2022-02

Assessing the Affordability of Residential Real Estate in Bahir Dar City

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BY

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A thesis submitted to the Institute of Land Administration, Bahir Dar University in partial fulfillment of the requirements for the degree of Masters of Science (MSc) in Land and Real Property Valuation

Advisor: - Teshome Taffa (PhD)

February, 2022

Bahir Dar, Ethiopia

Declaration

I, the undersigned, declare that the thesis comprises my work in compliance with internationally accepted practice, I have duly acknowledged and referenced all material used in this work. I understand that non-adherence to the principle of academic honesty and integrity, misrepresentation/fabrication of any idea/data/ facts/ source will constitute sufficient grounds for disciplinary action by the university and can also evoke penal action from the source which has not been properly cited or acknowledged.

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I hereby certify that I have supervised, read, and evaluated this thesis titled "**Assessing the Affordability of Residential Real Estate in Bahir Dar City**" by Tadilo Alemieneh prepared under my guidance. I recommend the thesis be submitted for oral defense.

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As members of the board of examiners, we examined this thesis entitled "**Assessing the Affordability of Residential Real Estate in Bahir Dar City**" by Tadilo Alemieneh. We hereby certify that the thesis is accepted for fulfilling the requirements for the award of the degree of Master of Science in Land and Real Property Valuation.

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ABSTRACT

Nowadays, the increasing population in urban areas is forcing government agencies, builders, and investors to focus on building real estate housing. However, the affordability of these housing is becoming a concern. This research examines the affordability of residential *real estate housing in Bahir Dar City to the residents. The study utilized a household income survey; conducts real estate market assessment; explores city housing policy and land tenure system; values financial accessibility; investigates the housing demand; compares and contrasts the experience of international housing policy and land tenure system with the local system. The study developed a conceptual housing policy framework to address the housing affordability challenge. Four common internationally accepted approaches were used to measure the affordability of real estate housing. Based on the study a median household has 4,500 Birr monthly income. Results showed that only 20% of residents have their housing unit, while the majority are living on rent and/or other means. The price of a prevailing standard real estate housing unit is approximately 2,200,000 Birr. Presently, only 14% of real estate is owned by residents from more than 600 real estate houses sold in the city. The findings of this study call that the real estate houses developed and sold through the formal market are generally not affordable for the vast majority of the residents. Because the income of residents is too low and factors affecting housing cost and access are too expensive. Banks should have a special financial system for affordable housing. The government should revise the housing policy and land tenure system.*

Keywords: Household, Household income, Housing policy, and Housing price

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LIST OF ACRONYMS

ANRS	Amhara National Regional State
CBE	Commercial Bank of Ethiopia
CMP	Community Mortgage Program
CPF	Central Provident Fund
EPRDF	Ethiopian People's Revolutionary Democratic Front
GDP	Gross Domestic Product
GSS	Global Strategy for Shelter
HPR	House of Peoples Representatives
HUDC	Housing and Urban Development Corporation
IHDP	Integrated Housing Development Program
NGO	Non-Governmental Organization
SPSS	Statistical Package for Social Sciences
UK	United Kingdom
UN	United Nation
USD	US Dollar

ACKNOWLEDGMENT

CHAPTER 1: INTRODUCTION

1.1. Background of the Study

Land, as well as anything, set, immovable, or permanently attached to it, such as buildings and fences, is referred to as real estate (Pagourtzi et al., 2003). Similarly, the business dictionary defines it as land and anything fixed, immovable, or permanently attached to it such as appurtenances, buildings, fences, improvements, roads, shrubs, and trees (but not growing crops), sewers, structures, utility systems, and walls. Land and its attached properties are distinct from other products and services due to their immobility. Air and surface rights may be purchased, rented, sold, or transferred together or separately when buying, leasing, selling, or transferring real estate (Karoki, 2013).

Any legal entity, as decided and established by statute, can purchase, own, and convey (or transfer) real estate. Individuals, corporations, and non-profit organizations may all be examples of this type of organization[1].

Residential and non-residential properties are the two main types of real estate. Residential real estate includes single-family, duplex, and other multi-family homes including condominiums, bungalows, and apartments (MoUDC, 2014). Commercial, industrial, hotel/motel, institutional, and recreational buildings are included in the non-residential category (Karoki, 2013).

The real estate market refers to all transactions involving the transfer of rights or interests in land and buildings. Due to the resulting growth in demand for products, labor inputs, and backward and forward linkage effects in the economy, real estate typically contributes either directly or indirectly to a country's economic development. According to the official annual report on Macroeconomic Developments (Ethiopian Ministry of Finance and Economic Development, 2007/2008 GC), the overall economic output calculated by growth in real GDP averaged 11.9% between 2003/04 and 2007/08. The overall construction industry's percentage contribution

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[1] https://courses.lumenlearning.com/masterybusinesslaw/chapter/real-property/

increased from 3.3% in 1994/95 to 7.2% in 2004/05, while real estate's share increased from 6.8% in 1994/95 to 10.1% in 2004/05.

Real estate can also play an important role in meeting a community's affordable housing needs. Housing, including schools, highways, and bridges, is an important part of a community's economic infrastructure. Low and middle-income families can put healthy food on the table, get essential medical care, and provide quality daycare for their children when housing is affordable. Economic, educational, and housing opportunities for all people make communities stronger and healthier. As a result, to remain competitive, a community must provide a variety of affordable housing options for people of various income levels and life stages. A household cannot provide any of the above benefits to its family members without a proper supply of affordable housing. Furthermore, employers and whole regional economies can face a competitive disadvantage as a result of their inability to recruit and retain jobs (Wallbaum et al., 2012).

In urban Ethiopia, however, the need for affordable housing has grown significantly. The issue is primarily linked to rapid population growth in major cities, household income, housing market prices, municipal housing policies, and land tenure systems. According to United Nations reports from 2018, Ethiopia is the continent's second-most populous region, after Nigeria. Ethiopia's population is estimated to be around 117,502,389 people, according to UN figures. This ranks Ethiopia in 14th place as the most populous country in the world. Currently, the annual population growth of Ethiopia is estimated at 3.02%, and the growth rate is expected to remain above 2.7% with no projected peak year or period of decline. When this rate is projected, the total population is expected to reach 210 million by 2060. In Ethiopia, about 20.2% of the total population is estimated to reside in urban areas. Trends suggest that the size of the urban population is likely to continue to grow at a high speed in the future. Based on the reports of the Central Statistics Agency of Ethiopia (2015/2016), the dependency ratio, which is the ratio of people who are generally not in the labor force to the workforce of the country, is much higher in rural areas than that of small and large town areas (100%, 69%, and 48%) respectively. The dependents include the population under 15 years old and people aged 65 and over. The productive part of the population accordingly consists of a population between 15 and 64 years.

This ratio shows the pressure on the productive population produced by the dependent part of the population.

Ethiopian housing is commonly referred to as adobe or "Chika bet." Especially in rural areas, adobe is used for almost all housing construction. However, except for informal buildings, this style of construction is not permitted in major cities. Households are required to use concrete in the construction of their homes. Construction materials and housing infrastructure prices, on the other hand, are rising. Moreover, financial resources and land for housing are scarce. These and other circumstances compel independent workers to seek inexpensive housing to be productive, support job growth and contribute to the nation's economic progress.

1.2. Statement of the Problem

Access to appropriate housing is a basic human right enshrined in several international treaties and national constitutions(De Schutter, 2014). Laws that foster the "complete and progressive realization of the right to adequate housing" back this up (UN Habitat, 2005). In Ethiopia, however, housing affordability has become a major problem. With the increasing growth of the population in major cities, there is a great need for low-cost and affordable housing. Even though the government has launched condominium design and development as a low-cost housing option to address the issue, the problem still exists. Furthermore, the lack of efficiency, the long wait for housing, and the termination of these projects all add to the difficulty of getting affordable housing to the large segments of the population in the country (Yohannes & Dinku, 2018; Tesfaye, 2007).

Bahir Dar is one of the most important cities in Ethiopia and the political capital of the Amhara Region. The city has a population of 348,529 with an average population growth rate of 4.2% per year (Bahir Dar City Administration, 2021). The population dependency ratio in Bahir Dar City, which is considered one of Ethiopia's major cities, is 48%. This indicates that the rate of household growth (independent force) is higher than the rate of population growth. The demand for houses and better living standards is increasing as the number of single households grows. In response to this, the number of real estate developers in the city is increasing from time to time. However, the affordability of houses developed by real estate developers is not yet studied.

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Therefore, in this research, the researcher aims to determine existing real estate practices in terms of affordability, residents' purchasing power, and municipal housing policies.

1.3. Objective of the Study

1.3.1. General Objective

The overall aim of this study is to assess the current state of residential real estate affordability in Bahir Dar City.

1.3.2. Specific Objectives

- ✓ To assess household income and consumption expenditure of the household.

- ✓ To assess residential real estate market price in Bahir Dar.

- ✓ To measure real estate affordability in Bahir Dar.

- ✓ To develop an alternative conceptual housing policy framework based on the finding.

1.4. Research Questions

The following questions will be asked to come up with some answers based on the study's objective.

1. What is the income and consumption expenditure of households?

2. What is the market price of residential real estate in Bahir Dar?

3. Are the residential real estates in Bahir Dar affordable to household income?

4. What alternative conceptual housing policy framework will be suitable to the existing problem?

1.5. Scope of the Study

The research was limited to the affordability of housing in Bahir Dar City. The study was conducted utilizing data from the real estate sector, resident income, the country's housing policy framework, and data from banks and other interested parties.

1.6. Significance of the Study

The findings of this study are aimed at helping local governors recognize potential groups in need of housing assistance and in learning how to improve the current policy. Furthermore, the research would help real estate developers improve their business strategies by offering affordable housing to their customers. Individuals can profit indirectly from the studies for real estate investment decision-making.

1.7. Organization of the Study

This study contains five chapters. The first chapter deals with the introduction to the research. A systematic literature review of ideas based on previous research on the subject is included in the second chapter. The third chapter outlines the methodology of research and the field of study. The fourth chapter discusses the conclusions and findings. The final chapter concludes and recommends the results.

CHAPTER 2: LITERATURE REVIEW

2.1. Definition

In the last two decades, the term "housing affordability" has supplanted "housing need" as the focal point of controversy over the availability of affordable housing for all (Kutty, 2005). According to Kutty, the term "affordability" encompasses several disparate issues, including the distribution of housing prices, the distribution of housing quality, the distribution of income, households' ability to borrow, public policies affecting housing markets, conditions affecting the supply of new or rehabilitated housing, and people's decisions on how much housing to purchase. This variety of factors makes even simple information on housing affordability difficult to interpret. Affordable housing is defined as "housing that is appropriate for the needs of a range of very low to moderate-income households and priced so that these households are also able to meet other basic living costs such as food, clothing, transport, medical care, and education.,".[2]

2.2. International Housing Development

For the first time in human history, the global urban population exceeded the global rural population in 2009 (Global Housing Research Initiative, 2016). The demand for sustainable, secure, and affordable housing has developed qualitatively as well as quantitatively, according to the initiative, with dramatic, positive changes in average household wealth in many countries leading to physical improvements in housing conditions. However, various regions have different levels of performance. Although some regions have had more success, others still need special measures to alleviate the high demand for housing in their area. In the following sections, the experience and level of achievement of different locations have been evaluated separately for comparison (J, 2015).

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[2] https://www.facs.nsw.gov.au/providers/housing/affordable/about/chapters/what-is-affordable-housing#1

2.2.1. Europe and North America

Broadly speaking, housing quality and availability in Western European countries are higher than conditions in Central and Eastern European countries. There is considerable contemporary divergence in housing patterns, typologies, and conditions in European and North American countries (Global Housing Research Initiative, 2016). Unlike countries in Africa and Asia, many European and North American countries have no sizable housing deficit and their proportion of informal, un-serviced slums is relatively small (Page et al., 2020). Many European and North American countries have a long history and considerable experience of affordable housing provision and their land and housing finance mechanisms are relatively well developed which facilitates and widens access to housing. Affordable land and housing problems in Europe and North America stem from dimensions of affordability that are less prevalent in Africa, Asia, Latin America, and the Caribbean.

2.2.1.1. Challenges of affordable land and housing provision

According to the United Nations reports Europe and North America are overwhelmingly urbanized, with more than 75% of the population concentrated in urban areas. According to the habitat, the level of urbanization in Western Europe is 80%, with the United Kingdom and Belgium exceeding 90%. In North America, over 80% of the population is urbanized. The main cities in the region have mostly stable or low-growth populations which are less than 1% (UN-Habitat, 2011).

However, the projected annual urban growth is higher than 2% in less urbanized countries such as Albania, Azerbaijan, Tajikistan, and Uzbekistan. Countries in transition have an average rate of urbanization close to 61%, which is considerably higher in the largest countries: the Russian Federation 73.3%, Poland 62.0%, and the Czech Republic 74.5%. Such high levels of urbanization create significant challenges for the provision of affordable housing in large cities. Also rising socio-economic inequalities are making housing increasingly unaffordable for low- and middle-income households. The transition to a market economy in post-Soviet countries has placed enormous pressure on households to obtain, retain and maintain an adequate and affordable housing unit in the face of increasing housing-related service costs because in most

post-Soviet countries there are not sufficient legal and institutional frameworks to support a well-functioning housing sector and private ownership by individual households (Tsenkova, 2008). In shifting away from government provision and subsidy of housing to a market housing where the costs of housing were to be borne by individual households, housing affordability became a serious issue. Housing-related costs increased significantly after the transition. With the reforms, GDP and real household incomes failed, high inflation produced high-interest rates, and the banks raised interest rates on new loans. Housing finance demand significantly lowered. Many households had to sell or move out of their house and take a smaller house to pay off debts, often for accumulated unpaid utility costs. As many households owned their units, the problem was energy and utility costs which had risen considerably due to the deregulation and privatization of these services. Overall, prices increased faster than household income. The socio-political changes led to a significant decline in housing production in most former Soviet Republics. People could not pay for new housing at market rates: but a selected few at the upper-income level. Housing demand increased but supply did not match it, so house prices increased.

2.2.1.2. Housing policy and legislative frameworks

According to UN-Habitat (2005), during the 1960s and early-1970s direct large-scale public housing provision was at its peak in most Western European countries. Housing supply had been significantly increased largely through high-rise housing developments. A large proportion of the housing stock was rental housing, often public, subsidized social rental housing managed by municipalities and local councils. During the early-1980s a paradigm shift occurred in the Western European housing sector. The government's role changed from that of the provider of housing to the enabler of the housing sector to function. Principally this involved a reduction in government expenditure on housing and removal of inefficient subsidies, especially rental and construction subsidies. Publicly-owned housing was sold to sitting tenants, for a low or nominal cost. Although some countries maintained relatively high levels of public involvement in housing, the majority adopted the new substantial reforms deemed necessary to enable a well-functioning private housing market. Rental housing was marginalized and private individual home-ownership rates increased. While Western European housing markets were liberalizing, Eastern Europe retained its focus on centrally planned and administered housing.

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The housing sector in Eastern European countries fundamentally changed from centrally-planned housing to market-orientated housing as a result of economic, political, and social changes during the early 1990s (Tosics, I., Hegedüs, J. and Remmert, M., 2002). Countries transitioned from centrally-planned housing sectors to market-orientated housing. The objective was to apply market principles, gradually but not slowly, to the housing sector. In some cases, the liberalization was even much more considerable than in some Western European countries. The most significant change was the wide-scale and quick selling of public housing units. Houses were transferred to their occupants through various measures. For example, in Armenia in 1990, government and local authorities owned nearly half of all housing 49% but by 2001 they owned only 3.9% (UN Habitat, 2005). According to the habitat, Policy responses and macroeconomic stability is improving housing supply especially in the Baltic region, Poland, the Czech Republic, and Hungary. It is now between 60 to 80% of the level of production during the socialist era.

There have been many ideological, theoretical, policy, and practice shifts in the housing sector over the last 60 years (Global Housing Research Initiative, 2016). Even so, under all economic and political systems achieving universally affordable and adequate housing has remained elusive. Certainly, progress is being made and the proportion of the population that lives inadequate housing is higher now than ever before, yet the historic changes illustrate the fact that the housing sector is fundamentally shaped by many actors policymakers, local authorities, private enterprise, households, among others-and whether housing affordability improves or worsens depends on the many actors, in particular the political will of national governments, local and regional authorities (Soederberg, 2017).

