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# Practices and determinants of urban land governance in Sheger City, Ethiopia

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While there have been numerous global discussions on urban land governance, a lot remains to be done and serious urban land related obstacles remain to be overcome. This article identifies the most important governance principles for improving land governance for urban development and growth. The governance principles assessed in this study include participation, responsiveness, efficiency, openness, rule of law, rule of ethics, completeness, innovation, sustainability, sound financial management, sound human rights and accountability. Source of primary data is 458 respondents selected using a multi-stage cluster sampling method from the six sub cities and secondary data was collected from policy documents and regional government reports. The governance level is measured by using seven point likert scale and the results reveal that the status of land governance in Sheger City is lower (3.445) than the average level which is 3.5 (50%). Out of the twelve independent variables, the mean score of only four, meaning innovation and openness to change (3.74), openness and transparency (3.68), competence and capacity (3.51), and rule of law (3.52), is more than 50%. The remaining eight variables are below the average, indicating poor land governance in Sheger City. Regarding the determinants, 76.21% of the variation in land governance in Sheger city is explained by the model applied. The highest beta value is registered for responsiveness, and the next highest is for innovation and openness to change. These findings have important implications for policymakers and urban planners in Ethiopia, highlighting the need for continued efforts to improve urban good governance and land management practices to ensure sustainable and equitable urban development.

## KEYWORDS

urbanization, urban, land, governance, land governance

## 1 Introduction

Urbanization is a major global change (Potsiou and Doytsher, 2010), and rapid urbanization due to large-scale land use changes, particularly in developing countries, has become a matter of serious concern (Kanchana, 2015). Urbanization in developing countries is characterized by a huge migration to large cities bypassing small and medium towns. Consequently, there is a serious problem of managing the available lands for various purposes in and around large cities (Cohen, 2006). The rapid growth of urban populations and the spatial expansion of urban centers have led to unprecedented demand for land in developing countries such as Ethiopia (Beza and Beza, 2021). This rapid urbanization poses a significant challenge to land professionals in applying land governance and land use planning to support and achieve the Millennium Development Goals (Potsiou and Doytsher, 2010).

Discussions about urban land governance continue across various disciplines, even though the definition and concept remain debated (Olowu, 2003). Until recently, Addis Ababa, with an estimated population size of 5,228,000, was considered the primate city

in Ethiopia, approximately 10 times larger than the combined population size of the second and third-largest cities, Mekelle and Dire Dawa. On 22nd October 2022, the Oromia National Regional State established Sheger City in central Ethiopia, surrounding Addis Ababa City, to provide influence and economic benefit to other satellite cities. Sheger City covers an area of approximately 160,892.9 ha, significantly exceeding Addis Ababa's 52,700 ha, which is less than one-third of Sheger City. The total population of Sheger City is estimated to be 1,657,228 (Oromia Spatial Planning Team, 2022). However, the current population growth rate is accelerating rapidly due to the city's advantageous location.

Urbanization is a significant driving force in increasing urban land value, adversely impacting housing and property affordability (Koroso, 2022). The Ethiopian Urban Management Initiative (EUMI) was established in 2004 to strengthen local governments' capacity to provide effective services (UN Habitat, 2015). A study conducted by the Ethiopian Federal Democratic Republic in 2018 identified a range of good governance challenges, including weak capacity, poor resource allocation, inadequate service delivery, and political interference (UNDP, 2012). Due to its historical, social, political, and cultural diversity, the issue of land management in Africa, particularly in sub-Saharan Africa, has a variety of challenges (Udessa et al., 2021). Urban land management practices across Ethiopia highlight and indicate serious urban land management problems (Roseland and Spiliotopoulou, 2016).

Urban land management practices and processes have been vulnerable to mismanagement and corruption due to the absence of good governance. Some researchers (Necha Sungena et al., 2014) have established that urban land management is one of Ethiopia's most corrupt public administration sectors. Despite having laws in place for land management, promoting good governance in urban land management appears to be a distant dream in current situations (Negeri and Erena, 2022). Weak urban land governance is linked to increasing insecurity in property rights and a growing level of bribery and corruption in urban land management activities, particularly in the developing world (Deininger et al., 2012).

Studies conducted (Burns and Dalrymple, 2008) in developing countries have shown that cities are unable to provide affordable urban land in sufficient quantities, particularly for the urban poor, because of the inefficiency and ineffectiveness of urban land management institutions. A few empirical studies have also indicated that urban land use planning, management, and urban land information could not promote (1) good governance in urban land and (2) discourage widespread unethical practices from the government (Bekele and Kjosavik, 2016). The key challenges revolve around the inefficient and ineffective capacity of the institutions bestowed with the responsibility of plan preparation and implementation as per legal frameworks (Bekele and Kjosavik, 2016). Land governance requires the setting of principles as a direction towards balancing social, economic and environmental issues (Samsudin et al., 2014). Urban land governance is related to urban planning and it has significant impact on achieving good governance in urban areas (MoUDH, 2018). Based on this, the general objective of this study is to identify the most important governance principles for improving land governance for sustainable urban development and growth in Sheger City of Ethiopia.

## 2 Study area, materials, and methods

### 2.1 Study area

#### 2.1.1 Location of Sheger City

Sheger City is located in the central part of Ethiopia in the northeastern region of the African continent and is referred to as the "Horn of Africa." Due to its strategic location, the city enjoys seamless road, rail, and air connectivity to major urban centers in the country and around the world. Riding on its geographical location and robust connectivity profile, Sheger City has the potential to become a key logistics hub for the country (Oromia Spatial Planning Team, 2022). The next Figure 1 shows the location of Sheger City in Ethiopia.

As indicated above, Sheger City is located in Oromia National Regional State, Ethiopia, surrounding the capital city of the country, Addis Ababa. Addis Ababa is the capital city of Ethiopia, and due to its historical, diplomatic, and political significance for the continent, it is called "the political capital of Africa." It also serves as the headquarters of major international organizations such as the African Union and the United Nations Economic Commission for Africa. Although Addis Ababa currently serves as the capital city of Ethiopia, its area is less than the total area of Sheger City (refer Figure 1).

#### 2.1.2 Topography

The topography of Shagar city is largely a result of geologic processes from the tertiary period of the Cenozoic Era. It is characterized by flat-topped plateaus, plains, high and rugged mountains, river gorges, and plains. The city's elevation ranges from 1,973 m above sea level around the southwestern part of the Galan and Bonaya areas to the highest elevation at Mount Mogole (3,385 m). The ridge mountain areas are dominated in the northern and western parts of the city. Such areas exhibit modified microclimates due to variations in altitude. The highest elevation of the city is located in the western part of Sebeta, where the area is characterized by the Jemo-Wechecha-Mogole chains of mountains. Mount Mogole is considered a landmark for the city. The area is known for its dense natural vegetation cover and steep slopes greater than 20%. More than 77% of the total area of Shagar city is situated above 2,000 m above sea level. The altitude variation of the city is about 1,412 m above sea level, where an extensive area of the city is comparatively found at higher altitudes. Major upland areas are covered by forests and partly human habitation, farming, and eucalyptus, which are among the famous commercial trees used for construction purposes in Ethiopia. The area is generally suitable for life (attracts human habitation), has a cool temperate, is free from tropical diseases, and has dense commercial trees (Oromia Spatial Planning Team, 2022). The next Figure 2 shows the topography of the city.

The administration of Sheger City contains 12 sub-cities, with its main office located in the Saris area of Addis Ababa. The sub-cities are named Burayu, Eka Tafo, Furi, Gefersa Guji, Gelan, Gelan Guda, Koye, Kara Gida, Mana Abichu, Melka Nono, Sebeta, and Sululta (Figure 3).

### 2.2 Materials and methods

A quantitative research approach was used to analyze data to gain a wide-ranging understanding of land governance issues in the study area. This approach provides details within the context of the

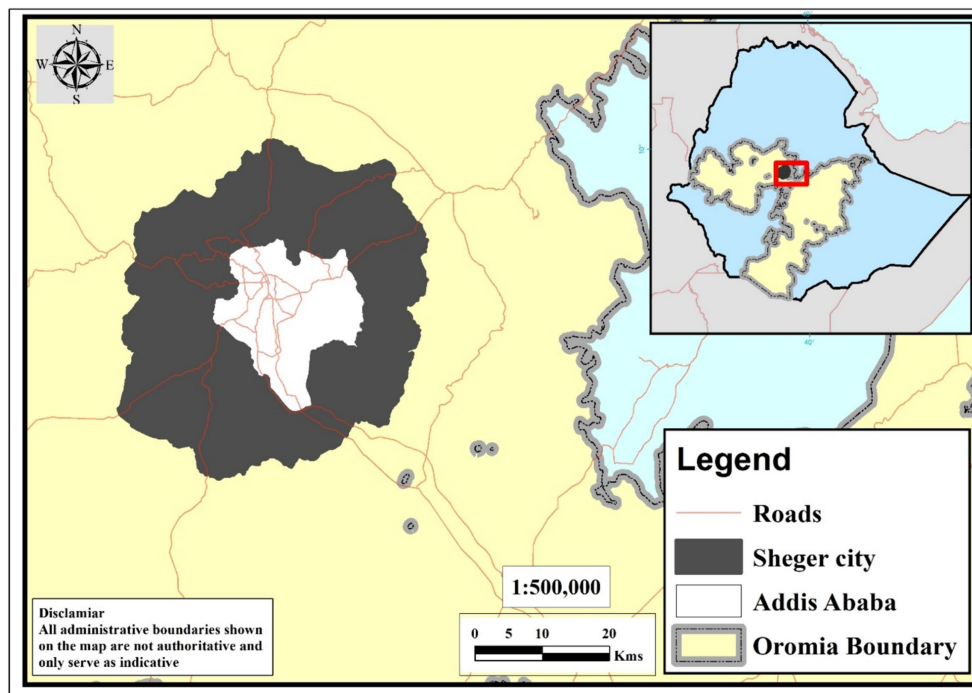


FIGURE 1 Location of Sheger City in Ethiopia. Source: Etho-GIS, OUPI, 2022 supported by own survey, 2023.

