance system in the

Table 2 Measurement of variables

Participation	Source
Participation of citizens at a city/town level to maintain the good governance system is judged on a superb level	Melese (2016)
There is significant involvement of residents in the land delivery processes	
The land policy decisions are based on consultation with residents and their feedback sought and incorporated in the resulting policy	
There is frequent consultation with people about urban land governance	
Feedback of the people is incorporated into the urban land governance	
Citizens are involved in the decision making of urban land governance	
Responsiveness	
Problems are solved quickly at the request of the people	Tesfaye (2018)
Urban land managers provide prompt responses to the people's demand	
Grievances are addressed at the right time	
The institution has an effective mechanism to deliver services quickly	
Transparency	
There is the transparency of the land service delivery process in the city/town	Aimro (2015)
The clarity and accessibility of the laws and rules are good in providing land service delivery	
There is an open and detailed urban land service procedure in the town/city	
There are easy and understandable instructions of services for urban land governance	
There are communicable newly enacted laws, directives, charters, codes, etc. on urban land to the public	
There is multi-dimensional information access to urban land governance in the town/city	
Accountability	
There is an accountability system in the office of urban land management that makes the employees answerable for their action	Melese (2016)
There is a mechanism for questioning and explaining land activities in the city/town	
There is an appeal mechanism for conflict resolution regarding land service in the office of urban land management	
There is a periodic monitoring and evaluation system in the office of urban land management to assess the status of service delivery and good governance	
The office of urban land management has a code of conduct for staff	
Equity	
The community members of the town/city have equal access to get housing land	Melese (2016)
The community members of the town/city have equal access to land information without discrimination	
Employees in the urban land management office deliver their service impartially	
There is fair compensation paid to all community members who are losing their land holdings	
There is equal acceptance of customers with land registration & cadaster system	
There is a fair cost of the delivered services in the urban land management office	
Efficiency and effectiveness	

Table 2 (continued)

Participation	Source
Residents of the city/town are satisfied with the land delivery process	Melese (2016)
The requirements to obtain land, to transfer ownership/use rights and building permits are clear and accessible	
The cost of land access is affordable to most applicant community members	
All applications for transfer of ownership/use right and building permits receive a decision in a short period	
Officials and workers perform their duties diligently and objectively without seeking bribes	
The urban land management office has competent staff	
The urban land management office has a proper land registration system and records kept in all land transactions	
The urban land management office provides its service as per indicated on the service delivery standards in the office board	
There are accurate, integrated & computerized land information systems in the urban land governance process in the city/town	
The urban land management office has standardized service quality	
Workers can convince all settlers to comply with redevelopment programs	
Evaluation on office's Overall Good Governance practice	
The overall practice of good governance is on an excellent level	Aimro (2015)
Challenges of urban land governance	
Corruption and rent-seeking behavior	Belay (2014)
Lack of commitment of officials and experts	
Lack of qualified human power	
Lack of transparency, accountability, and responsibility of officials and experts	
Lack of clear rules and regulations	
Lack of modern service delivery systems	
Lack of materials and equipment	
Illegal urban land grabbing and practices	
Shortage of budget to implement the urban land governance appropriately	
Political influence on the employees	

Table 3 Reliability of variables

Variables	Cronbach's Alpha	No. of items
Participation	0.88	6
Responsiveness	0.88	4
Transparency	0.85	6
Accountability	0.83	5
Equity	0.86	6
Efficiency and effectiveness	0.93	11
Challenges	0.84	10

cities, 0 = ineffective and 1 = effective), β_0 = is the intercept (constant) term, β_1 to β_6 = coefficients of explanatory variables, X_1 = Participation, X_2 = Responsiveness, X_3 = Transparency, X_4 = Accountability, X_5 = Equity, X_6 = Efficiency and Effectiveness.

3.5 Analytical strategy

A principal component factor analysis was employed to see the items' load into the same factor. Each item in each variable was loaded together into a single factor. Hence, the results showed that all items in each variable passed this test.

