

Causes and challenges of informal settlements in Adama City at Dhaka- Adii Woreda.



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A Thesis Submitted to the Department of Architecture

College of Civil Engineering and Architecture

Office of graduate studies

Adama Science And Technology University

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Adama, Ethiopia

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Dhaka-Adii Woreda.

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Declaration

I hereby declare that this Master Thesis entitled “Causes and challenges of informal settlements in Adama City at Dhaka-Adii Woreda.” is my original work. That is, it has not been submitted for the award of any academic degree, diploma or certificate in any other university. All sources of materials that are used for this thesis have been duly acknowledged through citation.

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Recommendation

I, the advisor of this thesis, hereby certify that I have read the revised version of the thesis entitled “Causes and challenges of informal settlements in Adama City at Dhaka-Adii Woreda.” prepared under my guidance by Tigist Anno Kare submitted in partial fulfillment of the requirements for the degree of Master’s of Science in Urban planning and Design. Therefore, I recommend the submission of revised version of the thesis to the department following the applicable procedures.

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Thesis Approval

I hereby certify that the recommendation and suggestion given by the proposal review committee are appropriately incorporated into the final thesis proposal entitled “Causes and challenges of informal settlements in Adama City at Dhaka-Adii Woreda.” by - Tigist Anno Kare.

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Acronyms

IRDP - Integrated Regional Development Planning

IUCN - International Union for the Conservation of Nature

UN - United Nation

UNEP - United Nations Environment Program

WCED - World Commission on Environment and Development

GCIM - Global Commission on International Migration

SPSS- Statistical Package for Social Scientists

SSA - Sub-Saharan Africa

I S- Informal settlement

Abstract

There is a causes for existence of informal settlements and also reason for people decide to establish informal settlements. Informal settlements are characterized by a lack of basic services, pollution, overcrowding and poor waste management. These characteristics impact on the environment posing risk and susceptibility to health problems associated with informal settlements. Informal settlement in Adama were a great concern with highest population living in informal settlements. informal settlements were illegally built due to urbanization in an open space, farmland, steep slope, and quarry which do not have legal title deed particularly at expansion of cities. This study focused on the informal settlements at Dhaka-Adii Woreda and the causes and characteristics of informal settlement at the study area. In this study, backgrounds of respondents, causes, characteristics and consequences of the informal settlements regarding its physical, social, and economic dimensions were studied using physical observation, questionnaires, interviews to investigate the actual causes and consequences. Also this study examines the determinant factors for the expansion of informal settlement at the study area. In this study, qualitative and quantitative approaches were used to examine the morphological characteristics of informal settlements. The results indicate that the form of the settlements does not conform to the social, economic, or environmental characteristics of sustainable development. The disordered expansion of settlements, irregular road networks in poor condition, and a lack of consideration and protection of the ecological environment were found to impact urban function and sustainable development.

Keywords: *Informal settlement, migration, poverty, Demolish,*

CHAPTER ONE

INTRODUCTION

1.1 Background

Informal settlements are referred as squatter camps, Squatters are often defined as residents who have no legal right on a piece of land on which they have erected their shacks (Power, 1993). Informal settlements are “slums”. Slums are a cause and a consequence of poverty, social exclusion, and environmental degradation. The UN-Habitat 2015, categorizes slums as informal settlements that are deprived and excluded, plagued by issues of poverty and have lots of houses located in mostly hazardous urban land. Furthermore, those who lived in slums according to this report lack formal supply of basic services and infrastructure, public open spaces and are exposed to chances of eviction, diseases, and violence.

Informality is considered a generalized mode of urbanization. Roy defines urban informality as a “state of exception” of the formal order of urbanization. As urbanization conceived as a process by which people move from a rural area to urban way of life. Urban informality implies urbanization practices that fall outside the scope of the state and policies that moderate the process of urbanization. (Roy,2005)

The spread of informal settlements was thus a manifestation of the urban growth that resulted from more people migrating from rural to urban areas, another attributing factor to rural-urban migration was employment opportunities. With no immediate access to formal housing upon arrival in the cities, these migrants would erect informal structures next to areas of economic opportunities. informal settlement is characterized by wide spread poverty, large agglomeration of houses in poor conditions, often located in disaster prone areas; residents tend to have limited access to public space and green areas are constantly exposed to eviction, disease and violence (UN-Habitat, 2015).

Informality is associated with modes of human settlements and trade or exchange that occur outside of formal legal structures and processes. (Alsayyad, 2004). Ethiopia is characterized by a low proportion of urban population but rapid rate of urbanization. In recent times housing challenge is notably severe in Ethiopia, where the proportion of urban population has grown from 13% in 1990 to 19% in 2014 and projected to reach 38% in 2050 (UN, 2014; WB, 2014), About one third of the urban population in developing countries is living in informal settlement.

Governments in many African countries like Ethiopian have failed to meet the housing demand of majority of urban residents. Informal settlement is not only seen as manifestation of poor standard housing but also a sign of administrative confusion and political uncertainties (Shabane et al., 2011; Marutlulle, 2015) as well as existence of inequality and weak land governance (Alemie et al., 2015). This suggests a need for understanding of drivers of informal settlement.

1.2 Statement of the problem

In some developing countries including Ethiopia, informal urban settlement is not only the result of lack of urban houses for the poor, but also it is emerged and expanded as a sort of business option for some group of people, especially for broker or dealers (Akirso, 2021: G/Silasse 2019). In addition, in many countries, the practice of informal settlement increases its intensity when urban land administration and planning fail to address the housing demands of the community in the urban area (Okyere & Kita, 2015; Suditu & Valceanu 2013)

The unprecedented levels of urbanization characteristic of most developing countries have resulted in the movement of people from rural to urban areas subsequently resulting in the emergence of slums and informal settlements. Housing shortage and poor housing conditions, the result of massive urbanization are life threatening, substandard housing, unsafe water and poor sanitation in densely populated cities, Rural urban migration makes more challenging to improved welfare for urban residents, especially in the provision of housing, employment and public services. (MoFED 2009).

The proliferation of informal settlements has overtaken formal housing developments, resulting in the majority of the population in developing countries residing in informal settlements (Huchzermeyer 2006). various studies indicate that informality or illegality are ways that allow the poor to become urban residents, since there is a backlog of formal low-income housing or social housing in the global south (Caldeira 2017).

Adama city and other cities and towns in Ethiopia are under this pressure and facing similar problems. The expansion of Urbanization surrounded by many challenging problems including Migration. Informal settlements have continued to grow in the Adama spatial landscape due to urbanization, the numbers of households living in informal settlements at Dhaka-Adii kebele was extremely growing.

The predominant problem that contributes to Informal settlements are the shortage of housing delivery in Adama is the lack of adequate, affordable land, high price of rent house, land prices exclude low-income households from accessing well-located land, leading to illegal land invasions. Dealing with informal settlements after their appearance would have societal, environmental and economic costs.

1.3 Research objectives

1.3.1 General Objectives

The general objective of this study is to assess the causes and consequences of informal settlements in Dhaka-Adii Woreda

1.3.2 Specific Objectives

- To examine the causes of informal settlements in study area.
- To determine the characteristics of informal settlements in study area
- To determine the challenges, related with informal settlement in study area.

1.4 Research question

The research is intended to deliver answer to the following question. The critical question will be:

- How informal settlements affect study area?
- What is the major causes of informal settlements at study area?
- What does the informal settlements of study area look like?
- What is the consequences of informal settlements to surrounding community?
- What are the challenges informal settlement residents faces?

1.5 Significance of the Study

The findings of the study will be very helpful to identify the existing condition of informal settlement in Adama city at Dhaka-Adii Woreda, this study help to clearly identify the causes and consequences of informal settlements and characteristics of informal settlements at study area.

1.6 Scope of research

This study was conducted in Adama city at Dhaka-Adii Woreda, the study will assess and record the real- time situation regarding informal settlements and to briefly explain the reason that force people to choose informal settlements for their livelihood, and what is the reason behind for expansion of informal settlements at study area and challenges in informal settlements.

CHAPTER TWO

2. LITERATURE REVIEW

Informal settlement (also referred to as a shanty town or squatter settlement) has been defined in various ways depending on the planning and legal framework of a country where it exists. For the purposes of this discussion, informal settlements are defined as residential buildings built on “planned” and “unplanned” areas which do not have formal planning approval. They are characterized mostly by the low quality houses and the lack of, or inadequate infrastructure and social services. Informal Settlement (IS) has been perceived both as a problem and solution to housing needs in speedily growing cities of many developing countries. (Srivinas 2005, Todaro 1994).

In the 1970s, a shift in attitudes toward informal settlements began to occur. Rather than being seen as eyesores, health hazards, or havens for criminals, the self-built structures of informal settlements were recognized as essentially proactive responses to a situation of acute housing scarcity. Planners began to recognize informal settlement residents as industrious self-builders who needed only limited assistance from the state - mainly in the form of secure tenure and basic urban services - in order to improve their circumstances themselves. (Payne, 1989).

A clear definition of informal settlement is hardly available. Various words have been used in literature to refer to squatter settlements. These include spontaneous, irregular, unplanned, marginal and informal settlements. There are many definitions of “informal settlements”. The terms have been used to refer to unregulated, illegal and unauthorized construction, arising from the conditions and regulations in different countries, including “spontaneous”, “unplanned”, “unauthorized”, “illegal” or “squatter” settlements. The United Nations has used the term “informal settlements” to refer to: i) residential areas where a group of housing units has been built on land to which the occupants have no legal claim, or which they occupy illegally; ii) unplanned settlements where housing is not in compliance with current planning and building regulations (unauthorized housing (United Nations,2015). Furthermore, in Vienna Declaration (2004) cited in Bogdan and Daniel, (2013), informal settlements are defined as: human settlements, which for a variety of reasons do not meet requirements for legal recognition (and have been constructed without respecting formal procedures of legal ownership, transfer of ownership, as well as construction and urban planning regulations).

Another widely used term for describing informal settlements is “slums”. Slums are a cause and a consequence of poverty, social exclusion, and environmental degradation. The UN-Habitat categorizes slums as informal settlements that are deprived and excluded, plagued by issues of poverty and have lots of houses located in mostly hazardous urban land. Furthermore, those who lived in slums according to this report lack formal supply of basic services and infrastructure, public open spaces and are exposed to chances of eviction, diseases, and violence (UN-Habitat, 2015).

The spread of informal settlements was thus a manifestation of the urban growth that resulted from more people migrating from rural to urban areas. Another attributing factor to rural-urban migration was employment opportunities. With no immediate access to formal housing upon arrival in the cities, these migrants would erect informal structures next to areas of economic opportunities. (UN-Habitat, 2015).

A marked phenomenon of rapid urbanization in Africa has been the proliferation and uncontrolled spread of so-called spontaneous or "informal settlements built by immigrants to meet their shelter needs. Known as informal because they are built outside the legal planning framework, informal settlements are generally characterized by their physical and social conditions. As informal settlements began to proliferate in African cities, the initial reaction of most governments to immigration and spontaneous settlements was relatively uniform: increased regulation and enforcement. Informal settlements were seen strictly as slums - places of poverty, disease, and criminality. (Payne, 1989).

Urban development trends with regard to the built environment, the urban economy and the provision of services can be analyzed with 'formal'/'informal' continuum. Formal urban developments are those that go along with the purview of a state land administration system and complies with its legal and regulatory requirements, while informal urban development does not comply with one or another requirement (UNHABITAT, 2009a). With this regard, informal settlements may bear attributes like, illegal occupation of land, non-adherence to building codes and infrastructure standards, or both illegality of land and nonconformity to building standards and codes (Fekade, 2000).