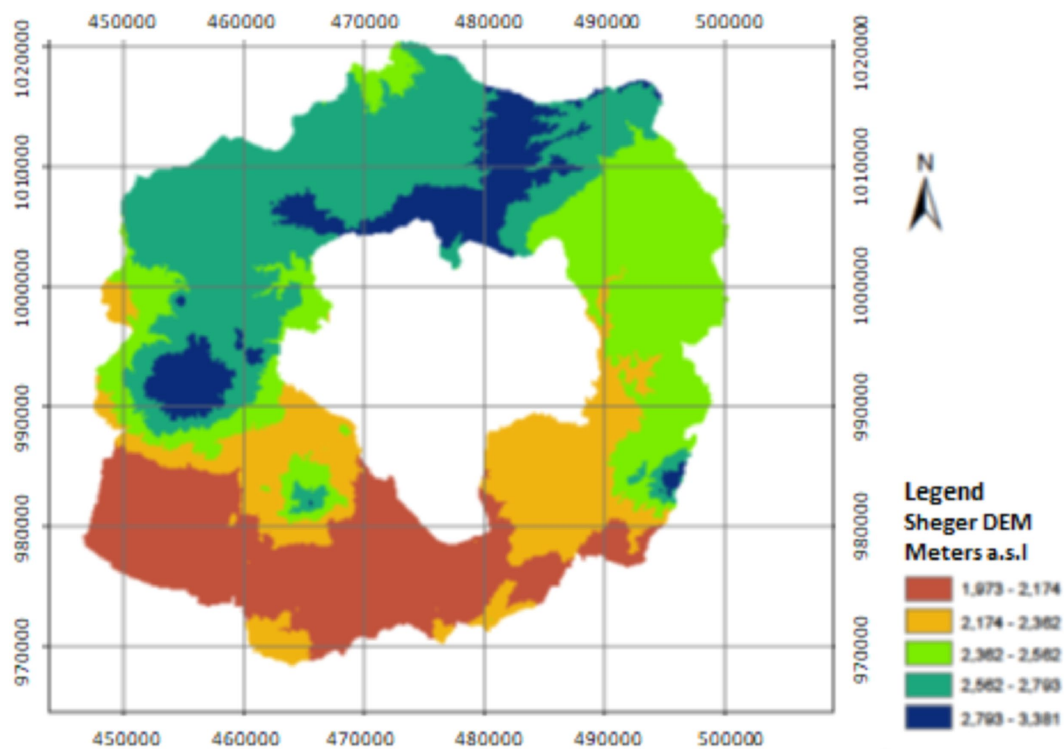


FIGURE 2 Topographic Map of Shagar City surrounding Addis Ababa. Source: Etho-GIS, Oromia Spatial Planning Team (2022), and supported by own survey, 2023.

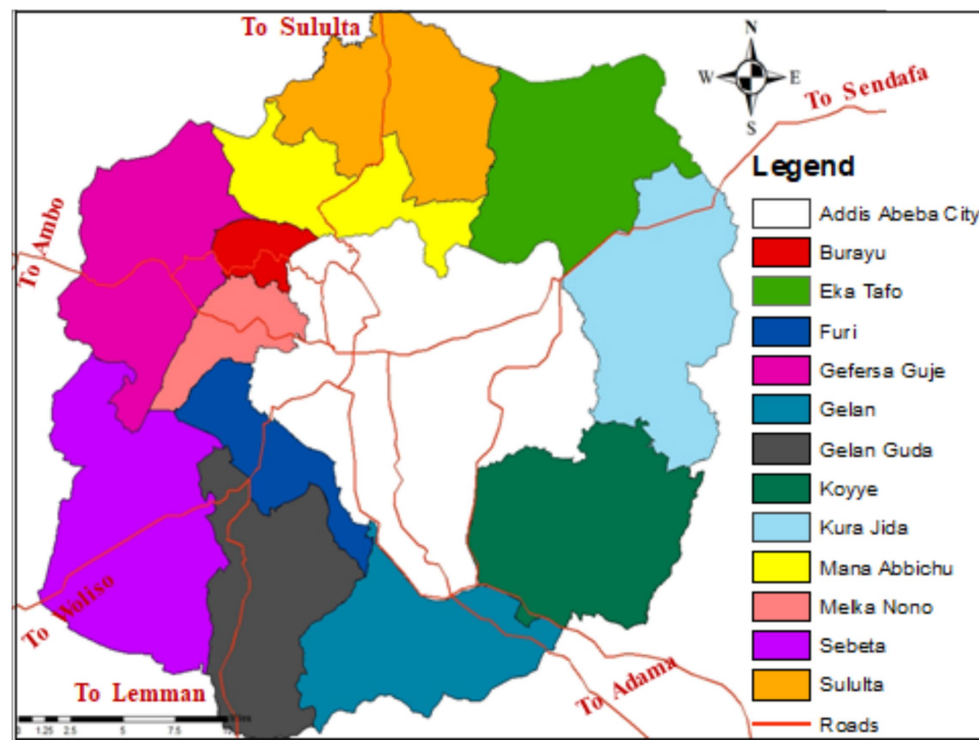


FIGURE 3  
Sub-cities of Sheger City. Source: Etho-GIS, *Oromia Spatial Planning Team* (2022), and supported by own survey, 2023.

situations to better understand the responses collected from different sources.

A quantitative research approach involving the analysis and collection of numerical data to uncover trends, calculate averages, evaluate relationships, and derive overarching insights is also applied in this study. Though the data collected in this study are mainly of Likert type, the data are transformed and treated as an interval scale, and the data were analyzed using statistical techniques for processing and interpreting numeric data. Therefore, the quantitative research approach was used to analyze numerical data to quantify or measure social phenomena and produce findings. Quantitatively, measures of central tendency (mean) of variables, coefficient of correlation, regression, and change statistics were employed to explain the results.

To obtain a representative sample from all the sampling units, representative sub-cities were first selected, purposefully considering different conditions. The factors considered include the spatial distribution of the sub-cities (taking from all north, south, east, and west), the peculiar nature of the sub-cities (taking from all the varieties), the size of the sub-cities (taking from all), and other relevant considerations. Based on these six sub-cities, namely Sululta ( $S_1$ ), Burayu ( $S_2$ ), Furi ( $S_3$ ), Sebeta ( $S_4$ ), Gelan ( $S_5$ ), and Kra Jida ( $S_6$ ), they were selected as highlighted in Figure 4.

As operative urban governance necessitates a more refined connection with clearly assigned responsibilities (UN Habitat, 2015), land governance in the study area was analyzed based on the 12 governance principles stated by Peris Blanes (2008). These governance principles include participation, responsiveness, efficiency, openness, rule of law, rule of ethics, completeness, innovation, sustainability, sound financial management, sound human rights, and accountability.

A 7-point Likert scale has been used to measure respondents' opinions, attitudes, or behaviors concerning the 12 variables of urban good governance in land governance across the six selected sub-cities (Joshi et al., 2015).

The sample respondents were selected using a multi-stage cluster sampling method, resulting in a total of 458 respondents. This sampling method involved selecting clusters of households within the urban center, with households within each cluster randomly selected to participate in the survey. Primary data for this study were collected from these 458 sample respondents using a questionnaire survey. The questionnaire's content primarily consisted of objective-type questions developed based on the proxies for the 12 governance principles. The total number of questions (items) in the questionnaire was 46, ranging from 3 questions/items to measure 3 different variables, such as effectiveness, ethical conduct and innovation, and openness to change, to 7 questions/items for participation.

In addition to the primary data, secondary data were obtained from a literature review, policy documents, and special regional government evaluation reports. These sources provided additional context and background information regarding urban good governance in land administration. By combining primary and secondary data, we gathered a comprehensive range of information for analysis and interpretation.

Each variable was analyzed based on respondents' ratings on a 7-point Likert scale, where 1 indicates "very strongly disagree" and 7 indicates "very strongly agree." The range was used to assess the spread or variation within each variable, while the overall situation of all variables together was used to evaluate the relative status of specific sub-cities in terms of land governance.