Reliability analysis was then conducted by calculating Cronbach's alpha for each variable. As all study variables passed tests for construct validity and reliability, the measurement model was considered good enough to proceed for further analysis. Moreover, inferential statistics like Pearson correlation and binary logistic regression were employed. A thematic analysis approach was employed to analyze the qualitative data.

4 Results and discussions

4.1 Practices of good urban land governance

A descriptive study was conducted to present good urban governance practices in the study area. Therefore, the status of urban governance was described using the mean and standard deviation.

As stated in Table 4, the mean score of each element is below 3.00, which shows a tendency towards low practice. The mean and standard deviation scores of each element are: participation (M = 2.67, SD = 1.03), responsiveness (M = 2.28, SD = 1.13), transparency (M = 2.63, SD = 0.96), accountability (M = 2.66, SD = 0.97), equity (M = 2.58, SD = 1.05) and efficiency and effectiveness (M = 2.62, SD = 0.99). Thus, the practice of urban land governance is low based on the elements. This finding complements with the findings of Belay (2014), Melese (2016), Dube (2013) and

Table 4 Practices of good urban land governance based on the elements

Descriptive statistics					
Elements	N	Minimum	Maximum	Mean	Std. deviation
Participation	129	1.00	5.00	2.6698	1.03081
Responsiveness	129	1.00	5.00	2.2797	1.12687
Transparency	129	1.00	5.00	2.6264	0.96640
Accountability	126	1.00	4.80	2.6611	0.97314
Equity	126	1.00	5.00	2.5804	1.05381
Efficiency & effectiveness	125	1.00	4.64	2.6194	0.99112

Tesfaye (2018), who revealed that elements of good governance are not effectively implemented in urban land offices.

The qualitative result showed that citizens are not active participants in the urban land governance issues; instead, the people observe the process from a distance. The government does not conduct policy and governance process consultation with the concerned bodies, especially direct beneficiaries. Besides, the interview results revealed that fear of committing an error is the main reason urban land governance officeholders are unresponsive to their clients. Due to punitive measures being taken against officials for lapses in the discharge of their duties in urban land governance, there is a lack of commitment to take initiatives in handling problems that come to their attention. This problem leads to a pile-up of complaints at various administrative offices. For instance, a minor error in the land issue is not considered a mistake; instead, it is regarded as a misuse of power or corruption. Urban land is susceptible, and customers can easily manipulate it. As a result, the response to customers on urban land is unattended.

The rules and regulations governing urban land contain many ambiguities. As a result, the regional government sends circular letters to the towns, instructing them on how to proceed. Such unlawful acts, as well as confusing statutory terms, obstruct transparency and accountability. Therefore, employees do not adhere to the code of conduct or perform their duties effectively. Urban land is the riskiest area. In urban land governance, no minor error is an excuse. Because of the risk they are frightened of, employees are not carrying out their responsibilities properly. Instead, they avoid making a decision and taking responsibility. Due to changes in leadership, proclamations, and circular letters, employees could not carry out their duties and obligations. As a result, employees prefer to stay away and avoid being held accountable.

Furthermore, the interview results indicated that the lease program in the country is not pro-poor. The leasing price does not consider the financial capacity of the people. It is complementary with the research findings of Tura (2018), who revealed that the Urban Land Lease Holding Proclamation restricts urban land access to the poor who cannot afford the lease price. He argues that as long as the regional governments are bound to govern their land by federal law, it could be challenging to protect the poor's interests and ensure that the urban land lease policy benefits all citizens without discrimination based on income. Finally, he suggests that allowing a few individuals to buy land without restriction under the pretext of lease holding is unjust. It is also unfair to exclude most of the population from living in towns due to their financial inability to compete with a few wealthy individuals. Therefore, the few economic elites control the urban land in one way or another. The policy promotes the transfer of urban land to a few wealthy individuals who can afford to pay lease prices without restriction (Tura, 2020). The study conducted by Koroso et al. (2020) revealed that, due to bad practices in urban land governance, the price of land is high in Ethiopia.