2.2.1.3. Housing finance mechanisms

New housing construction is quite sensitive to changes in housing demand and macroeconomic conditions. As it is mostly provided by private developers and financed by individual households through commercial mortgage banks, the availability of mortgage finance has a critical impact on rates of housing production and growth. Mortgage lending in Western Europe and North America increased significantly during the years preceding the 2008 financial crisis (Global Housing Research Initiative, 2016). For example, the volume of lending in 8 of the 12 Eurozone countries increased at double-digit rates in 2006. The increases were the highest in Greece,

Ireland, and Spain. Outside of the Eurozone, mortgage growth was high in the UK and the Scandinavian countries. Despite the rapid expansion of mortgage debt in Ukraine, Turkey, and Russia, it represents less than 3% of GDP, compared with 40 to 100% in western housing markets. Mortgage borrowing has been the keystone in the transition to a market-based housing system in Central and Eastern European countries. During the late-2000s, mortgage interest rates were reduced to levels similar to those in Western Europe, which led to a surge of consumer interest. For example, in 2006, in Estonia, typical mortgage interest rates had dropped to 3.6% and 100% loan-to-value ratios were on offer (Brixiova et al., 2010).

2.2.2. Latin America and the Caribbean

According to the reports of the Global Housing Research Initiative (2016), one-third of the total urban population in Latin America was living in informal settlements, while in countries such as Haiti, Nicaragua, Belize, Bolivia, Guatemala, and Peru, this represented over two-thirds of the urban population. On the other hand, in Chile, Costa Rica, Uruguay, and various Caribbean islands, slum dwellers represented less than 15% of the country's urban population.

2.2.2.1. Challenges of affordable land and housing provision

In Latin America scarcity of rental options, migration to an urban area, and lack of affordable land are the major causes of housing problems (LaRosa & Mejía, 2019). Due to these reasons, households are turned to build provisional dwellings which become later permanent solutions. The report also describes that residential land uses occupy more land than any other use in urban areas of Latin America. Land costs constitute a large part of the housing startup costs of households and have a big impact on the affordability of housing for such households. For example, land costs made up nearly half of the price of social housing in the capital city of Bogotá. While wealthy households have relative ease of access to land, most low-income households are out of the formal land market. This presses low-income households to access land through informal ways (Corredor Tellez, 2018). Despite improvements to the economies of Latin American countries over the last decade, poverty is still a primary factor limiting the acquisition power of households. This underlines the importance of housing finance affordable

to low-income households and the availability of other devices such as microfinance (ALDAZ-CARROLL & MORAN, 2001).

2.2.2.2.   Housing policy and legislative frameworks

From the 1950s through the following two decades, the construction of public rental or for-sale housing was one of the dominant modes of provision of so-called social housing, resulting in over 100,000 dwellings over two decades (UN-Habitat, 2011). In Brazil, for example, the main popular housing entity constructed 20,000 units between 1946 and 1964. Starting in the sixties, the visibility and legitimacy of incremental self-help solutions to housing issues increased. As incremental housing strategies came to be seen as an effective tool for creating housing, governments in the seventies and eighties formulated policies and programs to enhance these efforts, regularizing and improving informal settlements, installing services, and providing serviced land to low-income households, at times providing core housing units. Pioneered in Peru in the 1960s, sites and services schemes represented an acknowledgment of the importance of incremental approaches and served as formal channels to address low-income housing needs (Dove, 2016). Sites and services schemes were faulted, however, for a lack of affordability and poor cost recovery, as vehicles for patronage, and poor targeting in some cases. The National Housing Bank in Brazil, for example, made nearly five million loans from 1964 to 1986, but only 20% of these were directed toward households below 5 minimum salaries (Global housing research initiatives, 2016).

The 1980s into the 1990s witnessed governments stepping back significantly from their previous role as direct providers of housing to low-income households. The rise of the "enabling approach" sparked this movement, shifting the role of government to that of facilitator. Rather than providing housing, land, or services directly, it focused on the responsibility of the government to create the legal, political, and regulatory conditions that would enable households to address their housing needs through the market. In line with other movements toward privatization of governmental functions, the enabling approach relied heavily on the private sector as a provider of housing options for the populace. Approaches during the nineties and the first part of the 21st century have incorporated some of these strategies, like certain aspects of the

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"enabling approach"; while largely discarded others, such as the direct provision of housing by the government (Dove, 2016).

2.2.2.3.   Housing finance mechanisms

Subsidies have long been one of the tools in the toolbox of housing policies in Latin America, taking various forms and exhibiting results just as diverse (14th Annual Demographia International Housing Affordability Survey, 2018). Once spurned as alternatively wasteful, inefficient, or given to corruption especially as compared with the era of government-built public housing; subsidies have experienced various transformations over the past decade. Large-scale subsidy programs have come out of Chile, Colombia, Costa Rica, Ecuador, Mexico, and Brazil (UN-Habitat, 2011). In addition, municipalities, national governments, NGOs, and international organizations have all played a part in creating smaller-scale models targeted at specific marginalized populations or the needs of specific regions. In their totality, these efforts have worked to take a bit out of quantitative and qualitative housing deficits, exhibiting great promise and initiative but also case-by-case limitations as models for addressing low-income housing needs (Dove, 2016).

Remittance-receiving households are more likely to make improvements or build a new house than households without remittances. Housing can be the primary durable goods in which households invest when they have relatively more income to spend, and remittance-funded construction and land purchases may be reshaping land uses in communities with a high inflow of remittance capital. According to UN-Habitat (2011), the scale of remittances has been gradually increasing over the last decades and they now constitute one of the largest financial inflows to developing countries. Recorded remittances are more than twice as large as official aid and nearly two-thirds of Foreign Direct Investment flows to developing countries. In all developing countries, inward remittance flows are much larger than outward flows. This is particularly the case with Latin America, the Caribbean, and South Asia where inflows are more than 20 times greater than outflows. Latin America and the Caribbean constitute the largest inward remittance flow with 59.9 billion USD in 2007 (World Bank, 2007).

2.2.3. Asia

Asia is home to the largest and fastest-growing countries in the world, both in terms of population and economic size (Cruz, 2008). With its current size and anticipated rapid economic transformation and growth, the highest rural-to-urban shift is expected to occur in Asia. As the population and urbanization increase, demand for housing for owner occupancy and rental increases. Resources already devoted to housing become strained due to the limited supply of land in cities. The inadequate supply of housing in the region can be seen in the high house-price-to income ratios and the high share of slum dwellers in the urban population (Cruz, 2008).

2.2.3.1. Urban challenges in Asia

Compared with urbanization in Western European countries, Asian urbanization is much faster (UN Habitat, 2005). According to Habitat, it took London 130 years to expand from one million to eight million whereas Bangkok took 45, Dhaka 37, and Seoul only 25 years. While there have been differences between countries, Asia is united by the overall trend of moving toward an urban future. Every day Asian cities will need to accommodate 120,000 new residents. In China alone, the urban population grew by over 246 million between 1990 and 2007 (Sheng, 2011). This growth equates to an extra 39,000 new urban dwellers every day during these seventeen years. India also faces similar urbanization patterns. During the same period, 121 million new urban dwellers arrived in Indian cities. However, it is not only the populated and economically developing countries; Indonesia increased its urban population by 60 million and the Philippines by 26 million during the same period (UN-HABITAT., 2011).

As urbanization increases, demand for housing also increases. Urbanization has placed significant pressure on housing affordability in Asian cities. According to UN-Habitat 2011), the urban population of Asia comprises 50.3% of the world's total urban population, equating to over 1.7 billion people. The urban growth and expansion of Asian cities have placed major pressure on land and housing. Except for Singapore and Hong Kong, in all countries, the construction of affordable housing has not matched urban growth. Urban residents face a lack of housing options that are affordable and well located. The result has been the widespread proliferation of slums and informal settlements throughout Asian cities. Asia has over half of all

slum dwellers in the developing world. In the vast majority of Asian countries, the construction of affordable housing has not matched urban growth. Due to a lack of housing options that are adequate and affordable, slums and informal settlements have proliferated throughout Asian cities (Ong et al., 1996).

2.2.3.2.   Housing policy and legislative frameworks

According to UN-Habitat (2005), national housing policies, strategies, and legislative frameworks in the Asia region have shifted significantly over the past few decades. Many of the changes have been aimed at promoting national housing strategies that seek to enable the poor to access adequate and affordable housing. However, when it comes to highlighting the most significant innovations in housing policy in developing countries over the last two decades, the following can be singled out:

- The development of national shelter strategies by many governments (Global Strategy for Shelter, 2000).
- Higher priority is given to, and development of innovative approaches for, slum upgrading
- Increased efforts to address discrimination against women and gender-blindness in housing and service provision

Housing delivery processes in Iraq, Lebanon, Syria, and Yemen have been strengthened by involving and increasing the role of the private sector and various civil society actors. Other countries such as Bangladesh, the Philippines, and the Republic of Korea have emphasized demand-driven housing programs, decentralized market-oriented, deregulated, and initiated by the private sector. In Jordan, the Housing and Urban Development Corporation (HUDC) was mandated to implement the National Housing Strategy throughout the Kingdom and has introduced substantial reforms to the housing sector (Lucciarini, 2017). In implementing the Housing Strategy, measures have been taken to eliminate the emergence of new slums and to increase the supply of affordable housing for lower-income groups. They include improving the legislative environment, reforming land policies, updating planning, and building regulations, introducing a secondary mortgage market, revising the rental law, and streamlining

administrative procedures (Muth, 1988). Building and land-use regulations are often not conducive to creating affordable housing for the majority. They are often very restrictive and laws on land use and building characteristics increase the unit cost to households (Calder, 2017). A clear example is restrictions on building heights: low heights on buildings and the number of stories permitted. Low-rise development increases infrastructure costs, spreads the city outwards, and limits the size of housing development projects. Such restrictions are evident in Karachi which has a relatively low height limit on apartment buildings. Where developers have gone above these regulations the legal status of their housing projects is pending and they cannot get future finance which restricts their ability to develop more houses (World Bank, 2018).

Many governments have withdrawn from direct delivery of housing, as recommended in the GSS and Habitat Agenda (Bars, 2008). However, public organizations are actively involved, in one way or another, in shelter production in several countries. They include government agencies, specialized institutions, and financial bodies, many of whom are trying to ensure access to adequate and affordable housing for poor and low-income households, and other vulnerable, disadvantaged, and marginalized groups. For example, in Bangladesh the Government has launched the following programs:

- Asrayon (shelter) program the Government has been providing group housing and small agricultural plots on Government-owned land for landless households.
- Gharey Phera (return home) program to return rural migrants to their villages and earn their livelihood there.
- Ekti Bari Ekti Khamar (one homestead one farm) program to limit the number of people from rural Bengal migrating to urban areas, and also to encourage urban slum dwellers to return to their villages and take up income-generating activities.
- The Government has also established the Grihayan Tahabil (Housing Fund) through the Bangladesh Bank to provide housing loans to NGOs to build a shelter for the urban poor.

2.2.3.3.   Housing finance mechanisms

Affordability is not just about the price of housing; it is also critically about the access to and the cost of housing finance. According to Cruz (2008), only a small proportion of the population in Asia can afford formal housing with the associated financing costs. In a context in which incomes are very low, the high costs associated with the large loan finance suggest that the potential is limited for reaching the lowest income groups. According to UN-Habitat (2011), there is a range of innovative approaches to housing finance throughout Asia: from new government financial subsidies in China to longstanding community-led housing finance such as the Community Mortgage Program (CMP) in the Philippines and the Grameen Bank microfinance in Bangladesh. Singapore's Central Provident Fund (CPF) has been instrumental in enabling households to save for housing through providing incentives for saving alongside directing housing production. Workers contribute a certain percentage (depending on age) of their monthly income to the fund and the government helps by exempting CPF earnings from tax and guaranteeing payment of CPF savings. Housing can be purchased through two schemes: The Public Housing Scheme and the Residential Properties Scheme. The CPF is an extremely successful housing finance approach with 95% of employees aged 21 and above owning public housing bought with CPF savings. The economic boom in China has encouraged investment in the high- and middle-income segments of the urban housing market but it has also created affordability problems for low-income households. To enable the latter group to access the housing market, equity grants have been introduced. In this process, the land remains the property of the state, and leases are auctioned to developers to construct affordable housing for ownership. Low-income households living in slums or sub-standard housing are provided with one-off equity grants, and developers are offered fiscal incentives to build housing within a negotiated price range (UN-HABITAT, 2013).

Over the last two decades, microfinance and community-saving groups have emerged as important mechanisms for facilitating access to housing finance for the urban poor Microfinance Institutions are developing a variety of ways to overcome one of the major constraints to scaling up a shortage of funds. Most use several funding strategies and practices. They include savings deposits, commercial finance institutions, state funds, foundation funds, donor funds, international funds, and internal cross-subsidies (Helms, 2006). Remittances can also have a

considerable impact on land and housing markets through the ability of households to buy or improve housing. The scale of remittances has been gradually increasing over the last decades and they now constitute one of the largest financial inflows to developing countries. According to the World Bank Notes (2007), worldwide remittance flows are estimated to have exceeded 318 billion USD in 2007, of which developing countries received 240 billion USD. The true size, including unrecorded flows through formal and informal channels, is believed to be significantly larger. Developing countries in East Asia and the Pacific constitute a large inward remittance flow of 58.0 billion USD in 2007. Sub-Saharan Africa has the lowest inward and outward flow of remittances, with 10.8 and 2.9 billion respectively (UN-Habitat, 2011).

2.2.4. Africa

According to the report of the United Nations Human Settlements Program, UN-HABITAT (2011), Housing development programs in Africa either do not exist, do not produce affordable housing, or are insufficient in scale relative to demand. On the contrary, the region has a fast urbanization rate. According to the report, Africa's cities will have to accommodate an extra 40,000 people every day for the coming fifteen years. Faced with limited affordable housing alternatives it is no surprise that the majority of Africans make their homes outside the formal housing market, typically in slums and informal settlements (Essienyi, 2012). In contrast to Latin America or parts of Asia, slums and informal settlements in Sub-Saharan Africa, excluding South Africa, are truly the most challenging. Extremely low housing quality; continued marginalization and stigmatization; high rates of poverty and often low economic development; as well as a lack of government attention to slum improvement lead all African slums to be distinct from their counterparts in Latin America and Asia (Jaitman, 2015).

2.2.4.1. Urban challenges in Africa

According to the report of the United Nations Human Settlements Program UN-HABITAT (2011), the provision of affordable housing remains a challenge to most countries, especially those in Africa. The continued growth and expansion of African cities have increased the gap between the supply and demand of urban land and housing. Houses developed and sold through the formal market are simply not affordable for the vast majority of Africans. It is unaffordable

not just because incomes are too low but also because the key components affecting housing cost and access are too expensive (World Bank Group, 2015). Urban land for housing development is increasingly scarce, poorly regulated, and therefore expensive. Construction materials and housing infrastructure costs are increasing from already high levels. According to Habitat, conventional housing finance is either not available or simply unobtainable for most Africans due to high down-payment requirements, short loan periods, and high-interest rates. Such housing inputs make adequate housing unaffordable for the majority. Land ownership and use remain a major challenge to scaling up affordable housing initiatives in Africa. There are many different legal regimes relating to land tenure and management, which have their roots in dimensions relating to European colonial experiences, contemporary socio-economic and geopolitical factors, and indigenous cultural and normative systems. Such complex land patterns confront African governments in their efforts to develop and implement urban planning and housing programs and much of land development for housing is accessed through informal mechanisms (Bah et al., 2018). Furthermore, such land patterns and the scarcity of urban land means that individual squatting in informal settlements is becoming increasingly difficult. Consequently, African informal housing has become highly commoditized and now involves payment for sale or rent, which places extra pressure on already vulnerable urban poor households. Slums and informal settlements that proliferate within and on the periphery of African cities are a result of poorly functioning housing markets that do not provide a range of affordable housing alternatives, especially for low- and middle-income households (Hudcc et al., 2012).