Urban informal settlements, usually defined by certain criteria such as self-building housing, sub-standard services and resident's low incomes, are seen as problematic, due to associations with poverty, irregularity and marginalization. Informal settlements are usually built by their residents on marginal urban land, following invention or illegal subdivision. This means they fail to conform to regulatory frameworks, resulting in security of tenure, whether due to lack of formal titles or due to the risk of eviction or other threats (Devas 2004)

Urban informal settlements are often seen primarily as a problem, due to their association with poverty, marginalization and irregularity. They are frequently perceived as existing on the edge of cities, although their location on 'marginal' urban land does not necessarily imply that they are spatially peripheral, Land for informal settlements may be considered marginal because it is of little or no value to other interests, for environmental or infrastructural reasons. Spatial segregation of informal settlements within major urban areas is a contributing factor to their marginalization, as they may be physically separated from the rest of the city, by roads, industry or simply remoteness. (Few et al.2004)

Marginalization occurs when groups or places come to be seen as relationally distant and relatively disconnected from the rest of city and main activities, the effects of marginalization, which include discrimination, poverty and exclusion, are well-documented in the case of urban informal settlements. (Mooney 1999).

Informal settlements exist in a continuous and complex relationship between legality and illegality, in which settlements formed through illegal land invention and self-built housing can co-existing together with the informal subdivision of land of high value in the market but legally acquired or transferred. These and other elements related to the complex system of cities that include governance, land markets, and the serious of public and private actors that participate, reveal the intricacy of the phenomenon, while also showing that the definition of the 'informal' as simply the opposite to 'formal' requires more reflection and research (Castro et al. 2015).

Countries with a higher percentage of urban population living in informal neighborhoods tend to have a lower level of urbanization, in other word, they have significant percentage of rural population, this observation suggest that the rapid development of informal settlements in some cities may be the result, in part of high rate of rural-urban migration, with few possibilities of generating income, these migrants finally tends to settle in stablished informal neighborhoods or

create new settlements through illegal occupation of land. Newcomers are not only economically and socially marginalized but also ignored in general by city's public policies, which tend to be designed and executed for the formal and established population (Herrle, Ley and Fokdal, 2015).

As a result of the high cost of housing, lack of good financing schemes, the increasing population is forced to live in substandard housing and unhealthy conditions giving rise to informal settlements (Olotua 2005). slums and squatters are experiencing a massive change in the housing quality as they retain in the settlement that are characterized by numerous problem such as over population, inadequate basic amenities, non-conventional housing and so on (Majale 2002).

2.1 Some Conceptual Clarifications

2.1.1 Urban Area

An urban setting can be defined broadly on the basis of population density, concentration of administrative bodies and infrastructure and a diverse set of livelihood and income generation activities. Urban areas will be characterized by high population density when compared to other areas. While some cities are defined by municipal boundaries, many urban centers have not been designated as such. They are usually characterized by the presence of administrative structures such as government offices and courts and a relative concentration of services such as hospitals and financial institutions such as banks. In an urban setting, the forms of livelihood and income generation activities will be diverse and unlike rural areas not bound mainly to agricultural production. If the area in question fits some if not all of these basic characteristics, it can be regarded as urban. (WESS 2013).

Urban areas require integration and coordination, including regarding land-use issues, food security, employment creation, transportation infrastructure development, biodiversity conservation, water conservation, renewable energy sourcing, waste and recycling management, and the provision of education, health care and housing. (WESS 2013).

According to the United Nation's projections (2010), the world's population will grow to more than nine billion by 2050. The United Nations expects that between 1995 and 2025 the number of people living in urban areas will nearly double from 2.8 to 5.3 billion, and that 90 per cent of that growth will be in developing countries. This implies a continuous supply and dependence on raw

materials and other services from the rural areas as urban areas keep reducing through housing construction and other infrastructural developments (Fombe and Balgah 2010).

2.1.2 Rural Area

Rural communities are facing several challenges in the context of climate change, land degradation, deforestation, biodiversity loss, and fragmentation of natural habitats, poverty, and geographical isolation. The rural population is more prone to extreme poverty, famine, social exclusion, and environmental injustice, particularly in developing countries from Africa, Asia, and Latin America. Rural communities depend on local geographical conditions (climate, natural resources, landscape, and geographical barriers, socioeconomic conditions, demographic features) to develop agricultural, industrial, or tourism activities as economic development pathways. (WESS 2013).

On the other hand, agricultural land abandonment (associated with traditional farming, low productivity, poor infrastructure, aging population, massive migration, land ownership change, political instability) has created several socioeconomic and ecological dysfunctionalities in southeastern Europe. At the global level, there are huge rural-urban gaps regarding population access to critical amenities such as drinking water, sanitation, electricity, and waste management services, particularly in low- and middle-income countries.

Almost 83% of the Ethiopian population is living in rural areas (Central Statistics Agency, 2017). majority of rural population is young people with limited access to land and other means of agricultural production and most of them plans to quit agricultural production in near future (Bezu & Holden, 2014) despite rural non-farm employment opportunities are quite limited (Schmidt & Bekele, 2016). The lack of job opportunities in rural areas is among the core reasons of migration of young people to urban areas (Atnafu, Oucho, & Zeitlyn, 2014).

The rate of unemployment in the urban areas with 16.5% (Ministry of Agriculture and Natural Resources, 2017) indicates that those who move to the cities for better job opportunities face significant constraints in finding jobs. Still, migration from rural areas to cities has been increasing in recent years. Farm sizes in Ethiopia are also decreasing as a result of population pressure, which results in increased subdivision to allow successive generations' access to at least a small plot for farming. (Zemen 2014)

The major factors driving Ethiopian migrants over the years were economic, political, and environmental, factors that were all heavily interlinked and intertwined with regional issues. This mixture of causes, and the magnitude of the refugee crisis that it generated, is what makes the Horn of Africa, and Ethiopia in particular, such a complex case in terms of migration. In the next sections, repatriation issues and rural-urban migration patterns are addressed. (Ezra and Kiros 2001). The rapid rate of urbanization is primarily caused by poor rural living conditions and persistent famine, forcing rural populations to migrate to cities in search of alternative livelihoods. (Van Dijk & Franses, 2008, p.3).

2.1.3 Peri-urban

Traditional definitions of peri-urban are tied to proximity to urban areas. Areas that are located on the outskirts of cities or large urban areas but retain rural characteristics such as substantial reliance on agricultural production are generally considered as peri-urban. It is important to note that peri-urban areas are not merely those which are close to cities and may include areas that are not neighboring urban centers. Peri-urban areas are those which are characterized by a mix of rural and urban characteristics.

The urban development strategy of Ethiopia is mainly based on expropriation of peri-urban agricultural land from local peri-urban farmers. However, its economy still depends on agriculture, which accounts for more than 42% of the GDP, 90% of the exports and 85% of total employment (Hassan 2011). Natural resources are the foundation of Ethiopia's economy; the country has made a significant attempt to develop a policy which protects its ecosystems. On the other hand, the rural farming community has little knowledge and know-how to adapt to the situation of urban life as most of them is unskilled to compete for the urban job opportunity. (Yonas, 2006).

2.1.4 Urbanization

Urbanization refers to the increase in population, density, or extent of cities over time. Urbanization in the form for increase in spatial scale, also called urban expansion, has long been considered a sign of regional economic vitality. Align (et al., 2004). the benefits of urban expansion are increasingly balanced against environmental impacts (Squires, 2002).

In recent century, rapid urbanization has been experienced in most developing countries. urbanization is the result of industrialization associate with economic advancement. However, in the global south countries particularly in Africa and Latin America countries, urbanization has

occurred as a result of frequent rural-urban migration and high natural population increase (Akirso,2021). The UN defines urbanization as the course of shift in population from a rural to urban civilization. Numerically expressed urbanization denotes the increases in the share of the population that resides in urban areas predominantly because of net rural to urban migration (Devis, 1972).

Urbanization, rapid population increase, and changing socioeconomic pattern are deriving forces that influenced spatial change in peri-urban areas (Jongkroy 2009). population increases in urban areas, urbanization expanded to rural areas. Today's rapid rate of urbanization of the world is higher, particularly radical urban growth predicted in developing countries (Marshall and Randhawa 2009). Such rapid urban expansion has a great impact on the urban periphery in terms of changing in land use, differential access to urban benefits (such as basic infrastructure and employment), and increased pressure on common natural resources (Marshall and Randhawa 2009).

Rapid urbanization adds pressure to the resource base, and increases demand for energy, water, and sanitation, as well as for public services, education and health care. In many developing countries, rapid urbanization calls for additional resources, and capacity development of local governments has become a pressing issue. (WESS 2013)

Most cities in the global south are expanding horizontally than vertically, and the ever increasing population is moving to unplanned settlement on the peripheries at the expense of agricultural land and areas of beauty (Koroso, Lengoiboni & Zevenbergen,2021). Thus, such unplanned settlements have created in new peripheral space on the edges of urban territories is commonly known as informal settlement.

The starting point on informal settlements begins with the urbanization process itself. As a natural increase in cities is paralleled by natural increase in rural areas, the main cause of changes in urbanization is the movement of population. Essentially a result of changes in economic structure, increased proportions of national populations in urban centers reflect an increase in the proportion of employment opportunities or possibility of survival concentrated in urban centers. (Hardoy & Satterthwaite 1989)

Informal settlements in Sub-Saharan Africa (SSA)

The Sub-Saharan Africa region has been experiencing unprecedented urbanization rate for so long as a result of inherent demographic processes (natural population growth and migration). Prolonged declining of economic performance, political instability and institutional decadence have exacerbated associated problems of rapid urbanization in the region. This region is also known for unparalleled economic and urban growth, where economic advancements lagging way behind (Blanco, et al., 2009; Kombe & Kreibich, 2000; Sliuzas, et al., 2004). This has led the majority of urban population, especially the urban poor, to survive in a condition of informality (Blanco, et al., 2009). Sub-Saharan Africa region, or generally the global south, has long depended upon the developments of western urban planning practice. This has earned them nothing but a system incapable of dealing with the context at hand, which is poverty, inequality, informality, rapid urbanization, and spatial fragmentation (Kombe & Kreibich, 2000; Rakodi, 2001; Sliuzas, et al., 2004; Watson, 2009).

In Africa, in general, around 60 percent of the urban labor force relies on the informal economy, and further researches are indicating that this proportion is increasing over time. Housing is the main manifestation of informality in developing countries. Informal settlements are being the host to low and middle income citizens who no longer have access to affordable serviced land and formal housing. The situation further worsens as there are often mismatches between what is constructed and what is needed by the people. These and other factors add up to make 62 percent of the urban population of SSA to live in slums (UN-HABITAT, 2009a). About one third of the urban population in developing countries is living in informal settlements. It is predicted by 2050, Africa's urban dwellers are projected to have increased from 400 million to 1.2 billion (UN-Habitat, 2015).

Ethiopia is the second most populous (120 million) and the fifth least urbanized country (22%) in Africa. Ethiopia is currently facing the pressure of rapid urban expansion and growing urban housing demand. Ethiopia cities generally have a large proportion of sub-standard housing stock and deficient affordable formal rental market (Matsumoto & Crook, 2021). For this reason, in many urban center of Ethiopia, informal marketing of land plots and grabbing open public land from the periphery for the construction of residential houses are considered as a solution for the housing problem of the communities (Akirso 2021).

2.2 Causes of informal settlements

The critical factors causing the formation of informal settlements are notably related to several major interrelated changes: poverty, rapid urbanization and influx of people into urban areas, war, natural disasters and earthquakes leading to massive movement of people to places of opportunity and safety, Ineffective Housing Policies, inefficient public administration, inappropriate planning and inadequate land administration tools. Manifestation of informality are attributed to lack of effective planning, effective land management system and zoning regulations for urban development. (Payne and Majale,2004) According to the United Nation Economic Commission for Europe (UNECE), Poverty and social ostracism are primary causes of informal settlements in most nations. In addition, governments have implemented policies to provide housing for the urban poor but their efforts have proved futile. According to housing urban poor, several governments pursued anti-urbanization policies. They have evicted people from informal settlements, razed the housing, and sent the dwellers back to the countryside. These measures fail to stem the tide of urban migration rapid urbanization and influx of people into urban area is another major cause of informal settlements. Rapid industrialization and urbanization have brought an increase in the number of people living in urban areas.