Moreover, a study conducted in Mekelle by Gebrihet and Pillay (2020) indicated that residential land use increased the markup price per plot by 160.34% compared to business land use. The findings of the Gebrihet and Pillay (2020) study confirmed that the average monthly income of auctioneers is associated positively with the

markup price per plot. Hence, it is right to conclude that the policy is not based on fairness and the benefit of the poor. Thus, a few wealthy individuals have monopolized urban land policy to their advantage. As a result, the government and a few individuals have reaped the benefits of urban land. Furthermore, the land governance system in urban areas is not automated, making it harder to work because it is still reliant on traditional methods. The realization of efficient and effective governance becomes a mirage because of this practice.

4.2 Factors affecting good urban land governance

The questions regarding the challenges of urban land governance were administered to the employees of urban land management offices. Thus, Table 5 comprises items that describe the challenges of urban land governance. Accordingly, all the items scored higher than the mean. This result shows that all the indicators stated in the table are challenges of urban land governance.

The interview results also substantiated the argument that employees have a proclivity towards rent-seeking behavior. Officeholders, for example, perpetrate rent-seeking by favoring one party with information while concealing the same information from the other. As a result, rent-seeking and corruption are roadblocks to effective urban land governance. Other challenges of urban land governance include frequent changes in regulations, contradictory proclamations, extensive bureaucracy on grievances, and poor worker commitment. The proclamations and regulations governing urban land are biased and favorable to rent-seekers.

Moreover, the fear of employees making decisions, the country's economic incapacity, population growth, the sophistication of illegal work on urban land, and leaders' volatility before addressing cases are all challenges to urban land governance. Politically affiliated appointees, not professionals, are leading the institutions. This

Table 5 Factors affecting urban land governance

Variables	Cases in percentage					Mean
	SDA	DA	UN	A	SA	
Corruption and rent-seeking behavior	15.2	17.4	30.4	19.6	17.4	3.07
Lack of commitment of officials and experts	8.7	13.0	23.9	39.1	15.2	3.39
Lack of qualified human power	15.6	20.0	11.1	31.1	22.2	3.24
Lack of transparency, accountability, and responsibility of officials and experts	8.7	13.0	23.9	34.8	19.6	3.43
Lack of clear rules and regulations	13.0	23.9	10.9	30.4	21.7	3.24
Lack of modern service delivery systems	13.0	15.2	13.0	32.6	26.1	3.43
Lack of materials and equipment	19.6	19.6	4.3	28.3	28.3	3.26
Illegal urban land grabbing and practices	10.9	17.4	13.0	30.4	28.3	3.48
Shortage of budget to implement the urban land governance appropriately	21.7	17.4	19.6	19.6	21.7	3.02
Political influence on the employees	19.6	15.2	8.7	26.1	30.4	3.33

SDA Strongly Disagree, *DA* Disagree, *UN* Uncertainty, *A* Agree, *SA* Strongly Agree

usually leads to a situation where the leaders issue directives that are typically based on political considerations. Lack of control over illegal buildings, a frequent change of commercial land to residential, changing the temporary land to the permanent, fake house plan, land invasion, and building out of the plan also make the urban land governance more complex. In Ethiopia, illegal land occupation and land lease contract abuse are prevalent due to institutional weaknesses (Koroso et al., 2020).

Table 6, column 1 shows the correlation between the overall good governance of urban land and the independent variables (participation, responsiveness, transparency, accountability, equity, and efficiency and effectiveness). The correlation was investigated using the Pearson product-moment correlation coefficient. The result indicated that there is a strong, positive correlation between the overall good governance of urban land and the independent variables (participation, responsiveness, transparency, accountability, equity, efficiency and effectiveness), $r = 0.622$, $r = 0.619$, $r = 0.721$, $r = 0.698$, $r = 0.757$, and $r = 0.785$, respectively, $n = 129$, $p < 0.01$, high levels of good urban governance strongly correlated with elements of good urban governance.

4.3 The magnitude of challenges in good urban land governance

All the assumptions were conducted and checked in the regression process to proceed into the main analysis part. Unfortunately, the multicollinearity test cannot be run in the logistic regression procedure of SPSS. However, this problem was solved by using multiple linear regressions, letting one of the independent variables be a dependent variable and excluding the original dependent variable. Therefore, the two values, Tolerance and VIF (Variance inflation factor) are calculated for the collinearity diagnostics. Hence, the factor "equity" has shown multicollinearity with the other independent variables based on the value of VIF. As a result, it was excluded from the binary logistic regression model.

