A Comparative Analysis of the housing Conditions of owner-occupied and Kebele- administered dwelling units in Bahir Dar

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DECLARATION

I, the undersigned declares that this thesis is my work and all the sources of material used for the thesis have been duly acknowledged,

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ACRONYMS

ANRSBOPED	Amhara National Regional State, Bureau of Planning and Economic Development
ANRSBWUD	Amhara National Regional State, Bureau of Works and Urban Development
BDCM	Bahir Dar city Municipality
BDSZA	Bahir Dar Special Zone Administration
CSA	Central Statistical Authority
CSO	Central Statistical Office
ECA	Economic Commission for Africa
EPRDF	Ethiopian People Revolutionary Democratic Front
MEDaC	Ministry of Economic Development and Co-operation
MWUD	Ministry of Works and Urban Development
NUPI	National Urban Planning Institute
OPHCC	Office of the Population and Housing Census Commission
UN	United Nations
UNCHS	United Nations Commission on Human Settlements

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ABSTRACT

The two major types of housing tenures that exist in Ethiopia are owner-occupied and rental occupations. Within the rental occupation, Kebele rented housing units have been created since the coming of the Derg to power and the issuance of proclamation No. 47/1975 which brought about government ownership of urban land and extra houses. Since then, all government owned houses in the country, which have less than 100 Birr rent per month, are administered by Kebeles. However, due to old age and lack of maintenance, these Kebele rented dwelling units are deteriorating from time-to-time. Hence, the main objectives of this study are, to compare and contrast the existing conditions of owner-occupied and Kebele administered dwelling units in Bahir Dar, the capital city of the Amhara National Regional state and to recommend some possible measures that would help in the formulation of the national housing policies and strategies.

In order to obtain the primary data necessary for the study, stratified and systematic random sampling techniques were used to carry out the questionnaire survey in the town. A total of 689 heads of the households were selected for the sample survey. The methods used to process and interpret the data obtained were percentages, cross tabulations, and mean values.

The major findings of the study show that, the housing situation of the town is generally characterized by acute shortage which is manifested by a wide gap between housing supply and need; lower effective demand; sub-standard housing conditions; old age and lack of maintenance, especially most Kebele rented dwelling units; and lower rent price of Kebele rented housing units.

The distribution of the population of Bahir Dar is such that maximum population concentration is found in the central part of the town, that is, in Kebele 06 containing 732 persons per hectare and the lowest population density is found in the intermediate and peripheral Kebeles, such as Kebeles, 03, 11, 13 and 16. In addition to population, the spatial distribution of dwelling units by type of housing tenure shows that, most Kebele rented dwelling units (71 percent) are found in the central part, whereas,

nearly 80 percent of owner occupied housing units are found in the peripheral parts of the town.

Even though most dwelling units in both owner occupied and Kebele administered rental accommodations are found in sub-standard conditions, the study has indicated that owner-occupied dwelling units are much better in terms of the major housing quality indicators, as compared to Kebele rented housing units in the town. In other words, Kebele administered dwelling units are more deteriorated than owner occupied housing units.

Finally, the study has identified that, the major factors which influence the current housing conditions of owner occupied and Kebele rented dwelling units are: old age and lack of proper maintenance, particularly those of Kebele rented housing units; lower occupational and income status of most of the Kebele tenants; the impact of government housing policies; local physical, and political conditions of the town as well as migration. Therefore, to solve the existing housing problems, the government should formulate a comprehensive housing policy that would give due attention to rental units particularly to the Kebele administered rental dwelling units, which do not have any responsible body who look after them.

CHAPTER ONE

INTRODUCTION

Housing is one of the basic necessities for human survival. Housing means the living environment, which protects man from harsh physical and social conditions. At its most elemental level, it addresses basic human need by serving as shelter, offering protection against excessive cold and heat, rain, high winds and other unfavorable weather conditions. If housing is inadequate because of overcrowding and substandard conditions, it undermines an individual's health and well-being. Housing also protects people against street crime. At the household level, housing also fulfills important functions. It provides a physical enclosure for domestic behaviour: a place for daily activities, where people cook, eat, socialize and rest, away from the public realm and a place where, in many cultures, they are born and die. At the same time, through its location, housing forms the basis for activities in the community and outside world, such as interactions with neighbors, work, school and shopping (UNCHS, 2001: 77). Housing is also of great importance to households in both developed and developing economies, because it is the largest fixed capital investment that households make. In developing countries, housing accounts for 10-30 percent of household expenditure, 6 – 20 percent of the Gross National Product, and 10 – 50 percent of gross fixed capital formation (Malpezzi, 2000: 293).

The United Nations itself unequivocally states that every citizen of the world is entitled to be sheltered. The 1992 resolution of the United Nations Committee on Economic, Social and Cultural Rights, for instance, stressed the right of an individual or a

household to adequate housing (Gutema, 1994, cited UNCHS, 1993). Yet, a great part of the world's population is housed in unfit and unhealthy dwellings and physical surroundings. Thus, more than one billion of the world's city residents live in inadequate housing, mostly in the sprawling slums and squatter settlements in developing countries (UNCHS, 2001: 30). This is also true in Ethiopia, where housing problems are mainly found in the major urban centers of the country. There are several signs for housing problems. These are, overcrowding, homelessness and the proliferation of slum and squatter settlements. In addition to these, the existing housing units in most of the urban centers of the country are characterized by inadequacy and substandard housing condition, particularly those under Kebele administration are deteriorating from time to time and lack the necessary services and housing facilities. Thus, in order to assess the problem of housing sector and to provide information for the formulation of comprehensive housing policy, it is essential to examine the quality of dwelling units in terms of housing tenure.

The arrangement under which the household occupies the living quarter is referred to as tenure. Information on tenure status of the housing units is necessary for assessing the potential demand to formulate housing policy accordingly and for laying out programs for housing development. Generally, there are two major types of housing tenures in Ethiopia: owner occupied and rental occupation. The rental occupation can further be divided into: 1) rented from private household; 2) rented from urban dwellers associations (where the owners of the units are the Kebeles) most of which are nationalized housing units, and 3) rented from government institutions (Agency for Administration of Rental Houses) (Gutema, 1994: 473).

1.1 Statement of the Problem

The right of every body to decent housing has already been recognized in 1948 in the Universal Declaration of Human Rights. However, all over the world experiences have shown that the realization of this right is difficult and needs the continuous efforts of central, regional and local governments, of the building materials industries, of the financial world and not least, of all the people who need shelter, shelter fit for human living and in an environment that really offers economic, social, cultural and recreational opportunities. So far experiences show that both in and outside Africa, ready made and generally applicable solutions of this many sided problem are not available. The conclusion drawn in the world housing survey, that housing conditions deteriorate at an alarming rate is certainly still true in most if not all urbanizing parts of Africa. The longer the process of deterioration continues, the more difficult it will be to catch up with the resulting arrears, economically, technically and socially. Therefore, it is urgent to pool every piece of available knowledge (ECA, 1976: 4).

Housing is the most serious and persistent problem in urban and rural areas of the country, a need, which the government has found difficult to meet. The rising urban population especially the low-income groups and the increasingly high cost of construction materials has created a sizable gap between housing demand and supply in urban centers. The magnitude of this gap is reflected in many slum settlements, over-crowded housing units and obsolescent units requiring replacement. Housing in Ethiopia's urban centers is grossly deficient both in quality and quantity, so that the problem has now turned to be one of the pressing issues, which needs immediate attention (Abuye, 2000: 4).

Until recently, the majority of the researches that have been done on the issues of housing sector in Ethiopia considered the housing problems of the national capital, Addis Ababa. Thus, the primary focus of this study is the assessment and comparison of the housing conditions of owner occupied and Kebele administered dwelling units in Bahir Dar, the capital city of the Amhara Regional State.

1.2 Objectives of the Study

The principal objective of the study is to compare and contrast the housing conditions of owner-occupied and Kebele rented dwelling units in Bahir Dar town. More specifically, attempts has been made in the study to:-

1. Examine the past and current housing situations of the town.
2. Identify the location where most owner-occupied and Kebele administered dwelling units are found in the town.
3. Assess the similarity and the difference in housing quality that existed in between the two types of housing tenures.
4. Identify the major factors that influence the current housing conditions of the two types of housing tenures.
5. Recommend some possible measures that may reduce the problems of housing sector in the town.

1.3 The Research Questions

Based on the general and specific objectives stated the study is guided by the following research questions:

1. What is the relationship between housing supply and need in Bahir –Dar town?
2. What are the distinguishing characteristics of owner-occupied and kebele-administered dwelling units in Bahir Dar town?
3. What are the main factors that could be taken as causes for the difference in housing quality which exist in between the two types of housing tenures in the town?
4. What are some of the measures that need to be taken to improve the quality and quantity of the dwelling units in Bahir Dar?

1.4 Method of Data Collection and Processing

1.4.1 Methods of Data Collection

In order to achieve the objectives of the study and to answer the research questions, both primary and secondary data were collected.

1.4.1.1 Primary Data Collection Methods

Primary data concerning household and housing characteristics; the type of tenure and dwelling expenditures and location of the dwelling units in relation to basic public services were collected through a household survey. The survey was conducted in March of 2003. In addition to these, interviews were conducted with municipal and Kebele officials as well as other key persons who are responsible bodies in various offices concerning the study.

1.4.1.2 Sampling Techniques

There are 17 Kebele administrations in Bahir Dar town. Out of these 17 Kebele administrations, 6 sample Kebeles (35 percent) were selected by using stratified sampling technique, in which three of them (Kebele: 02, 04 and 06) were from the central and the remaining three Kebeles (09, 13 and 17) were from the peripheral part of the town (see Figure 1).

A sampling frame (list of the total household heads) for selecting sample households and housing units was prepared for each of the selected sample Kebeles. Then, household and housing unit samples were selected from each sample Kebele using a systematic random sampling technique. Due to the homogeneity of the population and lack of finance as well as time, a sample of 4 percent from each housing tenure category was taken. Thus, 567 household heads from owner occupied dwelling units and 122 household heads from Kebele rented housing units, that is, a total of 689 sample household heads were selected.

1.4.1.3 Secondary Data

The relevant secondary data both published and unpublished sources, workshop papers related to housing were obtained form different libraries, documentation centers, offices and different organizations.

Graph

1.4.2 Method of Data Processing

The methodology employed to analyze the data was descriptive analysis. Descriptive analysis was basically applied in this study, because, it is mostly used for the assessment and comparison of the physical characteristics of the dwelling units, housing expenditure and housing tenure and thus, provides the policy maker with key facts about the housing units (Malpezzi, 2000: 295). Thus, to achieve the objectives of the study, percentages, mean values and simple correlation coefficient were used.

1.5 The Significance of the Study

Due to migration and natural increase of population in urban centers of the country, shortage of housing, which is manifested by homelessness and over-crowding, inadequacy in the provision of basic housing facilities and public services, are becoming the most acute problems of the housing sector in Ethiopia. Not only housing shortage, but also lower quality and physical deterioration of the existing housing units, are other problems prevailing in most urban areas of the country including Bahir Dar. Thus, studies, which deal with the housing sector will have relevance to bring alternative measures and solutions to the problems identified and encountered.

Even though the study is carried out for academic purpose and confined only to a single town, i.e., Bahir Dar, the findings obtained from the research will be helpful to have a deeper knowledge about the problems of housing sector, particularly those of the owner-occupied and Kebele rented housing units in the study area, as well as for recommending some possible measures and solutions that would by taken by central,

regional and local governments. Finally, the results of the study may contribute to the formulation of comprehensive housing policies and strategies for the country.

Bahir Dar is selected to this study by the researcher because of four main reasons. First, the town is one of the fast growing urban centers of the country, which is now facing diverse housing problems in its urban development process. Secondly, due to the absence of clear and comprehensive housing policies, especially on rental accommodations, Kebele rented dwelling units have been neglected in the country including Bahir Dar. So, in order to identify the major problems and recommend some possible policy measures, studying of housing sector based on housing tenure is essential. Thus, the study area and the topic are mainly selected for this reason. Thirdly, the process of the research and the study area are feasible in terms of time and space; and fourthly, due to better acquaintance of the town.

1.6 Limitation of the Study

1. Due to lack of similarity (consistency) of the data, such as a difference in the total population size, housing units, household number and projections of population of the town given by CSA, NUPI and ANRSBOPED, some of the results obtained in the study may have discrepancy.
2. Even though, most serious housing problems are associated with private rental accommodations, the study did not include the sector. This is because, private rental accommodations have owners who take-care of the dwellings and most of the time, the housing conditions of these units are similar to owner-occupied

dwelling units, since majority of private rental housing units are mostly found within the compound of the owner or a partition of the main owner occupied dwelling units.

3. Lack of updated and necessary maps to show detailed information about the town.

1.7 Definition of Terms

Housing/Dwelling/unit:- any building or construction which is principally built to serve a single household or family for residential purpose (Solomon, 1985:10).

Household:- It is an arrangement made by persons, individually or in groups for providing themselves with food and other essentials of living (UNCHS, 2001).

Household head:- A person who has primary authority and responsibility for household affairs and who is a chief economic supporter (UNCHS, 2001).

Household income:- The total income from all sources of all household members (UNCHS, 2001).

Room:- is defined as a place enclosed by walls reaching from the floor to the ceiling or roof at least to a height of two meters and having an area of at least four square meters (that is, a size large enough to hold a bed for an adult). Except for bathrooms, toilets and passageways other rooms found in housing units are considered as rooms (CSA, 1995: 282).

Housing shortage:- the difference between the total number of households and the total number of housing units in a given geographical unit, as a result of a marked excess of households over housing units (Solomon, 1985:11).

Over-crowding:- the sharing of one room by 2.5 or more persons per room (CSA, 1999: 232).

Standard housing: a dwelling unit which consists of tap water; electric light; flush toilet or dry pit latrine; modern or traditional kitchen; bath tap or shower inside the compound as well as a dwelling unit built up of block or brick or concrete wall; corrugated iron sheet or concrete or asbestos roof; cement or wood or marble floor and having ceiling of either cheap/hard wood or concrete.

Sub-standard housing:- a dwelling unit that is lacking in one or more of the basic housing facilities or one which in any parts of its physical shell, such as foundation, floors, walls, ceilings and roofs fails to meet the minimum standards for health and safety purposes (Solomon, 1985).

Slum:- a highly congested residential neighborhood in a given city which is predominantly comprised of sub-standard dwellings and is occupied mainly by persons that belong to the lowest income stratum (Solomon, 1985:11).

Squatter settlement:- a concentration of dwellings built on land neither owned nor rented by the builders (squatters).

Leasehold:- it conveys the right of beneficial occupation to land or property, but such occupation is circumscribed both by a finite period of time, as well as the specific conditions of the lease.

Rental income tax:- It is a tax on income from house rent (MEDaC, 1999).

Capital gain tax:- it is a tax which is paid in accordance with the gains realized from the increase in value upon the sale of shares and bond; and urban houses (MEDaC, 1999: 306).

Kebele:- (Amharic word), the lowest administrative unit in the urban areas of Ethiopia.

Woreda:- (Amharic word), the second administrative units in the urban and rural areas of the country.

DEVECON OY: is a Finland consultant expert group, which studied the project of upgrading the city of Bahir Dar in cooperation with the special zone administration in 1998 (BDSZA/DEVECON OY, 1998).

CHAPTER TWO

LITERATURE REVIEW

2.1 The Growth Pattern of Urban Population

2.1.1 World Urbanization Patterns and Urban Population Growth

The size and proportion of world urban population has been growing since the early 19th century due to agricultural surplus production, industrial and transport revolutions, which had taken place particularly in the more developed regions. In addition to this, the growth of world urban population is also accelerated by massive rural-urban migrations accompanied by high natural population growth in the less developed regions.

Table 1: Percentage distribution of world population by rural and urban place of residence, estimates and projections, 1850 – 2030 (in millions)

Year	Total population		Rural population		Urban population	
	No	%	No	%	No	%
1850	1262	100	1181	93.6	81	6.4
1900	1650	100	1426	86.4	224	13.6
1950	2520	100	1770	70.3	750	29.7
2000	6060	100	3210	53.0	2850	47.0
2030	8110	100	3220	39.7	4890	60.3

Source: Dwyer, 1975: 8 cited on Davis, 1971 (1850 – 1900)

: UN, World Urbanization Prospects, The 1999 Revision, 2001: 7 (1950 – 2030)

Table 1 shows that, between the years 1850 to 2000, the number of world rural and urban population has grown from 1,181 million to 3,210 million and from 81 million to 2850 million, respectively. Within these 150 years interval, the growth of rural population was 2.7 times, while the increase of world urban population was as large as 35.2 times. Thus, the rapid increase of the world urban population coupled with the slowing growth of rural population has led to a major redistribution of the world population. As such, the proportion of urban population has increased from 6.4 percent in 1850 to 47 percent in 2000 and it is also expected to reach 60.3 percent in 2030. On the contrary, the proportion of world rural population has decreased from 93.6 percent in 1850 to 53 percent in 2000 and assumed to further decline to 39.7 percent in 2030. In the mean time, the number of urban dwellers is expected to be equal to that of the rural dwellers in 2007, when the proportion urban dwellers will cross the 50 percent mark (UN, 2001:5).

