Challenges of Structural Plan Implementation In Adama City : Case Of Abba Gada Sub-City

By: Gebisa Lenjisa Makassa

A Thesis Submitted to:- Department of Architecture, Urban Planning and Design

School of Civil Engineering and Architecture

Presented in Partial Fulfillment of the Requirement for the Degree of Master‘s in Urban Planning and Design

Office of Graduate Studies

Adama Science and Technology University

Adama, Ethiopia

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Approval of Board of Examiners

We, the undersigned of the board of examiners of the final open defensed by Gebisa Lenjisa Mekassa have read, and evaluated this thesis entitled the challenges of structural plan implementation in Adama city: in case Abba Gada sub-city and examined the candidate. This is, therefore, to certify that the thesis has been accepted in partial fulfillment of the requirement of the degree of master's urban planning and design.

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Declaration

I hereby declare that this M.Sc. is my original work and has not been presented for a degree in any other university, and all sources of material used for this thesis has been duly acknowledged

Name: Gebisa Lenjisa Mekassa

Signature _____

This MSc thesis has been submitted for examination with my approval as thesis advisor

Name: Professor Samson Kassahun

Signature _____

Date of submission _____

Advisor's Approval Sheet

To: Architecture, Urban Planning and Design Department

Subjects: Thesis Submission

This to certify that the thesis entitled 'Challenges of Structural Plan Implementation In Adama City: In Case of Abba Gada Sub-City, submitted in partial fulfillment of the requirement for the degree of master's in urban planning and design, the graduate program of the department architecture urban planning and design and has been carried out by Gebisa Lenjisa Mekassa: id no PGR/18037/11, under supervision.

Therefore, I recommend that the student has fulfilled requirements and hence hereby he can submit the thesis to the department.

Professor Samson Kassahun _____ _____

Name of the major advisor signature date

ACKNOWLEDGMENT

Firstly, all praises belong to the almighty God the most merciful, and the most beneficent who gives me healthy and who make everything is possible for me.

I gratefully acknowledge the Mizan Tepi University for granting me the chance to pursue my studies at Adama Science and Technology University. I would like to express my deepest thank to my advisor Professor Samson Kassahun for serving as supervisor and for his support, dedication, timely advice and willingness to consult me at any time, his patience and experience he shared with me thanks to you for confidence and encourage me that led this thesis successfully.

I am very grateful to Oromia Urban Planning Institute, Adama City Municipal and Abba Gadaa Sub-City Office for their facilitating different documents and contributing information.

Finally, many thanks to my classmates from all over the world for sharing their knowledge and for their moral support.

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LIST OF ACRONYMS

APA	American Planning Association
FUPI	Federal Urban Planning Institute
IDP	Integrated Development Plan
LDP	Local Development Plan
LP	Local Plan
LPA	Local Planning Authority
LEPO	Land and environmental protection office
MoFSP	Minster of Environment, Spatial planning
MoDH	Ministry of Development and Housing
MoUDC	Ministry of Urban Development and Construction
MoWUD	Ministry of Works and Urban Development
MoUDH	Ministry of Urban Development and Housing
NGOs	Non-Governmental Organizations
NPP	National Physical Plan
NDP	Neighborhood Development Plan
NUPI	National Urban Planning Institute
OUPI	Oromia Urban Planning Institute
ONRS	Oromia National Regional State
RUPI	Regional Urban Planning Institute
SP	Structural Plan
SAP	Special Area Plan
UPCB	Urban Planning Coordinating Bureau

ABSTRACT

Different urban plans have been carried out in country, Ethiopia including structural plan, strategic plan and basic plan. The Structural plan is frame work plan, growth indicative plan which is defined as a type to a plan broad growth direction for the urban centers, but due to different plan implementation challenges most of the structural plans were expired without change to ground/ practical action. Improper structural plan implementation and management had emanated various problems like improper land delivery, infrastructure provide, transportation problems, slums upgrading problems, administration, and control as well as financial optimization problems. The study aims also discussed the cause, the results of the plan implementation challenges, and the gap between plan preparation group and implementation body, and proposed different alternatives that overcome the challenges. To meet the objective of the study related data was collected from different residents and professional experts. The systematic random sampling has been used for collecting data from the residents and purposive sampling has been deployed professional experts and officials , and analyzed through the classification of all collected data both qualitative, or quantitative data. Quantitative data were supported using descriptive statistics such as ratio and percentages while qualitative data like maps, images, and open-ended interviews are analyzed through with standards, norms, counting the content or clarifying the idea. The result of the study identified that weak integration between plan preparation and plan implementation body, the absence of the capacity requirement (manpower, financial and budget, equipment's and logistic), plan preparation period, lack of neighborhood development plan or local development plan, the unwillingness of the society to develop the site, deficiency of urban plan awareness, and lack of implementation mechanisms are the challenges of urban plan implementation in Adama city in case of Abba Gada Sub-City context. These difficulties have associated the results of different urban problems: infrastructure providing and slum upgrading problem, environmental and transportation problems, economic and social problems, land use arrangement problems, and lack of good urban governance. Thus, to reduce the aftermaths of these give attention by the involvement of large public participation during plan preparation and implementation, for the professional by providing logistics and surveying equipment's, professionals salary and allowance payment during field work, implementation strategy to address the capacity and attitude problems of the leadership and professional, providing neighborhood development plan through active participation of local community, and monitoring and evaluation measurement and assessment of the plan to manage whether the plan implement or not.

Keywords: *Plan implementation, Plan implementation challenges, urban plan, Structural plan.*

CHAPTER ONE

1. INTRODUCTION

This thesis is written for a study that has been conducted in Adama city, of Oromia Regional State, Ethiopia for the partial fulfillment of the requirements the Degree of Master's in urban planning and design at Adama Science and Technology University. The study aimed at assessing the structural plan implementation challenges and providing recommendations that overcome the challenges.

In Ethiopia, as of all developing countries, urban plan implementation is more challenging than its preparation; while the case not as such a major agenda for developed countries. Plans have been prepared at large numbers in Ethiopia as well, since the 1980s because of the institutionalization of urban planning. The situation has been witnessed by NUPI as follows: Planning urban areas as a tool of development has been practiced in Ethiopia for the last fifty years with different emphasis given to it by different governments. However, a number of plans have been prepared without considering how they are to be implemented (NUPI, 2002).

Standing on this fact the paper discussed the challenge of structural plan implementation, and the paper contains five-chapter; the first chapter of this paper explored the problem statement, objective, and significance of study. The second chapter dealt with the theoretical framework of the challenges of urban planning in third world city ,urban plan implementation in Ethiopia, the international and local case study on urban plan preparation and implementation, urban planning stages and implementation process, and urban planning principle can be considered, and the third chapter discuss methodological approaches to undertaken in the study. The fourth and last chapter discussion, data analysis, and conclusion and recommendations for problems were elaborated.

1.1 Background of the study

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 (Freire .Mila , 2006).

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).

Concerning the modern type of urban planning, it was done for Addis Ababa, during the Italian period. From the beginning, urban planning in Ethiopia has its problems. The Italians used the plan as a means of segregation of settlement areas for the white and indigenous people. Accordingly, the Italians shifted the city center from *Piassa to* National theatre. Meanwhile, the introduction, and application of urban planning services in Ethiopia have a record of relatively brief history in the 1960s and since then the service has been provided in a fragmented and uncontrolled manner (Hiruy, 2002)

On the other hand, in Ethiopia, urban planning got little attention from the government and was not supported by legal background until the establishment of the National Urban Planning Institute (NUPl) in 1987, by proclamation No. 315/1987. Following this proclamation, other proclamations were published. Studies in urban planning and implementation practices in Ethiopia indicated that most of the urban plans have faced difficulty in implementing what is proposed land use plan.

Regarding implementation efforts In Adama city, the city got different structural plan at the different time, but due to the implementation difficulty the proposed land use plan and most of the structured plan for city are failed to transfer into the ground. Standing on this fact, this research paper discussed the basic concepts and understanding of structural plan implementation challenges, its implementation and management, the cause and the results of plan implementation challenges.

1.2 Problem statements

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.

The problem of improper urban plans design implementation and management 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)

Challenges of urban plan implementation indicated that the process of plan implementation effort in Ethiopia is observed to be at its infancy but, the urban plan can be viewed as positive it lacks proper implementation (Simie, 2010)

Concerning implementation efforts In Adama city, the city got different structural plan at the different time, but due to the implementation difficulty the proposed land use plan and most of the structured plan for city are failed to transfer into the ground. Standing on this fact, this research paper discussed the basic concepts and understanding of structural plan implementation challenges, its implementation and management, the cause and results of plan implementation. Finally, the research discussed the challenges of structural plan implementation in Adama city in case of Abba Gada sub-city.

1.3 Objective of the Study

1.3.1 General objective

The general objective of this research study is to assess the current challenges of structural Plan Implementation in Adama City: Case of Abba Gada Sub-City and proposed different alternatives that overcome the challenges

1.3.2 Specific Objective

The specific objectives of the study are:-

1) To evaluate the cause of poor implementation of the structural plan
2) To identify the effects of structural plan implementation challenges
3) To identify the gap between plan preparation and implementation
4) To propose different the suggestion that minimizes the identified problems.

1.4 Research Question

1) What are the causes of poor implementation of the structural plan?
2) What are the results of structural plan implementation challenges?
3) What are the gap between plan preparation and plan implementation?
4) What are the proposed suggestions that minimize the identified problems?

1.5 Significance of 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 structural plan implementation in relation to expect goals, inputs and outcomes. The research also helps the 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 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 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

1.6.1 Spatial Scope

This study has covered the challenges of structural plan implementation in the Abbaa Gada sub-city of Adama city. The area is found in the center of Adama city and more dominated by

slums houses and mixed-use developments. Aba Gada sub city is one of Adama city sub-city and one of the smallest Sub-city of Adama cities. It was structured as sub-city in 2018, by including four Kebles: Gurmu, Badatu, Oda and Boku Keble. The Sub-City is located in the center of Adama City which includes a dense mix of business, commercials residential, recreational, and cultural activity. The site is also characterized by historic role as the center, providing services: Adama city municipally office, Abba Gadaa sub city office. Here were tried to illustrate the map of Abbaa Gada sub-city of Adama City.

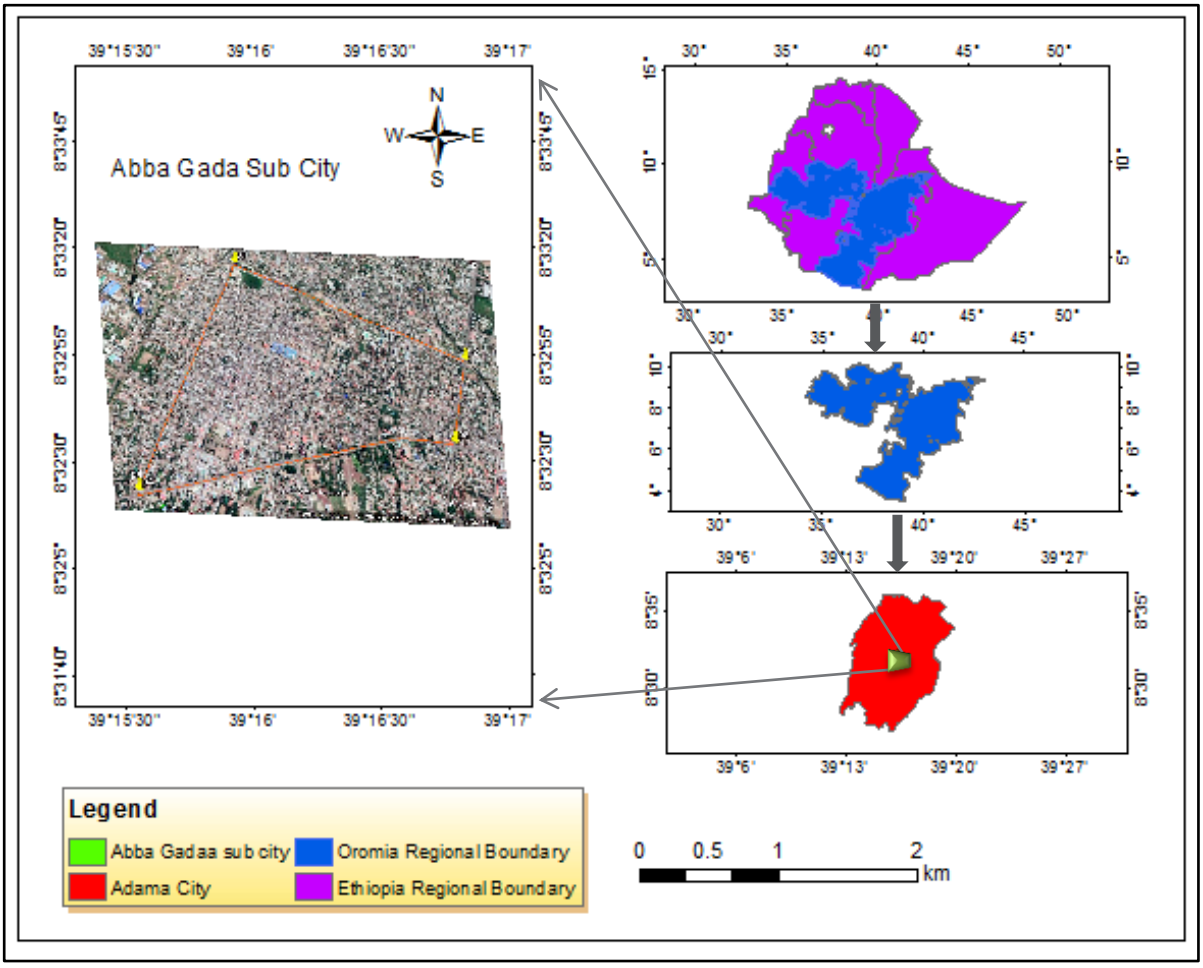


Figure 1: Shows the location of the action area

1.6.2 Thematic Scope

The project covers investigation and analysis of the challenges of structural plan implementation challenges in Adama city: in case of Abba Gada sub-city. Regarding the cause, the results of the structural plan implementation challenges and the gap between plan

preparation group and plan implementation body, and recommended the ways to mitigate the plan implementation challenges for the future development.

1.7 Motivation of the Research

Adama city got different structural plan at the different time, but due to the implementation difficulty the proposed land use plan and most of the structured plan for city are failed to transfer into the ground. Standing on this fact, this research paper discussed the basic concepts and understanding of structural plan implementation challenges. Finally, the research discussed the challenges of structural plan implementation in Adama city in case of Abba Gada sub-city.

Abba Gadaa sub-city separate from other sub-cities by the following difficulties: the disorganized morphological order of building, substandard sewerage and drainage system, most of the existence house deteriorated and dominated by slums, poor disposal system of liquid and solid wastes, No separate pedestrian walkway and parking problem. These problems occurring due to lack of urban plan implementation, thus problem invited the investigator has been selected the Abba Gada sub-city of Adama city.

1.8 Description of Study Area

Adama City is one of the fast growing cities in the country with an estimated total population of 343,212 (CSA, 2009). The name of the city was derived from "Adaamii" (in Afan Oromo) which refers to 'a generic milky small plant with thick fleshy stems bearing spines called cactus/euphorbia tree. According to the local people, there were plenty of "Adaamii" trees in the vicinity. Recently, the town has celebrated it’s a hundred-anniversary demonstrating continuous progress and significant developmental achievements in the last a couple of decades since the democratic and developmental government of Ethiopia designed new urban policy to enhance the transformation from lower-income society to middle-income society (ONRS, 2016).

It was established on flat terrain characteristics and surrounded by the plateaus, mountainous and ridged topography along with Addis Ababa to Harar road. Altitude of the area ranges from 1489 m-1976 m a.s.l. The Average annual rainfall of Adama City is about 866.25 mm. Most of the rain occurs in the rainy season (June to September). The minimum wind speed occurs during September (1.65m/s), while the wind with high velocity occurs during December,

January, and February (3.05-3.2 m/s). The mean temperature in the City varies from 11.5 °C to 31 °C (ONRS, 2016).

Adama city include six sub- cities: 1) Bole sub-city 2) Aba Geda sub-city 3) Danbala sub-city 4) Lugo sub-city 5) Bole Boku sub-city 6) Dabe sub-city, which was structured to sub-city in 2018. The below tables also illustrate the current name of Adama city, sub-city and keble/ganda.