A binary logistic regression was performed to assess the impact of several factors on the likelihood that respondents would report that urban land governance is effective. The model contained five independent variables (participation, responsiveness, transparency, accountability, efficiency and effectiveness). The independent variable called "equity" was excluded from the model because of multicollinearity, which

Table 6 Pearson correlations

Scale	1	2	3	4	5	6	7
1. Overall practice of good governance	–						
2. Participation	0.622**	–					
3. Responsiveness	0.619**	0.727**	–				
4. Transparency	0.721**	0.694**	0.755**	–			
5. Accountability	0.698**	0.659**	0.695**	0.771**	–		
6. Equity	0.757**	0.698**	0.758**	0.817**	0.765**	–	
7. Efficiency & effectiveness	0.785**	0.689**	0.721**	0.818**	0.726**	0.866**	–

**Correlation is significant at the 0.01 level (2-tailed)

Table 7 Binary logistic regression of effectiveness in good urban land governance

	B	S.E	Wald	df	Sig	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Participation	1.224	0.371	10.851	1	0.001	3.399	1.641	7.040
Responsiveness	− 0.203	0.338	0.360	1	0.549	0.816	0.421	1.584
Transparency	0.819	0.529	2.398	1	0.121	2.269	0.804	6.397
Accountability	− 0.129	0.445	0.084	1	0.772	0.879	0.368	2.102
Efficiency & Effectiveness	0.297	0.454	0.428	1	0.513	1.346	0.553	3.281
Constant	− 5.990	1.075	31.074	1	0.000	0.003		

Variable(s) entered step 1: participation, responsiveness, transparency, accountability, efficiency and effectiveness

Table 8 Omnibus tests of model coefficients

			Chi-square	df	Sig
Step 1		Step	56.238	5	0.000
		Block	56.238	5	0.000
		Model	56.238	5	0.000

caused its variance inflation factor (VIF) to exceed 5, which is not recommended. The full model, which included all predictors, was statistically significant, χ^2 (5, N = 129) = 56.24, p < 0.001, indicating that the model could distinguish between respondents who reported on the effectiveness of good urban land governance and those who did not report. The model explained between 37.7% (Cox and Snell R square) and 50.7% (Nagelkerke R squared) of the urban land governance effectiveness variance and correctly classified 81.5% of cases. As shown in Table 7, only participation made a unique, statistically significant contribution to the model. The strongest predictor of reporting effective urban land governance was participation, with an odds ratio of 3.34. This result indicated that respondents who said participation was a major factor were three times more likely to report ineffective urban land governance than those who did not say participation, controlling for all other factors in the model. Thus, the primary predictor for effective urban land governance is participation.

Tables 8, 9, and 10 test the goodness of fit using the Omnibus Tests of Model Coefficients and the Hosmer and Lemeshow Test. Moreover, the model's usefulness was tested using the Cox & Snell R Square and the Nagelkerke R Square.

The Omnibus of Model Coefficients gives us an overall indication of how well the model performs, over and above the results obtained, with none of the predictors entered into the model (Pallant, 2016). For this set of results, we want a highly significant value. In this study, the value is 0.000 (which means p ≤ 0.001). Thus, the chi-square value for this study is 56.24 with 5 degrees of freedom.