The difference in the proportion of world population is not only at rural and urban level, but there is also a marked variation in the level of urbanization between more and less developed regions. The level of urbanization experienced in the more developed regions is much higher than the percentage of urban population living in the less developed regions.

Table 2: Percentage Distribution of population residing in urban areas, by major areas and regions, estimates and projections, 1950 – 2030

No	Major area and region	Percentage urban								
		1950	1960	1970	1980	1990	2000	2010	2020	2030
1	World	29.7	33.6	36.7	39.6	43.5	47.0	51.1	55.7	60.3
2	More developed regions	54.9	61.4	67.6	71.5	73.8	76.0	78.4	81.1	83.5
3	Less developed regions	17.8	21.6	25.1	29.3	35.1	39.9	45.2	50.8	56.2
4	Northern America	63.9	69.9	73.8	73.9	75.4	77.2	79.6	82.1	84.4
5	Europe	52.4	58.0	64.5	69.4	72.5	74.8	77.3	80.0	82.6
6	Oceania	61.6	66.4	70.8	71.2	70.6	70.2	70.5	72.2	74.4
7	Latin America	41.4	49.3	57.4	64.9	71.0	75.3	78.6	81.1	83.2
8	Africa	14.7	18.3	23.1	27.3	32.1	37.9	43.7	49.2	54.5
9	Asia	17.4	20.8	23.4	26.9	32.4	36.7	41.9	47.6	53.4

Source: UN, World Urbanization Prospects, The 1999 Revision, 2001: 156 – 163.

The percentage of population residing in urban areas of the more developed regions was 54.9 percent in 1950 as compared to 17.8 percent for the less developed regions in the same period. In the year 2000, the level of urbanization has reached 76 percent for the former and nearly 40 percent for the latter region. The difference between these two regions is also expected to continue and the proportion of urban population will be 83.5 percent for the more developed and 56.2 percent for the less developed regions in 2030 (Table, 2). The level of urbanization in the less developed regions will be expected to reach 50 percent mark in 2015 (UN, 1993), while the more developed regions had already reached before 1950.

Within the less developed regions, there is also a significant variation in the level and pace of urbanization. Among these regions, the highest proportion of urban population is found in Latin America. In 1950, the proportion of urban population in Latin America

was 41.4 percent as compared to the lowest in Africa, 14.7 percent and in Asia 17.4 percent in the same period. In 2000, the percentage of urban population in Latin America, Africa and Asia has reached 75.3, 37.9 and 36.7 percent and it is also expected to grow to 83.2, 54.5 and 53.4 percent, respectively, in the year 2030. Despite their higher levels of urbanization, however, the combined size of urban dwellers in Europe, North America, Latin America and the Caribbean (1.2 billion) is not as high as that of Asia (1.4 billion), the least urbanized major area of the world (UN, 2001: 8).

Urbanization in the Third World countries especially in Africa is viewed from different perspectives. First, Africa did not pass through stages of industrialization, secondly, Africa was under the grips of its colonizers for decades and development was rather influenced by outside powers. As a result, the growth of African cities is closely linked to the system of colonial rule in their respective periods (Assefa, 1993). However, Africa exhibited the lowest level of urbanization in 1950 containing 14.7 percent and in 2000, the proportion of urban population has reached 37.9 percent. In 2030, the percentage of urban population in Africa is expected to grow to 54.5 percent, the second lowest next to Asia, 53.4 percent. Within Africa, Northern and Southern Africa were the most urbanized regions with around 50 percent of their population living in urban areas in 1998. Western Africa and Middle Africa are in between with 39 and 34 percent, respectively and Eastern Africa has the lowest level, 24 percent (UN, 2000:69).

In the midst of this urban process are a group of African countries, all classified as least developed by the United Nations, which have barely begun an urban transition. Nine least developed countries in Africa (Burkina-Faso, Burundi, Ethiopia, Guinea – Bissau, Lesotho, Malawi, Niger, Rwanda and Uganda) had less than 20 percent of their population living in urban areas in 1990 (UN, 1993:6).

Finally, even though the level of urbanization varies from region to region, there is one common feature for all regions of the world, that is, there has been an increasing trend in the proportion of urban population during the last half century.

Another important aspect in the world urbanization patterns and trends is the average annual growth rate of urban population.

Table 3 – Average annual urban population growth rates of the world by major areas and regions, estimates and projections, 1950 – 2030

No	Major areas and regions	Average annual growth rate (Percentage)								
		1950-1955	1960-1965	1970-1975	1980-1985	1990-1995	2000-2005	2010-2015	2020-2025	2025-2030
1	World	**3.01**	**3.06**	**2.59**	**2.63**	**2.21**	**2.03**	**1.89**	**1.66**	**1.50**
2	More developed regions	**2.32**	**2.11**	**1.48**	**0.90**	**0.71**	**0.50**	**0.43**	**0.28**	**0.19**
3	Less developed regions	**3.97**	**4.17**	**3.65**	**3.89**	**3.04**	**2.70**	**2.41**	**2.06**	**1.85**
4	Northern America	**2.65**	**2.04**	**1.02**	**1.18**	**1.24**	**1.02**	**0.99**	**0.82**	**0.70**
5	Europe	**2.02**	**2.08**	**1.44**	**0.80**	**0.51**	**0.29**	**0.21**	**0.06**	**-0.03**
6	Oceania	**3.00**	**2.81**	**2.36**	**1.40**	**1.43**	**1.21**	**1.27**	**1.18**	**1.07**
7	Latin America	**4.46**	**4.36**	**3.74**	**3.03**	**2.36**	**1.89**	**1.51**	**1.20**	**1.07**
8	Africa	**4.48**	**4.87**	**4.32**	**4.37**	**4.24**	**3.71**	**3.26**	**2.84**	**2.58**
9	Asia	**3.66**	**3.72**	**3.35**	**3.72**	**3.78**	**2.53**	**2.30**	**1.96**	**1.74**

Source: UN, World Urbanization prospects, The 1999 Revision, 2001: 188 – 191.

The urban growth rate of the world was 3.01 percent during the period 1950 to 1955 and declined to 2.03 percent between 2000 and 2005. It is also expected to decline further to 1.5 percent between 2025 and 2030. Similar to the level of urbanization, the average annual growth rate of urban population has also showed a varied trend in different regions of the world. In more developed regions, the average annual growth rate of the urban population has shown a continuous declining trend from 2.32 percent in the 1950 and 1955 period to 0.5 percent in the 2000 and 2005 period and is expected to decline to 0.19 percent between the years 2025 and 2030. But, the average annual growth rate of urban population in the less developed regions has revealed a fluctuating trend from the years 1950 and 1955 to the period 1980 and 1985. However, the average annual population growth rate of urban areas of the less developed regions has decreased from 3.97 percent between 1950 and 1955 to 2.7 percent for the period 2000 and 2005 and expected to decline to 1.85 percent in the years 2025 and 2030 (Table 3).

Within the less developed regions, Africa constantly has the highest annual urban growth rate. During the period 1950 and 1955, the average annual urban population growth rate was 4.48 percent and between 2000 and 2005, it has decreased and reached 3.26 percent and it is also expected to decline to 2.58 percent in the years 2025 and 2030. During the period 1950 and 1955, Latin America was the second highest next to Africa with 4.46 percent, but it has been decreasing at a faster rate and reached 1.89 percent between 2000 and 2005 and also expected to decline further to 1.07 percent, in the years 2025 and 2030.

From the projection given in Table 3, there is one common feature of the world average annual urban population growth rates, that is, all the regions showed a declining trend with higher rates in more developed than in the less developed regions. As a result, the rate of urban population growth in the less developed regions is still higher than that of the more developed regions in which the consequence is urban population explosion in the cities of the former regions. There are several factors for the rapid increase of urban population in the less developed regions. The most important ones are, natural increase of population, massive rural-urban migration due to rural push and urban pull factors as well as the transformation of rural settlements in to cities. According to various empirical findings, the following are the major push factors that force people to leave rural areas. These are, land scarcity due to increasing population and/or unfavorable land tenure systems; agricultural production stagnation; poverty; environmental crisis and consequent famine. The urban pull factors are generally referred to the desire for modern education; health and other social services, improved living standards and wage employment. In addition to these, the expectation of earning higher income is the primary motivating factor that makes people migrate to cities (Kebede, 1994: 10 – 11).

Due to the above-mentioned major factors, the size of population in the cities of developing countries has been increasing at a very fast rate. In 2000, 4.3 percent of the world's population lived in urban agglomeration of 10 million inhabitants or more (Known as Mega cities). The most populous urban agglomerations were Tokyo, with 26.4 million inhabitants followed by Mexico City and Bombay with 18.1 million each, as well as Sauo-Paulo with 17.8million (UN, 2001:5). From these four mega cities, three

are found in countries of less developed regions, which shows a higher concentration of urban population in big cities of developing countries. Thus, due to massive rural-urban migration and natural increase of population, cities of the developing world are containing the largest size of population resulting in the inability of these cities to provide the necessary physical and social infrastructures as well as shelter in almost all urban centers of developing nations including Ethiopia.

2.1.2 Urbanization in Ethiopia

Urbanization is a process of population concentration in which the inhabitants are mainly engaged in non-agricultural activities. Urban areas (cities) are centers of innovation and places where modernization has flourished. Information on the levels of urban growth are useful to anticipate problems that are inevitably associated with urbanization. Urbanization trends in a country may best be appreciated by examining the degree of urbanization in terms of the percentage of urban population and the rate of urban population growth (MEDaC, 2000: 34).

Before dealing with the level of urbanization, it is necessary to assess some aspects of the historical development of towns and cities in Ethiopia. The development of cities in Ethiopia has not followed patterns similar to the urbanization process in other African countries much less the west. The fact that Ethiopia has remained isolated from the rest of the world for many centuries has left the cities out of touch with the rest of the world. Internal political conditions, manifested by wars among tribes, nationalities and to keep out foreign intruders were other factors hindering developments of cities as well as the urbanization process (Assefa, 1993; Kebede,

1994). According to Kebede (1994), much of the urban history of Ethiopia following the Axumite period was characterized by the absence of fixed center in the country until Addis Ababa was built as permanent seat of the government by Menelik II at the end of the 19th century. Many factors have in combination acted as forces of impediments in the lack of permanency and development of urban centers in pre-20th century Ethiopia. These are: 1) the rugged topography which created obstacles to communication hindering easy contact between peoples leading to regional isolation; 2) under development of occupations such as craftsmenship which could not trigger large scale development of specialized skills and services; and 3) internal conflicts and external aggression.

Historically, there was a system of towns, but different from the town encountered with in the country today. Traditional towns were primarily feudal settlements within a feudal state. The social, political and economic organization was different from that of today's towns. (Assefa, 1993: 62-63). In the early periods, the growth of Ethiopian towns was more due to political than economic factors. Therefore, it is concluded that Ethiopian towns historically were consumer rather than producer cites, and that their contribution to development was not very important. The growth of Ethiopian towns during the 20th century has been great. It was the political and administrative developments within the empire of Ethiopia that spurred urbanization (Ottaway, 1976:67).

As regards the level of urbanization, Ethiopia is still one of the least urbanized countries in the world and a large majority of the population is predominantly rural.

Table 4: percentage distribution of total population of Ethiopia by rural and urban place of residence, 1965 – 2002 (in Thousands)

Year	Total population		Rural population		Urban population	
	No	%	No	%	No	%
1965	22590.4	100	21065.0	93.25	1525.4	6.75
1975	27102.1	100	23906.3	88.21	3195.8	11.79
1984	42616.9	100	37747.6	88.60	4869.3	11.40
1994	53132.3	100	45816.6	86.23	7315.7	13.77
2002	67220.0	100	56913.0	84.67	10307.0	15.33

Source: Shewaneseh, 1994: 24, cited on CSO, 1965; 1976
: OPHCC, 1991: 9
: CSA, 1999; 14 and 16
: CSA, 2002: 24

Table 4 shows that, the total population of the country has increased from 22.6 million in 1965 to 67.2 million in 2002, while the rural and urban populations have increased from 21.1 and 1.5 million in 1965 to 56.9 and 10.3 million, respectively, in 2002. Within a span of 37 years, the total population has increased 3 times whereas the rural and urban population has increased by 2.7 and 6.8 times, respectively. Thus, the size of urban population has been increasing at a much faster rate than the total and rural population of the country.

Taking the level of urbanization, the proportion of urban population has increased from 6.8 percent in 1965 to 15.3 percent in 2002, whereas the percentage of rural population has decreased from 93.3 percent in 1965 to 84.7 percent in 2002. It is also projected that 23 percent (29.7 million) of the population of the country will be urban dweller by 2030 (CSA, 1998: 331). Like other developing countries of the world, the increasing size and proportion of urban population in Ethiopia is due to rural-urban migration and natural increase of population. In the country, the rural-urban migration is more influenced by rural push and urban pull factors. The rural push factor includes:- 1) land scarcity and fragmentation, natural increase of population and changes in rural land policy; 2) the reduction in the productivity of land and labour, as

a result of improper farming practices and environmental degradation, and 3) the persistence of poverty and famine for a long period in the country.

Even though, the rural push factors have more influence on rural- urban migration in the country, urban pull factors have also their own role to play. These are:- 1) the presence of modern economic activities with better provision of physical and social infrastructure in urban than rural areas; 2) urban areas are centers of political and administrative authorities, and 3) the expectation of employment opportunities for better life.

Other important indicator, which shows the process and speed of urbanization is urban growth rates. The urban growth rate, which is defined as the annual rate of change of the urban population was estimated to be 4.9 percent between the years 1984 and 1994. It is also estimated at 4.4 percent between the years 1995 and 2000 and expected to decline slightly in the future to 3.36 percent per annum by the period 2025 and 2030 (MEDaC, 2000).

Considering the number of urban centers consisting more than 2,000 inhabitants, there were 185 towns in 1970 (CSO, 1972); 312 urban centers in 1984 (Tegegne, 2000) and 852 towns and cities in 1994 (MEDaC, 1999). According to MEDaC (1999), out of these 852 urban centers, 648 (76.1 percent) of them were containing 5000 and less inhabitants, while cities consisting more than 100,000 urban dwellers were only 4 accounting for 0.5 percent of all urban centers of the nation. Further more, the urban system of the country is characterized by the dominance of Addis Ababa (the primate city) with a greater number of other small and limited intermediate urban centers (MEDaC, 1999: 303). In 2002, 25.7 percent (2.65 million) of the urban population of

the country lived in Addis Ababa. Dire Dawa is second with a population of 237 thousands followed by Nazareth 189.4 thousands in the same period (CSA, 2002).

The regional dimension of towns and urban population is very striking both in the spatial and size distribution. First of all, the peripheral regions, which are mainly lowland areas have few number of urban centers. Four regions, namely, Afar, Gambella, Benshangul and Somali, all together comprise 68 towns with population size greater than 2000. The largest numbers of towns are fund in Oromiya followed by Amhara, SNNP and Tigray regions (Tegegne, 2000; 2-3).

Generally, the country is characterized by small proportion of its population living in urban areas (15.3 percent in 2002) and a rapid rate of urban population growth (4.4 percent between the years 1995 and 2000). However, in spite of the country's low level of urban population, inadequate housing resulting in homelessness and over-crowded living arrangements, poor sanitation, shortage of health and educational services are common features of most urban centers in Ethiopia including Bahir Dar town.

2.1.3 Development of Bahir Dar Town

Bahir Dar is found in the north-western part of the country at a road distance of 565 kms from Addis Ababa (see Figure 2). The town is bordered by lake Tana on the north and crossed by Abay River on the east. The astronomical location of Bahir Dar is $11^0$36' North latitude and $37^0$25' East longitude. The town generally lies on a flat topography with an average altitude of 1802 meters above sea level and the average annual rainfall is 1393.7 m.m with minimum and maximum average temperature of 10^0c and 26.3^0c, respectively (CSA, 2002: 8; BDSZA, 1997).

Graph

After indicating the location, in order to assess the urban development of the town, it is necessary to examine its historical development. According to Seltene (1988), Bahir Dar as a settlement had the church of Kidanemihret as its identification since the 14th century. Later on, during the regime of Iyasu I (1682 – 1706) there came a change over the name and status of Bahir Dar. This was the erection of the church of Qidus–Giyorgis, a gedam or monastery, over the former church. Hence forth, the settlement came to be called Bahir Dar Giyorigs instead of Bahir Dar Kidanemihret. Since then, Bahir Dar appears to have been not only a growing settlement but also a religio–administrative center of the locality. In addition to these, due to its location along a trade route, Bahir Dar remained as a significant market center for its surroundings. Two factors were responsible for the development of this village as a market place. One was external trade carried out by long distance caravan merchants. The second factor was internal factor, which appeared to have been more responsible for the growth of Bahir Dar as a trading village. The local routes that converged on Bahir Dar from several directions were important means that assured the main stay of the village, because they were connected with rich productive areas in the hinterland.