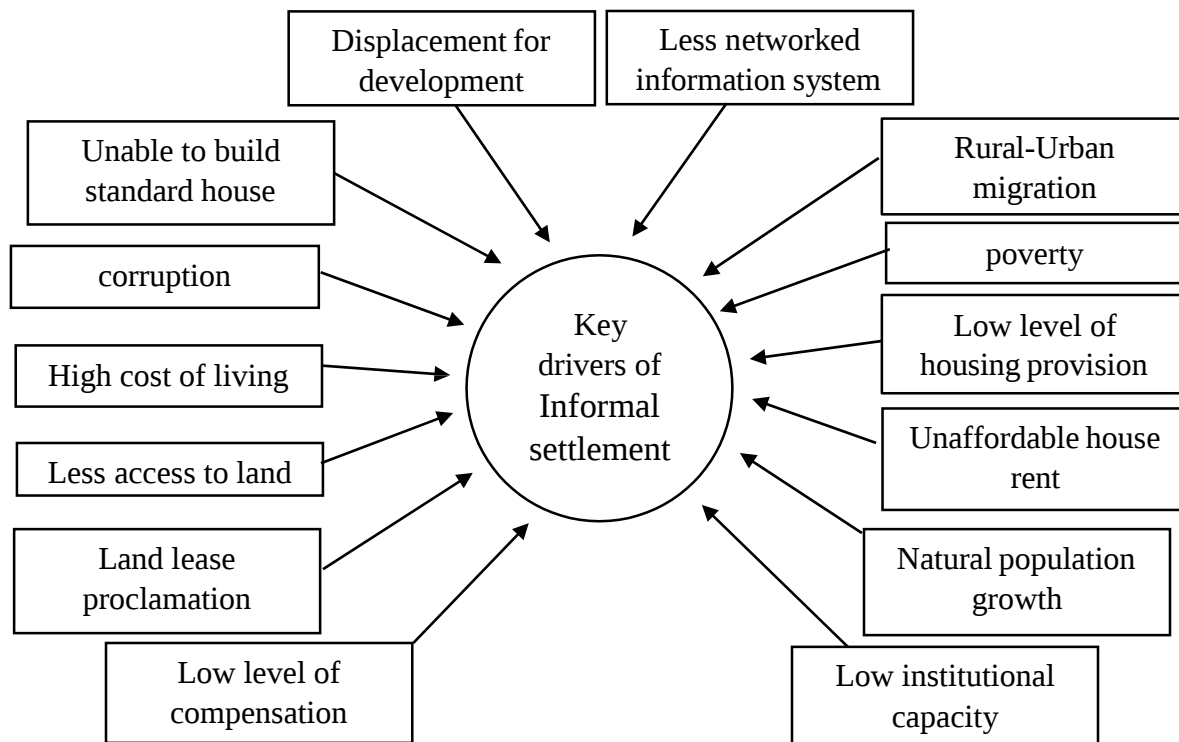


Figure I.- The key drivers of informal settlements

The major issue with informality is that of wealth distribution and property markets in cities that influence affordability (Roy, 2005). It can be argued that informality is shaped by the state and dealing with informality requires the confrontation of how the tools of planning create the unplanned and unplannable. Informality, on the surface, is often considered as a land use issue and is managed to restore order to the urban landscape. Formal urban planning standard and regulations have been found to be inadequate to meet challenges arising from a rapid urbanization and affordable housing. More over low-income households have been bypassing these standards and regulations through improvising and create informal structure as well as institutions in order to solve their housing issues (Fekade 2000).

2.3 Characteristics of informal settlements

According to Srinivas, 2003 informal settlements are characterized by unauthorized use of vacant public or private land, illegal subdivision and/or rental of land, unauthorized construction of structures and buildings, reliance on low cost and locally available scrap construction materials, absence of restrictive standards and regulations, reliance on family labor and artisanal techniques for construction, non-availability of mortgage or any other subsidized finance. Various definitions have thus been proposed, but that suggested by the UN Habitat Programme is probably the most widely applicable. Informal settlements, can be defined as residential areas where a group of housing units has been constructed on land to which the occupants have no legal claim, or which they occupy illegally; unplanned settlements and areas where housing is not in compliance with current planning and building regulations (UN-HABITAT, 2003).The informal settlements range from sub-standard slums to housing that does not have the proper development permit. Informal housing can be described as housing that does not conform to the laws and regulatory frameworks set up in a particular city (UN-HABITAT, 2003).

Informal settlements are mainly characterized by informal land tenure, inadequate access to basic services, both social and physical infrastructure and housing finance (Vienna 2003). Other characteristics of informal settlement include: lack of secure tenure, housing that contradicts city by-laws, housing built on land not owned by the housing owner, lack of inadequate access to basic public services, substandard housing and inadequate building structure, illegal subdivision of buildings, poverty, criminality and social exclusion and unhealthy living conditions and hazardous locations (UN-HABITAT 200, Payne and Majale 2004)

The informal settlements are characterized by the following three interrelated and essential traits.

2.3.1 Physical aspects

Squatter settlements have infrastructure and service below minimum level. They may not be connected to water supply, electricity, road, and drainage and sewerage fatalities. Insecure because of lack of security services like police service, fire protection service. The squatter settlements are also built in marginal lands at peripheries, river sides and dumpsites. The key characteristic that delineates a squatter settlement is its lack of ownership of the land parcel on which they have built their house. These could be vacant government or public land, or marginal land parcels like railway setbacks or "undesirable" marshy lands.

2.3.2 Legal aspects

Informal settlements are mainly characterized by informal land tenure, inadequate access to basic services, both social and physical infrastructure and housing finance (Vienna, 2004). Other characteristics of informal settlements include: (i) lack of secure tenure; (ii) housing that contradicts city by-laws; (iii) housing built on land not owned by the housing owner; (iv) lack or inadequate access to basic public services; (v) substandard housing and inadequate building structures; (vi) illegal subdivision of buildings; (vii) poverty, criminality and social exclusion; and (viii) unhealthy living conditions and hazardous locations (UN-HABITAT, 2003 and Payne and Majale, 2004).

2.3.3 Social aspect;

Characteristics of informal settlement area according to UN; Poor urban appearance, Low quality of public, physical and mental health, Lack of any suitable job and sufficient income, Special subcultures in these regions Population density, Low or lack of educational and welfare facilities and low level of literacy and education, lack of any school Extensive Poverty Abundant drug and high level of addiction Source and center of social perversion (un-habitat 2005). There are three types of informal settlements that are characterized by location. Inner-city informal settlements, peri-urban informal settlements and peripheral informal settlements. Peri-urban informal settlements are those settlements located on the edges of established cities not far from the city centers, basically in a transitional zone between fully urbanized and rural agricultural land (Davis, 2006).

2.4 Land Tenure systems

Land tenure is defined as a system” by which land is held or owed, or the set of relationships among people concerning land or its product” and deals with rights to land or property in addition to access, use, development or transfer. Tenure security is not just a matter of legal, formal or informal status; security is a relative concept and matter of perception as well as law” because there are categories within housing or land markets that contain varying degrees of legality or illegality. These include regularized and un regularized squatting, unauthorized sub-divisions on legally owned land and various forms of unofficial rental arrangements”. Land tenure systems in developing countries are under pressure because of rapid urbanization that results in competition for secure or serviced land and this requires the state of develop policies that encourage efficient land use while improving accessibility for the poor (Payne,2001).

2.5 Factors for expansion of informal settlements

Rapid urbanization and inadequate capacity to cope with the housing needs of people in urban areas of the developing world have contributed to the expansion of informal settlements (Akirso,2021). This implies that rapid population growth, shortage of formal housing and unaffordable cost of formal housing for urban dwellers contributed to the expansion of informal settlements. As the urban population grows the housing need will be increasing: as a result, more agricultural land to be converted into human settlements (Berhane,2015).

There are many types of informal settlement through they are best conceptualized as hybrid considering that there are multiple factors which give rise to the informal settlements (Matamanda,2019). Inefficient public administration, inappropriate planning and land administration, poverty, rapid urbanization and population growth, war, natural disaster and ineffective housing policy (Suditu and Valceanu 2013).

2.5.1 Demographic factors

Age, marital status, and family size which were considered as demographic factors, have an effect on the expansion of informal settlements (Baye et. Al 2020). Family size has significant effect on the expansion of informal settlements, this indicates that those who are married and have large family are likely to fall under pressure of housing demand. This in turn enforces married households and their families to live in informal settlements (Mwacharo 2012).

2.5.2 Socio-economic factors

Factors such as population growth, rapid urbanization, poverty, shortage of formal housing, lack of employment, expensive land, industrialization, and rural urban migration have played significant effect on the expansion of informal settlements (Mensah et.al 2013, Sakala 2016). Informal settlement retardant caused by people through migration (Niva, Taka and Varies 2019). (Wahab 2017) sees government as the architect of creating informal settlements in urban areas because of their inability to satisfy the housing needs of the residents. In most cities of the sub-Saharan Africa, failure of the government to provide a house for the urban poor has led to the proliferation of informal settlements (Amao 2012, Matamanda 2019). It is proven that informal housing has become the only option for the urban poor communities where the land price is high in the formal land market (Heshmati and Zarabadi 2016).

2.5.3 Administrative factors

In most developing countries, institutional influences, such as delays in getting building documents, lack of enforcement of the building regulations, lack of sanctions against offenders, corruption involved in getting building documents, poor land administration system, and centralized bureaucratic procedures in land management have contributed to the expansion of informal settlements (Mensah et al. 2013, Sakala 2016 and Minetos 2013). Inefficient public administration, inappropriate planning and inadequate land administration tools have further aggravated the problem of informal settlements (United Nation, 2019). It seems that expansion of informal settlement is uncontrolled in countries where inappropriate planning and bad practice of urban land management are exist (Ambaye 2011, Anolo 2017).

2.5.4 Political and legislative factors

In the cities of developing countries, inefficient legal frame works in urban management, inappropriate building standards, poor implementation of rules and legislations, and rising political instability are conditions for the expansion of self-help informal houses (Sakala 2016). A study by (Hadush 2019) revealed that major political parties who require political support from the majority urban poor allow informal residents to develop, especially during the election period, to ensure their continued loyalties; leaders often supported and enhanced the activities of informal settlers, which are often known as political tribalism during the transitional period for election.

CHAPTER THREE

3 RESEARCH METHODOLOGY

3.1 Introduction

The purpose of this chapter is to explain how the research was accomplished, the nature of data used and how data were collected, organized and analyzed. It also reveals who was interviewed and how they were selected, and every steps used to collect necessary data were described, consists of study Research Area, Research Design, Data Collection Method, data gathering tools (questionnaire, interview guide and observation checklist), Data Analysis Method. It also presents ethical considerations taken during interviews.

3.2 Description of the Study Area

3.2.1 Geographical location

Adama forms a Special Zone of Oromia , surrounded by East Shewa Zone.and second largest city of Ethiopia next to Finfinnee and in Oromia region. Adama lies 100km Southeast of Addis Ababa, located between 80 26'15"- 80 37'00" N, 390 12'15"-390 19'45" E. The altitude of Adama ranges from 1590 to 1700 m.a.s.l. As it is obtained from processed spatial data, Adama town covers an area of 13411ha. Adama has a great development potential, and is also expected to play a major role in the integrated development of the nearby urban and rural areas due to the fact that the city is located at the junction of major routes to Finfinnee, Arsi/Bale, Harar, and other hinterland areas of economic importance besides on outlet to Djibuti.