The Hosmer and Lemeshow Test also supported the model as being worthwhile. For the Hosmer–Lemeshow Goodness of Fit Test, the poor fit is indicated by a
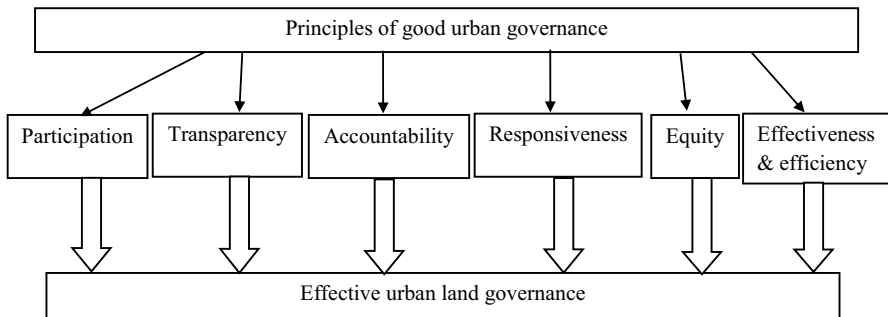
Table 9 Model summary

Step	− 2 Log likelihood	Cox & Snell R square	Nagelkerke R square
1	105.685[a]	0.377	0.507

Estimation terminated at iteration number 5 because parameter estimates changed by less than 0.001

Table 10 Hosmer and Lemeshow test

Step	Chi-square	df	Sig
1	5.843	8	0.665

Fig. 1 Conceptual framework of good urban governance. Source: FAO, 2007

significance value less than 0.05, so to support our model we want a value greater than 0.05 (Pallant, 2016). Therefore, in this study, the chi-square value for the Hosmer–Lemeshow Test is 5.843 with a significance level of 0.665. This value is larger than 0.05, thus, indicating support for the model.

The Cox & Snell R Square and the Nagelkerke R Square values indicate the amount of variation in the dependent variable explained by the model (Pallant, 2016). In this study, the two values are 0.377 and 0.507, suggesting that this set of variables explains between 37.7 and 50.7% of the variability.

5 Conclusion and recommendation

This study aimed to assess the practices and challenges of urban land governance in Tigrai, Ethiopia. The urban land governance in the study area was evaluated based on its elements (participation, responsiveness, transparency, accountability, equity, efficiency, and effectiveness). In the study area, the urban land governance system is not adequate. So, it does not address the needs of the beneficiaries.

Citizens are not active participants at the town level to maintain good governance. Good governance consultation forums are uncommon at the regional

and municipal levels. As a result, citizens have no way of providing feedback or participating in the decision-making process for urban land governance. Urban land matters take a long time to resolve, employees are not proactive in resolving issues, and the urban land management office receives many complaints. These issues stem from officeholders' fear of making mistakes, which causes them to be slow to respond. The rules and regulations governing urban land are complex and ambiguous, newly issued laws are challenging to communicate, and slow customer access to information. Besides, the regional government sends informal circular letters to the municipalities to effectively address the issues. These types of irregular behavior obstruct the policy's transparency processes.

Lack of commitment is the main issue that prevents proper accountability in the institutions. The severe risk of the urban land governance system also threatened employees' accountability. They want to avoid deciding and being held accountable. Equity is a major problem in urban land governance, and this problem is most visible in the lease program. The current lease price not only disregards the financial capability of the public, but also oppresses the poor. Most people are passive observers while a few control urban land. Overall, the lease program does not benefit the greatest population and is not based on fairness. The efficiency and effectiveness of urban land governance are very low because the system still depends on traditional administrative mechanisms.

The major challenges of urban land governance are lack of commitment, lack of modern technology, lack of materials, lack of budget, illegal land grabbing, political influence, and rent-seeking. Other challenges of urban land governance include the frequent change of regulations and leaders, contradictory proclamations, the extensive bureaucracy of complaints, and a shortage of skilled and competent staff. In addition, major challenges in urban land governance are nonprofessional leaders, lack of control of illegal buildings, changing temporary land to permanent, and investment fraud.

The study performed logistic regression to assess the impact of factors on the likelihood that respondents would report that urban land governance was effective. Thus, the major predictor of effective urban land governance is participation.

As a suggestion, the regional government should develop and implement mechanisms to ensure public participation in urban land governance. It can happen by empowering people, strengthening existing and new civil society movements to participate in communities or individuals in urban land issues, and implementing governance methodologies based on stakeholder involvement. Besides, performance indicators and benchmark criteria must evaluate the work of officeholders. By reducing administrative and procedural incentives for corruption, it is also possible to provide transparent, comprehensive, and accessible processes in urban land governance.

