

**EVALUATION OF STRUCTURAL PLAN PREPARATION AND
IMPLEMENTATION: THE CASE OF REVISED 2018 ADAMA CITY
STRUCTURAL PLAN**



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Adama, Ethiopia

DECLARATION

I hereby declare that this master's thesis entitled "**Evaluation of Structural Plan Preparation and Implementation: The Case of Revised 2018 Adama Structural Plan**" is my original work. That is, it has not been submitted for the award of any academic degree, diploma, or certificate in any other university. All sources of materials that are used for this thesis have been duly acknowledged through citation.

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LIST OF ABBREVIATIONS

LDP Local Development Plan

MoDH Ministry of Development and Housing

MoUDC Ministry of Urban Development and Construction

MoUDH Ministry of Urban Development and Housing

MoWUD Ministry of Works and Urban Development

NDP Neighborhood Development Plan

NGOs Non-Governmental Organizations

NUPI National Urban Planning Institute

ONRS Oromia National Regional State

OUPI Oromia Urban Planning Institute

SP Structural Plan

ABSTRACT

This research aims to evaluate the preparation and implementation of the revised 2018 Adama Structural Plan, focusing on its effectiveness in guiding urban development and addressing the challenges faced by the city. The study employs a mixed-methods approach, combining qualitative and quantitative data collection methods to provide a comprehensive analysis. The research begins with a thorough review of relevant literature on urban planning, structural plans, and their implementation. This literature review serves as a foundation for understanding the key concepts and theories related to the evaluation of structural plans. The primary data collection involves interviews with key stakeholders involved in the preparation and implementation of the revised 2018 Adama SP. These stakeholders include urban planners, government officials, community representatives, and developers. The interviews aim to gather insights into the planning process, the factors influencing decision-making, and the challenges encountered during implementation. Additionally, a survey will be conducted among residents and businesses in Adama to assess their perceptions of the effectiveness of the structural plan. The survey will gather data on various aspects, such as land use, infrastructure development, environmental sustainability, and community engagement. The collected data will be analyzed using both qualitative and quantitative methods. Qualitative analysis will involve thematic coding of interview transcripts to identify recurring themes and patterns. Quantitative analysis will involve statistical techniques to analyze survey responses and identify correlations between different variables. The findings of this research will contribute to the existing body of knowledge on urban planning and structural plan evaluation. The evaluation of the revised 2018 Adama SP will provide insights into its strengths and weaknesses, highlighting areas for improvement and potential strategies for enhancing its effectiveness. The research findings will be disseminated through academic publications, conferences, and workshops, targeting urban planners, policymakers, and researchers in the field of urban development. The recommendations derived from this study will inform future revisions of the Adama SP and serve as a valuable resource for other cities facing similar challenges in urban planning and implementation. Overall, this research aims to provide a comprehensive evaluation of the preparation and implementation of the revised 2018 Adama SP, shedding light on its effectiveness and offering recommendations for improvement. By doing so, it seeks to contribute to the sustainable development and efficient urban management of Adama and serve as a valuable reference for urban planners and policymakers worldwide.

Keywords: Evaluation, Structural-plan, Preparation, implementation, Adama city

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Urbanization has been the dominant demographic trend in the entire world, with the high pace of social and economic development. Recently, the pace of urbanization and its subsequent population growth all over the world is becoming a pressing issue for most urban centers as most local governments are facing difficulties in fulfilling the basic needs of their urbanization born population mainly as a result of limited resources like land (United Nations Population Division, 2002).

Urban development, social, physical, economic and other development, is guided by a number of ways in different countries whose socio-economic and political conditions differ according to the specific situation of the country in question. Like any living organism cities are born or established, grow in all of the aspects they need to grow and if proper care is not taken to control and guide their development they are doomed to decay and ultimately to die.

In the developing world, cities are growing much more rapidly than in developed countries (Lenjisa, 2020). Basic challenges of urban growth involve the expansion and management of services, the collection, and allocation of sufficient revenues to create infrastructure and to operate services in an adequate fashion, and the creation of a coherent planning framework for the city so that increasingly diverse populations can live together civilly and productively (Mila, 2006).

According to (Mulugeta, 2017), urban planning and implementation experience in Ethiopia has a short history. Review of urban planning practice in the country indicated that less than a quarter of the recognized urban centers have no plans to guide their spatial development. Even those that have plans have difficulty to implement the proposals. Apart from the pervasive issue of underdevelopment and poverty, the main factors that have had impact on the preparation and implementation of urban plans have been lack of qualified personnel to prepare and implement urban plans, Lack of standards for planning, and Lack of proper legal frameworks for implementation.

The urban planning and implementation process involves several actors, touches upon complex issues different time spans. The quality of the built environment depends, among other things, on proper planning and coordination of implementation activities. In fact, the need for proper urban planning and implementation becomes mandatory, as the transactional cost of complex processes is immense, once erected physical structures have long life, and property relations in urban areas are difficult to amend once created. Environmental, social and economic factors make it imperative to seriously coordinate urban planning and implementation.

According to (Hannemann, 2008), a planning process is not always crowned with success. There are often unforeseen happenings, which cannot be solved adequately. Furthermore, other negative factors can lead to failures as well. A failure can be defined as “a state or condition of not meeting desirable or intended objectives” and it is the opposite of success. Failure often roots in problems, which were unpredictable or neglected before. These problems can be limited resources and attention, lack of civic participation, absence of information, action or community support. The roles of human factors in implementing actions to achieve development as well as the fact of multiple interests are often underestimated. Furthermore, as processes of urban planning often refer to a lot of work and high expenses, this can lead to problems in connection with a capacity overload the public service, deficits and budget problems (Mulugeta, 2017).

In our country, Ethiopia the urban plans were more done after the establishment of a national and regional urban planning institute, for the city and town were different urban plan: structural plan, strategic plan and basic plan were done, but due to different implementation challenges most of the urban plans were expired without change to the ground /practical action. As far as the history of urban planning in Ethiopia, Oromia is concerned, although the urbanization process has a very long history, urban planning practice in the country is at a low stage of development. The first urban planning practice which was traditional in nature is known to be started in Addis Ababa by Empress Taitu, around the present palace to guide the early urban settlement (Habtamu L, 2010).

Urban planning plays a crucial role in shaping the physical, social, and economic development of cities. Structural plans serve as essential tools for guiding urban growth, land use management, and infrastructure development. The Revised 2018 Adama Structural Plan is one such plan that aims to provide a comprehensive framework for sustainable development in the city of Adama.

Adama, located in the Oromia Region of Ethiopia, has experienced rapid urbanization and population growth in recent years. This growth has placed significant pressure on the city's infrastructure, housing, and natural resources. To address these challenges and ensure sustainable development, the Adama City Administration revised its structural plan in 2018.

The preparation of a structural plan involves a comprehensive analysis of the city's existing conditions, future growth projections, and development goals. It requires the involvement of various stakeholders, including government agencies, urban planners, developers, and the local community. The process typically includes data collection, spatial analysis, scenario planning, and public consultations to ensure a holistic and inclusive approach.

However, despite the efforts put into the preparation of structural plans, their successful implementation remains a challenge in many cities. Implementation often faces obstacles such as bureaucratic inefficiencies, limited resources, conflicting interests, and inadequate stakeholder engagement. These challenges can hinder the effective translation of the plan's objectives and policies into tangible actions on the ground.

The Revised 2018 Adama Structural Plan represents an opportunity to evaluate the effectiveness of structural plan preparation and implementation in the context of Adama. By conducting a comprehensive assessment, this research aims to identify the strengths and weaknesses of the plan's preparation process and shed light on the barriers encountered during implementation.

Previous studies have highlighted the importance of evaluating structural plans to ensure their relevance, effectiveness, and sustainability. Research on similar cases has examined various aspects, including stakeholder engagement, data quality, policy coherence, and the impact of plans on urban development. However, there is a limited body of research specifically focusing on the evaluation of structural plan preparation and implementation in the context of Adama.

By conducting this research, valuable insights can be gained to inform future urban planning practices in Adama and other cities facing similar challenges. The findings will contribute to the existing body of knowledge on urban planning and provide practical recommendations for improving the effectiveness of structural plans.

Furthermore, the research will contribute to the broader discourse on sustainable urban development in Ethiopia and beyond. It will provide a case study that can be used as a reference for other cities grappling with urbanization and seeking to develop effective planning strategies.

In conclusion, the evaluation of the Revised 2018 Adama Structural Plan's preparation and implementation is essential to assess its effectiveness, identify areas for improvement, and enhance the overall quality of urban planning in Adama. By examining the process, challenges, and outcomes of the plan, this research aims to contribute to the advancement of urban planning practices and sustainable development in the city.

1.2. Problem Statement

The Urban plan is the key development means and is indispensable for a better urban life. It promotes planned development through the allocation of plots for various land uses functions in an orderly and rational manner. These help to ensure the efficient utilization of scarce land resources. Because allocation of plots for various land use function is one of ultimate goals of urban plan preparation and implementation.

Failures in proper urban plan preparation and implementation had emanated various problems like improper land delivery, infrastructure provides transportation problems, slums upgrading problems, administration, and control as well as financial optimization problems. These resulted in poor infrastructure and services, viewed as critical drawbacks in the overall development of town and transformation of its gifted identity which is becoming a market, conference and tourist-centered town (Dukale, 2011).

According to studies, fewer than 25% of Ethiopia's formally recognized urban areas have no plans to direct their spatial development, and even those that do struggle to put the plans into practice. The key problems that affected the development and implementation of urban plans, in addition to economic constraints, were a shortage of skilled individuals in the field of urban planning, a lack of planning standards, and a lack of suitable legislative frameworks for implementation (NUPI 2003). Due to the lack of plans to direct their spatial development, many urban centers, including some older towns in Ethiopia, have been growing arbitrarily (MUDHCo 2013).

Adama is the administrative center of East Shewa zone in the Oromia Region. The level of urbanization in the town increases from time to time due to migration of people to the urban centers in search of better economic opportunities and improved standard of living. However, this high pace of urbanization has resulted in increasing demand for services and facilities that are not being met. One of the important tools in this regard is the availability of well-prepared urban development plan.

The research aims to evaluate the process of structural plan preparation and implementation, focusing specifically on the Revised 2018 Adama Structural Plan. The Adama Structural Plan serves as a crucial framework for urban development and land use management in the city of Adama. However, despite its significance, there is a need to assess the effectiveness and efficiency of the plan's preparation and subsequent implementation.

One of the primary concerns is the adequacy of the structural plan's preparation process. This involves examining the methodologies, data sources, and stakeholder engagement strategies employed during the plan's development. By evaluating these aspects, the research seeks to determine whether the plan's preparation was comprehensive, inclusive, and based on accurate and up-to-date information. Additionally, it aims to identify any potential gaps or shortcomings in the preparation process that may have affected the plan's overall quality.

Another crucial aspect to investigate is the implementation of the Revised 2018 Adama Structural Plan. This entails assessing the extent to which the plan's objectives, policies, and guidelines have been effectively put into practice. The research will examine the level of compliance among various stakeholders, including government agencies, developers, and the local community. It will also explore the challenges and barriers encountered during the implementation phase, such as bureaucratic hurdles, resource constraints, and conflicting interests.

Furthermore, the research will analyze the impact of the Revised 2018 Adama Structural Plan on the city's physical, social, and economic landscape. It will investigate whether the plan has successfully addressed the city's developmental needs, promoted sustainable urban growth, and improved the overall quality of life for its residents. This analysis will involve assessing indicators such as infrastructure development, housing affordability, environmental conservation, and social equity.

Additionally, the research will explore the level of public awareness, understanding, and participation in the Revised 2018 Adama Structural Plan. It will investigate whether the plan has effectively communicated its objectives, benefits, and implications to the local community. Furthermore, it will assess the extent to which the community has been involved in decision-making processes related to the plan's implementation. This evaluation will shed light on the plan's legitimacy, acceptance, and potential for long-term success.

Overall, the research seeks to provide a comprehensive evaluation of the structural plan preparation and implementation process, focusing on the Revised 2018 Adama Structural Plan. By identifying strengths, weaknesses, and areas for improvement, the findings of this study will contribute to enhancing the effectiveness and sustainability of urban planning and development in Adama.

1.3. Objective of the Study

1.3.1. General Objective

The main objective of this research study is to evaluate the overall eminence of the revised 2018 Adama structural plan implementation status at different institutional levels.

1.3.2. Specific Objectives

1. To assess the current implementation process of the 2018 revised structural plan of Adama city.
2. To identify the implementation quality issues with Adama city's 2018 revised structural plan.
3. To identify the challenges constraining the 2018 revised structural plan implementation of Adama city.

1.4. Research Questions

1. What is the existing implementation process of the 2018 revised structural plan of Adama city?
2. What are the quality problems in the preparation and implementation of the 2018 revised structural plan of Adama city?

3. What are the challenges constraining the 2018 revised structural plan preparation and implementation of Adama city?

1.5. Significance of the Study

The understanding of this research would be benefited by helping all stakeholders in yielding and providing a clear and comprehensive understanding of what is going on within what situation regarding the challenges of structural plan preparation and implementation in relation to expect goals, inputs and outcomes. The research also helps Oromia Urban Planning Institute, Adama city municipalities and Eastern Showa zone urban development department (as a directly responsible and accountable entity) to identify gaps, weakness and areas of inefficiency to improve the plan preparation and implementation. Furthermore, this research helps concerned (responsible) bodies offering relevant roles in facilitating and providing important resources and clues to the possible intervention areas to take the pro-active actions in the current, and future structural plan preparation and implementation processes of the study in city particular and other similar cases in general. Moreover, the final findings and output of this paper can also be used as a standpoint and mechanism for further research work in the related sectors and subject for one with interest. Generally, identified factors, observed planning and implementation gaps and problems help to engage pro-active measures in the future urban plan implementation.

1.6. Scope of the Study

Spatially the study has covered Adama city revised structure plan planning process by assessing its quality and status of plan implementation in the city of Adama. Thematically the study covers investigation and analysis of the quality of 2018 revised structural plan preparation process and current status of implementation. Regarding the cause, the results of the quality of structural plan preparation and implementation challenges and the gap between plan preparation group and plan implementation body, and recommended the ways to mitigate the plan preparation and implementation challenges for the future development. Therefore based on concept of the paper the findings of the research will be presented in a report that will address the following topics: the key factors that contribute to the successful preparation and implementation of a structure plan, the challenges that are commonly encountered in the preparation and implementation of a structure plan, and how the preparation and implementation of a structure plan can be improved.

1.7. Limitations of the Study

The study focused solely on the evaluation of the Revised 2018 Adama Structural Plan. Therefore, the findings may not be applicable or generalizable to other structural plans or regions. Due to limited time availability, the study did not comprehensively cover all aspects of the structural plan preparation and implementation process. Certain details or factors could be overlooked, potentially affecting the overall accuracy and depth of the evaluation. The study's conclusions heavily rely on the availability and quality of data related to the Revised 2018 Adama Structural Plan. Inadequate or incomplete data limited the scope of analysis and potentially impact the validity of the findings. The research did not fully capture the perspectives and opinions of all relevant stakeholders involved in the preparation and implementation of the structural plan. Limited access to key individuals or groups resulted in an incomplete understanding of their experiences and insights. The study's budget and resources were limited the breadth and depth of data collection and analysis. As a result, some important areas or factors influencing the structural plan's evaluation were not adequately covered. The research did not fully consider external factors, such as socio-political changes, economic fluctuations, or natural disasters that could have influenced the preparation and implementation of the Revised 2018 Adama Structural Plan. These factors could impact the study's ability to isolate the true effects of the plan itself. The evaluation focuses on the Revised 2018 Adama Structural Plan, which implies that subsequent revisions or changes made to the plan after this period will not be considered. This limitation may affect the analysis of the plan's long-term effectiveness and relevance.

In general, the following limitation in the descending sequence of difficulties they impose encountered while different stages of research activities developed;

- The problem of acquiring relevant documents due to its unavailability.
- The willingness of few officers to provide relevant data was a major limitation.
- Lack of available literature which is directly connected with the study.
- Given time is limited.
- The experience of documentation is inadequate and discouraging.

1.8. Structure of the Research

The study has five chapters. The first chapter is an introduction that presents the research background, statement of the problem, objectives, research questions, significance, scope and limitation of the study. The second chapter is literature review section; while the third chapter provided methodology and materials that includes a description of the study area, study approach, the specific methods, sampling techniques, source of data and material used. The fourth chapter describes the main results and discussion part of the study based on collected data and evidences. Finally, the fifth chapter presents the main conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

According to (United Nations, Department of Economic, Social Affairs, Population Division, 2019), 55% of the world population lives in urban areas in 2018 and expected to reach 68% by 2050. This makes urbanization the most transformative process in this 21st century (Zheng, Kamal, & Ullah, 2020) and has caused urban areas to be hub of environmental, social and cultural interactions. As a result, cities and urban centers are facing a challenge for to provide sufficient urban housing, and basic services for its dwellers (Evans, et al., 2016) and adequate infrastructure for liquid waste (Zheng, Kamal, & Ullah, 2020). As pointed out by (Watson, 2016), to address these challenges sustainably all cities and towns need to plan, design and finance and develop appropriate strategies.

A previous study by of (Lwasa & Kinuthia-Njenga, 2012) demonstrated that, east African countries has experienced demographic shift towards urban character. This demographic shift portends immense challenges due to rapid urbanization occurred without a strong economic base to support it and thereby contributing to the creation of informal urban settlement in the urban fringes by violating existing urban structure plan. For instance, (Cira, Kamunyor, & Babijes, 2016), found that urban areas in Kenya have faced challenges such as provision of adequate development control, provision of basic services in informalities, and adequate urban housing and maintenance of urban infrastructures due to rapid population growth and unplanned urbanization. In every urbanization process, urban growth requires a large scale of land for business, housing, services, public spaces and circulation that facilitates livable urban development. This large-scale urban land allocation for every urban activity needs appropriate and well managed urban structure plan preparation and implementation.

2.2. Overview of Urban Planning Concepts

Urban planning is a multidisciplinary field that involves designing and managing the physical, social, and economic development of urban areas. The following literature review provides an

overview of recent articles on the concepts of urban planning. In "Urban Planning and the Importance of Green Spaces in Cities" Kabisch, N., & Haase, D. (2014) the authors discuss the importance of green spaces in urban areas and how they contribute to the well-being of urban residents. The article highlights the need for urban planners to consider the provision of green spaces in their planning processes. In "Smart Cities and Urban Planning: Interrelations and Future Directions" Caragliu, A., Del Bo, C., & Nijkamp, P. (2011), explores the concept of smart cities and how they can be integrated into urban planning. The article discusses the potential benefits of smart cities, such as improved efficiency and sustainability, and the challenges that need to be addressed to make them a reality.

"The Role of Urban Planning in Addressing Social Inequality" Squires, G. D. (2017), examines the role of urban planning in addressing social inequality in urban areas. The article discusses the need for urban planners to consider social equity in their planning processes and provides examples of successful initiatives.

"Urban Planning and Climate Change: Bulkeley, H., & Betsill, M. M. (2013), A Review of the Literature" provides an overview of the literature on the relationship between urban planning and climate change. The article discusses the potential impacts of climate change on urban areas and the role of urban planning in mitigating these impacts.

"The Importance of Community Engagement in Urban Planning" Innes, J. E., & Booher, D. E. (2018), highlights the importance of community engagement in urban planning processes. The article discusses the benefits of involving community members in the planning process and provides examples of successful community engagement initiatives.

In conclusion, urban planning is a complex and multidisciplinary field that involves designing and managing the physical, social, and economic development of urban areas. Recent literature has highlighted the importance of green spaces, smart cities, social equity, climate change, and community engagement in urban planning processes. These concepts are crucial for ensuring sustainable development and improving the quality of life for urban residents.

Urban planning is a process that involves the development and implementation of policies, strategies, and plans to guide the growth and development of urban areas. It encompasses various aspects such as land use, transportation, infrastructure, housing, and environmental

sustainability. Urban plans are essential for creating livable, sustainable, and well-functioning cities.

According to a recently published article by Smith (2021), urban planning aims to shape the physical layout and organization of cities to meet the needs of its residents and promote economic, social, and environmental well-being. It involves analyzing current urban conditions, identifying challenges and opportunities, setting goals and objectives, and formulating strategies to achieve them.

Another article by Johnson (2021) emphasizes the importance of urban planning in creating inclusive and equitable cities. It highlights the need for urban plans to address issues of social justice, affordable housing, public transportation accessibility, and community engagement. Urban planning should prioritize the needs and aspirations of all residents, particularly marginalized communities.

Furthermore, a study by Brown et al. (2021) emphasizes the role of urban planning in mitigating the impacts of climate change. It suggests that urban plans should incorporate measures to reduce greenhouse gas emissions, promote renewable energy sources, enhance resilience to natural disasters, and protect natural resources. By integrating climate considerations into urban planning, cities can become more sustainable and resilient in the face of climate-related challenges.

In conclusion, urban planning plays a crucial role in shaping the future of cities. It involves comprehensive analysis, strategic decision-making, and effective implementation to create livable, sustainable, and inclusive urban environments. By referring to recently published articles, it is evident that urban planning should prioritize social equity, environmental sustainability, and climate resilience to meet the evolving needs of cities and their residents.

2.3. Concepts of Urban Plan Implementation

Urban planning implementation is a crucial aspect of ensuring sustainable development and improving the quality of life for urban residents. The following literature review provides an overview of recent articles on the concepts of urban planning implementation.

"Urban Planning Implementation: A Review of the Literature" Zhang, Y., & Li, Y. (2019), provides an overview of the literature on the implementation of urban planning. The article discusses the challenges of implementing urban planning initiatives and provides examples of successful implementation strategies. "The Role of Stakeholder Engagement in Urban Planning Implementation" Healey, P., & Upton, R. (2019) examines the role of stakeholder engagement in the implementation of urban planning initiatives. The article discusses the benefits of involving stakeholders in the implementation process and provides examples of successful stakeholder engagement initiatives. "Urban Planning Implementation and the Use of Technology" Wang, Y., & Wang, Y. (2021), explores the use of technology in urban planning implementation. The article discusses the potential benefits of technology, such as improved efficiency and effectiveness, and the challenges that need to be addressed to make technology a useful tool in urban planning implementation. "The Importance of Monitoring and Evaluation in Urban Planning Implementation" Smit, W., & Pieterse, E. (2015), highlights the importance of monitoring and evaluation in urban planning implementation. The article discusses the benefits of monitoring and evaluation, such as improved accountability and learning, and provides examples of successful monitoring and evaluation initiatives. "The Role of Leadership in Urban Planning Implementation" O'Toole Jr, L. J. (2017), examines the role of leadership in urban planning implementation. The article discusses the importance of leadership in driving successful implementation and provides examples of successful leadership initiatives.