Table 1: Shows current name of Adama city's Sub-city and Kebles

Sub City	**Old Name Of Adama City Keble/Ganda**	**Current Name Of Adama City Keble/Ganda**
Bole	Ganda 04	Dhadacha Arara
	Ganda O1	Goro
	Ganda Dhaka Adi	Dhaka Adi
Abba Gada	Ganda 06	Gurmu
	Ganda 07	Badatu
	Ganda 08	Oda
	Ganda 12	Gada
Denbela	Ganda 09	Irrecha
	Ganda 05	Dagega
	Ganda Magala Adama	Magala Adama
Lugo	Ganda 03	Gara Lugo
	Ganda 010	Bika
Boku	Ganda 02	Migira
	Ganda 11	Barreecha
	Ganda Boku Shanan	Boku Shanan
Dabe	Ganda 14	Hangatu
	Ganda 13	Chaffee
	Ganda Dabe Soloke	Dabe Soloke

Source: Adama city administration, 2020

1.9 Geographical Location of the City

Adama found in the central of Oromia Regional state, Ethiopia. Adama forms a Special Zone of Oromia and is surrounded by East Shewa Zone. It is located at 8.54°N 39.27°E at an elevation of 1712 meters, 99 km southeast of Addis Ababa. The city sits between the base of an escarpment to the west, and the Great Rift Valley to the east. It was in 1916 that the city of Adama was established with the introduction of the Addis Ababa-Djibouti railway line

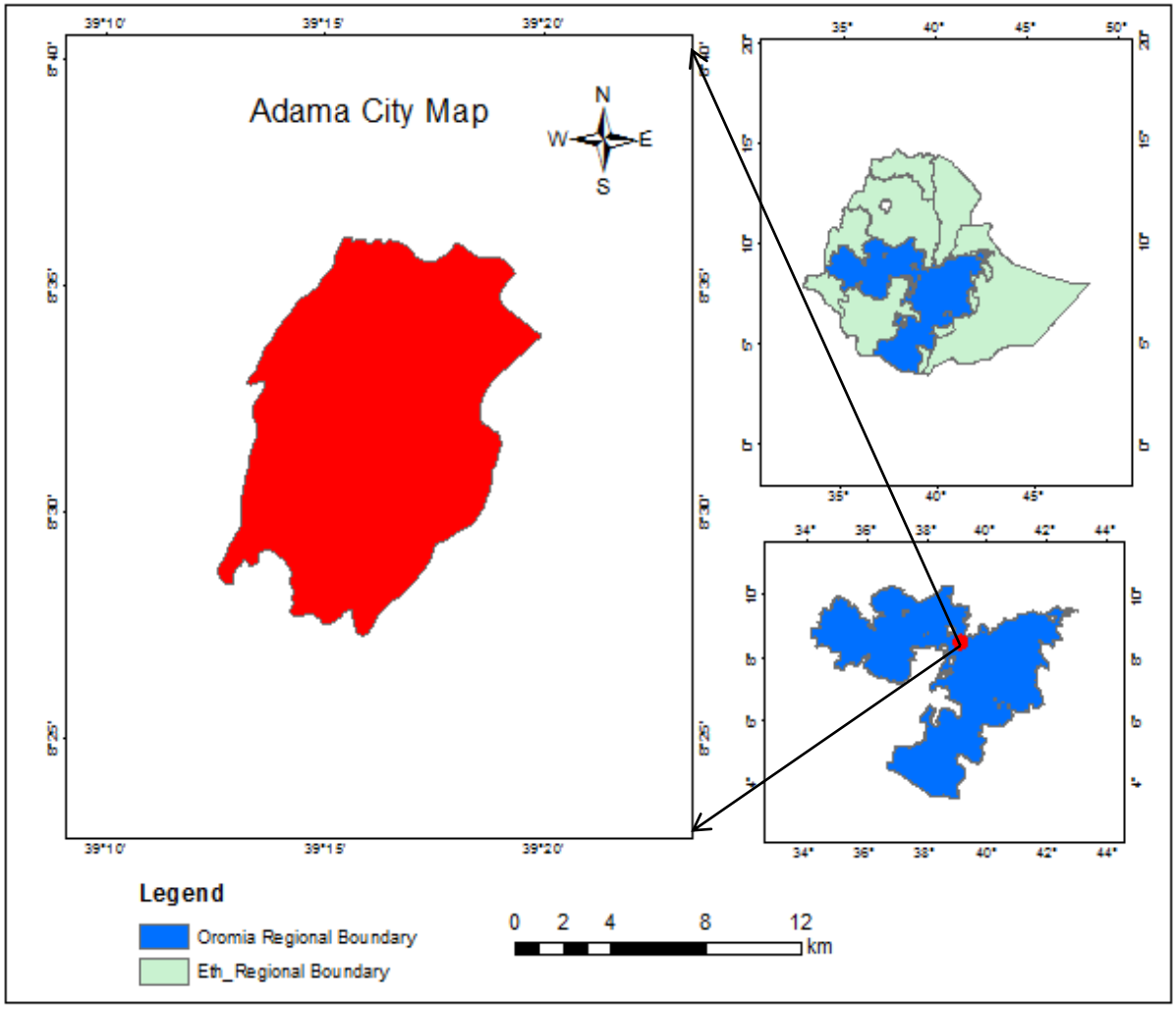


Figure 2: Shows the location of Adama city

1.10 Topography

The fundamental landform components which includes, slopes and aspect (direction of slope). Each of these attributes can have a substantial influence on the urban plan implementation. The slope of the area will help to detect which area will fit the required building arrangement,

circulation system, drainage, storm water management and allocating public facilities and other.

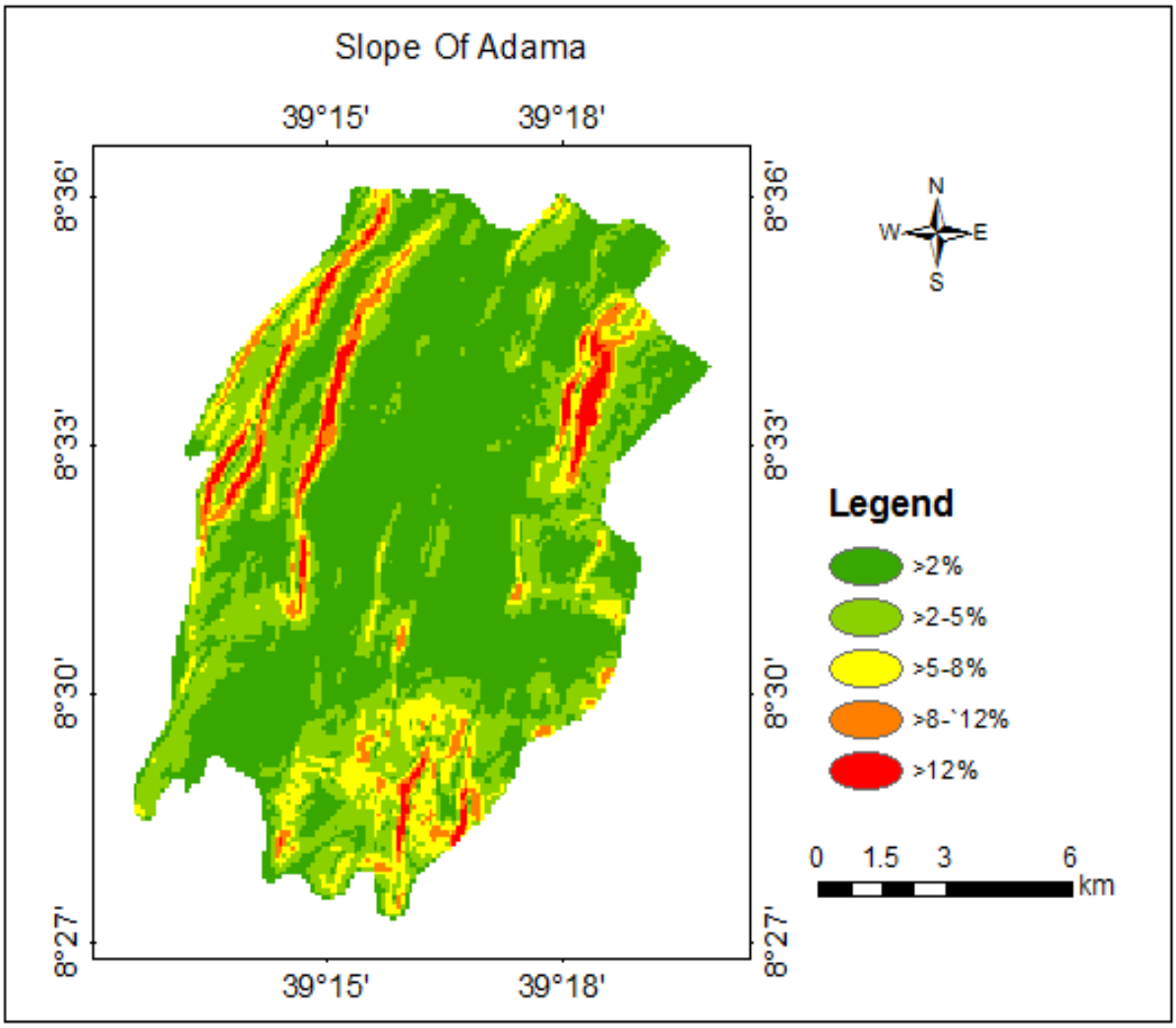


Figure 3: Show the slope of Adama city

As shown on the above map the slope class of slope 0-2% is flat and hence subjected to flooding in undulation and required high investment for realization for the drainage system to minimize or avert the negative impacts related to it during development. 2-5% is favorable for a different urban setting and does not require much cost of drainage system as well 5.8% is suitable for urban settlement and has no difficulty to realize different infrastructure like road, drainage system.

8-12% such slope class is subjected to gully formation, but it can be easily treated without much expenditure of resource. And slope class greater than 12% exposed to canal erosion because of it need a high treatment and not suitable for urban settlement purposes.

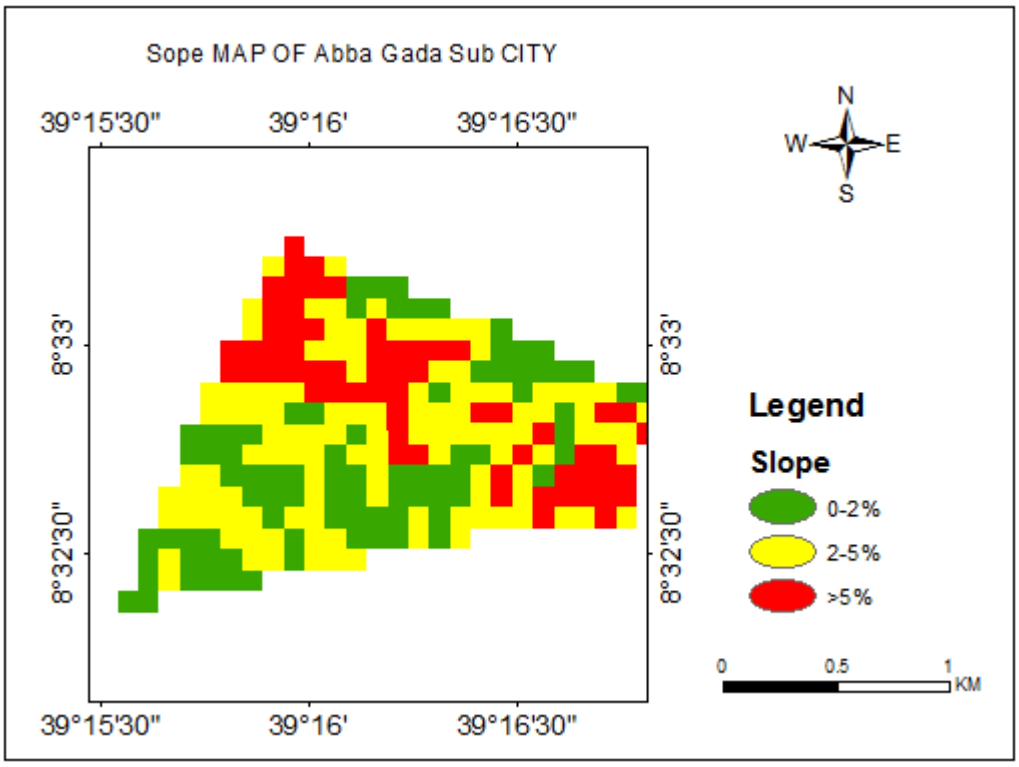


Figure 4: Shows the slope of Abba Gada sub-city

The slope of Abba Gada Sub-city has not more interval the majority of the areas has same level. 0-2% not more necessary for the other development, but it suitable for drainage development. 2-5% somewhat good both for developments of infrastructure providing and drainage, and>5% good and favorable for the development of the building, infrastructure, road system and other

1.11 Climate

Confidently all kinds of activities are sensitive to climate. Some things to do like construction, aviation, and agriculture are extra sensitive. Temperature as statistics from Adama Meteorological Center displays that the average annual temperature of the previous ten years of Adama city was proven as the following chart.

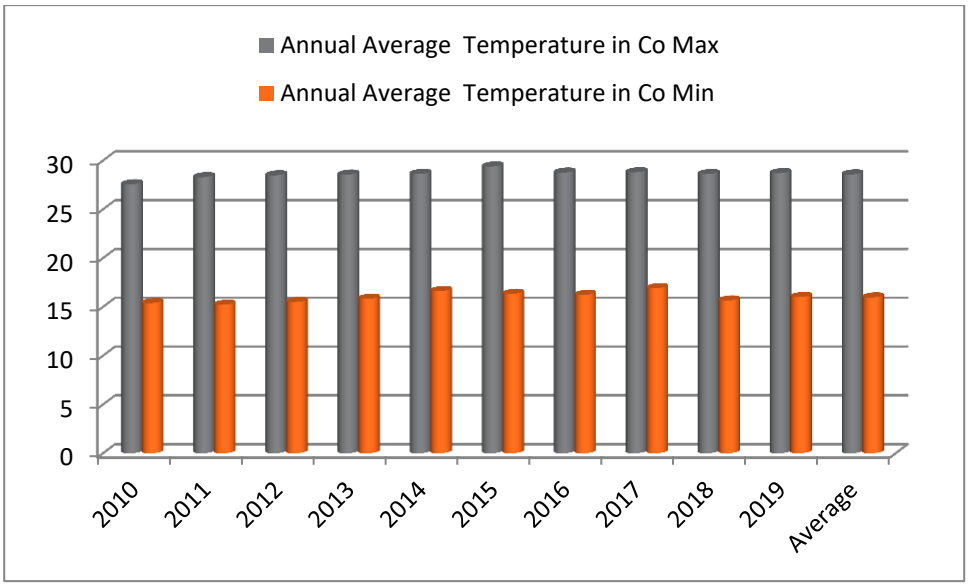


Figure 5: shows the temperature trend of the last ten-year

Sources: Adama Meteorological Center, 2020

As considered from the figure 28.58 and 15.98 C^o maximum and minimum average temperatures for the ultimate ten years while due to the fact 2015 and 2011 the city 29.39 C^o maximum and 15. 23C^o minimum annual average temperatures recorded in these respectively, so, it's important to decide building the regulation, construction material, and plantation type for greenery, shade and ornamental etc. Rainfall, according to Adama Meteorological Center rain fall precipitation recorded in the last ten years as shown in the following chart.

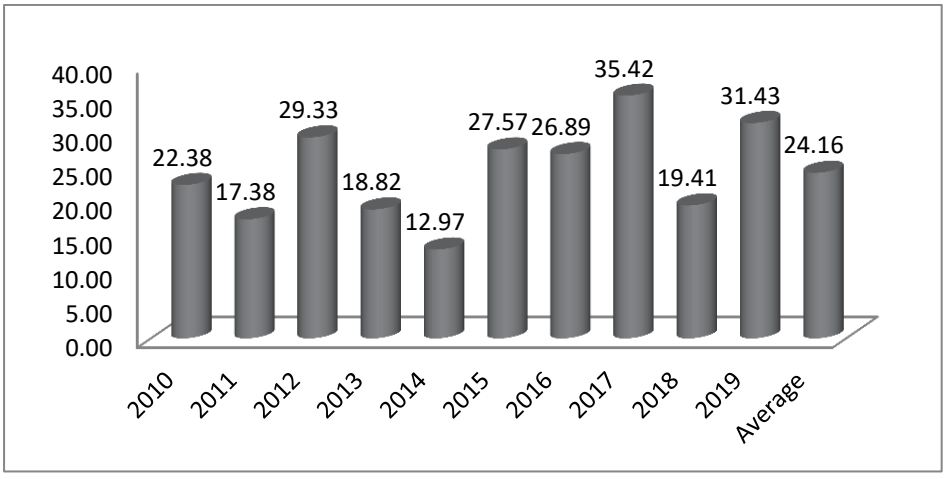


Figure 6: Shows the trend of rainfall precipitation is recorded in the last ten years

Source; Adama Meteorological Center, 2020

1.12 Limitation of the Study

The following limitation in the descending sequence of difficulties they impose encountered while different stages of research activities developed:-

- The study was scheduled in greater care and data collected as per the schedule but due to COV ID_19 world pandemic disease encounters problems like unwillingness of respondents for fear, the same experts are not at the office, lack of transport facilities.
- 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
- In general, the experience of documentation is inadequate and discouraging

CHAPTER TWO

2. LITERATURE REVIEW

2. 1 Introduction

The purposes of this chapter discussed the theoretical and conceptual issues used to frame the study. The first section of this chapter discusses with challenges of urban planning, and urban management in third world country and types of urban plans practicing in Ethiopia, the second section of this chapter is discuss the international and local case study of urban plan preparation and implementation, the challenges related to plan implementation and the end of this chapter discuss, urban planning stages and implementation process and planning process, summary and the gap of literature review.

2. 2 definitions of the terms

Plan implementation the systematic method of transforming plans into action

The planning process is the step by step activities undertaken in the preparation of urban plan by plan-making body

Urban plan all plan types used to guide the development of the urban area

Urban planning is the art of shaping the physical environment of urban areas to meet various needs of the dwellers

Challenge is something new and difficult which requires great effort and determination

2.3 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 additionally, 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 (Freire .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 (Freire .Mila , 2006)

2.4 Ancient 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)

2.3.1 Greece: Greek cities did not follow a single pattern of land use planning; the cities grew slowly from old villages, and often displayed an irregular, organic form, that would adapt to a given area's topography and history .Greek colonial cities, however, were planned prior to settlement using the grid system, with the first being Miletus developed circa 479 BC by Hippodamus. This grid system divides urban land into uniform rectangular lots suitable for development, and was, and still is, easy to both layout and navigate.

2.3.2 Roman Empire: the Roman military and colonial towns were laid out in a variation of the grid. One of the most striking extant Roman grid patterns can be found in the ruins of Timgad, in modern-day Algeria. The Roman grid is characterized by a nearly perfectly orthogonal layout of streets, all crossing each other at right angles, and by the presence of two main streets, set at right angles from each other.

2.3.2 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.

2.5 Approaches of urban Plan

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) 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

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

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.

2.6 Types of urban plans practicing 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)

2.6.1 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)

2.6.2 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.

2.6.3 Neighborhood development plan

Neighbourhood development plan is a plan of a neighbourhood 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 neighbourhood 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 neighbourhoods' 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).

2.6.4 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).