The regional government should reconsider its leasing policy to promote effective land use and increase land accessibility for the poor. The government's priority should also be to assess the existing system, improve the institutional setup, and implement the elements of good governance effectively.

Declarations

Conflict of interest This paper has not any potential sources of conflict of interest.

References

Afegbua, S. I., & Adejuwon, K. D. (2012). The Challenges of Leadership and Governance in Africa. *International Journal of Academic Research in Business and Social Sciences, 2* (9).

Aimro, A. (2015). *The Assessment of Good Urban Governance Practice in Land Administration of Addis Ababa: The Case of Yeka Sub-City* (Master's Thesis, Addis Ababa University).

Alemie, B. K., Bennett, R. M., & Zevenbergen, J. (2015). A socio-spatial methodology for evaluating urban land governance: The case of informal settlements. *Journal of Spatial Science, 60*(2), 289–309.

Asaduzzaman, M., & Virtanen, P. (2016). Governance theories and models. *Global Encyclopedia of Public Administration, Public Policy, and Governance*, 1–13.

Belachew, M., & Aytenfisu, S. (2010). *Facing the challenges in building sustainable land administration capacity in Ethiopia*. In FIG Congress.

Belay, A. T. (2018). Assessing transparency practice in urban land administration: The case of Abi-Adi Town, Ethiopia. *Journal of Citizenship and Morality, 2*(1), 1–29.

Belay, B. D. (2014). Challenges of applying good governance in land administration: A case of Gindo Town (Master's Thesis, Ethiopian Civil Service University).

Braimoh, A. K., & Onishi, T. (2007). Spatial determinants of urban land use change in Lagos, Nigeria. *Land Use Policy, 24*(2), 502–515.

Dadi, D., Azadi, H., Senbeta, F., Abebe, K., Taheri, F., & Stellmacher, T. (2016). Urban sprawl and its impacts on land use change in Central Ethiopia. *Urban Forestry and Urban Greening, 16*, 132–141.

Department for International Development. (2007). Governance, development and democratic politics: DFID'S work in building more effective states.

Diep, N. T. H., Nguyen, C. T., Diem, P. K., Hoang, N. X., & Kafy, A. A. (2021). Assessment on controlling factors of urbanization possibility in a newly developing city of the Vietnamese Mekong delta using logistic regression analysis. *Physics and Chemistry of the Earth, Parts A/B/C*, 103065.

Dube, E. E. (2013). Urban planning & land management challenges in emerging towns of Ethiopia: The case of Arba Minch. *Journal of Urban and Environmental Engineering, 7*(2), 340–348.

Enemark, S., McLaren, R., & Van der Molen, P. (2009). Land governance in support of the millennium development goals. In *A new agenda for land professionals. FIG/World Bank Conference, FIG publication* (No. 45).

Fairlie, K., Burns, T., & Kebede, S. (2017). Implementing Land Administration Solutions in Ethiopia. *GIM International-the Worldwide Magazine for Geomatics, 31*(9), 22–25.

Fekade, W. (2000). Deficits of formal urban land management and informal responses under rapid urban growth, an international perspective. *Habitat International, 24*(2), 127–150.

Friedl, W. & Silke, S. (2006). Transparency as an element of good governance in the practice of the E.U. and the WTO: Overview and comparison. *Fordham International Law Journal, 30*(5).

Gebrihet, H. G., & Pillay, P. (2020). Determinants of Urban Land Lease Market in an Emerging Economy: Empirical Evidence from Ethiopia. *International Journal of Economics and Business Administration, VIII*, 450–470.

Grover, R., Törhönen, M. P., Palmer, D., & Munro-Faure, P. (2007). Good governance in land tenure and administration (Vol. 9). *Food & Agriculture Organization of the U.N. (FAO)*.

Hadush, A. T. (2019). An Assessment of the challenges and prospects of good urban governance practice in land administration: The case of Zalanbessa Town Administration, Tigray Region, Ethiopia. *Journal of Humanities and Social Science, 24*(11), 66–79.

