ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

ASSESSMENT ON THE SOCIO-ECONOMIC COMPOSITION OF CONDOMINIUM HOUSING RESIDENTS AND VIEWS TOWARDS THE QUALITY OF THEIR BUILDINGS IN ADDIS ABABA

BY:-

ABADI SEYOUM

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LIST OF ACRONYMS:

AABOFED:	Addis Ababa Bureau of Finance and Economic Development.
AAHA:	Addis Ababa Housing Agency.
AALAA:	Addis Ababa Land Administration Authority.
CGAA:	City Government of Addis Ababa.
CSA:	Central Statistical authority.
FUPI:	Federal Urban Planning Institute.
GTZ:	German Technical Co-operation.
HCB:	Hollow Concrete Blocks.
HDPO:	Housing Development Project Office.
MDG:	Millennium Development Goal.
MOFEd:	Ministry of Finance and Economic Development.
MWUD:	Ministry of Works and Urban Development.
ORAAMP:	Office for the Revision of Addis Ababa Master Plan.
PADCO:	Planning and Development Co-operative International.
PASDEP:	Plan for Accelerated and Sustained Development to End Poverty.
UIDD:	Urban Information and Documentation Department.
UNCHS:	United Nations Center for Human Settlement.
UNPD:	United Nation Population Division.
WB:	World Bank.

ABSTRACT:

In the capital city of Ethiopia, Addis Ababa, housing problem have been considered a critical issue where about 300,000 houses need to be constructed to reduce the pressing shortage of houses. Besides, 35,000-40,000 houses have to be built each year for new families in need of homes. In order to reduce the existing huge housing backlogs, the City Administration, in collaboration with GTZ had launched a Grand Housing Development Program since 2003. Since then 32,388 condominium housing have been constructed out of which 2,111 were transferred to beneficiaries and 1895 condominium housing units have already been occupied by residents.

The study sites, where residents found in, have been categorized in to Bole-Gerji model housing units, 1st phase GTZ constructed housing units and Housing Development Project Office (HDPO) constructed housing units. In connection with socio-economic composition:- Sex, Age, Marital status, Educational level, Occupation and Household head monthly income have been discussed.

The socio-economic composition of residents varies from site to site and particularly the household heads monthly income ranges from less than 300 to more than 2000. In the discussion of housing acquisition of residents the study indicated that all of the GTZ and 96.4% of HDPO housing unit residents have given priority to get the house, where as in the case of Bole-Gerji model housing unit residents, only 32.1% of them have got priority. On the other hand, while locationally all sites are found to be suitable, issues on housing quality particularly locking devices of exterior doors, stair case safety, wall structure and electrical and sanitary facilities are reported as the major problems faced by residents, although the degree of technical defect varies from site to site. And finally performance of Housing Transfer Office particularly on the internalization and announcement of the rules and regulations of housing transfer clearly stated in the proclamation No. 19/2005 to city residents in general and condominium housing beneficiaries in particular is not encouraging. Moreover, the formulated rules and regulations to carry out the housing transfer activities are not complete. And these rules and regulations are not strictly followed by the condominium housing beneficiaries.

CHAPTER ONE

INTRODUCTION

Housing is clearly a high-priority program for all developing countries in the world. Population growth, urbanization, and the attendant growth of slums and squatter colonies all contribute to the urgency of the problem. The need for new housing alone is so staggering that according to estimates by the UNCHS (2005), the demand for construction of all kinds during the last half of the twentieth-century will exceed the total volume building through out the whole of human history. Besides, the conventional housing provision program was unable to meet the housing need of the target group and the condtions continue to deteriorate at an alarming rate (AABOFEDj, 2006).

Like any other developing countries, urban areas in Ethiopia are adversely affected by the problem of housing. It is well known that the highly accelerated urban growth that Ethiopia is presently witnessing is primarily a product of high rates of natural increase and rural-urban migration. This highly accelerated urban growth rate is naturally being reflected in the rapid spatial expansion of the existing urban centers as well as in the emergency of new towns. This rapid rate of urbanization and expansion of towns, however, is not backed-up by its economic development.

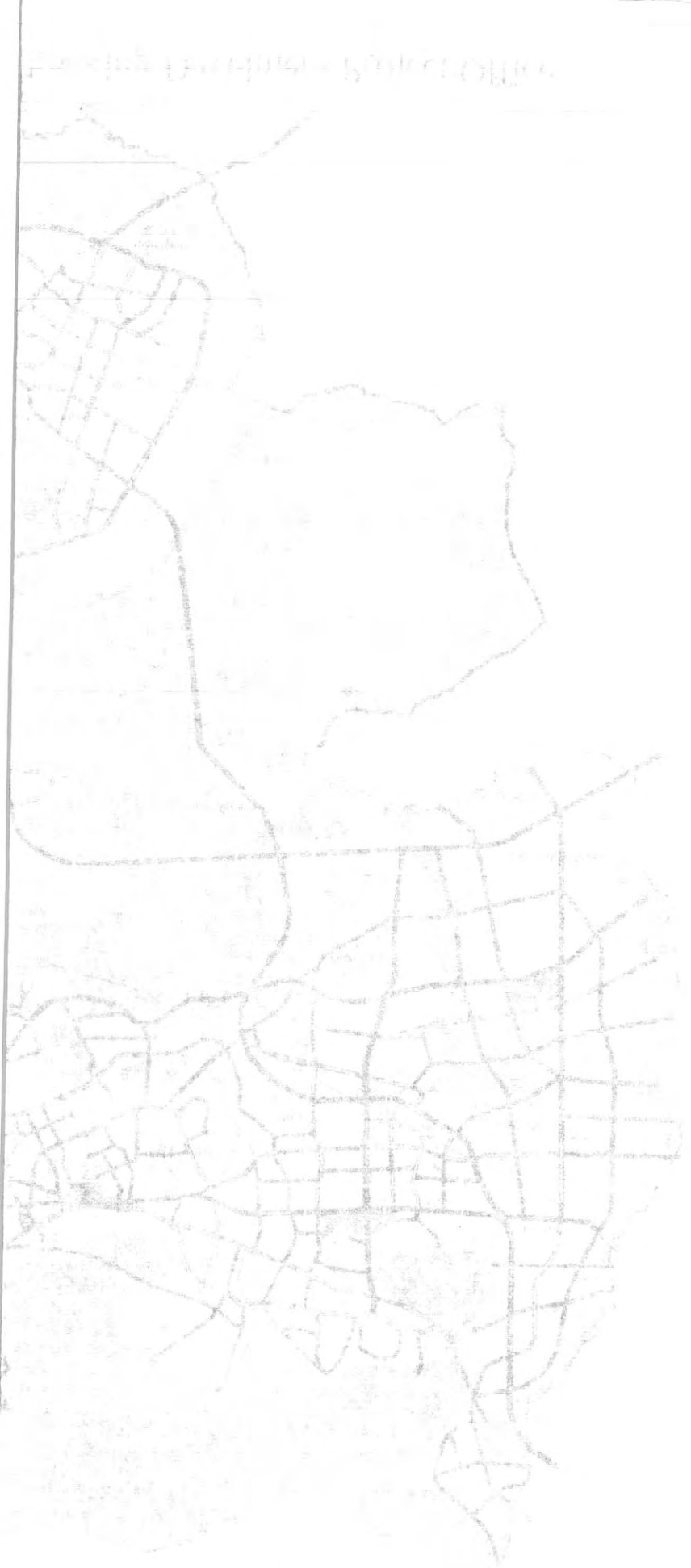
The capital city of the country, Addis Ababa, which is located in the heart of the country surrounded by Oromia has a geographical position of 9^0 2` N, $38^0$ 42` E. The city has an average altitude of 2400m above sea level at the foot of the 3000 meters high Entoto mountains with the lowest and the highest annual average temperature between 9.89 and 24.64^0c (ORAAMP, 2001) respectively. The city which covers an area of about 540km^2 is planned with various land use categories. The urban development pattern of the city of Addis Ababa reveals the horizontally expanding nature of the built-up region and un-controlled features of urban development.