A Framework of Hierarchy of plans in Ethiopian Urban Planning System

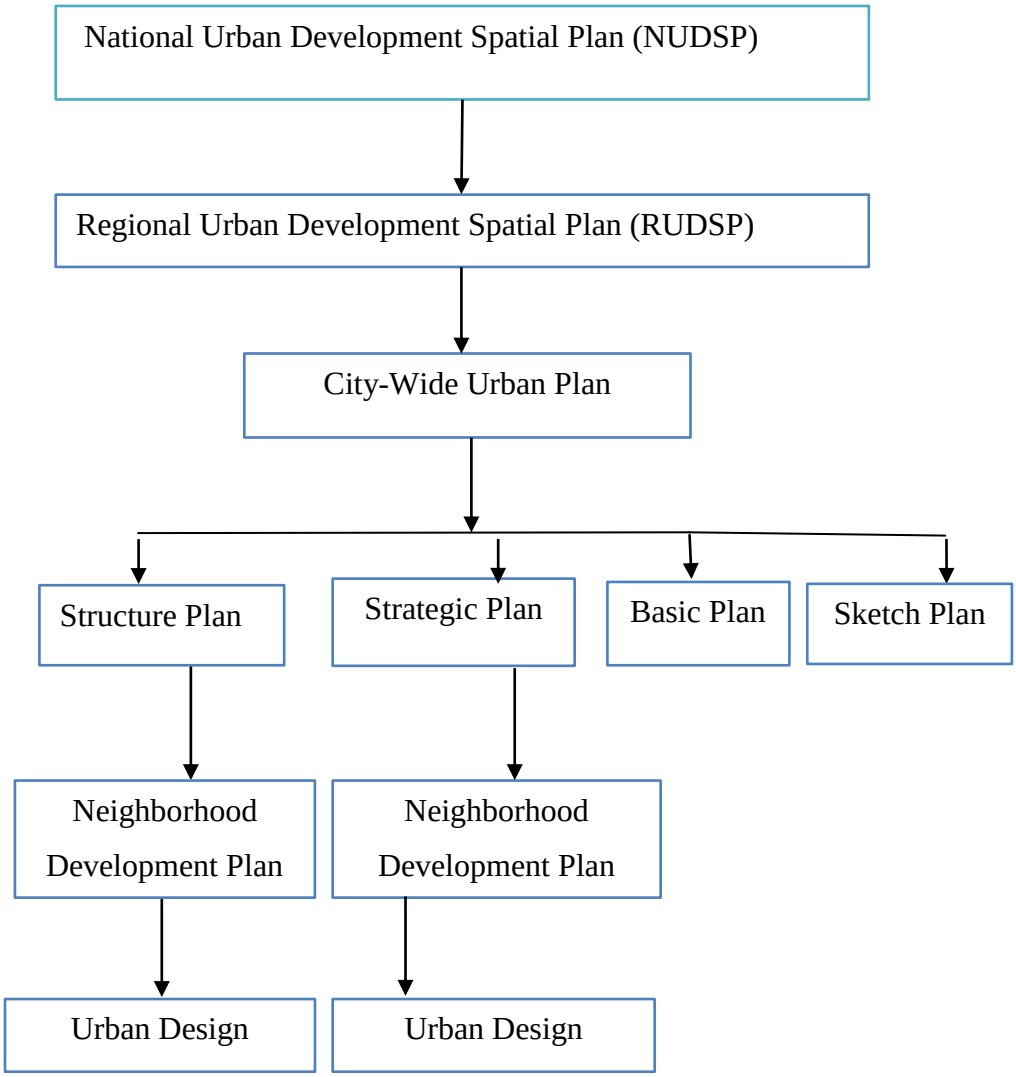


Figure 7: Shows a framework of hierarchy of plans in Ethiopia urban planning system

Source: neighborhood developmental plan (NDP) preparation and implementation manual

The table 2 also shows types of urban plan practicing in current time in our country depending on population size, level of detail /spatial dimension, planning period, scale of map and spatial coverage.

Table 2: Shows types of urban plans practice in Ethiopia

Criteria	**Structure plan**	**Strategic plan**	**Basic plan**	**NDP**
Population size	Greater than 100000	[20000-100000)	[2000-20000)	Detail plan for structure and strategic plan implementation (population not specified for planning area)
Level of detail(spatial dimension)	General framework	General framework	Show lower level land use function up to block level with sample parcilation plan in some part of the town.	Block level with urban design
Planning period	10years	10years	5-10years	3-5/years
Scale of the map	1:2000-20000	1:2000-5000	1:2000	1:1000-2000
NDP	Applicable	Applicable	Not Applicable	----------
Urban design	Applicable	Applicable	Not Criteria	Applicable
Spatial coverage	City wide	City wide	Entire town	Specific area

Source: Basic plan preparation and implementation manuals, 2019

2.7 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.

2.8 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 the 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

2.9 Case Study on Urban Plan Preparation and Implementation

2.9.1 International review

2.9.1.1 Malaysia

Malaysia practices a plan-led development system that consists of a National Physical Plan (NPP) prepared by the National Physical Planning Council; Structure Plan prepared by each state planning authority Local Plan prepared by state planning authorities or the local planning authority) ; Special Area Plan prepared by state planning authorities/the local planning authority (MoHD, 2016).

The state structure plans serve as the framework for spatial planning at the local level, in the form of a local plan or a special area plan. The local plans can be prepared by the local planning authorities or the state planning department at any time during the preparation of, or upon the coming into effect of a structure plan. Similarly, special area plans can be prepared by the local planning authorities or the state planning department at any time during the preparation of, or upon the coming into effect of a structure plan or a local plan. A special area plan is a development plan prepared for the purpose of implementation, which is a Development Action Plan in the form of a Layout Plan or Management Plan. The Plan is supported by a Detailed Development Specification, and Development Action Schedule (MoHD, 2016).

The following table summarizes the main elements of the four statutory development plans

Table 3: Shows the elements of the urban development plan in Malaysia

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 depend on type of SAP
Timeframe	20	15-20 years	10-15 years	-
Process		Report of survey technical report survey report publicity Draft SP publicity SP approval and gazette	Early publicity preliminary report findings report & development strategies Draft LP Publicity LP approval and gazette	Early publicity research methods report SAP preliminary draft publicity 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	

Source: Malaysian development plan system issues and problems one decade after its reform

These statutory development plans, therefore, provide the essential framework for planning decisions. Any development of land and buildings requires planning approval from the Local

Planning Authority (LPA). Planning permission will be granted if the proposal is in conformity with the statutory Local Plan, fulfills technical agencies requirements and receives no objection from the neighbors.

2.9.1.2 Denmark

Denmark has a simple and clear spatial planning system that strongly decentralizes the delegation of responsibility. The municipal councils are responsible for comprehensive municipal planning, detailed local planning and permits for construction and changes in land use in rural zones. The 12 regional planning authorities are responsible for regional planning. Minister for the Environment may influences decentralized planning through a national planning initiatives. The state may veto the planning of municipalities, and regional planning authorities to uphold national interests. Planning decisions may be appealed the Nature Protection Board of Appeal. Only the legal issues in planning decisions may be appealed (MoESP, 2002).

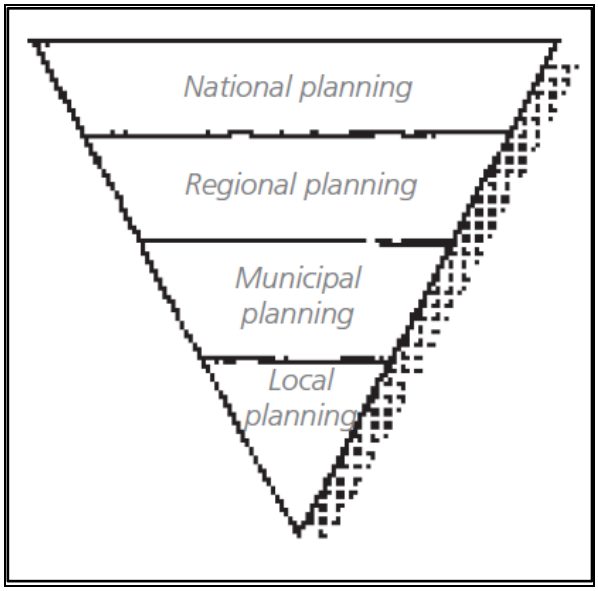


Figure 8: Shows the planning hierarchy in Denmark

Source: Minister of Environment, Spatial Planning

General structure and the framework for local planning: The general structure uses maps and text to show the municipal council's objectives for development and land use in the municipality. The framework for the content of local plans concretizes the objectives of the general structure. The framework describes what a local plan should decide for individual areas to promote a coherent urban structure and the overall municipal objectives. This includes

provisions on use, construction, the supply of public and private services, institutions, technical installations, transport services and recreational areas (MoESP, 2002).

Local plans are the foundation of Denmark's spatial planning system. Local plans concretize the political strategy, and objectives of the municipal plan. Whereas the municipal plan provides comprehensive overview for the whole municipality on such matters as the development of housing and workplaces, transport, services and recreational areas, local plans stipulate how a smaller area may be developed and are used. Local plans are legally binding for property owners (MoESP, 2002).

Figure 9: Shows the local plan in Denmark

Source: Minister of Environment, Spatial Planning

A local plan is flexible. It may regulate numerous factors related to use, the size and location of buildings, roads and paths, and the architectural features of an area. A local plan gives property owners the right to develop and use property in accordance with the provisions of the local plan. This regulation does not generally entitle property owners to compensation for any perceived loss of property rights. A local plan solely regulates future conditions and does not require that the property owner act. In special cases, the municipal council may expropriate private property to implement a local plan.

2.9.1.3 Texas

A neighborhood plan is an opportunity for a citizen to shape the neighborhood where to measure and work, by contributing to neighborhood plan people take a lively role in improving their community and quality of life (APA, 1998). The neighborhood planning process engages residents, businesses, landholder city departments, and community groups. These groups work together to deal with land use transportation urban design, and other issues. An idea should address land use, transportation, urban design, and another issue. It should:

1 Represent views of the complete group that compose the community
2 Identify neighborhood strength and assets
3 Identify neighborhood needs and concern
4 Establish a goal for improving Neighborhood
5 Recommend specific action item to achieve this goal An adapted plan will:
6 Describe clearly what the neighbourhood wants to accomplish
7 Provide a framework for zoning and other land uses decision
8 Give direction to city regarding program service, and capital improvement appropriate for neighbourhood
9 Offer residents and businesses a transparent picture of the kind of development that's desired by the neighborhood
10 Inform possessor and potential developer on what business are needed and therefore
11 the form of development which will be encouraged
12 Provide a guideline for the look of recent development , so it'll complement the present Neighbourhood character

2.9.2 Local Review

2.9.2.1 Addis Ababa

In Addis Ababa city administration also exercises structure plan and a detailed LDP and Urban design. In this regard different Local Development Plans including urban design were prepared. From the prepared LDP plans Lideta, Kass-chis and Bashawolde area LDP taken as a model (MoUDC, 2019).

The fact and different studies show that initiations for planning have either a top-down or horizontal orientation. Executive bodies, other parallel institutions, or the institute itself often

recommend an area to be studied as an LDP. It seems that the community doesn't have a role in the initiation of an LDP study for an area; hence, the contemporary bottom-up approach is far from reality regarding initiation for planning in today's context of Addis Ababa.

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

1. A preliminary survey of the site
2. Conducting Public Consultation
3. Collecting the necessary data
4. Analyzing the collected data
5. Making a proposal that solves the identified problems
6. Showing the implementation strategy
7. Approval of the plan

During plan preparation regular in the house presentations and discussions are held and Comments are incorporated. The finalized LDP will be approved by the city council or by the delegated body, and then dispatched to the implementing bodies especially for the case of Addis Ababa land administration bureau. In Addis Ababa plans are not fully implemented this is because there are some challenges that hinder the process. The major challenges are poor quality of plan preparation, lack of coordination between different infrastructure providing a institute, frequently change of plan components and regulation (like land use, building height and road network design), lack of focus on strategic areas that facilitate the implementation process, etc are some to mention (MoUDC, 2019).

The existing fact shows that the planning process is undertaken in a team that contains both Physical and social planners. The physical planner includes an architect's or urban planners, and the social planner includes economists, sociologists, demographers and geographer along with data collectors. Physical component of the output commonly consists of (land use plans, building height regulations, road network and written documents) and the like. Other elements of urban design like landscaping elements, texture and color of surfaces, the architectural styles and elements to be implanted in the forthcoming buildings are not incorporated during LDP preparation. The Spatial coverage of the LDP site (action area) not to be less than 10 hectares and the level of detail is at the block level. The decision of delineating the action or planning areas is left to the discretion of the planners who involve in the preparation of the LDPs (MoUDC, 2019).

2.10 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 planning 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 lead 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 cadastre 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. Cadastre 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 cadastre 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).

2.11 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):

1. **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.
2. **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.
3. **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.
4. **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 centre. 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. Bearing this in mind, the following figure depicts the whole planning and implementing process.

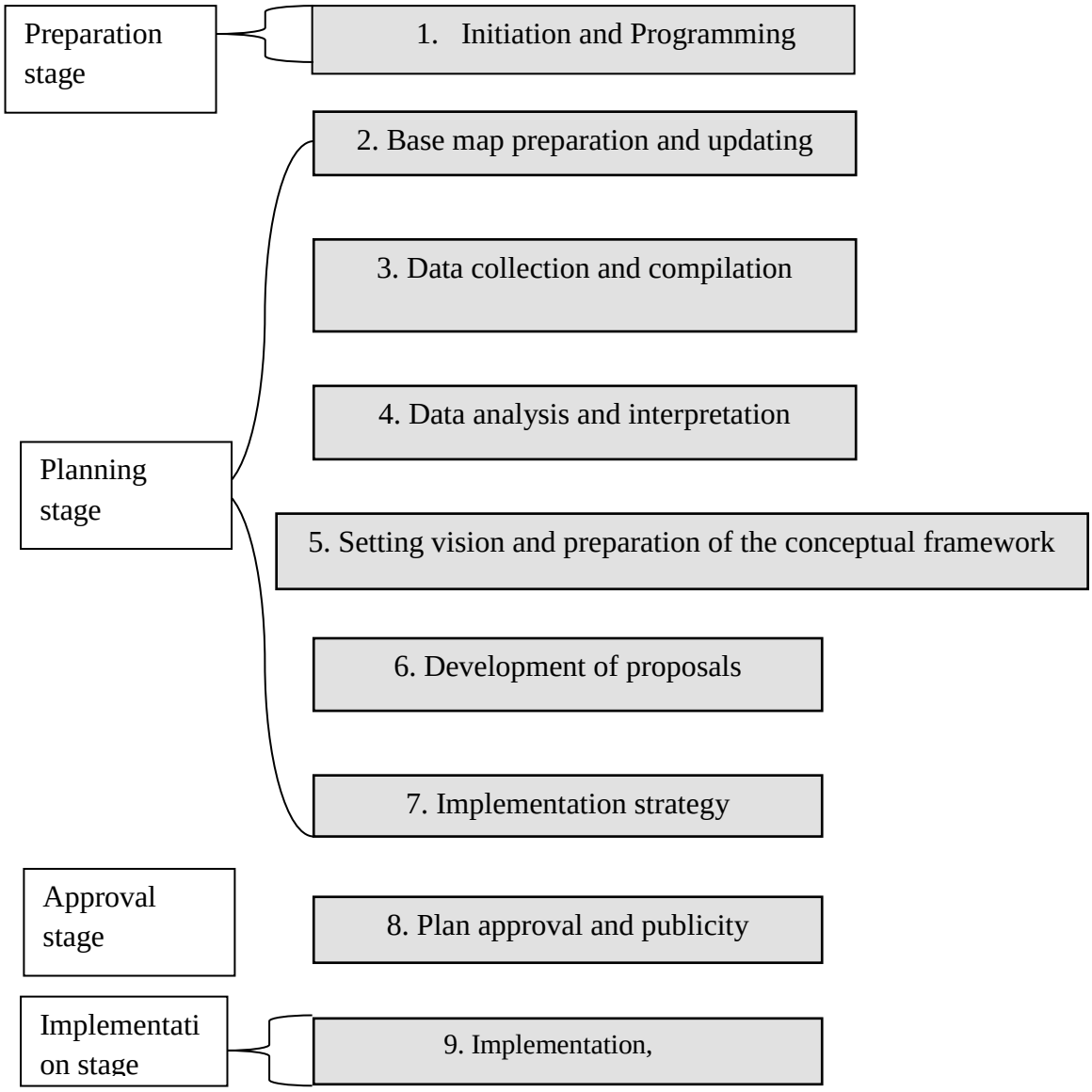


Figure 10: Shows urban planning stages and implementation process

Source: MoUDC: neighborhood development plan (NDP) preparation and implementation manual, 2019

2.12Urban 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 (e.g. individuals, CBOs, NGOs, etc.), the decision-makers (e.g. government institutions) and the professionals (e.g. planners and study teams). 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 to the in addition to the above, planning principles the following are also useful principles to achieve intended goals of urban planning projects (MoUDC, 2019)

1 Planning should be phased and flexible. Properly phased development creates positive feedback to the system, and Flexible approaches increase the relevance of plans.
2 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.
3 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.

2.13 Summary and Gap

In our country, Ethiopia the urban plan was more done, after the establishment of the national urban planning institute in1987, for the city and town were different urban plan: structural plan and local development plan was done but due to different implementation challenges: (1) planning process: that means the plan preparation problems, limited technical and managerial capacity, and problems related land-use change a (2) plan implementation related to plan preparation process: poor base map and lack of updating, disparity between the existing and proposed land-use, and issue-relating to planning output.

There is weak integration between the plan-making and plan to implement the body. Besides, the plan implementing the body, therefore, lacks the necessary capacity regarding enough qualified personnel and working materials coupled with problems related to poor plan implementation. A plan without implementation is meaningless, In our country, the more urban plan was out of date without implemented /change to the ground that-means the plan preparation is straightforward than plan implementations the government gives more attention and follows the plan more than plan preparation plan implementation either the plan is implemented or not.