According to the same source, when the Italians arrived, they found Bahir Dar a village with a gedam administration. The Italians brought considerable physical and administrative changes to Bahir Dar. During this period, the town was connected by modern means of land, air and water transport with important towns and settlements between Gondar and Dejen. The post independence era witnessed a steady growth and development of Bahir Dar. However, a fast growth of Bahir Dar had to wait until the early 1960s when the central government planned to develop this town as a regional economic development center in north–western Ethiopia. The selection of

Bahir Dar to develop as a center for the overall regional economic development of the Tana-Blue Nile basin was perhaps due to its location. The various studies made recognized the importance of the basin as one of the high potential areas for future economic growth. The fertility of the soil, the existence of abundant water, the wealth in cattle, the possibilities of harnessing hydro-electric power and the availability of cheap labour were encouraging factors to develop this basin agriculturally and industrially and promote Bahir Dar as an example of regional economic center.

In general, the rapid growth of Bahir Dar town came towards the end of 1950s and during the early 1960s. During this time, bridge was constructed on Abay river and all weather roads were opened between Addis Ababa, Gondar and Asmara; the use of other modern means of transport such as air and water; the establishment of the Textile Factory and Poly-Technique Institute; the development of Tis-sat hydro electric power station; the construction of bank and hospital as well as the preparation of modern master plan made the town to develop fast and attain the present status (Seltene, 1988: 196). At present, Bahir Dar is the capital city of the Amhara regional state (see Figure 3). The physical size of the town covers a total area of about 4520 hectares (ANRSBOPED, 2002). At the moment, the town is administered by the municipal authorities and divided in to two werdas and 17 Kebeles.

Graph

The Amhara Regional State consisted of 208 towns. Out of these towns, Bahir Dar contained 1.4 and 7.9 percent of the total urban population of the country and the region, respectively. On the average, the population of the town has been growing at annual rate of 7.1 percent during the periods from 1965 to 1994 (NUPI, 1996: 110). Hence, the total population of the town had increased from 11,990 in 1965 to 96,140 in 1994 (Seltene, 1988; CSA, 1995). According to NUPI (1996: 112), the population of Bahir Dar during the period of 1995 to 2015 is expected to grow at an average growth rates of 5.6, 4.5 and 4 percent in the high, medium and lower growth variants, respectively. Thus, the population of the town is estimated to reach 145,982 in 2002(BDCM, 2003). Generally, the total population of Bahir Dar has grown 12 times between the years 1965 and 2002.

The major factors responsible for the rapid increase of urban population in Bahir Dar are mainly rural-urban migration and natural population increase. According to OPHCC (1990) and CSA (1995), the size and percentage of in-migrants increased from 16,851 (30.8 percent) in 1984 to 51,667 (54.1 percent) in 1994. To summarize, due to its political, economic, commercial and tourism significance, the town is becoming one of the fast growing urban centers in the region as well as in the country. In addition, manufacturing activities that account for 30 percent of the total employment next to administration (43 percent) also contributed to the rapid growth of the town (Birke, 1999: 5). As a result, the provision of physical and social infrastructures including housing becomes difficult in the town.

2.2 Urban Housing Characteristics and Conditions

Economic development cannot go with out social development including housing. At the same time housing, like health and education, is indispensable to the proper balance of development and to the economic activities that requires it (ECA, 1976: 34, cited on Abrams, 1966). Thus, countries of the world, particularly those of developing nations, should give due consideration to the development of the housing sector. This is because, millions of urban families in the Third World live in homes that lack adequate sanitation and security, have an irregular electricity supply and are built of flimsy materials. Millions of others live in more solid and serviced accommodations but in over-crowded conditions. Millions more live in houses that do not match their hopes and needs and have difficulty in paying their rent or mortgage. They have also a long journey to work places, their houses are too small they wish to own a house rather than rent (Gilbert, 2000:145). As a result, a data-bank for a number of cities should be assembled which would contain temporal information on a serious of variables, including, housing-tenure structure, housing conditions, service levels, building costs, etc. A data-bank is essential because, it would make possible to offer informed comments on the changing state of housing in developing countries and establish whether ownership is becoming more or less wide spread or whether levels of over-crowding are improving or worsening (UNCHS, 1989: 30).

Taking housing-tenure structure, the global housing stock in cities amounts to 700-720 million. In developing countries about 40-50 percent of the urban residents own their dwellings and another 20-30 percent are legal tenants (UNCHS, 2001: 30-31). Even

though, hundreds of millions of tenants live in cities, there is a profound ignorance of this large mass of people and the conditions in which they live (UNCHS, 1989: 1). In recent years, however, greater attention to rental housing has begun to redress the balance. In principle, it is undesirable to analyse rental tenure in isolation from ownership (Rakodi, 1996). In developing countries, a handful of countries were ideologically committed to producing rental housing. Since 1949, china and since 1960, Cuba have turned all rental housing over to the state and forbade private renting (UNCHS, 1989: 5, cited Gutierrez et. al., 1984: 257). In the same way, the private sector housing stock (other than the owner's residence) was nationalized giving rise to management problems similar to those for all public-owned housing (Rakodi, 1996: 186, cited Jenkins, 1990 on Mozambique, and Wendt, et al, 1990, on Ethiopia). This was the case in Ethiopia in 1975 when nationalization of urban land and extra houses made renting by the public sector and owner occupation the two sole tenure systems in the country (Gutema, 1994: 483).

Under the discussion of urban housing condition, the quality of the housing unit has important role in assessing the adequacy and standard of the dwelling units under different housing tenure-structure. According to World Bank (1993: 31), the urban environment in general and the residential environment in particular, comprise important elements of the quality of housing. The type of building and construction materials used, the availability of basic facilities and services, the rate of occupancy, the size of the housing units and their spatial distribution patterns have all a great effect on the quality of the dwelling units and their price. Generally, developing countries including Ethiopia, in order to devise comprehensive and appropriate

housing policies and strategies, they should have to consider the characteristic conditions of rental units and owner occupied dwellings and the socio-economic characteristics of owner occupiers and tenants.

In addition to the general housing characteristics and conditions of developing countries, it is essential to consider the urban housing situation in the country. According to the recent study done by Tadesse (2000) about the urban housing situation in Ethiopia, there is a wide gap between housing demand and actual supply in all urban centers of the country. There has been a chronic or considerable shortage of housing because of accumulated demand over time, which is indicated by significant overcrowding and increased number of homeless people. The study also revealed that, the provision of housing related infrastructure and services are inadequate. In addition, the study also indicated that, the condition of most of the houses (particularly those owned and managed by Kebele) in urban areas is very bad and service provision levels of basic housing related infrastructures (i.e., water, road and drainage) are inadequate.

Another study done by Birke (1999) in Bahir Dar also showed that, Kebeles in the town center consist of significant percentage of dilapidated housing units and lack basic facilities. In addition, there is also a problem of slum at the central part of the town and most of these are Kebele owned (see Figure 4). Thus, in order to examine the existing housing situation, the study tried to assess the supply and need/demand, the distribution patterns and the quality of the dwelling units as well as the factors that influence the present housing condition of owner occupied and Kebele administered housing units in Bahir Dar town.

Figure 4: One of the slum areas of Bahir Dar town found in Kebele 06

CHAPTER THREE

THE HOUSING SITUATION IN BAHIR DAR

3.1 Housing Supply and Needs/Demands

Housing shortage is one of the major problems in the urban areas of Ethiopia including Bahir Dar. The inadequate quality of the housing units which is continually declining, limited private and government building capacity, the increasing prices of building materials and a fast increase of population of urban areas have aggravated the problem of housing shortage in the country. According to BDSZA/DEVECON OY (1998), there is a severe shortage of housing in Bahir Dar town. The major bottlenecks identified are: high interest rate, low earnings, the increase in the price of construction materials and the scarcity of rental houses. Thus, in order to examine the existing and future housing shortage of the town, it is necessary to consider the supply and need/demand of the dwelling units.

3.1.1 Estimated Housing Supply (1994 – 2002)

The estimates of housing supply and need for nine years is taken, not because of other reasons, but it is only for the sake of convenience. Much less research has been done to date on housing supply, despite the fact that supply parameters are probably even more important for policy makers to know about than demand parameters. In boarder terms, housing supply comes from two sources: new construction and the existing stock (Malpezzi, 2000: 298). In this case, estimated production of housing

units refers to new constructions, which have been built officially and recognized by Kebele and the municipality.

Table 5: Estimated production of officially built-up housing units in Bahir Dar, (1994 – 2002)

Year	Number of houses constructed
1994	260
1995	1483
1996	1517
1997	710
1998	-
1999	609
2000	231
2001	287
2002	268
Total	5365

Source: Bahir Dar special zone Administration, 2000: 40
: Unpublished document of Bahir Dar city municipality, 2003

According to Table 5, the total amount of dwelling units constructed in Bahir Dar between the years 1994 to 2002 were estimated to be 5365 housing units which make a total of 25173 housing units in 2002. To find the average yearly production of dwelling units constructed in the town between the years 1994 to 2002, 5365÷9 = 596 housing units on the average were estimated to be constructed per year. This means, annually 37.04 percent of the housing needs were met between 1994 and 2002.

3.1.2 Estimated Housing Need (1994 – 2002)

Before dealing with the need of the dwelling units in Bahir Dar, it is essential to make a distinction between housing need and housing demand. Housing need refers to the number of dwelling units which are regarded as socially desirable in terms of structural

quality, rate of occupancy, sanitary and other facilities and which fulfill certain standards of health, privacy, etc. Housing demand on the other hand reflects only part of this socially felt need for housing. It refers to the desire (willingness) for housing supported by economic ability to satisfy the desire. Thus, housing demand is influenced by affordability (economic capacity) and willingness to buy, construct and rent (Tadesse, 2000: 16). There are many components, which are used to estimate housing needs at national, regional and local level, but the three most common components which bring about housing shortage in all societies are:

1. The need for housing due to population increase, that is, due to the formation of new household.
2. The need for housing units to ease over-crowding and.
3. The need for housing units to replace demolished dwelling units.

However, the assessment of previously unmet housing need appears to be a more complex and un certain operation, especially when it is sure that, as in the case of Ethiopia, a large proportion of the population lives in sub-standard units (Gebeyehu, et. al, 2001: 54). As indicated above, there are three main components, which are used to estimate the unmet housing needs. Out of these, the first one is housing units needed to accommodate the increase of population due to natural increase and in-migration of population from 1994 to 2002 in Bahir Dar. In this case, the required information are the total population size of the town for both periods and the average household size for the former year. According to CSA (1995) and BDCM (2003, cited on ANRSBOPED, 2000) the total population size of the town was estimated to be 96,140 and 145,982 in 1994 and 2002, respectively. The average household size of

the town in 1994 was estimated to be 4.4 persons per household. Then, to find the unmet housing need due to population increase from 1994 to 2002 in Bahir Dar = $\frac{145,982 - 96,140}{4.4}$ =11,327.7 housing units, which was also on the average equivalent to 1258.63 dwelling units per year.

In estimating the unmet housing needs to solve over crowding, a one-to-one ratio between housing units and households would be taken into account, assuming that the standard to be pursued is that one household per housing unit (Gebeyehu, et. al, 2001: 51). Thus, the housing units required to ease overcrowding can be obtained by comparing the number of households with the number of dwelling units. According to the same source, the number of households and housing-units in the town in 1994 were 21,654 and 19,808, respectively. Therefore, the number of housing units needed to solve co-habitation between 1994 and 2002 is equal to 21,654 – 19,808 = 1846 housing units. To find the annual housing need between 1994 and 2002, 1846 ÷ 9 = 205.11 dwelling units per year on the average were needed to ease over-crowding.

In addition to the two components mentioned above, housing units needed to replace dilapidated or demolished dwelling units have to be estimated. In this case, the age of the dwelling unit is one of the most important indicator which helped to decide the percentage and the number of demolished housing unit in a given country, region or town. According to the sample survey carried out by NUPI (1994) in Bahir Dar, about 54.7 percent of the dwelling units were having a good physical condition, 36.7 percent required major and minor maintenance and 6.6 percent needed to be demolished and rebuilt. Thus, 6.6 percent of the total 19808 housing units, which is equal to 1307.3

dwelling units were obsolete and need replacement between 1994 and 2002. Hence, to find the annual unmet housing need to replace demolished units, 1307.3÷ 9 = 145.25 housing units per year on the average were needed form 1994 to 2002.

In sum, through the application of different calculations and assumptions, the total estimated accumulated unmet housing needs between 1994 to 2002 in Bahir Dar were equal to 11,327.7 + 1,846 + 1307.3 = 14,481 housing units which were also equivalent to on the average 1609 dwelling units per year for the past nine years.

3.1.3 The Housing Backlog (1994- 2002)

In order to assess the shortage of dwelling units in the town, it is essential to have a data showing a cumulative housing need and supply table for the period given.

Table 6: A summary of cumulative estimated housing need and supply in Bahir Dar (1994 – 2002)

Year	Housing units required due to population increase	Housing units needed to ease over crowding	Housing units required for replacement of obsolete units	Total need	Total supply
1994	1258.63	205.11	145.26	1609	260
1995	2517.26	410.22	290.52	3218	1743
1996	3775.89	615.33	435.78	4827	3260
1997	5034.52	820.44	581.04	6436	3970
1998	6293.15	1025.55	726.30	8045	3970
1999	7551.78	1230.66	871.56	9654	4579
2000	8810.41	1435.77	1016.82	11263	4810
2001	10069.04	1640.88	1162.08	12872	5097
2002	11327.67	1845.99	1307.34	14481	5365

Source: Own calculation based on the 1994 CSA census, BDSZA, 2000 and unpublished document of BDCM, 2003.

There was a disequilibrium between housing needs and supply of the dwelling units in the town between the years 1994 and 2002. The total estimated housing need and supply was 14481 and 5365 dwelling units, respectively, resulting accumulated deficit of 9116 housing units in 2002 (Table 6). In other words, the supply of dwelling units was only 37 percent of the total housing need of the town until 2002. If the rate of housing supply remains equal and other things remained constant, the town needs approximately 15.3 years to solve the problem of the existing cumulated housing deficit.

3.1.4 Future Housing Needs (2003 – 2012)

Future housing need of the town can be determined by taking in to account of population increase (the formation of new households) due to natural increase and migration, existing level of over-crowding and the rate of obsolescence of the existing dwelling units. Here, a ten years time is only taken for the sake of convenience to project the future housing need of the town. Thus, in order to project the increase of Population from 2003 to 2012, the rate of population growth is necessary. To find the average growth rate, the exponential growth rate formula is used (Appendix 3).

According to CSA (1995), the total population size of Bahir Dar town in 1994 had reached 96,140, where as according to the unpublished document of Bahir Dar municipality, the population of the town in 2003 is 153,293, then to find the average growth rate= r= $\left(10\sqrt{\frac{153,293}{96,140}}-1\right)$ = 0.0477, nearly 0.048 which is equal to 0.048 x 100 = 4.8 percent. With this average growth rate of population, the projected population of the

town from 2003 to 2012 is as follows. Here, the rate of growth of the town is assumed to be constant up to 2012.

Table 7: Projected population of Bahir Dar (2003 – 2012)

Year	Projected total population
2003	153,293
2004	160,651
2005	168,362
2006	176,444
2007	184,913
2008	193,789
2009	203,091
2010	212,839
2011	223,055
2012	233,762

Source: own calculation based on unpublished document of BDCM, 2003

In addition to the projected population of the town, the existing average household size is also essential. To find the average household size, the total estimated population and households of the town are needed, which are 153,293 and 32,660, (Gebeyehu, et. al 2001: 64), respectively. Therefore, the estimated average household size = 153,293÷32,660 = 4.7 persons /household. Thus, in order to obtain the approximate number of newly formed households, the increase in population from 2003 to 2012 will be divided by the average household size, that is: $\frac{233,762 - 153,293}{4.7}$ = 17,121.1 dwelling units will be needed to accommodate these newly formed households for the next ten years. To find the yearly average dwelling units, 17,121.1÷10 = 1,712.1 housing units/year are needed for the next ten years.

The other component needed to estimate future housing need is estimation of over crowding. This is done by assuming that one dwelling unit is necessary for a single household. Therefore, the housing units required to ease over crowding can be obtained by comparing the existing number of households with the number of dwelling units. According to Gebeyehu, et. al, (2001: 64), the estimated number of households in Bahir Dar in 2003 are 32,660 and according to the estimate of Bahir Dar municipality (2003), the number of total housing units in 2003 is expected to reach 25769. Thus, to find co-habitation, 32,660 – 25769 = 6891 housing units will be needed to ease over crowding from 2003 to 2012. This means, on the average 698.1 dwelling units/year are required.

In addition to the above mentioned two components, dwelling units are also needed to replace future obsolete housing units. According to the un published sources of the ARSBUDH (2003), it is estimated that about 13.1 percent of the existing housing units in Bahir Dar will be demolished within the coming ten years. Therefore, in order to replace these dilapidating housing units in the future $\frac{13.1}{100} x25769 = 3375.7$ dwelling units will be needed for the next ten years, which is also equal to on the average 337.6 housing units/year.