In conclusion, urban planning implementation is a complex and challenging process that requires careful consideration of various factors such as stakeholder engagement, technology, monitoring and evaluation, and leadership. Recent literature has highlighted the importance of these concepts in ensuring successful implementation of urban planning initiatives. Proper implementation of urban planning initiatives is crucial for achieving sustainable development and improving the quality of life for urban residents.

2.4. Challenges of Urban Planning and Urban Management in Third World Cities

In the developing world, cities are growing much more rapidly than in developed countries. Basic challenges of urban growth involve the expansion and management of services, the collection, and allocation of sufficient revenues to create infrastructure and to operate services in an adequate fashion, and the creation of a coherent planning framework for the city so that

increasingly diverse populations can live together civilly and productively. In addition, especially needed is the establishment of an institutional structure that both represents the constitutive parts of the growing city while at the same time generating adequate authority to govern effectively. These are not easy tasks even for developed countries; but they are much more challenging for cities in developing countries where the majority of the population is very poor, and public resources are, as a result, extremely limited (Mila, 2006).

The Third World will continue to see increasing rates of urbanization, and cities will continue to experience with the stress of facing increased demands to provide infrastructure and create jobs without much of the needed resources and/or capacity. The main challenges include (a) the need to keep urban planning and management flexible and ready to adapt to new developments in the economic or social front; (b) getting the best possible technical analysis; (c) pushing the agenda of excellence; (d) thinking big and long-term; (e) looking at the big picture overall competitiveness, labor market, environmental quality, and standing as regards capital and human capital; (f) engaging the private sector; (g) understanding and discussion with community leaders of how much limited-resource local governments can offer; (h) establishing contracts vertically with the central government and horizontally with other municipalities (Mila, 2006).

2.5. Global History of urban planning

The first true urban settlements appeared around 3,000 B.C. in ancient Mesopotamia, Egypt, and the Indus Valley. These ancient cities displayed both "organic" and "planned" types of urban form. In contrast, residential areas often grew by a slow process of accretion, producing complex, irregular patterns that one could call "organic." Both Greece and the Roman Empire have excellent examples of ancient city planning (OASIS ASSOCIATES)

2.5.1. Greece

Greek cities did not follow a unified land use planning model; Cities slowly grew out of old villages and often had irregular, organic shapes that could adapt to the topography and history of the area. However, Greek colonial cities were planned using a grid system before settlement, the first being by Hippodamus around 479 BC. Miletus was built. This grid system divides urban

land into uniform rectangular parcels suitable for development and was and is easy to plan and navigate.

2.5.2. Roman Empire

Roman military and colonial cities were laid out in a grid pattern. One of the most striking surviving Roman lattice designs is found in the ruins of Timgad in modern-day Algeria. The Roman grid is characterized by an almost perfectly orthogonal arrangement of streets crossing at right angles and two main streets at right angles to each other.

2.5.3. United States City Planning History

In the United States, early New England towns were some of the first to exhibit conscious planning. Annapolis, Md., Philadelphia, and Paterson, N.J., were built after initial plans were made, but the most celebrated example is Washington D.C. In general, the base of the plan is rectangular with diagonal main thoroughfares superimposed and the Capitol as the central feature.

2.6. Urban Planning Principle

Planning Principles refers to the general assumptions, fundamental rules, and paradigms that direct the essence of planning proposals, policies, standards and implementation measures. Principles serve the preparation of plans but need not be included in the plan itself. The following main principles, considering the Ethiopian planning practice, should be considered on the contemporary urban plan preparation and implementation processes (MoUDC, 2019)

Participatory: As a planning principle, participation in the urban planning process refers to the involvement of different other actors or stakeholders in addition to the decision-makers (mostly government institutions) to take part in identifying problems, developing solutions and taking responsibility for inputs and decisions.

Basically, the principle of participation should adapt to the distinctive roles of the three main groups of stakeholders. These are: the community, the decision-makers and the professionals. Ideally, participation should enable the first group, the community, to be involved in both technical considerations usually reserved for the last group, the professionals, and in decision-

making about the development activities impacting its environment, a role usually reserved for government institutions in the case of Ethiopia (MoUDC, 2019).

Sustainability: Here Sustainability refers to the conservation and protection of irreplaceable and nonrenewable natural resources in the planning process. It involves the wise use and effective urban land use management system. As a principle, planning should aim towards achieving sustainable development (Environmental, Economic, and social sustainability) via the Promotion of public participation in development and equitable distribution of resources.

Furthermore, it should promote the opportunities for current inhabitants without compromising the need of future generations, and providing a due, consideration for environmental issues to order to increase the life span of natural resources.

Compatibility: Urban planning is practiced on a variety of scales ranging from national to local level with different purposes in mind. Compatibility refers to the harmony and integration of plans at national, regional, and local level. Even though local development plan studies are basically site-specific, they should ensure their consistency with higher-level related macro/micro policies. Some local measures may have significant impact at another spatial sphere. On the other hand, regulations at a larger sphere may apply to the particular site. It is hence necessary to get a holistic view. In addition to the above, the following planning principles are also useful principles to achieve intended goals of urban planning projects (MoUDC, 2019)

- Planning should be phased and flexible. Properly phased development creates positive feedback to the system, and Flexible approaches increase the relevance of plans.
- The proposals should best fit the context: identifying the real critical problems on site, the underlying structure and the peculiar character that could be well exploited to boost the development of that area be it economic potential, natural scenic value, historical importance, etc.
- A large portion of the development is anticipated to be undertaken by the private sector. Ways of attracting this group into the development effort through incentives, profitable proposals should be well thought.

2.7. Approaches of urban Plan

2.7.1. Urban Renewal

The process of demolishing and reconstructing central urban slums for economic and urban image aims thereby creating better environment (total clearance) it implies demolishing and relocating the previous settlers to a different area outside their neighborhoods.

2.7.2. Urban Redevelopment

The process of demolishing and reconstructing central urban slums for economic, social and scenic aims the process give focus and attention to the existing settlers by accommodating them as far as possible

2.7.3. Urban Upgrading

Intervention in slum areas by the introduction of economic, social, and physical services and infrastructure and the improvement of the housing physical conditions thereby creating better environment. It is also conceived as an incremental process of achieving urban redevelopment objectives if properly planned and managed

2.7.4. Urban Regeneration

The process of reactivating and bringing back into life a stagnated and the declining socioeconomic condition of an urban area. The process could take a form of renewal or upgrading.

Eviction: The forceful evacuation of slum dwellers from their original neighborhoods without their consent.

Expropriation: Taking over privately occupied land and housing for the purpose of reutilizing the area in a more productive way that benefits the public.

Regularization: The process of reshaping slum settlements to attain a more efficient and balanced land use and to provide basic services and infrastructure.

Formalization: The provision of legal acceptance and security of tenure for informal settlements through the process of regularization.

Security of Tenure: The legal right given by municipalities to land and housing through title deeds or any formal acknowledgement within the legal framework.

Land Sharing: Regaining extra land created as a process of regularizing informal settlements

Gentrification: the systematic displacement of lower income urbanites by higher income households either from other parts of the inner cities or by suburbanites returning to the central city. The process of transferring the living and working area of citizens from their established neighborhoods to new areas.

2.8. Types of urban plans in Ethiopia

There have been different types of urban plans have been exercised throughout the world. Ethiopia has handed through various developmental stages, as a long way as urbanization is concerned, right from the Axumite times of the 1st century AD to the existing likewise, the planning exercise in Ethiopia has additionally long gone via a range of tiers, especially seeing that the 1930s to the present. In this regard, some of the most identified planning processes of the country have been master plan, development plan, integrated improvement plan, action plan, basic plan, structural plan and local development plan. Most of these plans both copied and adopted from abroad in many urban centers of the country. In our country Ethiopia there are different types of urban plans are practicing, as federal urban planning institute urban plan preparation and implementation strategy documents enacts urban planning approaches that should be applied depending on hierarchical stratification of urban centers. The planning approaches endorsed in Ethiopia: structural plan, strategic plan, basic plan, sketch plan, neighborhood development plan (NDP) and urban design (MoUDC, 2019).

2.8.1. Structural Plan

Structural Plan: is also known as “guide plan”, “system plan”, “frame work plan” and “growth indicative plan” which is defined as a type to plan with broad growth directions for urban centers. Structure Plan (SP) is a tool for implementing development policies, strategies,

programs and laws of federal and regional governments, which are mostly reflections of global agendas, and development issues at an urban level. It is a binding technical, institutional and policy framework for guiding development of urban centers. It is a long-term socio-economic, spatial, legal, and urban development and management tool (NUPI, 2000).

2.8.2. Strategic Plan

Strategic Plan is the second typology of city-wide plan that has been legally recognized, and which is suitable for medium-sized towns that belong to category 2 and category 3 urban centers. A Strategic Plan should provide for integrated planning of the physical, economic, social, and environmental aspects. Thus, a Strategic Plan shall portray the major land use categories, economic and physical infrastructures, social services, issues concerning environmental conservation and the multi-faceted linkages of the urban center with its rural hinterlands (MoUDH, 2016).

A Strategic Plan is prepared at the scale of 1:2,000 or 1:5,000 for a planning period of 10 years. The background studies and analysis that need to be undertaken while preparing Strategic Plans are similar to that of SPs, but they entail more detailed analysis. Once finalized, the implementation of Strategic Plans would entail the preparation of detailed plans as it is case for the implementation of SP.

2.8.3. Neighborhood development plan

Neighborhood development plan is a plan of a neighborhood that is part of a city and bases itself on the capacity and current situations with regard to the implementation of the current structure and strategic plans. One structure or strategic plan may have many NDPs. A neighborhood development plan displays methods to land management type and building height, roads, main infrastructures and transport system, housing development, green areas, city renovation and reallocation of space, and other environmental issues. It should be prepared and executed through the active participation of the local population. The neighborhoods' council of representatives of residents should openly discuss on the prepared NDP and the plan should be passed by more than half of the vote from the council (MoUDC, 2019). NDP has been prepared with a scale of 1:1,000-1:2,000 and one of the procedures in the execution of the plan is

allocating land to developers, depending on the land management plan so that it can be used for residential, or service facilities. In addition, a map showing this allocation of land should be drawn and identification numbers should be given to each person who owns part of the land. A significant proportion of the land allocation process is done not as a part of the plan preparation process, but as a part of the execution of the plan under the city/town land management and development institution (MoUDC, 2019).

2.8.4. Basic Plan

Basic plan is intended for small towns, for a period of 5-10 years. As basic plan differs from the aforementioned types of plans because it requires small manpower and a short time, and it does not need as such detailed socioeconomic research to compile of 1:2,000 scale showing physical / spatial plans (land management and infrastructural plans). The main aim of for preparing this plan is to regulate the growth of small towns, so that, when they grow and become bigger cities, the cost of revising their plans and preparing strategic and structural plans will be minimized (MoUDC, 2019).

2.9. Ethiopian Structural plan Manual

In the Ethiopian Urban Planning system, SP may be conceived as a long term (10 years) urban plan that frames the major development issues of an urban center. It is guided by a long term (20 or more) integrated urban development plan (IUDP) that gives an overall long term policy direction, strategies, vision and goals. The urban structure plan serves as a citywide framework for other citywide sectoral or local plans. Although LDP is used as a major tool for implementing SP, other sectoral plans (e.g., UTTMP) and local plans (e.g. UUGRP) are also important tools for SP implementation.

2.10. Urban Planning stages and implementation process

The planning process consists of actions taken by a planning body and its relation with the different actors in the process of plan -making and implementation of the plans. It is the step-by-step development of planning ideas into action tools and implementation of ideas to achieve a vision. Most often the planning process consists of the following interlinked steps (MoUDC,2010).

As different urban plan manuals stated a roadmap guides users to go through four procedural stages namely: preparation stage, planning stage, approval stage and implementation, monitoring and evaluation stage. In each stage of the planning and implementation process tasks and activities are clearly stated and thus the user is supposed to proceed accordingly. The following are the major works to be undertaken under each of the given stages (MoUDC, 2019):

- **Preparation Stage:** This stage focuses on the initiation and programming of the phase in which the necessary pre-conditions are fulfilled to launch the project. This stage basically aims at the identification of the problem and also justify why the task should be undertaken by considering the interest of all stakeholders. Moreover, it is also a stage for mobilization of all the necessary resources to undertake the task.
- **Planning Stage:** This is the stage the core part of the planning process in which the task of planning is meticulously carried out through the application of technical and professional inputs of all thematic studies. This stage comprises six phases of planning during which all the tasks of plan preparation being undertaken ranging from base map preparation or updating to plan approval and publicity. Each phase is further broken down into major tasks under each of which detailed activities are also listed.
- **Approval stage:** this stage is also an important part where the entire study document is finalized and gets legal backing and approved by the city council/authorized body, and also publicizing the approved plan for implementation.
- **Implementation, Monitoring and Evaluation Stage:** - This third stage is dedicated to the task of implementation of the plan during the given time frame (10 years period) based on the devised implementation strategy, which of course is part of the planning document. Here it is worth noting that the municipal administration should adhere to the implementation strategy, though it is also possible to devise additional implementation strategy, as deemed necessary, based on its resources and the specific context of the given urban center. Likewise, the task of monitoring and evaluation is also a process of follow-up and evaluation to be undertaken throughout the planning period.

Moreover, the manual also incorporates the purpose, major deliverables, responsible bodies and the time required at each phase of the planning process. Here, it is important to note that at each

phase there should be public and stakeholder participation and the time frame considers this task of participation.

2.11. Practices of urban plan implementation in Africa

Rapid urban spatial development is taking place in areas of the world that are least prepared to handle it in terms of their capability to provide the necessary infrastructure and services, the ability of their population to pay for such services, and their economies.

The African continent's urban reality is less able to accept factors like poverty, environmental deterioration, and the informality of a substantial share of urban activities. Africa's urban population has increased significantly and now stands at 400 million, or 40% of the continent's overall population. It is predicted that by 2050, this percentage would be 58%. Urban planning should be built on the basis of the population increase and spatial expansion of African cities, as well as their effects on urban poverty, inequality, environmental degradation, and insecurity. The analysis found that through establishing a healthy urban environment, urban planning is a strategy utilized to advance the welfare of both present and future urban populations.

The practice of urban planning in Africa has not yet entered the field of urban sustainability and is based on a design-oriented method of managing urban natural resources. Many African cities share a common discontinuous territorial growth that is distributed in the perimeter and influences the further extension of the urban area into the suburb, raising concerns about a cogent and integrated regional development between the cities and the countryside. The hardest and most difficult part of the urban plan planning process is implementation in underdeveloped nations like Ethiopia. Poor urban implementation presents difficulties that lead to waste of time, money, and human resources all of which are crucial in the creation of plans. Making plans is useless for progress if they are not carried out properly.

2.12. History of Urban Plan Implementation in Ethiopia

Urban plan implementation experience in Ethiopia has short history. Review of the urban plan practice in the country indicated that less than quarter of the recognized urban centers have no plans to guide their spatial developments even those that have planned have difficulty to

implement the proposals apart from the pervasive issue of underdevelopment and poverty, the main factors that has impact on the preparation, and implementation of urban plans have been;

- Lack of qualified personal to prepare and implement urban plans
- Lack of standards for planning, and
- Lack of proper legal frameworks for implementation

The effort was more on plan making than on creating the environment for the proper implementation of the plans. Among other factors the main ones that warrant the preparation of an urban planning and implementation manual include the following:

- Lack of conformity between plan formulation and public investments plans which in the past has resulted in the preparation of over ambitious plans that are not backed by implementation capacity
- Inconsistent methods of data collection, and data need have resulted in the collection of superfluous data in some cases and lack of data in some critical cases
- Mismatches between graphic presentations and explanatory texts due to lack of appropriate methods that ensure a coordinated production of documents;
- Lack of standards for the level of services to be provided for the different hierarchies of urban centers has resulted in either over-allocation or down-sizing of requirements;
- Lack of clarity of responsibilities between different institutions engaged in plan preparation and implementation have resulted in the delay of development;
- The absence of legal framework and clear procedures for urban plan preparation, approval, implementation, and revision, has rendered decisions to be ad hoc.

2.13. History of Urban Plan Implementation in Adama city

In the current time in Ethiopia after establishment of regional urban planning institute in Oromia region more urban plan were done for different city and town: structural plan, strategic, and basic plan, but due to different lack of plan implementation most of the urban plans are expired without change to the ground. Adama city also got different structural plans at different times 2010 and 2018, but the plan expired and expire ding without change to the ground due to implementation problems. These plans are difficult to implement the proposed land use plan due

to apart from a lack of professional implementer the plan, absence of integration between plan preparation and implementation body, financial and capacity, nonexistence of local plan, local development plan, lack of clarity responsibility between institution engaged in plan implementation.

2.14. Factors that determines structure plan implementation

Urban areas have grown physically as a result of both internal and external influences. Planning an urban area is the process of attempting to control and prioritize the various competing uses for urban land. Urban planning's primary function is to formulate policies that address urban environmental, economic, and social challenges as well as to make decisions based on those policies. Community involvement is one of the most crucial elements in achieving these tasks of urban planning. Urban residents should be given more power to influence their neighborhood and set their own goals for how to improve it. In order to improve and standardize living for the current and future generations, the power of planning and implementing urban areas should therefore pass from the hands of government officials and planners to local residents, who should also have an impact on the status of urban plan implementations.

Urban locals and government officials must communicate more closely as part of the urban development process. The idea of public participation in the planning and implementation of urban development plans gained widespread acceptance in the late 1960s as a result of the failure of top-down techniques in the urban planning process. Public involvement is crucial for development to flourish and be sustainable, especially when it comes to decision-making. The key to resilient urban development is to analyze the situation of local residents and their level of involvement in order to have a thorough awareness of urban challenges and generate effective solutions. In order to eliminate social and urban spatial segregation in urban environments, offer new chances for new connections, and boost citizens' feelings of belonging, community involvement in urban design and implementation is crucial.

This idea of leadership involves group efforts at framing and focusing on issues, in which both societal and governmental players are essential to the development's success. Effective leadership is essential for the completion of urban projects and is constantly working to meet the requirements of urban residents.

Integrative development planning, which includes local government and residents in reaching reasonable development goals, is crucial to the process of urban planning. However, bringing sustainable urban solutions into their urban growth presents a number of difficulties for emerging nations. These issues include a lack of locally relevant data, a lack of funding, and a lack of crucial skills among professionals working in the built environment. Additionally, urban financial capability is essential for reacting to sustainable urban development. The habits of urban residents have changed as a result of technological innovation and the quickly growing size of metropolitan regions. Implementing an urban plan framework or model is usually more concentrated on a single urban center than on all cities in an effort to create a sustainable and livable metropolis. Another significant obstacle to successful urban development planning and implementation is rapid population expansion.

2.15. Urban Plan Implementation Challenges Related to Plan Implementation

Implementation of the structure plan of city/town in general and target study area, in particular was, haphazard and uncoordinated and lacks any controlling mechanism from the municipality and other concerned regional offices. The municipality ignored the advantages obtained from effective plan implementation and could not attain the responsibility vested on it by the government, when unlawful acts were made by its technical staff. Issues related to a plan implementation problem in the study site include: plan violation, inadequate capacity of the municipality, poor land data management, Lack of Local Development Plan (MoUDH, 2006)

1. Plan Violation

A structure plan violation is at different localities without any legal background. The violations were made based on the needs of individuals or collective decisions. In this case, the residential site has been changed into commerce and commercial site is changed into industrial and industrial sites to the residence. In fact, the problem seems to be the refusal to implement the provisions found on proclamation No. 574/2008 of the federal government. The major land use category is repeatedly exposed to plan to violation include: roads, green areas, commerce and another environmentally sensitive part of the town (Fura, 2012).

2. Inadequate Capacity and Lack of Commitment to Respect Urban Plan

Institutional capacity building is another important strategy to implement the prepared plan. Incapacitating an institution may be in the manpower that the town has and materials used for implementing the proposed land-use. The inadequacy of these may result in failure to achieve the intended goal.

In town, there is inadequate manpower with a relevant educational background. The number of employees, almost half the professional gaps found. It has its own impact on service delivery for the residents. Regarding institutional gaps to implement the plan, all the municipality representatives replied as they have inadequate technical staff affected the performing of their daily tasks. At the present time the type of equipment that the town uses for technical purposes includes only one Total Station, four GPS and Taping. On the other hand, lack of commitment of those administrators could be taken as a basic cause for poor plan implementation in the town. Any illegal activities that affect the development of the town should be controlled by the effective managerial activities of the town. Therefore, the implementation process was failed which led to the failure of the urban plan (Fura, 2012).

3. Poor land data management system

The poor land management system in the town includes; lack of a cadaster map and land banking system, the poor coding system to identify one plot from the other and a lack of check and balance on the land provision system for the beneficiaries and more. Cadaster has a significant contribution to the municipality of the town. It gives more efficiency in the distribution of information, and for a better decision-making with a large information base, without cadaster it is impossible to plan and implement development projects, and control squatter settlement or illegal construction (Fura, 2012).

4. Lack of Detail Plans

Urban plan implementation problems may happen due to the lack of detailed plans vividly indicated the preparation of a detailed plan is essential for every kind of implementation work. Any work of plan implementation has to be supported with detail plans otherwise it will be problematic to implement plans. The structure plan is guided by the Local Development Plan (LDP) since the structure plan shows only the major land uses. The major land use should be

interpreted by the LDP and LDP by parcellation work. In this case, LDP was not executed in the structure plan implementation of town in general (Belachew, 2010).

5. Illegal Occupation of Land

The informal settlement as its name implies is occupying plots of land illegally without considering the formal procedures. It may happen due to the excessive bureaucracy of the local government. It is need less to mention that an illegal settlement is executed on the farmers land on the outskirts of the town. Almost all open spaces that could have been used for some urban activity is observed to be illegally occupied by individuals. The occupation of open space would reduce the proportion of land that can be used as infill and will increase the proportion of the area to be reserved for expansion areas. This resulted in an increase in the number of farmers to be displaced from their land, and the cost of infrastructure to develop the town (Belachew, 2010).