CHAPTER THREE

3 METHODOLOGY

The aim of this chapter is to discuss methodology: data collection procedure, sampling procedure and techniques, method of data analysis, the research design, data collection instrument, and source.

3.1 Research Design

To complete the research objective of the study both primary and secondary data were used. Regarding primary data interview, site survey, structured questionnaire were used for analysis purpose. Review of existing literature, journals & articles considered in structural plan implementation challenges were conducted as a secondary data. In addition, information was gathered from Oromia urban planning institute, Adama city municipal office, and Abba Gada Sub-city office concerned sectorial offices through open-ended questionnaire.

3.2 Sources of data

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

3.2.1 Primary data source

The primary data collected through interviewing mainly the local community, Oromia urban planning institute office, Adam city urban land management office worker, Abbaa Gadaa Sub-city administration office questionnaire and continuous observation of the site.

3.2.2 Secondary data source

The secondary data obtained from the review of relevant information like published books and not published books like literature, researches, and journal, local development plan implementation manuals, and structural plan implementation manuals and Google earth software.

3.3 Data Collection Procedures

After developing the question paper (pilot) of the interview questions, for the convenience of this study the questions which were written in English used to gather information from the office, and Afaan Oromo and Amharic language used gather information from the local community. The questionnaire has been distributed to the concerned body, other individuals.

The interview questions would set consist of a series of questions that focus on encouraging them to explain the issue under-study on the methods of making durable collaboration from which both parties may benefit.

3.4 Sampling Units

The study had conducted a random samplings technique to employ the participants who are easily accessible and convenient for the study. Random sampling is method used to cull a smaller size from a larger population and use it to research and make generalization about the large group. Cochran's formula (1977) had used to determine the sample size since the population size. Sample size is determined in two steps:-

1) Calculate the sample for infinite population
2) Adjust the sample size to required population

$S= Z^2*P (1-P)/M^2$

S= Sample Size for Infinite Population

Z=Z score

P= population proportion (assumed to be 50%= 0.5)

M=margin of error

The Z score is determined based on confidence level

The probability that the value of a parameter falls within a specified range of values

Confidence level	Z- values
90%	1.645
95%	1.960
99%	2.576

So if take consider 95% confidence level of Z value score 1.96

The margin of error is a small amount that is allowed for in case of miscalculation or changes of circumstances.

Generally take the margin of error as 5% =0.05

$S= (Zscore)^2*P (1-P)/ (margin\ of\ error)^2$

$S= (1.96)^2*0.5(1-0.5)/ (0.05)^2$

S=3.8416*0.25/0.0025

S=384.16

So the sample size for the population is 384.16 now, must adjust the sample size to required population. The population size of Abba Gada Sub-city is 67,000, then the following formula for adjusted sample size.

S=S/1+ ((S-1)/population)

S= 384.16/1+ ((384.16-1)/67000)

Adjust sample S= 384.16/1+0.0057188

S=384.16/1.00057188

S=383.940≈384. Finally, the determined the sample size for the study area (Abba Gada Sub-city) or 67000 population is 384.

Table 4: shows the distribution of sample unit

No	Sampling frame	No of respondents
1	Residents/dwellers	384
2	Oromia urban planning institute ,plan preparation and implementation group office	20
3	Adama city urban land use and administration office	20
4	Abba Gada sub-city urban land use and administration office	20
	Total	444

As distributed in the table 4 the number of sample framed includes; residents, Oromia urban planning institute, Adama city urban land use and administration office, and Abba Gada sub-city urban land use and administration office. Purposive samplings were the questionnaires distributed for different government office: Oromia urban planning institute, Adama city administration and Abba Gada sub-city administration. The purposive sampling was focus on particular characteristics of a population that area of interest which would best enabled to answer due to that investigator has been selected 20, 20 and 20 from different offices purposive random respondents were more important the random sampling respondents.

3.5 Data Collection Instruments

The instruments used to collect the necessary information regarding the challenge of structural plan implementation in Abba Gada sub-city. The data for the variable of interest in the area of the study explores the cause, the result of structural plan implementation challenges of the

study area, and the gap between plan preparation group and implementation body. It is required for the study to collect information from the target group who will the stakeholders. The method used how to study was considered tools designed in three forms; first, field survey/observation on the selected area; second, interview questionnaire with the residents using by randomly sampling; and third, interview with different governments officials.

3.5. 1 Field Survey

Field Survey was used as an important method of understanding current problems on the ground and collected graphical data from the subject areas. The collected data regarding land use, street pattern, building or housing (regulation, use, condition, and facility), infrastructure drainage, sewerage, waste management systems, public spaces and gathered the information about what kinds of activities are taken place in the selected areas.

3.5. 2 Interview with Residents

In line with the objectives of the study, the purpose of the interview was to obtain information on major challenges of structural plan implementation of the study area. The cause, the results of plan implementation challenges. The ideas used in the interview were drawn mainly from the current condition of the study area to address the problems and objectives of the research. The interviews include:

- ✓ About the personal information interviewer
- ✓ Intended to seek information about the current of condition of the study area; building and hosing (condition, construction materials, building regulation and house ownership), solid waste collection and disposal.
- ✓ Consisted of open-ended questions attempted to draw general information from the residents of the area concerning the about plan implementation challenges and the future mitigation to address problem

3.5. 3 Interview with Officials

An interview was carried out with the higher government officials: Oromia urban planning institute office, Adama city urban land use and administration office, Abba Gadaa Sub-city urban land use and administration office, Keble administration experts, and knowledgeable persons relating to the profession. It was about problems currently faces on structural plan

implementation challenges; the cause, the results, and the gap between plan preparation group and implementation body, and the recommendation to address the problem.

3.6 Methods of data analysis

As be seen on figure 11 the data obtained through questionnaires, interviews, observations were as carefully harmonized, tabulated, and organized. Both quantitative and qualitative approaches of data analysis was used. The qualitative method was used to describe the results qualitatively while the quantitative data were analyzed by using the ‘’Microsoft word’’ and Microsoft Excel 2013. Tables, charts, graphs, percentages, ratios, figures, and photos were used to interpret and summarize the findings where necessary.

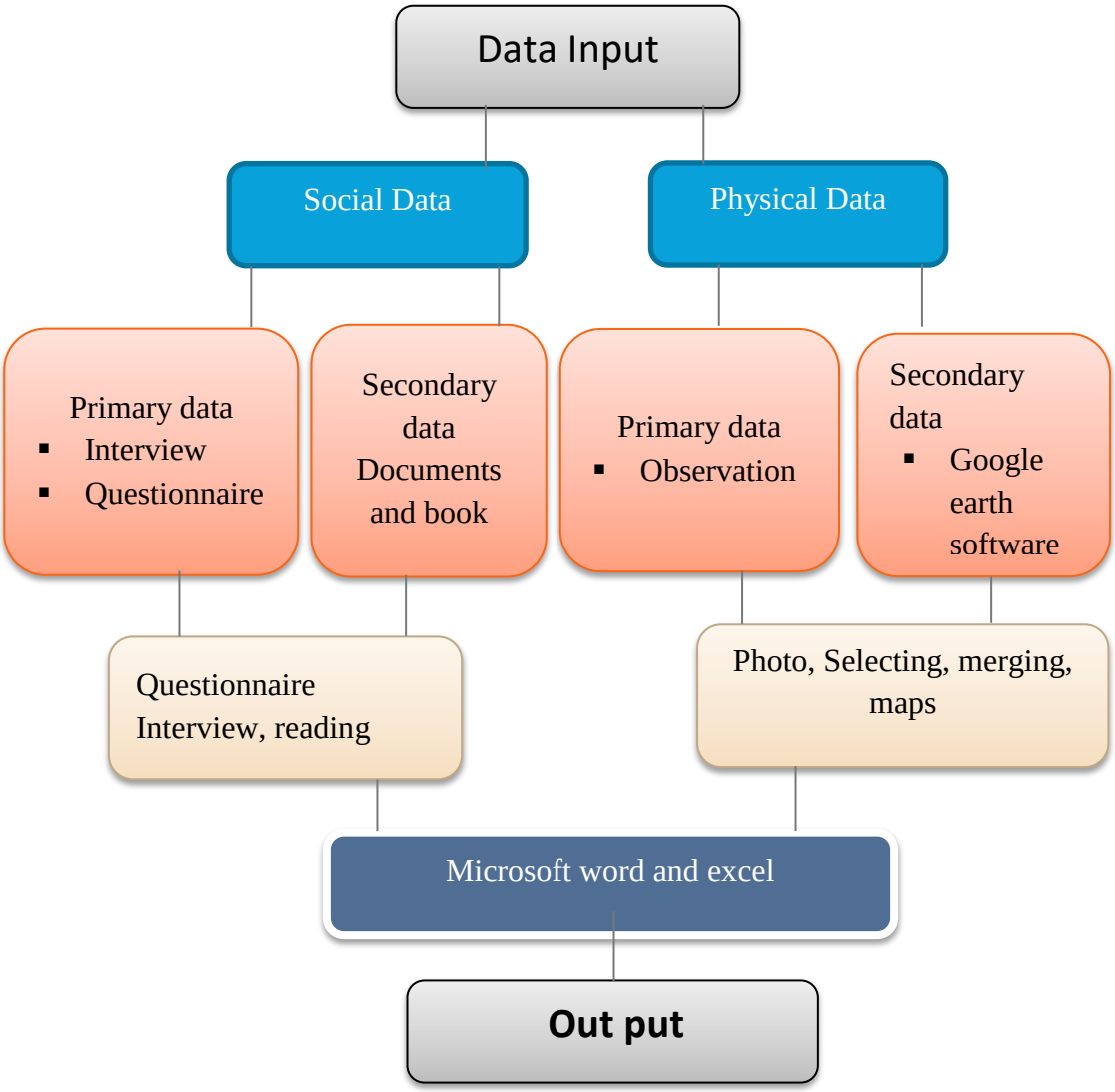


Figure 11 : Shows the general method of data analysis

3.7 Ethical Consideration

Ethics in the research work is referred to the responsibility, and the conduct of a researcher to protect the target groups who are involved in the research process and in the research area Dowling (Mulu .G, 2016). The following ethical values were considered in the research study. Ethical and legal requirements regarding in research participants. The respecting and dignity of the respondents was protected all time. In other ways the individuals or groups being observed must provide informed consent of their participation in the study is normally provided.

CHAPTER FOUR

4. DATA ANALYSIS, RESULTS, AND DISCUSSION

4.1 Distributions of the Questionnaire and Respondents Rate

It is very important to explain a question that could be raised on how many respondents were involved in answering all questionnaires that permit an effective conclusion on the research results. Enough collection of valid instruments could help gather well information about the issue raised in the research. The respondent's demography indicator: by age, sex, educational status, professional background, occupation and marital status.

4.1.1 Distributions of the questionnaires

The questions were distributed for the different sector: Oromia urban panning institute: urban plan preparation group, and urban plan implementation monitoring/ follow-up group, Adama municipality office: Adama urban land administration and management office, Abba Gada sub-city: urban land administration and management office, and Abba Gadaa Sub-city residents.

Table 5: Shows the distribution of questionnaires'' for residents and office

No	Respondents		Questionnaires Distributed		Well available Questionnaires	Not available Questionnaires	The Responsive rate in percentage (%)
1	Residents		384		360	24	93.5
2	Office	Oromia Planning Institute, plan preparation and implementation Group office	Planner	20	17	3	85
			Economist				
			Surveyor				
			Civil engineer				
			Sociologist				
			Geographer				
			Geologist				
			Historian				
			Cartographer				
			Geologist				
			Drafting				
		Adama city urban land use and administration office	Civil engineer	20	15	5	75
			Surveyor				
			Geographer				
			Economist				
			Sociologist				
			Planner				
		Abba Gada Sub City urban land use and administration Office	Civil engineer	20	18	2	90
			Surveyor				
	Total		444		410	34	85.93

The above tables illustrate the respondent's rate which is n= 410 (85.93%).it is a reasonable amount of questionnaires that enable make enough analysis of the study matter. In addition, in depth, interviews have been done with key informants to enrich the analysis and interpretation

that the main challenges of urban plan implementation, particularly, on the gaps between plan preparation and the implementation, and what is the cause of implementation challenges. Furthermore, secondary data has been collected from Oromia urban planning institute, Adama city land use and administration office, Adama urban land use and administration office, Abba Gada sub-city urban land administration and management office. The documents are the structural plan preparation and implementation manual, basic plan preparation and implementation manual, and Adama city structural plan.

4.1.2 Background of the Respondents

In this research paper questionnaires were collected from different respondents. So here tried to illustrate within the tables and charts the status of the respondents by: Educational level and professional background of the respondents, marital status of the respondents, Sex, and age composition of the respondents, and Occupational status of the respondents

4.1.3 Educational level and professional background of the respondents

The table 6, shows the educational and professional background of the respondents. In the study, n= 78 (22.2%) incomplete of grade ten means the respondents which are not have finished grade ten are more elders. Grade 10-12 complete is n=200 (55.5%), vocational and technical training is n=54 (16.6%) they are more youth, bachelor degree n=40(11.1%) and Bachelor degree, and MA, M.Sc. and above is n=8 (2.2 %).

Table 6: Shows the educational level of the respondents

No	Educational Level Of Respondents	Number Of The Respondents	Percentage Of The Educational Level The Respondents (%)
1	Incomplete of grade 10	78	22.2
2	Grade 10-12 complete	200	55.5
3	Vocational and technical	54	16.6
4	Bachelor degree	40	11.1
5	MA, M.Sc., and above	8	2.2
	Total	360	100

4.1.4 Marital status of the respondents

The chart below shows the distribution of respondents by marital status. In this survey single refer those who never married, married represent those who had a partner at the time of the survey. Widowed /divorced represent that partner has died or who are separated from a former partner and are currently single. The single group makes up n=168 (37 %) of the total, married n= 186 (46.66 %) and widowed /divorced n=56 (15.5%).

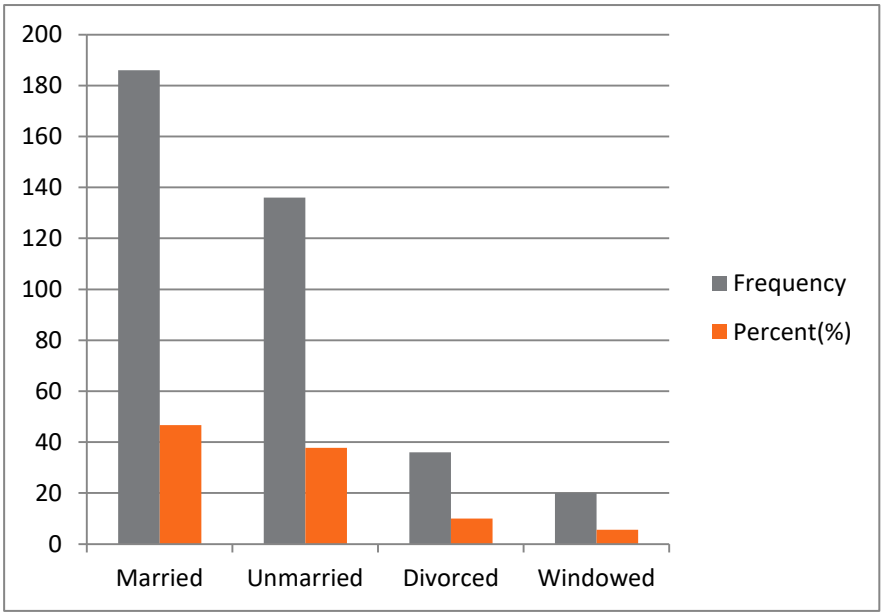


Figure 12: Illustrates the marital status of the respondents

4.1.5 Sex and age composition of the respondents

The table 7 shows the distribution of the respondents by age and sex composition. In the study the respondent by age distribution the percentage of aged 18-30 is n= 92 (25.5%) they are more single household, 31-40 to n=76 (21%) from the total, and 41-60 to n=124 (34.4%) household and the left cover above 61 to n=68 (18.8%). In regarding sex percentage the distribution of the respondents is more by the males 60% and 30% female.

Table 7: Shows sex and age composition of the respondents

No	Age and sex composition of the respondents		Number of Age and sex composition of the respondents	Percentage(%) of Age and sex composition of the respondents
1	Sex	Male	240	66.6
		Female	120	33.4
		Total	360	100
2	Age	18-30	92	25.5
		31-40	76	21
		41-60	124	34.4
		Above 61	68	18.8
		Total	360	100

4.1.6 Occupational status of the respondents

The demographic representation of the respondents' occupational status was also assessed in a much-generalized way by categorizing into the status and the survey result is presented in chart.