For its social, economic and political importance both at the national and international level and its primacy, the performance of its housing sector has been the center of discussion. Shortage and poor quality of urban housing were identified as the two major concerns of any future housing policy for the city (Abraham, etal, 2000). According to the city government, the accumulated housing backlog is estimated to be 300,000 units.

In order to solve the housing deficit, the Addis Ababa City Government has launched an ambitious "Addis Ababa Grand Housing Development Program" with the objective to construct up to 50,000 condominium housing units per year (AACG, 2004). The aim of this program is to provide low and middle income urban dwellers with decent shelter.

Accordingly, a total of 32,388 condominium housing units are being under construction, among which some 1895 condominium housing units are completed and transferred to beneficiaries.

The purpose of this paper is therefore to make an assessment on some selected owners or household heads who have started to live in the recently completed low cost condominium houses about the socio-economic composition, quality of housing units and implementation of the housing transfer rules and regulations.



1.1 Statement of the problem:

Housing is among the basic need which has a multifaceted implications in terms of socio-economic, cultural and other values. It is a universal fact that shelter is one of the basic necessities of life. In the city of Addis Ababa, the housing sector is characterized by massive shortages, poor as well as deteriorating nature. The housing need in the city can be estimated by taking the actual population growth with due consideration of the impacts of migration on top of natural increase and driving the expected family formation to cater for new needs; plus existing backlog; and adding the housing units needed to the replacement of demolitions (CGAA, 2004).

The size of Addis Ababa population has been growing. According to the CSA, 1994, the number of population was about 2.11 million; and this figure has been estimated to grow 3,363,114 in 2006 (AAFEDB, 2006). Hence, one of the root cause of housing shortages in the city has been the rapid rate of growth of population which is mainly caused by rural-urban migration which in turn is a response to low level of development. The increase number of population is not accompanied by the development of the economy of the city. The majority of the city population are unable to buy or construct a housing unit of their own. Out of the total 389,000 families identified by PADCO (1996), 50% (194,555 households) earn a monthly income of below Birr 340, about 24% (93,360 households) between Birr 340-670 and the remaining 26% (101,140 households) above Birr 670 (exchange rate 1US = Birr 6.30) (Abraham etal, 2000). In relation to housing income, a study conducted by ORAAMP (2001), has revealed that near to 80% of the city dwellers are low income groups who have no financial capacity to afford the minimum standard housing in the city. This implies that the gross sum of the residents can not afford the functional regulations and standards to acquire land, build houses and the ever escalating costs of building materials.

Besides, these low-income groups are not eligible to borrow money from the formal financial institutions since they can not meet bank's requirements.

The above situation shows that, decent housing for the residents of the city has always been a major challenge.

High levels of urban population growth coupled with low levels of income, sky-rocketing prices of housing, and failed policies among other things, have out stripped the financial capacity of the local government and the urban society to finance the minimum acceptable housing unit in the city. A wide gap has thereby been created between the supply and demand. The current housing backlog is estimated to be 300,000 units. Besides, 35,000 to 40,000 houses have to be built each year for new families in need of homes mainly the urban poor (AAHA , 2003).

Beginning from the year 2003 on wards, the city government has engaged extensively in the provision of housing via setting a housing shortage as a priority field of intervention to be addressed. For this, the government has declared the condominium proclamation No. 370/2003 in the year 2003 in order to promote condominium housing construction. This grand housing program has in fact numerous intentions. According to the proclamation of condominium housing transfer, proclamation No. 19/2005, the principal objective being to ease the critical shortage of shelter for the lower and meddle income groups of the city dwellers and there by alleviating housing problem of the urban poor. The program also aimed at wealth creation, equitable distribution and economic empowerment of the poor. These includes those from disadvantage communities: women (30%), youth, slum dwellers and the elderly. The city government in collaboration with GTZ, therefore has started to build low cost condominium housing in various sites in the city. And hence a number of condominium housing apartments have been constructed and transferred to beneficiaries.

How ever these intensive development of condominium housing program is not yet assessed to whom it is serving.

Although the written objective is to serve for the urban poor or mainly to low and middle income groups of the city dwellers, it is not known whether the practicality of the program is in line with its objective. i.e, since the prime target of the program is to solve housing problem of the low and middle income groups of the city dwellers, it is important to make sure whether the target group is benefiting from the program or not.

The aim of this study therefore focuses to investigate whether the intended objective was met or not.

In addition to this, the mass housing production is based on speedy and reduced cost of construction (40-50% per m^2) reduction of price as compared to the real state and private construction costs (AACG, 2004).

How ever, the quality of construction of the condominium houses, (accessibility, security, safety, functional nature of housing facilities, etc, have to be investigated.

This study, therefore, attempts to examine whether the target group is benefiting from the program or not and make an assessment on the views of residents towards the quality of their residential houses. In addition to this condominium houses are transferred to beneficiaries based on certain modalities. But the implementation and practicality of the written regulations and working procedures are not yet adequately assessed. This will be also one of the focus of this study.