2.2.4.2.   Housing policy and legislative frameworks

According to UN-Habitat (2011), the past few decades have seen important shifts and innovations in legislative frameworks and national housing policies and strategies, as governments in Africa have sought to achieve adequate and affordable shelter for all. The most significant shifts include the following:

- Development of national shelter strategies by many governments in line with GSS and Habitat Agenda guidelines;

- Higher priority is given to, and the development of innovative approaches for, slum upgrading;
- Increasing efforts to address discrimination against women and 'gender blindness in housing and service provision;
- Enhanced attention to the right to adequate housing;
- Recognition by governments of the potentially positive role of rental-housing, with initiatives to support its development.

Scaling up affordable housing provision has the potential to contribute to national economies, create jobs, improve the construction industry, and improve the living conditions for the health and wellbeing of all Africans. What is needed most, however, is political will. African governments must be more than enablers (UNCTD, 2012). If affordable land and housing are to be developed at a scale that such rapid urbanization necessitates, they must be proactive leaders. Some progress is being made to improve land management, access, and equity through initiatives such as the Land policy Initiative, which is coordinated by the African Union, African Development Bank, and the UN Economic Commission for Africa, and declarations of the African ministerial Conferences on Housing and urban development, in particular the 2010 Bamako Conference where land was recognized as playing a central role in sustainable and equitable urban development (African Union, 2010). Many governments have withdrawn from direct delivery of housing, as recommended in the GSS and Habitat Agenda. However, public organizations are actively involved, in one way or another, in shelter production in several countries. They include government agencies, specialized institutions, and financial bodies (Helms, 2006).

African countries are increasingly adopting the public-private partnership model for low-income housing provision. Within this model governments utilize a variety of mechanisms, such as policy reforms, provide tax and land incentives, and subsidies to stimulate the private sector to develop land and housing at affordable prices. In Northern Africa, direct public housing production continues in Algeria and Egypt. The two housing schemes in Egypt provide a good example of where this has happened successfully. Perhaps the largest and most successful example is from Ethiopia, which has radically transformed the capacity of private sector

enterprises, increased housing supply on a large scale, and stimulated the economy and employment opportunities through housing (Habitat, 2016).

2.2.4.3. Housing finance mechanisms

Along with land, housing finance is a fundamental limitation to affordable housing in Africa. According to the report of the United Nations Human Settlements Program UN-Habitat (2011), only 15% of urban dwellers in Africa can secure housing finance, leaving the remaining 85% without. Even in the face of increasing housing demand and rising costs, conventional housing finance systems in Africa remain undeveloped and seldom do they cater to low-income and sometimes even middle-income households. In response, many countries in Africa are pioneering „bottom-up" micro-finance and community savings schemes (Muth, 1988). These enable low-income households, often those living in slums or informal settlements, to pool their resources, develop and prove their savings capacity, and negotiate for further development funds. Unfortunately, these potentially widely transformative schemes remain constrained by unsupportive institutional and regulatory frameworks in many African countries (UN-Habitat, 2011).

2.3. Housing Development and Land Tenure System in Ethiopia

2.3.1. Housing Policy and Legislative Frameworks

After the downfall of the Derg Regime, the new government of Ethiopia has introduced a land lease system in the country, by containing the land law in the constitution, in 1993 (EPRDF, 1993). Despite the law being included in the constitution, it was not in the form of execution. As a result, the House of Peoples Representatives (HPR) declared three successive proclamations in 1993, 2002, and 2011, whereby clarifying the effecting of the land lease law (Selam, 2016).

Accordingly, Ethiopia has designed a comprehensive Integrated Housing Development Program (IHDP) in 2005 (Ministry of Works and Urban Development, 2007). It should be noted that the IHDP aims to benefit low and middle-income urban residents who aspire to own a house. These sections of the community are hard hit by inadequate and poor-quality housing in bigger cities

and towns. Such targeting would also help to ensure sustainability and equitable distribution of wealth in cities and towns.

To design and implement a system based on the objective realities of the region pursuant, the federal constitution vested power to regions to administer the urban land to use and maintain it properly, and to keep and coordinate it with the development objectives of the government (Endashaw, 2012). As a result, the power to issue regulations concerning urban land leasehold is vested to national and regional self-government. Amhara Region is one of those regions in Ethiopia that pioneered in exercising the mandate of addressing the issues of land and housing problems.

In Bahir Dar City within leasehold tenure, land for housing development has been provided through auction and decisions of the City Government. The rationale behind this is that the number of applicants participating in an auction is higher than the number of the land prepared for auction. According to Endeshaw (2012), pre-2006 Amhara Regional Government and Bahir Dar City have been attempting to deliver housing to their residents including the poor and women. Two typologies in the housing sector were established: Amhara Regional Government-owned rental units, administered by the Agency for the Administration of Rental Houses, and Kebele Housing managed by Kebele Administration units. However, the strategies were unclear and the achievements are too small in comparison with the magnitude of the problems faced by the poor and women. Yet land development and management remain one of the areas where significant improvement has to be done to equitable distribution of wealth among citizens. At the regional level, the main objective has been to secure funding to support city-level delivery of housing, infrastructure, services, and facilities. Cities in the Amhara Region like the majority of cities in Ethiopia are engines of economic and social development. They are also congested centers of poverty and environmental deterioration. It has become necessary to emphasize increasing the access of the urban poor to the formal land and housing markets (Endashaw, 2012).

2.3.2. Currently Available Housing Programs and Approaches in Ethiopia

2.3.2.1. Integrated Housing Development Program (IHDP)

Since its declaration in 2005, the IHDP has been implemented in major urban centers of Ethiopia. IHDP is the leading provider of affordable housing with 51.1% of the overall housing provision (Abenet, 2017). IHDP housing units are transferred to beneficiaries identified through a lottery system. Now modalities include 10:90, 20:80, and 40:60 schemes, and revitalization of cooperative schemes in the strategic framework for urban housing provision. Even though making low-income household homeowners is one of the targets of IHDP, it faces several challenges in addressing its mission. Some of these challenges are (Abenet, 2017):

- The numbers of houses constructed so far are small compared to the demand.
- Finalizing and transferring the housing units to beneficiaries took quite a long period.
- Some of the families that won the condominium lotteries could not readily take the units for they found their cost to be unaffordable.
- Absence of access to infrastructures such as local roads, water, and electric power.
- Poor quality of construction, especially sanitary and electrical installation.
- Some could not raise additional finance to complete the finishing work.

2.3.2.2. Cooperative Housing

Next to IHDP individuals (cooperatives and lease) contributed the second largest number of housing unit provisions with 22.2% (Abenet, 2017). But there is no regular provision of plots for individual households and cooperatives. Due to that, the contribution of individuals and cooperatives in the housing provider is not continuous.

2.3.2.3. Real Estate Housing

The National Urban Development Policy emphasizes the role the private real estate development sector can play in providing housing for the high-income group under the framework of free-market principles. The private real estate housing sector is concentrated in Addis Ababa and its surrounding towns (Legetafo, Burayu, Sululta, and Sebeta), and other major urban centers such as Dire Dawa, Adama, Bahir Dar, Hawassa, and Mekelle. The private real estate sector has

managed to construct a considerable amount of houses but significantly below the expected output (Endashaw, 2012).

2.3.2.4.   Informal Housing

Informal housing is increasingly becoming an important component of housing provision in major urban centers in Ethiopia. Informal housing units constitute 30% of the total housing stalk (Abenet, 2017). Common informal housing locations are:

- Land already reserved for residential development and public spaces
- Peri-urban locations that belong to the future urban expansion areas
- Riversides and hilly areas not planned for residential development

The problem has its roots in the failure of city governments to provide sufficient land and infrastructure for residential purposes, the inability of city governments to enforce building control regulations, lack of housing finance mechanism, especially for the low-income groups, illegal management of urban and peri-urban land by illegal developers (mafias), brokers, peri-urban farmers, and corrupt bureaucrats and administrators (UN-HABITAT, 2008).

2.3.3. Housing Finance Mechanisms

Regional governments will mobilize finance for the construction of IHDP condominium housing by selling bonds to the Commercial Bank of Ethiopia (CBE). The CBE will also provide mortgage finance for households to purchase completed condominium units from city administrations. Individual households, cooperatives, and real estate developers are expected to mobilize 100% of the construction finance on their own. The lack of a financial system for formal housing, especially for cooperatives, contributes to the proliferation of informal settlements (Endashaw, 2012).

2.4. Real Estate Development in Ethiopia

2.4.1. History of Real Estate Development

Real estate development as a business form was commenced in Ethiopia in the mid-1990s (Endashaw, 2012). With the overthrow of the Derg regime by the EPRDF forces in May 1991, though land remained state property, new actors including petty providers and real estate developers emerged as the main actors. Ever since the Investment Proclamation No. 37/1996 was issued some investors showed interest in real estate development and started operations in the residential subsector. As a consequence of these policy changes, the real estate sector became the fastest-growing segment of the Ethiopian economy. The Ethiopian Investment Agency issued licenses to 160 real estate developers up to 2009 to operate throughout the country (Mengistu & van Dijk, 2018). Access Capital (2010) shows that the real estate and the construction sector accounted for 14.9% of the GDP in 2008/09 with the real estate sector comprising 9.1% and construction comprising 5.8%. The real estate and construction sector grew by an average of 14.1 and 10.4 percent per year respectively in the five years up to 2008/09. This is above the average annual growth rate of real GDP during this period which is 11.4% (Report et al., 2010).

2.4.2. Real Estate Transparency Index in Ethiopia

Interest in real estate development in Sub-Saharan Africa's rapidly-growing economies is increasing. According to JLL Global Real Estate Transparency Index (2014), real estate investors are selectively moving into African markets in ever greater numbers. This is focusing attention on their real estate markets, putting a spotlight on transparency, and providing a stimulus for market improvements. Governments are beginning to realize the imperative to enhance transparency to capitalize on the opportunities offered and maintain momentum, while the private sector is driving advances in data availability and accelerating the pace of change (Newell, 2016).

Among the global regions, Sub-Saharan Africa has experienced the greatest regional increase in real estate transparency over the last two years, although many of these improvements are still at an early stage and significant challenges in operating conditions remain (JLL Global Real Estate Transparency Index, 2014). The increase in transparency in these markets is an outcome of

concrete efforts taken by their respective governments to upgrade their physical infrastructures and to improve governance and the regulatory framework to create more business-friendly environments. But there are substantial transparency challenges in some Sub-Saharan Africa-particularly in Senegal, Ethiopia, and Angola, which all feature in the bottom 10 of the Index. Figure 2.1 revealed that the position of Ethiopia with real estate transparency index measurement is located at the bottom as compared to other sub-Saharan African countries. Therefore the country has to improve a lot on real estate transparency (IMF, 2019).
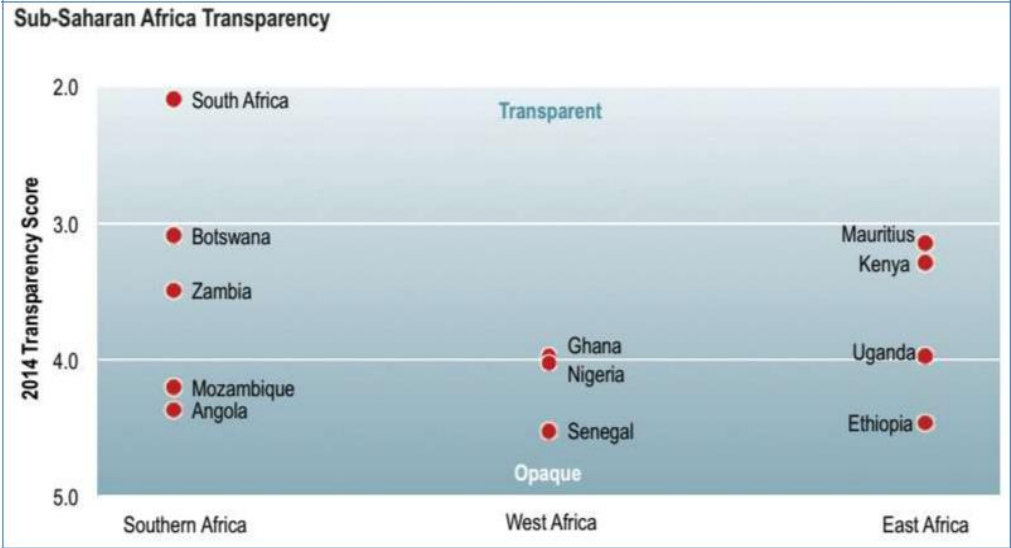
Figure 2. 1 Sub-Saharan African Countries Real Estate Transparency Index

Source: (JLL Global Real Estate Transparency Index, 2014)

2.5.   Summary

The problem of housing affordability is found to be more severe in sub-Saharan Africa including Ethiopia compared to other parts of the world. Europe and North America have more experience in providing affordable housing for their residents, both in terms of quality and quantity, than the other regions listed. Latin America and Asia, in comparison to Europe and North America, do better in terms of providing affordable housing. Except for South Africa, Sub-Saharan Africa has the least affordable housing for city residents. Ethiopia, a country in Sub-Saharan Africa, is unable to provide a sufficient number of housing units for its residents. Despite housing development programs such as the IHDP and the private real estate sectors, the number of houses built falls short of the expected output when compared to demand.

CHAPTER 3: RESEARCH METHODOLOGY

3.1. Introduction

The basic methodology that will direct the study will be explained in this chapter. The chapter will describe the description of the Study Area, detailed research questions, and address the research method used and the type of data that was used.

3.2. Description of the Study Area

Bahir Dar is located in the North-Western part of Ethiopia, in Amhara National Regional State, West Gojam Zone at a distance of 565 km from Addis Ababa. Its astronomical location is 11º38'- North latitude and 37º15'- East longitude.

The city was founded in 1922. Bahir Dar is one of the reform towns in the region and has a city administration, metropolitan administration consisting of a municipality, six sub-urban cities, and three satellite towns. The town has Integrated Development Plan which was prepared in 2007.[3]

Bahir Dar, the capital of the Amhara National Regional State (ANRS), is one of the world's fastest-growing and most populous urban centers in the northwest part of the country, about 540 km from Addis Ababa (MUDHCo, 2015).

Bahir Dar City is normally located in a flat area at the south shore of Lake Tana and at $11^{0}35'30''$ North and $37^{0}23'30''$ East (Oy, 1999) the center of the city is coordinated geographically, cited in Zegey- Yirsaw (2012) (Figure 3.2). The position favors the city as an opportunity for the Lake Tana, river Abay, the right topography, the climate favorable to live and produce numerous tourist attractions (FUPI, 2006).

Bahir Dar City belonged to the climate zone Woyna Dega, at an altitude of 1961-2000 meters. The temperature reported shows that the aversion to the maximum mean temperatures varies

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[3] Bahir Dar City Administration 2021

between 23.3^0 C and 29.7^0 C whereas, the averages of the minimum temperatures ranged between 14.2^0 C and 7.1^0 C (FUPI, 2006). The average and maximum wind speed in the city is accordingly 1.8 meters and 1.4 meters per second.