In sum therefore, according to the computation worked out, the total amount of future housing need of Bahir Dar town for the next ten years (2003 – 2012) will be = 17,121.1 + 6,891 + 3375.7 = 27,387. 8 housing units which is also equal to on the average 2738. 8 housing units per year. This means, the town needs more or less to double the size of its housing stock in the coming ten years. In addition to assessing

the need and supply of the dwelling units, it is also necessary to examine the effective demand of the town. To examine the effective demand, the projected cost of the lowest officially acceptable dwelling units and income distribution of the households in the town are required. According to the unpublished source of BDCM (2003), the cost of the lowest officially acceptable housing unit is 27,000 Birr, and the income distribution of the households of the town is given in appendix 4. Thus, in order to construct the lowest officially acceptable dwelling unit with the current bank interest rate of 7 percent under maximum loan term of 20 years, the minimum monthly income required is 627 Birr. If we compare this figure with income distribution of the households, 72.64 percent of the total households of the town cannot afford to build the lowest officially acceptable dwelling units under the existing loan policy. In other words, it is only 27.36 percent of the total households of the town that can get the loan and construct the dwelling unit. Therefore, effective demand of housing in Bahir Dar town is very low.

3.2 Housing Types

Housing types can be expressed by the materials from which the dwelling units are constructed; the structure in which the dwelling units are found; the nature of buildings such as whether they are attached or detached units, as well as by the age and maintenance condition of the dwelling units. Housing types in Bahir Dar are assessed based on the 1994 population and housing census of Ethiopia and the results of the sample survey carried out by NUPI.

According to CSA (1995), the type of housing interms of construction materials used was stated as follows. Of the total 19,808 dwelling units, the floors of 81.5 percent of the housing units in Bahir Dar were built up of mud, the walls of 87.0 percent of the dwelling units were built up of wood and mud, the roofs of 85.4 percent were covered by corrugated iron-sheets and about 86 percent of the total dwelling units were not having ceiling. From these percentages, it can be easily understood that most of the dwelling units in Bahir Dar are poor in quality and found in sub-standard housing conditions.

The structural types of buildings in which the housing units are found were classified in to three groups: permanent, improvised and mobile dwelling units. Based on the 1994 census, of the total 19,808 dwelling units in Bahir Dar, 94.91, 4.74 and 0.05 percent were permanent, improvised and mobile, housing units, respectively, (Gebeyehu, et. al, 2001: 10). This means, most of the dwelling units in Bahir Dar were permanent units which may be expected to maintain their stability for more than ten years. According to the same source, of the total housing units in 1994 in Bahir Dar, 99.16 percent were non-storied, of which 54.19 percent were attached and 44.97 percent were detached, whereas the remaining 0.83 percent were multi-storied, of which 0.62 percent were attached and 0.21 percent were detached. Form these percentages; one can easily observe that, almost all the dwelling units in the town were non-storied of which, more than 50 percent were attached.

When considering the age of the housing units, according to Gebeyehu, et. al, (2001: 33) based on the 1994 population and housing census, 74 percent of all the dwelling

units were having the age of less than 20 years, whereas 24.65 percent of the housing units were having the age of 20 and above.

Taking into account of the maintenance condition of the dwelling units, the sample survey study results of NUPI (1994) reveals that only 54.7 percent of the total households live in houses with good physical conditions, while, 36.7 percent require some sort of maintenance (14.1 percent major and 22.6 percent minor) and 6.6 percent of the houses need to be demolished and rebuilt (NUPI, 1996: 167).

3.3 Housing Tenure

Tenure refers to the arrangements under which the household occupied its living quarters. Tenure information collected for living quarters shows very clearly the distinction between rented units and units that are owner-occupied (CSA, 1999: 252). Hence, in order to examine the tenure status of Bahir Dar, the 1984 and 1994 population and housing census data are used.

Table 8: Percentage distribution of housing units by type of tenure in Bahir Dar, 1984 and 1994

Type of tenure	Census year			
	1984		1994	
	No	%	No	%
Owner occupied	5625	61.1	8807	44.5
Rented from: Kebele	3045	33.1	3042	15.3
AARH	174	1.9	208	1.0
Private household	-	-	6154	31.1
Other organization	-	-	154	0.8
Paying difference in rent	74	0.8	198	1.0
Rent free	23	0.2	1150	5.8
Not stated	265	2.9	95	0.5
Total	**9206**	**100.0**	**19808**	**100.0**

Source: OPHCC, 1990: 334
: CSA, 1995: 152

Other than human capital, housing and land are the types of capital that are most widely owned (Malpezzi, 2000: 293). As can be seen in Table 8, owner-occupied housing units accounted for 61.1 and 44.5 percent in 1984 and 1994, respectively. However, the percentage of owner-occupied, Kebele rented and housing units rented from the Agency for the Administration of Rental Houses (AARH) have declined, whereas to the opposite, the percentage of housing units rented from private household and other organization has been increasing from 1984 to 1994 census period. This was mainly because of the issuance of proclamation No. 92/1986 which, made subletting of privately owned houses official and the issuance of the country's new economic policy in November 1991 which permitted the right to ownership including rent.

3.4 Housing Cost

Based on the type of housing tenure, housing cost can be seen in two ways. The first one is the housing cost for rental dwelling units in which the renters pay to the housing units they are living and the second type of housing cost is the expenditure in which owners spend to the construction or purchasing of their units.

The cost of rental housing units in Bahir Dar can be examined at two levels. First, all rental housing units will be assessed based on the 1994 population and housing census data and secondly, sample Kebele rented housing units based on field survey of the researcher. In case of owner occupied dwelling units, due to lack of data, the assessment of the housing cost is only based on the field survey taken by the researcher in 2003 in Bahir Dar town.

Rent is a form of leasehold, in terms of which access to a property and the use there of is governed by a legal agreement of a fixed duration. Agreements are normally governed by law. Rental agreements operate either in the private domain, as contract between private citizens and corporate bodies, or in the public domain, where in the rental is provided by public body, such as local authority, as part of social housing policy (UNCHS, 2001). According to CSA (1995) in Bahir Dar, of the total 9756 rental dwelling units, 28.2; 55.5; 10.6 and 4.6 percent of them have monthly rent of 1-9, 10-49, 50 –99 and 100 Birr and above, respectively, while the remaining 1 percent was not stated. As can be seen from the percentages given, 83.7 percent of all the rental dwelling units have rent of less than 50 Birr while the average rent per housing unit for all rental dwelling units was 31.30 Birr.

In addition to the total rental condition of all the dwelling units, it is also essential to assess the rent paid for sample Kebele rented housing units in Bahir Dar.

Table 9: Percentage distribution of Kebele rented dwelling units by amount of monthly rent

Amount of rent in Birr	Number of dwelling units	%
1 – 9 Birr	98	80.3
10 – 49 Birr	24	19.7
50 – 99 Birr	-	-
Not stated	-	-
Total	**122**	**100.0**

Source: Field survey, 2003

As shown in Table 9, 80.3 percent of the sample Kebele managed rental dwelling units have rent prices of less than 10 Birr per month, whereas the average rent for all

the sample Kebele rented housing units is 6.39 Birr per month. The rent price of Kebele administered dwelling units may vary depending on the number of rooms available in the housing unit. Hence, in order to examine the degree and direction of association between number of rooms available in the dwelling units (x) and house rent (y), a simple correlation coefficient is used (See Appendix 5.1).

The computed result of the correlation coefficient (r=0.53) shows that, there is a positive moderate relationship between the number of rooms available in the dwelling units and the rent price of Kebele-administered housing units at a level of significance of 0.05. In other words, the rent price of Kebele-administered dwelling units tends to increase with the increase in the number of rooms available in the housing unit.

Table 10: Percentage distribution of owner – occupied dwelling units by the cost of construction or purchasing value in Bahir Dar town in 2003

Cost of construction or purchasing value	Number of dwelling units	%	Cumulative %
≤ 5000	48	8.5	8.5
5001 – 10,000	165	29.1	37.6
10,001 – 20,000	93	16.4	54.0
20,001 – 30,000	113	19.9	73.9
30,001 – 40,000	45	7.9	81.8
40,001 – 50,000	35	6.2	88.0
50,001 – 60,000	25	4.4	92.4
≥ 60,001	43	7.6	100.0
Not stated	-	-	-
Total	**567**	**100.0**	**-**

Source: Field survey, 2003

Table 10 shows that, 73.9 percent of the sample owner occupied housing units are constructed or purchased by 30,000 or less Birr in Bahir Dar. This lower amount of Birr spent for construction or purchasing shows that most of the dwelling units are low in

quality as the majority of the housing units (59.4 percent) are built up of wood and mud. However, the average cost of construction or purchasing value of the housing unit amounts to about 24,363.49 Birr, which is also equivalent to the cost of construction of 379.49birr/m^2. The income level of the household may have effect on the cost of construction of the dwelling units. Thus, in order to examine the relationship that exist in between household income (x) and cost of construction (y) and to test the effect, a correlation coefficient and coefficient of determination are computed. (see Appendix 5.2).

The result of the correlation coefficient (r = 0.54) at 95 percent confidence level revealed that, household income and cost of construction of owner-occupied dwelling units have direct positive relationship. Moreover, the coefficient of determination, which is obtained from the result of correlation coefficient shows that, about 29 percent of the increase in the cost of construction of owner-occupied dwelling units is explained by the increase in household income.

3.5 Location of the Dwelling Units Bahir Dar Town

The distribution of housing units in Bahir Dar has been influenced by natural and socio-economic factors. The occurrence of seasonal swamps has created a scattered settlement especially in the south western part of the town. According to the study of NUPI (1994) in Bahir Dar, the major urban functions (particularly those in the center of the town) evolved near lake Tana due to the availability of services. The establishments of different institutions, such as the Bahir Dar textile and edible oil

factories, the Felege Hiwot Hospital, the Polytechnic Institute and the Pedagogical College have their own impact to the shape of the town's spatial development pattern.

The spatial organization of land use in Bahir Dar is such that the various urban functions are mixed. Generally, most parts of the peripheral Kebeles (such as, Kebeles 16, 13, 14 and 17) are devoted to residential use. Commercial activities are concentrated in the central part of the town mixed with residence and other service functions (NUPI, 1996: 165). In addition to the variation in urban functions, residential population density also varies form Kebele to Kebele and from central to the peripheral part of the town.

Table 11: Residential population density of Bahir Dar by Kebele, 1994

Level of density	Kebele	Residential area in hectares	Population size	Density (persons/ hectare)
1st	06	7.01	5130	732
2nd	04	11.61	8170	704
3rd	05	7.04	4180	594
4th	01	8.37	4560	545
5th	12	8.69	4465	514
6th	07	21.48	9975	465
7th	17	28.11	11590	413
8th	02	10.77	3990	371
9th	09	10.73	3895	363
10th	10	25.97	7885	304
11th	08	18.28	4465	243
12th	14	4.20	855	204
13th	15	25.31	4370	173
14th	13	45.15	6840	152
15th	11	44.19	6365	144
16th	16	39.37	5510	140
17th	03	36.81	2755	75
Total	**17**	**352.73**	**95000**	**269.33(average density)**

Source: Brike, 1999: 6, cited on NUPI, 1996

The crude density of population has shown that areas of maximum population concentration are found in the central part of the town in Kebeles of 06, 04, 05, 01 and

12 which have more than the average population density of the town (269.33 persons/ hectare). These central Kebeles are not only congested, but there are also problems associated with them. These problems include, the expansion of slum settlements and lack of meaningful outdoor space. On the other hand, the intermediate and peripheral areas of the town which, include Kebele 03, 16, 11, 13, 15, 14 and 08 have lower population density which is less than the average density of the town (Table 11). The peripheral Kebeles have also their own problems. Because, they are places where squatter settlements expand and mostly these areas are water logged. However, the main reason that can be taken for higher population density in the central part and lower population density in the peripheral parts of the town is mainly the difference in the size of the residential areas and town centers are market places which attracted a large number of residents.

3.5.1 Location of Owner Occupied and Kebele Rented Housing Units in Bahir Dar Town

The distribution patterns of owner-occupied and Kebele rented housing units is uneven. The distribution varies from central to the peripheral part of the town.

Table 12: Percentage distribution of owner occupied and Kebele rented housing units by Kebele

Kebele	Type of tenure					
	Owner occupied housing units		Kebele rented housing units		Total	
	No	%	No	%	No	%
01	280	2.0	426	14.0	706	4.1
02	211	1.5	311	10.2	522	3.0
03	515	3.6	128	4.2	643	3.7
04	431	3.0	449	14.8	880	5.1
05	270	1.9	279	9.2	549	3.2
06	375	2.6	395	13.0	770	4.5
07	1424	10.1	143	4.7	1567	9.1
08	420	3.0	186	6.1	606	3.5
09	298	2.1	97	3.2	395	2.3
10	744	5.2	130	4.3	874	5.1
11	2500	17.6	36	1.2	2536	14.7
12	286	2.0	300	9.9	586	3.4
13	1395	9.8	90	3.0	1485	8.6
14	2160	15.2	-	-	2160	12.6
15	497	3.5	1	0.0	498	2.9
16	1890	13.3	8	0.3	1898	11.0
17	476	3.4	63	2.1	539	3.1
Total	**14172**	**100.0**	**3042**	**100.0**	**17214**	**100.0**

Source: unpublished document of each Kebele, 2003
Bahir Dar city municipality, cadaster department, 2003

Table 12 shows that, 71.1 percent of the total Kebele rented housing units are found in the central parts of the town, that is, in Kebeles 01,02,04,05,06 and 12, whereas 79.7 percent of the total owner occupied housing units are found in the peripheral parts of the town in Kebeles 07, 08, 09, 10,11, 13, 14, 16 and 17. Generally, most of the Kebele managed housing units are found in the central part of the town, because majority of them are old (on the average 35 years) which have been built in the early periods of the development of the town. Most of owner occupied housing units are found at the peripheral part of the town, because, the residents need more space for construction and most of them are relatively new, on the average 18 years.

The location of residential area by itself directly or indirectly determines the degree to which the residents get access to basic public services such as safe and adequate water supply, electricity, schools and health facilities (Solomon, 1985: 110). In addition to these, the location of dwelling units may affect the walking time between home and market place, work place, main road and waste disposal center. The predominant form of traffic in Bahir Dar is walking, covering over 75 percent of the trips (BDSZA/DEVECON OY, 1998: 30). Thus, the following tables are used to show the time taken to walk on foot between home and public service centers for both households of owner occupied and Kebele rented dwelling units in Bahir Dar town.

Table 13: Time taken by heads of households walking on foot between home and market place in Bahir Dar

Time (minutes)	Head of household					
	Owner occupied housing unit		Keble rented housing unit		Total	
	No	%	No	%	No	%
≤ 15	137	24.2	50	41.0	187	27.2
16 – 30	119	21.0	50	41.0	169	24.5
31 – 45	116	20.4	20	16.4	136	19.7
46 – 60	195	34.4	2	1.6	197	28.6
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: Field survey, 2003

As shown in Table 13, about 54.8 percent of the total sample heads of households of owner occupied housing units take more than half an hour to reach market place, whereas 82 percent of the total sample head of households of Kebele rental accommodations walk less than half an hour. This means, more than 50 percent of households of owner occupied housing units are, relatively far from the market, which is the town center, whereas most households of Kebele rented dwelling units (82

percent) are found relatively near the market center. As a result, most of the households of Kebele rented housing units have more locational advantage with respect to market center than most of the homeowners in the town.

Table 14: Time taken by heads of households walking on foot between home and work place

Time (Minutes)	Household head					
	Owner occupied housing unit		Kebele rented housing unit		Total	
	No	%	No	%	No	%
≤ 15	272	48.0	80	65.6	352	51.1
16 – 30	159	28.0	26	21.3	185	26.9
31 – 45	56	9.9	8	6.6	64	9.3
46 – 60	56	9.9	7	5.7	63	9.1
Over 60	24	4.2	1	0.8	25	3.6
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: Field survey, 2003

Table 14 shows that, 76 and 86.9 percent of the heads of the households of owner occupied and Kebele rented housing units take less than or equal to 30 minutes to walk to their work places. Here again, the more privileged heads of households are those living in Kebele rental accommodations. Because, nearly 87 percent of them have easy access to their work place.

Table 15: Time taken by heads of households walking on foot between home and main road

Time (Minutes)	Household head					
	Owner occupied housing unit		Kebele rented housing unit		Total	
	No	%	No	%	No	%
≤ 15	563	99.3	122	100.0	685	99.4
16 – 30	4	0.7	-	-	4	0.6
31 – 45	-	-	-	-	-	-
46 – 60	-	-	-	-	-	-
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: Field survey, 2003

Table 15 shows that, 99.3 and 100 percent of the heads of the households of owner occupied and Kebele rented housing unit have reported that, they do not walk more than 15 minutes to reach the main road, respectively. That means, almost all the sample households have easy access to main road.

Table 16: Time taken by heads of households walking on foot between home and primary school

Time (Minutes)	Household head					
	Owner occupied housing unit		Kebele rented housing unit		Total	
	No	%	No	%	No	%
≤ 15	512	90.3	73	59.8	585	84.9
16 – 30	55	9.7	47	38.5	102	14.8
31 – 45	-	-	2	1.6	2	0.3
46 – 60	-	-	-	-	-	-
Not stated	-	-	-	-	-	-
Total	567	100.0	122	100.0	689	100.0

Source: Field Survey, 2003

Taking into account primary schools, about 90.3 and 59.8 percent of the heads of the households of owner occupied and Kebele rented dwelling units have reported that, their children do not take more than 15 minutes to reach the nearest primary school, respectively (Table 16). These percentages show that, primary schools are relatively easily accessible in the town more to the households of owner occupied than the households of Kebele rented dwelling units.