2.16. Evaluation in the planning process

Planning practice evaluation is a difficult but really required exercise. Three essential elements are primarily responsible for the difficulty of planning evaluation. The first is the intrinsic complexity of both the evaluation process itself, which involves a variety of theories, methodologies, actors, concepts, tools, and procedures, as well as the evaluation subjects, such as policies, plans, projects, contexts, actors, and affected parties. The second is inter-subjectivity, which in some way calls into question the validity of results and conclusions that are derived objectively. The third is the unpredictability of planning as a task dealing with an ambiguous future.

If planning is to be taken seriously as a science or as a profession, it must be feasible to evaluate planning effectiveness in a methodical way. It should be possible to tell good planning from bad planning and vice versa. In addition, it ought to be possible to draw the conclusion that a strategy is too feeble to be put into action.

Planners should be able to assess the value of a plan's preparation by analyzing if it will affect the area or the community after it is adopted. Only in this way will the opinions of planners and theorists on the success or failure of plans shift from relying on informal empirical judgments to more formalized ones. Because of the challenges, unknowns, and complexity of planning

assessment, there is a context with a finite amount of reason, and evaluation findings must be carefully limited.

Although planning and assessment ought to be inseparable ideas, the planning process does not adequately incorporate evaluation. The evaluation process and criteria should be decided with the planning team; the evaluation criteria should also be the design criteria; the required data for the evaluation exercise should be decided at the outset of the process; ongoing evaluation methodologies should improve plan implementation and eventually adjustments throughout that process; and, finally, ex-post evaluation analysis should be used.

Certainly, there are benefits to integrating the evaluator into the planning team, but there are also drawbacks. The four main benefits of an internal evaluation are: a greater understanding of the particular institutional context; a higher likelihood that the final recommendations will be adopted; a decreased likelihood that the institution will view the assessment process as a threat; and, ultimately, a reduced use of financial resources. The main drawback is the propensity to reject unconventional ideas and avoid drawing unfavorable conclusions. The key benefits of an external evaluation can include increased objectivity in the assessment and the ability to hire externally for temporary positions. The most significant drawbacks of an internal exercise reflect its primary benefits. A mixed evaluation and an internal assessment conducted by an evaluator separate from the planning team should both be taken into account in this reflection.

Each unique circumstance should be taken into consideration when selecting the assessment type. Nevertheless, we think that the most intriguing factors for a fruitful exercise are gathered by an internal review carried out by an evaluation team apart from the planning team. The creation of synergies or shared decision-making shouldn't be hampered by the presence of two distinct teams. As a result, the assessment criteria ought to reflect the design criteria. A significant underlying flaw in evaluation is self-preferentiality and the adoption of assessment criteria that are different from the original plan objectives.

2.17. Plan evaluation criteria

There is a ton of literature on plan evaluation standards. The general criteria for plan preparation have five specific criteria related to them. The first is how the planning framework that frames

plan preparation is interpreted. Identifying innovative and creative features in various plans created under the same legal framework also aids in explaining discrepancies between plans created in various time periods and under various legal frameworks. The plan's connection to the city's primary declared needs and ambitions is the second criterion. It entails reconstructing the current condition while formulating the plan and contrasting this starting point with the major plan recommendations.

An investigation of the robustness of the connections between the primary components of the urban plan and the objectives relates to the evaluation of internal coherence. The outward coherence is the fourth requirement. It focuses on the connections between the plan that is being evaluated and other plans that are scheduled for implementation on the same region. The key worry in this situation is making sure that the proposed plans don't conflict with or duplicate other planning ideas for the same city. Participation in decision-making is the final particular requirement in the general criterion of rationality. It entails a quantitative and qualitative examination of public participation as well as an evaluation of the local authority's role in promoting or limiting this process of participation.

2.18. Conceptions of success in plan implementation

Conformance-based evaluation refers to determining the success or failure of planning by determining the degree of conformance between actual results and plan proposals using one or two criteria, as well as by promoting planned aims and objectives utilizing the instruments available for implementation. Determining a plan as a framework for decision-making leads to performance-based evaluation. The performance of the strategy demonstrates how useful it is in playing this role. Understanding whether, under what circumstances, and how the plan was consulted before making further decisions is crucial.

The plan's execution will determine how it is evaluated. The Dutch school of planning assessment has been refining this strategy based on the research of Fudge and Barrett (1981), who emphasized the distinctions between compliance and performance. Studies on the implementation of plans have occasionally looked into the possibilities of combining the two methods and applying them simultaneously for comparison.

Planning as a mechanism for controlling the future, implying that plans not implemented indicate failure; planning as a process of decision-making under uncertainty, when implementation ceases to be a criterion of success, and whenever it becomes challenging to provide rigorous criteria of the quality of a given plan; and, an intermediary view. Alexander and Faludi (1989) distinguish these three views on the planning process and the associated criteria to evaluate plan quality. The Policy-Plan/Programme-Implementation-Process (PPIP), described by Alexander and Faludi (1989), incorporates these viewpoints as well as a number of factors that aren't typically taken into account in a comprehensive manner, such as the creation of the plan, operational choices, implementation, and the plan's ultimate effects.

Altes (2006) conducts a case study of the Dutch national urban concentration regulations in order to compare the conformance-based and performance-based methods. The urban confinement policies are in good accordance with the plan, as shown by an application of the earlier concept. These policies, however, have not been able to enhance the decision-making process in the context of the current stall in home creation. According to the author, plans with high conformity can nonetheless function poorly.

Similar to this, Berke et al. (2006) investigate and contrast various ideas of planning success. These authors continue to argue that New Zealand's plan execution is inadequate. Plans and planners have a significant impact on the success of implementation if it is defined in terms of conformity; however, if it is defined in terms of performance, plans and planners have less of an impact.

2.19. Case Study on Urban Plan Preparation and Implementation

2.19.1. Evaluation of plan implementation: a case study of Guangzhou city master plan

Guangzhou is selected as a case study of plan implementation. Guangzhou is the center of the Pearl River Delta, one of the most prosperous economic zones in China, and it has the third biggest urban economy in China. It is the “Southern Gateway” of China, and one of the fastest growing cities in the country. It has been considered to be ‘one step ahead’ of the rest of China in economic reforms and development because of its proximity to Hong Kong.

Guangzhou stretches over 7,434 square kilometers and population reached 10 million in 2004. Guangzhou has been growing very fast since the economic reform, in terms of both economic performance and built-up area. From 1980 to 2004, the average annual GDP growth rate reached 14.2 percent. Meanwhile, the central built-up area more than doubled.

2.19.1.1. Index of plan implementation

In China, the land use plan at the master plan level involves more than 15 types of land use, and it is unnecessary to examine the conformance of every type of land use. For instance, the uses of water area and collective land are seldom changed, and therefore the evaluation of their plans are not the focus of planners. The evaluation of plan implementation focuses on five major types of land use: residential, commercial and office, public facilities, industrial and open space, which are critical for city development and environment. For every type of land use, three indices are defined:

- **Type of accordance:** If the use of a piece of land in 2001 PLU, 2001 LUP, and 2007 PLU is consistent, it is consistent with the plan. If the use of a piece of land in 2001 LUP and 2007 PLU is consistent, but different from the use in 2001 PLU, then the plan is implemented.
- **Type of unfulfillment:** If the use of a piece of land in 2001 PLU and 2007 PLU is consistent, but different from the use in 2001 LUP, which means that the plan might or might not be implemented in the future. This is defined as “type of unfulfillment”.
- **Type of deviation:** If the use of a piece of land in 2001 PLU, 2001 LUP and 2007 PLU is different, it is clearly deviated from the plan. If the use of a piece of land in 2001 PLU and 2001 LUP is consistent, but different from the use in 2007 PLU, and it is also deviated from the plan.

2.19.1.2. Analysis of Results

Based on the overlay and calculation, the obtained results of evaluation of the 2001 LUP are;

Land Use Type	Type of unfulfillment	Type of accordance	Type of deviation
Residential Land	18.62%	31.52%	49.87%
Commercial and office	23.89%	19.69%	56.42%
Land for public facilities	13.53%	43.66%	42.80%
Industrial land	22.00%	30.67%	47.32%
Land for open space	0.70%	88.39%	10.92%

Residential land: The overlay shows that around 50% of residential land development deviates from the 2001 LUP. Among all deviation cases, 71.8% happen in the Baiyun district, 6.9% happen in the Huangpu district, and this reveals that the implementation of residential land plan is very weak in the suburban area due to its less stringent planning control compared with that in the city center. There is 18.62% of residential area which has not been developed according to the land use plan, and majority of them are located in the Baiyun district, implies that the residential land development is slower in the Baiyun district than in other districts.

Commercial and office land: Commercial and office land plan has shown the least level of accordance, 19.69%, which implies that the 2001 LUP has very limited understanding of the commercial and office land market. In the deviation cases, 49% occur in the Baiyun district, 16.2% occur in the Tianhe district. In general, deviation happens more in the suburban areas than in the city center.

Public facilities land: Interestingly, we found that the land for public facilities has the relatively high level of accordance of plan (43.66%), although the deviation (42.80%) is equally noteworthy. The accordance cases mainly occur in the Tianhe district (64.4%), and the deviation cases mainly occur in the Baiyun district (58.9%). The relatively high accordance of public facilities land reveals that the land use plan has to some extent guided the spatial layout of public facilities. Meanwhile, only 13.53% of land for public facilities has not developed in accordance with the plan, which is acceptable since there is still three years away from the end of the planning term, 2010.

Industrial land: There are 47.32% of industrial land development deviating from the land use plan, 30.67% of industrial land has not been developed. The deviation mainly occurs in the Tianhe district, Haizhu district, and Baiyun district. There is relatively high level of accordance in the Yuexiu and Liwan district because the industrial development is rare in the old city. In the Luogang district, the major industrial area of the city, the deviation rate reaches as high as 63.11%, and only 28.2% of land is consistent with the LUP, implying that the actual industrial land development seldom follows the plan.

Open space: There is 88.39% of open space land in accordance with the land use plan, showing that the control for open space is successful. The 78.30 km² of open space land deviating from the LUP mainly goes to residential land, commercial land and industrial land.

In general, except the land for open space, the accordance of the LUP is low, ranging from 19.66% to 43.66%, depending on different types of land use, and the deviation from the LUP is as high as around 50%. Therefore, the city master plan has shown limited understanding and guidance for city development.

2.19.1.3. Analysis of factors affecting implementation

This study should be able to pinpoint the variables that have impacted the plan's execution in addition to evaluating how well it has been executed. Implementation elements are divided into three major categories by Alterman and Hill (1978): political-institutional factors, plan characteristics, and urban system factors. They may also be used to assess how well plans are being carried out in China.

➤ **Political-institutional factors**

The effectuation process is significantly influenced by political-institutional framework. Even though these granting criteria conflict with the approved plan, local authorities in China have a great deal of freedom in selecting whether planning permission may be granted and what planning parameters can be imposed. As a result, it is common that after receiving planning clearance, the plan will be broken.

When the same decision is made in cases of similar development applications, planning certainty can be attained (Tang et al., 2000). However, unclear criteria have been used to make planning control choices in China. The approved plan may, but is not usually, used as a guide when determining the planning parameters for a particular plot of land. The choice of planning parameters is entirely up to the planning officials' discretion. The developer frequently haggles with the planning officer to get better planning guidelines, usually for higher densities, larger floor plans, or lower contributions to public infrastructure.

Since every choice is taken in secret, the process of development control decision-making is essentially opaque. This planning control system has encouraged rent seeking and created some uncertainty in the real estate market since it has not internalized the externalities induced by changes in planning parameter. The significant departure from the LUP is thus caused by frequent differences between the plan and actual development.

➤ **Attributes of the plan**

As previously indicated, the creation of the LUP is typically the responsibility of architect-planners and is unrelated to finances. It has actually turned out to be a remnant of the planned economy and a map with many varied colors. The city master plan could effectively direct city growth in a planned economy since there was only one investor the government.

The primary determinant of city development was the creation of the city master plan, which was done with the help of social and economic planning. Market aspects have been steadily included into city construction since the opening reform in the late 1970s. The rise of the city has been strongly affected by a number of investors, including domestic and international developers, bankers, and organizations, who have participated in the city development process. However,

creating a city master plan remains mostly a design-based process, with physical and environmental amenity aspects continuing to be the primary determinants of planning decision-making and social and economic implications receiving only intuitive rather than methodical scrutiny. The former Soviet Union's system heavily influences planner education in urban planning, and they are prepared to work in a planned economy. Since the market may be reacting to a rigorous land use plan in such circumstances, it is easy to realize that nonconformity of results or no implementation of plans do not necessarily indicate failure.

➤ **Urban system factors**

Unprecedented rapid growth has been occurring in Chinese cities, and rapidly advancing reforms have presented both opportunities and difficulties. Since it is exceedingly difficult to predict the future of the city in such circumstances, flexibility is more important for plan implementation than rigidity. In addition, market dynamics like population pressures and rising standards of living tend to make it more likely that people will stray from the land, whereas trends like decline or stability tend to make it less likely.

2.19.2. The Case of Malaysia

In Malaysia, a National Physical Plan (NPP) created by the National Physical Planning Council serves as the basis for the country's plan-led development system; each state's planning authority has created a Structure Plan. Local Plan created by the local planning authority or state planning bodies); The Special Area Plan was created by the local planning authority or state planning authorities (MoHD, 2016).

Local spatial planning, whether it takes the form of a local plan or a special area plan, is framed by the state structural plans. Local planning authorities or the state planning department may create local plans at any point before, during, or after the implementation of a structure plan. Similar to structure plans and local plans, special area plans may be created by local planning authorities or the state planning department at any time before, during, or after implementation. A Detailed Development Specification and Development Action Schedule are used to support the Plan (MoHD, 2016). The following table, which displays the components of Malaysia's urban development plan, outlines the key components of the four statutory development plans.

Aspect	National Physical Plan (NPP)	Structure Plan (SP)	Local Plan (LP)	Special Area Plan (SAP)
Purpose	Interpret national Socio- economy into spatial dimension	Interpret National and State policy	Interpret policy of SP; Guidelines for development control	Implementation
Prepared by	Director of Federal Town & Country Planning Department	Director of State Town & Country Planning Department	State Planning Department/ Local Planning Authority	State Planning Department/ Local Planning Authority
Area affected	Peninsular Malaysia	Whole State	Whole area of local planning authority	Affected area; Size depends on type of SAP
Time frame	20 years	15-20 years	10-15 years	
Process		Report of survey technical report survey report publicity Draft SP publicity SP	Early publicity preliminary report findings report & development strategies	Early publicity research methods report SAP preliminary draft publicity

		approval and gazette	Draft LP Publicity LP approval and gazette	SAP approval and gazette SAP draft
Main output (plan)	Indicative Plan 2020	Main diagram covering whole state, indicate components clearly	Proposed plan: land use detail; subject plans; accompanying plans	Development Action Plan: - Layout Plan/ Management Plan or both
Explanation	Written statement summarizing strategic policy and direction of national physical planning	Written statement, explain policies and state Strategic planning.	Proposed detail Land-use plans supported by written statements explaining the proposals	Detailed planning for implementation
Publicity	No publicity, only negotiations with State	Survey report and Draft SP, not less than 4 weeks	The public can get involved during the preliminary survey, draft LP/SAP and target group discussions. Not less than 4 weeks	

Therefore, these statutory development plans offer the crucial basis for making planning decisions. The Local Planning Authority (LPA) must give its approval before any land or structure is developed. If the proposal complies with the legal Local Plan, meets the standards of

the technical agencies, and receives no opposition from the neighbors, planning permission will be given.

2.19.3. The case of Addis Ababa, Ethiopia

The Addis Ababa city administration likewise uses a detailed LDP and urban design together with a structure plan. Different local development plans, which included urban design, were created in this regard. Lideta, Kass-chis, and Bashawolde region LDPs were picked as models from the developed LDP plans (MoUDC, 2019). The reality and several research demonstrate that planning initiatives either have a top-down or horizontal direction. Executive bodies, rival organizations, or the institute itself frequently suggest a subject for an LDP. The community doesn't appear to play a part in the beginning of an LDP study for a specific region; as a result, the bottom-up approach used today in Addis Ababa is far from being a realistic starting point for planning.

The formal procedures adopted in LDP making process of the planning institute are:

- A preliminary survey of the site
- Conducting Public Consultation
- Collecting the necessary data
- Analyzing the collected data
- Making a proposal that solves the identified problems
- Showing the implementation strategy
- Approval of the plan

Regular in-house presentations and discussions are held while plans are being prepared, and comments are taken into account. The city council or other delegated authority will approve the final LDP before sending it to the implementing bodies, particularly in the case of the Addis Abeba land administration bureau. Plans are not fully carried out in Addis Abeba due to several difficulties that impede the process. Poor plan preparation quality, a lack of coordination between various infrastructure-providing organizations, frequent changes to regulations and plan elements (such as those governing land use, building heights, and road network design), a lack of

attention to strategic areas that facilitate the implementation process, etc., are just a few of the major challenges (MoUDC, 2019).

The data now available demonstrates that the planning process is carried out by a team that includes both physical and social planners. The social planner includes economists, sociologists, demographers, and geographers in addition to data gatherers, while the physical planner includes architects or urban planners. Land use plans, building height restrictions, a road network, and written papers, among others, make up the physical portion of the output. Other aspects of urban design, such as landscaping features, surface color and texture, and architectural styles and elements to be used in upcoming structures, are not taken into account when creating the LDP. The LDP site's (action area's) spatial coverage must include at least 10 hectares, and the degree of detail is at the block level. The planners involved in the creation of the LDPs are free to decide how to define the action or planning areas (MoUDC, 2019).

2.20. Summary of Literature review

A structure plan is a long-term vision for the physical development of a city. It is a comprehensive plan that guides the growth and development of the city over a period of 20 to 30 years. The structure plan is prepared by the city government in consultation with the public and other stakeholders.

The preparation of a structure plan typically involves the following steps:

1. **Data collection and analysis:** The first step is to collect data about the city's current land use, population, transportation, and other characteristics. This data is used to analyze the city's strengths, weaknesses, opportunities, and threats.
2. **Visioning:** The next step is to develop a vision for the city's future. This vision should be based on the city's strengths and opportunities, and it should address the city's weaknesses and threats.
3. **Policy development:** The third step is to develop policies that will guide the city's growth and development. These policies should be consistent with the city's vision and should be based on the best available evidence.

4. Implementation: The final step is to implement the structure plan. This may involve zoning changes, land use regulations, public investments, and other measures.

The implementation of a structure plan is a complex and challenging process. It requires the cooperation of the city government, the private sector, and the public. However, a well-prepared and implemented structure plan can help to ensure that a city grows and develops in a sustainable and equitable way.

A structure plan can provide a number of benefits for a city, including:

- Sustainable growth: A structure plan can help to ensure that a city grows in a sustainable way. This means that the city's growth should be balanced with the city's ability to provide essential services, such as water, sewer, transportation, and schools,
- equitable development: A structure plan can help to ensure that the benefits of growth are distributed equitably throughout the city. This means that all neighborhoods should have access to good schools, jobs, parks, and other amenities,
- increased investment: A structure plan can help to attract investment from the private sector. This investment can help to create jobs, improve infrastructure, and make the city a more attractive place to live, work, and visit,
- improved quality of life: A well-designed structure plan can help to improve the quality of life for all city residents. This can be done by creating more parks and open space, improving transportation options, and reducing pollution.

There are a number of challenges that can be encountered when implementing a structure plan, including:

- Lack of political will: The implementation of a structure plan requires the support of elected officials. If there is no political will to implement the plan, it will be difficult to succeed,
- Lack of public support: The implementation of a structure plan can also be challenged by a lack of public support. This can be due to a number of factors, such as concerns about the impact of the plan on property values or the way of life in a particular neighborhood,
- Limited resources: The implementation of a structure plan can be expensive. This can be a challenge for cities that are facing budget constraints.

Conclusively, a structure plan is a valuable tool for guiding the growth and development of a city. However, the implementation of a structure plan can be challenging. It is important to have the support of elected officials and the public, and it is important to have the resources necessary to implement the plan. If these challenges can be overcome, a structure plan can help to ensure that a city grows and develops in a sustainable and equitable way.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter discusses about how to answer research questions and address objectives of the study. The methodology of the study includes description of study area, research approach, data type and source, data collection techniques and data analysis and presentation technique. The study area selection criteria list why the study is undertaken in the selected town and sub-city. In the research approach, type of research methods is discussed. The data type and source method described the type of data to be collected from different sources. The data collection technique described how the data was collected. Data analysis technique states methods used to analyze collected data.

3.2. Description of Study Area

This study was conducted administratively; Adama city is part of Oromia National Region, East Shewa Zone and Adama District and is located 82 km from (Kallitti Bus Station) on the southeast highway of the Regional and National Capital Finfinne/Addis Ababa. Astronomically, the city of Adama is located from 8° 25' 57" to 8° 38' 41" N Latitude to 39° 09' 15" to 39° 22' 7"E Longitude. The city of Adama is physiographic ally located in the Rift Valley of Ethiopia. The Earth is mostly flat and a plane. The city is surrounded by a steep chain which on the one hand imposes the challenge of flooding and contributes to the improvement of the micro-climate due to the high altitude and sparse vegetation cover. The city is one of the fastest growing urban centers in the region and the country with a population of about 350,000. Its proximity to Finfinne/Addis Ababa makes the city a choice for investment, tourism, hotel development and entertainment industries. The structural plan of the city of Adama was prepared in 2004. It was built on a level land, surrounded by plateaus, mountains, and ridges, and connected to Harar by a route from Addis Ababa. The area's elevation ranges from 1489 m to 1976 m above sea level. About 866.25 mm of rain falls in Adama City each year on average. The rainy season, which runs from June through September, is when it rains the most. September has the lowest wind

speed (1.65 m/s), while December, January, and February have the highest wind speeds (3.05–3.2 m/s). The city's average temperature ranges from 11.5 to 31 degrees Celsius.