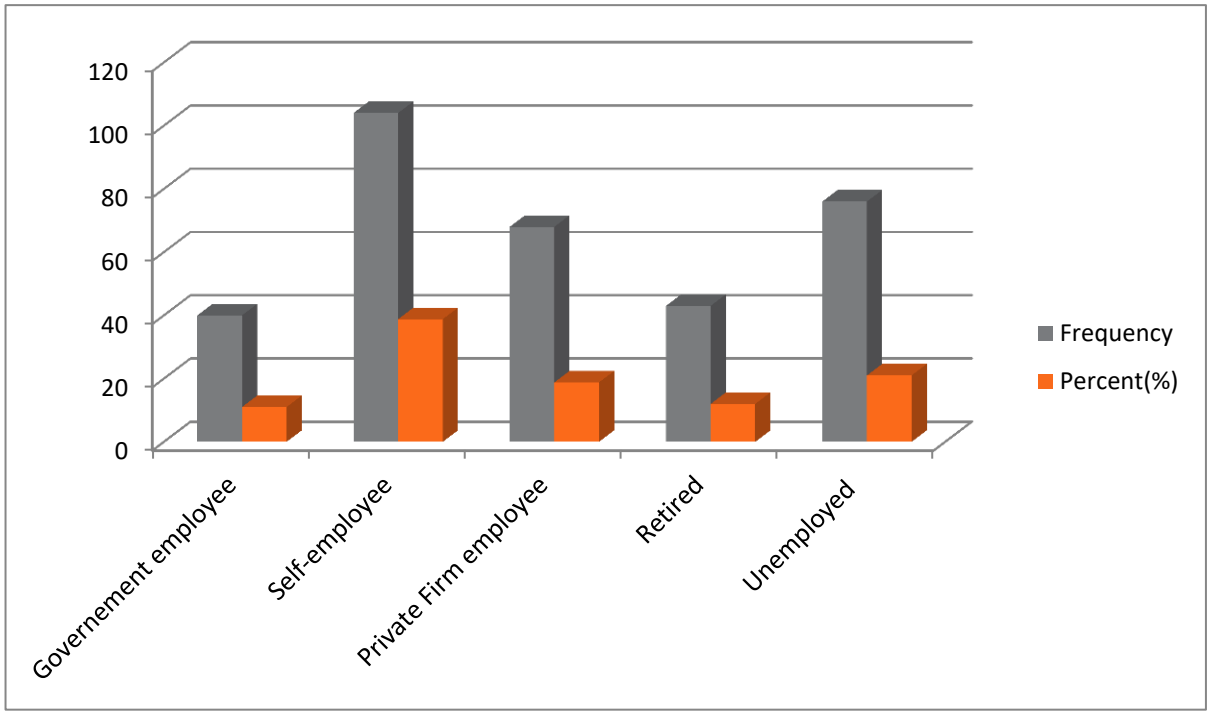


Figure 13: Indicates the occupational status of the respondents

The Figure 13 illustrate the occupational status of the respondents self-employee is more than the other percent n=104(38.8%). Government employee which captured during the survey time, which is employed by the government n=40(11%), the respondents private firm employee is also n=68(18.8%), the respondents unemployed is n=76(21%), and the left eleven percent (n=43(12%)) are retired and other

4.3 Structural Plan of Adama City

Adama city Structure Plan is a long-term (ten-year) framework plan used to guide the development, and redevelopment of land in the city. It is used to define future development and land use patterns, including distribution of various land-use functions, infrastructure networks, conservation of protected and environmentally sensitive areas as well as governance and managerial issues of the city. It also depicts the spatial extent of the city for the planning period.

The Proposed Previous Structure Plan of Adama City

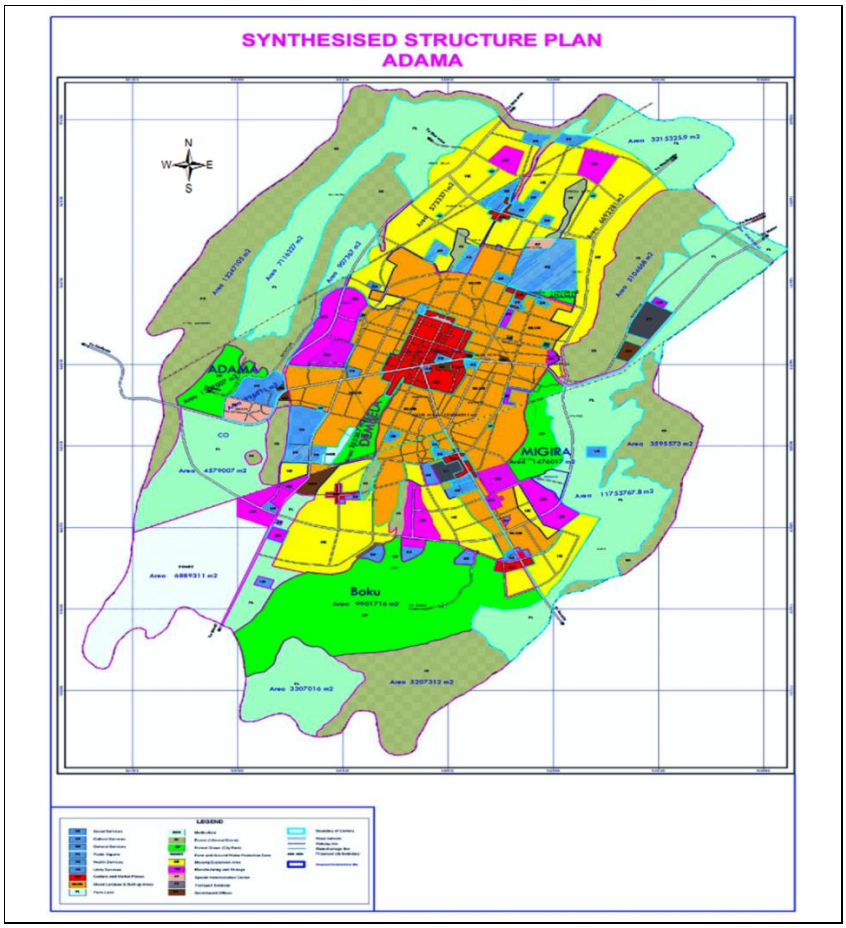


Figure 14: Shows the proposed previous structural plan of Adama city

Source: Adama city administration, 2020

With the active participation of the public and concerned urban actors, the structure plan tries to systematically identify, prioritize and addresses the socio economic and spatial development issues. It outlines intervention areas and implementation programs to be undertaken at citywide during the planning, period by taking into account hinterland as well as regional linkages. It is one of the basics urban management tools to be used by the management as well as the professionals who are involved in urban development, planning and implementation programs and activities (MoUDC, 2019) .

Adama city got a structural plan for many times since 2006 was one of prepared for the city this structural plan was active until the planning period is expired until up to 2018. The plan was could depict us much information they can be used the inputs for the revision of the structural plan under considerations.

Adama city proposed land use map

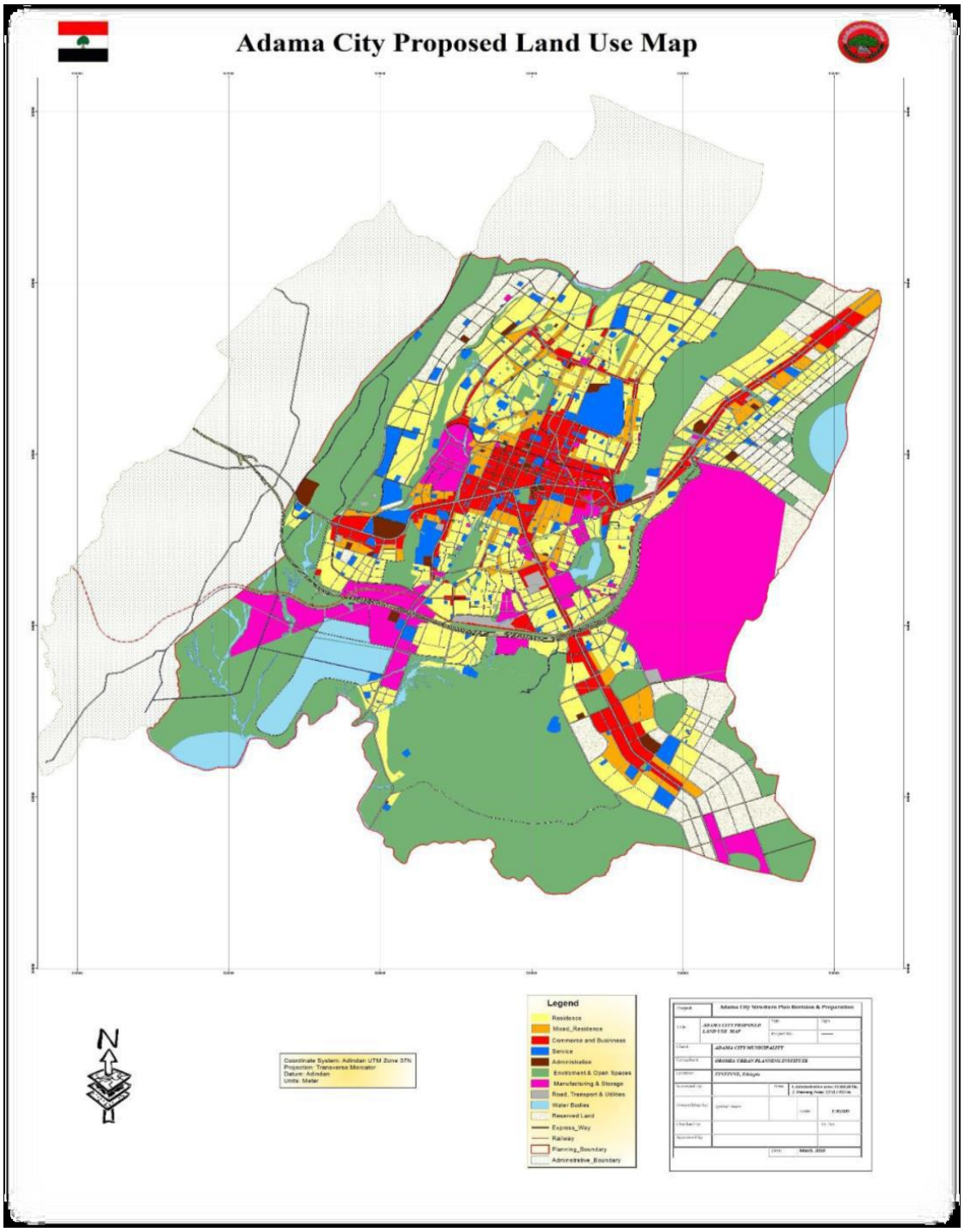


Figure 15: Shows the proposed land use plan of Adama city

4.4 Analyzing Adama City Structural Plan

Urban plans were prepared for urban developments and controlling urban land use, but they have different problems consider through today urban planning concept. When understanding

as a postmodern urban planning concept Adama city structural plan also has the following absence:

- ✓ Mix land use planning and development , work-place within
- ✓ The compact lot and building design ,walk-able communities, street as social spaces
- ✓ Provide a variety of transport choices
- ✓ **30%, 30% 40 %(** open spaces, street network and building) this standard is the postmodern urban planning concepts

Table 8: Shows the land for building and construction category

Land use components	Proportion in percent (Out of the total 40%)	Remark
1. Residence ✓ Pure…… ✓ Mixed……	50-60% (20-24/40) (60 -70%)…… (30 - 40%)……	Out of the residential housing proportion
2. Business & commerce …..	15-20% (6-8/40)	
3. Social & municipal services…	10-15% (4-6/40)	
4. Manufacturing & storage……	5-10 (2- 4/40)	
5. Administration……	5 -7 % (2-2.8/40)	
6. Urban agriculture……	1-3%(0.4 -1.2/40)	
7. Special functions……	1-2%(0.4 -0.8/40)	

Source: MoHUD Basic plan preparation manual (2019)

Table 9: Shows the land use summary of the proposed previous land-use plan of Adama city

No	General land use	Area(m2)	Area (Ha)	%
1	Residence	17382360.16	1738.24	13
2	Commerce and business	2405927.08	240.59	1.8
3	Services : social services ,cultural services, general services, public	5054474.56	505.45	3. 78
4	Forest (informal green)	29438640.51	2943.86	22.02
5	Administration	837336.05	83.73	0.63
6	Manufacturing, and storage	4539447.87	453.94	3.40
7	Road and transport	6940700.20	694.07	5.19
8	Farm and ground water protection zones	6874250.04	687.43	5.14
9	Farm land	31782470.27	3178.25	23.78
10	Mixed use	15167220.35	1526.72	11.35
11	Formal green (city park)	13242351.11	1324.24	9.91
Total		**133665178.19**	**13366.52**	**100**

Source: previous structural plan of Adama city (1998/2006)

From the two tables understand that the general land use classification and the proportion of each land use of the proposed city structural plan do not with of the standard one.

4.4.1 Residence

As it is explained in table 9 among the land use proposed by the structural plan the residential land use is about 24.35% of the study area. This land use includes both pure residence and the mixed one in which their coverage is about 13% and 11.5% respectively of the general land use respected by the structural plan. This reflects the table 9 is below the standard should have been 50-60% (20-24/40) percent of the total land use the of the structural plan. it is about half of the minimum requirement set for the land use category This kind of land use classification not fit postmodern urban planning concept because the postmodern urban planning concept is more encouraging compact /mixed land use development.

4.4.2 Commerce and Business

This is another type of land use for the building and construction category (40%) of the city that has been observed so far. As land use proposed for commerce and business is 1.8 percent from the general land use of the structural plan. This means 0.72 out of land use for building and construction 40% see table 8. The detail of this land use category includes shops and supermarket; hotels, bars, and restaurants; banks and insurance; business center, and markets (general market, cattle market and guilt) in which their proportion is 1.8% percent as from table 8 this percentage is low as standard one which is 15-20% (6-8/40) as seen table respectively.

4.4.3 Administration

Land administration is one of the lands use classification of building and construction category (40%). This land for administration in details: government office, non-government office, police office, correctional institution, political organization, and justice office. As it can see from table 4.6 the total percent of the administration is 0.63 from the general land use(100%) these 0.25 from the land uses for building and construction (40%) also not fit the standard one see table 8 the standard can be 5 -7 % (2-2.8/40) out of building and construction category 40% percent.

4.4.4 Social and Municipal Service

This type of land use include in details: educational services: nursery and kindergarten; primary school and secondary ; special school, technical and vocational school; college and university; research institute and health service : health post, health center, district, and regional hospital, referral hospital and specialized hospital, and veterinary, community, and cultural facilities: library, cinema hall, theatre, museum, children and youth center; cultural center, and municipal services: fire brigade, slaughter house, public toilet and shower; social welfare , social facility /religious : orthodox and protestant church ; Muslim mosque, catholic church, and other worship area . As indicated in table 9 the land use for social and municipal service is 3.78 percent of the general land use (100%) and 1.5 percent out of the land use for building and construction category (40%). The standard is 10-15% (4-6/40) it is not considered the standard.

4.4.5 Manufacturing and storage

Manufacturing and storage are again also one of the lands use for building and construction categories (40%). This manufacturing and storage in details: industry and manufacturing; warehouse and depots; workshops, micro and small scale enterprises, and fuel station. Manufacturing and storage is 3.40 percent from the general land use (100%) of the structural plan and 1.36 percent from the out of land use (40%) for building and construction. As indicated in seen table 8 the standard requirement is 5-10 (2- 4/40) respectively so this is not considered the standards.

4.4.6 Urban Agriculture

This is one of the details of the environmental land use category which includes various agricultures: grazing and other farming activities; animal husbandry, milking, poultry farm, and horticulture. As have been seen in table 9 the general land use of urban agriculture and horticulture is 23.7 percent of the general land use (100%) and 9.5 percent from the land use for building and construction(40%). This is not access according to the standard 1-3 % (0.4 - 1.2/40).

4.4.7 Special function

This type of land use includes: water body, marsh land, reserved area is not properly identified on this general land use plan in table 9 of the structural plan but the standard for special function 1-2% (0.4 -0.8/40).

4.4.8 Road and Associated Infrastructure

One of the main types of urban land use classification is the road and associated infrastructure. 30% percent of the general land use of the structural plan, according to the standard of 30%, 30% and 40% (road and associated infrastructure, open space, and building and construction). Road and infrastructures are in details it includes: terminals, dry ports, parking, and principal arterials streets, sub Arterial Street, Collector Street, Local Street, trail and tram way, pedestrians and bike ways. As have be seen in table 9 the total area road transport is 5.19 percent out of the general land use this means 1.5 percent of the road and associated infrastructure of 30%. This is not considered the standard one see table 8.

4.5 The Cause of Urban Plan Implementation Challenges

4.5.1 Capacity Requirement

Undertaking monitoring, and evaluation of urban plan implementation is somewhat a challenging and daunting task due to its very expansive nature. Anyhow, to perform effective and efficient monitoring and evaluation activities on urban plan implementation the necessary responsible body/organ/team has to be created /set up both within plan preparing institutions and a plan implementing sectors. Thus, this urban plan monitoring and evaluation team should have at least the following capacities in the manpower, financial, equipment and logistics (MoUDH, 2017).

4.5.1.1 Manpower

Manpower:-the manpower requirement is one of the key to the full-fledged professional composition of an urban planning team that could effectively undertake the task of structure plans preparation and implementation, and monitoring and evaluation. Also, the table 10 shows professional mix is every necessary in urban plan preparation implementation, monitoring and evaluation

Table 10: Shows the different professionals for the plan preparation and implementation

No	Professional mix	Function
1	▪ Urban planner ▪ architect ▪ Urban designer ▪ landscape designer ▪ urban geographer ▪ regional planner ▪ historian	▪ Spatial aspect ▪ Design aspect ▪ Land use planning ▪ Regional spatial issue ▪ Housing, land ▪ Rural urban linkage
2	▪ sociologist ▪ Demographer ▪ Statistician	▪ The Social aspect of urban development ▪ Population size
3	▪ Economist	▪ Urban economist ▪ Local economic development ▪ Economic base ▪ Development cost estimation
4	▪ civil engineer ▪ surveyor ▪ municipal engineer ▪ quantity surveyor	▪ road and street design ▪ Utility and infrastructure aspect ▪ Land surveying, plot subdivision, road layout ▪ Quantity surveying ▪ Cost estimation
5	▪ Geologist ▪ Urban environmentalist	▪ Structural geology ▪ Pollution (earth, water and air)
6	▪ Urban management ▪ Lawyer	▪ Institutional framework ▪ Governance, institutional relation ▪ Legal advising
7	▪ Data specialist ▪ GIS specialist ▪ Draftsman	▪ Data analysis ▪ Plotter ▪ Technical drafting
8	▪ Administrator ▪ Secretaries ▪ Drivers	▪ Support staff

Source: MoHUD, urban plan monitoring and evaluation manuals, 2019

The table 10 illustrates the professional mix of urban plan preparation, implementation, and monitoring and evaluation group.