Table 17: Time taken by heads of households walking on foot between home and secondary school

Time (Minutes)	Household head					
	Owner occupied housing unit		Kebele rented housing unit		Total	
	No	%	No	%	No	%
≤ 15	247	43.6	9	7.4	256	37.1
16 – 30	90	15.9	36	29.5	126	18.3
31 – 45	84	14.8	22	18.0	106	15.4
46 – 60	146	25.7	49	40.2	195	28.3
Over 60	-	-	6	4.9	6	0.9
Not stated	-	-	-	-	-	-
Total	567	100.0	122	100.0	689	100.0

Source: Field Survey, 2003

When considering secondary schools, 56.4 and 92.6 percent of heads of households of owner-occupied and Kebele rented dwelling unit have also reported that their children have to walk for more than 15 minutes time to rich the nearest secondary school (Table 17). That means, secondary schools are few in number and relatively far from the residents of most of the students of the town compared to primary schools.

Table 18: Time taken by heads of households walking on foot time between home and hospital

Time (Minutes)	Household head					
	Owner occupied housing unit		Kebele rented housing unit		Total	
	No	%	No	%	No	%
≤ 15	253	44.6	7	5.7	260	37.7
16 – 30	7	1.2	3	2.5	10	1.5
31 – 45	79	13.9	35	28.7	114	16.6
46 – 60	127	22.4	42	34.4	169	24.5
Over 60	101	17.8	35	28.7	136	19.7
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: Field Survey, 2003

About 55.3 and 94.3 percent of the households of owner occupied and Kebele rented housing units have to go on foot for more than 15 minutes time to reach hospital, respectively (Table 18). Thus, similar to secondary schools, hospitals are also scarce in the town.

Table 19: Time taken by heads of households walking on foot between home and waste disposal center

Time (Minutes)	Household head					
	Owner occupied housing unit		Kebele rented housing unit		Total	
	No	%	No	%	No	%
≤ 15	565	99.6	99	81.1	664	96.4
16 – 30	2	0.4	23	18.9	25	3.6
31 – 45	-	-	-	-	-	-
46 – 60	-	-	-	-	-	-
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: Field survey, 2003

Of the total sample households taken, 99.6 and 81.1 percent of the household heads of owner occupied and Kebele rented dwelling units have reported that, a member of the household did not take more than 15 minutes to reach the nearest waste disposal center, respectively (Table 19). That means, waste disposal centers are available in the town.

To sum up, according to the response of the sample heads of households of both housing tenure, it can be possible to conclude that, the provision of some public services, such as, main roads, primary schools and waste disposal centers are relatively at a good condition, whereas some, such as secondary schools and hospitals are scarce in Bahir Dar town. In addition to these, the percentages also show that, the households of Kebele rented dwelling units are more privileged than the households of owner occupied housing units in terms of accessibility to market and place of work. This is because of the fact that most of the heads of the households of Kebele administered dwelling units (71 percent) are found at central location.

CHAPTER FOUR

HOUSING QUALITY OF OWNER OCCUPIED AND KEBELE ADMINISTERED DWELLING UNITS IN BAHIR DAR

4.1 Housing Quality

The quality of a residential housing is necessary to appreciate the extent to which the existing housing conditions are regarded as socially desirable in terms of structural quality, rate of occupancy and other amenities of life. Besides this, knowledge about the materials used for construction of walls, roofs and floors may be of special significance for the assessment of durability of the housing unit, demand for construction material,… etc (CSA, 1999: 221). The major indicators of housing quality includes: the structural types of buildings in which the housing units are found, the type of building, the type of construction materials used, the availability of basic housing facilities, the size of the dwelling units and density of occupation.

4.1.1 Structural Components

Structural components of the dwelling unit include the structural type of the building, the type of building and the type of construction materials used. Depending on the type of buildings in which the housing units are found, the structure of the dwelling unit is classified in to three groups. These are: permanent, improvised and mobile housing units. According to CSA (1999: 221), permanent housing unit is a structure that may be expected to maintain its stability for ten years or more, improvised housing unit is a structure built of waste materials and being utilized as living quarter, whereas, mobile

housing unit is any type of living accommodation which has been made to be transported and occupied as living quarter.

Table 20: Percentage distribution of the dwelling units by type of structure and housing tenure

Type of housing structure	Type of housing tenure					
	Owner occupied		Kebele rented		Total	
	No	%	No	%	No	%
Permanent	567	100.0	122	100.0	689	100.0
Improvised	-	-	-	-	-	-
Mobile	-	-	-	-	-	-
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: Field survey, 2003

As shown in Table 20, all surveyed owner occupied and Kebele -managed rental accommodations in Bahir Dar have permanent structure. Thus, the dwelling units are expected to maintain their stability for ten years or more. In addition to the structure, housing units can be explained by the type of building, as for instance, in the cases of storied and non-storied buildings in which the dwelling units are either detached or attached unit.

Table 21: Percentage distribution of the dwelling units by types of buildings and housing tenure

Type of housing structure		Type of housing tenure					
		Owner occupied		Kebele rented		Total	
		No	**%**	**No**	**%**	**No**	**%**
Non storied	Detached	450	79.4	6	4.9	456	66.2
	Attached	117	20.6	116	95.1	233	33.8
	Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**
Multi – storied	Detached	-	-	-	-		-
	Attached	-	-	-	-		-
	Total				-	-	-
	Total	**567**	**100**	**122**	**100.0**	**689**	**100.0**

Source: Field survey, 2003

Table 21 shows that, 20.6 percent of owner occupied and 95.1 percent of the Kebele rented dwelling units are attached. Thus, owner occupied dwelling units are in a better condition in this regard as attached housing units have a problem of aural disturbance and most housing units are exposed to dangers such as fire.

Further more, the types of construction materials of housing units are of vital importance in housing studies. The types of construction material used to build dwelling units are used to examine the durability and permanency of construction as well as an indicator of the quality of a housing unit. There are different parts of the dwelling unit, which can be constructed by different materials. However, the major parts of the housing unit, such as, floor, wall, roof and ceiling are considered in this study.

Table 22: Percentage distribution of the dwelling units by construction material of floor and type of housing tenure

Construction material of floor	Type of housing tenure					
	Owner occupied		Kebele rented		Total	
	No	%	No	%	No	%
Mud	221	39.0	92	75.4	313	45.4
Wood tiles	-	-	-	-	-	-
Cement –concrete	308	54.3	29	23.8	337	48.9
Plastic tiles	1	0.2	-	-	1	0.2
Cement/brick tiles	37	6.5	1	0.8	38	5.5
Bamboo/reed	-	-	-	-	-	-
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: Field survey, 2003

As can be seen from Table 22, the floors of about 39 percent of the owner occupied and 75.4 percent of the Kebele rented dwelling units are earth. On the other hand, the floors of 54.3 and 23.8 percent of owner occupied and Kebele rented housing units

are built up of cement concrete. From the percentages given, it can be concluded that the floors of owner occupied housing units are better in quality than those of the Kebele managed rental accommodations.

Table 23: Percentage distribution of the dwelling units by construction material of wall and type of housing tenure

Construction material of wall	Type of housing tenure					
	Owner occupied		Kebele rented		Total	
	No	%	No	%	No	%
Wood and mud	337	59.4	111	91.0	448	65.0
Wood and thatch	-	-	-	-	-	-
Stone and mud	7	1.2	3	2.5	10	1.5
Stone and cement	21	3.7	6	4.9	27	3.9
Blockets	191	33.7	-	-	191	27.7
Bricks	11	2.0	1	0.8	12	1.7
Reed/bamboo	-	-	-	-	-	-
Not stated	-	-	1	0.8	1	0.2
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: Field survey, 2003

Table 23 shows that, the walls of 59.4 and 91.0 percent of owner-occupied and Kebele rented dwelling units, respectively, are built up of wood and mud showing that most of the dwelling units are sub-standard. However, the walls of 33.7 percent of owner occupied and 4.9 percent of Kebele rented housing units are built up of hollow concrete block and stone and cement, respectively. Even if most of the housing units are poor in quality, owner occupied dwelling units are in better condition than Kebele rented housing units in terms of wall. In addition to assessing the type of construction materials used, it is also essential to examine the painting condition of the wall.

Table 24: Percentage distribution of dwelling units by painting condition of the wall and type of housing tenure

Condition of wall	Type of housing tenure					
	Owner occupied		Kebele rented		Total	
	No	%	No	%	No	%
Properly painted	228	40.2	10	8.2	238	34.5
Partly painted	93	16.4	19	15.6	112	16.3
Not painted	246	43.4	93	76.2	339	49.2
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: Field survey, 2003

According to Table 24, the wall of 43.4 and 76.2 percent of owner occupied and Kebele rented dwelling units, respectively, are not painted. In other words, about 56.6 and 23.8 percent of the wall of owner occupied and Kebele rented housing units are either partly or properly painted, respectively. Thus, by comparison, still owner-occupied dwelling units are better in quality than Kebele rented dwelling units.

Table 25: Percentage distribution of the dwelling units by construction material of roof and by type of housing tenure

Construction material of roof	Type of housing tenure					
	Owner occupied		Kebele rented		Total	
	No	%	No	%	No	%
Corrugated iron sheets	564	99.5	122	100	686	99.6
Cement concrete	3	0.5	-	-	3	0.4
Thatch	-	-	-	-	-	-
Wood and mud	-	-	-	-	-	-
Bamoo/reed	-	-	-	-	-	-
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: filed survey, 2003

All most all the roofs of the sample dwelling units are covered by corrugated iron sheets of different in age. Taking the type of housing tenure, 99.5 and 0.5 of owner-

occupied housing units are built up of corrugated iron sheets and cement concrete, respectively, whereas, 100 percent of the roofs of Kebele rented dwelling units are covered by corrugated iron-sheets. Thus, the roofs of both types of housing tenures are almost have the same quality except the differences in the age of the corrugated iron-sheet.

Table 26: Percentage distribution of the dwelling units by construction materials of ceiling and type of housing tenure

Construction material of ceiling	Type of housing tenure					
	Owner occupied		Kebele rented		Total	
	No	%	No	%	No	%
Has no ceiling	212	37.4	64	52.5	276	40.1
Fabrics	195	34.4	43	35.2	238	34.5
Cheap/hard wood	157	27.7	15	12.3	172	25.0
Wooden	3	0.5	-	-	3	0.4
Concrete	-	-	-	-	-	-
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: Field survey, 2003

Table 26 shows that, 37.4 and 52.5 percent of owner occupied and Kebele rented dwelling units have no ceiling, respectively. This percentage show that, more than half of Kebele rented dwelling units are without ceiling. On the other hand, 62.6 and 47.5 percent of owner occupied and Kebele rented housing units have ceiling of different types. Finally, it is possible to conclude that owner occupied dwelling units are in better condition in terms of ceiling than Kebele rented housing units.

To sum up, from the tables given 20 to 26, it can be summarized that owner occupied dwelling units are better in quality and standard in terms of the type of building, construction materials of floor, wall, ceiling and painting condition of the wall, as compared to Kebele rented housing units. On the other hand, these two types of

housing tenures have similar standard in their housing structure and the types of construction material of their roofs. The reasons for these differences in the quality of the two types of housing tenures are explained in chapter 5 of the thesis.

4.1.2 Access to Basic Housing Facilities

The availability of pure water for drink and other household uses as well as electric light are considered to be the most valuable indicators of the quality of housing units. Besides these, the availability of bathing and kitchen facilities as well as safe and efficient disposal of human waste are among the first basic steps which should be taken towards assuring a suitable environment for the well being of the population (CSA, 1999: 235). Housing facilities are many in kind. However, five of the basic facilities are considered here. These are: source of drinking water, lighting, toilet, bathing and kitchen facilities.

Water is one of the most important basic natural resource needed for the existence of life including man on the planet earth. When considering water, the most important aspect is its purity for drinking purpose. Supplying water through pipes is recognized as the most effective means of protecting it from pollution and ensuring its purity provided that the water-supply system is efficiently administered. The availability of tap and protected supply for the occupants of each set of housing units is essential for the prevention of communicable diseases as well as for the general comfort of occupants (CSA, 1999: 235). However, as a reflection of the overall poor level of infrastructure development, coverage of potable water supply in Ethiopia is still very low. Existing data indicate that, national coverage of potable water supply stood at 26 percent by

1992, while coverage of sanitation services was only 7 percent. Coverage of water supply shows wide disparity among rural and urban areas, 18.8 and 76 percent, respectively (MEDaC, 1999: 273).

Table 27: Percentage distribution of housing units by source of drinking water and type of housing tenure

Source of drinking water	Type of housing tenure					
	Owner occupied		Kebele rented		Total	
	No	%	No	%	No	%
Tap inside the house	9	1.6	2	1.6	11	1.6
Tap inside the compound	482	85.0	27	22.1	509	73.9
Tap outside the compound	76	13.4	93	76.3	169	24.5
Well or spring	-	-	-	-	-	-
River/lake/pond	-	-	-	-	-	-
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: Field survey, 2003

All of the sample housing units surveyed in Bahir Dar have used piped tap water for drinking. However, the location of the tap varies by type of housing tenure, that is, 85 percent of owner occupied dwelling units have tap inside the compound, while, 76.3 percent of Kebele rented housing units have tap outside the compound (Table 27). To conclude, even though both types of housing tenures are in good condition as regards accessibility to clean water, owner occupied dwelling units are by far in better condition as compared to Kebele rented housing units.

Considerable importance is also attached to source of lighting in housing unit. Information about the type of lighting could provide planners with useful indication of areas where lighting services are deficient and need to be extended (CSA, 1999: 242). In addition, the source of lighting in the dwelling unit is also one of the major indicators

used to measure the quality of the housing unit. According to Gebeyehu et. al, (2001: 44), based on the 1994 population and housing census, about 65.43 percent urban housing units in Ethiopia use electric meter, of which, 25.28 percent is private and 40.15 percent is shared. However, more than one quarter (25.8 percent) of the housing units use kerosene lamps. According to the same source, 55.16 and 40.16 percent of all urban housing units in Amhara region use electric meter and kerosene lamp, respectively.

Table 28: Percentage Distribution of housing units by source of light and type of housing tenure

Type of lighting	Types of housing tenure					
	Owner occupied		Kebele rented		Total	
	No	%	No	%	No	%
Electric meter private	481	84.8	15	12.3	496	72.0
Electric meter shared	86	15.2	106	86.9	192	27.9
Lantern	-	-	-	-	-	-
Kerosene lamp	-	-	1	0.8	1	0.1
Note stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100**	**689**	**100.0**

Source : Field survey,2003

About 99.9 percent of the total sample housing units have electric lighting irrespective the type of meters used. However, the type of electric meter varies by the type of tenure, that is, about 84.8 of owner occupied dwelling units have private electric meters, whereas, 86.9 percent of the sample Kebele rented housing units have shared electric meters (Table 28). From the percentages given, more owner occupied housing units have their own electric meter and have better advantage than Kebele rented housing units. Thus, owner occupied dwelling units are found in better condition than the Kebele rented housing units as far as ownership of private electric meters are concerned.

The United Nations principles and Recommendations for housing census defines a toilet as an installation for the disposal of human excrete and a flush toilet as an installation connected with piped water arranged for humans to discharge their wastes and from which the wastes are flushed by water (Gebeyehu, et.al,2001:41, cited UN,1969). According to the same source, over all in urban Ethiopia, 42.3 percent of the housing units did not have toilet until 1994. On the other side, only 5.5 of the housing units had a flush toilet of which 3.5 percent were private. In addition, 51.1 percent of the housing units in all urban centers of the country used dry pits of both private and shared type. When considering toilet facilities at regional level, about 61.5 percent of all urban housing units in Amhara region had no toilet until 1994, whereas, 34.6 percent of the total urban housing units used dry pits of both private and shared toilet. The remaining 2.74 percent of the urban housing units used flush toilet of both private and shared types, while 1.6 percent were not stated.

Table 29: Percentage Distribution of Dwelling units by type of toilet and housing tenure

Type of toilet	Type of Housing tenure					
	Owner occupied		Kebele rented		Total	
	No	%	No	%	No	%
Has No Toilet	61	10.8	66	54.1	127	18.4
Flush toilet private	116	20.4	3	2.5	119	17.3
Flush toilet shared	-	-	5	4.1	5	0.7
Pit latrine private	380	67.0	12	9.8	392	56.9
Pit latrine shared	10	1.8	36	29.5	46	6.7
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: Field survey, 2003

Table 29 shows that, 10.8 and 54.1 percent of the surveyed owner occupied and Kebele rented housing units have no toilet, respectively. On the other hand, 68.8 percent of owner-occupied and 39.3 percent of Kebele rented housing units have dry pit latrine of both private and shared type. Thus, according to the percentages given, it is possible to conclude that owner occupied dwelling units are also in a better situation in terms of the availability of toilet facilities as compared to Kebele rented housing units in Bahir Dar town.