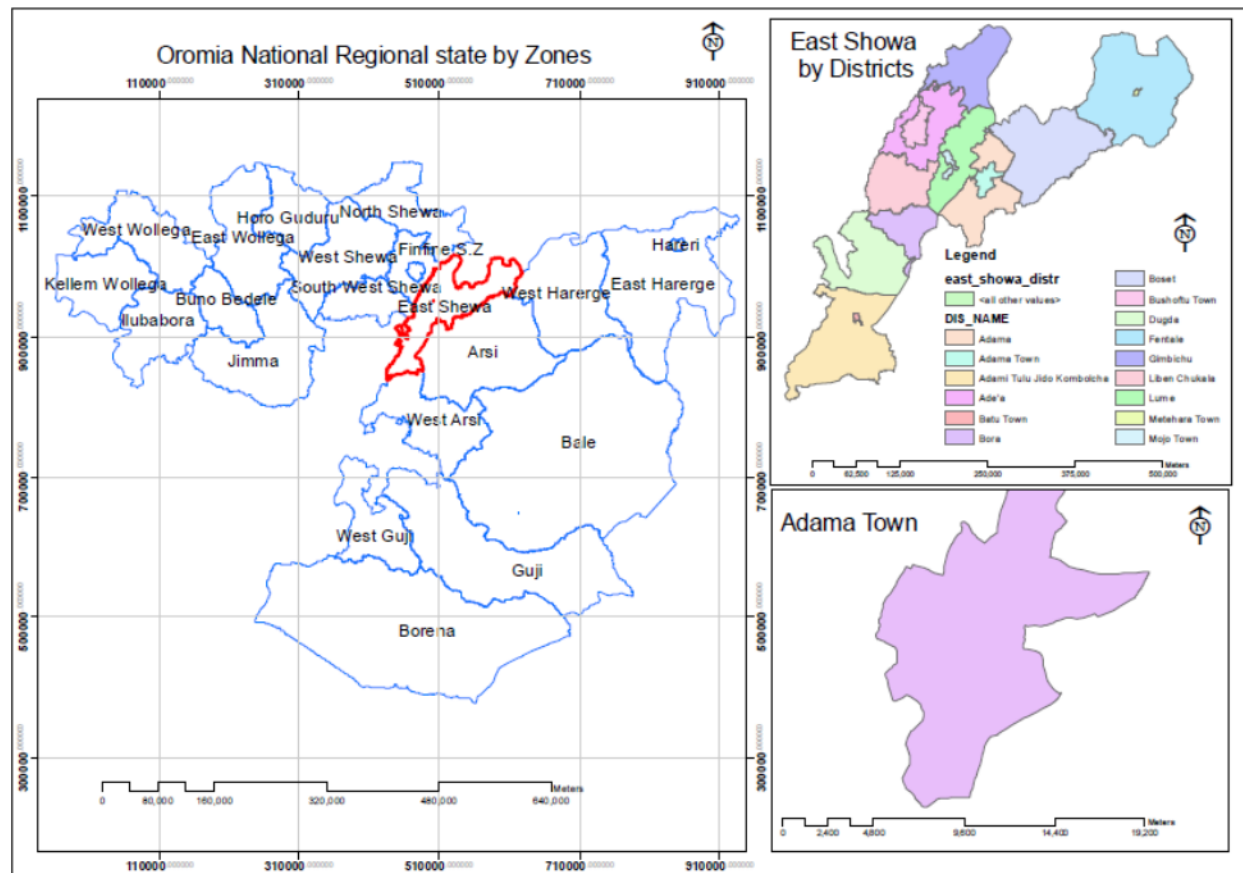


Figure 1: Relative location of the study area (Adama city)

3.3. Research Approach

The study was based on qualitative and quantitative type of research. It qualifies quality of plan preparation process by comparing revised structural plan of Adama with standard plan preparation manuals. The study quantifies implementation level of 2018 revised structural plan of Adama city with currently existing situation by specifically selecting certain areas within the city. In this approach this research paper uses land use conformity method used to ensure that Adama city's land use development is consistent with a city's structure plan. As explained in the first and second chapter of this research paper the structure plan is a long-term planning document that outlines the city's vision for growth and development. Land use conformity is a regulatory process that requires developers to obtain permits from the city before they can

develop land. The permits are issued only if the proposed development is consistent with the structure plan.

Hence this research used land use conformity to understand the implementation of a city's structure plan from different concerned institutions. For example to understand whether the development is planned and coordinated, which can help to avoid problems such as traffic congestion and environmental degradation. To know the answer to the question of; is the city's character and historic resources are protected while preparing and implementing the revised structure plan and is the development is equitable, by ensuring that all neighborhoods have access to essential services and amenities.

3.4. Data Sources

Both qualitative and quantitative data required for the study was collected from primary and secondary data sources.

The primary data collected through interviewing mainly Oromia urban planning institute office, Adama city urban land management office worker, questionnaire and continuous observation of the selected sites within the city.

The secondary data obtained from the review of relevant information like published books and not published books, journal articles, structure plan preparation and implementation manuals and etc.

Table 1: data type, methods and sources

Data Type	Method of data Collection	Data Source
Primary Data (Qualitative and Quantitative data)	Personal observation	Site visiting
	Interview	Oromia urban planning institute office, Adama city urban land management/administration office
Secondary data	Reading and reviewing different published and unpublished documents.	Journal articles, books, sectoral publications and websites.

3.5. Sampling Methods

The study had conducted by using systematic random sampling from probability sampling method and purposive sampling technique from non-probability sampling method. Purposive sampling is a non-probability sampling technique where the researcher deliberately selects the participants for the study based on their knowledge of the population and the research question. This type of sampling is often used in qualitative research, where the goal is to gain a deep understanding of a small number of participants. There are several reasons why a researcher might choose to use purposive sampling. One reason is that it allows the researcher to select participants who are likely to have the information or experiences that are relevant to the research question. For example, this particular research paper is interested in studying the experiences of different stakeholders who have participated in the preparation and implementation of the 2018 revised structure plan of Adama city, the researcher used purposive sampling to select participants who have participated in the process. Another reason why this research chose to use purposive sampling is that it allowed the researcher to control the sample in order to get a more accurate understanding of the situation or the concept or the main objective of this particular study. There are several advantages to using purposive sampling. First, it allows the researcher to get a deeper understanding of the population by studying a small number of participants in more detail. Second, it allows the researcher to control the sample in order to get a more accurate understanding of the population. Third, it is often more efficient than other sampling techniques, such as random sampling.

However, there are also some disadvantages to using purposive sampling. First, it can be difficult to ensure that the sample is representative of the population. Second, it can be difficult to generalize the findings of the study to the population as a whole. Third, it can be biased if the researcher selects participants who are likely to support their hypothesis.

Overall, purposive sampling is a valuable tool that can be used to gain a deep understanding of a small number of participants. However, it is important to be aware of the limitations of this technique and to take steps to mitigate these limitations. Purposive sampling is a versatile technique that can be used in a variety of research settings. So this research paper used this technique wisely by considering its limitations.

Hence, based on this technique this particular research paper selected 35 and 20 key informants from Oromia Urban Planning Institute, Adama city Urban Land use and Administration Office respectively.

Table 2: distribution of sample units

No.	Sampling Frame	Number of Respondents
1	Oromia urban planning institute, plan preparation and implementation group office	35
2	Adama city urban land use and administration office	20
Total		55

3.5. Variables

Table 3: List of Variables

Dependent variables	Independent Variables
Planning Process	Interpretation of planning system
	Relevance of the plan
	Plan objective
	Integration
	Participation
Performance of Implementation	Conformance

3.6. Data collection methods

The study collects the knowledge of stakeholders or professionals towards the preparation and implementation of the 2018 revised structure plan of Adama city in the case of the selected sub-city. Data was collected using the following tools and instruments mainly key informant interview and structured field observation.

Table 4: Data collection methods

No	Data collection methods	Sample technique
2	Key informant interview	Purposive sampling techniques
3	Field observation	well-structured or well-thought out

3.6.1. Key informant interview (KII)

Key informant interviews are a qualitative research method that involves in-depth, semi-structured interviews with individuals who have specialized knowledge or experience about a particular topic. Key informants are typically experts in their field, such as policy makers, community leaders, or academics. Key informant interviews are often used in the early stages of research, when the researcher is trying to gain a better understanding of a particular topic. They can also be used to collect data on sensitive or controversial topics, where it may be difficult to obtain information through other methods. There are several advantages to using key informant interviews. First, they allow the researcher to collect in-depth information from individuals who have specialized knowledge or experience. Second, they can be used to collect data on sensitive or controversial topics. Third, they can be used to build rapport with key informants, which can be helpful in obtaining access to other sources of information.

In this research paper the researcher prepared interview guide for experts from Oromia Urban Planning Institute, & Adama city Urban Land use and Administration Office. Because experts and office managers who working directly on the problem is said to have richer data than others. Hence, a total of 55 informants participated in this interview.

3.6.2. Field observation

Observation is a data collection method that involves watching and recording the behavior of people or animals in a natural setting. It is a common method used in qualitative research, but it can also be used in quantitative research. There are two main types of observation: structured and unstructured. Structured observation involves using a pre-determined set of rules or categories to record the behavior of the participants. Unstructured observation involves simply observing the participants and recording their behavior without any preconceived notions. There are several

advantages to using observation as a data collection tool. First, it allows the researcher to collect data in a natural setting, which can be more realistic than collecting data in a laboratory setting. Second, it allows the researcher to collect data on a wide range of behaviors, including verbal and nonverbal behaviors. Third, it allows the researcher to collect data on interactions between people or animals. However, there are also some disadvantages to using observation as a data collection tool. First, it can be time-consuming and expensive to observe participants in a natural setting. Second, it can be difficult to record all of the behaviors of the participants. Third, the presence of the researcher can influence the behavior of the participants. Overall, observation is a valuable data collection tool that can be used in a variety of research settings. However, it is important to be aware of the limitations of this method and to take steps to mitigate these limitations.

For this research paper structured observation was employed which involve a pre-determined set of rules or categories to record the existing condition of the 2018 revised structure plan of the city particularly from the implementation point of view for the city.

3.7. Data Analysis Techniques

Using a variety of analysis techniques, the study was both subjectively and quantitatively assessed. From the perspective of criteria like planning system interpretation during the planning process, relevance of the plan for the city, plan objective, integration with other city plans, and stakeholder participation during the planning process, the study provides a qualitative explanation of the quality of the plan preparation process of the revised structural plan of Adama city.

To quantitatively or spatially analyze, the study uses conformity analysis of current status of the revised structure plan implementation, by specifically selecting certain areas within the city. Land use conformity analysis is a process of evaluating whether or not the current land use of a property complies with the zoning regulations of the area. This analysis is often conducted by local governments to ensure that land is being used in a way that is consistent with the goals of the community. There are a number of factors that are considered in a land use conformity analysis, including the type of property, the zoning regulations of the area, and the goals of the community. The type of property is important because different types of properties are zoned for

different uses. For example, residential properties are zoned for housing, while commercial properties are zoned for businesses. The zoning regulations of the area are also important because they specify what types of uses are allowed on each type of property. For example, a zoning regulation might specify that a residential property can only be used for housing, and that it cannot be used for businesses.

The goals of the community are also important because they can influence the zoning regulations of the area. For example, a community might have a goal of promoting economic development, so the zoning regulations might be designed to encourage businesses to locate in the community. Land use conformity analysis can be a complex process, but it is important for local governments to ensure that land is being used in a way that is consistent with the goals of the community. This can help to protect the environment, promote economic development, and improve the quality of life for residents.

3.8. Data presentation Techniques

Data presentation of the study accommodates the following tools of presentation among others. Tables and graphs- were used to present results from analysis by the software's. Maps and text reports- all results of analysis's showing the existing situation sample details were produced by the software's in map and text form. Generally, the collected data was presented by using different presentation techniques such as Map, graph, tables, charts and photos.

CHAPTER FOUR

DATA ANALYSIS, RESULTS, AND DISCUSSION

4.1. General Overview of the Study Area

Adama city in Oromia Regional Government in East Showa Special Zone; 100 km from Addis Ababa. It is a distant city. The organization of the city is divided into 6 sub-districts and 18 kebeles, and the level of the city is a first-class city. It can be seen that the estimated population of the city is 431,202 as stated in the planning study document.

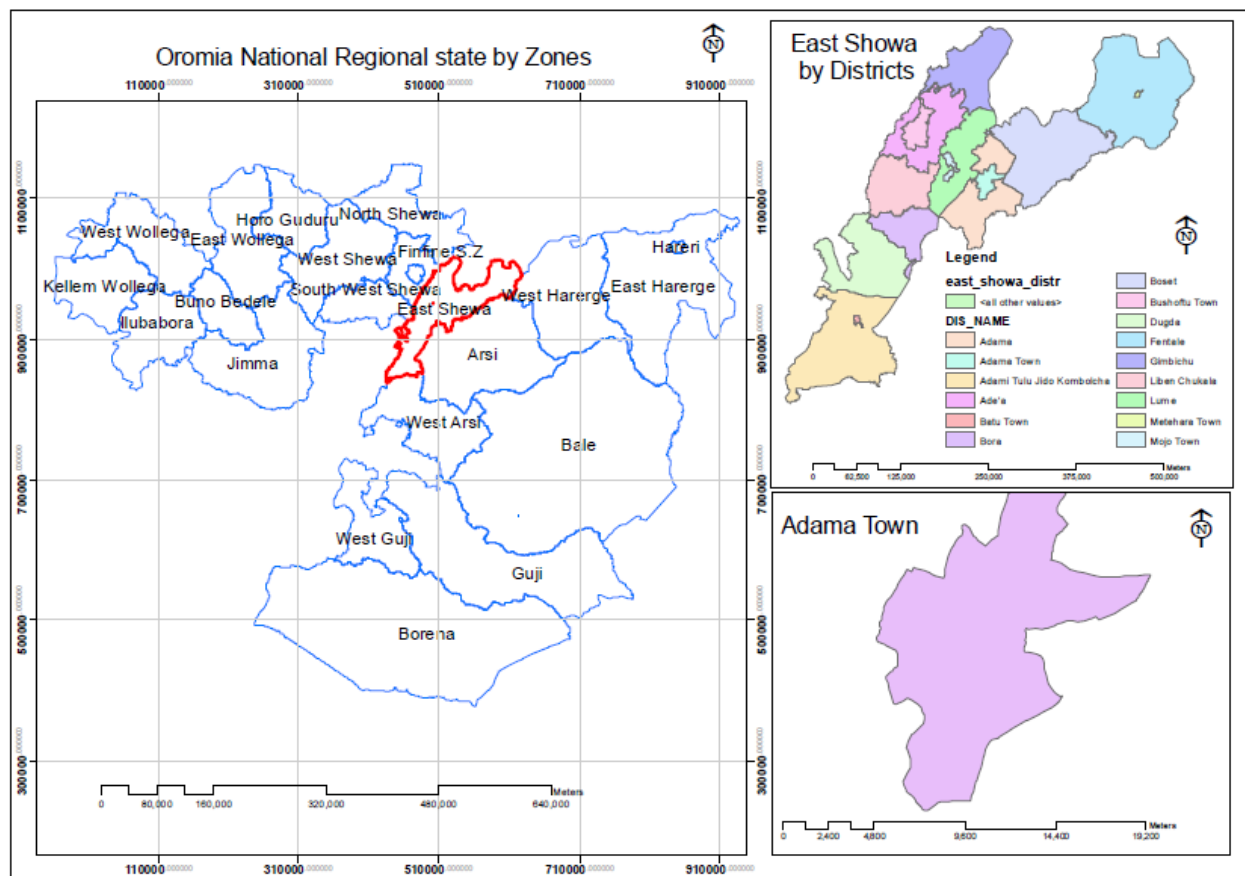


Figure 2: Geographical location of the city of Adama

Regarding the legality of the plan it was learned that the prepared plan of Adama city is a structural plan that started in 2009 E.C and ended in 2010 E.C. The prepared plan was approved by the city council in July 2010 E.C and put into operation. As the city plan is valid for 10 years, it is currently in its 5th year. In order to implement this plan, it was stated that 4 neighborhood

development plans (NDP) prepared by the Urban Planning Institute have been prepared, but it has been found out that they are not approved and are not in the hands of the executors. In addition, neighborhood Plan (Neighborhood Development Plan (NDP) & urban design has been prepared by a consultant for one site and has been put into operation.

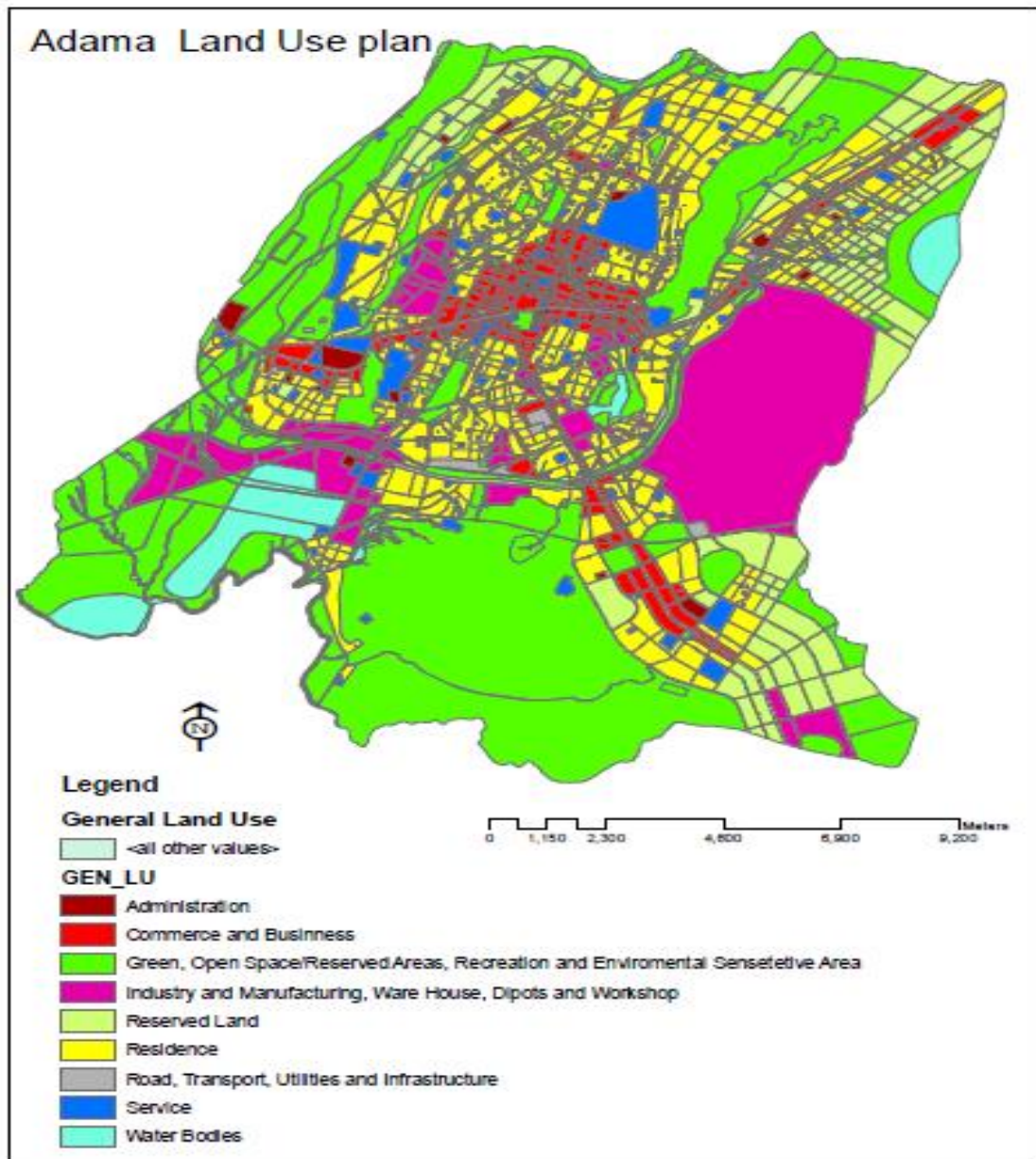


Figure 3: General land use map the city of Adama

4.2. Distribution of Key Informant Interview

The interview questions were distributed to stakeholders involved in the urban planning process of implementation and preparation. The stakeholders were mainly from two main sectoral offices, namely the Oromia Urban Planning Institute (OUPi) and Adama Municipality Office or Adama Urban Land Administration and Management Office. The interview questions were distributed to those stakeholders who are involved in urban plan preparation, as well as urban plan implementation monitoring or follow-up. The respondent's rate is shown in the following table, which includes a sufficient number of interview questions to allow for adequate analysis of the study subject. In-depth interviews with key informants were also undertaken in order to further the study and interpretation of the major difficulties in implementing urban plans, notably in terms of the quality issues, major roadblocks, and root reasons of these difficulties. Additionally, secondary information was gathered from two key offices, namely the Adama City Land Use and Administration Office and the Oromia Urban Planning Institute (OUPi). The materials gathered include the Adama City Structural Plan, the Basic Plan Preparation and Implementation Manual, and the Structural Plan for Structural Plans.

Table 5: Distribution of Interview questionnaires for Key Informants

No	Name of the Offices	Stakeholders (KI) & Questionnaires Distributed	Available for KII	Not available for KII	Rate of responsive in percentage (%)
1	Oromia Planning Institute (OUPi)	Physical Planner	35	0	100
		Economist			
		Surveyor			
		Civil engineer			
		Sociologist			
		Geographer			
		Geologist			
		Historian			
		Cartographer			
		Geologist			
		Drafting			
		Environmentalist			

2	Adama Municipality/Adama City Urban Land Use and Administration Office	Civil engineer	20	19	1	99	
		Surveyor					
		Geographer					
		Economist					
		Sociologist					
		Physical Planner					
		Surveyor					
		Environmentalist					
Total				55	54	1	99.00

4.3. Focus Points of Urban Planning Evaluation

4.3.1. Detailed Execution Status of the Land Use Plan during the Planning Period

As it is a structural plan of the city of Adama, it must have an implementation plan. Therefore, although it was stated that four neighborhood development plans have been prepared in four selected areas, it could not be approved by the executive bodies. Therefore, it was found out during the audit review that the plan is being implemented without implementation of the structural plan. For example, according to the following figure the issue of green space being provided for residential use in the structural plan R5 (mixed use) has raised a lot of questions among the local community and it has been seen that they have reached the point of asking for it by law.