Adama city is one of fast growing cities in Ethiopia. Adama have contributed to the rapid expansion of the City as commercial, industrial, residential and recreational center. The increasing urbanization is attracting more people to come to Adama town, this case tremendously put the town on the pressure of physical, social, and economic environment of towns as well as on infrastructural service of town. Now a day Adama city facing the massive problems of the expansion of informal settlement. Adama city have 18 kebele, and this study targeted to Dhaka-Adii woreda, in case of informal settlements. The total population number of Dhaka-Adii woreda estimated to 28000.

3.2.2 Population

Based on the 2007 Census conducted by the Central Statistical Agency of Ethiopia (CSA), this city has a total population of 220,212, an increase of 72.25% over the population recorded in the 1994 census, of whom 108,872 are men and 111,340 women. With an area of 29.86 km² a total of 60,174 households were counted in this city, which results in an average of 3.66 persons to a household, and 59,431 housing units.

3.3 Research Design

To conduct this study, the researcher used a mixed type of research method, i.e., both the quantitative and qualitative research method, that involved a case study of the informal settlement in order to contribute to understanding of informal settlements, and the study was assessed causes and characteristics of Informal Settlements in Adama city at Dhakaa-Adii woreda. The design of the study is a descriptive and analytic cross-sectional survey. It is a descriptive study because it will set out to rigorously describe informal settlements, causes and characteristics of informal settlement. It is an analytic study because it will entail testing a priori hypotheses related to informality in the study area. This research method was complemented by an existing survey and interviews of people who lived in Dhaka-Adii informal settlement. In addition to this qualitative research method, surveys were done that looked at the demographics of the residents and other aspects such as their length of stay in the settlement.

3.4 Sample size

In the study area, according to the recent data, there were about 28000 total populations in Dhaka-Adii woreda. 40 respondents were selected as a sample by using Yamen formula. and by using systematic sampling technique to select 40 respondents in every Kth interval used.

$$\text{Yamen formula of sample size determination} = n = \frac{N}{1 + N * e^2}$$

Where n=Sample size

N=population size

e²=margin of error.

So,

$$n = \frac{28000}{1 + 28000 * (0.05)^2}$$

$$n = \frac{28000}{70.0025}$$

$$\underline{n = 39.9} \quad \sim 40$$

Finally, the researcher was selected as a sample by using systematic sampling technique, i.e., Kth rule used to determine the sampling interval.

i.e. $K = N/n$, Where N = Total population numbers

3.5 Data Collection Technique

The researcher used both primary and secondary data sources to gathering relevant data for the study. Among the primary data source include observation, interview, and questionnaire and also the researcher refers data from published materials.

3.5.1 Primary data collection technique

Primary data was obtained through personal observation and questionnaire to collect quantitative and qualitative data. The researcher used both open ended and close ended types of questionnaire to answer by choosing an option from a number of a given alternative and specifying their own views. The researcher distributes questionnaires about informal settlement, causes of informal settlements, also challenges of residents faces in study area. Also data presented the socio-economic characteristics, building conditions, infrastructural facilities and environmental condition of the study area. Data collected give opportunity to see the reality more closely, inferences are based on facts. Data collected from the respondents are reliable and variability of the results is reduced. Its relatively simple to analyze, correlate and inter-relate the data obtained from questionnaire using statistical package for social scientists (SPSS). Data received are useful in describing the characteristics, causes and challenges of informal settlements.

The questionnaire primarily prepared in English and translates into Amharic and Afaan Oromo for the sack of simplicity. The interview was conducted from the Dhaka-Adii woreda administration, land administration office, as well as some local people and house hold head in study area. Firsthand information on the field was collected by the direct observation on study area. The researcher observed and collected the necessary visual information by using camera and others instruments was used.

Observation

Direct observation was also used to validate claims and responses on physical, environmental and housing conditions of the study area. Observation is one of the most important methods in social science research (Baker 2006; Patton 2002). It provides the opportunity to observe the living environment, household assets and housing facilities. Also used as an independent research tools in own right, with predetermined observational check list in an unstructured fashion, which is common in the interpretivist paradigm (Mulhall 2003). Observation, it also provides important questions for subsequent interview and broadens the analytic insight. Critical observation combined with on-site interviews enabled this study to elicit further insights on the subject under investigation (Marshall 2006).

Interviews

The researcher conducted open-ended interviews to build on the knowledge base above by exploring selected further issues. The interviews were conducted with 40 residents who were randomly selected and were asked to be interviewed in different section of the settlement. The interview also included the councilor of the settlement, the property developer of the area. Initial access to the settlement was gained through visiting the settlement. Open-ended interviews with residents enabled the researcher to develop an understanding of informal settlement, to acquire information about the residents lived experiences, the challenges they face, their perception about the settlement, and their views of the demolishing. The interviews were centered on a formally structured list of predetermined interview questions however other questions came up during the dialogues. The researcher had to translate all of the questions to Affan-Oromo and Amharic because respondents could not understand English.

Questionnaire

Questionnaire was designed and administered to elucidate information on socio-economic characteristics, building conditions, infrastructural facilities and environmental condition of the study area. The questionnaire was prepared in English before the fieldwork and translated into Affaan Oromoo and Amharic (a local and official language of the country). The introductory section of the questionnaire provides the objectives and purposes of the study, along with instructions on how to complete it.

Household survey

This study was designed and administered a cross-sectional household survey to examine the causes and characteristics of informal settlements in study area. Structured questionnaire used for face to face interview to 40 households in Dhakaa-Adii woreda, in addition interview for 3 people from woreda administration, and 5 people from formal residents near by informal settlements at Dhakaa-Adii woreda.

Selecting survey participants

As notes a survey was administered among 40 respondents which is lives in informal settlements. The sample was drawn from residential areas of respondents. Dhaka-Adii woreda have 11 zones, out of 11 zone seven namely zones Andodee, Coqonuu, Adaajaboo, karaaqoree, 1st and 2nd Saqaqaloo, and Solee zones, were informal settlement was highly stated in, respondents randomly selected for study. The researcher interviewed and engaged with the councilor of the settlement at their offices. In this study, key informant interviews were undertaken with 3 Dhaka-Adii woreda Administrations. Also researcher attend during demolishing of informal settlements for a week in study area. Researcher gain better understanding of how municipality had been assisting the settlement and had a great deal of information or knowledge about what is going on in study area.

Research finding analysis

Much of the field work and data collection process were characterized by data capturing methods, such as photograph, audio-recording, note-taking. The researcher reflected on the data from an early phase until the closing phase of the fieldwork. The actual field findings analysis started with transcription of all engagements, All the recorded interviews were spoken in local languages.

Limitation of the research

The study only focused on Dhaka-Adii woreda informal settlements without conducting a comparative analysis of other settlements. To this end, there is no other research study conducted in the settlement, the outcome of which has provided limited information about the nature and character of the settlement. For this reason, the study only relied on the unpublished survey conducted in the living the urban periphery project, interviews with the community, the administration of the settlements and the property developer of the area. During the course of the

study, the researcher was confronted by a number of challenges. Most of the resident were either busy or absent from their home during the day and most of residents do not want to give information's, this made the interview process challenging because the researcher had to walk to different section of the settlement to look participants who were willing to be interviewed.

3.5.2 Secondary data collection techniques

Secondary data were gathered from the published and non-published materials were collected from woreda administration, land Administration office and Oromia Urban Planning and Institution. These data include: Both spatial and non- spatial structural plan document in the form of map and text with different software formats like word, Pdf, Auto Cad, and GIS to supplement primary data sources and use office documents for requiring data about population numbers, socio-economic backgrounds and others.

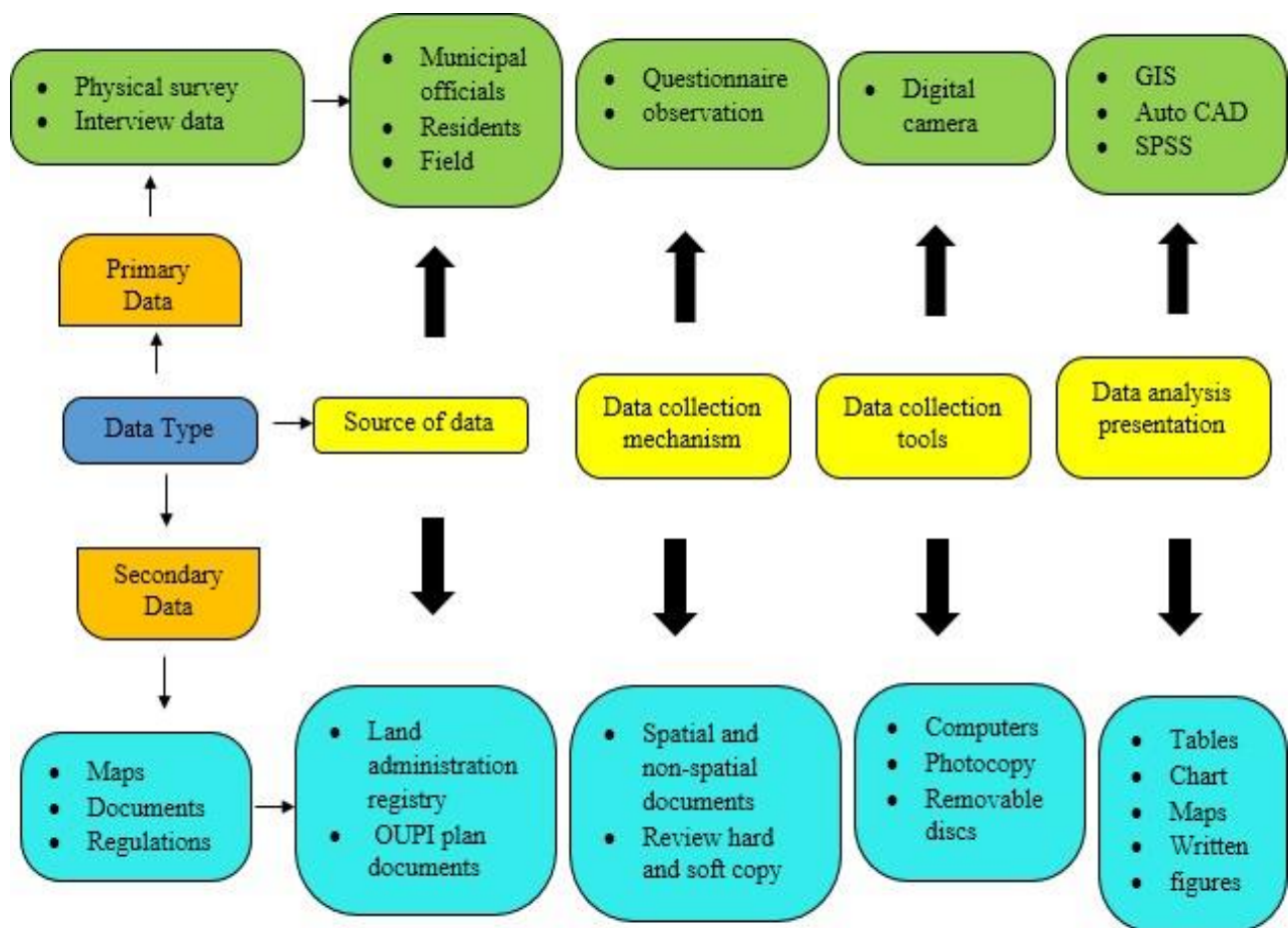


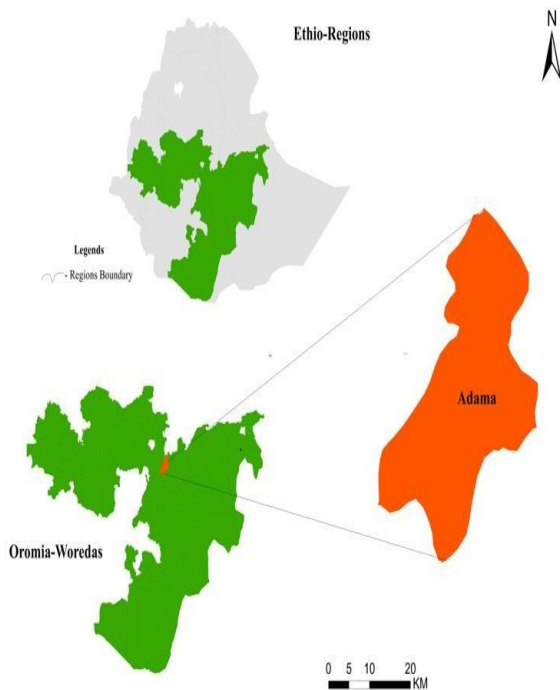
Figure II.- Data Collection Technique and Methodology of the Study

CHAPTER FOUR

RESULT AND DISCUSSION

4.1 Some Conceptual Clarification of DhakA-Adii Woreda

Adama is one of the most populous cities in Ethiopia and one of the fastest growing in the country. The movement of people from rural regions to Adama cities has various consequences, Cities become overcrowded, the unplanned expansion of cities also leads to the inadequate supply of social amenities such as housing, infrastructures; electricity, and water, the increase in the squatter settlement in cities is perhaps the most remarkable impact of rural-urban migration.