Even though bathing facilities are not common culture and experience in most housing units in Ethiopia, their importance to the households especially in Bahir Dar town, where the climate is hot, is unquestionable. According to the 1994 population and housing census of Ethiopia, about 96.2 percent of all the urban housing units in Amhara region did not have bathing facilities showing that the facility is not experienced. Similarly, 93.6 percent of the dwelling units in Bahir Dar, until 1994, did not have bathing facilities.

Table 30: Percentage Distribution of the Dwelling units by type of bathing facilities and housing tenure

Type of Bathing facility	Type of Housing tenure					
	Owner occupied		Kebele rented		Total	
	No	%	No	%	No	%
Has no bathing	409	72.1	122	100	531	77.1
Bath tap private	13	2.3	-	-	13	1.9
Bath tap shared	-	-	-	-	-	-
Shower private	144	25.4	-	-	144	20.9
Shower shared	1	0.2	-	-	1	0.1
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100**	**689**	**100.0**

Source: Field Survey, 2003

Of the sample dwelling units taken in the survey, 72.1 and 100 percent of owner occupied and Kebele rented housing units have no bathing facilities, showing that most of the dwelling units of owner occupied and all of Kebele rented housing units are sub-standard (Table 30). However, 25.4 and 2.3 percent of owner-occupied dwelling units have private showers and private bath taps, respectively. To conclude, even though more than three-fourth of the sample housing units do not have any bathing facility, the owner occupied dwelling units are by far in better conditions than Kebele rental units as regards this facility.

The last but not the least housing facility necessary for the households is the kitchen. Modern and clean kitchen facility is essential for the health of the household members. A kitchen is defined as a room primarily used for cooking meals. A traditional type of kitchen is a room used mainly for cooking using fire wood, charcoal, etc…, with simple or no stoves and has no piped water or sink, whereas, a modern kitchen is a room used for cooking which uses electricity, gas kerosene, fire wood and charcoal as fuel with appropriate stove and piped water and a sink (CSA, 1999: 245). According to CSA (1995), of all the urban housing units found in the Amhara Region in 1994, about 58.2 and 38.3 percent of the dwelling units had no kitchen and have traditional kitchen of both private and shared types, respectively.

Table 31: Percentage Distribution of Dwelling units by the type of kitchen and housing tenure

Type of kitchen Facility	Type of Housing tenure					
	Owner-occupied		Kebele-rented		Total	
	No	%	No	%	No	%
Has no kitchen	48	8.5	96	78.7	144	20.9
Modern kitchen private	44	7.8	1	0.8	45	6.5
Modern kitchen shared	-	-	-	-	-	-
Traditional kitchen private	473	83.4	20	16.4	493	71.6
Traditional kitchen shared	2	0.3	5	4.1	7	1.0
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**

Source: Field survey,2003

Table 31 presents that, 8.5 and 78.7 percent of owner occupied and Kebele rented dwelling units have no kitchen facility, respectively. In other words, 91.5 and 21.5 percent of owner–occupied and Kebele rented housing units have different types of kitchen facilities, respectively. Thus, owner-occupied dwelling units in Bahir Dar are still in better condition as compared to Kebele rented housing units in terms of the availability of kitchen facilities (see Figure 5).

In general, as the results of the survey show, owner occupied dwelling units are in a better condition interms of the availability and quality of all types of basic housing facilities stated than Kebele rented housing units in the town. This is mainly because of the difference in the age and maintenance condition of the dwelling units; household income and the impact of government policies.

Figure 5:

4.1.3 Housing Size and Density of Occupation

Housing size and housing quality are usually linked and the floor area per person is a key indicator of housing quality that measures the adequacy of living space in dwellings. A low value for the indicators is a sign of overcrowding. Low values are prevalent in Africa, that is, 8m^2/person and in Asia 9.5m^2/person compared to 34.5m^2 /person for industrialized countries in 1993,since cities in Africa and Asia have a large number of squatter area, where living space is limited (UNCHS, 2001:30).

Table 32: percentage Distribution of the dwelling units by the size of floor and type of housing tenure

Floor area in m^2	Type of Housing tenure					
	Owner occupied		Kebele rented		Total	
	No	%	No	%	No	%
Up to 39	5	0.9	76	62.3	81	11.8
40-49	99	17.5	35	28.7	134	19.4
50-59	77	13.6	3	2.5	80	11.6
60-69	125	22.0	7	5.7	132	19.2
70-79	191	33.7	-	-	191	27.7
≥ 80	70	12.3	1	0.8	71	10.3
Not stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100**	**689**	**100**
Average floor size in m,^{2}/housing unit	64.2	-	32.1	-	58.5	-
Average floor size in m^2 / person	12.4	-	7.5	-	11.6	-

Source : Field survey and own calculations,2003

Virtually, every housing unit is unique in terms of its size, quality, location and other characteristics (Malpezzi, 2000:294). Similarly the average size of owner occupied and Kebele rented dwelling units in Bahir Dar is different. The average floor size of owner occupied and Kebele rented housing units are 64.2 and 32.1m^2, respectively, reflecting owner-occupied units are for the most part twice as large as Kebele managed rental accommodations. In the same way, the average floor size per person varies by housing tenure. The higher average floor size per person is found within owner-occupied dwelling units, that is, 12.4 m^2 per person, which is above the

average for African and Asian floor size per person and much below that of the industrialized countries. On the Other extreme, the lowest floor size per person is found within Kebele rented housing unit, that is, 7.5m^2 per person, which is lower than the average floor size per person of Africa, Asia and Industrialized countries (Table 32). As mentioned earlier much low values are indicators of over-crowding. Therefore, kebeble rented dwelling units are much more over-crowded than owner occupied housing units. This is mainly because, the size and number of rooms of Kebele rented dwelling units are small and few, respectively.

Density of occupation is consistent with maintenance of health and privacy of occupants. Infectious diseases spread faster in densely populated area and it is more difficult to evacuate people during disasters and calamities. There are even suggestions that lack of privacy, high noise levels and other concomitant high densities may tend to increase mental illness and mal-adjustments (CSA, 1999:232). There are different ways to get the level of over-crowding. However, the most preferred ones are, the one that we have seen above in terms of average floor area per person and the others are the number of rooms per housing unit and the most important one is the average number of persons per room. The true picture of over crowding could have also been brought out if the computations were restricted to bedrooms only. But, as most households use a single room for bed and other purposes, using bedroom to measure over crowding becomes difficult to the study. Generally, three categories of density of occupation of housing units could be identified according to UN Recommendations of over-crowding. These classifications are: a) housing units with one or more than one room occupied on the average by less than one person per room are classified as under-occupied, b) housing units with one

or more rooms occupied on the average by 2.5 or more persons per room are classified as over-crowded and c) housing units with one or more rooms occupied on the average by one to 2.4 persons per room are classified as adequately occupied (CSA, 1999: 232-235, cited on UN, 1967).

Table 33: Percentage Distribution of dwelling units by number of rooms, persons per room and type of housing tenure

Number of rooms	Type of Housing tenure					
	Owner occupied		Kebele rented		Total	
	No	%	No	%	No	%
1	5	0.9	76	62.3	81	11.8
2	97	17.1	37	30.3	134	19.5
3	203	35.8	8	6.6	211	30.6
4	200	35.3	-	-	200	29.0
5	47	8.3	-	-	47	6.8
6	15	2.6	1	0.8	16	2.3
≥7	-	-	-	-	-	-
Total	**567**	**200.0**	**122**	**100.0**	**689**	**100.0**
Average number of persons/room	1.5	-	2.9	-	1.6	-

Source : Field survey and own calculations ,2003

Table 33 shows that, 92.6 percent of Kebele rented dwelling units have two or less number of rooms per housing unit, while 82 percent of owner occupied dwelling units have three or more rooms per housing unit. This means, owner occupied housing units have more number of rooms compared to Kebele rented dwelling units. As a result, the highest number of persons per room is found within Kebele rented dwelling units containing 2.9 persons per room, which is more than the UN recommendation, therefore, they are classified as over- crowded housing units. On the other hand, owner occupied dwelling units having on the average 1.5 person per room and are as such, classified as adequately occupied. To sum up, based on the above three ways of assessing level of over-crowding, Kebele rented dwelling units are more crowded than owner-occupied housing units in Bahir Dar.

CHAPTER FIVE

MAJOR FACTORS INFLUENCING THE CURRENT HOUSING CONDITION OF OWNER-OCCUPIED AND KEBELE - ADMINISTERED HOUSING UNITS IN BAHIR DAR

Housing problems are reflected by housing shortage, which is manifested by overcrowding, homelessness and proliferation of slum and squatter settlements; the increasing number of obsolescent units requiring replacement, and inadequate provision of basic housing facilities and public services. Currently, housing shortage or deficit in the major urban areas of the country including Bahir Dar is aggravated by the fast population growth of towns and cities due to natural increase and in-migration of population, lack of proper maintenance of the existing dwelling units and low level of housing construction by private and government organizations. The factors influencing the current housing condition in Bahir Dar are many. However, the most important ones are: the age and maintenance condition of the existing dwelling units, lower income level of most of the town dwellers, lack of clearly defined housing policies and programmes, local physical and political conditions of the town as well as migration.

5.1 The Age and Maintenance Condition of the Dwelling Units

In order to evaluate the housing stock of a given country, region or town, statistics on housing units by age break down provides useful information. It is important not only to assess the condition of the exiting housing unit, but also to estimate the expected rate of replacement. However, data on age of construction of housing units are difficult to collect and prone to errors, because of memory lapse or lack of knowledge of the

year of construction. Respondents may not know the exact year of construction, especially those households living in government houses, public houses or houses rented from individuals (Gebeyehu, et. al, 2001: 29).

Table 34: Percentage distribution of the Dwelling units by age and type of housing tenure, 2003

Age of housing unit (in years)	Type of housing tenure					
	Owner occupied		Kebele Rented		Total	
	No.	%	No	%	No	%
Up to 5	105	18.5	-	-	105	15.2
6-10	73	12.9	1	0.8	74	10.7
11-20	167	29.4	10	8.2	177	25.7
21-30	159	28.0	38	31.2	197	28.6
31-40	52	9.2	45	36.9	97	14.1
41-50	10	1.8	22	18.0	32	4.7
51-60	1	0.2	6	4.9	7	1.0
>60	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**
Mean age (year)	17.97	-	35.34	-	-	-

Source: Field survey, 2003

Table 34 shows that, 59.8 and 11.2 percent of Kebele rented and owner-occupied housing units are above 30 years old, respectively. Thus, due to the old age of the dwelling units, especially Kebele rented housing units, most of the existing stocks are deteriorating from time to time and this has aggravated housing problems in the town. Housing maintenance is also another factor, which affects the present condition of the housing units in Bahir Dar, where it again depends on the age and physical condition of the dwelling unit.

Table 35: Maintenance condition of the dwelling units by type of housing tenure

Types of housing tenure	Maintenance condition of the dwelling unit					
	Need repair		Need not repair		Total	
	No	%	No	%	No	%
Owner occupied	420	74.1	147	25.9	567	100.0
Kebele rented	120	98.4	2	1.6	122	100.0
Total	**540**	**78.4**	**149**	**21.6**	**689**	**100.0**

Source: Field survey, 2003

Table 35 presents that, 74.1 and 98.4 percent of owner-occupied and Kebele- rented dwelling units need repair. In addition to assessing which percentage of the dwelling units need repair or not, it is also essential to evaluate the level of maintenance which the dwelling units require.

Table 36: Percentage distribution of the dwelling units, which require repair, by level of maintenance and housing tenure

Level of maintenance	Type of housing tenure					
	Owner occupied		Kebele rented		Total	
	No	%	No	%	No	%
Minor	42	10.0	-	-	42	7.8
Medium	167	39.8	8	6.7	175	32.4
Major	211	50.2	112	93.3	323	59.8
Total	**420**	**100.0**	**120**	**100.0**	**540**	**100.0**

Source: Field survey, 2003

Table 36 shows that, 50.2 and 93.3 percent of owner occupied and Kebele rented dwelling units need major repair, respectively, showing that more housing units, especially Kebele rented dwelling units are deteriorating unless attention is given to their maintenance or replacement. Thus, the old age and lack of maintenance of the dwelling units particularly those of Kebele administered housing units create great

influence on the current housing condition in Bahir Dar town and became the cause for the difference in the quality of the dwelling units between the two housing tenures.

5.2 Occupational and Income Characteristics of the Residents

Occupation and income are the two most important socio-economic factors, which influence the quality of the dwelling unit of the household. Households, which have different occupational status, have different capacity to generate income and thus, have different quality of housing units constructed or rented.

Table 37: Percentage distribution of heads of the households by type of occupational status and housing tenure

Occupational status	Heads of households					
	Owner occupied housing unit		Kebele rented housing unit		Total	
	No	%	No	%	No	%
Sales worker	1	0.2	-	-	1	0.1
Administrative and managerial worker	47	8.3	3	2.5	50	7.3
Technical worker	31	5.5	5	4.1	36	5.2
Professional worker	92	16.2	4	3.3	96	13.9
Operators	15	2.6	4	3.3	19	2.8
Clerical worker	5	0.9	-	-	5	0.7
Production worker	161	28.4	38	31.1	199	28.9
Petty traders	172	30.3	48	39.3	220	31.9
Service workers	33	5.8	8	6.5	41	6.0
Others	10	1.8	9	7.4	19	2.8
Not stated	-	-	3	2.5	3	0.4
Total	**567**	**100**	**122**	**100.0**	**689**	**100.0**

Source: Field survey, 2003

The highest percentage of head of households of owner occupied and Kebele rented dwelling units are engaged in petty trading and production works. Accordingly, petty traders account for about 30.3 and 39.3 percent, while production workers account for

about 28.4 and 31.1 percent of the total heads of households of owner occupied and Kebele rented dwelling units, respectively (Table 37). However, these two types of occupations generate lower income to the household. Because, petty traders are engaged in selling and buying of industrial, agricultural or home made products at small scale. Others such as shoemakers, carpenters, construction workers, weavers, daily laborers, farmers, black smith and other related workers are collectively termed as production workers in which most of them are engaged in informal sectors. Thus, due to lower capacity of these occupations to generate income, most of the households of Kebele rented housing units are unable to construct their own dwellings and even unable to maintain the rental houses. In addition to this the households of owner occupied dwelling units have also produced low quality housing units, which are mostly built up of wood and mud (59.4 percent).

In addition to occupation, income status is also another very important socio-economic factor, which influence the current housing condition of the households of owner-occupied and Kebele rented dwelling units in Bahir Dar. Perhaps, the most important single determinant of the quality of the housing unit of a given household is its income and, therefore, its ability to construct, purchase or rent housing (Malpezzi, 2000: 299). According to the report of the BDSZA and DEVECON OY (1998: 16), a household income and expenditure sample survey carried by ANRSBOPED in 1997 indicates that, 48.8 percent of the households earned less than 4000 Birr per annum (333.33 Birr per month), and that 18.2 percent earned even less than 2000 Birr/annum (166.67 Birr per month). The mean annual income of the households in Bahir Dar was estimated to be about 4,500 Birr or 375 Birr per month. The great majority of the

residents are low-income earners, engaged either in small-scale business or in daily labour to meet their basic economic needs.

Table 38: Percentage distribution of households by level of monthly income and type of housing tenure

Monthly income (in Birr)	Households					
	Owner occupied dwelling units		Kebele rented housing units		Total	
	No	%	No	%	No	%
0 – 99	1	0.2	22	18.0	23	3.4
100-199	47	8.3	39	32.0	86	12.5
200-299	76	13.4	20	16.4	96	13.9
300-399	63	11.1	12	9.8	75	10.9
400-499	90	15.9	12	9.8	102	14.8
500-599	36	6.3	4	3.3	40	5.8
600-699	30	5.3	1	0.8	31	4.5
700-799	22	3.9	3	2.5	25	3.6
800 and above	202	35.6	9	7.4	211	30.6
Note stated	-	-	-	-	-	-
Total	**567**	**100.0**	**122**	**100.0**	**689**	**100.0**
Average income in Birr	710.80	-	273.51	-	633.37	-

Source: Field survey, 2003

The average income of the households of owner occupied dwelling unit is 710.80 Birr per month or 8529.6 Birr per annum, whereas the average monthly income of the households of Kebele rented housing units is only 273.51 Birr per month or 3282.12 Birr per year, which is less than half of the average income of the households of owner occupied dwelling units (Table 38). Taking into account the percentage of household income, about 60.5 and 66.4 percent of the households of owner occupied and Kebele rented dwelling units earn less than their respective mean monthly income. Generally, except for some group, that is, 35.6 percent of owner occupiers and 7.4 percent of the residents of Kebele rented housing units who earn more than 800 Birr per month, the majority of the households, especially the households of Kebele rented dwelling units,

are very poor and receive less than 273.51 Birr per month. This rather very low amount of money is primarily used for home consumptions such as food, clothing and other domestic purposes. Thus, nothing remains for housing construction and maintenance of the dwelling units. This is the major problem that most households of Kebele rented housing units face today in the town. The income level of the household may have relationship with the floor size of a dwelling unit. Hence, in order to assess the degree and direction of association that exists between the income of the household (x) and the size of the floor (y) and test its influence on owner-occupied dwelling units, a correlation coefficient and coefficient of determination were computed (see Appendix 5.3).