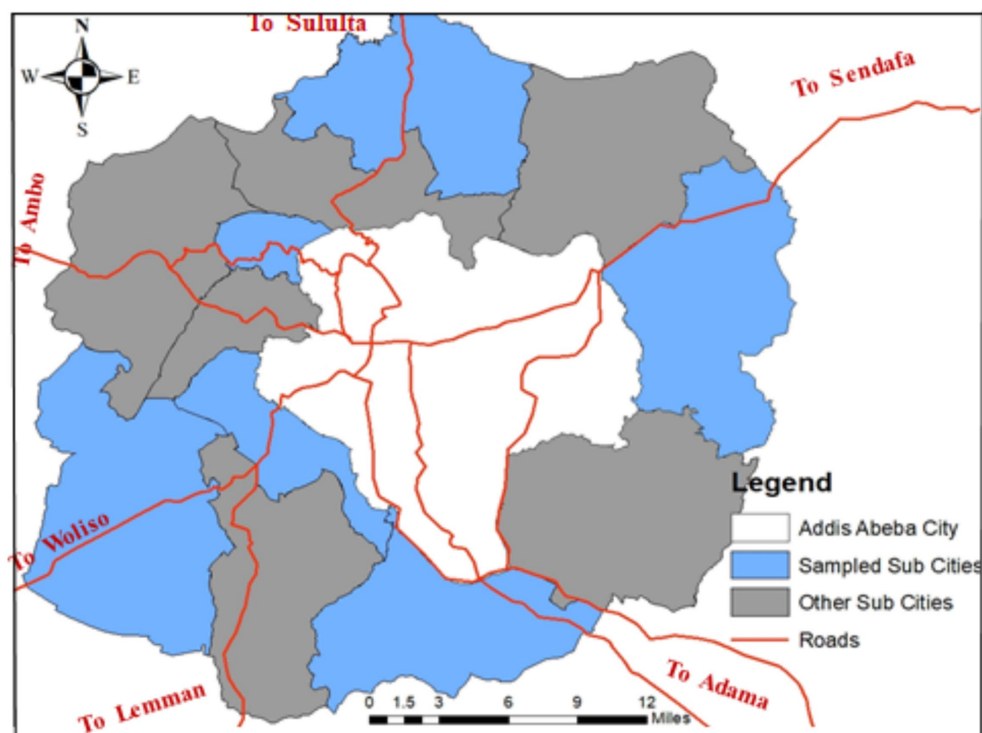


FIGURE 4  
Spatial Distribution of the Selected Sub Cities. Source: Etho-GIS and Socioeconomic profile, 2022; supported by own survey, 2023.

The analysis method is mainly descriptive, based on the performances in a matrix of 12 governance principles as variables across the six sampled sub-cities. Each sub-city is scaled for its variable-specific performance and is placed within the group of the sub-cities. As stated by Sullivan and Artino (2013) and considering a relatively wide range of scores with a greater concentration around the scale average (3.5), tables and diagrams were constructed with 2.5 as the lower limit and 4.5 as the upper limit. The status of a variable has been determined based on six classes with an interval of 0.25 in score values. Accordingly, scores below 3 are rated as very low, while those above 4 are rated as high.

The means of the 12 variables and the means of 6 sub-cities for each variable were illustrated using simple bar diagrams and were arranged in descending order. Similarly, diagrams showing the scores of the 12 variables for each of the six sub-cities, represented with different shading patterns, and the scores of the six sub-cities for each of the 12 variables, also represented with different shading patterns, have been constructed to supplement the derived results.

As urban land governance (ULG) is the dependent variable influenced by the 12 governance principles, the linear regression equation for the model can be stated as follows:

$$\begin{aligned} \text{ULG} = & C + \beta_1 P + \beta_2 R_s + \beta_3 E_f + \beta_4 O_p \\ & + \beta_5 R_u + \beta_6 E_c + \beta_7 C_C + \beta_8 I_O + \beta_9 S_L \\ & + \beta_{10} F_M + \beta_{11} H_R + \beta_{12} A_c + e \end{aligned}$$

Where C is constant;  $\beta_1$  up to  $\beta_{12}$  = Beta values of all variables as specifically attached in the equation; P = Participation;  $R_s$  = Responsiveness;  $E_f$  = Efficiency;  $O_p$  = Openness;  $R_u$  = Rule of Law;  $E_c$  = Ethical conduct;  $C_C$  = Completeness;  $I_O$  = Innovation and

openness; Su = Sustainability; FM = Sound Financial Management; HR = Human Rights; Acc = Accountability; and e = Error.

The reliability statistics for all governance principles were assessed. Generally, Cronbach's alpha for all was found to be 0.8, indicating that the instruments are reliable and valid for examining the questions representing individual governance principles and the overall land practices and determinants of urban land governance in Sheger City.

The use of self-reported data collected through a questionnaire survey is the major limitation of this study, as the accuracy of respondents' answers may be influenced by social desirability bias or recall bias. Additionally, the study only focused on Sheger City, which may limit the generalizability of the findings to other regions or rural areas. These limitations should be taken into consideration when interpreting the results.

### 3 Results and discussion

The results and discussion are based on the primary data collected from a total of 458 households selected using the cluster sampling method from the six sub-cities included in the sample. Data were collected by distributing questionnaires to these 458 individuals (316 men and 142 women). The results and discussion are presented as follows.

#### 3.1 Level of governance by principles

While definitions of governance can vary between the public and private sectors, 'Excellence in Governance for Local Government'

defines governance as the process by which decisions are taken and implemented, how organizations achieve their goals and produce their outputs, and how organizations are directed, controlled, and held accountable (City of Joondalup, 2021). In the context of urban land use, governance encompasses the rules, interventions, and institutions employed to manage the land (Qian, 2014). To explain the status of urban land governance in Sheger City, 12 variables were selected based on previous studies by Burns and Dalrymple (2008), Peris Blanes (2008), Serageldin et al. (2008), Necha Sungena et al. (2014), Piaskowy (2014), Roseland and Spiliotopoulou (2016), Badach and Dymnicka (2017), Udessa et al. (2021), and Azadi et al. (2023). These variables represent key governance principles, including participation, responsiveness, efficiency, openness, rule of law, rule of ethics, completeness, innovation, sustainability, sound financial management, human rights, and accountability.

Land governance is also related to policies and all the processes in institutions governing the land is managed (Enemark, 2009).

Due to the nature of the governance principles identified to measure the level, each variable (the 12 governance principles) was analyzed based on respondents' rating on a 7-point Likert scale (with 1 indicating "very strongly disagree" and 7 indicating "very strongly agree"). The range was used to assess the spread or variation within each variable. A greater range rated by respondents suggests a stronger tendency toward good governance (Sullivan and Artino, 2013; Joshi et al., 2015; Chyung et al., 2017). The overall situation of all variables was used as an indicator to assess the relative status of Sheger City in general and its 12 sub-cities regarding the quality of land governance. The next table shows the relative performance of variables among the sub-cities under consideration in Sheger City.

To understand the general profile of variables and their relative placement based on survey results, average scores of variables were arranged in descending order and ranked with 1 as the highest score and 12 as the lowest score. Accordingly, variable innovation and openness to change, with its mean value of 3.7409, ranks first and stands at the top, while variable ethical conduct recorded the lowest mean score of 3.2112 and ranks 12th. Thus, the average score range is 0.5297, which is relatively large and represents a wide variation among the variables. Figure 5 shows the average score of 12 variables in urban good governance related to land governance in the study area. Variable ethical conduct (3.21) lies in the status category of low (<3.25).

Similarly, the scores of seven variables (sustainability, human rights, efficiency, financial management, accountability, responsiveness, and participation) reflect the status of the moderately low (3.25–3.50) category as their scores are below 3.50, which is a theoretical average for the 7-point Likert scale. As such, a total of eight variables reflected a lower score value than the scale average (Figure 5). The remaining four variables (innovation, openness, competence, and the rule of law) reflected a higher score value than the scale average and have been classified as moderate, and the status in this regard is considered based on (Sullivan and Artino, 2013).

Figure 5 reveals that there are four variables whose mean scores are above the normal average (3.5), while the remaining eight variables are below the average in the Likert scale. Regarding status categories of average scores, the first four variables belong to the moderate status category. The next seven variables, in terms of their scores, were classed as moderately low as their scores were within 3.25–3.50. The average score of the remaining variable, ethical conduct (score being

3.21), belongs to the status category of low in urban good governance for land governance.

### 3.1.1 Participation

Participation in various social organizations, including community organizations, has become an important part of governance (Chen and Zhang, 2021). However, this may be challenging where people feel intimidated, lack certain knowledge or relevant language to understand and contribute, or even feel they may not have the right to participate (The Urban Partnerships Foundation, 1991). It is an important and leading variable of urban good governance. New political leadership made upgrading the quality of municipal personnel and their skill composition possible. This led to improved participation, thereby instituting a virtuous circle of improved capacity, citizen participation, and resource levels. According to Olowu (2003), representation of people for fair conduct of elections is essential. The variable score ranges from a minimum of 3.16 in the Burayu sub-city to a maximum of 3.85 in the Gelan sub-city. The level of variation observed among the sub-cities was 0.69, which is very large. The mean participation was 3.4750. The deviation from the mean score to the lowest score is at the level of  $-0.31$ , while that from the mean to the highest score is at the level of  $+0.37$ , as such responses are relatively more tilted toward the positive side of the mean compared to its negative side, which reflects a reasonably good outcome that there is a tendency of people's participation in urban land management issues, which is in line with the findings by Admasu and Jenberu (2024), Olira (2022), Qian (2014), and Udessa et al. (2021).

While Gelan and Sululta sub-cities have higher score values than the average for the variable, the remaining four sub-cities, viz., Furi, Kura Jida, Sebeta, and Burayu, have a lower score compared to the average for the variable. The facts imply that the participation of people is higher among sub-cities located in the North, Western, and South Eastern parts of the region. Sub-cities in the northeast (Kura Jida) and southwest (Sebeta) are very close to the average participation. However, people affected by a decision have a right to participate in the decision-making processes (Suphattanakul, 2018). Burayu sub-city in Sheger is an exception to this generalization, where participation is the lowest. As active participation in land governance enables citizens to get used to the study, there are highlighted benefits from sound land administration and sound land management (Enemark, 2009), but the case in other urban centers is not promising for proper urban land governance.

### 3.1.2 Responsiveness

Good governance involves a focus on a clear vision and positive organizational culture, clarity of roles and responsibilities, robust management practices and systems that support both internal and external accountability, and public access to decision-making and information (City of Joondalup, 2021). The level of responsiveness among the city dwellers increases with the fair and well-demonstrated treatment of the people (Urban Good Governance and Capacity Building Bureau 2018; Olowu, 2003; Chakraborty et al., 2015; MoUDH, 2018). Responsiveness involves paying attention to another person's wishes and needs (Suphattanakul, 2018).