Currently, the city has a 28 km^2 (11 sq. mi) area, and the approximate total population is estimated at around 348,529 with an average population growth rate of 4.2% per year (Bahir Dar City Administration, 2021).
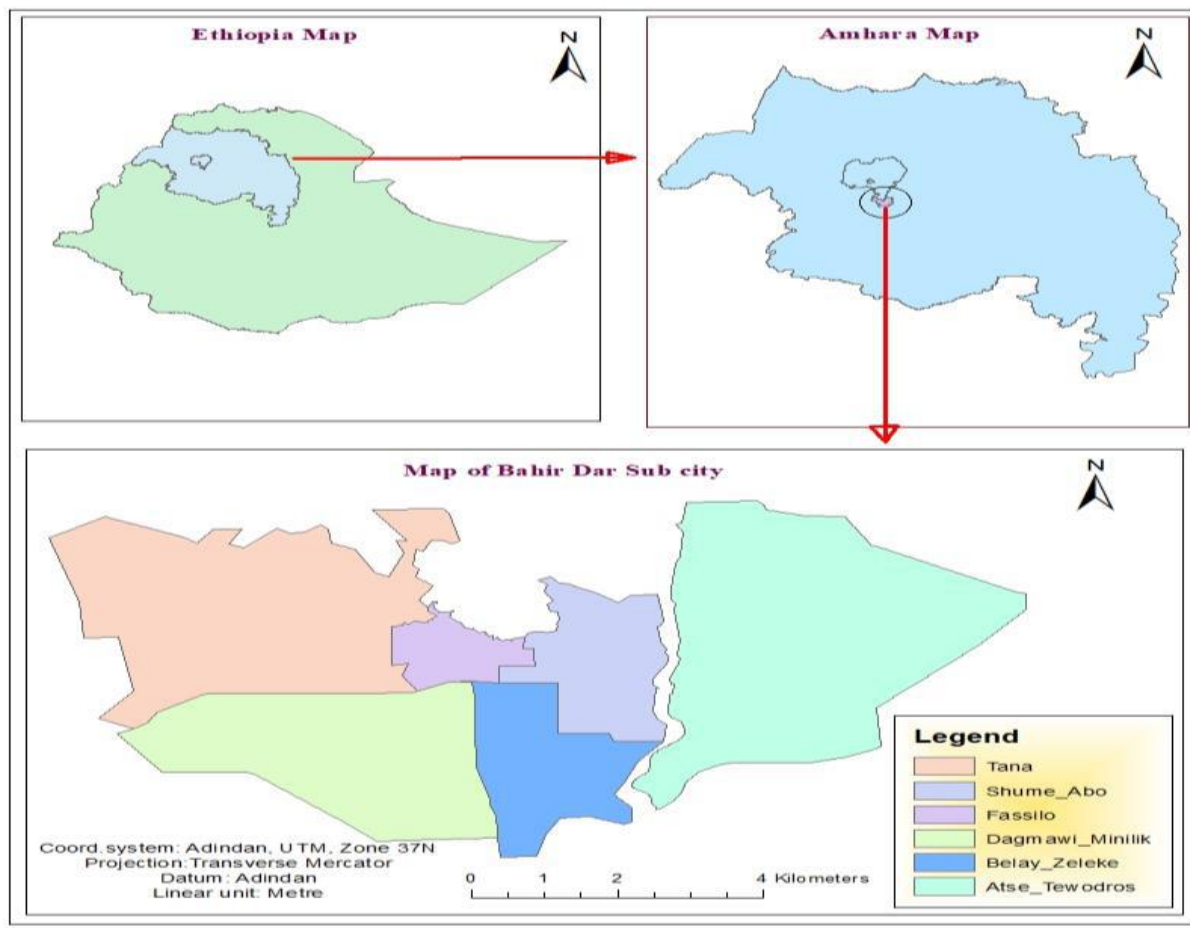
Source: Bahir Dar City Administration Urban Land Holding Registration & Information Office
Figure 3. 1 Location map of the study area

3.3. Research Approach

To conduct research, this thesis used a mixed approach as the right terminology. The researcher was combining the two methods to improve his or her ability to come up with a better result.

3.4. Research Design

A combination of qualitative and quantitative approaches was used in this analysis. The research design is a scientific research strategy that directs the researcher in gathering, analyzing, and interpreting data (Kothari, 2004). The research was used a non-experimental design to gather quantitative and qualitative data from a representative sample of the population through questionnaires, interviews, and secondary sources. A descriptive research method was used in this study. These methods were chosen based on the nature of the topic, which requires a more detailed description, investigation of facts, and information that is related to and complements it. A descriptive research design is necessary and beneficial for presenting situations as they currently exist. Designing the research entails creating a road map for a study that guides all activities and steps that were taken. It is the blueprint for data collection, measurement, and interpretation. It is the conceptual framework in which research is performed. It's also a technique for defining sample size, data source, data collection methods, and data processing, analysis, and presentation methods based on time and resources available. The quantitative research approach is used in this study to cover a wide range of study objectives and questions. A cross-sectional research design was utilized since the study is based on a cross-section (snapshot) survey and is primarily concerned with micro-level analyses to establish the nature of residential housing affordability of households across different economic categories.

3.5. Data Type and Source

Primary and secondary data forms were used in both qualitative and quantitative aspects of the analysis. On the one hand, the availability and accessibility of a comprehensive Ethiopian household survey report database (Central Statistical Agency of Ethiopia, 2015/2016) and existing monthly civil servant salaries (Amhara National Regional State Civil Service Bureau, 2016/2017), are the major secondary data components that facilitated this study. The main primary data used are real estate market data, availability of long-term loans, and household

income data collected from a household income survey process on Bahir Dar City residents, data from the Bahir Dar City Mayor's Office, and data from the Bahir Dar City Housing Development Office.

3.6. Data Collection Methods

Questionnaires, in-depth interviews, and personal observations were used to gather primary data. Both open-ended and closed-ended format questionnaires were used to collect data from households, real estate developers, and banks. The interview was used to collect data from Bahir Dar City Administration Office. A total of 400 questionnaires were administered to households to handle household income and consumption expenditure-related data. Four questionnaires have been distributed to real estate developers to investigate the level of production, price, and typology of housing they are developing. 17 questionnaires were gathered from banks concerning availability, loan period, and cost of finance for housing. The researcher conducted an unstructured interview to collect qualitative information from 2 purposively selected respondents from Bahir Dar City Administration officials. Document analysis was used to collect secondary data from both published and unpublished works of literature, as well as accountable bodies such as the ANRS Civil Service Bureau, the Ethiopian Central Statistics Agency, books, and the internet (World Bank reports and others).

3.7. Sampling Technique and Sample Size

It is critical to choose an appropriate sampling technique and decide a representative sample size in any study. While different sampling methods are used in this study, a simple random sampling method is used. The simple random sampling method ensures that each unit in the sample has an equal probability of being selected. Similarly, sample size can be calculated using a variety of methods. For small populations, these include using the census, imitating the sample size of similar research, reporting tables, and applying formulas to measure a sample size. There are currently only four operational real estate developers in Bahir Dar. Since the number of real estate is small and simple to survey, the entire population was sampled to obtain the desired degree of accuracy in assessing real estate market conditions.

According to Bahir Dar City Administration (2021), the current population of the city is around 348,529 with an average household size of 3. This implies that the approximate number of households in Bahir Dar is estimated to be 116,176. To study the income of residents, the sample size used is determined from published tables by Glenn (1992). According to Glenn's tables, the total sample size greater than 100,000 is 400. Therefore, this study uses 400 samples to represent households since Bahir Dar city sample size (116,176) is greater than 100,000. Glenn's tables are presented in appendix II.

3.8. Data Processing and Analysis

The data processing stage focuses on determining the ability of Bahir Dar city urban residents to afford new residential houses and determining the percentage of groups that can afford these properties. In this report, the statistical packages Microsoft Excel 2010 and the Statistical Package for Social Sciences (SPSS) version 23 were used as analysis tools. Four common housing affordability indicators are correlated with two components: housing price and household income, according to UN-Habitat (2011) reports. Those methods are Housing price-to-income ratio approach, Housing expenditure-to-income ratio approach, Residual income approach, and Rent-to-income ratio approach.

3.8.1. Housing Price-to-Income Ratio Approach

This method is characterized as the ratio of the current median/mean market value of a standard housing unit to the household's median/mean income. The housing price-to-income ratio can be viewed as a measure of a household's ability to obtain financing for the purchase of new residential housing. Housing affordability is considered extreme when the price-to-income ratio reaches 5.1 or more, whereas it is considered affordable when the price-to-income ratio is less than or equal to 3.

Table 3. 1 Housing affordability rating category

Affordability Rating	Median Multiple *
Severely Unaffordable	≥5
Seriously Unaffordable	4.1-5.0
Moderately Unaffordable	3.1-4.0
Affordable	≤ 3

***Median Multiple**: Median house price divided by median household income

Source: (14th Annual Demographia International Housing Affordability Survey, 2017)

3.8.2. Housing Expenditure-to-Income Ratio Approach

When housing affordability is reached, the expenditure-to-income ratio is used to determine housing affordability. Housing affordability is clearly described as the ratio between what households pay for housing and what they receive in this approach. According to the US Department of Housing and Urban Development (2017), housing costs that exceed 30% of income are considered unaffordable. The housing expenditure-to-income ratios were set at 25%, 30%, 40%, and 50% in this study to assess households' ability to afford a real estate house with a mean market value in a broader sense. Households with ratios higher than these are considered to have a housing affordability issue (Kutty, 2005).

3.8.3. Residual Income Approach

The residual income method determines whether a household's income is adequate to meet non-housing needs after subtracting regular housing consumption. In other words, a household can be

deemed to have a housing affordability problem if its income after housing expenses falls below the specified amount of non-housing consumption that is socially acceptable or desirable. Thus, the disparities between housing costs and residual income after paying for housing should be an accurate measure of housing affordability (Stone, 2006). Housing-induced poverty, according to Kutty (2005), occurs when a household is unable to afford the poverty basket of non-housing products after paying for housing; he also said that "this basket is estimated to be two-thirds of the official poverty line." As a result, if a household's housing costs exceeded one-third of its income, it will fall into housing induced poverty."

3.8.4. Rent-to-Income Ratio Approach

The median annual rent of houses is divided by the median annual household income of renters to arrive at this ratio. This approach is used to determine if a rental household's housing is affordable. Rental housing does not cost more than a certain percentage of a household's monthly income usually about 25-30% (J. Landt, 1997).

Given the complexities of housing affordability, it's becoming clear that a more integrated approach to using various housing affordability measures might provide a stronger tool for housing affordability analysis, as each measure offers a unique yet useful perspective on the fundamental interplay between rents, wages, and housing allowances. According to Freeman and Whitehead (1997), residual income is better at comparing housing affordability conditions of two household types, while the expenditure-to-income ratio is better at comparing housing affordability of one household type in different areas and over time. The researcher attempted to use all four methods in this study to obtain a better result on the concept of affordability of real estate houses in Bahir Dar City.

CHAPTER 4: RESULT AND DISCUSSION

4.1. Introduction

In this chapter, a detailed analysis has been conducted based on the available primary and secondary data obtained from different sources. Data from 400 sample residents of the city, four real estates which are currently active, private and government banks, and the Bahir Dar City Mayor's Office, were analyzed and results are interpreted and discussed accordingly. From the 400 hundred sample households, 375 returned the questionnaire. Based on the collected data, household income and consumption expenditure were estimated. A detailed description of the affordability of real estate housing was finally drawn up.

4.2. Demographic Features of Respondents

Demographic features of the respondents included in the questionnaire survey are age structure, household size, and educational level. However, only the age structure and the household size are presented in this subsection, as the educational level is less important in housing affordability calculation.

4.2.1. Household Size

Concerning household size, around 66% of the households constitute 1-3 family members, while less than 35% of households contain above 3 family members. Based on the survey, the average household size of Bahir Dar is 3 which is equivalent to the average household size determined by the survey of the Central Statistics Agency of Ethiopia (2015/2016). Figure 4.1 shows the breakdown.
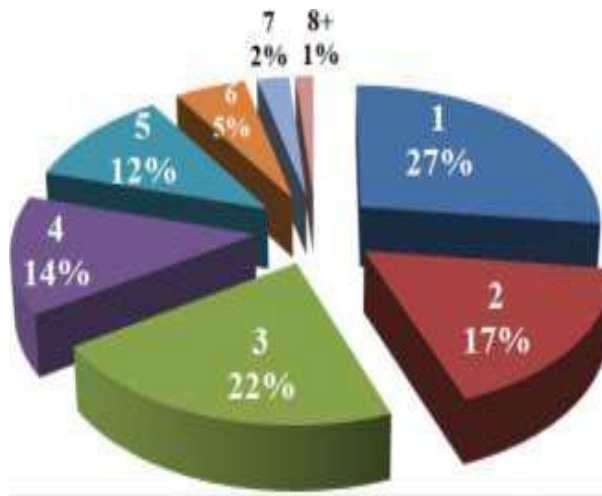
Figure 4. 1 Distribution of Household Size in Bahir Dar

4.3. Demand for Housing

In the problem statement, it was tested that demand for affordable housing is becoming a serious issue in Bahir Dar due to the rapid urbanization rate. The reason for this urbanization is the migration/relocation of people in large quantities from rural areas into towns looking for a better life (Gebremedhin, Gebeyehu Abelti, Marco Brazzoduro et al., 2013). The age structure of this large migrant is young who have the power to work and also need housing. Thus, urbanization will continue to place immense strain on meeting the demand for affordable land and housing provision.

The demand for housing has been discussed in this subsection briefly based on data collected from Bahir Dar City Mayor's Office, questionnaire survey of residents, and Central Statistics Agency of Ethiopia. For example, Figure 4.2 shows only 20% of residents have their own houses, while the majority are living through rent and/or other means. This proportion can be an indicator of the demand for housing.
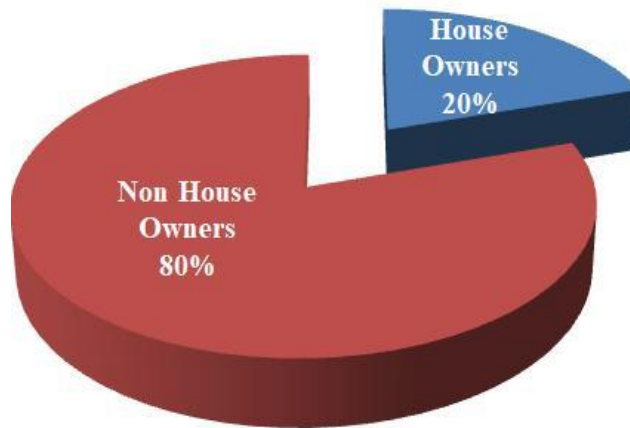
Figure 4. 2 Percentage Distribution of House Ownership

The proportion of productive residents (15-65 years old) in Bahir Dar is 68%, while the remaining 32% are non-productive (<15 and 65+ years old). This large proportion of residents wants to own residential housing and push the demand to increase.

In Bahir Dar, there are around 598 legalized housing cooperatives that are waiting for land. Each cooperative consists of 24 members; which means 14,352 people are waiting for a plot of land to construct self-help housing. The percentage contribution of this figure in the households who do not have their housing in the city is 80%. Also, there are more than 5,600 individuals who participated in auctions to buy land through lease for housing development from Bahir Dar City Administration in 2013 EC, which is indicative of the housing demand.

4.4. Access to Land for Housing

The available ways to own land for housing are either buying by lease through auctions or forming housing cooperatives. Urban land lease law clearly states that an urban land for housing development shall be held by leasehold through tender or auction. In this process, the City Administration shall prepare urban land plots. Then the City Administration will set lease benchmark price or ground rent based on the threshold price, determined by taking into account the cost of infrastructural development, demolition cost, compensation of displaced people in case of built-up areas, and other relevant factors.

The law confirms that urban land shall be granted for the highest bidder based on market and competitive parameters. According to Bahir Dar City Mayor's Office (2013 E.C), the unit price of land for sale by lease through auction has five ranks based on the location of the land. Land located in the city center is ranked 1st with a starting price of 350 Birr/m^2, while land outside the city center ranks 5th with a relatively lower price of 150 Birr/m^2. Ranks of 2nd, 3rd, and 4th have a price of 300, 250, 200 Birr/m^2; respectively. Therefore, for residents who want to lease land by lease, the average starting price of land per square meter is 250 Birr/m^2. However, in 2013 EC actual winners won with a minimum of 35,000 birr/m^2 which makes the land very expensive with no sufficient reason. Allocation of urban land through auction only benefits higher income groups and marginalize the lower and middle-income groups. Even the available land and the number of people registered for auction are not comparable. As described in the above section, the number of individuals who participated in the auction was more than 8,200 while the available land presented for auction is around 172 plots with different sizes starting from 150 m^2 to 350 m^2.

Residents who formed housing cooperatives acquire land from the City Administration after each cooperative has saved 30% of the approved construction cost of houses in the Bank. Many cooperatives owned land for building residential houses before 2006 E.C. Some of the individuals have completed the construction and started to live in.

In this program, there are illegal modulators between the Mayor's Office and housing cooperatives. These modulators manipulate the system by forming housing cooperatives with family members or other members who are not eligible for the program. Generally, limited access and the high cost of land are fundamental constraints to increase the supply of affordable housing in Bahir Dar City.

4.5. Financial Access for Housing

There are around 17 governmental and private banks in Bahir Dar that are currently functional. All these banks have no special system for building financing housing except Ethiopia's commercial bank. In other words, the banks have no system for funding residential housing programs in the city (Condominium housing program, Cooperative housing program, Real estate

housing program, etc.). Nearly every single household, cooperative, and developer is expected to mobilize 100% of construction funding alone.