Ibrahim Foundation. (2018). Ibrahim Index of African Governance. Index

Ju, H., Zhang, Z., Zuo, L., Wang, J., Zhang, S., Wang, X., & Zhao, X. (2016). Driving forces and their interactions of built-up land expansion based on the geographical detector: A case study of Beijing, China. *International Journal of Geographical Information Science, 30*(11), 2188–2207.

Kebede, O. (2017). Urban land administration practices in emerging cities of Ethiopia: The case of shashemene city of oromia regional state, Southern Ethiopia. *International Journal of Current Research., 9*(03), 47641–47649.

Kindu, M., Schneider, T., Teketay, D., & Knoke, T. (2015). Drivers of land use/land cover changes in Munessa-Shashemene landscape of the south-central highlands of Ethiopia. *Environmental Monitoring and Assessment, 187*(7), 1–17.

Koroso, N. H., Zevenbergen, J. A., & Lengoiboni, M. (2020). Urban land use efficiency in Ethiopia: An assessment of urban land use sustainability in Addis Ababa. *Land Use Policy, 99*, 105081.

Melese, N. (2016). *Application of good governance principles for urban land development for urban land development and management in Addis Ababa city Administration: The Practices and Challenges in Yeka Sub-City* (Master's Thesis, Addis Ababa University).

Melkamu, B., & Shewakena, A. (2010). Facing the challenges in building sustainable land administration capacity in Ethiopia. In *FIG Congress*.

Nong, Y., & Du, Q. (2011). Urban growth pattern modeling using logistic regression. *Geo-Spatial Information Science, 14*(1), 62–67.

Page, S. B. (2013). Theories of governance: Comparative perspectives on Seattle's light rail project. *Policy Studies Journal, 41*(4), 583–607.

Pallant, J. (2016). *SPSS Survival Manual: A step by step guid to data analysis using IBM SPSS (sixth edit)*. Open University Press.

Roberts, B. H., & Hohmann, R. P. (2014). Secondary Cities: Managing Urban Land Governance Systems. In *World Bank Conference on Land and Poverty*.

Shimelis, K. K. (2015). Democracy and good governance post 1991 in Ethiopia. *International Journal of Political Science and Development, 3*(4), 174–182.

Salem, M., Bose, A., Bashir, B., Basak, D., Roy, S., Chowdhury, I. R., & Tsurusaki, N. (2021). Urban expansion simulation based on various driving factors using a logistic regression model: Delhi as a case study. *Sustainability, 13*(19), 10805.

Salem, M., Tsurusaki, N., & Divigalpitiya, P. (2020). Land use/land cover change detection and urban sprawl in the peri-urban area of greater Cairo since the Egyptian revolution of 2011. *Journal of Land Use Science., 15*(5), 1–15.

Shu, B., Zhang, H., Li, Y., Qu, Y., & Chen, L. (2014). Spatiotemporal variation analysis of driving forces of urban land spatial expansion using logistic regression: A case study of port towns in Taicang City, China. *Habitat International, 43*, 181–190.

Sungena, T. N., Serbeh-Yiadom, K. C., & Asfaw, M. (2014). Strengthening good governance in urban land management in Ethiopia: A case-study of Hawassa. *Journal of Environment and Earth Science, 4*(15).

Tagesse, M. (2015). Assessment of the challenges and prospects of good governance: The case of Gedeo Zone municipalities. *International Journal of Research, 2*(2).

Tesfaye, D. (2018). *Assessing the challenges of urban land governance in Addis Ababa: The case of Nifas Silk Lafto Sub City land development and management* (Master's Thesis, Addis Ababa University).

Tessema, D., Defere, G., & Admas, E. (2016). An assessment of the challenges and prospects of good urban governance practice in the land administration system: Case of Shambu Town, Oromia

Region, Ethiopia. *Journal of Good Governance and Sustainable Development in Africa, 3*(3), 20–31.

Tura, H. A. (2018). Land rights and land grabbing in Oromia, Ethiopia. *Land Use Policy, 70,* 247–255.

United Nations Economic and Social Council. (2006). Definition of basic concepts and terminologies in governance and public administration.