People become responsive to the schemes and other endeavors given the opportunity. The provision of necessary responses to the requests of customers and service recipients is found to be very crucial

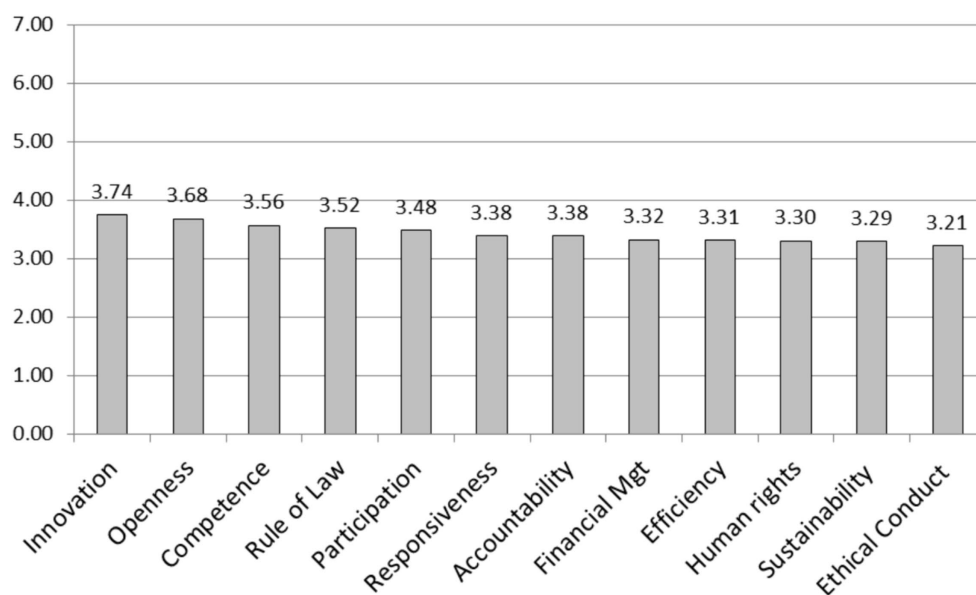


FIGURE 5

Mean scores of UGG variables in descending order. Source, Computed using survey data, 2023.

(Bell, 2007; Authority, 2014; Cruz and Paulino, 2022; Siyum, 2022; Admasu and Jenberu, 2024; Olira, 2022). The results reveal that the range of responsiveness varies from a minimum of 3.04 in the Furi sub-city to a maximum of 3.78 in the Kura Jida sub-cities. The variation observed among the sub-cities was at the level of 0.74. The mean value for the variable is 3.3836. The deviation of the lowest score from the mean is  $-0.34$ , while the deviation of the highest value from the mean is  $+0.40$ . As such, responses are relatively more tilted toward the mean's positive side than its negative side. It indicates a reasonably good outcome: the people's responsiveness toward urban land governance is increasing. Three sub-cities, Kura Jida, Gelan, and Sebeta, have reflected above-average responsiveness, while Sululta, Burayu, and Furi sub-cities have below-average responsiveness scores. The study conducted by Kebede (2022) shows that the performance in applying the principle of responsiveness in the Urban Land Development and Management Office of Shashamene town is poor, revealing that there was no assessment of the needs and preferences of society.

### 3.1.3 Efficiency and effectiveness

Improving the efficiency and effectiveness of urban functions and services is a technical problem that has traditionally been one of the main objectives of urban planning and management (Mortaheb and Jankowski, 2023). Land governance, specifically land-use planning, is becoming increasingly important as a means to ensure efficient and effective land-use management, provide infrastructure and services, protect and improve the environment, prevent pollution, and pursue sustainable development (Enemark, 2009). The range of efficiency and effectiveness is 0.22, which is short. It varies from a minimum score of 3.17 at Burayu to a maximum score of 3.51 at Gelan. The mean value of the variable is 3.3062. The deviation of the lowest score from the mean is  $-0.1362$ , whereas the deviation of the highest score from the mean value is  $+0.2038$ . Therefore, the responses were more tilted toward the positive side. Burayu, Kura Jida, and Sebeta sub-cities

represent relatively lower levels of efficiency and effectiveness in urban good governance. As compared to this, Gelan, Furi, and Sululta sub-cities reflect relatively higher scores of efficiency and effectiveness in good governance in urban governance. Nonetheless, efficiency and effectiveness in management are among the important matters in the administrative process (Abdul and Al-Sayed Omar, 2023). The case in land governance in Sheger City is still found to be lower than the average.

### 3.1.4 Openness and transparency

Good governance involves a focus on a clear vision and positive organizational culture, clarity of roles and responsibilities, robust management practices and systems that support both internal and external accountability, and public access to decision-making and information (City of Joondalup, 2021). Openness and transparency are at the heart of good governance, as the government runs all affairs of its people openly and transparently (Tikue, 2016). Openness reflects that citizens and governments can work together to achieve better results. Transparency, as one of the basic principles of good governance, implies public insight into the work of public administration. The survey results reveal that the range of responses varies from a minimum score of 3.14 at Burayu to a maximum score of 4.15 at Sululta. The spread of the range is 1.01, which is comparatively large. The mean score is worked out as 3.6769. The spread of responses toward the negative side from mean to lowest score is  $-0.5369$ , whereas the spread toward the positive side from mean to highest score is  $+0.4731$ . As such, the result is more tilted toward the negative side, which is not a good reflection, and seeks to reorient more openness and transparency in governance. Open societies are founded on a foundation of public trust between public institutions and the population (Boserup et al., 2005). However, the cases in Burayu, Furi, and Kura Jida sub-cities have reflected relatively lower scores in this variable. Contrary to this, Sululta, Gelan, and Sebeta have average and above-average scores, reflecting relatively

more openness and transparency in these sub-cities with regard to land governance. Overall, the tendency toward openness and transparency is greater than the average and varies significantly among the sub-cities.

### 3.1.5 Rule of law

The rule of law is at the center of all the remaining principles of good urban land governance (Glaeser, 2014; Qian, 2014; Udessa et al., 2021). The commitment of urban land administrators to transparency and accountability promotes the rule of law. All the urban land governance officials, institutions, and other stakeholders are supposed to be responsible for publicly broadcasting, equally enforcing, and independently adjudicating the urban land laws, plans, guidelines, and systems. This requires mechanisms to share decision-making with the local community and ensure that their actions are consistent with the legislation. The results of the survey reveal a wide variation in the scores of the sub-cities in the case of the rule of law. From a minimum of 2.74 in Burayu to a maximum of 4.19 in Furi, the scores of the variable indicated an overall variation of 1.45 values. Although good governance is among the factors that promote the rule of law (Necha Sungena et al., 2014), the variable's mean value in this specific case is 3.5167. Burayu, Sululta, and Sebeta sub-cities are below the average score, while Kura Jida, Gelan, and Furi sub-cities reflect the average situation in the case of the rule of law. The rule of law requires the state to act in accordance with the laws it has promulgated, and these laws must meet a certain number of minimum characteristics (Valcke, 2012). The spread of the score from mean to lowest score is  $-0.7767$ , while the spread from mean to highest score is  $+0.6733$ . Hence, as per responses, the rule of law is relatively more tilted toward the negative side in the study area, reflecting that more efforts are needed at the sub-city level to upscale the score to cross the average mark on the scale. Furthermore, it is significant to note that there is a marked variation among the sub-cities regarding the rule of law in operation. The highest score in Furi reflects a relatively high score in this variable.

### 3.1.6 Ethical conduct

Although goodwill, values, and principles are cultured and nurtured, processes and guidelines with clearly designed steps aligned with the organization's responsibilities and commitments can guide institutions through the decision-making process (Grigoropoulos, 2019). Ethical codes of conduct increase the probability that people will behave in certain ways. They do this partially by focusing on the character of their actions and partly by focusing on sanctions for violations. Accountability in land governance can be improved through the implementation of monitored uniform service standards, codes of conduct for staff (as well as mechanisms of sanction), and incentives such as awards for outstanding employees (Bell, 2007). In addition, reliance on codes can reduce the sacrifice involved in an ethical act. The results of the survey reveal that the responses in this variable range from a minimum of 2.78 in the Burayu sub-city to a maximum of 3.47 in the Gelan sub-city. The average score value is 3.2112. The range of scores is worked out to be 0.69. The negative side of the spread from the mean to the lowest score is  $-0.4312$ , while that of the positive side from the mean to the highest score is  $+0.2588$ . As such, there is a greater tilt of spread toward the negative side, reflecting a greater scope to improve the ethical conduct in urban land governance in the study area. Burayu, Sebeta, and Kura Jida sub-cities performed below average, while Gelan, Furi, and Sululta sub-cities

performed above average in this variable. While variation is comparatively low, the results indicate a greater need for improvements in this variable. The overall result is marginally lower than that of the average in scale.

### 3.1.7 Competence and capacity

Competence and capacity are very significant variables in urban good governance. Lack of competence and capacity can be an important constraint in developing and eradicating poverty. According to Nijkamp et al. (2022), central to city effectiveness is the professional competence of its workers. Incompetent and ineffective institutions lead to poor land governance (Elias, 2015). Results reveal that the scores of the variable range from a minimum of 3.33 in the case of the Sululta sub-city to a maximum of 3.86 in the Gelan sub-city. Thus, the range is 0.53, which is relatively small. The mean score of the variable is 3.5607. The spread from the mean to the lowest score is  $-0.25$ , while the spread from the mean to the highest score is  $+0.30$ . As such, the score results are relatively tilted toward the positive side. Sub-cities such as Burayu, Sebeta, and Sululta are below the average score, while Furi, Gelan, and Kura Jida sub-cities are above the average score. It implies that the variable competence and capacity need further upgrading to improve their competence and capacity in the study area. However, it has displayed a higher score than the scale average, indicating a tendency toward growing competence and capacity among the sub-cities in the study area.