The correlation coefficient (r = 0.64) shows that there is a relatively strong positive relationship between the income of the household and floor size of owner-occupied dwelling units, which is statistically significant at 0.01 probability level. This means, as the income of the household increases, the size of the floor area of the dwelling unit increases. Furthermore, the coefficient of determination computed also revealed that 41 percent of the increase in the floor size of owner-occupied dwelling units is explained by the increase in household income.

5.3 Impact of Government Policies

The presence or absence of effective housing policy of a certain government to manage and construct houses has a great influence on the existing housing conditions of a country. According to UN (1988:6), the physical condition and quality of dwelling

units in the urban centers of a country vary in accordance with each country's per capita-income and policies towards the sector. "Although recently, third world countries generally have begun to show serious concern over their urban housing problems. Some of them had attempted to launch some kind of housing programmes as early as the 1950s and 1969s" (Solomon, 1985: 23). Ethiopia, like many other third world countries did not show serious concern over the deteriorating urban housing conditions until very recently. The interest of the Ethiopian government in the formulation of housing policies dates back to 1959, when the Department of Housing was established in the Ministry of Public Works. It is after the creation of this housing department that we see for the first time that housing sector was given some consideration in the country's national development plans (Solomon, 1985:60). Since then, governments at different periods in the country have followed different housing polices and programmes, which might have resulted in major housing problems in most urban centers of the country including Bahir Dar.

Before 1974, the Ethiopian government showed little interest in intervening in housing sector. The housing market during this period was characterized by the free market principles, where by landlords were leasing urban land and constructing residential houses, and there was no restriction with regard to selling, buying and renting of houses. However, the concentration of urban land in the hands of few landlords (who for instance in Addis Ababa constituted 5 percent but owned about 95 percent of the city's land) resulted in the high rise of urban land price (Tadesse, 2000). In general, in the pre-1974 period, the government followed a lassie-faire policy in housing sector resulting in the unplanned development of most urban centers and its direct involvement in housing production and provision was also insignificant.

During the Derg regime, the government had intervened extensively in the housing and urban development sector by nationalizing all urban land and extra houses. All this was materialized through the proclamation No. 47/1975, "a proclamation to provide for government ownership of urban lands and extra urban houses." All extra houses became government property and no person or family or organization was allowed to obtain income from land or house rent. The objective of the elimination of private sector rental system was to abolish exploitation of the urban population by landlords in accordance with the tenets of socialist philosophy (MEDaC, 1999).

With respect to housing, the proclamation abolished private ownership of land and nationalized all extra housing units. The proclamation effected a reduction of rents varying from 15 to 50 percent on all renal housing units whose rents were up to 300 Birr per month (Solomon, 1985: 70). However, the reduction of housing rent was mainly political decision rather than economic and the effect still influence the maintenance condition of kebele administered dwelling units in most urban centers of the country including Bahir Dar. After the proclamation, all urban houses excluding owner occupied, are administered by two public institutions. Kebeles were given responsibilities for the administration of those houses whose rent were below Birr 100 per month and the Agency for the Administration of Rental Houses (AARH) was made responsible for the management of those whose rent was above Birr 100 (MEDaC, 1999: 303).

However, Kebele authorities had neither the qualification nor the interest to manage public housing effectively. As a result, there has been inadequate maintenance, lack of provision of services and considerable amount of uncollected rent from Kebele

administered dwelling units. Little or no emphasis was given to their physical improvements. Up grading and renewal activities are out of the reach of either local or central government (MWUD, 1993: 20 – 21). Due to these reasons, of all the sample Kebele administered dwelling units taken in the survey, about 91.8 percent of the housing units in Bahir Dar town need major maintenance.

During few years that followed the proclamation, access to urban land for house construction was greatly improved. The individuals were encouraged and supported to build and own their own homes. The encouragements were through the provision of land and standard house designs free of change. For further promotion of home ownership, the concept of housing cooperatives was introduced in Addis Ababa and gradually to the other major regional towns including Bahir Dar. To address the housing demand of all income categories, three types of housing co-operatives were introduced. The special subsides provided for these cooperatives had attracted thousands of people to be organized into co-operatives. Thus, between the years 1976 and 1985, a total of 4797 and 7875 housing co-operatives and individual house builders, respectively, constructed their own houses through the loan obtained from housing and saving bank (Tadesse, 2000:6).

However, on the negative side, the proclamation out-lawed all private investments. Private landlords were not allowed even for renting rooms or partitions of their own premise and the government was the sole player in housing market. Finally, the government realized its inability to supply adequate shelter that matched the demand for rental accommodation. Hence, in 1986 the government issued a proclamation, which amended the article of the previous proclamation which out-lawed private rental

housing suppliers. In stead, owners and tenants of the public premises were allowed to sub-let their holdings (Gutema, 1994: 484-485). Even though, the proclamation had been amended, the housing problems were aggravated in all urban centers of the country including Bahir Dar. In general, urban housing policy during the Derg regime, neither gave room for the private sector intervention both in managing and construction of houses, nor emphasized the creation of efficient and co-ordained institutional framework to accommodate all aspects of housing units (MWUD, 1993: 20). Thus, housing problems have remained to be an out standing issue even for the present government.

After the downfall of the Derg regime, the country has changed its economic policy from that of a command economy to a market – oriented one. The Transitional Government of Ethiopia (TGE) issued the country's new economic policy in November 1991. Policies pertaining to the housing and urban development include:- 1) the government retains ownership of all urban land but ensures its equitable distribution for housing construction; 2) the right to ownership including the right to use, rent, transfer the house, etc, will be guaranteed; 3)private individuals can construct houses for rent and; 4) the state will sell nationalized houses, but, priority to buy will be given to the present occupants. Compensation will be given to the previous owners whenever appropriate (MEDaC, 1999: 304). According to the same source, EPRDF, after winning the 1995 General Election, has issued the five year program of Development, Peace and Democracy. The major policies of the program related to the housing and urban development include:- 1)regarding development of the urban economy at large, it emphasizes the development of infrastructure such as electricity,

roads and rail roads, telecommunication, water supply and sanitation; and 2) the housing problem is also rampant in all towns of the country. Hence, EPRDF plans to alleviate the problem throught the construction of low cost houses by municipalities, allocation of plots for private homebuilders and encouragement of private investment by real-estate developers.

However, the implementation of the programme in Bahir Dar is minimum. According to the study of BDSZA (2000), there were only constructions of 60 dwelling units in Bahir Dar town by the municipality between the years 1996 and 2000. In addition to this, the provisions of land for construction of private dwelling units were 4096 within the same period.

Further more, other proclamations have been issued. These include: 1) the urban land lease holding proclamation No. 80/1993, 2) the income tax amendment proclamation No.62/1993 and 3) capital gain tax of proclamation NO. 108/1994.

Bahir Dar is administered by the leasehold system. The present leasehold system favors the middle and high income groups, as it requires depositing about 20 percent of the project cost before construction commences (Birke, 1999: 13).

Generally, the current housing policy advocates, among other things, the involvement of the private sector and to some extent municipalities in the provision of housing. However, there does not seem to be any appreciable improvements in the construction or provision of residential houses. This holds true in Bahir Dar in that, currently, there is a wide gap between housing supply and demand, resulting housing

shortage in the town. Moreover, proclamation, such as, rental income tax and capital gain tax may have also a discouraging effect on investment on housing sector.

To sum up, the inadequately defined housing policies and shelter strategies, particularly on rental accommodations, are not conductive for the effective participation of the public, private and community sectors in housing production and maintenance programs. It is also becoming evident that present policies of housing failed to solve the housing problems of the poor (Abuye, 2000:7). Therefore, a clear and independent housing policy, which could ably tackle the housing problems of the country, especially to the majority of urban poor, needs to be formulated and put into practice.

5.4 Local Physical and Political Factors

There are a number of factors, which influence the current housing conditions at local level. However, the most important once are local physical and political factors.

Generally, Bahir Dar lies on flat topography at the southern shore of lake Tana, the largest lake in the country. The slope in the town varies from zero to 20 percent in few hillsides. However, the slopes in most parts of the town are below 2 percent. As a result, the town has been affected by flooding almost annually and many places become swampy particularly during the rainy season. This has hindered the utilization of such land for urban development. Further more, since most of the dwelling units in the town are built up from wood and mud, most of the houses are with poor foundation. Hence, their suitability for living is generally below satisfactory and their

demolishing rate is expected to be high. Thus, due to seasonal flooding and lack of strong foundation, the low grade of construction materials used (mainly wood and mud) and their old age (particularly most of Kebele administered dwelling units) contributed to the physical exhaustion of most of the residential houses in Bahir Dar town (NUPI, 1996; BDSZA and DEVECON OY, 1998).

In addition to the local physical factor, the existing political conditions have also influence on current housing condition in Bahir Dar. Ethiopia is one of the few countries in sub-Saharan Africa that have started a serious decentralization process. Regional and local authorities are elected and an important transfer and delegation of powers and responsibilities have been accomplished so far. Local authorities are at the interface between other level of government and inhabitants. They are the best placed to transform the constraints into appropriate and implementable policies and to ensure the promotion of sustainable livelihoods (Abuye, 2000: 10). However, most of the local authorities at municipal and Kebele levels lack the capacity to manage and coordinate the responsibilities that they have been given. This is mainly because most of them are not well educated and also lack commitment. Administrators in-charge of urban management have difficulty in accomplishing their duty and responsibilities for the lack of willingness. Among all others, corruption, lower salary, lack of training and being unfit to handle the responsibilities can be mentioned as reason for lower capacity of municipal and Kebele authorities. Frequently, we find some municipal and Kebele authorities that are committed only for the next election than fulfilling the assignment they already have been given (Solomon, 1999: 9). Thus, the improper functioning of these local authorities have major influencing effect on the development of housing sector.

5.5 Migration

One of the major causes for housing shortage is the rapid rate of urbanization due to in-migration. According to the two populations and housing census of Ethiopia, in 1984, of the total population of the town, 30.8 percent (16,851) were in-migrants (OPHCC, 1990: 243) and in 1994, of the total urban population of the town, 54.1 percent (51,668) were also in-migrants (CSA, 1995: 28). Hence, the percentage and number of in-migrants had increased from 30.8 percent (16.851) in 1984 to 54.1 percent (51.667) in 1994. Since then, the percentage of in-migrants is also expected to rise, as the town became the capital city of the Amhara Regional State and center of administration, commerce, industry and tourist activities. In addition to these, the NUPI report of 1996 has revealed that an overall growth rate for Bahir Dar was estimated to be 4.0 – 5.6 percent per annum. The major components of population growth consist of natural growth rate of 2.6 percent and net-migration rate of 2.8 percent per year. Thus, in-migration is one of the major cause of housing shortage manifested by over-crowding, the expansion of slum and squatter settlements in the central and peripheral parts of the town, respectively.

To sum up, housing quality of the two types of housing tenures are affected by the factors, which are stated in the preceding pages. The old age and lack of maintenance of especially Kebele administered rental houses resulted in the deteriorations of these units and thus, Kebele rental accommodations are found in bad condition compared with owner occupied dwelling units.

Due to the difference in occupational and income status, the average income of the households of Kebele rental accommodations (273.51 Birr) is 2.6 times less than the average income of the households of owner occupied dwelling units (710.80 Birr). This resulted in the difference in the capacity to build and maintain their housing units. Thus, the households of Kebele rented housing units are unable to construct their own dwellings and even to maintain the existing rental accommodations and live in sub-standard housing conditions.

The other factor, which influences the observed difference in the quality of the two types of housing tenure is the impact of government policies. Since the past and present governments of the country did not have clear housing policy, especially on Kebele rental house, these dwelling units are deteriorating from time to time and resulted in the difference in housing quality that existed between them and owner-occupied dwelling units. Even if some occupants of the Kebele-rental accommodations have capacity to maintain their rental dwelling units, they did not get permission to repair the units by the local authorities. This is mainly because of the absence of clear housing policies in the country.

Local physical factors have common effect on the quality of both housing tenures. However, flooding affects more Kebele-rental accommodations than owner occupied housing units. This is because, most of Kebele rental houses have weak foundations and walls (that is, 75.4 and 91 percent of the dwelling units have mud floors, and wood and mud walls, respectively).

Local political factors and migrations have also effect on both types of housing tenures. Most municipal and Kebele authorities lack the capacity to manage and co-ordinate the activities of the housing sector and thus, hindered housing development of the town. Similarly, migration by increasing the inflow of population to the town, resulted over-crowding and the expansion of slum as well as squatter settlements in the central and peripheral parts of the town.

However, due to the persistence and seriousness of the problems of most Kebele rented dwelling units, the households have tried to maintain their rental accommodation by themselves at a minor level and the other thing that they also performed was reporting the problems of their rental dwellings to Kebele, municipal and zonal authorities. But, there was no any response to the problems reported up to the date in which the survey was conducted in the town. As a result, most of the Kebele dwelling units are found deteriorated and demolished as can be seen on figures 4 and 5 in the thesis.

As a result, since there are no any improvements in the size and quality of Kebele rental dwelling units, most of the in-migrants of the town are obliged to rent private rental accommodations. From the researcher experience in the town, even though, the private rental dwelling units have higher rent price compared to Kebele rental units, it is the private renal sector that solve the current housing shortage in the town. In such a way it is stated that "increasing the supply of rental units by encouraging home owners to rent out rooms and add rental units may be the most efficient way to increase shelter in the third world cites" (UNCHS, 1989: 27, cited on Hansen and Williams, 1988: 316-317).

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Summary and Conclusions

The main objective of this study was to compare and contrast the existing housing conditions of owner-occupied and Kebele rented dwelling units and to recommend some measures that would be taken by the housing sector. More specifically, the thesis tried to assess the general housing situation, the location of dwelling units, housing quality, and the major factors that influence the current housing conditions of owner-occupied and Kebele-administered housing units in the town. Thus, based on the general and specific objectives outlined, the major findings of the study are summarized as follows.

Housing shortage in the town is shown by a wide gap between housing need and supply resulting in housing deficit. According to an estimate that was made for nine years (1994 – 2002), the total unmet housing need were 14,481 dwelling units. On the other hand, the supply of newly constructed housing units were 5365 for the same period. Thus, the accumulated housing deficit from the years 1994 and 2002 were 9116. In other words housing supply was only 37 percent of the total housing need of the town between the same period. Furthermore, the total amount of future housing need of the town for the next ten years (2003-2012) is also estimated to be 27,387.8 housing units, which is equivalent to on the average, a need of 2738.8 dwelling units per year. Hence, the town needs to produce as much as of its present housing units in

the next 10 years to meet its total housing needs by 2012. In addition to these, according to the income distribution of household survey which took place in 1997 in Bahir Dar, 27.36 percent of the total households of the town are able to get the loan (7 percent interest rate) to construct the lowest officially acceptable dwelling units. In other words, 72.64 percent of the total households of the town cannot afford to build the lowest officially acceptable dwelling units under the existing loan policy.

The quality of the dwelling units in Bahir Dar was assessed by using the 1994 Population and Housing census data and the NUPI sample survey taken in the town in 1994. Of the total 19,808 dwelling units found in the town in 1994, the floors of 81.5 percent of the dwelling units were built up of mud; the walls of 87 percent of the housing units were built up of wood and mud, whereas, 86; 50.4; 93.7 and 58.2 percent of the total dwelling units were not having ceiling, toilet; bathing and kitchen facilities, respectively. In addition to these, 74 and 24.65 percent of all the housing units in the town were in the age of less than 20 and age of 20 and above years, respectively. Further more, 54.7 percent of the total households lived in houses with good physical condition, while 36.7 percent require some sort of maintenance (14.1 percent major and 22.6 percent minor maintenance) and 6.6 percent of the houses need to be demolished and rebuilt in 1994.

The 1984 and 1994 Population and Housing census of Ethiopia has also showed that, owner occupied housing unit accounted for 61.1 and 44.5 percent in 1984 and 1994, respectively. According to the results of the survey, 80.3 percent of Kebele rented dwelling units were having a rent of less than 10 Birr per month, while the average

rent paid is only 6.39 Birr per month per unit. However, this lower rent paid for Kebele rented houses has created a problem on the maintenance condition of most of the dwelling units, i,e, 91.8 percent of all the sample Kebele housing units need major maintenance at present. Taking the cost of construction or purchasing value of owner-occupied dwelling units, of the total samples taken, nearly 74 percent of the houses are constructed or purchased for Birr 30,000 or less while, the average cost of construction or purchasing value amounts to 24,363. 49 Birr.

The major findings concerning the distribution of population and housing has shown that maximum concentration of population are found in the central part of the town in Kebele 06 which has a crude density of 732 persons per hectare. Lesser population densities are found in the intermediate and peripheral areas, such as in Kebeles, 03, 11, 13 and 16. The location of dwelling units by housing tenure has shown that, 71 percent of the total Kebele rented housing units are found in the central part of the town. On the other hand, nearly 80 percent of owner-occupied dwelling units are found in peripheral parts of the town. The location of the residential areas directly or indirectly affects the provision of basic public services. However, both housing tenures are found in good condition as regards accessibility to main roads, primary schools and waste disposal centers, while there is scarcity of secondary schools and hospitals in the town.