Here below discussed the manpower capacity in urban plan preparation and implementation body, monitoring and evaluation group in Oromia urban planning institute, Adama city urban land use and administration office, and Abba Gada sub-city urban land use and administration office.

Table 11: Shows the manpower capacity urban plan preparation and implementation and monitoring office of Oromia urban planning institute

No	Professional Background	Oromia urban planning institute		
		Supply	Gap	Accumulative
1	Drafting	-	-	-
2	Surveyor	12	4	16
3	Urban planner	16	6	22
4	Civil engineer	5	-	5
5	Architect	-	-	-
6	Sociologist	5	-	5
7	Economist	6	-	6
8	Geographer	3	1	5
9	Sanitary engineer	-	-	-
10	Statistician	2	1	3
11	geologist	4	-	4
12	Historian	6	2	8
13	Cartographer	-	-	-
14	Data specialist	-	-	-
15	GIS specialist	2	1	3
16	Lawyer	3	-	3
17	Administrator	-	-	-
18	Secretaries	2	2	4
19	Drivers	11	2	13

Sources: Oromia urban planning institute human resource office, 2020

The manpower capacity and technical facilities in urban land use and administration office of Adama city

Table 12: Shows the human power capacity Adama city urban land use and administration office

No	professional background	Adama city urban land use and administration office		
		Supply	Gap	Accumulative
1	Drafting	-	-	-
2	Surveyor	9	9	18
3	Urban planner	4	4	8
4	Civil engineer			
5	Architect			
6	Sociologist	1	1	2
7	Economist	2	2	4
8	Geographer	4	2	6
9	Sanitary engineer	-	-	-
10	Statistician	-	-	-
11	geologist	-	-	-
12	Historian	-	-	--
13	Cartographer	-	-	-
14	Urban Management	10	-	10
15	Land information system	21	-	21
16	Urban land development	3	2	5
17	GIS			
18	Computer science	4	-	4
19	Software engineering	8	2	10
20	Urban management	10	-	10
21	Natural resource	5	-	5

Sources: Adama city urban land use and administration, human resource office, 2020

The table 12 shows in Adama city land use and administration office there is no more professional mix problem, but the main problems reflecting in the office: have no attention for

the proposed land use plan and disagreement between workers due different additional interests. The human power capacity and technical facilities in urban land administration and management office of Abbaa Gada sub-city

Table 13: Shows the human power capacity of Abba Gada sub-city land use and administration office

No	professional background	Abbaa Gada sub-city urban land use and administration office		
		Supply	Demand	Accumulative
1	Drafting	-	-	-
2	Surveyor	2	2	4
3	Urban planner	-	-	-
4	Civil engineer	12	8	20
5	Architect	-	-	-
6	Sociologist	-	-	-
7	Economist	-	-	-
8	Geographer	-	-	-
9	Sanitary engineer	-	-	-
10	Statistician	-	-	-
11	geologist	-	-	-
12	Historian	-	-	-
13	Cartographer	-	-	-

Source: Abba Gada sub-city urban land use and administration office, 2020

The manpower capacity is basic to implement the plan, monitoring, and evaluating the plan. In the Abbaa Gada sub-city there is no professional mix they had only civil engineers and surveyors. Urban area professionals' special urban planner, urban designer, landscape designer, urban geographer, regional planner etc. Are the most important professional in urban plan implementation, monitoring and evaluation.

In Abba Gadaa Sub-city not only a professional mix but also there is a skill gap as a result of civil engineer s during plan preparation, implementation, monitoring and evaluation.

4.5.1.2 Financial and Budget

Adama city financing and budgeting gap is huge and impairing urban plan implementation: the Government budgeting problem, mobilizing the society at large and making the society at large during part of the program during budget allocation.

The picture below shows the area which is found in Gada Keble along the main street Darertu square to Meriem church and Amade. The area was proposed for public square but due to financial and budgeting problems to compensate, the land use plan of the area was expired without implemented.

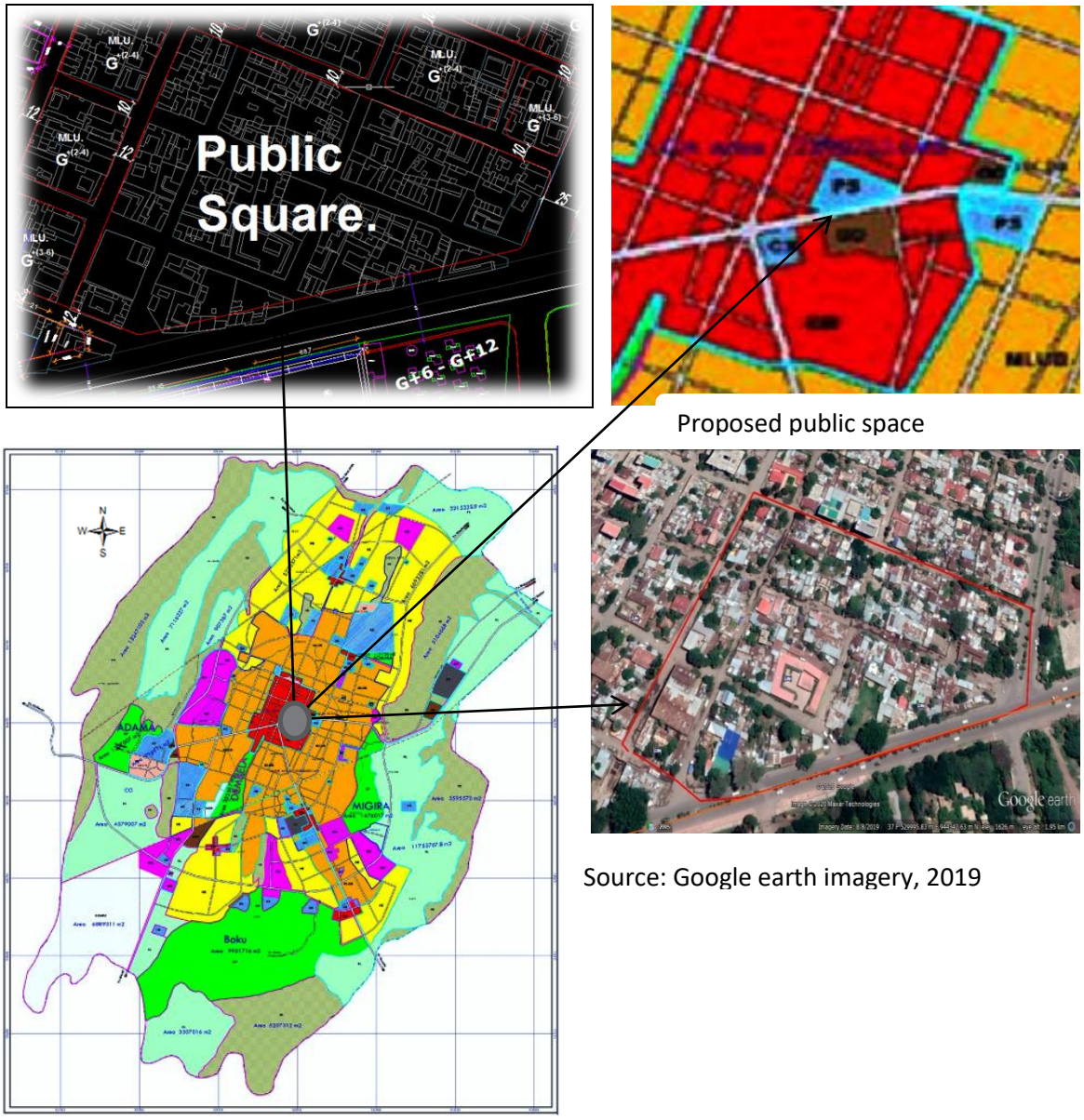


Figure 16: Shows the proposed land use plan for Public Square

4.5.1.3 Equipment's and Logistic

Equipment's and Logistic: As far as logistics and financial requirements are concerned it can be arranged based on the institutional organization of the given planning institute or

organization. Thus, this could serve merely as a hint or direction for any planning institute, unit or private firm (MoUDC, 2019).

1) Vehicles:- pickups and land cruisers
2) Surveying equipment: Total Station, Hand GPS, Differential GPS, etc.
3) Computers of high capacity : Desktops and Laptops
4) Software: Auto CAD, Arc-CAD, SPAS, etc.
5) Satellite Image of cities/towns under consideration
6) Offices with associated furniture and facilities
7) Plotters, printers, scanners, and photocopiers
8) Internet service: fixed as well as wireless
9) Server
10) Stationery materials

As different respondents' idea of Oromia urban planning institute raised there is a lack of equipment and logistic:-

1) Lack of appropriate survey equipment's differential GPS, accurate digital elevation modeling
2) Lack of providing information for the planner, providing feedback to the urban planner and not able to check whether the feedback is incorporated or not
3) Making a base map from the image and inadequate updating of the collected data.

4.5.2 Plan preparation period

The time required for making an urban plan based on the tasks, and activities in each stage: the plan preparation stage, planning stage and plan approval, and publicity process tasks and activities are clearly. The following are the major works to be undertaken under each of the given stages:

- Preparation stage: initiation and programming, base map updating /preparation, data collection, and compilation, data analysis and interpretation
- Planning stage: setting vision, goal, objective and preparation of the conceptual framework plan
- Plan approval and publicity stage: plan approval and publicity

As a ministry of urban development and construction stated that the duration of urban plan preparation period and the time frame the structural provided in tables 14 and 15.

Table 14: Shows the urban plan preparation period

Criteria	**Structural plan**	**Strategic plan**	**Basic plan**	**Neighborhood development plan**
Planning period	1 year	8 months	6 months	4 months

Sources: MoUDH structural plan preparation manual (2019)

Table 15: Shows the time frame for structural plan preparation

No	**Planning Phases and Tasks**	**Allocated days**
1	Planning & Initiation	30
2	Base map updating/ Preparation	60
3	Data collection & Compilation	75
4	Data Analysis and Interpretation	45
5	Setting Vision, and Preparation of Conceptual Framework	45
6	Preparation of Proposals	60
7	Preparation of Implementation Strategy	30
8	Plan Approval and Publicity	20
	Total days	365

Sources: MoUDH structural preparation manual (2019)

As a worker of Oromia urban planning institute raised structural plan preparation time requirement one year, and above and needs detail analysis in all thematic issues: social service, physical /urban land use, economics issue, environmental issue, governmental issues, infrastructure service etc. So according to the respondent's, idea the time given for the structural plan preparation is less one year.

4.5.3 Lack of Local Development Plan

A neighborhood development plan (local 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 the prepared NDP and the plan should be passed by more than half of the vote from the council (MoUDC, 2019).

So a prepared structure plan is a need to prepare a neighborhood development plan/local development plan to implement the citywide land-use plan. In addition, different types of the project and program should be designed for the development of socio-economic issues. In Adama city as a different interviewee: residents, urban professionals, and implementing body raised there is a lack of local development plan /neighborhood development plan to implements the structural plan in the city.

4.5.4 Unwillingness of the Society to Develop the Site

Abba Gadaa sub city is one of the hubs of the business center, high economic activity of Adama city special around Atekilt Tera and Gimbi Gebeya. But the area is more dominated by environmental polluted, physical deteriorated; due to the residents have no interested to develop the area. The cause of the problems is a lack Extensive and continuous awareness creation to residents during urban plan preparation and implementation to ensure that urban plan serves as a basic tool for all development.

4.5.6 Lack of urban Plan Awareness

One of the fundamentals prerequisites in urban plan preparation, and sustainable implementation is broad public and especially community participation in decision-making and involvement of all stakeholders specially the social groups and NGOs. Active participation has emerged and these include the need of individuals, groups, and organizations to participate in decisions particularly those which potentially affect the communities in which they live and work.

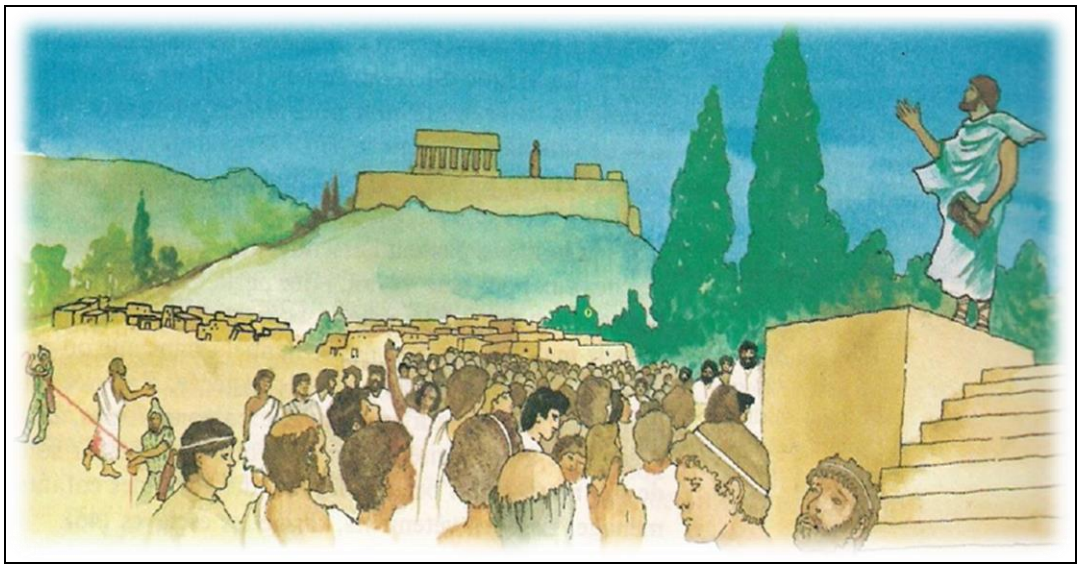


Figure 17: Shows giving awareness during plan making and implementation

Also all the government sector which plays a great role on plan implementation special Adama city urban land use and administration, Adama city construction and design office, Abba Gada Sub-city urban land use and administration office, and Abba Gada Sub-city construction and design office they should have to attention and awareness on the structural plan and local development plan.

The professionals' works in the sector should have to read and understood the structural plan and the file or the documents provided for them by, AutoCAD, Microsoft word and PDF file, and others.

4.5.7 Lack of Implementation Mechanism

To ensure the successful implementation of the Urban Plan Preparation and Implementation Strategy, it is necessary to address the capacity and attitude-related problems of the leadership and professionals (MoUDH, 2016). In Adama city there is an absence of understanding on plan implementation mechanisms.

4.5.7.1 Professional Implementers and Leaders

In Adama city, there is the problem of understanding of the Urban Plan Preparation and Implementation Strategy that the professionals working at all levels on the preparation and implementation of urban plans discharge their responsibility effectively. A leadership succession plan shall be devised and implemented. International experts with hands-on

experience in the field of planning shall be brought to train local professionals. Moreover, serious attention shall be given to enhance the capacity of the leadership, focused on reducing gaps that exist in the attitude, skills, and knowledge of professionals engaged in plan implementation. Special attention shall be given to strengthen the capacity of urban center leaders.

4.5.7.2 Preparing and Implementing an Experience Sharing System

The other problems reflecting in Adama city Successful preparation , and implementation of urban plans is lack of involve many individuals or groups of professionals from different fields working as a team in a harmonious atmosphere that encourages experience sharing, and horizontal learning. In this type of working environment, experience sharing can help to fill skill or competence related gaps that exist in the preparation ,and implementation of urban plans. Review and reflection workshops and short-term training sessions can produce a similar outcome.

4.5.7.3 Stakeholder Participation

The preparation and implementation of an urban plan shall be extensively publicized and made accessible to the owners of the plan the urban residents and other relevant stakeholders. This is important as it enables various stakeholders to have a sufficient understanding of the planning process and do their best to maximize their contribution to successful preparation and implementation.

4.5.7.4 Prioritizing Execution of Tasks

The preparation and implementation of an urban plan involve many individual tasks. Although not all tasks cannot be carried out at the same time, and thus, need to be prioritized, there are many instances when the implementation has commenced without the conditions to be fulfilled in advance.

4.6 The Effects of Urban Plan Implementation Challenges

4.6.1 Slums upgrading problem

In Adama city, 15 percent of the total housing stocks were in, “good’ condition, while 20 percent should be demolished and replaced. The remaining 65 percent were categorized as units that need serious rehabilitation. Criticisms could be made about the accuracy of the

analysis but given the inability of the Kebles to maintain or invest in the housing stock ,and since the tenants do not benefit from or get incentives for undertaking improvements in the units, they live in, and they generally refrain from doing so, the strong correlation between the poor condition and public management can easily be observed (ONRS, 2016).

Housing condition: Assessing the physical condition or status of the housing units help to identify those units which need maintenance and those which should be reconstructed due to high deterioration. Here categorize the status of the housing units in the study by judging their condition based on the construction materials which are considered as basic.