### 3.1.8 Innovation and openness to change

Innovation is commonly linked to urban issues through smart cities (Cruz and Paulino, 2022). Innovation means finding new ways to meet challenges and satisfy citizens' needs. A characteristic feature of current processes of urban innovation is the adoption of collaborative approaches to the definition, production, and implementation of products and services. Some findings encouragingly point to participants' openness to embrace well-articulated, long-term goals developed with inclusive citizen engagement and supporting both the local vision and the international agreements (Spiliotopoulou and Roseland, 2022). The results of the study reveal that the score values ranged from a maximum of 3.92 in the Gelan sub-city to a minimum of 3.56 in the case of the Burayu sub-city. The range is 0.36, which is relatively small compared to those observed in cases of other variables. The mean score for the variable is 3.7409. The spread of the score from average to the lowest score is  $-0.1809$ , and the highest score is  $+0.1791$ . As such, the results are marginally tilted toward negative scores from the mean. Gelan, Kura Jida, Sebeta, and Furi sub-cities registered a higher score than the average, while Burayu and Sululta sub-cities recorded a lower score than the average for the variable. The overall analysis reveals that innovation and openness to change have a positive tendency to improve because the lowest score is higher than the scale average, and the highest score is in the range of moderately high status.

### 3.1.9 Sustainability and long-term orientation

Sustainability and long-term orientation in land governance balance the economic, social, and environmental needs of present and future generations and locate its service provision at the closest level to citizens (Enemark, 2009). Sustainability issues arise from difficulties integrating humans and their activities into land use's structure, functions, and ecology (Shi and Woolley, 2014). Viewed from this



perspective, the survey results reveal that the scores range from a minimum of 3.11 in the Burayu sub-city to a maximum of 3.44 in the Gelan sub-city, reflecting a range of 0.33. The average score for the variable is 3.2900, which is comparatively lower than the normal for the Likert scale (1 up to 7) used in this exercise. The spread of the score from the mean up to the lowest value is  $-0.18$ , and that for the highest score is  $+0.15$ . The two sub-cities, *viz.*, Burayu and Kura Jida, record lower scores, while the remaining four (Gelan, Furi, Sululta, and Sebeta sub-cities) score higher than the regional average in this variable. The overall scores in this variable are negatively tilted. Hence, planned efforts and greater emphasis are needed to attain sustainable urban land governance in the study area. Furthermore, it is important to note that all scores are below the average measured on the Likert scale.

### 3.1.10 Sound financial management

Reflecting on the real situation in urban situations will be effective not only in tackling the risks faced but also in achieving the economic benefits of sound financial management (Azadi et al., 2023). The results of the field survey revealed that the score ranged from a minimum of 3.14 in the case of the Furi sub-city to a maximum score of 3.64 in the case of the Sebeta sub-city. The range of scores worked out to be 0.50, which is a modest range on the scale. The average score value for the variable has been worked out as 3.3157. The spread of scores from the mean to a minimum score is  $-0.1757$ , and the spread of scores from the mean to a maximum score is  $+0.3243$ . Thus, the distribution of the score is tilted toward the positive side, and the range is greater. The Furi, Burayu, and Gelan sub-cities scored lower than the regional average.

Contrary to this, Sululta, Kura Jida, and Sebeta sub-cities have reflected a greater score value than the regional average. All sub-cities in the study area, except for Sebeta, register less than the normal value in the given scale. Hence, there is an apparent need to introduce sound financial practices in the study areas to improve the financial status of sub-cities in the study area and to ensure good land governance.

### 3.1.11 Sound human rights, cultural diversity, and social cohesion

Good governance and its concept emerged because bad governance practices cause a lack of respect for human rights, and the need to intervene in such cases has become urgent (Siyum, 2022). The world community unanimously adopted the Universal Declaration of Human Rights on 10th December 1948. Cultural rights are an integral part of human rights. Flourishing of creative diversity requires full implementation of cultural rights as defined in Article 27 of the Universal Declaration of Human Rights. Social integration is a process that leads to social cohesion. Thus, urban centers should embrace these values to become smart, culturally diverse, and socially cohesive. The results of the survey reveal that the score of the variable ranges from a minimum of 3.18 at Furi to a maximum of 3.44 in Gelan, reflecting a range of 0.26 in the distribution, which is relatively small. The mean value is worked out as 3.3017. The spread of score values from the mean to the lowest score is  $-0.1217$  and up to the highest score is  $+0.1383$ . As such, scores are relatively tilted toward the positive side. Furi and Sebeta sub-cities have reflected lower scores compared to the mean, while the remaining four sub-cities (Gelan, Sululta, Kura Jida, and Burayu) have reflected a higher score compared to the mean. The overall interpretation of the results reveals that the

variable as a whole stands lower than the expected normal score. Hence, efforts are to be made to improve the situation in the study area.

### 3.1.12 Accountability

The system, suffering from a lack of necessary human and material resources, weak enforcement of standards, and lack of transparency and accountability, among others, has become unable to meet the growing demand for land in many urban centers (Beza and Beza, 2021). Local governments need to be accountable to their communities. This means assessing whether the local government has fulfilled its commitments with the resources provided and within the defined time frames (City of Joondalup, 2021). This issue has gained international attention, and discussions about accountability have become central to the service delivery debate.

The survey results reveal a minimum score of 3.06 in the Burayu sub-city and a maximum score of 3.67 in the Gelan sub-city. The range of scores is 0.61, which is relatively large. The calculated mean value is 3.3806. The spread of scores from the mean up to the lowest value is  $-0.3206$ , and the spread of scores from the mean up to the highest value is  $+0.2894$ . As such, the distribution of scores is relatively tilted toward the negative side. Burayu, Furi, and Sululuta sub-cities have represented lower scores than the average, while Kura Jida, Sebeta, and Gelan sub-cities represented higher scores than the average. The overall status of the variable accountability is relatively weak compared to the normal scale distribution. As such, there is a need to upscale accountability in good governance related to land governance. According to Udessa et al. (2021), the rule of law and the practice of accountability in Gelan and Lega Tafo Lega Dadi sub-cities were less effective.

## 3.2 Status in land governance in selected sub-cities of Sheger

The concept of governance has become a debated topic, especially when sustainability requires balancing social, economic, and environmental components in the decision-making process (Olowu, 2003). Based on scores obtained in 12 variables of land governance, the performance of Sheger City and its selected sub-cities has been determined. Figure 6 shows the average position of the city in general and for separate sub-cities in the variables of urban land governance. While the average score of the sub city determines its relative position among the sub cities, scores of individual variables determine their relative status within the sub city with rank 1 as very high to rank 12 as very low across indicators of urban good governance in land governance. Overall, there are 5 status categories (very high, high, moderate, low and very low) to indicate the status of a variable out of the 12. Each status category will be represented by two variables, as per their placing in the rank order. However, to accommodate 12 variables within the 5 categories, a minor adjustment has been made. Instead of two variables for each category, moderate and very low categories will be accorded with three variables each because of neutrality at the middle and having limited significance at the bottom of the score. Studies conducted on urban land governance in Ethiopian cities by Siyum (2022), Udessa et al. (2021), Chanyalew et al. (2014), Alemie et al. (2011), Terfa et al. (2020), Necha Sungena et al. (2014),

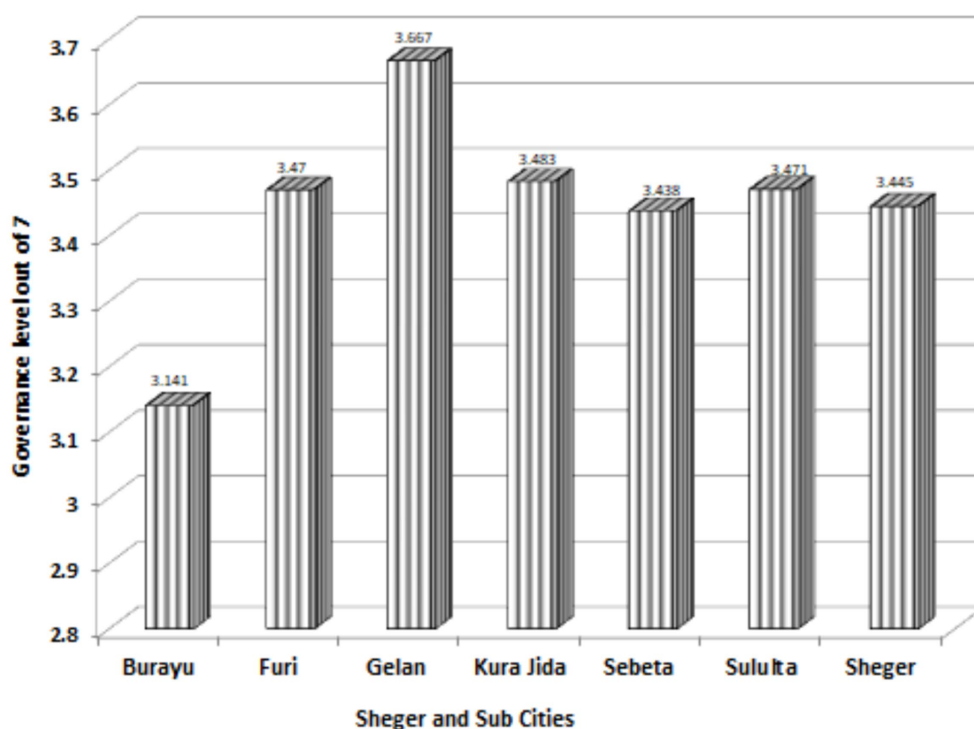


FIGURE 6 Means of variables of land governance in Sheger and the sub-cities. Source, Computed using survey data, 2023.