As indicated in the first paragraph of this chapter, the major objective of the study was to compare and contrast the current housing conditions of the two types of housing tenures and this is best examined by using housing quality indicators. These

indicators are: the type of building, the type of construction materials used; the availability of basic housing facilities, the size and number of rooms as well as occupancy ratio, and room density. Thus, of the total samples taken form owner occupied housing units, 79.4 percent are detached; the floors of 54.3 percent are built up of cement-concrete; the walls of 33.7 percent are built up of hollow concrete blocks; the walls of 40.2 percent are properly painted; and 62.6 percent of the dwelling units have ceiling built up of different materials. In addition to these, 85 percent of the dwelling units have tap water inside the compound; 84.8 percent have private electric meters; 89.2 percent have toilet of different types, 27.9 percent have bathing facilities of different standard and 91.5 percent have kitchen of different types. On the other hand, of all the surveyed Kebele rental housing units, 95.1 percent are attached units; the floors of 75.4 percent of the dwelling units are built up of mud; the walls of 91 percent of the housing units are built up of wood and mud; the walls of 76.2 percent of the residences are not painted; and 52.5 percent have no ceiling. Furthermore, 76.3 percent of the Kebele administered dwelling units have tap water outside the compound; 86.9 percent have shared electric meters; 54.1 percent have no toilet; 100 percent have no bathing facility and 78.7 percent of the dwelling units have no kitchen facility.

Owner occupied housing units are much better in the size and number of rooms as well as in density of occupation, compared to Kebele rented dwelling units. Hence, the average floor size per housing unit for owner occupied and Kebele rented housing units are 64.2m^2 and 32.1m^2 respectively, while the average floor areas per person are 12.4m^2 and 7.5m^2, respectively. When considering the number of rooms and the average number of persons per room, 82 percent of the owner occupied dwelling units

have three or more rooms, whereas, 92.6 percent of Kebele rented housing units have two or less rooms per housing unit. Further more, the result of the density of occupation shows that, 1.5 and 2.9 persons per room are found within owner-occupied and Kebele rented dwelling units, respectively, showing that, Kebele rented housing units are more crowded than owner – occupied dwelling units in the town.

The other major finding of the study is the identification of the main factors that influence and create a difference in the current housing conditions of owner-occupied and Kebele rented dwelling units. These factors are: old age and lack of proper maintenance of most of the existing dwelling units, particularly those of Kebele rented housing units; lower occupational and income status of most of the heads of the households; the impact of government policies, local physical and political conditions as well as in-migration.

Of all the total samples taken, 11.2 and 59.8 percent of owner occupied and Kebele rented dwelling units are above 30 years of age, respectively, showing that majority of Kebele rented housing units are very old. As a result, 37.2 and 91.8 percent of owner occupied and Kebele rented dwelling units require major maintenance, respectively.

In terms of occupational and income status, 58.7 and 70.4 percent of the heads of the households of owner occupied and Kebele rented dwelling units, respectively, are engaged in petty trading and production works, in which most of the jobs are small scale and generate low income for the households. However, the average income of the households of owner occupied housing units is 710.80 Birr per month, which is 2.6 times higher than the average household income of Kebele rented housing units, that

is, 273.51 Birr per month. Thus, most of the households, particularly those of Kebele rented housing units, are not able to maintain and construct their housing units. Therefore, it seems that the occupational and income status of the households directly influences the current housing condition of the two types of housing tenure in the town.

The other important factors that influence the current housing condition in the town are the past and present housing policies of the country's different governments. Generally, the absence of clear and comprehensive housing policies and shelter strategies have created problems that hindered the development of housing sector. This is particularly true in case of renal accommodations, that there is a negligence of Kebele rental accommodations by municipal and Kebele authorities in the town.

The other factors, which affect the current housing condition in Bahir Dar, are its physical and political factors. The town is situated on flat topography. Thus, flood during the rainy season damages the dwelling units as most of them are made up of wood and mud with weak foundations. In addition to this, several ponds are also created in the depressed areas and some of them persist for several months. As a result, housing construction is hampered.

According to the principle of decentralization, the council of the municipal and local authorities are elected by the people. However, most of the municipal and local authorities lack the ability to manage and co-ordinate the responsibilities that they have been given. This may be due to lack of capacity, willingness, etc. Thus, the local

political condition has a great effect on the over-all socio-economic development of the town including the housing sector.

The last not the least factor which affects the current housing condition is the accelerated inflow of migrants to the town. According to CSA (1995: 26), of the total population of the town in 1994, 54.1 percent were in-migrants. Thus, the increasing inflow of population to the town has created shortage of housing units, which has resulted in overcrowding housing condition as well as the expansion of slum and squatter settlements in the central and peripheral parts of the town, respectively.

Finally, the major findings of the study are concluded as follows:

- The town is characterized by severe housing shortage and very low effective demand of housing units.
- Based on the data on the 1994 population and housing census of the country, most of the dwelling units in the town are generally poor in housing quality and found in sub-standard conditions.
- Majority of Kebele administered and owner occupied dwelling units are found in the central and peripheral parts of the town, respectively.
- Based on the sample survey, a comparison of the two types of housing tenures has shown that, owner occupied dwelling units are much better in housing quality than Kebele rented housing units in the town. In other words, Kebele administered dwelling units are very low in housing quality and more deteriorated than owner occupied housing units in Bahir Dar town.
- The major factors that influence and create the difference in the current housing conditions of owner-occupied and Kebele administered dwelling units are: the

age and maintenance conditions of the existing dwelling units; occupational and income status of the households, the impact of government policies, local physical and political factors as well as in-migration.

6.2 Recommendations

Based on the major findings stated above, the study recommends the following measures that have to be taken by central, regional and local governments.

1. One of the main findings of the study is that, there is a shortage of dwelling units in the town. Hence, governments at different levels should find a mechanism that would reduce the natural increase and in-migration of population to the town or increase the rate of housing construction in order to cope up with the existing and future housing deficit. Because, the highest percentage of housing needs, that is, 78.2 percent of the unmet accumulated and 62.5 percent of the future needs in the town are accounted for by the increase of population (the formation of new households).

2. The country should set up a clear and comprehensive independent housing policy that would guide the activities of the whole housing sector including public and private rental houses, particularly, to the Kebele administered dwelling units which do not have any responsible body who looks after them.

3. The government should decide whether it wishes to expand its role as a direct supplier of rental housing units by maintaining the existing stock or else, it has

to sell them to the occupants on long-term payment. This is mainly because, if the renters become owners, they will take the responsibilities for maintaining and keeping the quality of their dwellings.

4. Governments at different levels should have to revise its regulations, such as, minimum standards and building procedures. Because these regulations have hindered the development of housing sector, that is, in Bahir Dar, 20 percent deposit requirements of construction cost in bank blocked account before the allocation of plot and the minimum housing standards; i.e., hollow concrete block wall with cement floor dwelling unit, have created major problem to most middle and low income dwellers of the town to construct their own housing units.

5. The private sector should be encouraged and supported to produce affordable rental accommodation especially to the urban poor.

6. In developed countries of the world, the major housing strategy is conservation of the existing dwelling units. So, in our country in Ethiopia including Bahir Dar, up grading or maintaining the existing housing units, particularly Kebele administered units, is necessary in order to increase the life span of the units and also to provide affordable rental houses with their locational advantages to the urban poor.

7. Municipal and local governments should prepare and provide serviced plots with short bureaucratic process to urban dwellers and investors and thus, accelerate the construction of residential dwelling units in the town.

8. Regional and local governments should create efficient and effective municipal and Kebele leaders, urban planners and other civil servants that would take the responsibilities for the proper and fast development of the town.

9. The government should reduce the present interest rate paid on loan for construction of residential housing units and increase the efficiency of government and private building materials industries as well as encourage the use of locally produced indigenous building materials to reduce housing cost especially for the middle and lower income urban dwellers.

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Appendix I: Questionnaire Design

1. Interviewer's Name _____
2. Town _____
3. Kebele _____
4. Date of Interview _____

PART I. HOUSEHOLD CHARACTERISTICS (TO BE FILLED BY HOUSEHOLD HEAD)

1.1 The type of occupation of the head of the household _____

1.2 Gross monthly income of the head of the household _____ Birr

1.3 If married, gross monthly income of the wife _____ Birr

1.4 Number of the household size: M _____ F _____ Total _____

1.5 Total number of households within the dwelling unit _____

PART II. HOUSING CHARACTERISTICS AND CONDITIONS

2.1 Age of the housing unit _____ (in years)

2.2 Is the dwelling unit that your are living in needs repair? 1) yes☐ 2. No☐

2.3 If the answer to question number 2.2 is "yes", to what extent in needs maintenance?

1. Minor☐ 2. Medium☐ 3. Major☐ 4.Other (specify) _____

2.4 The size of the dwelling unit in square meters _____

2.5 Total number of rooms in the dwelling unit (excluding toilet, kitchen and bathrooms) _____

2.6 The type of housing unit that you are living in is :

1. Permanent☐ 2. Improvised☐ 3.Other (specify) _____

2.7 The type of building in which the housing unit is found:

1) Non storied: a. Attached ☐, b. Detached ☐

2) Single storey: a. Attached ☐, b. Detached ☐

3) Other (specify) _____

2.8 Construction material of wall: 1) wood and mud ☐ 2) wood and thatch ☐

3) stone and mud ☐ 4) Stone and cement ☐ 5) Blockets ☐ 6) Bricks ☐

7) Reed/Bamboo ☐ 8) other (specify) _____

2.9 Painting condition of the wall:

1. Not painted ☐ 2) Properly painted ☐ 3. Partly painted ☐

4) Other (specify) _____

2.10 Construction material of roof:

1. Corrugated iron sheet ☐ 2. Concrete or cement ☐ 3. Thatch ☐

4. Wood and Mud ☐ 5. Bamboo and reed ☐

6. Other (specify) _____

2.11 Construction material of floor: 1. Mud ☐ 2. Wood tiles ☐

3. Cement/concrete ☐ 4. Plastic tiles ☐ 5. Cement brick tile ☐

6. Bamboo or reed ☐ 7. Other (Specify)_____

2.12 Construction material of ceiling: 1. Has no ceiling ☐

2. Fabrics ☐ 3. Chip wood/hard board ☐ 4. Wooden ☐

5. Concrete ☐ 6. Other(specify)_____

2.13 Source of water for drinking and other domestic use:

1. Tap inside the house ☐

2. Tap in compound ☐

3. Tap out side compound ☐

4. Well or spring ☐

5. River/Lake/pond ☐ 6. Other (specify) _____

2.14 Source of light in your dwelling unit:

1. Electric meter: a. Private ☐, b. Shared ☐,

2. Lantern ☐ 3. Kerosene lamp ☐

4. Other (specify) _____

2.15 Type of toilet facility: 1. Has no toilet ☐

2. Flush toilet: a. Private ☐, b. Shared ☐

3. Pit: a. Private ☐ , b. Shared ☐

4. Other (specify) _____

2.16 The type of bathing facility: 1. Has no bathing ☐

2. Bath tub: a. Private ☐, b. Shared ☐

3. Shower: a. Private ☐, b. Shared ☐

4. Other (specify)_____

2.17 The type of kitchen facility: 1. Has no kitchen ☐

2. Modern kitchen: a. Private ☐, b. Shared ☐

3. Traditional: a. Private ☐ b. Shared ☐

4. Other (specify) _____

PART III. TENURE STRUCTURE AND DWELLING EXPENDITURE

3.1 The type of housing tenure of the dwelling unit that you are living in now is:-

1. Owner occupied ☐

2. Kebele Rented ☐ 3. Other (specify)_____

3.2 If the housing unit that you are living in is owner occupied, what was the cost of construction/purchasing value for the dwelling unit? _____ Birr

3.3 If your dwelling unit is Kebele rented, how much do you pay in cash to rent this housing unit per month? _____ Birr

PART IV. LOCATION OF THE DWELLING UNITS IN RELATION TO PUBLIC SERVICES

4.1 Approximate time taken by the households walking on foot form their resident to:-

4.1.1 Market place _____ (in minutes)

4.1.2 Place of work _____ (in minutes)

4.1.3 Main road _____ (in minutes)

4.1.4 Primary school _____ (in minutes)

4.1.5 Secondary school _____ (in minutes)

4.1.6 Hospital _____ (in minutes)

4.1.7 Waste disposal center _____ (in minutes)

Appendix 2: Methodological Classification Of Households By Occupational Type

Categories of occupational group as per OPHCC (1987: 125 – 129)

Administrative and managerial workers:- Legislative officials; government administrators; managers and other officials; army and police members.

Clerical workers:- Clerical supervisors, typists, book keepers, cashiers, transport conductors, and related workers.

Operators: - Computing machine operators, telephone and telegraph operators, transport equipment operators, and related workers.

Petty-traders:- Workers engaged in the selling and buying of industrial, agricultural or home made products at small scale.

Production workers:- Industrial workers, tailors, shoe makers, carpenters, construction workers, weavers, daily laborers, farmers, blacksmith and related workers.

Professional workers:- Physical and life scientists; medical veterinary and related workers; economists, accountants and auditors; jurists, lawyers and judges; experts in other social sciences; teachers; workers in religion; authors, journalists and related workers.

Sales workers:- Working proprietors, sales man, shop assistants and related workers.

Service workers:- Cooks, waiters, bar tenders and related workers, cleaners, building care takers and related workers; beauticians, hair dressers, barbers and related workers;' protective service workers.

Technical workers:- Electrical fitters and related electrical and electronics workers, architects and engineers, mechaniques, technicians and related workers; artistes, photographers and related workers.

Appendix 3: The exponential growth rate formula: used to determine the average growth rate between 1994 and 2003 and project population up to the year 2012 in Bahir Dar.

$$r = \left(\sqrt[n]{\frac{pn}{po}} \right) - 1$$

Where

r= growth rate

Pn = present population

Po = base population

n = number of years between base and present population

The formula can be rewritten as $Pn = Po\ (1+r)^n$ to project the population of a given year in the future once the value of r is obtained from two different years of whose population size are known (Berhanu, 1995, cited Shrivastava, 1983).

Appendix 4: Average monthly income of the households in Bahir Dar, 1997

Income group (Birr/ month)	% of households	Cumulative %
<83.33	5.03	5.03
83.33 – 166.58	13.15	18.18
166.59 – 249.92	15.29	33.47
249.93 – 333.25	15.29	48.76
333.26 – 416.58	10.06	58.82
416.59 – 583.25	13.82	72.64
583.26 – 833.25	11.88	84.51
833.26 – 1249.99	9.73	94.23
>1250	5.77	100.00
Total	**100.00**	

Source: BDSZA and DEVECON OY, 1998: 16 cited on ANRSBOPED, June 1997

Appendix 5: The correlation coefficient and coefficient of determination formula: used to examine the degree and direction of association as well as used to test the effect of independent variables (X) on dependent variables (y):

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{\left[n\sum X^2 - (\sum X)^2\right] X \left[n\sum Y^2 - (\sum Y)^2\right]}}$$

Where:
r = Correlation Coefficient
X = Independent Variable
Y = Dependent variable
n = Number of sample size

Coefficient of Determination = r^2

5.1 Based on table 33 for number of rooms available in Kebele – administered dwelling units and table 9 for rent price,

$\sum X = 181$
$\sum Y = 785.3$
$\sum XY = 1431.3$
$\sum X^2 = 335$
$\sum Y^2 = 8890.06$
$n = 122$

$$r = \frac{(122 \times 1431.3) - (181 \times 785.3)}{\sqrt{\left[(122X335) - (181)^2\right] X \left[(122X8890.06) - (785.3)^2\right]}}$$

$r = 0.53$

5.2 Based on table 38 for monthly income of the households and table 10 for cost of construction of owner-occupied dwelling units,

$\sum X = 4030.21$ (in 100 Birr)
$\sum Y = 138141$ (in 100 Birr)
$\sum XY = 1321545.77$
$\sum X^2 = 45512.65$
$\sum Y^2 = 56,780,805$
$n = 567$

$$r = \frac{(567 \times 1321545.77) - (4030.21 \times 138141)}{\sqrt{\left[(567X45512.65) - (4030.21)^2\right] X \left[(567X56780805) X (138141)^2\right]}}$$

$r = 0.54$
Coefficient of determination = 0.54^2
= 0.29 x 100
= 29 percent

5.3 Based on table 38 for monthly income of the households and table 32 for the size of floor of owner-occupied dwelling units:

$\sum X = 403021$
$\sum Y = 36401$
$\sum XY = 28,658,930$
$\sum X^2 = 453,374,866$
$\sum Y^2 = 2,449,241$
$n = 567$

$$r = \frac{(567 \times 28,658,930) - (403021 \times 36401)}{\sqrt{\left[(567X453,374,866) - (403021)^2\right] X \left[(567X2,449,241) - (36401)^2\right]}}$$

$r = 0.64$
Coefficient of determination = 0.64^2
= 0.41 x 100
= 41 percent