Few banks traditionally provide only if they provide a 70% house as collateral for a bank to individuals, housing cooperatives, and real estate developers. This means that the bank may loan the remaining 30% to complete the house if it provides a 70% finished house for the bank. As the banks do not have a special housing finance system, the interest rate they provide is very high that most households in the city cannot afford. Very few banks lend for staffs of NGOs and the bank itself depending on the borrowing capacity of the individual with a relatively small interest rate. Some of the banks have a Diaspora account, which means any diaspora can open an account and can save money in this account. If the diaspora saves 60% of the construction cost, then he can borrow the remaining 40% of the construction cost in that bank. The bank will be benefitted by generating foreign currency through this account.

Generally, most of the households in Bahir Dar are affected by a lack of financial access to own new residential houses. Table 4.1 shows a few banks and the loan system they provide for individuals in Bahir Dar.

Table 4. 1 Available Loan System for Individuals

No	Name of Banks	Loan System For Individuals			
		Interest Rate (%)	Loan Period (year)	Loan Amount(Birr)	Preconditions
1	Zemen Bank S.C	(16-18)%	5	Depending on the borrowing capacity of the individual	For staffs of NGOs and the bank itself

2	Abay Bank	7%	25	>>	For the staff of the bank itself
3	Buna International Bank S.C	8%	24	>>	For the staff of the bank itself

Source: Author's survey

4.6. Assessing Household Income and Consumption Expenditure

In this section income and consumption expenditure of households in Bahir Dar is assessed based on data from 400 sampled households and data from the Central Statistics Agency of Ethiopia (2015/2016). The income of the sampled households is divided into four equal groups (quartiles) to identify the income level of the residents. From the sampled income data a median household has a monthly income of 4500 Ethiopian Birr. In other words, 50% of the households have a monthly income of less than 4500 Birr. Also, the third quartile of the income data is 7500 Birr which implies that 75% of households have a monthly income of less than 7500 Birr. Only 24% of the households earn more than 7500 Birr monthly income. Figure 4.3 shows the income and percentage contribution of the sampled households.
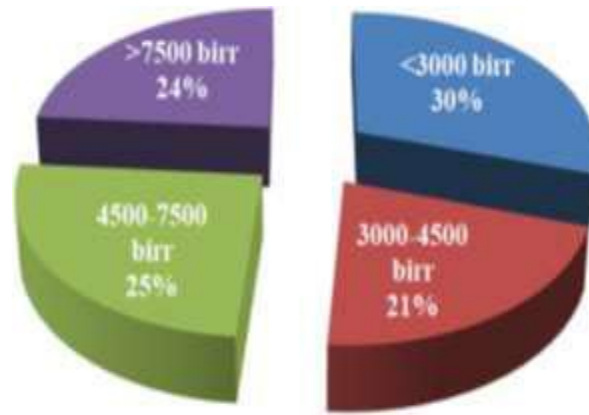
Figure 4. 3 Income groups and their percentage contribution

Household consumption expenditure is the value of consumer goods and services acquired, used, or paid for by a household through direct monetary purchases, own account production, barter, or as income in kind for the satisfaction of the needs and wants of its members (Central Statistical Agency of Ethiopia, 2015/2016). Based on the particular household survey made for this research, the average consumption expenditure of the residents of Bahir Dar City is around 63% of their total monthly earnings. The result shows that 75% of the households consume approximately 58% of their monthly earnings while the lowest 25% of the households consume approximately 67% of their total monthly incomes as Table 4.2 indicates.

Table 4.2: Consumption Expenditure of Respondents

Group	Monthly Income	Consumption expenditure	Percentage consumption
1st Quartile	3000	2000	66.67
2nd Quartile	4500.00	2,900.00	64.44
3rd Quartile	7500.00	4,350.00	58.0
		Average	63.04

4.7.   Assessing Real Estate Market in Bahir Dar City

There are more than 600 houses of different sizes sold in all the real estates in Bahir Dar City. Almost all of these houses have more than 250 m^2 plot areas. The price of houses sold varies from 640,275.45 to 4,500,000 Birr. From the total houses sold, G^{+0} villa house is the most sold house types in real estates of Bahir Dar with a share of 76%. Figure 4.4 shows the detailed

contributions of each housing type to the total housing units. So that, a median G^{+0} villa house lay on 250 m^2 plot areas has a price of 2,200,000 Birr according to real estate developers data. Taking this house as a benchmark, the affordability of real estate houses will be discussed in detail in the next section.
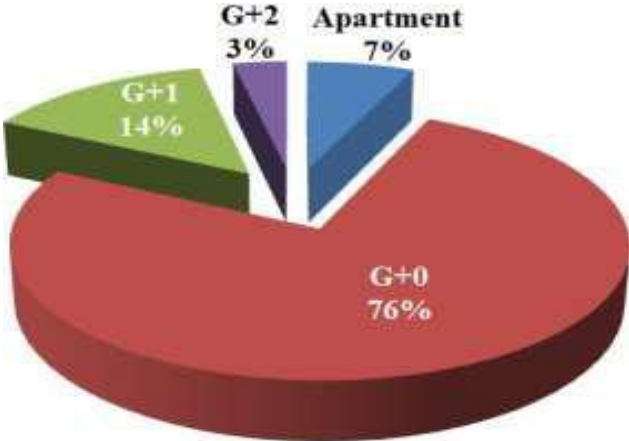
Figure 4. 4 Percentage Contributions of Housing Types in Real Estates

The customers of these real estate houses have different origins. More than half of the customers (66%) are Ethiopians living abroad (Diasporas), while 20% are people who reside outside Bahir Dar City. The share of the residents of Bahir Dar City is only 14%, which is very small. Figure 4.5 shows the origin of real estate customers in Bahir Dar City.
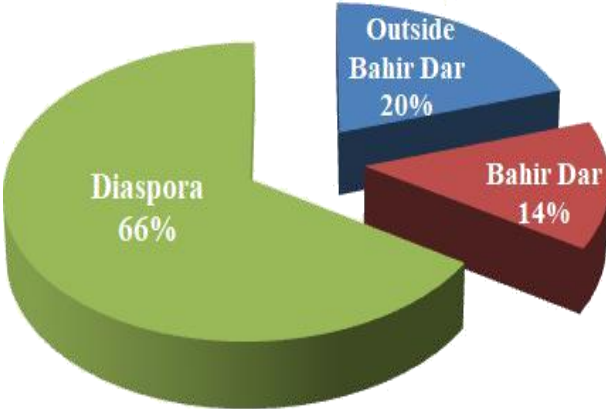
Figure 4. 5 Origins of Real Estate Customers in Bahir Dar

4.8.   Measuring Real Estate Affordability in Bahir Dar City

In this section income and consumption expenditure data, real estate market data, and individual borrowing capacity are primarily used to evaluate the affordability of new real estate houses in Bahir Dar. As discussed in section 4.6, a median household's monthly income is 4,500 Birr which is equal to annual earnings of 54,000 Birr and the average consumption expenditure of these households is 63%. Similarly, the price of a standard housing unit is 2,200,000 Birr as presented in section 4.7. Based on these results the affordability of real estate houses in the City is evaluated using different approaches below.

4.8.1. Housing Price-to-Income Ratio Approach

As defined in chapter three housing price to income ratio approach is the ratio of a mean price of a standard house to the annual disposable income of a median household. Housing affordability is considered to be severely unacceptable when the price-to-income ratio reaches 5 or more. A house is said to be affordable when the price-to-income ratio is less than or equal to 3. Table 4.2 reveals that the top 25% of the households, which have a relatively better annual income than the other groups, have 18.33 housing price-to-annual disposable income ratios. This indicates that the households must wait more than 18 years to own these houses if they save 100% of their income, while a median household must wait 46 years to afford the properties if it saves 100% of its annual disposable income.

Table 4. 2 Ratio of a Mean Housing Price-to-Annual Disposable Income of Households

Income group	Median income (birr)	Price-to-Income ratio (No.)
Bottom 25%	2,187.00	83.83
25-50%	4,000.00	45.83
50-75%	5,728.50	32.00
Top 25%	10,000.00	18.33

Even though there are very few numbers of households that have the probability to acquire these housing properties, the houses are generally far from international standards to be afforded by

most households of the city. It is important to note that the extent of the problem is more than this because no one can save 100% of their income as he/she must expend some proportion of the income for living.
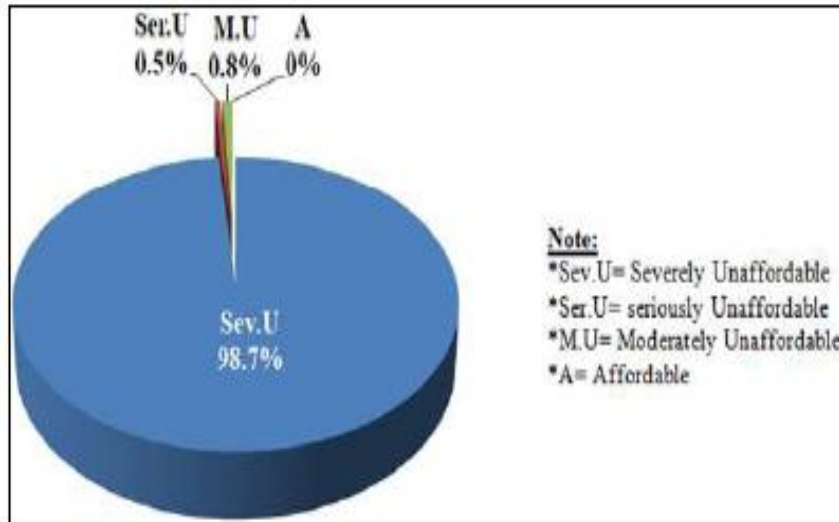
Figure 4. 6 Percent of Households who can Afford Real Estate Houses

As discussed above in section 4.4, the price of land is very expensive and there is little access for housing construction. In addition, construction cost is escalated by a significant amount in Ethiopia. Associated with the downfall of the purchasing power of Birr, the price of most construction materials has increased by more than 50% in 2013 E.C. This high house price-to-income ratio is particularly associated with high construction costs and land prices.

SPSS Statistical package results also show that real estate houses are unaffordable to the residents of Bahir Dar City with a price-to-income ratio approach. By assuming a 95% confidence interval and test value of 5, the statistical result shown in Table 4.3 is retrieved. The result shows that the mean price-to-income ratio is 48.7, which is very far from the test value (5) and the significance value is zero. From this one can understand that there is an affordability problem in real estate houses.

Table 4. 3 SPSS Statistical Result

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Price..to..Income..Ratio	375	48.71161118	34.84487310	1.799381509

One-Sample Test						
	Test Value = 5					
					95% Confidence Interval of the Difference	
				Mean Difference	Lower	Upper
	t	df	Sig. (2-tailed)			
Price..to..Income..Ratio	24.293	374	.000	43.71161118	40.17343840	47.24978395

4.8.2. Housing Expenditure-to-Income Ratio Approach

This approach reveals the progress of housing affordability for each income group once housing has been achieved. It measures the ratio between what households pay for their housing and what they earn. Once a mortgage is obtained to attain access to housing, it is necessary to assess whether capital and interest payments are reasonably affordable in the sense that it does not prohibit meeting other basic living costs. As it has been discussed in section 4.5 mortgage financial access for housing is not available in Bahir Dar. Thus individual households, cooperatives, and real estate developers are expected to mobilize 100% of the construction finance on their own. Although there are around 17 governmental and private banks in the city, none of them provide a special loan system for the construction of residential housing. An individual can only borrow conventionally from any bank by providing collateral with a high-interest rate (>15%). This high-interest rate significantly reduces the borrowing capacity of individuals and makes them unable to afford real estate housing. The borrowing capacity of individuals with 25%, 30%, 40%, and 50% annual savings of their disposable annual income is assessed with different interest rates. The results are compared to identify which percent of saving and which interest rate makes households afford real estate houses. Table 4.4 reveals that high-income households with 50,000 Birr monthly income cannot afford standard real estate housing having a price of 2,200,000 Birr with 50% savings and a 15% interest rate within 30 years loan period. For a household to afford this house, its monthly disposable income must be more than 55,843.41 Birr. As discussed in section 4.6, the monthly income of a median

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household is 4,500 Birr. Figure 4.7 reveals that a median household's borrowing capacity with 50% saving of the annual income and 15% interest rate within 30 years loan period is only 177,281 Birr. This indicates that a median household in Bahir Dar is very far from the level of affording standard real estate housing as defined in section 4.7. Therefore, it should be understood that the borrowing capacity of individuals with annual savings of less than 50%, higher interest rates of more than 15%, and relatively shorter loan periods of less than 30 years will be decreased to a level that households cannot conceive to own real estate houses.

Table 4. 4 Borrowing Capacities of Households with Different Incomes

Monthly Income	Monthly Saving	Annual Saving	10	15	20	30
	50%		Loan Period in years with interest rate = 15%			
50,000	25000	300000	1,505,631	1,754,211	1,877,799	1,969,794
40,000	20000	240000	1,204,504	1,403,369	1,502,240	1,575,835
30,000	15000	180000	903,378	1,052,527	1,126,680	1,181,876
10,500	5250	63000	316,182	368,384	394,338	413,657
7,500	3750	45000	225,845	263,132	281,670	295,469
5,500	2750	33000	165,619	192,963	206,558	216,677
4,500	2250	27000	135,507	157,879	169,002	177,281
4,000	2000	24000	120,450	140,337	150,224	157,584

Source: Author survey

In appendix, I, tables of results for borrowing capacity of individuals with 40%, 30%, and 25% annual savings at an interest rate of 15% are presented. For comparing, the financial gap of a household having 50,000 Birr monthly income with 15% interest rate and 30 years loan period is presented below in Figure 4.8. As the figure reveals even high-income households have significant affordability problems with this housing measurement criteria.