TABLE 1 Relative performance of variables among the selected sub-cities in Sheger City.

Sub cities	Burayu	Furi	Gelan	Kura Jida	Sebeta	Sululta	Sheger City
Participation	3.16	3.45	3.85	3.44	3.43	3.65	3.50
Responsiveness	3.12	3.04	3.73	3.78	3.52	3.35	3.42
Efficiency	3.17	3.37	3.51	3.28	3.22	3.39	3.32
Openness	3.14	3.64	3.90	3.63	3.67	4.15	3.69
Rule of law	2.74	4.19	3.94	3.59	3.39	3.30	3.53
Rule of ethics	2.78	3.38	3.47	3.21	3.14	3.32	3.22
Completeness	3.33	3.77	3.86	3.59	3.37	3.46	3.56
Innovation	3.56	3.75	3.92	3.81	3.76	3.72	3.75
Sustainability	3.11	3.41	3.44	3.17	3.35	3.35	3.31
Sound financial management	3.22	3.14	3.27	3.47	3.64	3.33	3.35
Sound human rights	3.30	3.18	3.44	3.34	3.26	3.37	3.32
Accountability	3.06	3.32	3.67	3.49	3.51	3.26	3.39

Source: Computed using survey data, 2023.

and Nigussie Melese (n.d.) have indicated that there are gaps and weaknesses in urban land governance, often due to lack of coordination and poor performance in one or more governance principles.

As shown in Figure 6, the Burayu sub-city recorded the lowest score of 3.141, lagging behind the highest average score of (3.667) in Gelan by 0.526 points, which is quite large. On the other hand,

variable innovation scores are the highest and lie in the moderate status category (3.50–3.75) in land governance (Table 1). As can also be seen from the table, the score for the variable innovation is followed by two variables, completeness and sound human rights, with a status of category as moderately low. The next seven variables (sound financial management, efficiency, participation, openness, responsiveness, sustainability, and accountability) in rank order have

been classified as low in the status category of urban land governance. The remaining two variables, such as the rule of law and the rule of ethics, register a very low-status category (average score below 3.00) (Table 1).

Figure 6 also shows that the Sebeta sub-city has the second lowest average score of 3.438 overall urban good governance in land administration. Variable innovation tops the list, and its score (3.76) lies in the moderately high-status category. Four variables in the order of their scores are openness, sound financial management, responsiveness, and accountability. These variables lie in the moderate (3.51–3.75) status category of UGG in land governance. The next five variables, such as participation, rule of law, completeness, sustainability, and sound human rights, belong to the moderately low category, with scores (3.25–3.50) below average. The remaining two variables, such as efficiency and the rule of ethics, have been classed in the low-status category (3.00–3.25) because of their relative scores (refer Table 1).

The overall score value for the Furi sub-city is 3.47 (Figure 6), and the rule of law, with a score of 4.19, is classed as high status. Variables of completeness and innovation, having their scores in the range of 3.75–4.00, have been categorized as moderately high. Variable openness, with a score of 3.64, lies in the moderate status category in land administration. Five variables—participation, sustainability, rule of ethics, efficiency, and accountability—with scores ranging between 3.32 and 3.45 reflect a moderately low status in land governance. The remaining three variables, *viz.*, sound human rights, sound financial management, and responsiveness, with their score within 3.00–3.25, reflect low status (Table 1).

The overall score value of the Sululta sub-city, as can be observed in Figure 6, is 3.471, with the score of variables ranging between 3.26 and 4.15. Variable openness with the highest score value of 4.15 is classed as high in status. Variables innovation and participation lie in the status category of moderate (3.75–4.00). Scores of the remaining nine variables range from 3.26 to 3.46; as such, all of them have been classified as moderately low in status. Other status categories, such as low and very low, have not been represented in this sub-city (Table 1).

Kura Jida sub-city scores 3.483 out of seven on land governance, and innovation and responsiveness have a moderately better (scores >3.75) status in the sub-city (Tables 2, 3). It is also indicated in Table 4 that three variables, openness, the rule of law, and completeness, have a moderate status (scores within 3.50–3.75), while five variables such as accountability, sound financial management, participation, sound human rights, and efficiency have a moderately low status (scores within 3.25–3.50). The remaining two variables, *i.e.*, rule of ethics and sustainability, reflect relatively low status (scores below 3.25) in land governance (Table 4).

Finally, the case in the Gelan sub-city is relatively good, with an overall score of 3.667, and is greater than the theoretical average (3.5) on a Likert scale (Figure 6). The results reveal that five variables, such as the rule of law, innovation, openness, completeness, and participation, have registered a moderately high score (>3.75) in land governance in the Gelan sub-city. Nearly one-fourth, *i.e.*, three variables, such as responsiveness, accountability, and efficiency, have record moderate status in land governance in the sub-city. The remaining four variables (rule of ethics, sustainability, sound human rights, and sound financial management), accounting for one-third of the total, have recorded moderately low status in land governance.

TABLE 2 Relative placing of UGG variables based on their mean scores and rank order.

Order of variables	Mean	Rank	Status
Innovation and openness to change	3.7409	1	Moderate
Openness and transparency	3.6769	2	Moderate
Competence and capacity	3.5607	3	Moderate
Rule of law	3.5167	4	Moderate
Participation, representation, fair conduct of elections	3.4750	5	Moderately low
Responsiveness	3.3836	6	Moderately low
Accountability	3.3806	7	Moderately low
Sound financial management	3.3157	8	Moderately low
Efficiency and effectiveness	3.3062	9	Moderately low
Human rights, cultural diversity and social cohesion	3.3017	10	Moderately low
Sustainability and long-term orientation	3.2900	11	Moderately low
Ethical conduct	3.2112	12	Low

Source: Computed using survey data, 2023.

To summarize, variables such as participation, efficiency, rule of ethics, completeness, innovation, sustainability, sound human rights, and accountability. In contrast, Furi sub-city (rule of law), Kura Jida (responsiveness), Sululta (openness), and Sebeta (sound financial management) scored highest in one variable each. Contrary to this, the Burayu sub-city scored lowest in as many as nine variables, such as participation, efficiency, openness, the rule of law, the rule of ethics, completeness, innovation, sustainability, and accountability, and the Furi sub-city scored lowest in the remaining three variables, namely responsiveness, sound financial management, and sound human rights (Table 1).

### 3.3 Association between variables and the general performance of land governance

Pearson's correlation coefficient has been used to assess the level and the nature of the relationship between the means of major variables of urban good governance and the general status of land governance. The association results reveal a moderately positive relationship between the means of the variables and the general status of land governance. As many as 9 out of 12 independent variables reflect a correlation coefficient ranging between 0.615 and 0.693. Four variables, such as ethical conduct, sustainability and long-term orientation, participation, representation, fair conduct of elections, human rights, cultural diversity, and social cohesion, reflect correlation coefficient values ranging between 0.653 and 0.693, which is a moderately high

**TABLE 3 Association between the means of variables and the general status of land management.**

S. no	Means of major variables	Pearson correlation coefficients with the general status of land governance
1	Ethical conduct	0.693**
2	Sustainability and long-term orientation	0.670**
3	Participation, representation, fair conduct of elections	0.659**
4	Human rights, cultural diversity and social cohesion	0.653**
5	Rule of law	0.650**
6	Efficiency and effectiveness	0.646**
7	Competence and capacity	0.629**
8	Sound financial management	0.622**
9	Innovation and openness to change	0.615**
10	Openness and transparency	0.593**
11	Responsiveness	0.574**
12	Accountability	458

Sample size in all the cases is 458, and Sig. (two-tailed) is 0.000. Computed using survey data, 2023.

**TABLE 4 Results of regression coefficients and their significance.**

Model	Beta value	<i>p</i> value
(Constant)	1.124	0.000
Responsiveness	0.178	0.000
Innovation and openness to change	0.162	0.000
Rule of law	0.149	0.000
Efficiency and effectiveness	0.148	0.000
Openness and transparency	0.146	0.000
Accountability	0.134	0.000
Ethical conduct	0.129	0.001
Human rights, cultural diversity and social cohesion	0-084	0.031
Sustainability and long-term orientation	0.075	0.041
Participation, representation, fair conduct of elections	0.058	0.120
Sound financial management	0.046	0.179
Competence and capacity	0.033	0.353

Computed using survey data, 2023.

association. Other five variables, such as the rule of law, efficiency and effectiveness, competence and capacity, sound financial management, and innovation and openness to change, have a correlation coefficient value ranging between 0.615 and 0.650, which is considered to be a

moderate relationship. The remaining three variables, namely openness and transparency, responsiveness, and accountability, reflect a coefficient of correlation ranging between 0.458 and 0.593, which is relatively a moderately low association (Table 5).

### 3.3.1 Determinants of land governance in Sheger City

The results of the regression coefficient (Table 4) reveal that as many as 9 variables (out of a total of 12) reflect regression coefficients to be significant as the *p* value is less than the level of 0.01, 0.05, or 0.1. Regression Table 4 clearly depicts that the determining power of responsiveness (beta value 0.178) is relatively the highest of all the others. This was measured using three major proxies, which measure the adaptation of objectives, rules, structures, and procedures to the needs of citizens, delivery of services within a reasonable timeframe, and response to requests and complaints within a reasonable timeframe. The second determinant factor is related to innovation and openness to change, with a beta value of 0.162. This variable was also generated from three different proxies posed to the respondents. The proxies are about searching for new and efficient solutions to problems in service provision, the readiness of employees and other concerned bodies to experiment with new programs and learn from experiences, and creating a favorable climate for changes to achieve better results.