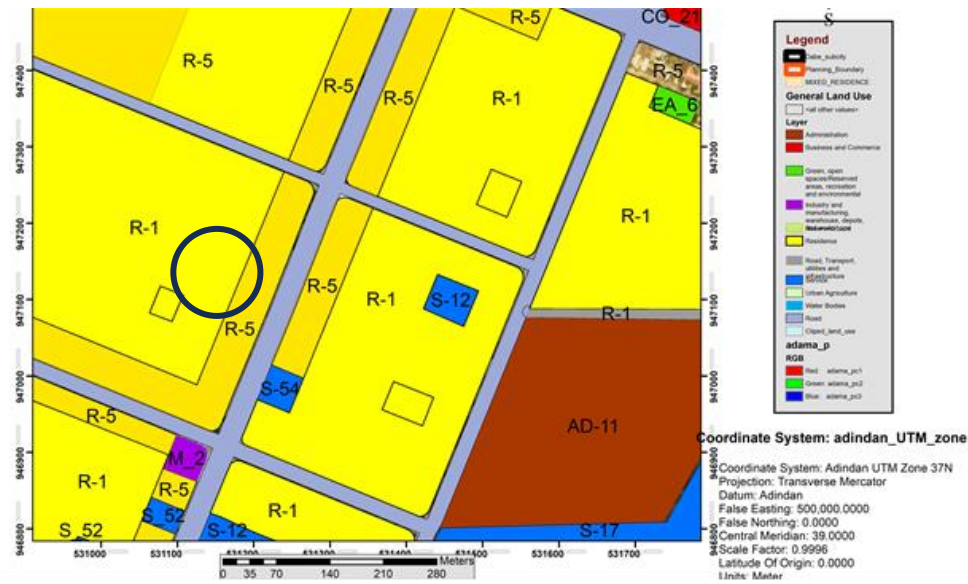


Figure 4: The green space in the proposed mixed use land use is given to the residence development illegally.

The following figure describes the illegality of providing a residential development area directly from the structural plan without preparing the neighborhood development plan. Hence, it is essential to ensure that the process of providing a residential development area adheres to legal requirements, which includes preparing a neighborhood development plan. Failing to do so would be considered illegal as it disregards the necessary steps for comprehensive planning and community involvement. By omitting the neighborhood development plan, the potential negative impacts on infrastructure, public services, and the overall well-being of the community may not be adequately addressed. Therefore, it is crucial to follow the legal framework and guidelines to ensure responsible and sustainable residential development.



Figure 5: provision of a residential development area directly from the structural plan without preparing the neighborhood development plan.

The illegality of providing a residential development area that was originally designated for green space development, as outlined in the structure plan of a city, can be explained in several ways.

Firstly, the structure plan serves as a blueprint for the long-term development and growth of a city. It is a legally binding document that outlines the intended land use and zoning regulations. If the structure plan designates a specific area for green space development, it implies that the city authorities have recognized the importance of preserving open spaces for environmental, recreational, and aesthetic purposes.

By disregarding the structure plan and converting the designated green space into a residential development area, several legal issues arise. One of the key concerns is the violation of zoning regulations. Zoning laws are put in place to ensure that land use is appropriately allocated and that different areas of the city serve their intended purposes. Changing the designated green space into a residential area without proper authorization would be a breach of these regulations.

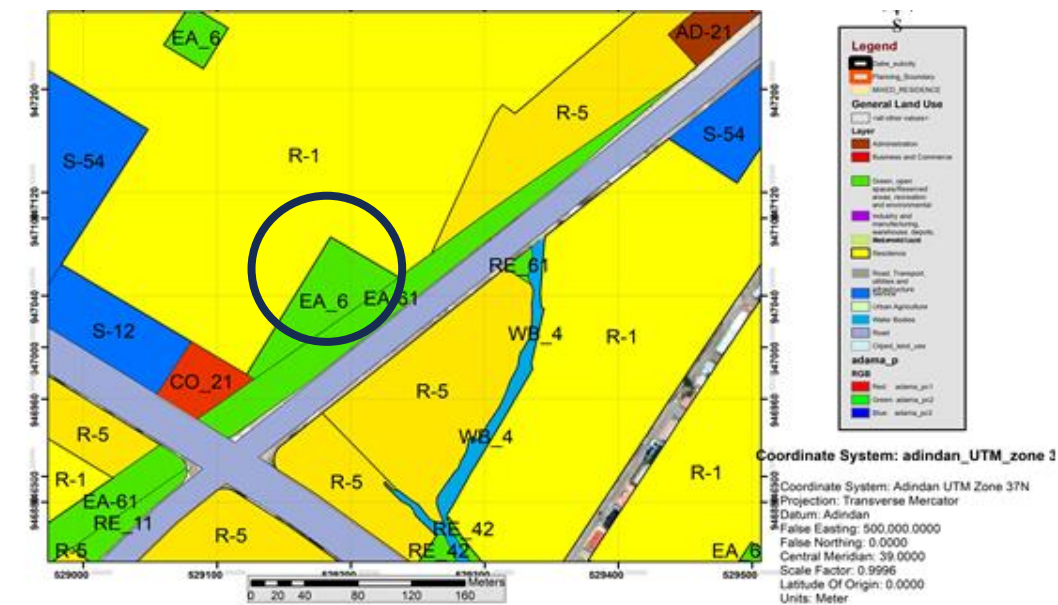


Figure 6: The area assigned to the green service map is designated as residential in the structural plan

Additionally, the conversion of green space into a residential development area may also infringe upon environmental protection laws. Green spaces play a crucial role in maintaining ecological

balance, providing habitats for wildlife, and mitigating the effects of climate change. By eliminating or significantly reducing green spaces, the natural environment and biodiversity of the area could be negatively impacted, leading to potential legal consequences.

Furthermore, the decision to convert green space into a residential area without proper justification and public consultation may also violate principles of good governance and community engagement. The structure plan is typically developed through a participatory process involving input from various stakeholders, including residents, experts, and local authorities. Ignoring this process and making unilateral decisions can undermine public trust and lead to legal challenges.

Figure 7: The area planned for green is given to housing development illegally

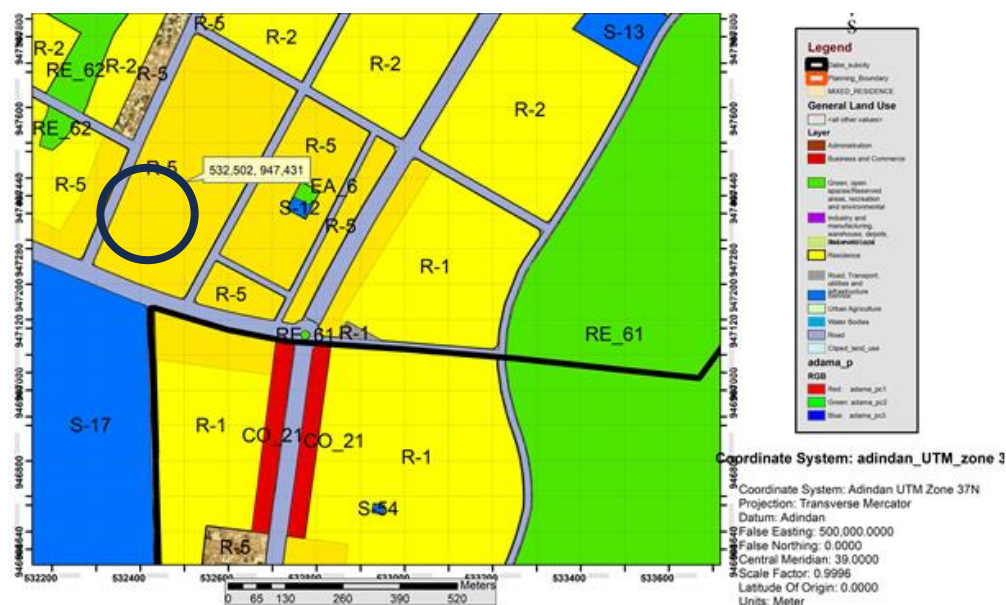


Figure 8: The area planned for green is given to housing development illegally

In summary, the illegality of providing a residential development area that was originally intended for green space development, as per the structure plan of a city, stems from violations of zoning regulations, environmental protection laws, and principles of good governance. It is

crucial to adhere to the legal framework and engage in transparent decision-making processes to ensure responsible and sustainable urban development.

Firstly, the structure plan serves as a legally binding document that guides the long-term development and land use of a city. It is designed to ensure that different areas are allocated for specific purposes in a coordinated and sustainable manner. If the structure plan designates a particular riverbank area for industry and manufacturing development, it implies that the city authorities have carefully considered factors such as infrastructure, environmental impact, and zoning regulations to support such development.



Figure 9: Although given as EA-61 River bank green on the map, it is set as P1 Industry & Manufacturing in the structural plan.

By disregarding the structure plan and converting the designated riverbank green area into an industrial zone, several legal issues arise. One of the primary concerns is the violation of zoning regulations. Zoning laws are in place to ensure that land use is appropriately allocated and that different areas of the city serve their intended purposes. Changing the designated green area into an industrial zone without proper authorization would be a breach of these regulations.

Additionally, the conversion of a riverbank green area into an industrial zone may also infringe upon environmental protection laws. Riverbanks often play a crucial role in maintaining

ecological balance, providing habitats for wildlife, and preserving water quality. Altering or eliminating these green areas can disrupt the natural environment, impact water resources, and potentially harm sensitive ecosystems. Violating environmental protection laws can lead to legal consequences and penalties.

Furthermore, the decision to convert a riverbank green area into an industrial zone without proper justification and public consultation may also violate principles of good governance and community engagement. The structure plan is typically developed through a participatory process involving input from various stakeholders, including residents, experts, and local authorities. Ignoring this process and making unilateral decisions can undermine public trust and lead to legal challenges.

In summary, the illegality of providing a riverbank green area that was originally intended for industry and manufacturing development, as per the structure plan of a city, arises from violations of zoning regulations, environmental protection laws, and principles of good governance. It is crucial to adhere to the legal framework, consider environmental impacts, and engage in transparent decision-making processes to ensure responsible and sustainable urban development.

4.3. Regarding the Delivery of the Boundaries of the Structural Plan of the City of Adama

It has been seen that the increase of illegal houses has contributed to the extent of the structural plan of Adama city as the city administration has not been handed over. The increase in illegal houses has had a significant impact on the overall structure and development plan of Adama city. This impact is attributed to the fact that the city administration has not been able to effectively enforce regulations and take control of the situation.

When referring to "illegal houses," it implies that there are residential structures that have been constructed without proper authorization or in violation of existing regulations and building codes. These houses may lack the necessary permits, fail to meet safety standards, or encroach upon public or private land.

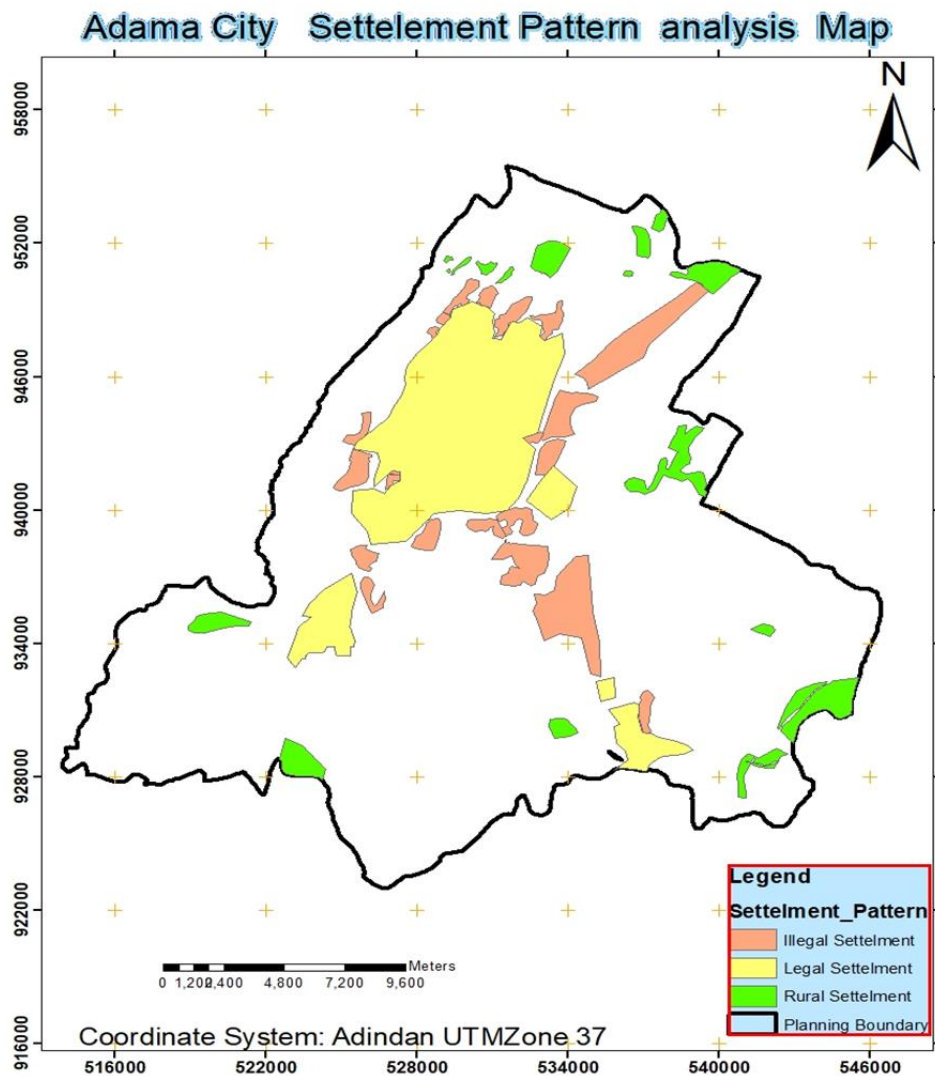


Figure 10: Settlement Pattern within the city's boundary



Figure 12: increase of illegal houses has contributed to the extent of the structural plan of Adama city

The structural plan of a city, also known as a master plan or development plan, is a comprehensive document that outlines the intended land use, zoning regulations, infrastructure development, and overall vision for the city's growth. It serves as a guide for urban development, ensuring that the city's expansion is well-coordinated, sustainable, and in line with the needs of the community.

However, the statement suggests that the increase in illegal houses has contributed to the extent of the structural plan of Adama city. This means that the unauthorized construction of houses has occurred in areas that were not originally designated for residential purposes in the structural plan. As a result, the city's development may have deviated from the intended vision, leading to challenges in infrastructure provision, public services, and overall urban planning.

The statement further highlights that the city administration has not been handed over the responsibility to effectively address the issue of illegal houses. This implies that there may be a lack of enforcement mechanisms, inadequate resources, or administrative challenges that prevent the city administration from taking appropriate action against illegal construction.

The consequences of the increase in illegal houses can be significant. It can strain existing infrastructure, such as water, electricity, and transportation systems, as these structures were not accounted for in the original structural plan. It can also lead to overcrowding, increased demand for public services, and potential safety hazards if the houses are not built to code.

To address this issue, it is crucial for the city administration to take proactive measures. This may involve conducting regular inspections, imposing penalties on illegal construction, raising awareness about the importance of adhering to regulations, and working with relevant stakeholders to find solutions. By doing so, the city administration can regain control over the development process, ensure compliance with the structural plan, and mitigate the negative impacts of illegal houses on the overall urban landscape of Adama city.

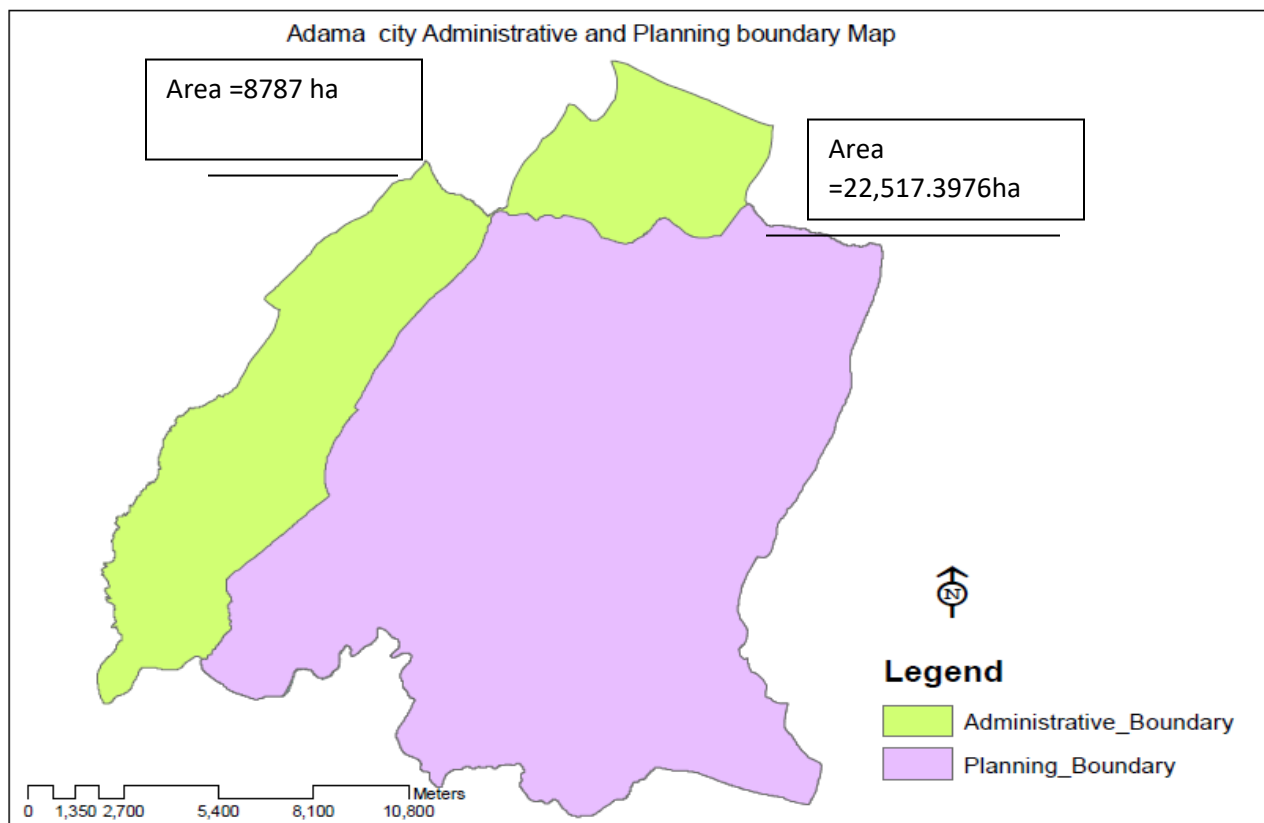


Figure 13: Adama city Administrative and planning boundary map

4.4. Regarding the solid waste disposal site of Adama city

The solid waste disposal site is located close to the existing site in the plan, but it can be seen that it is currently being provided temporarily in the area planned for a green space in the mountain and is under a high-power line and is exposed to danger. It has been stated that it is in the process of making a map and design according to the plan, and it is necessary to monitor the process and implement it as soon as possible according to the plan. This suggests that the solid waste disposal site, which is intended to be located near the existing site according to the plan, is currently being temporarily provided in an area designated for a green space in the mountains. Furthermore, it highlights that the site is situated under a high-power line and is exposed to potential dangers.

Ideally, the solid waste disposal site should be strategically planned and located in accordance with environmental considerations, public health concerns, and long-term sustainability. However, the statement indicates that the current placement of the disposal site deviates from the original plan and raises several issues.

Firstly, the temporary provision of the disposal site in an area planned for a green space in the mountains is problematic. Green spaces are essential for preserving biodiversity, providing recreational areas, and maintaining ecological balance. By utilizing this area for waste disposal, the natural environment and its associated benefits may be compromised. It can lead to the destruction of habitats, loss of vegetation, and potential contamination of soil and water resources.

Secondly, the disposal site being situated under a high-power line raises concerns about safety. High-power lines carry significant electrical currents and pose potential risks, such as electrocution or fire hazards. Placing a waste disposal site in close proximity to such power lines increases the likelihood of accidents or incidents that could endanger both the environment and the individuals working at or near the site.

Additionally, the statement implies that the current location of the disposal site is temporary. This suggests that there may be a lack of proper planning and infrastructure for waste

management in the area. Temporary solutions can be inefficient, unsustainable, and may not adequately address the long-term waste disposal needs of the city or region.

To address these issues, it is crucial to revisit the waste management plan and identify a suitable location for the solid waste disposal site that aligns with the original plan. This should involve considering factors such as environmental impact assessments, public health considerations, and adherence to safety regulations. The chosen site should be away from ecologically sensitive areas, properly equipped with necessary infrastructure, and situated at a safe distance from potential hazards like high-power lines.

By ensuring that the solid waste disposal site is appropriately located and designed, the city can mitigate environmental risks, protect public health, and promote sustainable waste management practices. It is essential to prioritize long-term planning and consider the well-being of both the community and the natural environment when making decisions regarding waste disposal.



Figure 14: Temporary solid waste disposal site

4.5. In Relation to Land Uses Implementation Performance

Land uses implementation performance refers to the effectiveness and efficiency with which land use plans and policies are put into practice. It assesses how well a particular area or region is able to achieve its intended land use goals and objectives. The concept of land uses implementation performance involves several key aspects: Effectiveness: This refers to the extent to which land use plans and policies are able to achieve their desired outcomes. It assesses whether the

intended goals, such as promoting sustainable development, conserving natural resources, or improving quality of life, are being realized, Efficiency: This aspect focuses on the optimal use of resources, both financial and non-financial, in implementing land use plans. It evaluates whether the available resources are being utilized effectively to achieve the desired outcomes. This includes considerations such as cost-effectiveness, time efficiency, and the allocation of resources to different land use activities, Compliance: land uses implementation performance also examines the degree to which land use plans and policies are being followed and adhered to. It assesses whether the regulations and guidelines set forth in the plans are being implemented by relevant stakeholders, including government agencies, developers, and the community. Stakeholder Engagement: This aspect emphasizes the involvement and participation of various stakeholders in the land use planning and implementation process. It evaluates whether there is effective collaboration and communication among different actors, including government authorities, private sector entities, community organizations, and residents. Stakeholder engagement is crucial for ensuring that diverse perspectives and interests are considered and integrated into the decision-making process, Monitoring and Evaluation: land uses implementation performance involves the establishment of mechanisms to monitor and evaluate the progress and outcomes of land use plans and policies. This includes the collection and analysis of relevant data, indicators, and metrics to assess the effectiveness and efficiency of implementation efforts. Monitoring and evaluation help identify areas of success, as well as challenges and areas for improvement.