1.2 Objective of the study:

1.2.1. General objective:

To assess residents socio-economic composition and their views towards the quality of their flats and building.

1.2.2. Specific objectives:

a) To identify the socio-economic composition of residents and analyses the gaps in relation to the target population.

b) To examine residents opinion towards the quality of their houses in terms of housing quality standards neighborhood set-up, and location.

c) To evaluate the application of housing transfer rules and regulations and indentify the gaps and bottle necks.

d) To forward pertinent recommendations based on the findings.

1.3 Research questions:

- What is the socio-economic mix of the condominium housing residents?
- What problems are faced by the residents in relation to housing condition and neighborhood set up?
- What are the problems faced and the requirement of condominium housing transfer?

1.4 Research methodologies:

Both primary and secondary sources are used to generate data for this research. The primary data is collected with the help of structured questionnaires administered:

a) To selected household head residents of the condominium housing units.

b) To selected project engineers.

c) To project officials at various levels.

Focus group discussions and interviews were also made with selected residents. Moreover, direct personal observations were made in each condominium housing sites.

The secondary data collection constituted extensive survey of literature from different sources, including books, seminar papers, official documents and reports.

1.4.1. Sampling technique:

Out of the total 102 sites in the city, a total of 7 sites in 6 sub-cities with a total household heads of 1491 were considered (see table 2). This is done because these are the only sites being transferred and occupied by residents. And categorizing the study sites in to three parts is important because the management system, workmanship and phase of construction system is a bit different depending on the time of their implementation.

And hence, the appropriate sampling techniques used in this study were purposive and random sampling. Accordingly study sites were categorized in to the following three parts:

- The Bole-Gerji model houses
- The first phase GTZ constructed houses and
- Houses constructed by the Addis Ababa Housing Development Project Office (HDPO).

And finally household head samples were taken randomly from each housing typology (studios, one bed rooms, two bed rooms and three bed rooms).

The following two tables elaborates the distribution of housing units in the 7 sites and household head sample distribution in each site respectively.

Table 1 Distribution of Condominium housing units in the study areas.

No.	Site Name	Sub-City	No. of Apartment Blocks	Constracted By		Typology of the Houses				Total No. of Houses Transferred	No. of Houses Occupied by Residents at Present					Project site area (M^2)	Remark
				GTZ	HDPO	St.	1B	2B	3B		St.	1B	2B	3B	Total		
1	Ginfle	Arada	5	---	HDPO	90	90	20	---	200	90	90	---	---	180	8530	
2	Ras Desta	Arada	5	---	HDPO	100	100	---	---	200	100	100	---	---	200	7860	
3	Meskel Flower	Kirkos	4		HDPO	68	68	---	---	136	68	68	---	---	136	5646	
4	Balcha	Lideta	7	GTZ	---	30	54	18	---	102	13	46	24	--	83	7533	
5	Mekanissa	N/S. Lafto	8	GTZ	---	36	60	18	---	114	14	50	24	--	88	8096	
6	Gullele I	Gullele	13	GTZ	---	56	89	21	---	166	26	58	24	--	108	9860	
7	Bole-Gerji	Bole	28	GTZ	---	144	249	291	12	696	144	249	291	12	696	45864	Gerji Model Houses.
Total	**7**	**6**	**70**	**4**	**3**	**524**	**710**	**368**	**12**	**1614**	**455**	**661**	**363**	**12**	**1491**	**93389**	

Note:- B is = Bed Room
St. is = Studio

Table 2 Sample distribution in the 7 sites.

No.	Site Name	ST.	Sample taken	1B	Sample Taken	2B	Sample taken	3B	Sample taken	Total sample	constructed by
1	Ginfle	90	15	90	15	---	---	---	---		
2	Ras Desta	100	20	100	20	---	---	---	---	90	HDPO
3	Meskel flower	68	10	68	10	---	---	---	---		
4	Balcha	13	3	46	8	24	3	---	---		
5	Mekanissa	14	3	50	8	24	3	---	---	44	GTZ
6	Gullele I	26	4	58	8	24	4	---	---		
7	Bole-Gerji	144	26	249	26	291	26	12	12	90	Gerji-Model
	Total	**455**	**81**	**661**	**95**	**363**	**36**	**12**	**12**	**224**	

B= Bed room

St= Studio

Total housing unit represented by the sample = 1491

Sample size 15% of 1491 = 224

1.4.2. Sample size:

From the total household head population of 1491 condominium housing residents of the 7 sites, 224 samples were randomly selected from each site proportionally which makes 15% of the study population.

1.4.3. Methods of data collection:

To gather the required data from the targeted household head respondents, both quantitative data and qualitative information were gathered using primary and secondary data sources which are summarized as follows:

- Structured questionnaire: to gather information from residents of the selected sites, sub-city housing project office managers, and other relevant individuals that have direct relation with the housing project.
- Focus group discussions: was conducted with some selected condominium housing residents to understand their views towards their holdings
- In depth interview: was conducted on project engineers and selected residents.
- Own observation: was made and photographs were taken from each site to supplement and reinforce the qualitative information obtained by interviews and focus group discussion.
- Secondary data sources: were employed to make the study more comprehensive which include published and unpublished works such as relevant case studies, official reports, and statistics and other relevant and related sources.

1.4.4. Method of data analysis:

To analyze the data collected using various methods, descriptive statistical method of analysis, such as frequencies, percentages were employed and the findings were described and presented in a tabular, graphs, and charts format.

1.5 Significance of the study:

There is broad consensus on the fact that housing has central importance to every one's quality of life and health with considerable economic, social, cultural, and personal significance.

The way in which housing is produced and exchanged impacts development goals as well as environmental suitability and the mitigation of natural disasters. This study will therefore contribute:

a) For the formulation of effective condominium housing strategies.
b) For the improvement of condominium housing transfer rules and regulations.
c) For the improvement of the qualities of residential condominium housing apartments.\
d) It will also serve as the bases of further research works.

1.6 Limitation of the study:

In this study, some of the samples taken from each typology are not proportionate to the size of the total housing unit moreover, some housing residents may not give their true monthly income and other aspects of their housing units and all these may affect the study result.