Year	Area of the city in hectares
1929	120
1941	320
1949	1000
1968	3140
1978	3240
1983	3420
1995	3475.2
2004	13,665.5
2018	31,185.05

Source; land development and management office of Adama city administration

Table 1. housing condition of respondent

Source: researcher survey data

Figure1. Location map

In Adama city the Development and existence of informal settlement is attributed to factors such as rural-urban migration, population growth, economic vulnerability, lack of affordable house for poor, weak governance (urban management, policy, land, planning, resulting in land speculation and grabbing).

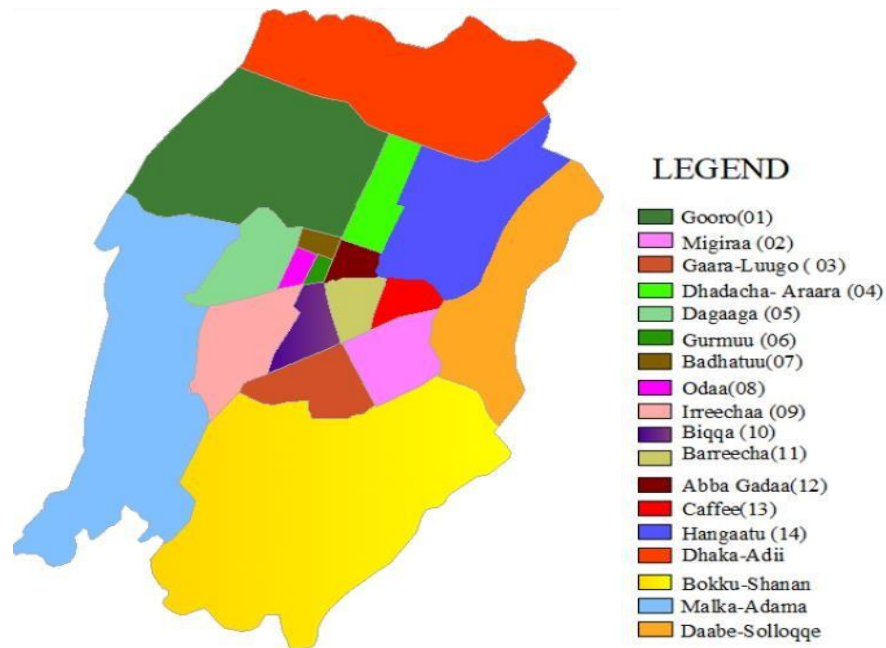
Adama city which is one of the most vibrant cities in the country is located in the Oromia regional state which is the largest regional state in terms of population size & area coverage. Adama city id divided into 18 kebeles.

The projected population of Adama city is 374,332 with 89,127 households in the year 2021. Adama has six sub-city administrations made up of 18 kebeles.

	Kebele	Sub-city	Tot-pop	Area	Pop density
1	Gooro (01)	Bole	30.109	15.713	0.150762
2	Migiraa (02)	Bokkuu	21.508	3.38304	6.3576
3	Gaara-Luugoo (03)	Luugoo	31.421	3.34776	9.38568
4	Dhadacha-Araara (04)	Bole	32.045	2.56021	12.5166
5	Dagaaga (05)	Dambalaa	30.252	3.51111	8.61608
6	Gurmuu (06)	Gadaa	11.147	0.3094	36.0278
7	Badhatuu (07)	Gadaa	18.389	0.494254	37.2056
8	Odaa (08)	Gadaa	17.363	0.549167	31.617
9	Irreechaa (09)	Dambalaa	34.854	4.82008	7.231
10	Biqqa (10)	Luugoo	28.215	1.92873	14.6288
11	Barreecha (11)	Bokkuu	29.646	1.61893	18.3121
12	Abba Gadaa (12)	Gadaa	16.954	0.85144	19.9121
13	Caffee (13)	Daabe	17.226	1.27317	13.53
14	Hangaatu (14)	Daabe	33.209	10.1639	3.26735
15	Dhaka-Adii	Bole	2.538	16.8345	0.150762
16	Bokkuu-shanan	Bokkuu	6.845	35.142	0.194781
17	Malka-Adama	Dambalaa	2.637	22.3637	0.117914
18	Daabe-solloqqe	Daabe	7.083	10.9809	0.645029

Source; Adama city administration

Table 2. Adama sub city, kebeles within areas and populations density.



Source: researcher survey data

Figure 2. map of Adama kebeles.

Informal settlement is defined as residential areas of the urban poor. The rise of urban poor is caused by high migration rate from rural area to urban areas. The informal settlements are commonly known in Amharic as 'Yecherka Beto' meaning "the moon light houses"; a name was given because of they are constructed under the moon light. These squatter settlements are constructed in a very short period of time, in two or three nights. The squatters usually carry out the construction of their houses during the night when the kebele administrators are out of duty. And then the squatters and their families move into the shelter as soon as it takes the form of some kind of a house, which they upgrade gradually. (Tadesse, 2000:12; Minwuyelet, 2004: 45).

Dhaka-Adii is one of Adama woreda, before 2016 dhaka-Adii was a kebele. Dhaka-Adii woreda established in 2010EC. Dhaka-Adii covers an area of 329.3 hectares. this woreda has an estimated total population of 28000. and four ethnic groups reported in Dhaka-Adii woreda were the Oromo, Amhara, Silte and Gurage also other ethnic groups can be found, Afan Oromo and Amharic was spoken as a first language and others spoke their primary language. The largest ethnic group are Oromo.

There are 11 zones, Andodee, Adaajaboo, Solee, Coqonuu, 1st Saqaqaloo, 2nd Saqaqaloo, Tirmaa, Karaaqoree, Wacuulafaa, Golboo and Galchaa. The area of Formal land covers 287.73 hectare and 19800 formal households and, informal settlement cover 41.57 hectare and 8200 informal households found at Dhaka-Adii woreda. Majority of informal settlements found in Andodee, Coqonuu, Adaajaboo, Karaaqoree, 1st and 2nd Saqaqaloo, and Solee zones.

Location	Dhaka-Adii
Total Area	329.3 hectares
Sub-city	Boolee
No-of zones	11 zones
Population no at Dhaka-Adii	28000
No of formal household	19800
No. informal house hold	8200
No. Demolished informal houses	In 21 day 4200 demolished

Source: researcher survey data from Dhaka-Adii woreda

Table 3 Dhaka-Adii (study-area)

11 Dhaka-Adii Zone names	
1. Ceqonu	7. Soolee
2. 1 st Segeqelo	8. Wacoo lafaa
3. 2 nd segeqelo	9. Golboo
4. Aaddajaboo	10. Hirnaa
5. Handode	11. Galchaa
6. Karaa qoree	

Source: researcher survey data from Dhakaa-adii woreda

Table 4 Dhakaa-Adii (study-area)

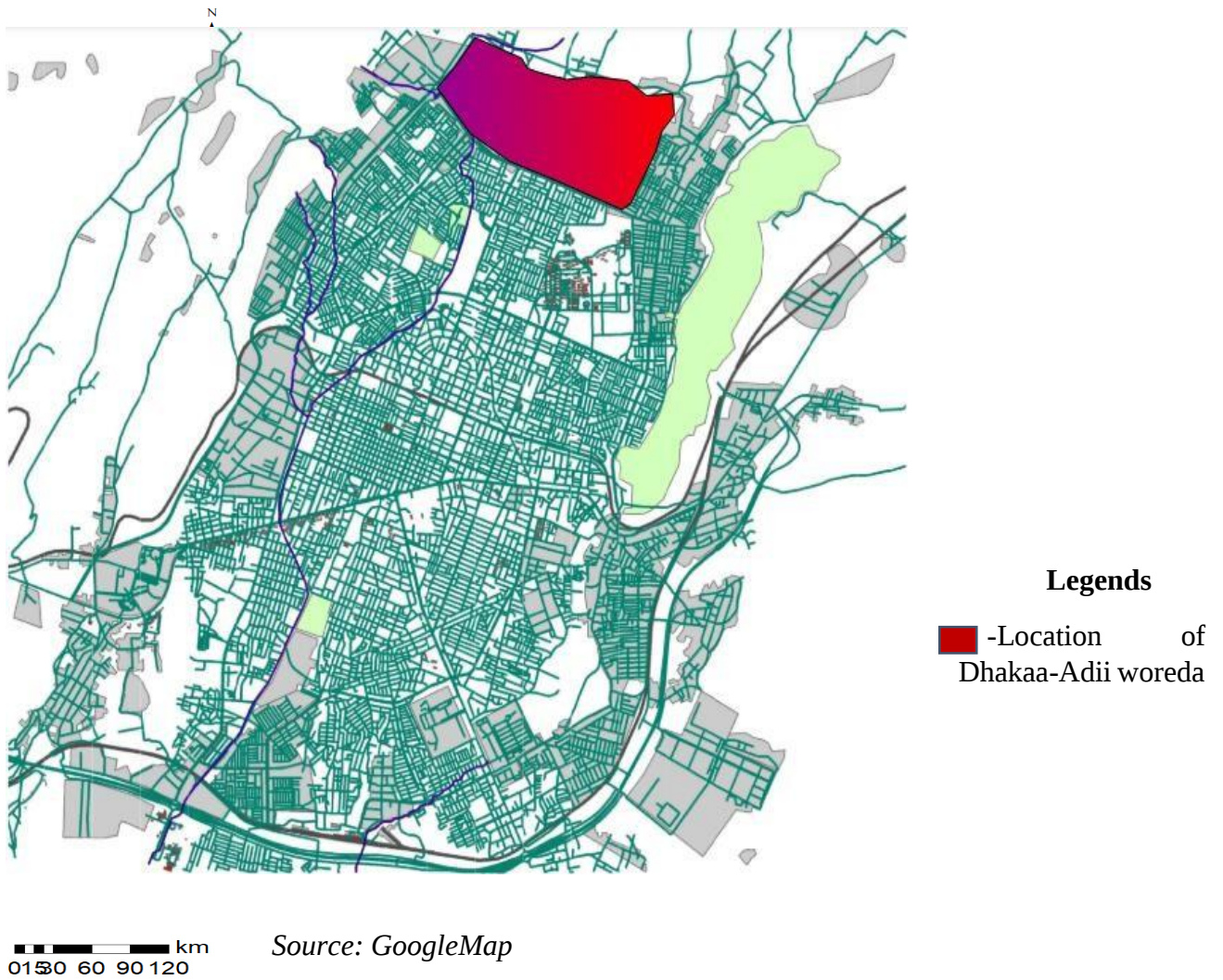


Figure 3. Location of the Dhakaa-Adii woreda.

4.2 Data Analysis and Interpretation

The analysis is made by examining the personal characteristics of respondents found at study area, which is based on educational status, marital status, age, sex, birth place, types of job they are participated in, and to investigate how and where they live, and also to investigate their livelihood in informal settlement of study area.