The third major factor affecting land governance in Sheger City is the rule of law encompassing the local authorities abiding by the law and judicial decisions, adaptation of rules and regulations by law, and impartial enforcement of rules and regulations with a beta value of 0.149 (Table 4).

Questions raised to measure the rule are about results meeting the agreed objectives, the existence of possible use of the resources available, performance management systems making services efficient and effective, and audits carried out at regular intervals to assess performance to measure efficiency and effectiveness. The beta value for this is computed as 0.148 (Table 4).

Openness and transparency are the fifth determinant factors for land governance in Sheger City, with a beta value of 0.146. They are measured by looking into proxies dealing with how the city is making and enforcing decisions in accordance with rules and regulations, reasonable accessibility of all the required information to the public, and availability of information on decisions and implementation of policies and results.

The extent to which decision-makers take responsibility for their collective and individual decisions, to what extent decisions are reported on, explained, and can be sanctioned. Effective remedies against maladministration were well considered in measuring the level of accountability in the sector. The beta value for this variable is 0.134. This reveals that accountability is the other determining factor affecting land governance in Sheger City.

The status of ethical conduct (beta value 0.129) is measured by examining the placement of public good before individual interests, the existence of effective measures to prevent and combat all forms of corruption, the timely declaration of conflicts of interest, and the abstention of persons in conflicts of interest from taking part in relevant decisions (Table 4).

Human rights, cultural diversity, and social cohesion refer to respecting, protecting, and implementing human rights; combating discrimination on any grounds; treating cultural diversity as an asset; continuous efforts are made to ensure that all have a stake in the local

TABLE 5 Model summary.

Model	R	R square	Std. error of the estimate	Change statistics				
				R square change	F change	df1	df2	Sig. F change
1	0.873 <sup>a</sup>	0.762	0.42352	0.762	119.018	12	445	0.000

Computed using survey data, 2023.

community; social cohesion and the integration of disadvantaged areas are promoted; and access to essential services is preserved (an all-score beta value of 0.084) and is the other significant factor affecting land governance in Sheger City.

Finally, sustainability and long-term orientation, with a beta value of 0.075, are the other factors with relatively the lowest beta value affecting land governance in the city. Sustainability and long-term orientation are about taking the needs of future generations into account in current policies; the sustainability of the community is constantly taken into account; decisions strive to internalize all costs; decisions strive not to transfer problems and tensions to future generations; there is a broad and long-term perspective on the future of the local community, and there is an understanding of the historical, cultural, and social complexities (Table 4).

### 3.4 Model summary

The result of the model summary reveals that the correlation coefficient (R) and the coefficient of determination (R-squared) are the two values that help to better understand the relationship and the power of determination of two variables when placed in the same situation. By understanding these coefficients, one can determine the statistical chances that the model is good or bad for policy or project implementation. The R-value is 0.873, which explains a strong positive association. The coefficient of determination, i.e., R square value, is 0.762, explaining 76.2% of the variation in land governance in Sheger City, which is explained by these 12 independent variables (the 12 governance principles). The standard error of the estimate is 0.42437, which explains that the variability around the estimated regression line is quite small and the model best fits the situation.

The dependent variable is land governance, and the predictors are mean of accountability, openness, responsiveness, the rule of law, innovation, efficiency, sound financial management, completeness, the rule of ethics, participation, sustainability, and the mean of sound human rights.

## 4 Conclusion and recommendations

### 4.1 Conclusion

The general objective of this study was to identify the most important governance principles for improving land governance for urban development and growth. The governance principles assessed in this study include participation, responsiveness, efficiency, openness, rule of law, rule of ethics, completeness, innovation, sustainability, sound financial management, sound human rights, and

accountability. Based on the results of the field survey and analysis, the following conclusions could be made.

Generally, the status of land governance in Sheger City is rated at 3.445, which is less than half (50%), meaning lower than the moderate level. This score varies across different sub-cities, ranging from the lowest (3.141) in the Burayu sub-city to the highest (3.667) in the Gelan sub-city, the only sub-city scoring above 50%. These findings align with observations and similar studies conducted by [Girma et al. \(2019\)](#), [Habtamu \(2011\)](#), and [Schmidt and Kedir \(2009\)](#).

Out of the 12 independent variables (the identified governance principles), the mean score of only four, meaning innovation and openness to change (3.7409), openness and transparency (3.6769), competence and capacity (3.5167), and rule of law (3.5167), is more than 50%. The remaining eight variables are below the normal average, which means that two-thirds of the variables of land governance do not meet even the average requirement of good land governance in the sub-cities of Sheger City.

However, there are marked variations in the scores of specific variables across the sub-city level. For example, the variable rule of law recorded the highest score of 4.19 in the Furi sub-city, and openness scored 4.15 in the Sululta sub-city. Similarly, maxima of variables, innovation (3.92), completeness (3.86), participation (3.85), responsiveness (3.78), accountability (3.67), sound financial management (3.64), and efficiency (3.51), have been registered in the Gelan sub city. The remaining three variables, rules of ethics, sound human rights, and sustainability, are maxima below the average (3.5) value recorded in the Gelan sub-city. As such, the Gelan sub-city has the maxima in cases of eight variables, while Furi, Kura Jida, Sululta, and Sebeta sub-cities have maxima of one variable each. Contrary to this, the minima of nine variables were recorded in the Burayu sub-city, while the minima in the remaining three variables were recorded in the Furi sub-city, showing huge disparities among the sub-cities in Sheger.

Regarding the determinants, the model applied explains 76.21% of the variation in land governance in Sheger City. This indicates that implementing these governance principles can significantly improve land governance in Sheger City and potentially in other urban centers in Ethiopia.

Specifically, responsiveness emerged as the highest determinant factor affecting land governance in Sheger City. This aligns with Sharon Weil's statement, "To be effective, be responsive; to be responsive, listen." The next highest determinant factor affecting land governance in Sheger City was innovation and openness to change, echoing Albert Einstein's assertion, "We cannot solve our problems with the same thinking we used when we created them."

The limitation of this study includes the use of self-reported data collected through a questionnaire survey, in which case respondents' answers may be influenced by social desirability bias or recall bias. Additionally, although the study focused on Sheger City, which may

limit the generalizability of the findings to other regions or urban centers, these results can serve as a reference to better inform policy agendas concerning land governance in urban centers across the region.

## 4.2 Recommendations

To improve land governance, the Sheger City administration and other similar urban centers should be more responsive to their customers. Regardless of whether the customers are satisfied or not by the content of the response, providing a prompt response alone can satisfy the customers and enhance governance. This can be achieved by setting clear expectations for customers, prioritizing and proper delegation, listening to and empathizing with customers, taking action and following up, identifying gaps and making improvements, and learning to say “no” when necessary.

The second recommendation to improve land governance in the Sheger sub-city is to promote innovation and openness to change.

As Albert Einstein suggested, the city cannot achieve good governance without first changing the mindset of employees, politicians, and other decision-makers. Solutions to poor land governance cannot be found using the same approach the city has always practiced. These findings highlight the necessity of ongoing efforts to enhance land management practices and urban good governance to promote equitable and sustainable urban growth, which has significant implications for Ethiopian policymakers and urban planners.

## Data availability statement

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

## References

- Abdul, A., and Al-Sayed Omar, R. (2023). Efficiency and effectiveness in management. *J. Survey Fish. Sci.* 10, 3382–3392.
- Admasu, T. G., and Jenberu, A. A. (2024). Tesfaye gebeyehu admasu & amene, Urban Planning Implementation Challenges in Arba Minch Town, Southern Ethiopia. vol. 31, 549–572. doi: 10.1007/s12132-020-09393-6
- Alemie, B. K., Zevenbergen, J., and Bennett, R. (2011). Assessing Land Governance in Ethiopian Cities (2002–2011): lessons for the implementation of the 2011 Urban Land management policy assessing Land Governance in Ethiopian Cities (2002–2011): lessons for the implementation of the 2011 Urban Land management. *International Federation of Surveyors*. 17–21. Available at: <https://www.fig.net>
- Authority, R. (2014). Public roads service delivery and governance: December.
- Azadi, H., Robinson, G., Barati, A. A., Goli, I., Moghaddam, S. M., Siamian, N., et al. (2023). Smart Land Governance: towards a conceptual framework, 1–20. Available at: <https://www.mdpi.com/2073-445X/12/3/600>
- Badach, J., and Dymnicka, M. (2017). Concept of “good urban governance” and its application in sustainable urban planning. *IOP Conf. Ser. Mater. Sci. Eng.* 245:082017. doi: 10.1088/1757-899X/245/8/082017
- Bekele, Y. W., and Kjosavik, D. J. (2016). Decentralized local governance and poverty reduction in post-1991 Ethiopia: a political economy study. *Polit. Govern.* 4, 1–15. doi: 10.17645/pag.v4i4.590
- Bell, K. C. (2007). Good governance in land administration, 1–20.
- Beza, M. G., and Beza, M. G. (2021). Corruption in the post-1991 urban land governance of Ethiopia: Tracing major drivers in the law. *African Journal on Land Policy and Geospatial Sciences*, 4, 33–52. doi: 10.48346/IMIST.PRSM/ajlp-gs.v4i1.22268
- Boserup, L. K., Christensen, J. P., and Pedersen, L. A. (2005). An introduction to openness and access to information. Available at: <https://www.humanrightsinitiative.org>
- Burns, T., and Dalrymple, K. (2008). Conceptual framework for governance in land administration 1. International Federation of Surveyors (FIG). Available at: <https://www.fig.net>
- Chakraborty, A., Wilson, B., Sarraf, S., and Jana, A. (2015). Open data for informal settlements: toward a user’s guide for urban managers and planners. *J. Urban Manag.* 4, 74–91. doi: 10.1016/j.jum.2015.12.001
- Chanyalew, M., Enrolment, A., Birhanu, E., Submitted, T., and Fulfillment, S. S. (2014). The significance and practice of good Governance in Addis Ababa, Ethiopia the case of bole sub-city, vol. 099124655.
- Chen, L., and Zhang, Z. (2021). Community participation and subjective wellbeing: mediating roles of basic psychological needs among Chinese retirees. *Front. Psychol.* 12:743897. doi: 10.3389/fpsyg.2021.743897
- Chyung, S. Y. Y., Roberts, K., Swanson, I., and Hankinson, A. (2017). Evidence-based survey design: the use of a midpoint on the Likert scale. *Perform. Improv.* 56, 15–23. doi: 10.1002/pfi.21727
- City of Joondalup (2021). Governance Framework 2021. Available at: <https://www.joondalup.wa.gov.au/wp-content/uploads/2021/08/2021> p. 1–52.
- Cohen, B. (2006). Urbanization in developing countries: current trends, future projections, and key challenges for sustainability. *Technol. Soc.* 28, 63–80. doi: 10.1016/j.techsoc.2005.10.005
- Cruz, S. S., and Paulino, S. R. (2022). Experiences of innovation in public services for sustainable urban mobility. *J. Urban Manag.* 11, 108–122. doi: 10.1016/j.jum.2021.10.003
- Deininger, K., Selod, H., and Burns, A. (2012). The land governance assessment framework identifying and monitoring good practice in the land sector. *Open Knowledge Repository*. Available at: <https://hdl.handle.net/10986/2376>