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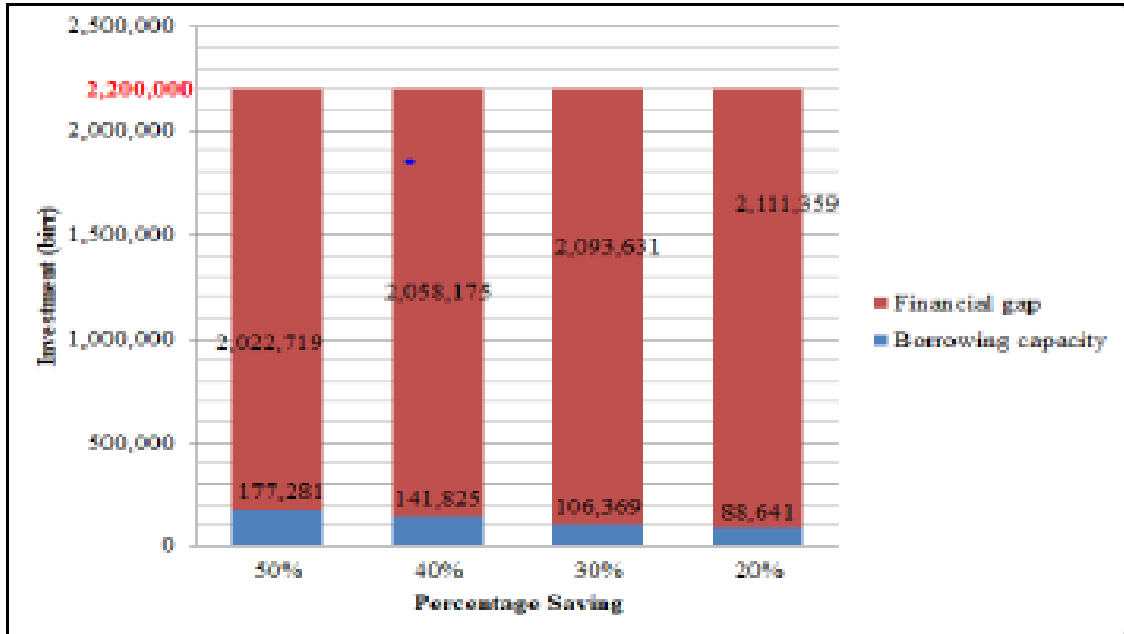
Figure 4. 7 A Median Household's Financial Gap
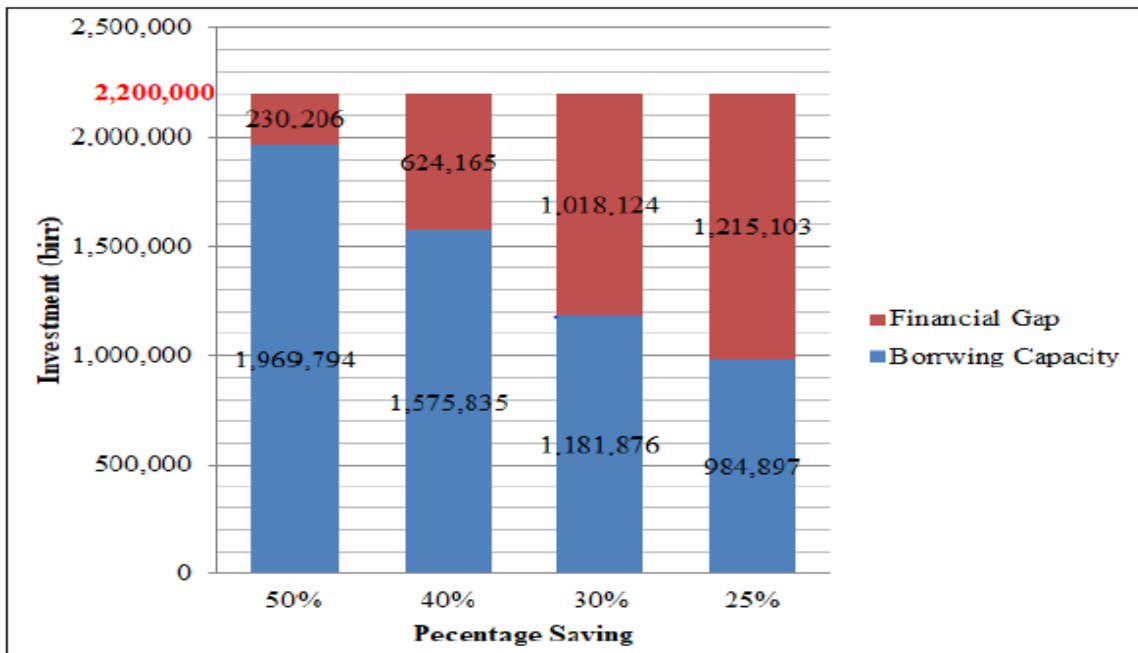
Figure 4. 8 Financial Gap of a Household Having 50,000 Birr Monthly Income

SPSS Statistical package results also show that real estate houses are unaffordable to the residents of Bahir Dar City with a housing expenditure-to-income ratio approach. By assuming a 95% confidence interval and test value of 50%, the statistical result shown in Table 4.5 is retrieved. The result shows that the mean expenditure-to-income ratio is approximately 99%, which is very far from the test value and the significance value is zero. From this one can understand that there is an affordability problem in real estate houses.

Table 4. 5 SPSS Statistical Result

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Housing Exenditure-to-Income Ratio	375	99.38266667	4.771612059	.2464049872

One-Sample Test						
	Test Value = 50					
				Mean Difference	95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)		Lower	Upper
Housing Exenditure-to-Income Ratio	200.413	374	.000	49.38266667	48.89815384	49.86717949

4.8.3. Residual Income Approach

In this approach, the appropriate indicator of housing affordability should be the difference between housing costs and the residual income that exist after paying for housing. In other words, a household could be considered having a housing affordability problem when its income after deducting housing expenditures falls below the prescribed level of minimum socially acceptable or desirable non-housing consumption. Housing is generally deemed affordable when a household spends less than one-third of its income on housing-related expenses (Kutty, 2005). That means, the residual amount after deducting housing expenses should be around 67%.

As Table 4.6 indicates no one can afford houses with 33% income expense for housing. For example, a median household can only access 117,006 Birr to be paid back within 30 years. This amount of money is less than the total amount of money required to afford a mean price real estate house. With this affordability measurement criterion, even high-income households could not afford real estate houses as easily as possible. Because a high-income household with 50,000

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birrs monthly income could only access 1,300,064 Birr which should be paid back in 30 years. Therefore, for households to afford houses with 33% maximum expense for housing, they should have at least 83,765.11 Birr monthly income to pay back the mortgage value in 30 years. As Table 4.6 reveals, it should be understood that as the loan period decreases and the interest rate increases, the amount of money to be accessed will be decreased significantly.

Table 4. 6 Capacities of Households with One-Third of Income Expense for Housing

Monthly Income	Monthly Saving	Annual Saving	Loan Period in years with interest rate = 15%			
	33%		10	15	20	30
50,000	16500	198000	993,716	1,157,779	1,239,348	1,300,064
40,000	13200	158400	794,973	926,223	991,478	1,040,051
30,000	9900	118800	596,230	694,668	743,609	780,038
10,500	3465	41580	208,680	243,134	260,263	273,013
7,500	2475	29700	149,057	173,667	185,902	195,010
5,500	1815	21780	109,309	127,356	136,328	143,007
4,500	1485	17820	89,434	104,200	111,541	117,006
4,000	1320	15840	79,497	92,622	99,148	104,005

Source: Author survey

Generally, the mean consumption expenditure of households in Bahir Dar is 63% of their monthly earnings. This means residual incomes after housing expenses should not be less than 63%. But as Figure 4.9 illustrates, the truth is that they would have nothing remaining after expense for housing. Therefore, a median household with 100% expense for housing could not either afford the house or survive.
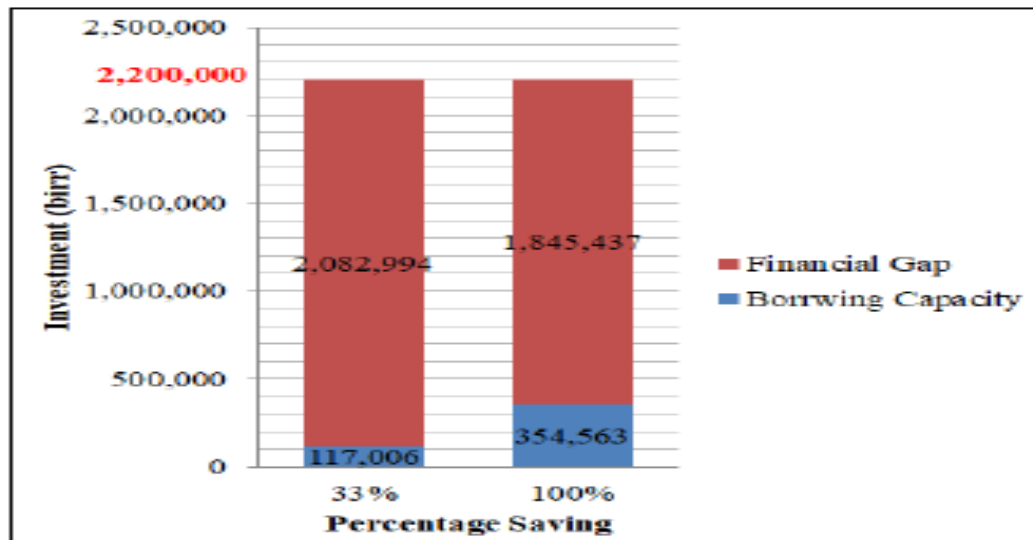
Figure 4. 9 A Median Household's Financial Gap

SPSS Statistical package results also show that real estate houses are unaffordable to the residents of Bahir Dar City with a residual income approach. By assuming a 95% confidence interval and test value of 67%, the statistical result shown in Table 4.7 is displayed. The result shows that the mean residual income after spending for housing is approximately 0.62%, which is very far from the test value and the significance value is zero. From the result, one can understand that there is an affordability problem in real estate house owning.

Table 4. 7 SPSS Statistical Result for Residual Income Approach

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Residual Income	375	.6173333333	4.771612059	.2464049872

One-Sample Test						
	Test Value = 67					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Residual Income	-269.405	374	.000	-66.3826667	-66.8671795	-65.8981538

4.8.4. Rent-to-Income Ratio Approach

This ratio is calculated by dividing the median annual rent of houses by the median annual renter household income. This method is used for assessing the housing affordability of rental households. Affordable rental housing should cost no more than 25-30% of the household's monthly income (J.Landt, 1997). In Bahir Dar, few households are living in real estate on a

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rental basis. Median housing rent in these real estates is 4,000 Birr per month. As it has been discussed in section 4.6, the monthly income of a median household is around 4,500 Birr. That means if a median household wants to live in real estate houses on a rental basis, he/she must pay 89% of its income per month, which is not affordable. With this affordability measurement criterion, a household should have more than 13,300 Birr monthly income to rent a real estate property. Based on the particular household income survey made for this study, only the top 7% of the households can afford to rent these houses. Figure 4.10 shows the proportion of households who could and couldn't afford real estate houses by rent.
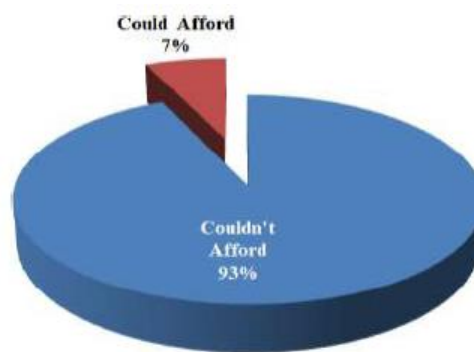
Figure 4. 10 Proportion of Households who can Afford Real Estate Houses by Rent

SPSS Statistical package results also show that real estate houses are unaffordable to the residents of Bahir Dar City with a rent-to-income ratio approach. By assuming a 95% confidence interval and test value of 30%, a statistical result shown in Table 4.8 is displayed. The result shows that the mean rent-to-income ratio is approximately 106%, which is very far from the test value and the significance value is zero. From the result, one can understand that there is an affordability problem in real estate house owning.

Table 4. 8 SPSS Statistical Result for Rent-to-Income Ratio Approach

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Rent-to-Income Ratio	375	106.2798789	76.02517766	3.925923293

One-Sample Test						
	Test Value = 30					
					95% Confidence Interval of the Difference	
				Mean		
	t	df	Sig. (2-tailed)	Difference	Lower	Upper
Rent-to-Income Ratio	19.430	374	.000	76.27987893	68.56022924	83.99952862

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4.9. Conceptual Housing Policy Framework

In the previous sections of this chapter, it is observed that only 20% of the households live in their own houses while the remaining 80% live in rental or other sorts of houses. Furthermore, access to land and finance for housing is very limited. Due to these and other reasons, most of the Bahir Dar residents cannot afford real estate houses by any of the measurements discussed above. The housing market works well for people with higher incomes, but the market is unattainable for middle and low-income families who seek affordable housing options. Thus homeownership is increasingly out of reach.

If the provision of housing in the city continues at the current pace, the pressure of getting affordable housing will be intensified to a level that the Government couldn't manage shortly. Without adequate housing options, many individuals and families attracted by job opportunities to Bahir Dar will be forced to move elsewhere due to the restraining economic growth and making it difficult to realize the city's full potential and brightest future.

Now the question is; what should be done to avoid this critical problem? The only solution to solve this critical problem is applying for an efficient supply of housing. The efficient supply of housing is closely associated with policies, delivery systems in land, finance, building material supply, construction space, and technology. The existence of inappropriate regulations and inefficient planning systems can also cause chaos in the housing supply for households. Therefore, this section attempts to develop a conceptual housing policy framework to accelerate and integrate the provision of affordable housing. The effective housing policy framework has a multi-dimensional relevance for people living in poverty. Figure 4.11 reveals the framework consisting of four main strategies, which are very important to achieve the goal of providing affordable housing. These strategies are:

- ✓ Policy measures for access to housing finance
- ✓ Policy measures for access to land
- ✓ Policy measures for the method of construction
- ✓ Policy measures for construction space
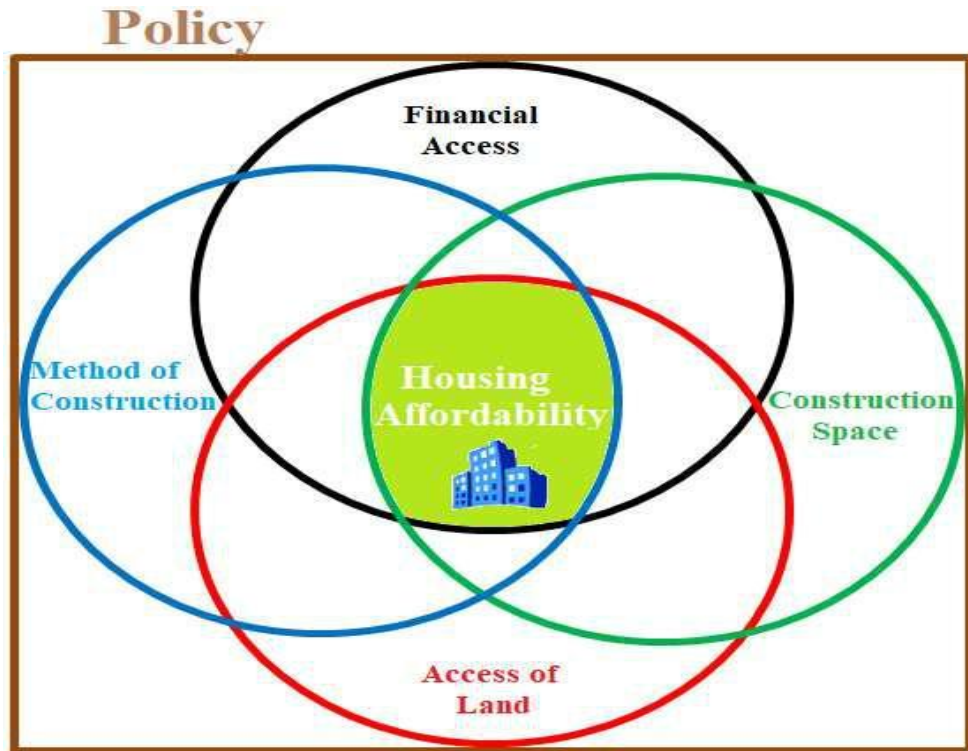
Figure 4. 11 A Conceptual Housing Policy Framework

Source: (Aigbavboa, 2015)

The interaction between these strategies determines the effectiveness of the policy framework. The strategies have a sum-up impact on the provision of affordable housing. That means as the interaction between the strategies increases, the effectiveness of providing affordable housing will increase. But if the interaction between the strategies decreases, the effectiveness of providing affordable housing will also decrease. Figure 4.12 shows a flow chart required to acquire an affordable house. The first step for affordable housing is ensuring the right to access land at a reasonable cost or free of cost. Once we ensured the right to access land, limit the size of the plot of land to a reasonable extent. Then make sure that there is financial access for the construction of a standard housing unit on the land available. Finally, choose the most appropriate method of construction that suits the available finance.

| Access to land | → | Limit plot Area | → | Financial Access | → | Construction method | | **Affordable House** |

Allow only residents of the city, who have no house, in auction for a plot of land

Provide land for eligible households forming legal housing cooperatives at a regular and coordinated fashion

The city administration should be responsible and committed to close doors of corrupt activities on land

The integral housing development program (IHDP) should be a regular housing provision program

Reduced the relaxed land development and increase Floor_Area_Ratio to reduce subsidy amount

Mortgage finance should be an integral part of a housing program

Participate NGOs and nonprofit organizations in the provisions of residential housing

Motivate the private sectors to participate in the provision of affordable housing for the community

Allow other construction methods different from the conventional concrete method

Figure 4. 12 Flowchart Showing Strategies in Acquiring an Affordable House

Source: (San Francisco Planning, 2020)

A. Policy Measures for Access of Land

In Bahir Dar, land for housing can be obtained either by buying, by lease through auction, or by forming housing cooperatives. As it has been discussed in section 4.4, buying land by lease through auction is very expensive. It is beyond the capacity of most households in the town. In addition to this, peoples who are participating in the auction are Ethiopians from anywhere which makes the residents of the town unable to compete in the auction and win land for housing. Also getting land from the City Administration by forming housing cooperatives is not regular and exposed for corrupt activities. Generally, it has been discussed that limited access and the high cost of land are fundamental constraints to increasing the supply of affordable housing in Bahir Dar City.