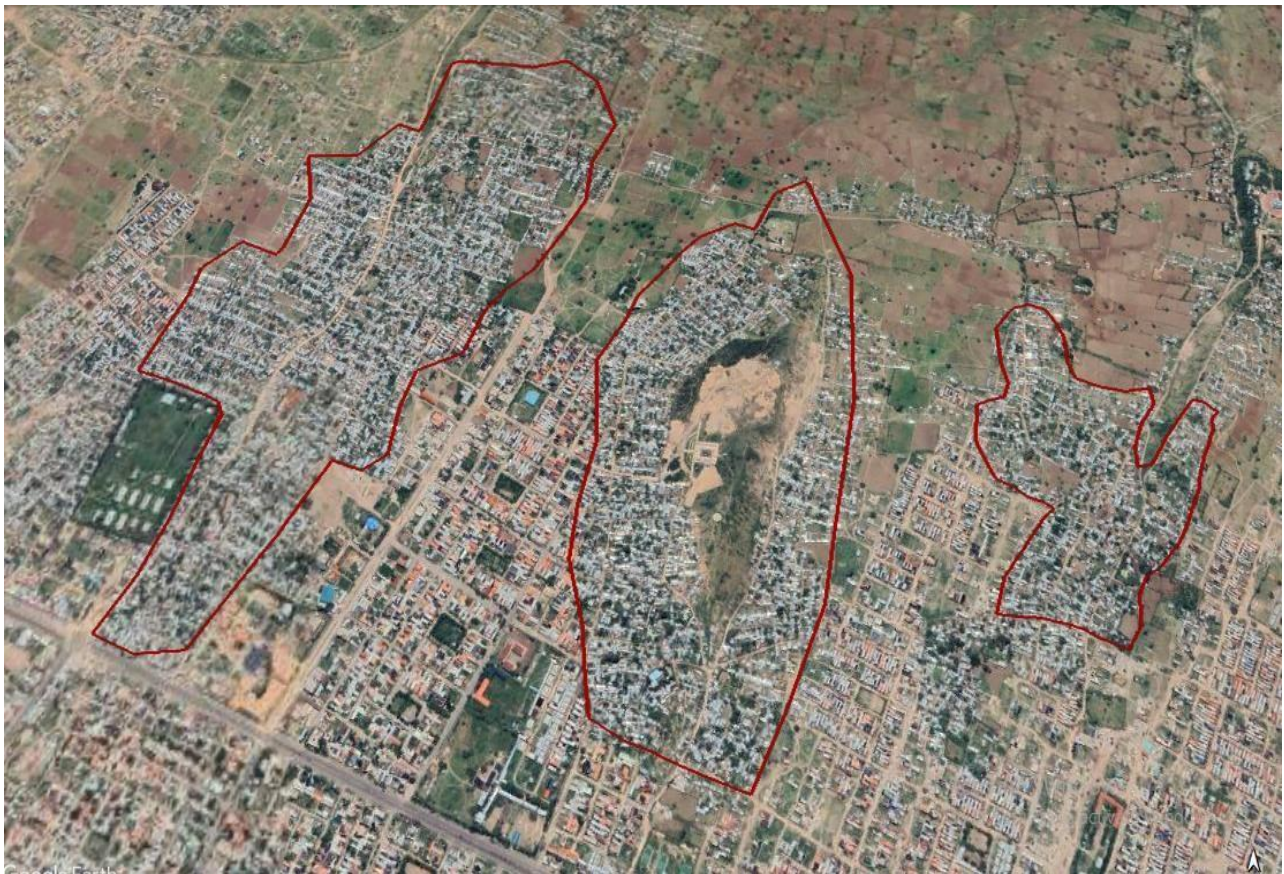
4.2.1 General characteristics of respondents

To understand more about informal settlements at study area, it is quite necessary to explain the characteristics of respondents. Content analysis and the Statistical Package for Social Scientists (SPSS) were used to analyze variables. A brief description of the socio-economic composition of respondents in the study area reveals that 55% were males, while 45% were females. This explains the extent to which men dominate most households in Dhaka-Adi. The age range indicates that, the proportion of economically productive adults (aged between 19 and 50). Based on the survey, 85% were married, while 15% were single. The predominant household structures seem to be small families, with one or two parents and an average of two children. 5% of respondents are illiterate means they can't read and write, 85% do not complete the school and 10% of respondent complete their educations and 85% of respondents are married. In terms of occupation 60% of respondent involved in daily labor work, because it doesn't need educational level, no needs of documents, no age differences in this type of job, which is construction work, chopping wood, collecting plastic materials, they get payment daily or by week, sometimes female's respondent also work like housekeeping for different houses like washing clothes, baking enjera, protect children, cleaning houses. 25% of respondents involve in self-employment, most of female involved in self-employed vendors, for example of mini shop, beauty salon, home-made food like enjera and bread, vegetables, also selling local drinks like Tela, Tej, Keneto, Areke. Also most of male respondent involved selling wood which is used for construction, riding "Garii" to fetching water for the areas or transporting construction materials like cement, bar, panels, woods, others sell chat and most of them are bajaj driver. 10% of respondent employed in governmental office, and 5% of womens are house wife's. The socioeconomic status revealed that 70% of the respondents are low-income and 55% are medium income, this suggests that respondents are not comfortable with their income, showing that the habitants are poor.

4.3 CAUSES OF INFORMAL SETTLEMENTS IN STUDY AREA.

Adama city expansion spontaneously leads to land transformation of agricultural land to residential area and informal settlements of houses. Adama city, especially Dhaka-adii kebele has experienced in physical urban expansion, the land use has been taking place without formal procedures and this has led to imbalance of land uses, squatter settlement, inadequate infrastructure, poor sanitation, inadequate waste disposal treatment and shortage of other social infrastructure.

The critical factors causing the formation of informal settlements from the study area are notably related to poverty, migration of people into urban areas is major cause of informal settlements. Rapid industrialization and urbanization have brought an increase in the number of people living in urban areas.



Source: Google earth

Figure 4. Informal settlement of study area.

The rapid increase in population of Adama city has resulted in an increase in the cost of living, because of higher demand on urban commodities that are getting shorter in supply, which is high cost of urban land and high cost of housing. Depend on study findings Informal settlements emerged as a result of factors, such as such as, delays of providing legal land provisions, the lack of controlling land sale by land speculators, unaffordable house rent, High price of legal land, high cost of construction material for quality house, low income or poverty were identified as the main reasons that contributed to informal settlement at study area.

4.3.1 Urbanization

urbanization is one of driving force along with the high natural growth rate of the urban population. In Adama-city the land authority was overwhelmed by the ever increasing number of urban dwellers who wanted land for shelter. After failing to obtain planned and serviced plots, individuals opted for buying pieces of urban fringe crop land and developing them. Housing condition was overwhelming, majority of the residential units are poorly constructed and very much lacking in quality. As indigenous urban settlement most of Adama city was initially expanded without any formal planning or control. The dramatic growth occurred without proper land use planning, effective infrastructure development or social housing programs, thus leading to illegal settlements.

Adama-city Population Size	Year	Males	Females	Total
	2010	185,107	188,554	373,661
	2011	193,992	197,605	391,597
	2012	206,153	207,083	413,236
	2013	216,046	217,000	433,046
	2014	226,416	227,416	453,832

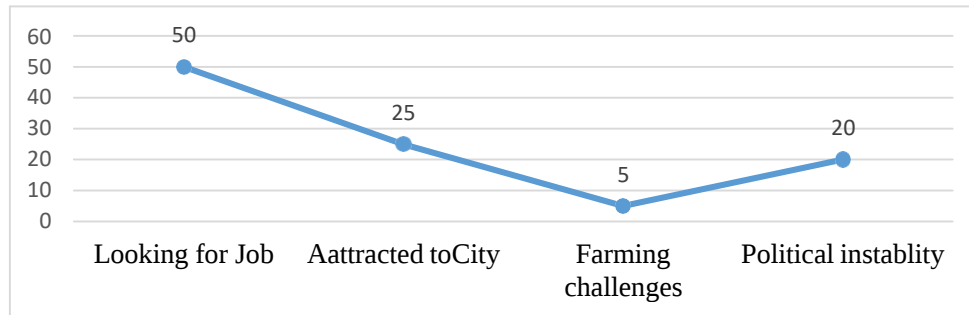
Source: Adama city 2022

Table 5. Adama-city population No in different years.

As a result of urbanization and lack of economic opportunities in rural areas, majority of respondents move to the cities, and already dealing with issues of high cost of living. This force them to seek shelter in informal settlements.

4.3.2 Migration

The spatial distribution of respondents at their place of origin manifests not only a rural-urban variation but also a regional variation, they came from different administrative regions of the country, most of respondent came from nearby towns. Based on the study, the reason of migration at study area include both push and pull factors.



Source: researcher survey data

Figure5. Reason of migration

The Majority of respondent, 50%, reply the reason of their migration was Push factors like loss of financial security, lack of job opportunity, poverty and large family members, drive respondents to leave their homes. The majority of migrants frustrated by the limited resources for livelihood in their original land, and the scarcity compels them to look for better life in cities so that they can get enough to take care of their families.

25% of respondent attracted to city life, by considering what they saw and hear some changes in other migrants, friends, family members or one of their kin, then they have an interest and decide to move in to urban areas. 5% of respondent migrate because of farming challenges, Farming is the major economic activity in respondent's origin land, is adversely affected by the harsh environmental conditions such as infertile soil and inadequate rain for farming. Also, they face other challenges such as limited lands, high fertilizer costs, and low crop prices. So such factors negatively affect agricultural production. As a result, the respondents have continued to lose interest in farming and perceive the agricultural lifestyle as a low-status career. Therefore, they move to large cities to look for jobs to change their life and help their families. 20% migrate to Adama city Because of political instability a place where like Wolenchiti, Lome, Dera, Boset.

4.3.3 Poverty

The study findings points that, the majority of the residents can be categorized as extremely poor, to construct a house in a formal or planned land, reason why it needs to have enough money to buy a plot and build a “decent house”. Currently On average a plot of 200m² is sold between 2000,000 and 3000,0000 ETB. Therefore, to build a house is a life time project. Thus, circle is created whereby poverty leads to informal settlements and informal settlements breed poverty.

The respondent mentioned that lack of adequate & affordable housing, employment, escalation of the price of building materials & equipment, became the major challenges in urban areas for them. Lack of access to land, unaffordable house rent, high cost to standard house construction, and cost of living were identified as the main reasons that contributed to informal settlement.

Depend on findings 30% of respondent lives in informal settlements rented house. The idea respondent shares based on housing conditions, the house rent price in Adama city is difficult, rent house for family can cost more than 10,000-20,000ETB. Even 2x2m² room can costs more than 2000ETB, most of the time House rent increased twice in a year, which is not related with respondent income, so they forced to live in low quality house, or they rented informal settlement house.

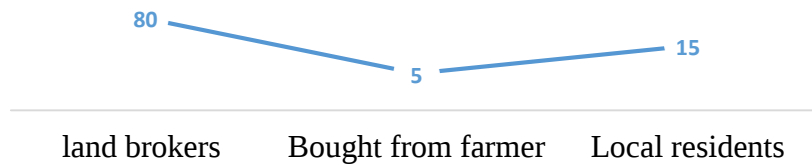
Inability to afford a house, low income, and high land price are important factors of dwelling people in informal settlements, the informal settlements house rent price at of study area was 1000-2000ETB/month. respondent mentions informal housing has become the only option for poor migrants. Most of respondents totally sold their agricultural land and moved to Adama city, and bought informal settlement land to start a new life in Adama city.

4.3.4 Land Acquisition of Informal Settlement

Inadequate formal land distribution is one of the major causes the existence of the Informal settlement at Adama city, also it has been failure or inability of the responsible institution to provide residential plots to the ever increasing urban population. Formal housing market cannot meet the housing demands of low-income families; informal settlements play an essential role in providing housing opportunities. Process of land market are many and complex; consist of government workers, private developers, urban land owners, urban residents, and they work in a network with shared aims.