Overall, land uses implementation performance provides a comprehensive framework for assessing the success of land use planning and implementation efforts. It helps identify strengths and weaknesses in the process, informs decision-making, and supports the continuous improvement of land use practices to achieve sustainable and desirable outcomes for communities and the environment. The following table summarizes the implementation according to the plan assigned and prepared for each land use during the planning period.

The table below shows what has been planned and implemented within two and a half years since the implementation of the plan.

Table 6: Summary of implementation according to the plan assigned and prepared for each land use during the planning period. (Source: Adama City Administration 2015)

No.	Land use category	Proposed in Hectares	Implemented in Hectares	Not Implemented In Hectares
1	Residence	3,254.96	2594.58	660.38
2	Commerce	240.59	107.35	133.24
3	Administration	83.73	120.24	36.51
4	Service	505.45	515.40	9.95
5	Transport and street network	694.07	1625.85	931.78
6	Recreation and environment	7,446.35	7479.40	33.05
7	Manufacturing and Storage	453.94	518.85	64.91
	Total	12,679.09	12961.67	282.58

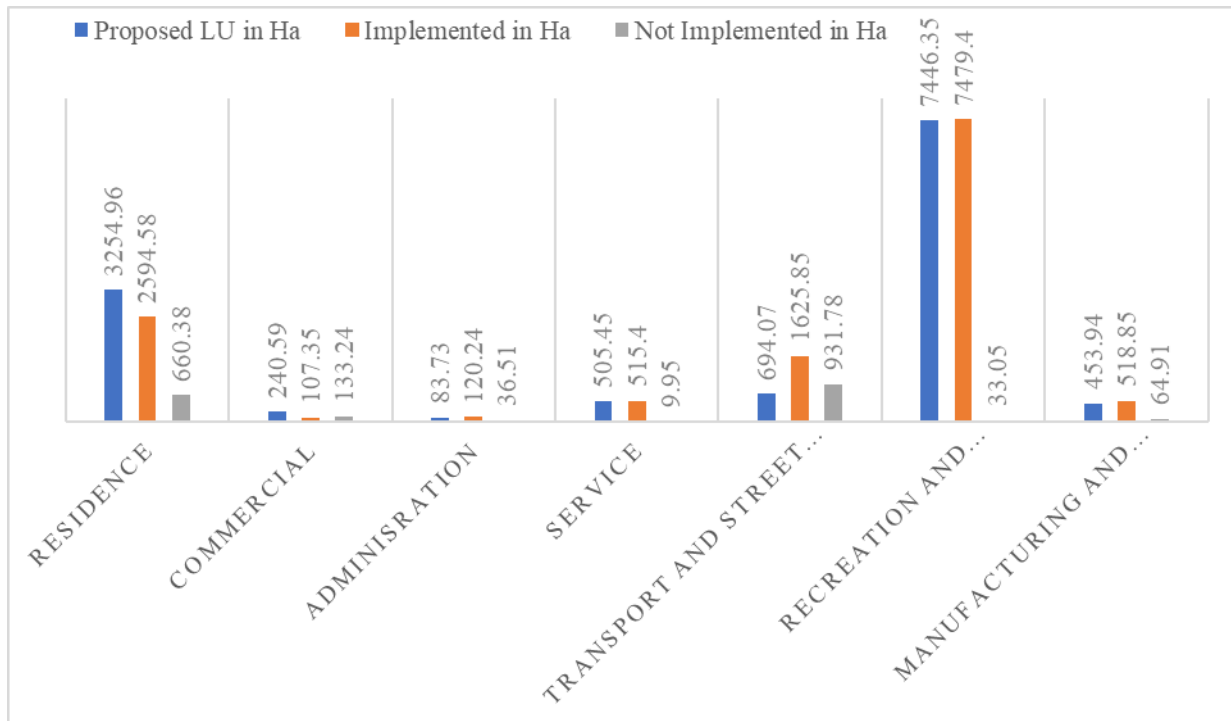


Figure 15: Summary of implementation according to the plan assigned and prepared for each land use during the planning period. (Source: Adama City Administration 2015)

4.5.1. Regarding Residential and Mixed Land Use:

In this, the structural plan includes housing and mixed housing services, and as set in the socio-economic data, it covers 3005.13 hectares, which is 9.74% of the total, allocated for housing for 10 years (existing 2594.57ha and proposed 410.56ha). The data shows that the planned implementation is 476 hectares and the implementation is 281.9 hectares (59%).

This refers to the allocation and utilization of land for residential purposes and a combination of residential and commercial purposes. The structural plan outlines the development and allocation of land for housing purposes, including both standalone residential units and mixed-use developments that combine residential and commercial spaces. The socio-economic data indicates that the total area allocated for residential and mixed land use is 3005.13 hectares, which represents approximately 9.74% of the total land area in the region. Within the 3005.13 hectares, 2594.57 hectares are already in use for housing purposes, while an additional 410.56 hectares are proposed to be allocated for housing in the future. This allocation is planned to be in effect for a period of 10 years. The data indicates that the planned implementation of the housing

allocation is 476 hectares. This means that out of the proposed 410.56 hectares, 476 hectares are expected to be developed and utilized for housing purposes. However, the actual implementation of the housing allocation is currently at 281.9 hectares, which represents 59% of the planned implementation. This suggests that the development and utilization of the allocated land for housing purposes are still ongoing and not yet fully completed.

In summary, the statement above information provides about the allocation and utilization of land for residential and mixed land use. It includes details about the total area allocated, the existing and proposed land for housing, the planned implementation, and the current status of implementation.

4.5.2. Regarding trade and commerce

Trade and centers included in this, market, as set in the socio-economic data for 10 years (existing and proposed) covers 107.35 hectares, which is about 0.35% of the total. Information on performance shows that nothing has been done in the planned 33 hectares. This statement discusses trade and centers in relation to a market area. It states that the market, as defined by the socio-economic data for the past 10 years, encompasses a total area of 107.35 hectares. This market area represents approximately 0.35% of the total land available. Furthermore, the statement mentions that there is information available on the performance of this market area. It indicates that within the planned 33 hectares of the market, no progress or development has taken place. To summarize, the the information provided on the table regarding trade and centers highlights the size of the market area in terms of hectares and its proportion to the total land available. It also mentions the lack of progress or development within a specific portion of the market area.

4.5.3. Regarding management:

As this plan category shows in the socio-economic document, the management category set by the plan for 10 years (existing and proposed) covers 148.97 hectares, which is about 0.48% of the total. The data shows that the planned implementation is 4 hectares and the implementation is 18 hectares (450%). This plan category sets the management boundaries for a period of 10 years,

including both existing and proposed areas. The total area covered by this management category is 148.97 hectares, which represents approximately 0.48% of the total area under consideration.

The data further indicates that within this management category, there are specific areas designated for planned implementation. The planned implementation area is 4 hectares, meaning that there are plans to carry out certain activities or initiatives within this designated space. Additionally, the data mentions an implementation area of 18 hectares, which represents the actual execution or implementation of activities within the management category. This implementation area is 450% of the planned implementation area, indicating that the executed activities have exceeded the initially planned scope.

In summary, the above statement highlights the coverage of a specific management category within a socio-economic document, providing information on the total area covered, the planned implementation area, and the actual implementation area, along with a comparison between the planned and executed areas.

4.5.4. Regarding Social and Municipal Services:

Education, health, municipal services, religious services, etc. includes as shown in the Socio-Economic document, this plan category covers 533.89 hectares, which is 1.73% of the total area (existing and proposed) for 10 years. The data shows that the planned implementation is 23 hectares and the implementation is 41.43 hectares (180%). In detail, the table above regarding this section discusses various aspects of a plan, specifically related to education, health, municipal services, religious services, and other similar areas. These aspects are mentioned in a Socio-Economic document, which likely outlines the social and economic factors associated with a particular project or development plan.

According to the document, this specific plan category covers an area of 533.89 hectares. It's important to note that a hectare is a unit of area measurement, equivalent to 10,000 square meters or 2.47 acres. In this case, the 533.89 hectares represent 1.73% of the total area, which includes both the existing area and the proposed area. The phrase "for 10 years" suggests that the plan is intended to be implemented over a period of ten years. During this time, the plan aims to address

the mentioned aspects such as education, health, municipal services, religious services, and more.

The data also provides information about the planned implementation and the actual implementation of the project. It states that the planned implementation is expected to cover an area of 23 hectares. This means that the initial plan outlined an intention to allocate 23 hectares of land for the mentioned services. However, the actual implementation has exceeded the planned area. The data mentions that the implementation covers 41.43 hectares, which is 180% of the initially planned area. This indicates that the project has expanded beyond the original scope, covering a larger area than initially anticipated.

In summary, the table regarding this particular section discusses a plan category that includes education, health, municipal services, religious services, and more. The plan covers an area of 533.89 hectares, representing 1.73% of the total area for a period of ten years. The planned implementation was initially set at 23 hectares, but the actual implementation has exceeded this, covering 41.43 hectares, which is 180% of the planned area.

4.5.5. Regarding Sewage Disposal Services

It has been stated that the design is being prepared to implement the classification of dry and sewage disposal services according to the plan. It can be seen that solid waste is currently serving as a temporary site on the mountain's proposed green space. This should be given great attention and immediate action should be taken to move it to the place set by the plan.

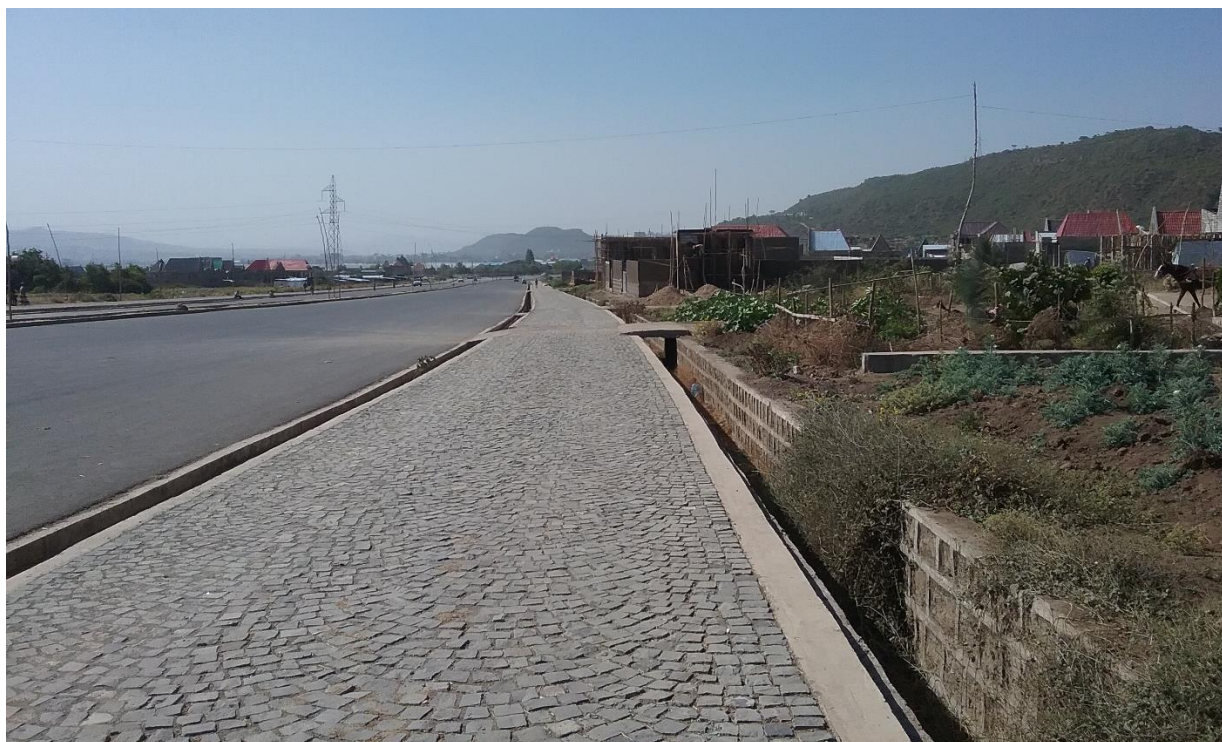


Figure 16: Cobblestone road and drainage line built according to the plan

4.5.6. Regarding micro and small industry and industry,

The 10-year set-up (existing and proposed) under the category covers 548.83 hectares, i.e. 1.78% of the total. The data shows that the planned implementation is 352 hectares and the implementation is 99.96 hectares (28.4%). In addition, it is stated that 9 hectares have been given to small and small businesses for various work and sales areas. The table discusses a 10-year set-up plan that falls under a specific category. This set-up plan covers a total area of 548.83 hectares, which is equivalent to 1.78% of the total area being considered.

The data further reveals that within this set-up plan, there is a planned implementation of 352 hectares. This means that there are specific projects or initiatives that have been proposed and are intended to be carried out in an area measuring 352 hectares.

Additionally, the finding mentions that there is an implementation of 99.96 hectares, which accounts for 28.4% of the planned implementation. This indicates that a portion of the proposed projects or initiatives has already been executed or put into action, covering an area of 99.96 hectares. Furthermore, 9 hectares have been allocated to small and small businesses for various

work and sales areas. This suggests that a specific portion of the total area, measuring 9 hectares, has been designated for small businesses to conduct their operations and engage in sales activities. In summary, the table finding provides information about a 10-year set-up plan, including the total area it covers, the planned implementation, the area that has already been implemented, and the allocation of a specific portion of the area for small businesses.

4.5.7. Regarding the green area

The area allocated for recreation and green development as shown in the plan category in the socio-economic document and the service category set by the plan for 10 years (existing and proposed) covers 23,495.23 hectares, which is about 76.12% of the total. The data shows that the planned implementation is 16 hectares and the implementation is 2,285 hectares. Due to the high attention given to green development, an area covering 3,834 hectares has been mapped and 2,815 hectares are being protected and developed by various associations and individuals. In detail, in the socio-economic document, there is a plan category that designates an area for recreation and green development. This category is further divided into existing and proposed areas, and it covers a total of 23,495.23 hectares. This area represents approximately 76.12% of the total land. Within this plan category, there are two important figures to consider: planned implementation and actual implementation. The planned implementation refers to the area that is intended to be developed according to the plan. In this case, it is 16 hectares. On the other hand, the actual implementation refers to the area that has already been developed or is currently being developed. In this case, it is 2,285 hectares.

The data also indicates that there is a significant emphasis on green development. As a result, an additional area of 3,834 hectares has been mapped for future development. This means that there are plans to develop this area in the future to further promote green spaces and recreational activities. Furthermore, various associations and individuals are actively involved in protecting and developing green areas. Currently, they are working on protecting and developing 2,815 hectares of land. These efforts contribute to the overall goal of preserving and enhancing the natural environment.

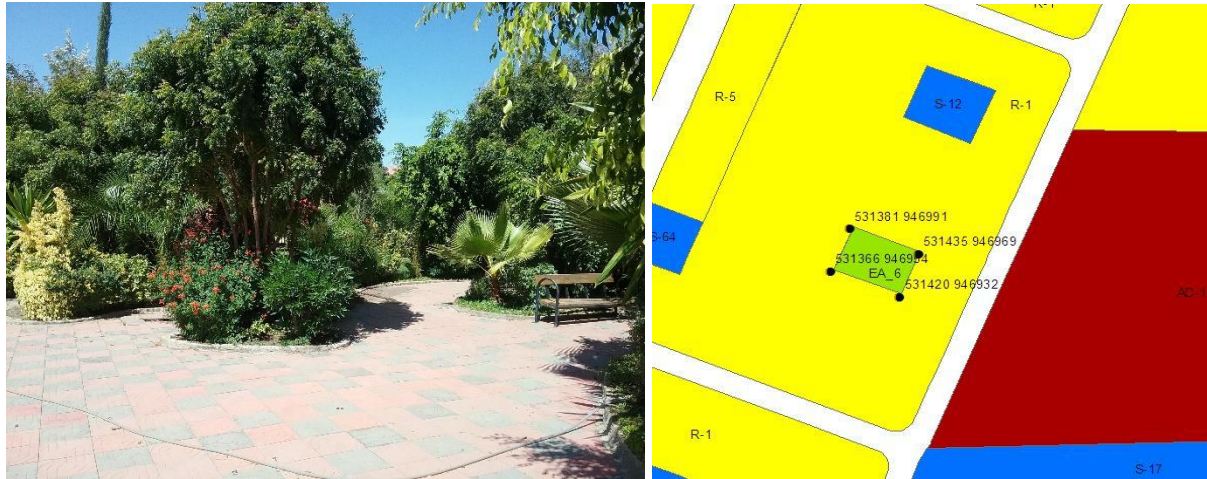


Figure 17: Developed green area according to the plan

In summary, the area allocated for recreation and green development, as outlined in the plan category of the socio-economic document, covers a significant portion of the total land. The planned implementation and actual implementation figures indicate the progress made in developing these areas. Additionally, there are plans to further expand green spaces in the future, and various associations and individuals are actively involved in protecting and developing these areas.



Figure 18: developed green area on street median according to the plan

4.6. Change of Land Use Category

It was identified during the performance assessment that Adama City has undergone land use changes during the 10-year plan implementation. This was done through regional recognition of land use change, and a total of 84.43 hectares were changed in classification. In this case, a performance assessment refers to an evaluation or analysis carried out to assess the progress, achievements, or shortcomings of a particular project or plan. In this case, the assessment was conducted to evaluate the outcomes of the 10-year plan implemented in Adama City. The assessment considered the broader regional context in which Adama City is located. It implies that the changes were not limited to the city alone but potentially influenced by factors at a regional scale, such as economic development, population growth, infrastructure requirements, or environmental considerations.

Table 7: During the planning period, the detailed implementation of the land use plan has changed in the region (Source: Adama City Administration 2013)

Land use category	Implemented in Hectares	Land use category	Year of implementation	Findings
CBA-4 (Commercial)	41	R-5 (Mixed)	2012	Regional recognition
CBA-4 (Commercial)	1.75	R-1 (Residential)	2012	Regional recognition
S-4 (Services)	0.675	R-1 (Residential)	2012	Regional recognition
AD-1 (Administration)	41	R-2 (Residential)	2012	Regional recognition
Total	84.425			

4.7. Implementation of Road Network and Transport Services Plan

Regarding the road network in the city as a whole, the structural plan from the main highway to sub-collector roads up to 1043.57 km in length, i.e., 50 m - 15 m wide road network is implemented in the planning study document, and 108.8 km in length is implemented according to the infrastructure report and field observation. It has been seen.

In other words, the city has a plan for its road network, and some of the roads have already been built according to that plan. The remaining roads will be built in the future, according to the same plan. Furthermore, the road network is implemented from main highways to sub-collector roads. This means that the city is prioritizing the construction of main highways, which are the most important roads in the city. Once the main highways are in place, the city will start building sub-collector roads, which are less important but still important for connecting different parts of the city. In summary, it seems that the city has a well-thought-out plan for its road network, and that the plan is being implemented. This is good news for the city, as a good road network is essential for economic development and improving the quality of life for residents.

Table 8: Implementation of the Road network plan

Road type	Planned/Proposed		Implemented by plan	
	Average width in M.	Length in KM	Width in M	Length in KM
Asphalt	22	50	22	13.9
Gravel	22	60	22	9.9
Sweep the soil	10	200	10	50
Cobblestone	10	140	10	35
Bicycle	1	10	1	3.6
Footpath	2.5	35	2.5	22.6
Roadside catchment line		90		47.6
Total (Transportation services (stations, parking etc.))	67.5	585	67.5	182.6

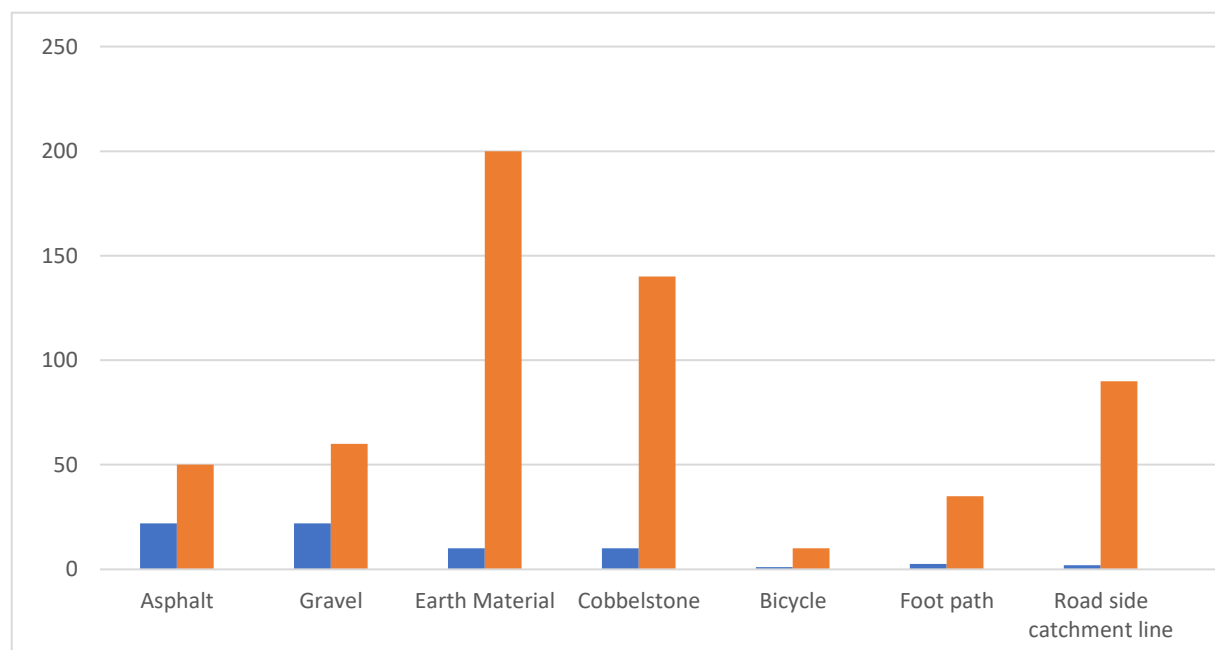


Figure 19: Summary of Implementation of the Road network plan

The above table describes the data that has been implemented in two and a half years since the city plan was approved in July 2010. E.C shows that there is a good start and more roads should be maintained and built. Asphalt road 50 km planned and 13.9 km completed which is 27.8% of planned, cobblestone road 140 km planned and 35 km completed which is 25% completed, gravel/gravel road 60 km planned and 9.9 km completed which is 16.5% of planned. Completed, soil dredging 200 km planned and 50 km completed which is 25% of the planned, roadside drainage line 90 km planned and 47.6 km completed which is 53% completed.