## Author contributions

DN: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Resources, Software, Supervision, Validation, Visualization, Writing – original draft.

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## Conflict of interest

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

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- Elias, N. (2015). Access to Urban Land and its Role in Enhancing Business Environment: Multi-track versus Mono-route Land-use Markets, *Mizan Law Review* 9.
- Enemark, S. (2009). Facing the global agenda—focus on Land Governance. Development. May 2009, 3–8. Available at: [http://www.fig.net/pub/fig2009/papers/ps02/ps02\\_enemark\\_3512.pdf](http://www.fig.net/pub/fig2009/papers/ps02/ps02_enemark_3512.pdf). (Accessed October 15, 2023).
- Federal Democratic Republic (2018). Ministry of urban development, housing & construction second urban local government Volume 1, Main Text & General Annexes. I.
- Girma, Y., Terefe, H., Pauleit, S., and Kindu, M. (2019). Urban green infrastructure planning in Ethiopia: the case of emerging towns of Oromia special zone surrounding Finfinne. *J. Urban Manag.* 8, 75–88. doi: 10.1016/j.jum.2018.09.004
- Glaeser, E. L. (2014). A world of cities: the causes and consequences of urbanization in poorer countries. *J. Eur. Econ. Assoc.* 12, 1154–1199. doi: 10.1111/jeea.12100
- Grigoropoulos, J. E. (2019). The role of ethics in 21st century organization. *Int. J. Progress. Educ.* 15, 167–175. doi: 10.29329/ijpe.2019.189.12
- Habtamu, L. (2011). Challenges of urban plan implementation in small towns of Ethiopia: The case of Gelan town, AAU-ETD. Available at: <https://etd.aau.edu.et>
- Joshi, A., Kale, S., Chandel, S., and Pal, D. (2015). Likert scale: explored and explained. *Br. J. Appl. Sci. Technol.* 7, 396–403. doi: 10.9734/bjast/2015/14975
- Kanchana, R. A. C. (2015). Challenges of urbanization towards sustainable development. *J. Sustain. Dev.* 8, 52–65.
- Kebede, O. (2022). Land administration: securing limited resource with skyrocketed demand in Shashemene City of Oromia Regional State, Ethiopia. *PanAfrican J. Govern. Dev.* 3, 84–112. doi: 10.46404/panjogov.v3i1.3577
- Koroso, N. H. (2022). Urbanization & Urban Land Use Efficiency in Ethiopia - ITC dissertation number 418. doi: 10.3990/1.9789036554329
- Mortaheb, R., and Jankowski, P. (2023). Smart city re-imagined: city planning and GeoAI in the age of big data. *J. Urban Manag.* 12, 4–15. doi: 10.1016/j.jum.2022.08.001
- MoUDH (2018). Urban plan preparation and implementation monitoring bureau structure plan preparation and implementation manual, 1.
- Necha Sungena, T., Kwame Serbeh-Yiadom, P. C., and Asfaw, M. (2014). Strengthening good governance in urban land management in Ethiopia a case-study of Hawassa. Available at: [www.iiste.org](http://www.iiste.org)
- Negeri, M. D., and Erena, S. H. (2022). The determinant factors that hinders urban planning implementation in Nekemte town: the case of 2008 structure plan, 1–33. doi: 10.21203/rs.3.rs-1428226/v1
- Nijkamp, P., Kourtit, K., and Türk, U. (2022). Special issue on 'the city 2.0 – smart people, places and planning'. *J. Urban Manag.* 11, 139–141. doi: 10.1016/j.jum.2022.05.011
- Nigussie Melese (n.d.).
- Olira, K. (2022). Land administration: securing limited resource with skyrocketed demand in Shashemene City of Oromia Regional State, Ethiopia. *PanAfrican J. Govern. Dev.* 3:1
- Olowu, D. (2003). Challenge of multi-level governance in developing countries and possible GIS applications. *Habitat Int.* 27, 501–522. doi: 10.1016/S0197-3975(03)00003-1
- Oromia Spatial Planning Team (2022). Socio-spatial report for the spatial development plan framework of Shagar city.
- Peris Blanes, J. (2008). Key governance principles underpinning urban sustainable development planning and management. *WIT Trans. Ecol. Environ.* 117, 55–65. doi: 10.2495/SC080061
- Piaskowy, A. (2014). USAID principles and tools to assess land governance. October.
- Potsiou, C., and Doytsher, Y. (2010). Urban megacities the need for spatial management. *Apid Urbaniz. Mega Cities Need Spatial Inform. Manag.* 1–25.
- Qian, L. (2014). Evaluating land administration system from the perspective of good governance: a case study of informal settlement in administration system from the perspective of good governance: a case study of informal settlement in.
- Roseland, M., and Spiliotopoulou, M. (2016). Converging urban agendas: toward healthy and sustainable communities. *Soc. Sci.* 5:28. doi: 10.3390/socsci5030028
- Samsudin, S., Lay-Cheng LIM, J., Mccluskey, W., Ghazali Megat Abdul Rahman, M., and Suratman, R. (2014). Developing decentralised land administration governance assessment framework: evidence from Malaysia.
- Schmidt, E., and Kedir, M. (2009). Urbanization and spatial connectivity in Ethiopia: urban growth analysis using GIS.
- Serageldin, M., Jones, D., Vigier, F., Bassett, S., Menon, B., and Valenzuela, L. (2008). Municipal financing and urban development (issue 3).
- Shi, W., and Woolley, H. (2014). Managing for multifunctionality in urban open spaces: approaches for sustainable development. *J. Urban Manag.* 3, 3–21. doi: 10.1016/S2226-5856(18)30081-5
- Siyum, B. A. (2022). Practice and challenge of urban land governance: an empirical study in Tigray, East Africa. *J. Manag. Gov.* 27, 631–650. doi: 10.1007/s10997-022-09635-8
- Spiliotopoulou, M., and Roseland, M. (2022). Discover sustainability sustainability planning, implementation, and assessment in cities: how can productivity enhance these processes? *Discov. Sustain.* 3. doi: 10.1007/s43621-022-00081-y
- Sullivan, G. M., and Artino, A. R. (2013). Analyzing and interpreting data from Likert-type scales. *J. Grad. Med. Educ.* 5, 541–542. doi: 10.4300/jgme-5-4-18
- Suphattanakul, O. (2018). Public participation in decision-making processes: concepts and tools. *J. Bus. Soc. Rev. Emerg. Econ.* 4, 221–230. doi: 10.26710/jbsee.v4i2.213
- Terfa, B. K., Chen, N., and Zhang, X. (2020). Urbanization in small cities and their significant implications on landscape structures: the case in Ethiopia, 1–19.
- The Urban Partnerships Foundation. (1991). Urban Governance, Chapter 11 Available on Office of the Ombudsman. Available at: <https://www.ombudsman.gov.ph>
- Tikue, M. A. (2016). Good governance in land administration from below: the case of Naeder Adet Woreda, Ethiopia, 85–97.
- Udessa, F., Aduugna, D., and Workalemahu, L. (2021). Challenges to practice good Governance in Urban Land management; the case of Gelan and Lega Tafo Lega Dadi towns. *Am. J. Geogr. Inform. Syst.* 2021, 44–59. doi: 10.5923/j.ajgis.20211001.03
- UN Habitat (2015). Habitat III issue papers 6 – urban governance. Habitat III issue papers, 2015b(May), 0–10.
- UNDP (2012). Transformation, excellence and action, United Nations development programs annual report. Available at: <https://annualreport.undp.org>
- Urban Good Governance and Capacity Building Bureau (2018). Ministry of Urban Development, Housing & Construction Second Urban Local Government Vol 1, Main Text and General Annexes. I.
- Valcke, A. (2012). The rule of law: its origins and meanings. Ssrn, March 1. Available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2042336](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2042336) (Accessed October 26, 2023).