1.7 Organization of the stydy:

This thesis consists of four chapters. The first chapter covers the introduction part that includes statement of the problem, objective of the study research questions and methodologies, significance and limitation of the study. Chapter two discuses the literature review on housing by giving more emphasis to condominium housing. The third chapter consists of the finding and analysis part and finally the fourth chapter is about the conclusions and recommendations made by the researcher.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 The concept of housing:

Housing is a basic and indispensable human need which determines healthy living conditions. It encompasses and determines developmental, psychological, health, social and economic aspect of human life (Morka, 2006, cited in Wondumu, 2006). More over, there is a clear correlation between housing quality and development status of a country. Decent housing is a precondition for productive and stable society. Auxiliary services and community facilities, social amenities, and services form an integral part of the housing concept (Jorgensen, 1977). Adequate housing also means adequate privacy, adequate space, physical accessibility, adequate security, secure of tenure, structural stability, adequate lighting, heating, ventilation, adequate basic infrastructure such as water supply, sanitation and waste management facilities, suitable environmental quality and health related factors, adequate and accessible location with regard to work and basic facilities and all of which should be available at an affordable cost (Neilson, 2004).

According to the (ORAAMP, 2001), housing is defined as the residential neighborhood and the services required. The housing component at the structure plan level consists of not only the residential units but also the supporting services and compatible urban functions. Housing within this context consists of:

- Residential units for all income groups: high, middle and low.
- Streets, open space, schools, health services, worship places, markets, shops and non-polluting small scale manufacturing activities (ORAMMP, 2001:3).

Housing is also important factor for social equity as well as household and nation wide development. Housing, as a shelter and place of social development, has significant contribution for individual, family and nation's well being and stability. Housing is there fore a key entry to ensure social equity and reduce inequalities (Wondumu, 2006).

Thus, the concept of housing is not only the dwelling unit but also other social services and amenities necessary for people to live.

2.2 The concept of housing quality standards:

Housing quality is a complex concept, because it is not an absolute one like one would expect to find in dictionary. Housing quality has two interrelated sets of dimensions (Lowrence, 1996); namely:

- Those physical /material/ social and economic constituents of the residential environments and
- Those perceived meanings, values and the uses of these constituents.

The other important aspects of quality standards according to (Neilson, 2004) are:

- Habitability: Housing habitability relates to the physical condition of the dwelling (structurally, internally and externally), the existence of basic household amenities (such as cooking, washing and heating facilities), the conditions of the environment surrounding the home.
- Tenure security, freedom from crowding and freedom from discrimination are all components of housing quality (INED, 2005:3).

Performance and acceptability criteria are the key aspects of housing quality (Neilson, 2004), which includes:

- Sanitary facilities
- Food preparation and refuse disposal
- Space and security
- Thermal environment
- Illumination and electricity
- Structure and materials
- Interior air quality
- Water supply, access, and neighborhood
- Sanitary condition.

The quality and size of housing, and the quality of the neighborhood in which it is located, is obviously important for privacy, security and an enjoyable life.

Its location is important in terms of the access it provides its residents to city services and employment opportunities (UNCHS, 1996).

Smith (1983) also stated that people have different responses when asked to what kind of housing they need or want. Some of these responses are: Many bed rooms, lots of storage space, close to work area, a quiet neighborhood, a big yard, a scenic view, etc. To most people, housing quality obviously mean some or more of the following points:

- **Floor area**: "is it big enough?" is perhaps the first question a family asks when it looks at a new house or apartment.
- **Equipment**: Sufficiency of electrical wiring and other appliances, a system of hot and cold running water, sink, a flush toilet, etc.
- **Interior finish**: Carefully joined, easy to clean walls and ceilings well painted and plastered are preferred.
- **Exterior design**: In multifamily buildings the common areas: hallways, elevators, basements are important aspect of livability.
- **Structural condition**: Apartment dwellers normally have no private open space, but there may be yards or patios that they can share with other occupants of their buildings.
- **Accessibility**: a vital feature of any dwelling is its accessibility to the occupant's place of work and to stores, schools, homes of friends and relatives and other frequently visited places. Accessibility is determined not only by distance from the dwelling but also by the time and cost of the journey. Hence homes should be near to transportation routes.

Neighborhood: Home seekers are often greatly concerned about the quality and the appearance of neighboring dwellings as well as the dwelling that they are considering purchasing. They are generally also concerned about the race, ethnic background, and social or economic class of their prospective neighbors (Smith, 1983:245).

2.3 The concept of condominium housing:

The concept of condominium housing dates back to early Roman times. The word comes from the two Latin words: con, meaning together; and dominium, meaning property. Hence, in a condominium, there is always property owned in common with others, as well as the individual units, which are owned out right (Pollick, 2006).

According to McHenry (1993) condominium housing also called apartment block, or block of flats are designed for residential use and some times including shops and other nonresidential features. Condominium buildings have existed for centuries.

In the great cities of the Roman Empire, because of urban congestion, the individual house, had given way in early imperial times to the communal dwellings.

By the mid-19th century, large numbers of inexpensive apartment houses were under construction to house swelling numbers of industrial laborers in cities and towns across Europe and the United States.

However, multiple ownership of units on a single site has become much more common in the 20th century. A condominium denotes the individual ownership of one dwelling unit in an apartment house or other multi dwelling building.

The increasing popularity of condominiums in the United States and elsewhere is based largely on the fact that, unlike members of a cooperative, condominium owners are not financially interdependent and can mortgage their property (McHenry, 1993:477).

Condominiums make it possible to provide more living space on less land. Thus, as land prices rise and population increase, condominium housing becomes more and more popular.

The property owned or shared with others may include the lobby, halls, elevators, recreation areas (both inside and out), lawns, grounds, basement and garage.

When some body buy a condominium unit, he/she take title to his/her unit and have all the privileges and burdens of ownership, including the payment of taxes.

He/she will also be required to pay a monthly fee representing your proportionate share of the cost of servicing, maintaining and repairing those areas you share in common with others (King, 2003).

Different countries use the word condominium or condo as a legal term. For instance in United States and most province of Canada condominium is assumed to be a type of joint ownership of real property in which part of it is commonly owned and others individually owned.

Other countries like Australia and British Colombia the legal term is referred to as strata title. Syndicates are also form of co-ownership in Quebec. Condo also replaces the term apartment, all of which signifies ownership of the property (Nelson, 2005).

2.3.1. Condominium ownership:

Residents in a condominium housing unit have legal property ownership to their particular unit. What makes them "condominiums" is the way owners have agreed to share ownership and maintenance of common property (common elements), while keeping individual ownership of their own units (King, 2003). In effect, there are two components in condominium ownership, namely individual ownership of the 'unit', and share ownership among unit owners of the "common area". Within the individual unit, the condominium owner normally owns the property between the finished walls of the unit, in much the same position as anyone who owns a single-family dwelling but does not own the common walls, load bearing walls, exterior walls and fixtures (Hejil, 2006).