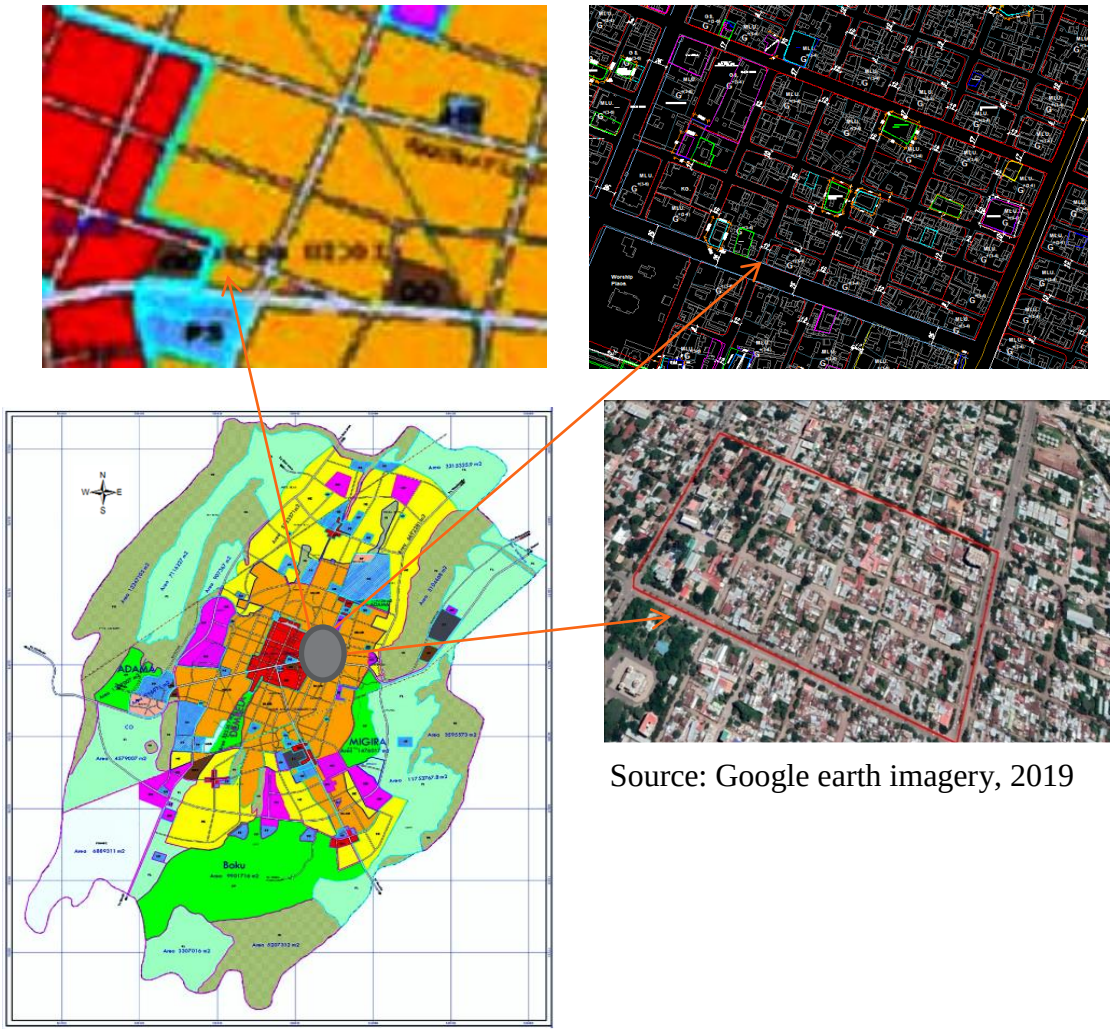
Table 16: Shows the housing condition analysis

No	Housing condition	Housing unit	Percent
1	Good	60	15.1
2	Fair	100	27.7
3	Bad	240	66.48
Total		360	100

Sources: Field survey, 2020

The above table indicates that the housing condition considering the as bad, fair, and good based on the flooring .wall, roofing as well as responses from the households. Apart from this n=60 (15.1%) good, n=100 (27.7%) in fair, and the rest house condition n=240 (66.48%) is bad.

So in Adama city especially in Abba Gada Sub-city most of the existing housing physically more deteriorates environmentally polluted. The existing housing is also more dominated with low rise building /ground plus zero , but the structural plan of the city proposed land-use plan shows the building height ground plus three and above.



Source: Google earth imagery, 2019

Source: Adama city administration, 2020

Figure 18: Shows proposed land use plan of building height around Gada Keble

The above picture indicates the land use plan was proposed the building height ground plus three and above but due to the non-implemented of the proposed land use plan existing figure on ground plus zero.

4.6.2 Infrastructure providing problems

Urban infrastructure is the fundamental facilities and systems serving a city. Urban infrastructure is defined, collectively as those services and facilities, situated either within the

municipal boundary, or on land rented or owned by the urban local government authority, which provide resources, transport people and goods, and to improve quality of life urban residents; together with those physical assets that support the economy.

The main aim of the urban plan is to control and explore the infrastructure providing and layout plan: the drinking water, sanitation, sewage systems, utility, electricity, and gas distribution, and public buildings.

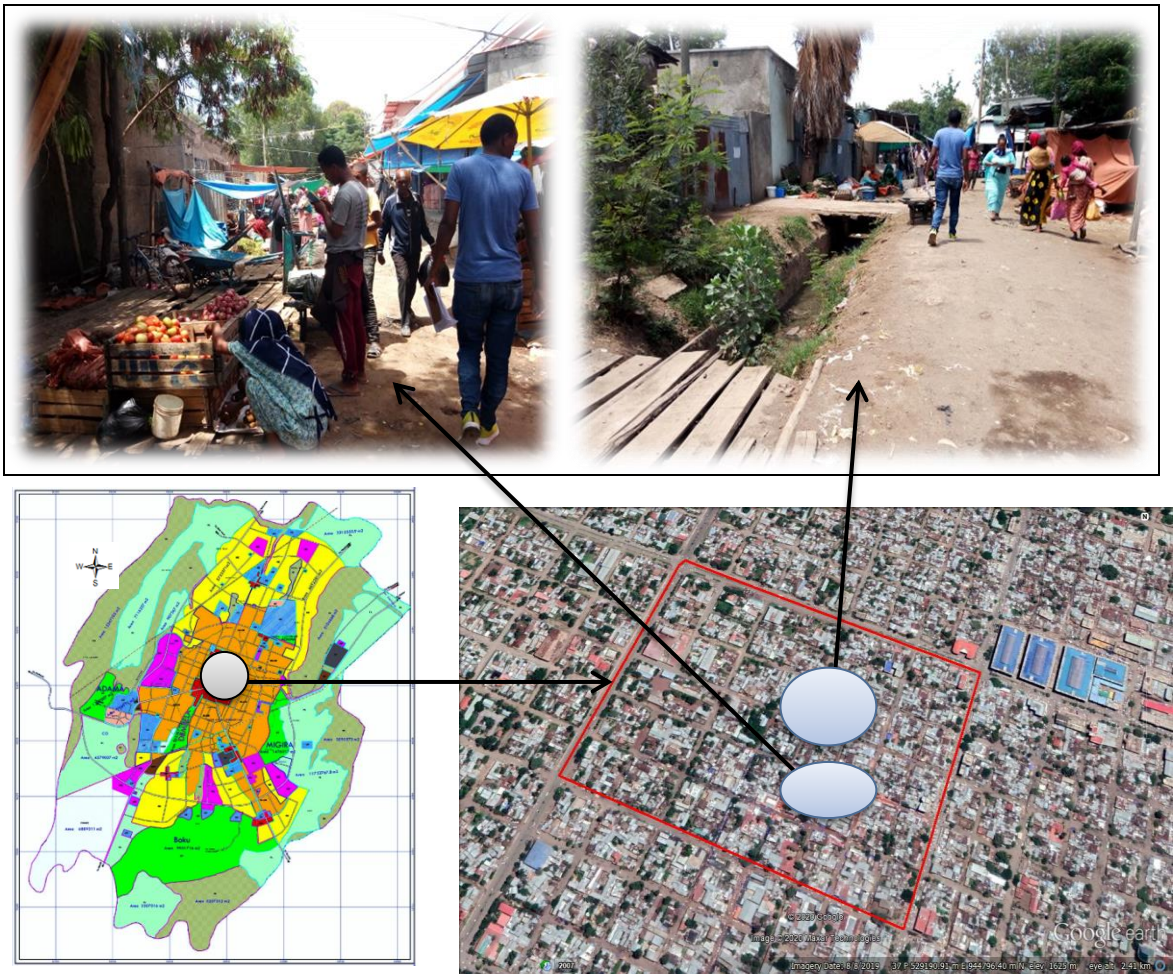


Figure 19: Shows infrastructure providing problem, around Gurmu Keble

Source: Field survey, 2019, and Google earth imagery, 2019

If the urban plan is not properly implemented cause for infrastructure providing problems: water supply, drainage line, urban sanitation, and car entrance special during emergence time, social service, municipally service.

4.6.3 Environmental problems

If the urban plan is not properly implemented cause unregulated urban settlement and haphazard disposal of waste, and small manufacturing to pollute the environment. In Abba Gada Sub-city environmental problem solid waste collection, lack of public spaces, and recreational area, drainage system , and release of liquid waste on street. Abba Gada Sub-city is also affected by high levels of pollution problems due to the waste disposal management system. Solid Waste According to data obtained from respondents and field survey the main sources of solid waste in the study area from resident, commercial activities or institutional, construction and demolition buildings. As a response they use different mechanisms of solid waste collection and disposal system and is presented in the following chart.

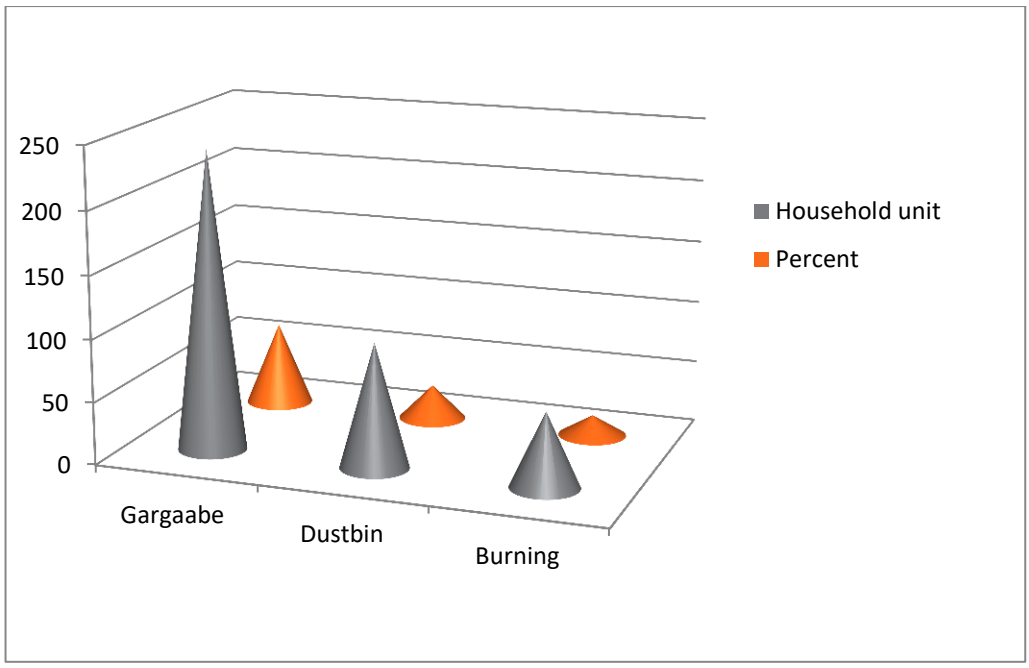


Figure 20 : Shows the mechanism of solid waste collection and disposal

As shown on the above chart majority of the household using garbage pit, n=240 (66.6 %), dust bin n=100 (27.7%) these uses private collectors to dispose their wastes and pay to the private collector monthly and the left n=60 (16.6) is using burning and dispose the waste on the streets and open area.

Liquid Waste: The main sources of the liquid wastes in the study area are individuals households or dwellers, commercial activities, inadequate infrastructures like sewerage line and drainage system are among the main.

Collection and disposing system of liquid wastes as information from respondent and ground survey the area does not have a drainage or sewerage system that connected to private building. As respondent liquid waste that as sources are from residents, public toilets, restaurants, and hotels collect their liquid wastes through collective pit latrine or septic tank, and then removed by suck truck. But there are buildings which are not septic tanks and are damp on the field or street it prone sanitary problem and pollute the environments.

The picture below also reflecting the area which is found Oda Keble around Arada sefer the area is environmentally polluted and disorder.

Figure 21: shows the environmental polluted due to unimplemented of urban plan

Source: Google Earth imagery, 2019 and field survey, 2020

4.6.4 Transportation Problem

The transportation plan is a major part of urban planning and development. In Adama city urban land use plan was not well implemented and it causes for urban transportation problem: parking difficulty, public transport inadequacy, walking, accessibility and difficulties for non-motorized transport:-

Traffic congestion and parking difficulty: the congestion is particularly linked with motorization and the diffusion of the automobile. Spending the majority of the times parked, motorization has expanded the demand for the parking space, and the existing supply infrastructure has been not keeping up with the growth of the mobility.

Figure 22: Shows the traffic congestion and parking difficulties

Source: Field survey, 2019

- Difficulties for non-motorized transport: In Abba Gadaa sub-city the problems is reflecting due to urban plan unimplemented in the area, lack of consideration for pedestrian's walkways and bicycles, non-motorized.

Figure 23: Shows non-motorized transport problem

Source: Field survey, 2019

- Accessibility: Accessibility refers to the ability to reach desired goods, services, activities, and destinations.

Figure 24: Shows the reach of desired goods, service, activities and destination problem

Source: Field survey, 2019

4.6.5 Economic problem

Urban economics: is defined by the interaction of two disciplines, namely geography and economics. The former studies how things are arranged across space , while the later , explores the choices people make when resource are limited. Urban economics: puts

economics and geography together, exploring the geographical or locations choice of utility maximizing households and profit-maximizing firms urban economics: also identifies inefficiencies in location choice and examines alternative public policies to promote efficient choice (Tilahun, 2006).

Urban plans are used to guide the economic development or redevelopment of land in an urban setting. It is used to define future development and land use patterns, including distribution of various land-use functions, infrastructure networks, conservation of protected and environmentally sensitive areas as well as governance and managerial issues of a given urban center. It also depicts the spatial extent of the given urban center for the planning period (MoUDC, 2019).

So if urban plan is not properly implemented it causes the place and space arrangement problems: choice of space and informal settlement's activity. These problems also occurring now day in Adama city as the context of Abba Gada sub-city. The below figure also shows the economic activities' problem around Atekilt Tera in Oda Keble.

Figure 25: Shows the economic activity problems due to non-implemented land use plan

Source: field survey, 2019

4.6.6 Social problem

One of the urban planning thematic issues is social issue. Different social issues are consider during urban plan preparation and implementation : the relationship between people and space, interrelated of the public realm and public life, consider the notion of neighborhood (interlinked with), concerns issues to safety and security (people face a variety of threats in

the urban environment, crime, terrorism, fast-moving vehicles, air pollution, water contamination) . In Adama city also there are social problems due to unimplemented of the urban plan:

- ✓ Lack of relationship between people and space
- ✓ Lack of inadequate sanitation
- ✓ Infrastructure overload and higher levels of anger and frustration.
- ✓ Crime special during nighttime
- ✓ Safety and security

Figure 26: Shows unimplemented land use plan cause social problems

Source: Flied survey, 2019

4.6.7 Lack of good urban governance

The urban plan is a tool for implementing development policies, strategies, programs, and laws of local government's development issues a urban level it is binding it's a binding technical, institutional and policy frame work for guiding the development of urban center. So the urban plan preparation and implementation direct affect the city government.

Urban governance is about the institution and mechanism to allocate scarce resources and address the major urban challenges to build competitive and sustainable cities. Improved urban governance is one of the most important factors in reaching the potential of cities both in harnessing economic opportunity and in addressing challenges of urban. These underline the

concept of good urban governance which entails transparency, accountability, popular participation and partnership.

In Adama city, according to the respondents raised there are many problems relating to the lack of urban plan implementing: planning process and managerial practice problem, cause for corruption: Lack of transparency and accountability

4.6.8 Land Use Incompatibility

Urban plan also considered the setting frame works and principles to guide the location of the development and physical infrastructure. It also considers the set of governance practices for developing and implementing strategies, plans policies and project, and for regulating the location, timing and form of developments. Practicing is shaped by the dynamics of economic and social changes which gives rise to demands for space, location, and qualities of place. The aim of Urban plan implementation is to implement intended provide a frame work major investments in physical infrastructure or public sector building, regular activity link to the development activity, and other governance functions. In Adama city due to lack of urban plan implementation there cause different incompatibility related to spatial/land use:

- ✓ Regulating the locations
- ✓ Practicing and shaping and qualities of place
- ✓ Economic and social change which gives rise to demands for space

Here below tables discussed building regulation and construction materials of the housing unit. The quality of building is sub-standard (dilapidated) or in bad condition due to their construction material mostly made of mud or wood with a roof cover of corrugated iron sheet.

Table 17: Shows the building height of the housing unit

No	Building height	Housing unit	Percent
1	G+0	260	72.2
2	G+1-3	60	16.6
3	G+4-6	28	7.7
4	G+7 and above	12	3.3
Total		360	100

As indicated in the table 17 G+0, n=260 (72.2%) more bad condition and need series intervention. G+1-3 is n=60 (16.6%) and G+4-6 n=28 (7.7%) and G+7 and above is n=12 (3.3%).

Table 18: Shows the construction materials of the houses

No	Construction material	Housing unit	Percent
1	Wood /bamboo and chika	268	74.4
2	HCB, brick, concrete	56	15.5
3	CIS/ Lamera	36	10
Total		360	100

About n=268 (74.4%) of housing units are constructed from wood, bamboo and Chika, which are the cheapest and widely available walling materials and have no durability than other wall materials and the HCB, brick and concrete n=56 (15.5%) of wall materials have a good status and the rest n=36 (10%) CIS/ Lamera.

Figure 27: shows the housing regulation and shaping qualities of the place

4.7 The Gap between Plan Preparation and Implementation

4.7.1 Monitoring and evaluation

Monitoring and evaluation help improve performance and achieve results. More precisely, the overall purpose of monitoring and evaluation is the measurement and assessment of performance to more effectively manage the outcomes, and outputs as development results. Monitoring and evaluation is important management tools to track the progress of development activities focusing on assessing inputs and implementation processes and facilitate decision-making (MoUDH, 2017). Thus, a well-functioning monitoring and evaluation mechanism has to align strongly to the values and principles defined below:-

- Effectively gather, analyze, track and use accurate delivery-related information in decision-making. councils. Mayors, city/town managers and employee, or the quality of commitments made.
- Hold people responsible, or accountable, for delivery against commitments made
- Ensure optional delivery against plans with the real risk emerging of stakeholder expectations not being met or
- Ultimately, uphold the requirements for good governance.