Figure 20: 40 m road built according to the plan

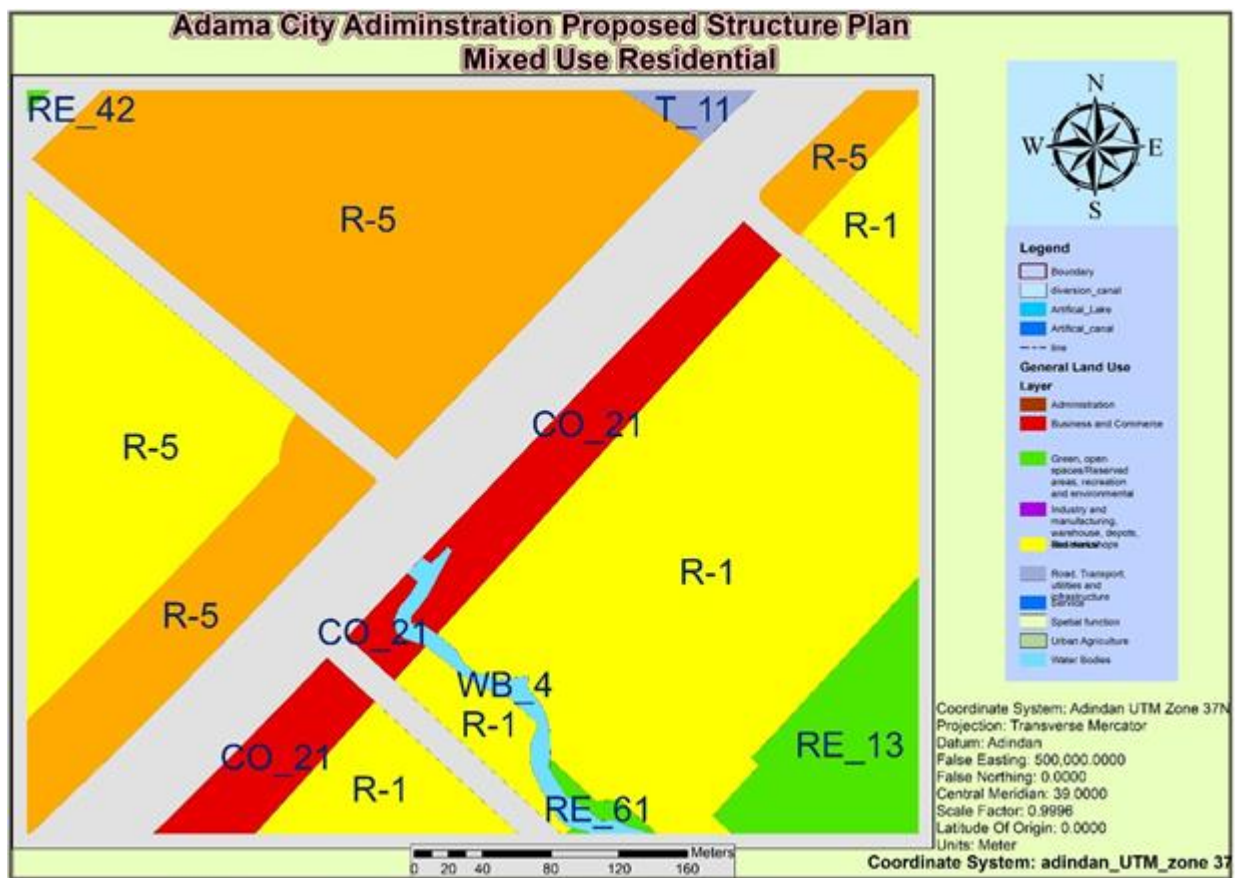


Figure 21: 40 m Road built according to the plan



Figure 22: A 30 m road is being built according to the plan

In addition, infrastructure services: 36.5 km of water line was planned, 35.5 km was completed according to the plan and 1.5 km was completed outside the plan, the data shows. They stated that 44 new telephone boxes, 150 km of new lines were laid and the network coverage was 80%. However, it has been stated from infrastructure providers that there is no coordinated system with infrastructure services (water, electricity, telephone) and sector offices.

4.8. Regarding building height:

Due to the fact that the detailed plan for the implementation of the structural plan, the Local Development Plan (NDP), is not being prepared, they are being implemented at a low standard, and the regional planning institute has not prepared a detailed manual for implementation. However, to solve this problem, it is stated that they are trying to implement it by preparing a manual. The Local Development Plan (NDP) is a structural plan that provides a framework for the development of a city or region. It sets out the overall goals and objectives for development, as well as the specific policies and strategies that will be used to achieve those goals. In other words, a detailed plan for the implementation of the NDP is essential to ensure that it is implemented effectively and efficiently. This plan should identify the specific projects and initiatives that need to be undertaken, as well as the resources and timelines required. Without a detailed implementation plan, the NDP is at risk of being implemented at a low standard. This is because it will be difficult to coordinate the implementation of different projects and initiatives, and to ensure that they are aligned with the overall goals and objectives of the NDP. The regional planning institute has not prepared a detailed manual for the implementation of the NDP. This is

a significant omission, as a manual would provide guidance to implementers on how to interpret and implement the NDP's policies and strategies. However, it is stated that the regional planning institute is trying to solve this problem by preparing a manual. This is a positive development, and it is hoped that the manual will be completed and made available to implementers as soon as possible. Additionally, the fact that the regional planning institute is trying to prepare a manual for the implementation of the NDP suggests that they are aware of the problem and are committed to addressing it. This is a good sign.

However, it is important to note that preparing a manual takes time. In the meantime, it is important to find ways to implement the NDP as effectively as possible, even without a detailed plan.

One way to do this is to focus on the most important and urgent projects. Another way is to involve stakeholders in the implementation process. This will help to ensure that the NDP is implemented in a way that meets the needs of the community. In conclusion, the above statement highlights the importance of having a detailed plan for the implementation of a structural plan. Without such a plan, there is a risk that the plan will be implemented at a low standard. The regional planning institute is taking steps to address this problem by preparing a manual for the implementation of the NDP.

There is a procedure in place for obtaining planning consent and building permits in the city. However, there are some procedural gaps in this system. For example, in the case mentioned in the statement, the planning consent map says that the land is residential, but the land use/service plan has been granted for commercial use. This means that a commercial building could be built on the land, even though the planning consent map says it is residential.

These procedural gaps are an indication that more attention should be paid to the city's planning and construction sector. This is because procedural gaps can lead to a number of problems, including:

- Buildings being built in the wrong places
- Buildings being built that do not meet the needs of the community
- Buildings being built that are not safe or sound

In addition, procedural gaps can make it difficult to enforce planning regulations. This can lead to the development of unplanned and uncontrolled settlements, which can have a negative impact on the city's environment and economy. to address the procedural gaps in the city's planning and construction sector, conducting a comprehensive review of the city's planning and construction regulations and procedures to identify and address any gaps, developing and implementing a new land use plan that is clear and concise, and that is consistent with the city's overall development goals, investing in training for city staff on planning and construction regulations and procedures, Establishing a system for monitoring and enforcing planning regulations & Engaging with the community in the planning process to ensure that their needs are met can be taken as a recommendations. By taking these steps, the city can improve its planning and construction sector and ensure that development is carried out in a sustainable and orderly manner.

In general, there is a procedure to get a planning consent and give a building construction, although the planning consent map says it is residential, we understand from the document that the land use/service plan has been granted for commercial (CBA-4) use. These procedural gaps are an indication that more attention should be paid to the city's planning and construction sector.



Figure 23: In the structural plan assigned for commercial use, they were given a residential property map

4.9. The Main Problems Encountered During the Implementation of the Plan

The city administration experts who were asked what are the main problems seen during the implementation of the plan and the solutions provided, said that the main problems are:

I. Failure to prepare a neighbourhood development plan to implement the structural plan, as well as an adaptation plan based on research

Failure to prepare a neighbourhood development plan to implement the structural plan for a city, as well as an adaptation plan based on research, can have several significant effects. Here are some key aspects to consider:

Lack of Urban Development: Without a neighbourhood development plan aligned with the city's structural plan, there will be a lack of organized and coordinated urban development in the area. This can result in haphazard construction, inadequate infrastructure planning, and inefficient land use. The absence of a clear vision and guidelines may lead to an unplanned growth pattern, which can negatively impact the aesthetics, functionality, and sustainability of the neighbourhood.

Inadequate Infrastructure: A well-prepared development plan helps identify the infrastructure needs of a neighbourhood, such as roads, utilities, parks, schools, and healthcare facilities. Failure to prepare such a plan can result in insufficient or misplaced infrastructure investments, leading to overcrowding, traffic congestion, lack of basic amenities, and compromised quality of life for residents.

Inconsistent Land Use: A neighbourhood development plan outlines the appropriate land use for different areas within a neighbourhood. It designates zones for residential, commercial, industrial, and recreational purposes, among others, ensuring efficient land utilization. Without this plan, there is a higher likelihood of incompatible land uses, such as locating industries near residential areas, leading to pollution, noise, and decreased liveability.

Environmental Impact: An adaptation plan based on research takes into account the environmental factors and potential risks associated with a neighbourhood's development. It focuses on mitigating climate change impacts, preserving green spaces, promoting sustainable transportation, and enhancing resilience to natural disasters. The failure to implement an

adaptation plan can result in increased vulnerability to environmental hazards, loss of biodiversity, depletion of natural resources, and a diminished capacity to cope with changing climatic conditions.

Social and Economic Disparities: Neighbourhood development plans often address social and economic aspects, aiming for inclusive growth and equitable distribution of resources. These plans may include provisions for affordable housing, community facilities, job creation, and social amenities. Without a well-prepared plan, there is a higher chance of neglecting these aspects, leading to social and economic disparities within the neighbourhood, with certain sections being underserved or marginalized.

Missed Opportunities: Failure to prepare a neighbourhood development plan and an adaptation plan based on research can result in missed opportunities for sustainable and holistic development. These plans provide a roadmap for growth, ensuring that the neighbourhood evolves in a planned and coordinated manner. Additionally, they enable the identification of funding opportunities, grants, and collaborations with public and private entities interested in investing in well-structured communities.

In summary, the effect of failure to prepare a neighbourhood development plan to implement the structural plan for a city, as well as an adaptation plan based on research, can lead to disorganized urban development, inadequate infrastructure, inconsistent land use, environmental degradation, social and economic disparities, and missed opportunities for sustainable growth. It is crucial to prioritize comprehensive planning to ensure a thriving and resilient neighbourhood.

II. Lack of tools to implement the plan

The lack of tools to implement the structure plan of a city can have a number of negative effects, including:

Unplanned and uncontrolled development: Without a structure plan and the tools to implement it, cities are at risk of unplanned and uncontrolled development. This can lead to a number of problems, including: Buildings being built in the wrong places, such as on floodplains or in areas prone to landslides. Buildings being built that are not safe or sound, Buildings being built that do not meet the needs of the community, such as not having enough schools or hospitals, Traffic congestion, pollution, and other environmental problems.

Inequality and social exclusion: A lack of planning can also lead to inequality and social exclusion. For example, if low-income communities are not involved in the planning process, they may be forced to live in areas that are poorly served by public transportation, schools, and other essential services.

Difficulty attracting investment: Cities without a clear and concise structure plan may have difficulty attracting investment from businesses and other investors. This is because businesses and investors want to be sure that they are investing in cities that have a plan for future growth and development.

In addition to these general effects, the lack of specific tools to implement the structure plan of a city can also have a number of specific consequences. For example, the lack of a zoning ordinance can make it difficult to control the development of different types of land uses, such as residential, commercial, and industrial. The lack of a building code can make it difficult to ensure that buildings are safe and sound. And the lack of a transportation plan can make it difficult to develop a transportation system that meets the needs of the city's residents and businesses.

Overall, the lack of tools to implement the structure plan of a city can have a number of negative effects, both general and specific. It is important for cities to have a clear and concise structure plan, as well as the tools to implement it, in order to ensure sustainable and orderly development.

III. Lack of trained professionals in planning and execution

The lack of trained professionals in planning and executing the structure plan of a city can have several significant effects. Here are some key aspects to consider:

Inadequate Planning Expertise: Trained professionals, such as urban planners, architects, and engineers, possess the knowledge and skills required for effective city planning. Without their expertise, there is a higher likelihood of inadequate planning, leading to inefficient land use, suboptimal infrastructure design, and ineffective implementation strategies. This can result in a city that does not meet the needs of its residents or adapt well to future challenges.

Poor Infrastructure Development: Trained professionals play a crucial role in designing and implementing infrastructure projects. Their expertise ensures that infrastructure is well-planned,

taking into account factors like population growth, traffic patterns, environmental considerations, and sustainability. Without qualified professionals, infrastructure development may suffer from poor design, insufficient capacity, inadequate maintenance planning, and low-quality construction, all of which can negatively impact the functionality and longevity of critical infrastructure.

Increased Risks and Inefficiencies: Trained professionals are capable of conducting thorough research, risk assessments, and feasibility studies, allowing them to identify potential challenges and devise appropriate solutions. Without their input, decision-making may be based on limited information, increasing the risk of unforeseen problems and inefficiencies. This can lead to cost overruns, delays, substandard quality, and the need for costly retrofits or repairs down the line.

Lack of Local Context Understanding: Professionals with local knowledge and experience have a better understanding of the unique characteristics and needs of a given city or region. They are familiar with the social, economic, cultural, and environmental aspects that shape the community. Without such professionals, the structure plan may overlook important contextual factors, resulting in generic or mismatched development strategies that fail to address specific challenges or leverage local opportunities.

Missed Opportunities for Innovation: Trained professionals bring innovative thinking and creative solutions to urban planning and development. They stay updated with industry trends, emerging technologies, and best practices, allowing them to introduce innovative approaches to enhance sustainability, resilience, and livability. The absence of these professionals may lead to missed opportunities for incorporating new ideas, cutting-edge designs, and sustainable practices into the city's structure plan.

Limited Stakeholder Engagement: Trained professionals are equipped with the necessary skills to engage and collaborate with various stakeholders, including government bodies, community organizations, residents, and businesses. Their involvement ensures that diverse perspectives are considered, leading to more inclusive and participatory decision-making processes. Without their expertise, stakeholder engagement may be minimal, hindering effective communication, community buy-in, and ultimately, the success of the structure plan.

In summary, the effects of a lack of trained professionals in planning and executing the structure plan of a city include inadequate planning expertise, poor infrastructure development, increased risks and inefficiencies, limited understanding of local context, missed opportunities for innovation, and limited stakeholder engagement. Investing in a skilled workforce is crucial to ensure that cities are well-planned, resilient, and capable of addressing the needs of their residents both now and in the future.

IV. Lack of funds to pay compensation

The lack of funds to pay compensation can disproportionately impact low-income communities. This is because low-income communities are more likely to live in areas that are targeted for development. The lack of funds to pay compensation can also impact the environment. For example, if the city is unable to compensate landowners for the land needed to build a new park, the park may not be built. This can have a negative impact on the quality of life for residents and on the city's attractiveness to businesses and tourists. Cities that do not have the funds to pay compensation may be tempted to use eminent domain to acquire the land they need. Eminent domain is a legal process that allows the government to acquire private property for public use. However, eminent domain should be used sparingly and only as a last resort. Cities can avoid the negative effects of lack of funds to pay compensation by carefully planning their development projects and by ensuring that they have the financial resources in place before they begin implementation.

Overall, the lack of funds to pay compensation during the implementation of a city's structure plan can have a number of negative effects, both general and specific. It is important for cities to have a plan for how they will compensate landowners before they begin implementing their structure plans.

V. The construction of illegal houses outside of the district that includes the planning boundaries of the city administration.

The construction of illegal houses outside the district boundaries that include the planning boundaries of the city administration can have several significant effects. Here are some key aspects to consider:

Unplanned Urban Sprawl: Illegal housing construction beyond the designated planning boundaries contributes to urban sprawl, which refers to the uncontrolled and unplanned expansion of cities into surrounding areas. This leads to a haphazard and disorganized growth pattern, resulting in inefficient land use, inadequate infrastructure, and increased pressure on essential services such as transportation, water supply, and waste management.

Strain on Infrastructure: The construction of illegal houses typically occurs without proper consideration for the availability of infrastructure and services. As a result, the existing infrastructure, including roads, utilities, and public facilities, becomes strained due to the sudden increase in population density. This strain can lead to traffic congestion, insufficient water and electricity supply, overburdened sewage systems, and limited access to public amenities such as schools and healthcare facilities.

Environmental Degradation: Building illegal houses outside planned boundaries often involves encroachment on natural habitats, protected areas, or environmentally sensitive zones. This can result in deforestation, loss of biodiversity, soil erosion, and disruption of ecological balance. Additionally, with inadequate planning, these structures may lack proper waste management systems, leading to pollution of nearby water bodies and environmental degradation.

Lack of Basic Services: Illegal houses located outside planning boundaries are unlikely to receive the same level of attention and service provision as legally planned neighborhoods. Municipalities may not invest in providing basic services like garbage collection, street lighting, and security, leaving residents in these areas at a disadvantage. This can further perpetuate social and economic disparities within the city, as marginalized communities often occupy these illegal settlements.

Legal and Regulatory Challenges: The construction of illegal houses presents significant legal and regulatory challenges. These structures often violate zoning regulations, building codes, and land-use policies. The absence of proper documentation and permits makes it difficult for residents to access essential services, secure property rights, and engage in formal economic activities. It also places a burden on local authorities to address the issue through legal proceedings and enforcement actions.

Increased Risk and Vulnerability: Illegal houses often lack adherence to safety standards, making them more susceptible to natural disasters such as floods, landslides, or earthquakes. Without proper planning and adherence to building codes, these structures may not withstand such events, leading to loss of life and property. Moreover, these areas tend to be excluded from disaster preparedness and response plans, putting residents at higher risk during emergencies.

In summary, the effects of construction of illegal houses outside the district boundaries that include the planning boundaries of the city administration include unplanned urban sprawl, strain on infrastructure, environmental degradation, lack of basic services, legal and regulatory challenges, and increased risk and vulnerability. Addressing this issue requires effective enforcement of regulations, inclusive urban planning practices, provision of basic services, and efforts towards regularizing and integrating these settlements into the city's development framework

VI. Absence of an approved operating manual for implementation in the construction sector

The absence of an approved operating manual for structure plan implementation in the construction sector can have a number of negative effects, including:

Delayed or cancelled projects: Without an operating manual, it can be difficult to coordinate the implementation of the structure plan. This can lead to delays or cancellations of projects.

Increased costs: Delays and cancellations can lead to increased costs. For example, the cost of labor and materials may increase over time.

Quality issues: Without an operating manual, it can be difficult to ensure that the structure plan is implemented to a high standard. This can lead to quality issues with buildings and infrastructure.

Safety risks: Without an operating manual, it can be difficult to ensure that construction projects are carried out safely. This can lead to accidents and injuries.

Disputes and litigation: The absence of an operating manual can make it difficult to resolve disputes between different stakeholders involved in the implementation of the structure plan. This can lead to litigation, which can be costly and time-consuming.

The absence of an operating manual can lead to confusion and uncertainty among stakeholders. This can make it difficult to resolve problems and make decisions.

The absence of an operating manual can also lead to a lack of accountability. It can be difficult to track who is responsible for what and to ensure that everyone is meeting their obligations.

The absence of an operating manual can make it difficult to learn from mistakes. If there is no record of how things were done in the past, it is difficult to identify areas for improvement.

In addition to these general effects, the absence of an approved operating manual can also have a number of specific consequences. For example, if there is no operating manual for the implementation of the zoning ordinance, it may be difficult to ensure that buildings are constructed in the correct locations. Or, if there is no operating manual for the implementation of the building code, it may be difficult to ensure that buildings are safe and sound.

Overall, the absence of an approved operating manual for structure plan implementation in the construction sector can have a number of negative effects, both general and specific. It is important for construction sectors to have an operating manual in place to ensure that structure plans are implemented efficiently and effectively. Construction sectors can avoid the negative effects of the absence of an approved operating manual by developing and implementing a manual that clearly outlines the roles and responsibilities of all stakeholders involved in the implementation of the structure plan. The manual should also include procedures for resolving disputes and for learning from mistakes.

4.10. Major General Findings of the Structure Plan Implementation

4.10.1. Major Identified Strengths

When land use is changed during the implementation of the plan, there is a procedure manual and it is implemented according to the manual: When it comes to land use changes during the implementation of a plan, it is crucial to have a well-defined procedure manual in place. This manual serves as a guide that outlines the step-by-step process to be followed when modifying land use. The procedure manual typically includes detailed instructions and guidelines that ensure consistency, transparency, and accountability throughout the land use change process. It

helps to streamline decision-making and minimize potential conflicts or misunderstandings. Here is a breakdown of how the procedure manual is implemented:

Manual Development: The procedure manual is developed by a team of experts, which may include urban planners, environmentalists, legal advisors, and other relevant stakeholders. The manual is designed to align with the goals and objectives of the overall plan.

Manual Contents: The manual contains comprehensive information about the land use change process. It includes sections such as the purpose and scope of the manual, legal and regulatory requirements, roles and responsibilities of different parties involved, and the specific steps to be followed.

Application Submission: When a landowner or developer intends to change the land use, they submit an application to the designated authority responsible for land use planning. The application includes details such as the proposed land use change, supporting documents, and any required fees.

Initial Review: The authority responsible for land use planning reviews the application to ensure it meets the necessary requirements outlined in the procedure manual. This may involve checking for completeness, verifying compliance with zoning regulations, and assessing potential impacts on the environment and surrounding areas.

Public Consultation: In many cases, public consultation is an essential part of the land use change process. The procedure manual specifies the requirements for engaging with the public, such as holding community meetings, conducting surveys, or providing opportunities for public feedback. This ensures that the concerns and opinions of the community are taken into account.

Technical Evaluation: Depending on the complexity of the land use change, a technical evaluation may be conducted. This evaluation involves assessing factors such as infrastructure requirements, environmental impact assessments, traffic studies, and other relevant considerations. The procedure manual provides guidelines on how to conduct these evaluations and make informed decisions based on the findings.

Decision-Making: Once all the necessary evaluations and consultations have been completed, the authority responsible for land use planning makes a decision regarding the proposed land use

change. The procedure manual outlines the criteria and factors to be considered when making this decision, ensuring that it is fair, transparent, and consistent.