To solve this problem, the City Administration should only allow the residents of the town, who don't have their own house, to participate in the auction. Because 80% of the households in the town have no their own houses and around 38% of these households are waiting for land from the government by forming legalized housing cooperatives. Based on these facts, allowing every citizen to participate in the tender process is a gritty act that only targets grasping a lot of money in the account of the Administration. A Government that stands for the people it represents should be committed to satisfying the need for land. Second, the City Administration should provide land to eligible households forming legal housing cooperatives in a regular and coordinated fashion. The administration should be responsible and committed to closing doors of corrupt activities. Third, the City Administration should provide land for private sectors working on housing programs at a reasonable cost. As the number of private sectors working in the town is very few, the government should motivate them to participate in the provision of affordable housing for the community.

B. Policy Measures for Construction Space (Plot Area)

According to EU housing statistics, as cited in (Chen, 2006), the average construction space of residential housings in urban areas of developed countries is 80-100 m^2. But as we have seen in section 4.7, the most prevailing size of residential real estate housing in Bahir Dar is 250 m^2. Within a city having limited access to land for housing, using this large area of land for a single household is not wise, because land given for two households can be enough for more than five

households with international standards. So reducing the construction space of houses can be a solution in increasing the affordability of houses. For example, more efficient Building coverage decreases the subsidy burden. Because reducing land coverage and increasing the Floor-Area-Ratio yields large reductions in the subsidy amount. In short, higher density development allows for more units to be built on less land. Therefore, the government must consider the relaxed land development and building standards.

C. Policy Measures for Access to Housing Finance

As we have seen in section 4.5, even though there are around 17 private and government banks, none of them have a mortgage finance system for housing. Mortgage finance should be an integral part of a housing program because greater access to housing finance will enhance the ability of high and middle-income households to purchase houses and allow the government to focus on implementing housing programs for the low-income. Mortgage lending is critical to reaching housing targets because there is potential for the private mortgage market to serve a large portion of the middle and lower-income households with much less subsidy than traditional government housing programs. This allows the government to concentrate its limited resources on those who need them most. So that both public and private banks should be pledged together with the lower interest rate to address the mortgage finance at least to those high and middle-income groups. The government should identify necessary real estate development regulatory reforms, provide incentives for the mortgage and non-mortgage lenders to expand lending to additional income segments, and finally plug the gap between affordability and supply cost through subsidies when necessary. NGOs and non-profit organizations can also participate in providing finance if a working environment is created for them. Generally, households need to have a uniform housing program that makes sure they have a housing unit within a few years because most of the households in Bahir Dar are not sure when they will own a housing unit in their life.

D. Policy Measures for the Method of Construction

Another means of reducing the overall cost of supplying affordable housing is to allow other methods of construction besides the conventional methods. The conventional concrete

construction method is more expensive and is one of the major factors contributing to unaffordable residential houses. The conventional concrete construction method is not only expensive but also time-consuming for those residents who cannot access their houses within a short time. Therefore, building codes and standards should not be a hindrance in the process of providing affordable houses. Rather proper specifications and calculations should be done for new construction materials and building elements. For example, using hydra form blocks, cement stabilized soil blocks, adobe blocks, agro stone partition wallboards, agro stone ceiling boards, agro stone doors, Ferro cement wall and beam elements, sandwiched expanded polystyrene salt board by two-wire meshes, and many others could be alternative options for affordable houses. Some of these construction techniques are very well suited to application in developing countries for several reasons. Most of them are based on earthen materials which are locally available in large quantities and do not require industrial processing. They allow houses to be built with much less damage on global energy and resource, they do not require sophisticated machinery or specialized expertise to construct, and can be constructed quickly when compared to conventional housing techniques. These factors not only make alternative construction technologies attractive for developing countries in general but also make them particularly well suited to solve economic, social, and environmental-related problems. The remaining alternatives are most effective in saving construction time. Even though they need well-trained experts, they are the best alternatives to provide housing units within a short time. Therefore, exercising these and other alternative options different from the conventional concrete construction methods could bring a decisive result in the provision of affordable housing units in the city.

Thus revising the housing policy and land tenure system, closing corrupt activities in the provision of land for housing, creating financial access for housing, and allowing other construction techniques different from the conventional method are very important measures for providing affordable houses in the city. It is not the right choice to go with the current pace. Because it is a tragedy for a community lacking one of the basic needs with poor governance of the City Administration. Therefore, the residents need a real change that can bring a brighter future.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

Affordable housing is an essential building block of livable communities. A community needs to have housing of all types affordable at a variety of income levels. But the continued growth and expansion of the city has placed an increased gap between the supply and demand of urban land and housing. According to the Central Statistics Agency of Ethiopia (2015/16), 68% of the population of Bahir Dar is productive (15-65 years old). In addition, around 80% of the residents do not have their own houses and 38% of them are waiting for a plot of land by forming legal housing cooperatives.

The results of the study also found that a median household's monthly disposable income is 4,500 Birr and the most sold (prevailing) real estate G^{+0} villa house was traded with an average price of 2,200,000 Birr. Using four internationally accepted housing affordability measurement criteria, the capability of the residents to afford real estate houses were assessed. But the real estate houses developed and sold through the formal market are generally not affordable for the vast majority of the residents. Because the income of residents is too low and factors affecting housing cost and access are too expensive. For example:

- ❖ Urban land for housing development is increasingly scarce, poorly regulated, and therefore expensive.
- ❖ Construction materials and housing infrastructure costs are increasing from already high levels and housing finance is either not available or simply unobtainable for most of the residents due to high down-payment requirements, short loan periods, and high-interest rates.

As a result, real estate in Bahir Dar has reached inconceivable levels for low and middle-income households. A researcher has developed a conceptual framework for housing policy that could help to solve the problem of housing access. The framework includes four policy strategy measures that have a broad impact on housing affordability.

5.2. Recommendations

Even though there are a lot of points to be recommended in the process of doing this study, the researcher recommended the following basic points which he believed to be improved for future works.

❖ Real estate developers should develop housing based on data-driven research while deciding the typology of houses and their target market income groups.

❖ Real estate should develop a culture of data recording for future study to improve their service and for external users. Because the researcher has recognized that they have no recorded data to access in his research.

❖ The private sector should inter widely in affordable housing investment. Because the number of private investors involved in the affordable housing programs is very few as compared to the people who need housing property. Seeking a large percent profit per single housing property does not make it logical as a local investor.

❖ Banks should have a special financial system for affordable housing. Because banks will be benefited by attracting more customers towards them on the one hand, and they put themselves at a remarkable label by providing a large contribution to their country in affordable housing program to the people on the other hand the government should revise the housing policy and land tenure system to make the people beneficiary with affordable housing.

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APPENDICES

Appendix-I Calculation Tabulations

Appendix 1: Household Size Distribution

Demographic Characteristics	Size	Count	Percent of total
Household Size	1	101	27
	2	65	17
	3	81	22
	4	51	14
	5	43	11
	6	20	5
	7	9	2
	8+	5	1
	Total	375	100

Appendix 2: Households' Age Structure

Demographic Characteristics	Range	Number	Percentage
Age	<18	4	1
	18-30	173	46
	31-40	117	31
	41-50	56	15
	>50	25	7
	Total	375	100

Appendix 3: Residential House Ownership

House ownership	Count	Percent of total
House Owners	75	20
Non House Owners	300	80
Total	375	100

Appendix 4: Households Monthly Income Category

Income	Frequency	Percentage
<3000	112	29.87
3000-4500	80	21.33
4500-7500	94	25.07
>7500	89	23.73
	375	100.00

Appendix 5: Price-to-Income Ratio of Different Income Groups

Income Group	Median Income (birr)	Rent-to- Income Ratio (%)	Price-to-income ratio (No.)
Bottom 25%	2,187.00	183	83.83
25-50%	4,000.00	100	45.83
50-75%	5,728.50	70	32.00
Top 25%	10,000.00	40	18.33

Appendix 6: Percent of Households who can Afford Real Estate Houses

Median Multiple	Affordability Rating	Count	Percentage Contribution
>5.1	Severely Unaffordable	370	98.7
4.1-5	Seriously Unaffordable	2	0.5
3.1-4	Moderately Unaffordable	3	0.8
<3	Affordable	0	0
	Total	375	100

Appendix 7: Borrowing Capacity of Households with 40% Savings and 15% Interest Rate

Monthly Income	40% Monthly Saving	40% Annual Saving	Loan Period in years with interest rate = 15% 10	15	20	30
50,000	20000	240000	1,204,504	1,403,369	1,502,240	1,575,835
40,000	16000	192000	963,604	1,122,695	1,201,792	1,260,668
30,000	12000	144000	722,703	842,021	901,344	945,501
10,500	4200	50400	252,946	294,707	315,470	330,925
7,500	3000	36000	180,676	210,505	225,336	236,375
5,500	2200	26400	132,495	154,371	165,246	173,342
4,500	1800	21600	108,405	126,303	135,202	141,825
4,000	1600	19200	96,360	112,270	120,179	126,067

Appendix 8: Borrowing Capacity of Households with 30% Savings and 15% Interest Rate

Monthly Income	30% Monthly Saving	30% Annual Saving	Loan Period in years with interest rate = 15% 10	15	20	30
50,000	15000	180000	903,378	1,052,527	1,126,680	1,181,876
40,000	12000	144000	722,703	842,021	901,344	945,501
30,000	9000	108000	542,027	631,516	676,008	709,126
10,500	3150	37800	189,709	221,031	236,603	248,194
7,500	2250	27000	135,507	157,879	169,002	177,281
5,500	1650	19800	99,372	115,778	123,935	130,006
4,500	1350	16200	81,304	94,727	101,401	106,369
4,000	1200	14400	72,270	84,202	90,134	94,550

Appendix 9: Borrowing Capacity of Households with 25% Savings and 15% Interest Rate

Monthly Income	25% Monthly Saving	25% Annual Saving	Loan Period in years with interest rate = 15% 10	15	20	30
50,000	12500	150000	752,815	877,106	938,900	984,897
40,000	10000	120000	602,252	701,684	751,120	787,918
30,000	7500	90000	451,689	526,263	563,340	590,938
10,500	2625	31500	158,091	184,192	197,169	206,828
7,500	1875	22500	112,922	131,566	140,835	147,735
5,500	1375	16500	82,810	96,482	103,279	108,339
4,500	1125	13500	67,753	78,939	84,501	88,641
4,000	1000	12000	60,225	70,168	75,112	78,792

Appendix 10: A Median Household's Financial Gap

Saving	Borrowing Capacity	Financial Gap
50%	177,281	2,022,719
40%	141,825	2,058,175
30%	106,369	2,093,631
25%	88,641	2,111,359

Source: Author's survey

Appendix 11: Financial Gap of a Household having 50,000 Birr Monthly Income

Saving	Borrowing Capacity	Financial Gap
50%	1,969,794	230,206
40%	1,575,835	624,165
30%	1,181,876	1,018,124
25%	984,897	1,215,103

Appendix 12: Borrowing Capacity of Households with 50% Savings and 18% Interest Rate

Monthly Income	50% Monthly Saving	Annual Saving	Loan Period in years with interest rate = 18%			
			10	15	20	30
50,000	25,000	300000	1,348,226	1,527,473	1,605,824	1,655,042
40,000	20,000	240,000	1,078,581	1,221,979	1,284,659	1,324,033
30,000	15,000	180,000	808,936	916,484	963,494	993,025
10,500	5,250	63,000	283,127	320,769	337,223	347,559
7,500	3,750	45,000	202,234	229,121	240,874	248,256
5,500	2,750	33,000	148,305	168,022	176,641	182,055
4,500	2,250	27,000	121,340	137,473	144,524	148,954
4,000	2,000	24,000	107,858	122,198	128,466	132,403

Appendix 13: Borrowing Capacity of Households with 40% Savings and 18% Interest Rate

Monthly Income	40% Monthly Saving	Annual Saving	Loan Period in years with interest rate = 18%			
			10	15	20	30
50,000	20,000	240000	1,078,581	1,221,979	1,284,659	1,324,033
40,000	16,000	192,000	862,865	977,583	1,027,727	1,059,227
30,000	12,000	144,000	647,148	733,187	770,795	794,420
10,500	4,200	50,400	226,502	256,616	269,778	278,047
7,500	3,000	36,000	161,787	183,297	192,699	198,605
5,500	2,200	26,400	118,644	134,418	141,313	145,644
4,500	1,800	21,600	97,072	109,978	115,619	119,163
4,000	1,600	19,200	86,286	97,758	102,773	105,923

Appendix 14: Type and Percentage Contribution of Real Estate Houses

House type	Count	Percent
Apartment	40	7
G+0	459	76
G+1	86	14
G+2	20	3
Total	605	100

Appendix 15: Origin of Real Estate Customers

Customer Origin	Count	Percentage
Addis Ababa	121	20
Bahir Dar	85	14
Diasporas	399	66
Total	605	100

Appendix 16: Data from Bahir Dar City Mayor's Office

1	Starting lease price/m^2 of land for housing	Unit price/m^2
1.1	1st rank	350
1.2	2st rank	300
1.3	3st rank	250
1.4	4st rank	200
1.5	5st rank	150
2	Land lease right for housing	Year
2.1	Use right	99
2.2	Payment right	50
3	Allowed persons for auction	Every Ethiopians
4	Number of peoples participated in auction in 2013 E.C	5600
5	Number of peoples who won land by auction in 2013 E.C	No
5.1	1st round	110
5.2	2nd round	73
6	Number of legal cooperatives in 2013 E.C	598
7	Land prepared for one person in housing cooperatives	100 m^2

Appendix-II Checking Household Survey Data Validity

The importance of having a consistently measured income variable in public opinion surveys probably does not require much elaboration. Income is one of the key explanatory variables for a range of prominent theoretical questions in a large number of academic studies. Unfortunately, however, the household income question has been asked inconsistently. Of all the statistics gathered in surveys, perhaps none is more ubiquitous than income. So this section reviews the quality of household income data surveyed in Bahir Dar city.

Based on the report of the Central Statistics Agency of Ethiopia (2015/16) table 29, one can extract the average household size for Bahir Dar to be approximately 3. Similarly, the average household size of the city is calculated to be 3.0 from the particular household survey data for this study. So that household size can be one indicator of the validity of the household survey data done.

The Gross Domestic Product per capita of Ethiopia is around $794 (Central Statistical Agency of Ethiopia, 2015/2016). Based on the currency on May 30, 2016, and the household size above, this value is equivalent to 51,570 Birrs per household. That means a median household's monthly income is approximately equal to 4,298 Birrs. From the household survey income data, the monthly income of a median household is 4,500 birr. The two values are approximately equal. This indicates that income can be another indicator for the validity of the household survey data.

According to the Central Statistics Agency of Ethiopia (2015/16), households' consumption expenditure of Bahir Dar city is around 65% of their earnings. The survey income data results

also show that households consume around 63% of their annual earnings. The difference between the two values is insignificant. So that consumption expenditure can also be an indicator for validity of the household survey data. Generally, the particular household income and consumption expenditure data surveyed have sufficiently enough validity for this study. See the following tables for more detail.