Depends on findings the development of informal settlement at Dhaka-Adii Woreda, also has been ascribed to the government's failure to establish the environments under which low-income people have formal means of housing and the ineffectiveness of local authorities, Therefore, the processes of informal settlement growth are not only credited to government policy and institutional framework failure, but also the role of farmers, land brokers, local residents, land speculator or land buyer. Informal land market is in force giving rise to the huge spontaneous developments. Informal land markets are the way in people in cities get access to land and housing. Although these markets can function fairly well, this phenomenon is widespread in areas where there is an insufficient supply of serviced land at affordable prices. Land-use norms and regulations also play a central role by increasing land prices in the formal sector. High land prices generate substitution effects, encouraging lower income households to move to the informal sector.

Informal settlements have continued to grow at the study area, because the residents continued to access land within the existing settlements through informal land marketers. Informal land is very affordable when compared with legal land then poor or migrant people most attracted in it. Also respondent argued that they were attracted to informal rent house because they could afford rent house. According to the study conducted in the study area, respondents bought land or house of informal settlement from farmer, land speculators, land brokers.



Source: researcher survey data

Figure 6. Informal settlement land acquisition

Farmers- Farmers are not only the main sellers of land for the informal market, farmers are motivated in part by an aspiration to make more cash by renting land, and partly by a desire to benefit from potential urban property value increases. Local farmers also act as sub-brokers, providing information to the key brokers.

Local residents- A local resident means residents of the city who acquired land through formal or informal ways, they act as land sellers, buyers, also play broker roles, but they are different from brokers, they take a small amount of commission for services offered in land transactions, to people who are their relatives and close to them they offer free information.

Land brokers- Brokers are residents or non-residents of the area, land broker predominantly engaged in land transactions to earn a commission from each plot sale of land. The broker also decided on the price of the land by considering the price of the neighboring land recently sold by another person. They made agreements with land sellers to sell at a certain fixed price, but sometimes they sold the same land at a higher price to the buyer to get high commission. During the study conducted respondents give information most of informal settlement residents, local residents or land brokers, own more than one houses at the same area, this means they take as a business, bought land by low price from farmer, then they build the house for rent or to sell. At study area, data show that land was purchased from farmers and from established informal settlers, this modality is mainly facilitated by illegal brokers and speculators. Depends on currently increments of economic problem in the country which is based on housing and land tenure, the land broker, local residents land seller knows what majority of people choose at recent time, this is the reason to the expansion of informal houses also migrants or other residents motivated to bought land by low price, and use low quality materials and build houses in two or three days.

4.4 CHARACTERISTICS OF INFORMAL SETTLEMENTS IN STUDY AREA.

Dhakaa-Adii Informal settlements are characterized by the following three interrelated and essential traits.

Physical aspects: The physical characteristics of informal settlement at the study area, differ extensively depending on the income level of the residents. Informal settlements vary in size, tenure type, physical form, physical layout and design of the dwellings. the basic service is not meet resident's needs, some area has infrastructure-water and electric line but service below minimum level. Majority of area may not be connected to services like, water supply, electricity, road, and drainage and sewerage fatalities.

Social aspects: Squatter settlements belong to low income groups or informal workers. On average most residents earn a very low income and many of them are part-time workers/daily laborers. Most squatters are predominantly migrants from rural to urban.

Legal aspects: Squatter settlements are inherently illegal because the squatters occupy public land without any legal permission. They do not have authorized permits, ownership certificate and hence not backed by legal provisions.

The characteristics of informal settlements at Dhaka-Adi kebele was evident. Informal settlements are mainly characterized by informal land tenure, lack or inadequate access to basic public services, substandard housing and inadequate building structures, illegal subdivision of buildings, poverty, hazardous locations. Most of informal settlements residents are low income groups, they earn a very low income and many of them are part-time workers, daily laborers and average of residents are predominantly migrants from rural to urban.



Source: researcher survey data

Figure 7. Informal settlement of study area.

Informal settlements at Dhaka-Adi woreda was inherently illegal because the settlements occupy public land without any legal permission. They do not have authorized permits, ownership certificate and hence not backed by legal provisions. Moreover, the study conducted in Dhaka-Adi woreda identified that the characteristics of informal settlements are lack of planning, lack of infrastructure (e.g. roads, water pipes, drainage systems, waste collection, electricity), poor environmental condition, and poverty.

4.4.1 Informal settlement housing

The study defined quality of the house in terms of spaces, aesthetic, security, landscape, sanitation, type of construction materials and external environment of the house. Despite the fact the majority of the houses were constructed by the use of modern material, the study conducted reveals that Informal Settlements houses poor condition.

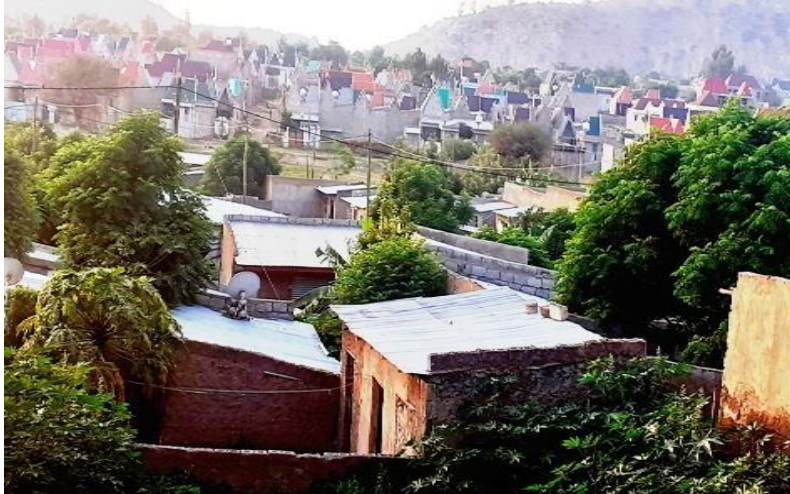
Informal settlements Houses in the study area tend to have simple and almost rectangular shape in small area. they are sub-standards and which have been constructed without state control. The orientation of the houses is haphazard building with no order which means have no linear arrangement, and the density of the building is high. The Vicinity level of informal settlement housing are surrounding the planned areas and settlements surrounded by narrow roads or streets farm lands, bare ground. poor housing conditions, inadequate access to basic services, infrastructure and services are below minimum level. Majority of informal settlement houses may not be access to water supply, electricity, and drainage and sewerage fatalities are the main characteristics of informal settlements of housing at study area.

The finding shows, the houses constructed on a piece of land by using construction material such as HCB, poor quality sand which can found at any area of Adama city, cement and iron sheet roof. There is no site preparation process which is clearing construction site, grading the land and compact the soil, for a successful and safe construction. The only preparation for constructing house was, removing vegetation. After that next process is laying and ordering the HCB on the ground by the size of house needed and build the wall, then they prepare roof in the ground by size of the house by using iron sheet and woods, group of people hold the prepared roof and put in the top of wall. This is the main method of constructing informal houses at the study area.



Source: researcher survey data

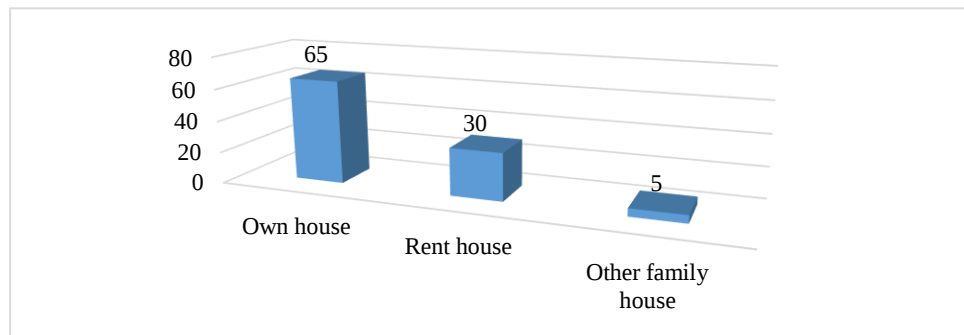
Figure 8. character of informal house of study area.



Source: researcher survey data

Figure 9. character of informal house of study area.

The study shows that 26 or 65% of respondents lives in their own house, 30% of respondents lives in rental houses, which is located in informal settlement houses at Dhaka-Adii woreda. 5% Lives in relative's family house, which is their family live other town, or rural area.



Source: researcher survey data

Figure10. Housing condition of respondent

No.	Housing condition	value%	Frequency
1	Own house	65	26
2	Rent house	30	12
3	Other family member house	5	2
Total		100	40

Source: researcher survey data

Table 6. housing condition of respondent

4.3.2 Accessibility of road

The road infrastructure in the area falls well below urban planning standard in Ethiopia. The access road of the area was 3 meters wide. Because of the unplanned nature of these areas, there has been very poor road infrastructure, with narrow, unpaved roads. If road infrastructure improvement would require expansion which would lead to demolition of existing structure.



Source: on site photo by the researcher

Figure 11. character of road at study area



Source: Google earth

Figure12. character of road at study area

Roads in informal settlements are short and narrow and have few regular sections. Poor accessibility, with a high proportions of dead ends. Road networks are often irregular with changeable lengths, widths, the road network was complex and irregular. Because of the road planning shouldn't schedule first, houses have no clear textural features.

4.3.3 Characteristics of formal and informal settlements



Source: Google earth

Figure 13. formal and informal settlement of study area

Formal (planned) settlement features		Informal settlement features	
Houses type	Shape- L-shape and other Orientation- properly order Size- Generally larger building sized Density- Low -Moderate density areas -Provision of public open spaces and green areas	Houses type	Shape- mostly rectangular Orientation- haphazard houses with no order Size- small Density- density of houses is high
Patterns	Regular layout pattern	Patterns	-Organic Layout Ever-changing layout -Heterogeneous and scattered layout
Road network	grid road layout with proper width and order	Road network	-Organic road layout -complex and irregular.
Building character	- Quality and proper construction materials, - Well designed and constructed	Building character	-Constructed by poor quality materials, -Temporary nature

Source: researcher survey data

Table 7. Characteristics of formal and informal settlements.

4.5 Major effects of the informal settlements

Illegal occupation of urban land is widespread phenomena in Dhaka-Adii Woreda, informal settlements create problem such as poor living conditions for the settlers and negative environmental and social impacts on the rest of populace. Poorly controlled settlement developments have resulted in many environmental and health related problems.

4.5.1 Pollution from solid and liquid wastes

The perspective key problems include: higher than average incidence of wastes and odors in settlements and surrounding neighborhoods. Solid and liquid wastes is one of the fundamental problems faced by the residents in the study area, by lack of a proper system for waste management, piles of garbage are scattered around residential areas which leads to environmental and health problems.



Source: on site photo by the researcher

Figure 14. Rubbish dumped by residents near the houses

These unplanned settlements generate water pollution and waste accumulation as raw sewage and garbage are thrown directly while, also creating odors and loss of aesthetic value in public and open spaces. Informal settlement residents thrown away wastes near by the houses. Solid and liquid wastes are causes, bad smell, the loss of beauty of dumping areas, spread diseases which is caused by parasite or bacteria, specially diseases attack children's. Wastes and garbage dumped any place of resident area including access road, wherever it is raining, the garbage is deposited in wetlands by storm water.

Waste is a serious challenge in study area, there is no facilities for proper waste disposal. Collection of waste is such challenges in informal settlement by the lack of access road for waste collector truck, inadequate finance and a lack of cooperation of informal residents. Based on observation discovered there is lack of adequate sanitation, most houses don't have a toilet. Most residents prefer open defecation over using toilets, they practice of defecating in fields, open spaces, under construction houses. The open defecation increases the risks of disease transmission. Lack of sanitation in informal settlement houses is reliable marker of how the poorest in a country are facing.