An owner has full use of the unit property and must pay all costs associated with its operation and maintenance, including insurance for the unit. The owner is also responsible for a portion of the costs of maintenance of all the common elements in the corporation and may also become part of the "Board" which manages the common areas (Gundersen, 2002).

The owner is also restricted as to what he or she can do outside of the unit. A homeowners association, consisting of all the members, manages the common areas usually through a board of directors elected by the members.

The same concept exists under different names depending on the jurisdiction, such as "unit title", "common hold", "strata council" or "tenant-owner's association".

Another variation of this concept is the "time share". Condominiums may be found in both civil law and common law legal systems as it is purely a creation of statute (Nelson, 2005).

Condominium ownership is also used, albeit less frequently, for non-residential land uses like offices, hotel rooms, retail shops, and group housing facilities like retirement homes or dormitories.

The legal structure is the same, and many of the benefits are similar; for instance, a non profit corporation may face a lower tax liability in an office condominium than in an office rented from a taxable, for-profit company. How ever, the frequent turnover of commercial land uses in particular can make the inflexibility of condominium arrangements problematic (Hejl, 2006).

2.3.2. Rules to be familiar with condominium owners:

Because of its unique nature, every condominium is governed by its own unique rules, regulations and by-lows. These are necessary to ensure that condominiums are properly operated and maintained, and to define the rights and obligations of the individual owners. Based on this, different authors have suggested on how the owners of condominium have to follow to the rules and regulations.

With respect to rules regarding the individual owners, condominiums may have restrictions regarding the number of occupants per unit, the age of occupants, pets, noise, and parking and when certain amenities may be used. Many condominiums have strict rules concerning the alteration of the unit space or its appearance.

Additionally, one may have to get the permission from the condominium's board of directors before you do the following: Change exterior fixtures, install a satellite dish, setup a clothes line in the backyard or on your deck, add a new gazebo, install air conditioning units in windows, and in particular make changes that may affect the condominium's structure or safety (Hejl, 2006).

Individual condominium owners may be obliged to attend condominium meetings or serve on condominium boards and committees. All condominiums have requirements for the payment of monthly condominium fees.

There will also be mandatory charges for a reserve fund in addition to the maintenance fee for unforeseen major repairs to the condominium common elements.

Considering and knowing all the rules and obligations of condominium housing before purchasing it is important. According to (Gundersen, 2002), one must be familiar with the rules prior to purchasing a particular condominium unit.

2.3.3. Suggested solutions to problems associated with condominium ownership:

Purchasing a condominium is a bit like entering in to a business partnership. The success or failure of that partnership will depend on numerous details. According to Nelson, (2005), trouble free condominium complexes tend to have the following characteristics:

- The structures must be well designed, built according to top quality standards and constructed with quality materials that were installed by top notch professionals.
- A professional inspection of the unit and the common areas and the exterior envelope can provide the evaluation needed to determine the quality of the building.
- The condominium association's bylaws have to be understood and agreed up on by all of the members. The bylaws should be reviewed and understood by any prospective buyer, preferably with the assistance of the buyer's attorney.
- Buildings must thoroughly inspected on a regular basis. For example: before the developer turns the building over to the home owners association, before the end of any warrantee period, and then at least every 5 years.
- These inspection must include some of the interior surfaces, window frames, private decks and other elements that might show issues with association responsibilities like the exterior envelope.
- The common areas have been well maintained. The owners understand the need for, and cost of, good quality maintenance.

Information about the condominium maintenance history might be discovered by an examination of the association's records. Many states, required that these records be made available to prospective homeowners for review.

- If a management company is employed (usually a good idea, but not always possible in smaller complexes), the contract with the company must include the maintenance plan. Selecting a management company is similar to selecting a contractor.
- Many of the problems with condominium buildings are complicated and involve design mistakes, installation mistakes, material failures, poor maintenance and delayed analysis. Too many corrective steps that don't address these problems in a comprehensive manner and result in more exterior envelope failure, and hence has to be corrected on time (Nelson, 2005).

2.4 Urban housing problems and the contribution of condominium housing:

More than 2 billion people will be added to the number of urban dwellers in the developing countries over the next 25 years. This implies an unprecedented growth in the demand for housing, water supply, sanitation and other urban infrastructures. This new challenge exists in a context of already widespread poverty and inequality in cities, with millions of people living in slums with out adequate basic services. Providing these services to new residents will be essential if this additional population is not to be trapped in urban poverty, poor health and low productivity. It is an urban problem with significant macroeconomic consequences. (Okpala, Mangiza and Moisseev, 2006). The poor in urban slums therefore have to be assisted to solve their housing problems such as by developing condominium housing units, private real states and by developing improved access to urban lands.

According to the report issued by United Nations Population Division in 2002, the expected population increase during 2000-2030 will be absorbed by urban areas of less developed countries. Hence 2.0billion persons are expected in these poor regions of the world; nearly as much as will be added to the world population, 2.2 billion.

Therefore this shows 3.0% of urban growth rate in less developed regions while 0.5% is in more developed regions in the year 1995-2000.

The urban growth rate will continue to be particularly rapid in the urban areas of less developed regions, averaging 2.4 percent per year during 2000-2030, consistent with a doubling time of 29 years and there by aggravating the supply of housing for the urban poor (UNPD, 2002).

According to the latest UN Habitat publication (2002), sub-Saharan Africa hosts the largest proportion 71.0 percent of urban population resident in slums.

In terms of sheer numbers, Africa also has the second largest number of slum dwellers in the world (187 million or 20% of the world total) after Asia, which in 2001 hosted a total of 554 million slum dwellers (about 60 percent of the world's total slum population). Latin America and Caribbean, despite being one of the most urbanized regions in the world, was in the third place with 128 million slum dwellers. (Warah, 2003).

2.4.1. Urban slum dwellers in the developing world and in Ethiopia:

Along with the rapid spread of urbanization, urban areas has come the prolific growth of huge slums and shantytowns. Today slum settlements represent over one-third of the urban population in all developing countries; in many cases they account for more than 60% of the urban total.

During the late 1980s, fully 72 out of every 100 new households established in urban areas of developing countries were located in shanties and slums. In Africa, the number was 92 out of every 100. Most of the settlements are without clean water, sewage systems, or electricity. For example, Metropolitan Cairo is attempting to cope with a population of more than 10 million people with a water and sanitation system built to serve 2 million (Todaro and Smith, 2006:318).

When considering, Ethiopia, one of the developing countries of the world, it is one of the highest urban slum in the world. All the studies on the slum nature of the country are almost similar.