Appendix 17: HH Estimate by Size, Sex, and HH Expenditure per Capita Quintal-B/Dar

HH Size	Sex	Household (HH) Expenditure Quintal										Total	
		1		2		3		4		5			
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	M+F	384	0.5	264	0.3	1164	1.5	1650	2.1	15197	19.4	18659	23.8
	M					488	0.6	376	0.5	6874	8.8	7738	9.9
	F	384	0.5	264	0.3	676	0.9	1274	1.6	8323	10.6	10921	13.9
2	M+F	1140	1.5	1073	1.4	2862	3.6	7296	9.3	9237	11.8	21608	27.5
	M	186	0.2	693	0.9	960	1.2	2957	3.8	5560	7.1	10356	13.2
	F	954	1.2	380	0.5	1902	2.4	4339	5.5	3677	4.7	11252	14.3
3	M+F	380	0.5	2760	3.5	3150	4	3492	4.4	4297	5.5	14079	17.9
	M	190	0.2	1615	2.1	1817	2.3	1958	2.5	2635	3.4	8215	10.5
	F	190	0.2	1145	1.5	1333	1.7	1534	2	1662	2.1	5864	7.5
4	M+F	1274	1.6	1728	2.2	2365	3	2174	2.8	2499	3.2	10040	12.8
	M	511	0.7	1343	1.7	1466	1.9	1409	1.8	2119	2.7	6848	8.7
	F	763	1	385	0.5	899	1.1	765	1	380	0.5	3192	4.1
5	M+F	1982	2.5	1190	1.5	1765	2.2	1644	2.1	1504	1.9	8085	10.3
	M	1138	1.4	1000	1.3	891	1.1	1644	2.1	1128	1.4	5801	7.4
	F	844	1.1	190	0.2	874	1.1			376	0.5	2284	2.9
6	M+F	196	0.2	1231	1.6	380	0.5	1459	1.9	1095	1.4	4361	5.6
	M			845	1.1	190	0.2	679	0.9	897	1.1	2611	3.3
	F	196	0.2	386	0.5	190	0.2	780	1	198	0.3	1750	2.2
7	M+F	-		680	0.9	195	0.2	-	-	190	0.2	1065	1.4
	M	-	-	680	0.9	-	-	-	-	190	0.2	870	1.1
	F	-	-	-	-	195	0.2	-	-	-	-	195	0.2
8	M+F	-	-	-	-	190	0.2	-	-	-	-	190	0.2
	M	-	-	-	-	190	0.2	-	-	-	-	190	0.2
	F	-	-	-	-	-	-	-	-	-	-	-	-
9	M+F	-	-	-	-	-	-	200	0.3	-	-	200	0.3
	M	-	-	-	-	-	-	200	0.3	-	-	200	0.3

	F	-	-	-	-	-	-	-	-	-	-	-	-
10	M+F	-	-	-	-	198	0.3	-	-	-	-	198	0.3
	M	-	-	-	-	198	0.3	-	-	-	-	**198**	**0.3**
	F	-	-	-	-	-	-	-	-	-	-	-	-
Total	M+F	5356	6.8	8926	11	12269	16	17915	22.8	34019	43.3	78485	100
	M	2025	2.6	6176	7.9	6200	7.9	9223	11.8	19403	24.7	43027	54.8
	F	3331	4.2	2750	3.5	6069	7.7	8692	11.1	14616	18.6	35458	45.2

Source: Central Statistics Agency of Ethiopia (2015/16)

Appendix 18: Annual household expenditure per capita quintal

Quintile	% of HHs	Annual Household Expenditure Per Capita in Birr - Country Level	
		Lower Limit	Upper Limit
I	20	-	≤5379.48
II	20	5379.81	7688.06
III	20	7688.11	10121.95
IV	20	10123.36	15109.21
V	20	≥15110.22	-

Source: Central Statistics Agency of Ethiopia (2015/16)

Appendix 19: Average Household Size

Household Size	Number of Households
1	18659
2	21608
3	14079
4	10040
5	8085
6	4361
7	1065
8	588
Total Household	78485
Total Population	223022
Average Household Size	3

Extracted from table 17

Appendix 20: Annual Averages of Household Consumption Expenditure

No. of Households	Average Expenditure Per Capita	Average Expenditure Per Household
5356	5379.48	15062.54
8926	6533.94	18295.02
12269	8905.03	24934.08
17915	12616.29	35325.6
34019	>15110.22	>42308.62

Extracted from table 17 and table 18

Appendix 21: Sample Size for ±5% and ±10% Precision Levels & 95% Confidence Level

Size of Population	Sample Size (n) for precision (e) ±5%	±10%
500	222	83
1,000	286	91
2,000	333	95
3,000	353	97
4,000	364	98
5,000	370	98
7,000	378	99
9,000	383	99
10,000	385	99
15,000	390	99
20,000	392	100
25,000	394	100
50,000	397	100
100,000	398	100
>100,000	400	100

Source: Glenn (1992)

Appendix III Questionnaire Survey

በባህርዳር ዩኒቨርስቲ የሁለተኛ ድግሪ ማሟያ ጥናትና ምርምር የሚውል መረጃ ለማግኘት

ታስቦ የተዘጋጀ ቃለ-መጠይቅ

ውድ የዚህ ይህ ቃለ-መጠይቅ ተሳታፊዎች:

ቃለ-ምልልሱ በባህርዳር ዩኒቨርስቲ የሁለተኛ ድግሪ ማሟያ ጥናትና ምርምር የሚውል መረጃ ለማግኘት ታስቦ የተዘጋጀ ነው። አላማው ትክክለኛ መረጃ በመጠቀም የባህርዳር ከተማን ህዝብ የኑሮ ደረጃና የቤት ባለቤት የመሆን አቅምን ለማጥናት የሚሰበሰብ መረጃ ነው። ስለዚህ በቀናነት ትክክለኛ መረጃ እንዲሰጡን እና የምርምር ዉጤቱ ጠቃሚ እንዲሆን የበኩልዎን እንዲወጡ አጥብቀን እንጠይቃለን። የተሳሳተ መረጃ ከሚሰጡን መረጃውን ባይሰጡ ይመረጣል።

                                                        አመሰግናለሁ።

የሚከተሉትን ጥያቄዎች ትክክለኛ መልስ ይስጡ።

1. እድሜ ------------------------

2. የጋብቻ ሁኔታ

    ሀ. ያላገባ

    ለ. ያገባ (የቤተሰብ አባላት ብዛት 2 3 4 5 6 7 8+)

3. የትምህርት ደረጃ

♦ የቀለም ትምህርት የሌለው

♦ የመጀመሪያ ደረጃ ትምህርት ቤት ያጠናቀቀ

♦ የሁለተኛ ደረጃ ትምህርት ቤት ያጠናቀቀ

♦ ዲፕሎማ

♦ የመጀመሪያ ድግሪ

♦ የሁለተኛ ድግሪ

♦ ሦስተኛ ድግሪ

4. የስራ ሁኔታ

✓ የመንግስት ሰራተኛ

✓ የግል ድረጅት ተቀጣሪ

✓ የንግድ ሥራ

✓ የጉልበት ሰራተኛ

✓ ተማሪ

✓ ሌላ ከሆነ ይግለጹ

5. የቤተሰብዎ ማለትም (የእርስዎ + የባለቤትዎ + የልጆችዎ) ወርሃዊ የገቢ መጠን

……………………………………..ብር

6. ለምግብ፥ ለልብስ፥ ለህክምና፥ ለትምህርት፥ ለቤት ኪራይ (በኪራይ የሚኖሩ ከሆነ) እና

ለተለያዩ ቋሚ ያልሆኑ ቁሳቁሶችና አገልግሎቶች በየወሩ የሚያዋጡት ወጭ በአማካኝ፦

✓ ለምግብ…………………………ብር

✓ ለልብስ…………………………ብር

✓ ለትምህርት ቤት………………….ብር

✓ ለቤት ኪራይ (በኪራይ የሚኖሩ ከሆነ)……………………ብር

✓ ለተለያዩ ቋሚ ያልሆኑ ቁሳቁሶች አገልግሎቶች……………ብር

7. ከወርወጭዎአትርፈውበየወሩምንያክልይቆጥባሉ?

❖ ------------------------------ብር

❖ ምንም አልቆጥብም (ለምን……………………………..)

❖ የማገኘው ገቢ ከእለት ፍጆታ የዘለለ ስለማይሆን

❖ ሌላ ምክንያት ካለ---

8. የራስዎ ቤት አለዎ?

ሀ. አለኝ (ሪል እስቴት ሌላ)

➢ እራስዎ የሰሩት (የገዙት)

➢ በውርስ ያገኙት

➢ በሌላ

ለ. የለኝም

➢ የመስራት (የመግዛት) አቅም ስለሌለኝ

➢ ቤት እንዲኖረኝ ስለማልፈልግ

➢ በልላ ምክንያት--

9. የራስዎ ቤት ከሌለዎ የሚኖሩበት ቤት የማን ነው

✓ በኪራይ ቤት

✓ ከቤተሰብ ጋር በጊዜያዊነት (ለምን)

▪ ተከራይቶ መኖር ስለሚከብደኝ

▪ ከቤተሰቦቼ መለየት ስለማልፈልግ

✓ በጥገኝነት

10. በባህር ዳር ከተማ የተለያዩ ሪል እስቴቶች በመገንባት ላይ መሆናቸውን ያውቃሉ?

ሀ. አውቃለሁ   ለ.አላውቅም

11. ሪል እስቴት ውስጥ ቤት እንዲኖርዎ አስበው ወይም ደግሞ ሞክረው ያውቃሉ?

ሀ. ሞክሬ አውቃለሁ

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❖ ገዝቻለሁ

❖ አልገዛሁም (ለምን አልገዙም)

▪ መግዛት ስለማልችል

▪ በሌላ ምክንያት

ለ. ሞክሬ አላውቅም

12. መንግስት የህብረተሰቡን ገቢ ያማከለ የቤት ተጠቃሚ የሚያደርግ ፕሮግራም በአሁኑ

ሰዓት አለው ወይ?

➢ አዎ አለ (ካለ የፕሮግራሙ ዓይነት …………………………….....)

➢ የፕሮግራሙ ተጠቃሚ ነኝ

➢ የፕሮግራሙ ተጠቃሚ አይደለሁም (ለምን………………….................)

➢ የለም ወይም ስለመኖሩ እርግጠኛ አይደለሁም

13. ለግለሰቦች ለቤት መስሪያ (መግዣ) የሚሆን እና በረጅም ጊዜ የሚመለስ የብድር

አገልግሎት የሚሰጥ ባንክ ያውቃሉ?

♦ አዎ አውቃለሁ (ካለ የባንኩ ስም…………………………………………….)

● በብድር አገልግሎቱ ተጠቅሜ አውቃለሁ

● በብድር አገልግሎቱ ተጠቅሜ አላውቅም (ለምን----------------)

♦ እንደዚህ ዓይነት አገልግሎት የሚሰጥ ባንክ አላውቅም (የለም)

Questionnaire Survey for MSc. Thesis on Residential Real Estate Affordability in Bahir Dar City (For Government and Private Banks)

Dear respondent:

The objective of these questionnaires is to collect information to identify the affordability of real estate housing for urban dwellers of Bahir Dar City. The study is strictly for research purposes only and the collected information is to be confidentially handled for the fulfillment of a Master of Science degree in Land and Real Property Valuation program from Bahir Dar University. There is no need to write your name.

Thank you!

Section one-Company Profile

- Name of company……………………..………………………

- Year of establishment…………………………………………

- Starting Capital…………………………………………………..

- Current Capital………………………..………………………

- Position of the respondent…………………………………….

Section two-Information about the company's Loan System

1. Do you have a loan system in your Bank? Put a tick mark (√) in front of your answer.

♦ Yes   ♦ No

2. Who are the beneficiaries in your loan system? ....

2.1. What is the typical loan system?

❖ Loan Period…………………………………………………

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❖ Interest rate..

❖ Maximum loan amount……………………………………..

No	Loan system	Yes	No	Loan period	Interest Rate	Maximum Loan Amount	Preconditions (Mortgage/Collateral)
1	Do you have a loan system for real estate developers?						
2	Do you have a loan system for other housing programs like governmental condominium houses?						
3	Does a condominium Housing program persist currently in Bahir Dar town?						
4	Do you have a loan system for housing cooperatives?						
5	Do you have a loan system for individuals who want to build or buy their own houses?						

Questionnaire Survey for MSc. Thesis on Residential Real Estate Affordability in Bahir Dar City (For Real Estates)

Dear respondent:

The objective of these questionnaires is to collect information to identify the affordability of real estate housing for urban dwellers of Bahir Dar City. The study is strictly for research purposes only and the collected information is to be confidentially handled for the fulfillment of a Master of Science degree in Land and Real Property Valuation program from Bahir Dar University. There is no need to write your name.

Thank you!

Give an appropriate answer for the following questions

1. Company Profile

   ❖ Name of company……………………..………………………….

   ❖ Year of establishment…………………………………………

   ❖ Position of the respondent………………………………….

2. Who are your primary targets/customers? Choose based on the **mission** of your organization.

   ◆High-income groups   ◆Middle-income groups   ◆ Low-income groups ◆All

3. How many houses do you plan to construct and transfer to customers per year?

4. Please fill your answer in the following table for these questions.

   ❖ How many requests did you receive per year?

   ❖ How many houses did you transfer to customers per year?

[1] Year (E.C)	[2] Type of house	[3] constuction space (m²)	[4] Unit Price	No of Requests				No of completed and Transferred house			
				[5] From residents	[6] From other parts of the country	[7] From Diaspora	[8] the sum of (5,6,7) Total	[9] For Local residents	[10] For customers from other parts of the country	[11] For Diaspora	[12] Sum of (9,10,11) Total
2013											
2012											
2011											

5. How many houses are under construction? ....

S.N	Type of houses	No. of houses under construction
1		
2		
3		
4		
5		

6. Do customers have any participation/involvement in the construction process?

◆ Yes   ◆ No   ◆If yes, how?!……………………………………………………….

7. How do customers pay for the construction of their houses?

◆ One full payment   ◆ In two rounds   ◆ In three rounds   ◆ More than three rounds

8. Who will cover the land lease cost? (◆ The customer?   ◆The company?)

9. How much is the land lease cost/m^2? ....

10. Are there households living in your real estate by the rent? (◆Yes ◆No)

If yes what is the average value of the rent? …………………..Birr

11. Do you think that your project is satisfying the demand for houses in the city at an appropriate scale?

◆Yes   ◆No   ◆If no, why? …………………………………………………….…………...

12. Do you think that you have enough customers?

◆Yes   ◆No   If no, why?! …………………………………………….…………

13. Can we say you are accomplishing your mission satisfactorily?

◆Yes   ◆No   If yes, how?! …………………………………………………………………….

If no, why?! …………………………………………………………………………………...

Appendix IV-Interview Questions

በባህር ዳር ዩኒቨርስቲ የሁለተኛ ድግሪ ማሟያ ጥናትና ምርምር የሚውል መረጃ ለማግኘት

ታስቦ የተዘጋጀ ቃለ-ምልልስ (ለባህር ዳር ከተማ ማዘጋጃ ቤት)

ውድ የዚህ ይህ ቃለ-መጠይቅ ተሳታፌዎች፦

ቃለ-ምልልሱ በባህርዳር ዩኒቨርስቲ የሁለተኛ ድግሪ ማሟያ ጥናትና ምርምር የሚውል መረጃ ለማግኘት ታስቦ የተዘጋጀ ነው። አላማው ትክክለኛ መረጃ በመጠቀም የባህርዳር ከተማን ህዝብ የኑሮ ደረጃና የቤት ባለቤት የመሆን አቅምን ለማጥናት የሚሰበሰብ መረጃ ነው። ስለዚህ በቀናነት ትክክለኛ መረጃ እንዲሰጡን እና የምርምር ዉጤቱ ጠቃሚ እንዲሆን የበኩልዎን እንዲወጡ አጥብቀን እንጠይቃለን። የተሳሳተ መረጃ ከሚሰጡን መረጃውን ባይሰጡን ይመረጣል።

አመሰግናለሁ።

1. ለመኖሪያ ቤት የሚሆን መሬት የሊዝ መነሻ ዋጋ...........................ብር/ካሬ

2. ለመኖሪያ ቤት የሚሆን መሬት ሊዝ የአገልግሎት የመጨረሻ ዘመን ....ዓመት

3. ለመኖሪያ ቤት የሚሆን መሬት ሊዝ የክፍያ የመጨረሻ ዘመን ....ዓመት

4. ለመኖሪያ ቤት የሚሆን መሬት በሊዝ መጨረት የሚችሉ የትኞቹ የህብረተሰብ ክፍሎች ናቸው.................................

5. በ 2013 ዓ.ም ለመኖሪያ ቤት የሚሆን መሬት በሊዝ ለመጨረት ያመለከቱ (የተመዘገቡ) ሰዎች ብዛት.................................

6. በ 2013 ዓ.ም ለመኖሪያ ቤት የሚሆን መሬት በሊዝ ጨረታ ያሸነፉ ሰዎች ብዛት...................

7. በከተማው የመኖሪያ ቤት ቦታ ለማግኘት የተደራጁ ማህበራት ብዛት.................................

8. ለአንድ በማህበራት ለተደራጀ ሰው የተዘጋጀ የቦታ መጠን...........................ካሬ

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