So monitoring and evaluation is a significant instrument of management in urban planning practice, as different respondents raised the plan preparation body was prepared the plan and provide for the concerned body /the plan implementer, the main problems were lack of plan monitoring, evaluation and follow-up during plan implementation period.

4.7.2 Manpower requirement

The monitoring and evaluation team should consist of multidisciplinary professionals' mixture to address the broad nature of urban plan implementation effectively. This consideration has to be made to plan implementation stakeholders. The man powers requirement listed below are the minimum requirement for organizing monitoring and evaluation team on plan implementation. The professional mix to undertake the task of monitoring and evaluation of urban plan implementation in a given urban center should consist of the following experts:

- Urban Planner /Architect
- Geographer /Environmentalist
- Sociologist /Historian/Archaeologist
- Civil Engineer /Sanitary Engineer

- Transport And Mobility Planner

Adama city also there is a lack professional mix, for example in Abbaa Gadaa Sub-city urban land use and administration office they have only two professional mixes: civil engineer and surveyor. This also negative impact on urban plan implementation they have no more professional on urban plan see table 13.

4.7.3 Lack of integration between plan preparation and implementation body

There is weak integration between the plan-making and plan implementing body. Besides, the plan implementing the body, therefore, lacks the necessary capacity regarding enough qualified personnel and working materials coupled with problems related to poor plan implementation. The plan preparation is straightforward than plan implementations. The plan preparation body has been not deep discussion with plan implementation body. This associated with results of plan implementation challenges. The government has not given more attention follows for than plan preparation body more than implementation either the plan is implemented or not, so this also occured according to Adama city context.

4.8 Major Findings

The urban plan is implemented through different urban challenges. In Adama city urban plan implementation has both positive and negative challenges: positive challenges are which the factor of urban plan that is positive influence on apply /change the plan to the ground these are: the city's fundamental landform : elevation, topography, slope of the city the contour of the city more suitable for construction, and developments ,and city also contains high economic activity and income each of these attributes can have a substantial influence on urban plan implementation, and urban design decision. The second one of urban plan implementation challenges are which oppose to apply the plan to the ground: a) capacity requirement: manpower, financial and budget problem, equipment and logistics b) lack of local developments/neighborhood development plan, c) the unwillingness of the society to develop the site d) urban politically instability (high turnover rate of political appointee) e) lack of implementation mechanism: professional implementer, preparing and implementing an experience sharing system, stakeholder participation, prioritizing execution of tasks and f) lack of monitoring, and evaluation of urban plan implementation.

CHAPTER FIVE

5. CONCLUSION & RECOMMENDATION

5.1 Conclusions

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. Standing on this fact, this research paper discussed an attempt to explore and provide the basic concepts and understanding of structural plan implementation challenges, the cause and the result of urban plan implementation challenges.

The playwright of this paper has also tried to consider the local context of urban planning practice with a target view of implementation concerns within Adama city, in the case of the Abba Gada Sub-city context. Implementation trends and likely causes that playing a significant role in hampering the successful implementation of the urban plans in the city. In this discussion of results there were different structural plan implementation challenges: the capacity requirements (manpower, financial and budget and equipment's and logistic), lack of urban plan awareness, absence of local development plan, the unwillingness of the society to develop the site, lack of professional implementer and leaders, implementing an experience sharing system, stakeholder participation, prioritizing execution of tasks, monitoring, and evaluation and lack of integration between plan preparation and implementation body. In affection to this the effects of urban plan implementation challenges: lack of good urban governance, land use incompatibility, social and economic problem, lack of transportation providing, infrastructure providing a problem, and slum upgrading problem in the context of Abba Gada Sub-city of Adama city. Similarly, there are the gaps between plan preparation and implementation: monitoring and evaluation, professional skilled and lack of incorporation between plan preparation group and implementation body.

5.2 Recommendation

The results of this specific study have shown the challenges of structural plan implementation, and future mitigation study of the problem. The following lists of the recommendation for

Oromia urban planning institute, Adama city administration and Abba Gada sub-city and also for future related to research

1. Recommendation for Oromia urban planning institute

Providing Capacity requirement: is the key to prepare and implement the structural plan, so the OUPI (Oromia urban planning institute) should give attention for the professionals/planner by providing equipment's and logistics: surveying equipment's, total station, hand GPS, differential GPS, satellite imageries of the cities, and towns under consideration also by providing accurate digital elevation modeling data, and tangible information for the planner. The urban planning institute cares for the professionals' salary and allowance payment, important furniture and facilities during field work.

Creating awareness: One of the main prerequisites works in plan process is creating awareness during plan preparation and implementation: large public and specially community participation in decision-making and involvement of all stakeholders specially the social groups and NGOs. In Adama city, especially in case of Abba Gada sub-city there is more economic activities' occurring in the site, but the area is environmental polluted, physical deteriorated due to the lack of extensive and continuous awareness creation to the residents during plan preparation and implementation to ensure that urban plan serves as a basic tool for all developments.

Providing Implementation mechanism: To ensure the successful structural plan implementation, implementation strategy is necessary to address the capacity and attitude related problems of the leadership and professional:

- **Professional implementer and the leader** creating common understanding on plan implementation policy that the professional working at all levels on the implementation of structural-plan discharge their responsibility effectively.
- **Experience in sharing on implementation**: involvements of many individuals or groups of professionals from different fields working as a team harmonious that experience sharing, horizontal learning to fill skill gap and competence on related gaps that exist in the implementation of the plan.
- **Participation of the stakeholder:** the structural plan must be extensively publicized and made accessible to the owner of the plan urban residents and other relevant

stakeholders. Make various stakeholders have a sufficient understanding to maximize their contribution to successful plan implementation

- **Prioritizing execution of tasks:** all tasks not be carried out at the same time, and thus, need to be prioritized of the work**.**

Preparing neighborhood development /local development plan for the city: -

- A prepared structure plan is needed to prepare a neighborhood development plan (local development plan) to implement the citywide land-use plan.
- Neighborhood development plan indicates the ways of land control management building height, roads, main infrastructures and transport system, housing development, green areas, city renovation through active participation of the local development.
- In Adama city there is a lack of a local development plan, so Oromia urban planning institute gives the consideration to make a local development plan for the city to implement the structural plan.

Follow-up and monitoring: -

- Monitoring and evaluation is the measurement, and assessment of urban plan to manage whether the plan implements or not.
- Guarantee the quality of information informing decisions and action taken by councils. Mayors, city /town managers and employee, or the quality of commitments made.
- Help the people responsible, or accountable, for the concerned body or implementer.

2. Recommendation for Adama city administration

- Participation of the stake holder, the urban residents other relevant stakeholders, make the residents have sufficient understanding on the plan implementation and maximize their contribution to successful the plan implementation.
- Understanding of professional implementer and the leader of the urban plan, implementation strategy that the professional working at all levels on the implementation of urban plan discharged their responsibility effectively.
- Prioritizing execution of the tasks of the plan implementation because all tasks are not bee carried out at the same time
- Broad public community participation in decision-making and involvement of all stakeholders especially the social groups and NGOs on plan implementation

- Extensive and continuous awareness creation of to the residents during the plan preparation and implementation to ensure that the urban plan serves as a basic tool for all developments
- Financing and budgeting for the plan implementation by mobilizing the society at large and budget allocation
- Establish a state planning department /local planning authority

3. Recommendation for Abba Gada sub-city

- Fulfilling the skill gap giving the special attention to strengthen the capacity of the office worker on the urban plans and how to implement the plan.
- Make /create awareness for the local community the urban plan basic tools for the development of the sub-city
- Encourage multidisciplinary professional mixture, local community participation, consideration made plan implementation stakeholder

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Appendixes

Questionnaire

Adama Science and Technology University

School of civil engineering and architecture

Department of urban planning and design

This questionnaire is prepared to collect information from selected respondents for the accomplishment of thesis program with the topic of "**Challenges of Structural Plan Implementation in Adama City: In Case of Abba Gada Sub-City"**. The Study Is Carried Out As Partial Fulfillment Of The Requirement For The "**Master of Urban Planning And Design**". The main objectives of this questionnaire are to access the challenges of urban plan implementation in Adama city.

This questionnaire seeks your views regarding /responsiveness on urban plan implementation challenges in Adama city. The finding of the study will only be used for academics purposes, to make recommendations based findings to improve the system and hence you are kindly requested to forward views and experiences as carefully as possible. Each of your answer has great contribution for the completeness of the research.

I would like to thank you in advance for your kind cooperation in responding to this questionnaire. The information generated in the study kept confidential

Part I

Questionnaire for Residents

1 sex: - male ☐ female ☐

2. Marital status: - married ☐ single ☐

3. Age 18-30 ☐ 31-40 ☐ 41-60 ☐ above 61 ☐

4. Educational backgrounds:-

Incomplete Of Grade 10 ☐ Grade 10+2 complete ☐

Vocational and Technical ☐ Bachelor Degree ☐ Ma, M.Sc. And Above.

5. Occupational status

A) Government employee B) self-employee C) Private firm employee D) retired F) Unemployed

6. What is your saving mechanisms

A. Equb B. Edir C.Bank D.Other

7 Land Tenure a) owner-occupied b) renter from private c)renter from local government d) othThe existing house characteristics and condition

A. Good B. Fair C. Bad

8 What is the main source of your income and support for your family?

a) Private b) Public –employed c) Retired d) Other

9 What is your monthly income?

a) Below 350 Birr b) Between 350 to 650 Birr c) Between 650 and 1000birr

d) Above 1000 Birr e) Unwilling to disclose

10 The ways of your land holding system.

A. Illegal/squatter
B. legal / lease- hold
C. inheritance /free-hold
D. Buying
E. Other

11 Construction materials

A. Wood/bamboo and chika
B. HCB, Brick and concrete
C. CIS/lameraa

12 Solid waste collection and disposal system

A. Garbage pit
B. dustbin
C. Burning

13 Building regulation /height

A. G+0
B. G+1-3
C. G+4-6
D. G+7 and above

14 Land/house ownership

A. Government
B. Private
C. Keble
D. Other

15 Is your house /land has legal background or site plan? Yes or no

If your answer no why_____

16 What the results you got from structural plan

a. Well arrangement infrastructure
b. Transportation access
c. Pollution control

d. Good utility layout
e. Sanitary control

17 Do think that land use plan is control /developed according to structural plan? Yes or no
If your answer no why _____

18 Do you participate during the structural plan preparation and implementation? Yes or no
If your answer is yes what is your role _____

19 What is your participation during the planning preparation and implementation
A. Money contribution
B. Labor
C. Equipment
D. Technical support

20 What is your level of participation during planning preparation and implementation :-
A. Decision making
B. Providing valuable comments
C. Providing information
D. Other _____

21 Do you think that the proposed structural plan is a basic appropriate planning concept?
A. Conflict free
B. Flexibility
C. Complimentary
D. Fair distribution of services
E. Balanced allocation of land for all uses

22 Do think the city is growing according to the structural plan? Yes or no
If your answer no why _____

23 Do you have any comment considering the structural plan of the city? Yes or no
If yes what is your comment _____

Part II

Questionnaires for City Administration

The Questionnaire filled by the respondents

Aim of the interviewee_____

Duration of the Interview _____ the Name of the Supervisor_____

Date of the Interview _____ Duration of the Interview _____

Data Collector Name _____

Personal information of respondents	
Current Position the organization	
Professional background	a) Planner b) Surveyor c) Economist d) Geographer e) Sociologist f) Geologist g) Civil Engineer h) Other _____
Educational background	a) Bachelor degree b) M.Sc. c) Ph.D d) Other_____

1. How many times Adama city had got prepared structural plan through history including the current time and who were prepared it

Time	**Year**	**Who prepared it**
1st time		
2nd time		
3rd time		
4th time		

2. What is urban plan for you?

   _____

3. What were the types of urban plan prepared and delivered at each preparation periods? A Master plan, structural plan, basic plan, local development plan etc.

   1st period plan A. Master Plan B. Structural plan, C Basic plan D. Local development plan

   2nd period plan A. Master Plan B. Structural plan, C Basic plan D. Local development plan

   3rd period plan A. Master Plan B. Structural plan, C Basic plan D. Local development plan

   4th period plan A. Master Plan B. Structural plan, C Basic plan D. Local development plan

3.1 Where the action for implementing plan clearly identified?

_____

3.2 What were time schedule to implement the plan clearly?

_____

4. What is the human power capacity and technical facilities in your office?

No	professional background	City administration / municipality		
		Demand	Supply	Gap
1	Drafting			
2	Surveyor			
3	Urban planner			
4	Civil engineer			
5	Architect			
6	Sociologist			
7	Economist			
8	Geographer			
9	Sanitary engineer			
10	Statistician			
11	geologist			
12	Historian			
13	Cartographer			

5. What organization or company responsible for implement the plan

_____

6. What are the city administration roles in the urban plan implementation?

_____

7. Do you think that is the municipality has plan monitoring body? Yes or not
   If yes what are their roles

_____

8. Was there is timetable for implementing the urban plan

_____

9. Was there is a strategy for implementing the urban plan

_____

10. Was the plan has fulfilled necessary information?

_____

11. Is the necessary information is illustrated on maps?

_____

Is all application data (AutoCAD, GIS and videos are properly provided?

_____

_____

12. Were the sources of funding to implement the urban plan?

_____

13. Does the municipality have budget to implement the urban plan?

_____

14. Do think there are any problems related to political in urban plan implementations?

15. How many percent the plan is implemented?

Implemented successful ☐ Partial implemented ☐

Some are implemented ☐

16. If your answer is partial implemented or some implemented. Why? What is the solution?

17. What are the socials problems if urban plan is not properly implemented?

18.1. What are the causes of the problems

18.2 What are the solutions for the problems?

18. What are the economic problems if urban plan is not properly implemented?

19.1 What are the causes of the problems?

19.2 What are the solutions for the problems?

20 What are the environmental problems if urban plan is not properly implemented?

20.1 What are the causes of the problems?

20.2 What are the solutions for the problems?

21 What are the transportation problems if urban plan is not properly implemented?

21.1 What are the causes of the problems?

21.2 What are the solutions for the problems?

22 What are spatial /land use problems if urban plan is not properly implemented

22.1 What are the causes of the problems?

22.2 What are the solutions for the problems?

23 What are the governmental effects if urban plan is not properly implemented?

23.1 What are the causes of the problems?

23.2 What are the solutions for the problems?

Part III

Questionnaires for Oromia Urban Planning Institute Office

The Questionnaire filled by the respondents

Aim of the interviewee_____

Duration of the Interview _____The Name of the Supervisor_____

Date of the Interview _____

Data Collector Name _____

Personal information of respondents	
Your current position in the organization	
Professional background	i) Planner j) Surveyor k) Economist l) Geographer m) Sociologist n) Geologist o) Demographer p) Engineer q) Other _____
Educational background	a) Bachelor degree a) M.Sc. b) Ph.D. c) Other_____

1) What are the human power capacity and technical facilities in your office?

No	Professional Background	Oromia urban planning institute		
		Demand	Supply	Gap
1	Drafting			
2	Surveyor			
3	Urban planner			
4	Civil engineer			
5	Architect			
6	Sociologist			
7	Economist			
8	Geographer			
9	Sanitary engineer			
10	Statistician			
11	geologist			
12	Historian			
13	Cartographer			
14	Data specialist			
15	GIS specialist			
16	Lawyer			
17	Administrator			
18	Secretaries			
19	Drivers			

2) What are the main problems related to plan preparation

3) Do you think there are problems related to the urban plan makers professional / knowledgical background problem?

No	Professionals	Problems
1	Drafting	a)_____ b)_____
2	Surveyor	a)_____ b)_____
3	Urban planner	a)_____ b)_____
4	Civil engineer	a)_____ b)_____
5	Architect	a)_____ b)_____
6	Sociologist	a)_____ b)_____
7	Economist	a)_____ b)_____
8	Geographer	a)_____ b)_____
9	Sanitary engineer	a)_____ b)_____
10	Statistician	a)_____ b)_____
11	geologist	a)_____ b)_____
12	Historian	a)_____ b)_____
13	Cartographer	a)_____ b)_____

4) Do you think when the urban plan was prepared consider the public participatory? Yes or not If yes what are their role

_____

5) Which stakeholder are participate during plan process , and what are their roles

_____

6) Do you think that the planning institute has committee to follow-up or monitoring the plan implementation? Yes or not If yes what are their role

_____

7) Do you think that urban plan implemented without any challenges? Yes or not
If not what are the challenges

_____

8) How many percent the plan is implemented?

Implemented successful ☐ Partial implemented ☐

Some are implemented ☐

8.1 If your answer is partial implemented or some implemented. Why? What is the solution so?_____

9 where is the source of funding to implement the plans

_____

9.1 do you think the source of funding is enough to implement the plan? Yes or not

If not what are solution_____

10 What are the socials problems if urban plan is not properly implemented?

_____

10.1 What are the causes of the problems

_____

10.2 what are the solution for the problems

_____

11 What are the economic problems if urban plan is not properly implemented?

_____

11.1 What are the causes of the problems?

_____

11.2 What are the solutions for the problems?

_____

12 What are the environmental problems if urban plan is not properly implemented?

_____

12.1 What are the causes of the problems?

_____

12.2 What are the solutions for the problems?

_____

13 What are the transportation problems if urban plan is not properly implemented?

_____

13.1 What are the causes of the problems?

_____

13.2 What are the solutions for the problems?

_____

14 What are spatial /land use problems if urban plan is not properly implemented

_____

14.1 What are the causes of the problems?

_____

15.2 What are the solutions for the problems?

_____

16 What are the governmental effects if urban plan is not properly implemented?

_____

16.1 What are the causes of the problems?

_____

16.2 What are the solutions for the problems?