According to (Davis, 2004 cited in Wondumu, 2006), 99.4% of the Ethiopian urban population is slum dweller. PADCO in 1996, on the other hand estimated that 80% of the urban housing is considered to be slum.

According to (Wondumu, 2006), 79% of the housing condition of the city of Addis Ababa is unacceptable. Similarly, Todaro and Smith (2006) have indicated that 79% of the Addis Ababa population are slum dwellers.

According to Todaro and Smith, 2006, slum dwellers and squatters as a percentage of the urban population are summarized in the following table.

Table_3 Summary of slum dwellers in the main cities of developing countries.

CITY	REGION	Slum dwellers as a percentage of the population
Bogotá, Colombia	Latin America	60
Mexico city, Mexico	" "	46
Caracas, Venezuela	" "	54
Rio de Janeiro, Brazil	" "	20
Addis Ababa, Ethiopia	Africa	79
Casablanca, Morocco	"	70
Ankara, Turkey	Middle East	60
Cairo, Egypt	Africa	60
Dar es Salaam, Tanzania	"	53
Calcutta, India	Asia	67
Karachi, Pakistan	"	44
Manila, Philippines	"	35
Jakarta, Indonesia	"	26

Source: Population crisis committee, World population growth and Global security, Report No. 13 (cited by Todaro and Smith, 2006:318).

Globally, UN-Habitat estimates that 924 million people, or 31.6 percent of the world's total urban population, lived in slums in 2001. In the next 30 years this figure is projected to double to almost 2 billion, unless substantial policy changes are put in place to significantly alter this projection (Warah, 2003).

It was indicated by Todaro and Smith, 2006, that the capital of Ethiopia, Addis Ababa, is dominated by slum, where 79% of the population live in the slummy area of the city.

This statement is proven true by many studies in the city.

In many areas of the inner city are decaying according to the assessment result of the housing component of the revised master plan.

Out of the 400,000 total estimated number of houses in the city in 2004, it is believed that around 85% of total housing stock was built from materials of low durability and quality (mostly "chika" houses), 15% need to be replaced, 40% is over crowded and close to 50% of the total housing stock is under public ownership.

Moreover, more than 70% of government owned houses in the city needed over haul maintenance. The average occupancy rate per room in the city was 1.2 where 60% of total houses have only 1-2 rooms (Liku, etal, 2004).

According to the City Administration, not only solving the problem of housing using the condominium housing development program, but also renewing the slum nature of the city areas which will help as a dual function is taken as a strategy.

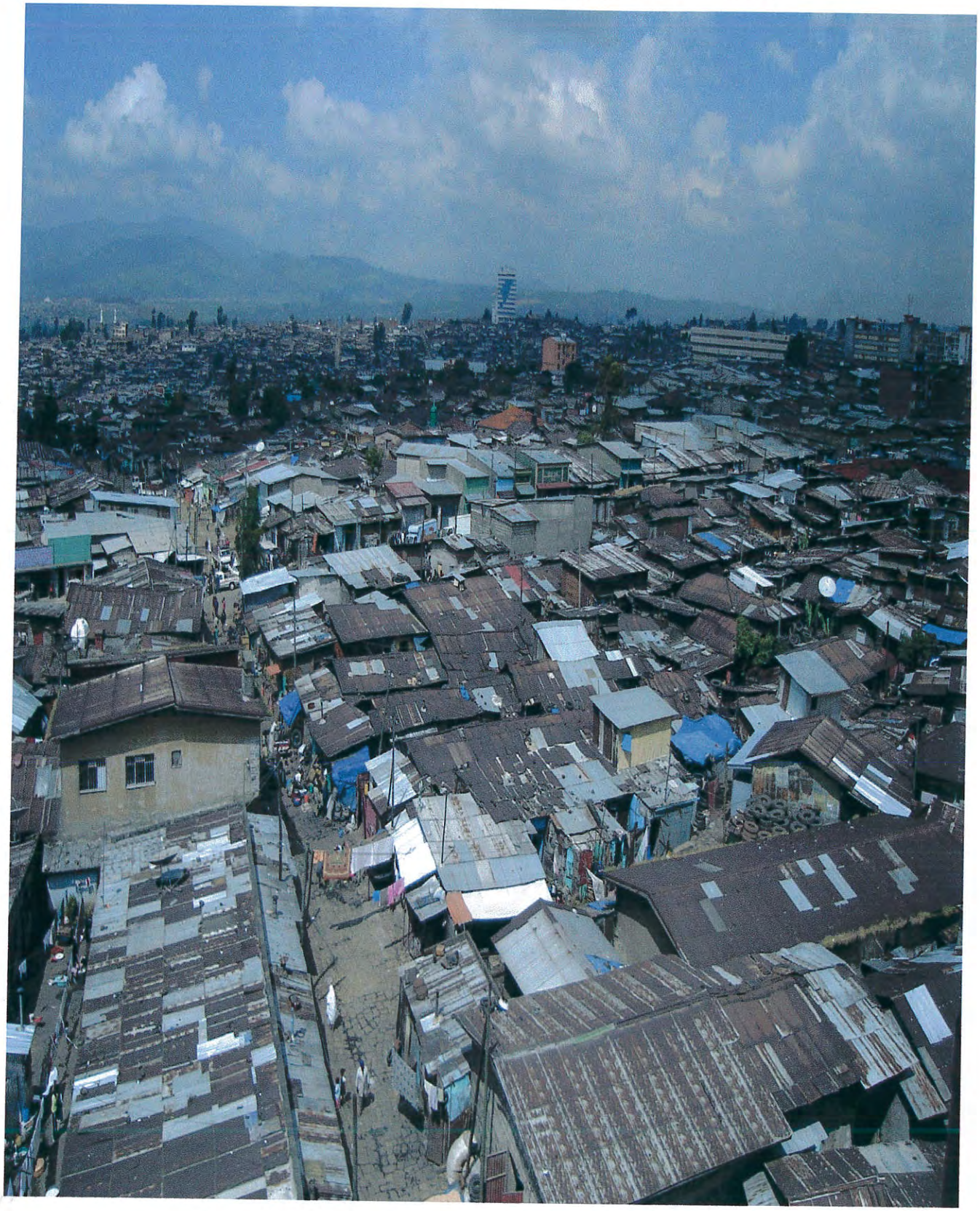
The overall housing condition and facilities of the city is summarized in the next page which is developed from the 1994 population and hosing census and the Urban Information and Documentation Department (UIDD).

Table 4 Hosing condition and facilities of Addis Ababa.