Implementation: If the land use change is approved, the procedure manual provides guidance on the implementation process. This may involve issuing permits, coordinating with relevant agencies, and monitoring compliance with the approved land use.

By following the procedure manual, land use changes can be carried out in a systematic and regulated manner. This helps to ensure that the implementation of the plan is consistent with the overall goals and objectives, while also considering the needs and concerns of the community and the environment.

Availability of workplaces for micro and small institutions: Providing workplaces for micro and small institutions during the implementation of a city's structure plan is of significant importance. Here are some reasons:

Economic Growth: Micro and small institutions play a crucial role in driving economic growth. They contribute to job creation, innovation, and entrepreneurship. By providing dedicated workplaces for these institutions, the city can foster a favorable environment for their establishment and growth. This, in turn, leads to increased economic activity, higher employment rates, and improved overall prosperity.

Local Development: Micro and small institutions often have strong ties to the local community. They are more likely to source goods and services locally, thereby supporting local businesses and contributing to the development of the surrounding area. By providing workplaces for these institutions within the city's structure plan, the city can encourage localized economic development and create a vibrant and sustainable local economy.

Diversity and Innovation: Micro and small institutions are known for their ability to innovate and adapt quickly to changing market conditions. They often bring fresh ideas, creativity, and diversity to the business landscape. By incorporating workplaces for these institutions into the city's structure plan, the city can foster an environment that encourages innovation, collaboration, and the exchange of ideas. This can lead to the emergence of new industries, increased competitiveness, and a dynamic business ecosystem.

Employment Opportunities: Micro and small institutions are significant contributors to employment, particularly for local residents. By providing dedicated workplaces for these institutions, the city can create job opportunities closer to where people live. This can reduce commuting times, ease traffic congestion, and improve the overall quality of life for residents. Additionally, by supporting the growth of micro and small institutions, the city can help address unemployment and underemployment challenges, particularly among vulnerable populations.

Social Cohesion: Micro and small institutions often have a strong sense of community and social connection. They provide opportunities for individuals to engage in meaningful work, develop skills, and build relationships. By incorporating workplaces for these institutions into the city's structure plan, the city can promote social cohesion, foster a sense of belonging, and strengthen community ties. This can contribute to a more inclusive and resilient city.

In summary, providing workplaces for micro and small institutions during the implementation of a city's structure plan is essential for economic growth, local development, diversity, innovation, employment opportunities, and social cohesion. By recognizing and supporting the unique contributions of these institutions, cities can create a thriving and sustainable business environment that benefits both the local economy and the community as a whole.

The fact that a map has been prepared and developed by the community with great attention to the green spaces and the fact that the road dividers are giving beauty to the city are the strong points that have been seen in the implementation of the city plan: The implementation of a city plan can be greatly enhanced by two strong points: the preparation and development of a map by the community with a focus on green spaces, and the aesthetic value added by road dividers. Let's discuss each of these points in detail:

Community-Driven Map with Emphasis on Green Spaces: When the community actively participates in the preparation and development of a city map, it brings a sense of ownership and pride to the residents. By involving the community in the planning process, their local knowledge, needs, and preferences can be incorporated into the city plan. This ensures that the plan reflects the aspirations and values of the people who live and work in the city.

One specific aspect that highlights the strength of community involvement is the attention given to green spaces. Green spaces, such as parks, gardens, and recreational areas, have numerous

benefits for the community and the environment. They provide spaces for relaxation, physical activity, and social interaction. Green spaces also contribute to improved air quality, biodiversity, and overall well-being.

By emphasizing the inclusion and preservation of green spaces in the city plan, the community demonstrates a commitment to creating a sustainable and livable environment. This not only enhances the aesthetic appeal of the city but also promotes the health and happiness of its residents.

Aesthetic Value of Road Dividers: Road dividers, when designed with aesthetics in mind, can significantly enhance the visual appeal of a city. These dividers, which separate traffic lanes or provide pedestrian walkways, can be transformed into attractive features that contribute to the overall beauty of the urban landscape.

When road dividers are given attention and designed with creativity, they can serve as a canvas for public art, landscaping, or the incorporation of natural elements. This can include the installation of sculptures, murals, flower beds, or trees along the dividers. Such enhancements not only add visual interest but also create a sense of identity and uniqueness for the city.

The aesthetic value of road dividers goes beyond mere decoration. It can positively impact the perception of the city, making it more inviting and memorable for residents and visitors alike. Beautifully designed road dividers can also contribute to road safety by providing visual cues and delineating traffic flow.

By recognizing the importance of aesthetics in the implementation of the city plan, the community demonstrates a commitment to creating an environment that is visually pleasing, functional, and enjoyable for all.

In conclusion, the strong points of community involvement in the preparation of a city map with a focus on green spaces, as well as the aesthetic value added by well-designed road dividers, greatly contribute to the successful implementation of a city plan. These elements not only enhance the visual appeal of the city but also promote sustainability, community engagement, and a sense of pride among residents.

4.10.2. Major Identified Gap

The lack of community engagement and participation in the planning process has resulted in a plan that does not accurately reflect the needs and aspirations of the residents. This lack of transparency and accountability in the decision-making process has led to the neglect of certain areas or communities during the implementation of the plan. Additionally, the failure to consider environmental and sustainability factors during planning and implementation has resulted in the degradation of natural resources and increased vulnerability to climate change. The local government or planning authorities lack the necessary capacity and expertise to effectively carry out the plan and ensure its successful implementation. Furthermore, there are inadequate monitoring and evaluation mechanisms in place to assess the progress and impact of the plan, making it challenging to identify and address any shortcomings or issues that arise during implementation. The lack of coordination and collaboration with other relevant stakeholders, such as NGOs, community-based organizations, and private sector actors, limits the resources and expertise available for plan implementation. Lastly, the limited financial resources allocated for plan implementation have led to delays or incomplete execution of planned projects and initiatives. Upon identifying the gaps in the current plan, it is evident that certain issues need to be addressed. These include ensuring that land uses are applied only in their assigned category, without changing the classification of the plan, even if it is necessary. Additionally, the structural plan needs to be implemented and monitored effectively, with the preparation of an investment plan for the next years of plan implementation. The green areas allocated for residential and various land use services in the structural plan need to be fixed, and an institution/group needs to be established to take action against illegal house construction. Furthermore, an institutionalized formal coordination process with infrastructure services such as electricity, water, and telephone needs to be created. Attention should be paid to information management, recording, and consolidating information on plan implementation and implementation every year. In the construction sector, a detailed manual should be prepared and monitored for implementation. Finally, the solid waste disposal area should be implemented according to the plan classification, and the current garbage disposal in the city should be adjusted to maintain the cleanliness and beauty of the city. These actions are necessary to ensure that the structural plan is implemented effectively and efficiently, leading to sustainable development and an improved quality of life for the city's residents.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1. CONCLUSION

- The implementation of the urban plan is to ensure a better standard of living for the community by directing the development, so it should be the biggest job of the city leaders to make the resident community aware of this objective and take ownership of it. During the planning and execution of the plan, the main problems of Adama city administration are the lack of preparation of neighborhood development plan for the implementation of the structural plan, lack of experts in the field of urban planning, lack of coordination of development with the plan, lack of budget and plan application tools, etc.
- Therefore, in the next years of plan implementation, the city will continue the hard-earned findings to correct those mentioned in the gap, and establish a system that works in coordination with the building manager, land management, infrastructure, etc. By developing and protecting the green spaces designated by the plan, by opening the roads to the extent specified by the plan and benefiting the community, by controlling the land uses assigned by the plan to be applied only in the assigned category, even if necessary, by controlling that they are not applied without changing the classification of the plan. It is necessary to prepare and submit a request to the region to implement the structural plan and monitor its implementation and performance.
- Finally, based on the strengths and weaknesses given based on the researcher evaluation, the city administration and other relevant government stakeholders are required to make unremitting efforts to achieve a better level of plan performance by following the appropriate legal procedures and continuing to strengthen the strengths and solving the problems seen as gaps.

5.2. RECOMMENDATIONS

During the implementation of a city's Structure Plan, several challenges may arise. Here are some main recommendation ideas to address these challenges:

Effective Stakeholder Engagement: One of the key challenges in implementing a city's Structure Plan is ensuring effective stakeholder engagement. To overcome this challenge, it is crucial to establish a robust communication and consultation process. This can involve regular meetings, workshops, and public forums to gather feedback and input from various stakeholders, including residents, businesses, community organizations, and government agencies. By actively involving stakeholders throughout the implementation process, their concerns and perspectives can be addressed, leading to greater acceptance and support for the plan.

Adequate Resource Allocation: Implementation of a city's Structure Plan requires sufficient resources, including financial, human, and technical resources. It is essential to allocate resources strategically and ensure their efficient utilization. This may involve securing funding from various sources, such as government grants, public-private partnerships, or development fees. Additionally, building capacity within the implementing agencies and providing necessary training and support to staff can enhance the effectiveness of plan implementation.

Flexibility and Adaptability: Cities are dynamic and constantly evolving, which can pose challenges during the implementation of a Structure Plan. To address this, it is important to build flexibility and adaptability into the plan. This can be achieved by regularly reviewing and updating the plan to accommodate changing circumstances, emerging trends, and new priorities. By incorporating mechanisms for flexibility, such as adaptive management strategies or periodic plan revisions, the Structure Plan can remain relevant and responsive to the evolving needs of the city.

Collaboration and Coordination: Collaboration and coordination among different government departments, agencies, and stakeholders are crucial for successful plan implementation. Establishing interdepartmental or interagency task forces, committees, or working groups can facilitate coordination and ensure a holistic approach to implementation. Regular

communication, information sharing, and joint decision-making processes can help overcome bureaucratic silos and streamline efforts towards achieving the goals of the Structure Plan.

Monitoring and Evaluation: Monitoring and evaluation are essential to track progress, identify challenges, and make necessary adjustments during the implementation of the Structure Plan. Establishing clear indicators, benchmarks, and performance measures can help assess the effectiveness of the plan and identify areas that require improvement. Regular monitoring and evaluation reports can inform decision-making, provide accountability, and ensure that the plan's objectives are being met.

Public Awareness and Education: Lack of public awareness and understanding of the Structure Plan can hinder its successful implementation. It is important to invest in public awareness campaigns and educational initiatives to inform residents, businesses, and other stakeholders about the plan's goals, benefits, and progress. This can be done through public meetings, workshops, informational materials, and digital platforms. By fostering a sense of ownership and understanding among the public, support for the plan can be strengthened.

In summary, addressing challenges during the implementation of a city's Structure Plan requires effective stakeholder engagement, adequate resource allocation, flexibility, collaboration, monitoring and evaluation, and public awareness. By implementing these recommendation ideas, cities can overcome obstacles and ensure the successful implementation of their Structure Plans, leading to sustainable and inclusive urban development.

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Appendix 1: Questionnaire for City Administration

IT IS A QUESTIONNAIRE FOR CITY ADMINISTRATION EXPERTS TO ASSESS THE PREPARATION AND IMPLEMENTATION OF STRUCTURE PLAN.

Introduction

In this request, all parties who wish to identify and resolve the shortcomings in the preparation and implementation of plans in your city should fill out all information and comments on this form carefully and confidently with complete and true evidence in writing where required circling and asking for an (x) mark as yours where the answer asks for an (x) mark to be returned; On behalf of ASTU, we would like to thank the experts who collected this data for their support.

2. 1. General City Information

1.1 Name of the person who filled out this

form _____ Gender _____ Age _____ Role _____

Grade. Educational _____

1.2 City Name _____

1.3 Location of the sub city _____ District _____ City Level _____

1.4 Population of the City _____ Year of preparation of the base map _____ Year of preparation of the Plan _____

1.5 Type of Town Plan _____ the body that prepared this Plan _____

1.6 Area in hectares before planning _____ after planning _____

1.7 Year of approval of this Plan _____ Party approving this Plan _____

1.8 Relative location of the residential development plan A. In the CBD Intermediate Expansion

1.9 What are the site development options (interventions) taken? A/renewal/ B/ Upgrading/ C. expansion

2. Reconnaissance Survey of the City

2.1 Has an understanding been established before delimiting the Planning Boundaries? A. Yes B.

No 2.2 Is there a forum of people's representatives, a Technical Committee and an elected streaming committee? A/yes B/no

2.3 Are there any city boundaries defined before the base map? A. Yes B. No

2.4 Has the handover of city boundaries taken place? A. Yes B. No

2.5 How many days did it take to develop this town planning framework?

2.6 **The skills, number and level of education of the professional involved should be described in Table 1 below**

Table 1. Type of occupation, number and level of education

No.	Type of Profession	Quantity	Level Of education
1	The city planner		
2	surveyed		
3	Physical planner		
4	The regional planner		
5	Civil engineer		
6	geology		
7	The economist		
8	history		
9	sociology		
10	Environmentalism		
11	Good governance		
12	Transport		

3. 3. Preparation of Base Map

3.1 To prepare the base map: A. the boundary has been defined in advance B. Sufficient GCP and benchmarks have been established C. Sufficient boundary handover has been completed D. Sufficient expert has been assigned for the base map E. all F. others if any

Table 2.
Professional types, numbers and levels of education

No.	Type of Profession	Quantity	Level Of education
-----	--------------------	----------	--------------------

1	The city planner		
2	Survey		
3	Architecture		
4	Civil engineer		
5	Construction technology		
6	Drafts man		

3.2 How many days did it take to make the base map? _____

3.3 Is the material used for the preparation of this base map up to date?

A. Yes B. no

4. 4. Regarding Research and Planning

4.1 Has a check list been developed for plan preparation? A. Yes B. No

4.2 The base map evidence collected and provided to the planner is: A. not deficient B. Deficient. If your answer is justified, please explain the deficiency?

4.3 The type of expertise, educational level and type of plan of the professional involved in the planning should be filled in

Table 3. Number of Professionals and educational level

No.	Type of Profession	Squinty	Level Education	Types plan		
				Structure plan	Strategic plan	Local development
1	The city planner					
2	surveyed					
3	Physical planner					

4	The regional planner					
5	Civil engineer					
6	geology					
7	The economist					
8	history					
9	sociology					
10	Environmentalism					
11	Good governance					
12	Transport					

4. Are the city's vision, goals and objectives confirmed through discussion and research? A. yes B. no. If your answer is no, please explain how it is set up

4.5 Is there an un coded land allocation in the plan? A/Yes B/No

4.6 Is there a coding error in the blueprint? A/Yes B/No

4.7 Is the use of colures and coding consistent? A/Yes B/ No

4.8 Is the legend/plan the same? A/Yes B/No. If your answer is no, explain where? -----

4.9 Has your city plan been implemented yet? A. Yes B. no. If your answer is no, what is the reason?

4.10 Is there a Home Development Plan on the problematic Structural Plan? A. yes B. no. If your answer is yes, what do you think it should be?

4.11 Has a Home Development Plan been developed with four years or less left in the planning period?

A. Yes B. no. If yes, how much? _____

4.12 Has there been a revision of the plan for your city? A. Yes B. no. If yes, how many PMQs were done for you in the preliminary blueprint? _____

4.13 Can the Structural Plan be implemented?

A. Yes B. no. If your answer is no, what could happen?

4.14 Has your city plan been revised before the revision period? A. Yes B. no. If yes, explain the reasons in the answer?

4.15 Has your town plan gone through the necessary stages? A. Yes B.no. If your answer is no, let me explain the stage I didn't go through?

5. 5. Implementation of the Plan

5.1. Has the plan been explained to the council? A/Yes B/no If you say no, explain the reason

5.2 Has the plan been submitted to the council as prepared and approved? A.Yes B. No. If your answer is no, let me explain the reason:

5.3 Has your town plan been implemented without approval? A.Yes B. No. If yes, let me explain why:

5.4 Whose role do you think it is to lay down the plan? _____

B. City Administration B. Desk City Utility Administration Office

C. Institute of Urban Planning and its branches D. Office of Urban and Housing Development

5.4.1 Has he/she played a role? A. Yes B. No. If your answer is no, let him explain the reason

5.5 The human resources involved in the city to implement the plan (Table 6) are below

Table 5. Professionals who laid planks on the ground

No.	skills	Quantity	Level of education				
			Level	Diploma	Degree	MSc	PhD
1	The city planner						
2	Survey						
3	Architecture						
4	Civil engineer						
5	Construction technology						
6	Drafts man						

5.6 Let the material you use to implement the plan be described in Table 7 below. Table 6. Type of material used in the pile performance

No.	Type of Device	Indicate which you use by putting an (x)	No.	Type of Device	Indicate which you use by putting an (x).
1	Theodolites		5	Scale	
2	Total station		6	Meter	
3	Differential GPS		7	computer	
4	Without GPS				

5.7 Is there a physical and financial plan for the implementation of the plan in perpetuity?

A. Yes B. No. If your answer is no, what is the reason?_____

6. 5.8 Regarding change of land use

5.8.1 What is the basis for a land use change request in your city?

A. Due to errors in the preparation of the plans B. to find land for which compensation is not required

C. Requests from the project owner or individual D. Requests from the community

E. for all of the above reasons F. The answer is the letter___ and _____

5.8.2 How is the Land Use Change request processing done?

—

5.8.3 How often was land use changes conducted? _____. List the type of land use we requested?_____

5.8.4 How many of the types of land use changes submitted were accepted? _____ And how many were not accepted?

5.9 If there is a plan violation, what is the cause of the plan violation? _____

5.10 What is the solution to the above plan breakage? _____

7. 6. Public Participation in Plan Implementation

6.1 Describe the number of people involved in the implementation of the plan Male _____
_Female _____ _Integration _____ (Table 11) below: Table 7. Put an x on public participation in plan implementation

No.	Your participatory body	Let the participant be denoted by an (x).
1	City People's Representatives	
2	Rural People's Representatives	
3	Owners of the Property	
4	The Fathers of the Church	
5	The Elder of the Country	
6	Village Administration	
7	Various Sectors	
8	City Expert	
9	City Leadership	

10	Mythological Societies	
11	Micro Associations	
12	Community Associations	
13	Merchant	
14	The Other	
	Total	

General Comments

7.1 Describe any other problems associated with the preparation and implementation of the plan:

7.1.1 On the preparation of the

plan_____

7.1.1 on the implementation of the plan

8. Describe the results of the

plan_____

—

Appendix 2: Questionnaire for OUPI Experts

IT IS A QUESTIONNAIRE FOR OUPI EXPERTS TO ASSESS THE PREPARATION AND IMPLEMENTATION OF STRUCTURAL PLAN.

8. Introduction

In this request, all parties who wish to identify and resolve the shortcomings in the preparation and implementation of structural plan in your city should fill out all information and comments on this form carefully and confidently with complete and true evidence in writing where required circling and asking for an (x) mark as yours where the answer asks for an (x) mark to be returned; On behalf of ASTU, we would like to thank the experts who collected this data for their support.

3. 1. General City Information

1.1 Name of the person who filled out this form _____ Gender _____

Age _____ Role _____ Grade. Education _____

1.2 City Name _____

1.3 Location of the sub city _____ District _____ City Level _____

1.4 Population of the City _____ Year of preparation of base map _____ Year of preparation of Plan _____

1.5 Type of Town Plan _____ Body that prepared the Plan _____

1.6 Area in hectares before plan _____ after plan _____

1.7 Year of approval of this Plan _____ Personance approving this Plan _____

1.8 Relative location of the residential development plan A.CBD Intermediate expansion

1.9 What type of site development option (intervention) was taken? A/renewal/ B/ Upgrading/ C. expansion

4. 2. Reconnaissance Survey of the City

2.1 Has an understanding been established before delimiting the Planning Boundaries? A. Yes B. No.

2.2 Is there a forum of people's representatives, a Technical Committee and an elected streaming committee? A/yes B/no

2.3 Is there a city boundary demarcated before the base map? A. Yes B. No

2.4 Has the handover of the city boundary taken place? A. Yes B. No

2.5 How many days did it take to develop this town planning framework?

2.6 The skills, number and level of education of the professional involved should be described in Table 1 below

9. Table 1. Type of occupation, number and level of education

No.	Type of Profession	Quantity	Level Of education
1	Urban planner		
2	the savory		
3	Physical planar		
4	Regional planner		
5	Civil engineering		
6	Geology		
7	Economist		
8	History		
9	Sociology		
10	Environmentalism		
11	Good governance		
12	Transportation		

5. 3. Regarding the Preparation of the Base Map

2.7 To prepare the base map: A. the boundaries have already been demarcated B. adequate GCPs and benchmarks have been established C. boundary handover has taken place D. sufficient expert has been assigned for the base map E. all F.

other_____

10. Table 2. Professional types, numbers and levels of education

No.	Type of Profession	Quantity	Level Of education
1	The city planner		
2	Survey		
3	Architecture		
4	Civil engineer		
5	Construction technology		
6	Drafts man		

3.2 How many days did it take to make the base map?

3.3 Is the material used for the preparation of this base map up to date?

A. Yes B. no

6. 4. Regarding Research and Planning

4.1 Is there a check list for plan preparation? A. Yes B. No

4.2 The base map evidence collected and provided to the planner is: A. not deficient B.

Deficient. If your answer is justified, please explain the deficiency?

4.3 Please fill in the type of expertise, educational level, and type of plan of the professional involved in the preparation of the structure plan

Table 3. Number of Professionals and education level

No.	Type of Profession	Quantity	Level of Education	Type of Plan		
				Structure plan	Strategic plan	Local Development Plan

1	Urban Planner					
2	The server					
3	Physical Planar					
4	Regina Planner					
5	Civil Engineer					
6	Geology					
7	economist					
8	History					
9	Sociology					
10	Environmentalism					
11	Good Governance					
12	Transportation					

4.4 Have socio-economic research experts provided feedback to the planner in the preparation of the plan? A/Yes B/no

4.4.1 If your answer is no, please explain the

reason? _____

4.5 Are the city's vision, goals and objectives confirmed through discussion and research? A. Yes B. no If your answer is no, please explain how it is

set _____

4.6 Is there un coded land allocation in the plan? A/Yes B/No

4.7 Are there any coding errors in the blueprint? A/Yes B/No

4.8 Is the use of colours and coding consistent? A/Yes B/ No

4.9 Is the drawing/legend/plan the same? A/ Yes B/No. If your answer is no, explain where?

7. **6. General Considerations**

Describe any other problems associated with the preparation and implementation of the plan:

On the preparation of the

plan

On the in implementation of the plan