4.5.2 Flooding

Most place in the study area are particularly vulnerable to flooding events, there is no drainage system, after every rain the most street of the area get flooded. The rain can cause significant flood problems, the flood covers the road and there is no pass way for people to move around till the flood dry.



Source: on site photo by the researcher

Figure 15. During rain, Flood at study area

4.5.3 Lack of infrastructure

Informal settlements are unstructured and unplanned which therefore inability of basic services such as water, electric power and sanitation. The lack of basic services access such as electric power, water and sanitation was characteristics of informal settlements, because such structures are informal and unplanned. The resident of informal settlement at the study area suffer from inadequate infrastructure. Lack of basic facilities is one of the most common problems caused by and experienced by residents in the informal settlements of study area.

Water-Large-scale of informal settlement residents in the study area, they bought a water from nearby neighborhood, sometimes residents go long distances to buy water from water vendors. at the study area there is a common water tube despite most of the time there is no water, residents struggle for water, people can't get enough water to drink, wash, feed crops.

Electric power supplies- Lack of electric power is one of the most problem for the area, respondents use candles, battery, also use fire wood to cook. The minimum percent of informal houses access to the electric power, and they share electric powers to others informal settlement houses. According to researcher observation Approximately 10% of informal settlers have access to electric power services. And the availabilities of electric power facilities do not meet the needs of informal settlements population in Dhaka-Adii. Some residents in informal settlement use electric power, through illegal electricity connection, the house which is accessed to electric power share power for other informal residents. Illegal electricity connection uses, for cooking and for lighting. Majority of residents uses firewood and gas, some respondents complained about chest pains due to the inhalation of smoke and sore eyes due to direct contact with the smoke. Therefore, the use of these source of energy affects the health of informal settlement residents.

Despite the relatively adequate supply of electricity, water, drainage, solid waste collection, In the settlements are far from meeting the needs of residents.

4.5.4 Crime

The respondent mentioned that the high percent of youth in the area was facing challenges of unemployment, they just sit under shade and spend their time doing nothing. Based on gathered information the area affects residents as they become fearful, particularly at night sometimes crime rates in the area, result from lack of lighting in common spaces and the lack of surveillance at certain times, that increase the risk of victimization. Residents living in the informal settlements were exposed to robbers and other criminals. Robbery is the common type of crime, indicated pick pocketing, indicated mugging with violence, people get beaten up in the street and most of the time residents would hear people screaming outside but, residents scared to go out for help. because people afraid to compromise their own safety for the benefit of others. In the study area the criminal activities were noted to have been committed during night and during the day the area was safe.

The characteristic of area which is influencing criminal behavior stated as, poor sanitation of area influences crime activities, presence of many waste dump site in the areas act as hidden places for criminals, lack of street light in the area. The study findings noted, knives as a major weapons used during execution of criminal's activities. The issue of crime gangs at Dhaka-Adii woreda was unemployment and poverty level among the youth. Majority of youths who have low income, finished or drop out of school, end up with no gainful employment hence joins criminal activities to make a living. Crime is significantly brings emotional, mental, physical, and financial damage to the victims and community. Most criminals live or hide in the house which is the owners not known. Despite after repetition of crime in the area, police of the area strongly stand to reduce or stop robberies through establishing dedicated teams to investigate robberies, during night by searching around where influence to the crime. At Dhaka-Adii most of the time police protecting around for the protection of residents and to minimize crime.

The reality associated with these informal settlements is the poverty level within which their inhabitants live, which is a lack of sufficient income to satisfy their basic needs, limited access to employment opportunities, inadequate and insecure housing and services. Poverty in study area is not just a collection of characteristics, it also a dynamic condition of vulnerability or susceptibility to risks.

4.6 Improving informal settlements

Upgrading: Improving the physical environment of informal settlements which means improving and installation of basic services of informal settlements such as access road, storm water drainage, water, electric power, water, sanitation, waste collection, land regularization. Upgrading is the most common governmental practice used to improve the living conditions of informal settlements, there are different level of upgrading. Rudimentary upgrading includes basic improvements such as to request the landowner or home owner, upgrade and reinforce the structures according to existing building safety standards, installing community taps and toilets.

In case of comprehensive upgrading land tenure legalization which means ‘regularization’ or ‘formalization’. The regularization process includes; 1. collection of information on the land and existing obstacles to formalize, 2. identification, demarcation and registration of plot and houses. 3. Government gives title to the residents. To reducing informal settlement, the relevant approach may include, demolition, in situ upgrading and resettlement.

Regularization: Regularization is the most important catalyst to stabilizing peoples, improving their shelter condition. Regularization defined as a planned process of physical restructuring informal settlements into legal, official and administrative structures of land management. Improving regularization addresses, more self-sustaining financially through property taxes, infrastructure and service improvements, use appropriate titling system such as leasehold, land trust, ownership to ensure the socio economic sustainability of the community.

Improvement in Dhaka-Adii woreda helps to provide a stronger government presence in informal settlements, contain city sprawl, create tenure system through land pooling and replotting, regularizing informal settlements, implement planning, identify appropriate housing form, secure land and housing in anticipation of future migration and population growth. To regularize the informal settlements houses, have to be demolished to pave way for implementation. The structural plan to the development or redevelopment of an area by considering the future development, land use pattern, layout and nature of infrastructure.

Demolishing

Demolition or bulldozing was a common measure taken against informal settlement activities in many countries. Actually demolishing has been practiced at Dhaka-Adii woreda, in 2020, 2022 and 2024 for third time experiencing demolishing of informal settlements at the same place. The first and the second demolishing can't stop informal settlers to rebuild their shelter again. The finding of the study reveal that there is laxity from local administration in controlling the expansion of informal settlements.

Despite the weakness of administrative to control development of informal settlement, corruption and backdoor deals, lack of information, rural-urban migration, high price of rent house and increment of legal land cost, low income, poverty, land broker gives false hope for clients or land buyer which is land will be legalized soon, was force them to resettle at demolished area.

In 2024 at Dhaka-Adi woreda planned, 3500 informal settlements to be demolished, the purpose of regularization of land and to minimize informal settlements despite in 21 days 4200 informal houses are demolished and process of demolishing is still going on.



Source: researcher survey data

Figure16. Demolished Informal settlement, May 2024.



Source: researcher survey data

Figure17. Demolished Informal settlement, May 2024.

During demolishing farmers land which is registered aerial photo before proclamation of land in 2005 will not demolished they been regularized, Residents who bought informal land from farmer even which have aerial photo but after proclamation of 2005, are demolished. From 8200 informal settlement houses only 132 households which is farmers land became regularized, because the farmers land has aerial photo and registered before 2005 land proclamation of Ethiopia.

5. CONCLUSIONS AND RECOMMENDATIONS

Conclusion

One of the most vexing problems confronting many of the developing countries in the world today is the illegal occupation of land. " Its most frequent causes are the great increase in national populations, the surge of people toward the cities, and the incapacity of the affected nations to meet the needs of urban growth by providing the land and housing needed to accommodate their urban newcomers.

Considering the studies conducted to find the reason of informal settlements, the most important reasons for occurrence of this phenomenon includes expensive lands and high price of rent house, rural-urban migration and lack of any suitable employment which result in settlement in urban margins. informal settlements have greatly expanded and contributed to the unplanned and irregular horizontal expansion of the built-up area of the city.

The major issues found in informal settlements studied included judicial and administrative failures, physical infrastructures and service problems, increasing socio-economic problems posing threats to their long term livelihood, and poor environmental conditions. informal settlement should not be considered as an anomaly but rather as the necessary response they actually represent in terms of the desires and needs of the poor to access the urban environment. Attempts to eradicate them will thus fail until these underlying issues of poverty and inequality are addressed. The reason for expansions of informal settlement at study area was rural-urban migration, national economic growth, unresponsive land policy, shortage of legal provision of land, high lease price, high building standards, corruption, brokers. The expansions of informal settlement happened at the expense of peri-urban farmers land.

Recommendation

The housing condition, infrastructural facilities general environmental conditions, improves the poverty of the residents. The amount of infrastructural facilities available in the informal settlements is grossly inadequate while some are not even available. It is evident that decent housing is a major problem of informal settlement dwellers.

The issue of land tenure must be looked into because land is a major factor of housing provision. It becomes very difficult to provide decent housing and basic services to the poor where the title or the interest on the land is uncertain. Furthermore, urban informal settlements dwellers can be encouraged to improve housing and general environmental conditions of their settlement through land regularization that guaranties security of tenure and provision of array of basic facilities. Improvement in the living environment of the poor will help them to be more productive and increase their income over time while security of housing and land tenure is expected to help the poor overcome the problem of social exclusion from urban life.

Demolishing damage the economy of resident lives in informal housing or settlements, because they bought land by their own money to start a new life at a new place. most of residents lives in informal settlements are sold everything they have in rural area to start a new beginning in Adama city. but finally they lose everything their house, their money, their hopes. Despite demolishing also damage the economy of the country. Though, Ejection of squatters and demolition of illegal structures generate social, economic and political problems with their attendant security implications. It tends to portray government as insensitive to the plight of the citizenry. Demolition also the results in financial losses both to the squatters and the government; and depletes the national housing stock (Lands Division,1996).

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Appendix1. Questionnaire for Respondents

1. Gender A. Male B. Female
2. Age A. 15-25 B. 25-35 C. 35-45 D. >45
3. Where is your Place of birth? -----
4. Marital status:
 A. Single B. Married C. Widowed D. Divorced
5. Education level
 A. Illiterate B. Grade 1-6 C. Grade 7 – 8 D. Grad 9-10
6. How many members of family do you have in your household?
 A. 2-5 B. Above 5 C. None
7. Reasons for Migration
 A. Better living conditions
 B. Higher wages
 C. Educational purpose
 D. Attracted to city
 E, Other (specify)
8. What was the title of your job in Adama? (If you had more than one job please give details of your main job)?
 A. Labor work B. House made C. Cleaner D. security
 E. Other (Specify) F. Self-employment
9. Did you get/succeed the reason you migrated for?
 A. Yes B. No
10. Is your income/resources enough to provide sufficient food and clean water as well as shelter for your household/family?
 A. Yes B. No
 ... Partially ... Fully
11. How would you compare the living conditions in the Adama with your original land?
 A. Better B. Worse C. Neither better nor worse

12. You live in.....house?

A. Own house B. Rental house C. Families house

13. What is the main reason that force you to live in informal settlement?

.....

14. Why you choose informal land than the formal land?

.....

15. From whom you bought the land/the house?

16. What are the major challenges in this settlements?

.....

17. What is your experience been living in this informal settlement, especially with the lack of services?

.....

18. What are the major problems in your area? (Please rank the three most important problems)

A. Safety/crime	1st	
B. Poor environment	2nd	
C. Poor access to education	3rd	
D. Poor access to health care		
E. Lack of Electricity, Water, Bad transport, technology		
F. Other (specify)_____		

19. Do you have any information about demolishing?

20. How do you feel about demolishing of informal settlement?

21. What is your plan after demolishing?

.....
.....

Appendix 1.2: Interview for Administrative office of Dhakaa-Adii Woreda.

1. When was the foundation of Dhaka-Adii Woreda?

.....

2. Land cover or total area of Dhaka-Adii Woreda?

.....

3. How many Population numbers found in Dhaka-Adii Woreda?

.....

4. How many zones are found at Dhaka-Adii Woreda?

.....

5. In which zones informal settlements mostly found?

.....

6. How many formal and informal households exist in Dhaka-Adii Woreda?

.....

7. What is the reason for expansion of informal settlements?

.....

8. Do you think, a weakness of government also one of the reason for expansion of informal settlement at the area? How?

.....

9. Is there any violence or crime record in the area?

.....

10. What is the main aims of demolition informal settlements?

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11. After demolition, can residents have a chance to get their land back?

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