No.	Housing indicators	Unit of measurement	Indicator values
1	**Type of building**		
	• Non storied	%	97.15
	o attached	"	58.14
	o detached	"	39.01
	• **Multi Storied**		2.66
	o attached	"	1.99
	o detached	"	0.67
2	**Housing ownership**		
	• Privately owned	"	34.42
	• Rented from government	"	40.4
	• Rented from private household	"	16.4
	• Others	"	8.78
3	**Construction material**		
	• Wall		
	o Mud and Wood	"	75
	o Stone, Brick, Hollow block and Cement	"	15
	o Others	"	10
	• Roof		
	o Corrugated iron sheets	"	96
	o Others	"	4
	• Floor		
	o Mud	"	52.8
	o Wood tiles	"	17.9
	o Cement concrete and brick tiles	"	24.8
	o Others	"	1.9
4	**Housing facilities**	"	
	• Toilet		
	o Private with flush	"	8
	o Private without flush	"	18.16
	o Shared	"	48.94
	o No toilet	"	24.9
	• Kitchen		
	o Private	"	37.66
	o Shared	"	35.96
	o No kitchen	"	26.38
	• Water		
	o Housing unit with private water meter connection	"	26.8
	o Tap water shared meter	"	70.9
	o Others	"	2.3
	• Electric light		
	o Housing unit with private electric meter connection	"	45.05
	o Shared electric meter	"	50.49
	o No electric light	"	4.46
	• Houses with one room	"	30.7
	• Households with television set	"	75
	• Houses with telephone line	"	47
5	**Over – crowding**		
	• Household size	No.	5.1
	• Household per housing size	"	1.1
	• Person per room	"	2.1

Source: **1994 Population and housing census & (UIDD) of the City Government of A.A., 2001 in AABOFED, 2006:5**

Fig. 2 Photo of slum area taken from the city of Addis Ababa.



Source: Own picture, 2007

2.5 Rational to develop condominium housing as a strategy for the urban poor:

Housing is often perceived as a welfare issue requiring the transfer of resources to households unable to house them selves adequately. This can be realized by providing subsidized condominium housing development program (AABOFED, 2006).,

There are different reasons why the urban poor are unable to house them selves with out the assistance of government. Some of the reasons are:

- Problem of access to land
- Problem of access to housing finance
- Problem of access to basic infrastructure and services
- Problem of access to low cost building materials.

2.5.1. Problem of access to land:

Land availability and its price are important factors on the availability of housing. The key parameter therefore is appropriate policy reforms.

According (Münker, etal, 1999) solving the problems of access to land means breaking the vicious circle of misery and despair. They added that no safe home means passivity and fear, no motivation to make improvements to one's shelter which end up with no bright future.

Many urban poor engaged in illegal housing construction due to the inappropriate regulations and unaffordable cost of land and other legalities that will not consider the urban poor. Hence, policies and or regulations as well as public authorities approach are not conducive to regularization of tenure which can be summarized in the following points:

- There is a widespread assumption by authorities that regularization may encourage illegal practices.
- Issuance of land documents can create considerable conflict, especially in places with multiple forms of property rights.
- Authorities may prefer to retain the informal status of some spontaneous settlements, as the land may demanded by other uses, and informal occupation provides a sufficient ground for eviction. (The World Bank Group, 2001).

It is widely recognized that the effective operation of land market has been affected by the existing legal and regulatory frame work, lack of infrastructure, and the slow pace of release of serviced land by local governments.

This along with other financial factors has led to high increase in a land price and housing cost, and wide spread speculation especially in large cities.

Fore example, in Indonesia, one of the major problems facing the national agency responsible for land sites and service schemes was land scarcity; while the government has power to condemn land, it is reluctant to do so and relies a negotiating parches with land owners (Cheema, 1993 cited in Hargamo, 2002). Hence problem of access to land remains as an obstacle to acquire adequate housing.

2.5.2. Problem of access to housing finance:

Formal housing finance institutions to the urban poor is very limited, with only 15% of total investment being financed at present. Hence establishing linkages between formal and informal financing institutions and developing mortgage, collateral and a fixable repayment schedule is necessary (Singh, etal, 1996). Urban poor in Africa, Asia, Latin America and Caribbean countries do not have access to housing credits.

It was estimated by (W.B group, 2001) that it takes 15 to 30 years to save (30-50% of monthly income) for low-income households to afford a minimum standard housing unit. As the monthly incomes are irregular and hardly sufficient for minimum nourishment requirements, low-income groups have difficulties to save for a minimum standard housing unit. As regards the affordability of the poor loan is concerned, (UNCHS, 1996) indicated that the effect of interest subsidies on the total affordable loan is marginal.

According to (Singh etal, 1996), the key issues of housing finance for the poor is not interest subsides but of its access at flexible terms, of shorter duration and with imperfect collaterals. Hence loan has to meet the interest of the poor.

Formal financial sectors such as Commercial Banks are not accessible for the low-income groups.

The major reasons indicated by (UNCHS, HABITAT, 2001) are high administrative costs, lack of collateral or regular employment of borrowers and lack of experience and familiarity.

Disadvantaged groups in particular must therefore receive a special attention and priority to achieve equity based access. Hence, there must be government subsidy for those who are not able to afford by them selves.

2.5.3. Problem of access to basic infrastructure and services:

Access to housing also means access to basic infrastructure facilities; which includes water, electricity, road, drainage etc.

According to (UNCHS, 2001), in most developing regions of the world most essential urban services are lacking. For instance, in Latin America and the Caribbean, about 150 million people do not have access to safe water and an estimated 250 million lack proper sanitation. Declining in the economic situation of African cities occurred since 1980s and 1990s due to increase urban population. Bottlenecks in transportation, water supply, health, and education have become intolerable. Growing demands are not met by the available meager services. According to (Mosha, 2001), it is estimated that between 30 and 50% of garbage in urban areas of African cities remains uncollected.

Addis Ababa, the capital of Ethiopia is also victim to such problems. According to (Solomon, etal, 2004), of the total 1330km. In 2002 of roads with varying surfaces in the city, only 395kms, or about 29.7%, were asphalted. As regard to water supply, the same source indicated that about 44% of the housing units in the city were not connected to the water mains in 1996.

And when it comes to the over all rate of solid waste collection, it is only about 50% in 1996. Only about 10% of the built up area of the city has some access to a conventional sewer system. Although the system was originally designed to serve 200,000 residents or 38,462 houses, only 1600 units are currently connected to the system.

In the case of storm water management it is quite clear that Addis Ababa has a poorly developed drainage system.

It is indicated that out of its 395kms. of asphalted roads only 193kms. or so gravel covered roads only about 143 kms. have drainage channels (Solomon,etal, 2004:14-18).

2.5.4. Problem of access to low cost building materials:

After land, building materials are very important. Many people who have a piece of land or a piece for shelter in very unsatisfactory housing conditions can not build a modern house with basic amenities and facilities of life because of the high prices of building materials. (Dakhil, Ural, Tewfik, 1978:105).

Access to housing for the low-income groups have been constrained by different factors. One of these is the cost of housing construction under the given building standard. In reality housing cost is not only the cost of construction, it also include the acquisition cost of land the transaction cost where transport administration and institution are not in place, vary with location and mode of tenure and cost of construction material.

The adopted standard on housing sector forced housing production to depend on certain imported construction materials like reinforcement bars, metal frames, glasses and others with limited availability led to significant delay on housing production (World Bank, 1990, cited in Hargamo, 2002). Hence housing cost to income ratio rise up to 13.9 for chika units and 29.2 for concrete hollow block units in Ethiopia as against of 4.7 for sub-Sahara Africa and 4.8 for all low-income developing countries. Therefore, the combination of all deficiencies is leading the low-income group towards housing inaccessibility (Hargamo, 2002:25).

According to some studies made in Addis Ababa, Ethiopia, the cost of construction is so high that the majority of the city's population can not afford even the price of a smallest habitable basic housing unit.

For instance, the cost of construction of a smallest dwelling unit of $26m^2$, made of Hollow Concrete Block (HCB), is Birr 27,092 and a housing unit of $35.5m^2$ with the same construction material costs Birr 36,991; in the year 1999.

In order to build the basic unit of $26m^2$ by a loan from bank, the minimum monthly income of the household should be birr 1240.

And to build a unit with floor size of $56m^2$, the monthly income of the family should be more than Birr 2160, which means only about 4 percent of the residents of the city can afford to build this basic unit. (Tadesse, 2000:16-17).

Average prices of some key building materials have been rising over time in the city. Table 5 clearly show how construction materials are increasing over eight years of time (1999 – 2006).

Table 5 Trends of prices increase for construction materials in Addis Ababa from 1999 - 2006.

No.	Type of building material	Unit of measurement	Unit price in different years (Birr)			
			1999	2001	2003	2006
1	Cement	Quintal	42	54	60	205
2	Sand	M^3	70	80	85	169
3	Reinforcement bar	Kilo	2.50	3.75	5.25	11.50
4	HCB	Piece	1.80	2.75	3.50	5.50
5	Timber	Piece	10	11	13	17
6	Stone	Vehicle	--	--	--	450

Source: AABOFED, 2006.

As a result since the devaluation of the currency in 1992, the prices of these construction materials have increased highly making even the smallest housing unit beyond the reach of the majority of the population (AABOFED, 2006:32).

In general due to the high increase of most of the construction materials, the cost of housing is increasing and becoming higher than what is actually estimated. Hence this condition is making housing unaffordable to the low-income groups.

2.6 Integrated housing development programs as a response to Solve housing problem in Ethiopia:

Currently, 16 percent of the country's total population i.e, 11.7 million people live in urban areas. The urban population of the country is growing at a rate of about 4.3% per annum or increasing by more than half a million people per annum (MWUD, 2006).

The combination of urban growth that is amongst the highest in the world with highest prevalence of urban poverty suggests a rapidly growing number of urban poor.

Achieving MDG, Goal 7, Target 11- improving the quality of lives of slum dwellers- is of special importance to urban development in the country. According to the ministry of Work and Urban Development, studies made in the last five years conclude that 30% of the urban housing stock is in good or fair condition; but about 70% of the urban population of the country is living in slums. Conditions in many slum areas are appalling: in adequate shelter combined with poor sanitation; extreme over crowding and a high proportion of vulnerable women, youth, children, elderly and destitute with very low incomes and high unemployment; results in a high risk of disease and an extreme poverty trap for many urban residents (MWUD, 2006:3).

To reverse the situation, plan for Accelerated and Sustained Development to End Poverty (PASDEP) has been developed by the government. The strategy has four pillars as an urban development strategy. These include:

- Support for small and micro enterprise and job creation.
- Integrated housing development.
- Improved access to land, infrastructure, services and facilities.
- Promoting urban-rural and urban-urban linkages.

In the second pillar, integrated housing development, it states that improving the lives of slum dwellers (MWUD, 2004) estimated that the additional housing units that will be needed due to population growth or formation new households between 2005 and 2015 will be 2,250,831 units approximately 1.125 million during the PASDEP period-or225,000 each year.

The government's housing objective, in terms of provision of housing and basic services, will focus only on lower middle and lower income households.

For the upper middle and upper income households, the government is to ensures adequate provision of serviced land, mortgage finance and supporting legal and regulatory frame work for condominiums and co-operatives (MWUD, 2006:32).

Of the MDG needs Assessment target of 225,000 new housing units required per annum the government assumed the responsibility through the Integrated Hosing Development Program for financing and constructing 100,000 housing units in large and medium sized cities targeted at middle and low income households.

The remaining requirement for 125,000 housing units per annum will be provided by property developers, employers, housing co-operatives and private home builders (MWUD, 2006:33).

According to the Federal Urban Planning Institute, the National Integrated Housing Development Program will be carried out from 1999 to 2002 E.C. in different regions of the country. The number of towns and number of houses to be constructed in some selected regions are summarized as follows:

Table 6 Number of towns and houses to be constructed in the coming four years (E.C.)

Region	1999		2000		2001		2002		Total	
	No. of towns	No.of houses	No. of towns	No. of houses	No. of towns	No. of houses	No. of towns	No. of houses	No. of towns	No. of houses
Oromya	11	9020	14	12628	18	18040	23	27060	66	66748
Amhara	7	6710	10	9394	13	13420	18	20130	48	49654
SNNP	7	4950	9	6930	12	9900	16	14850	44	36630
Tigray	5	4070	7	5698	9	8140	12	12210	33	30118
Diredawa	1	1650	1	2310	1	3300	1	4950	1	12210
Harar	1	1100	1	1540	1	2200	1	3300	1	8140
Addis Ababa	1	33000	1	38500	1	55000	1	66000	1	192500
Total	**33**	**60500**	**43**	**77000**	**55**	**110000**	**72**	**148500**	**194**	**396000**

Source: Federal urban planning institute, integrated housing development program, executive summary April, 2006:37.

2.7 Housing demand in the city of Addis Ababa:

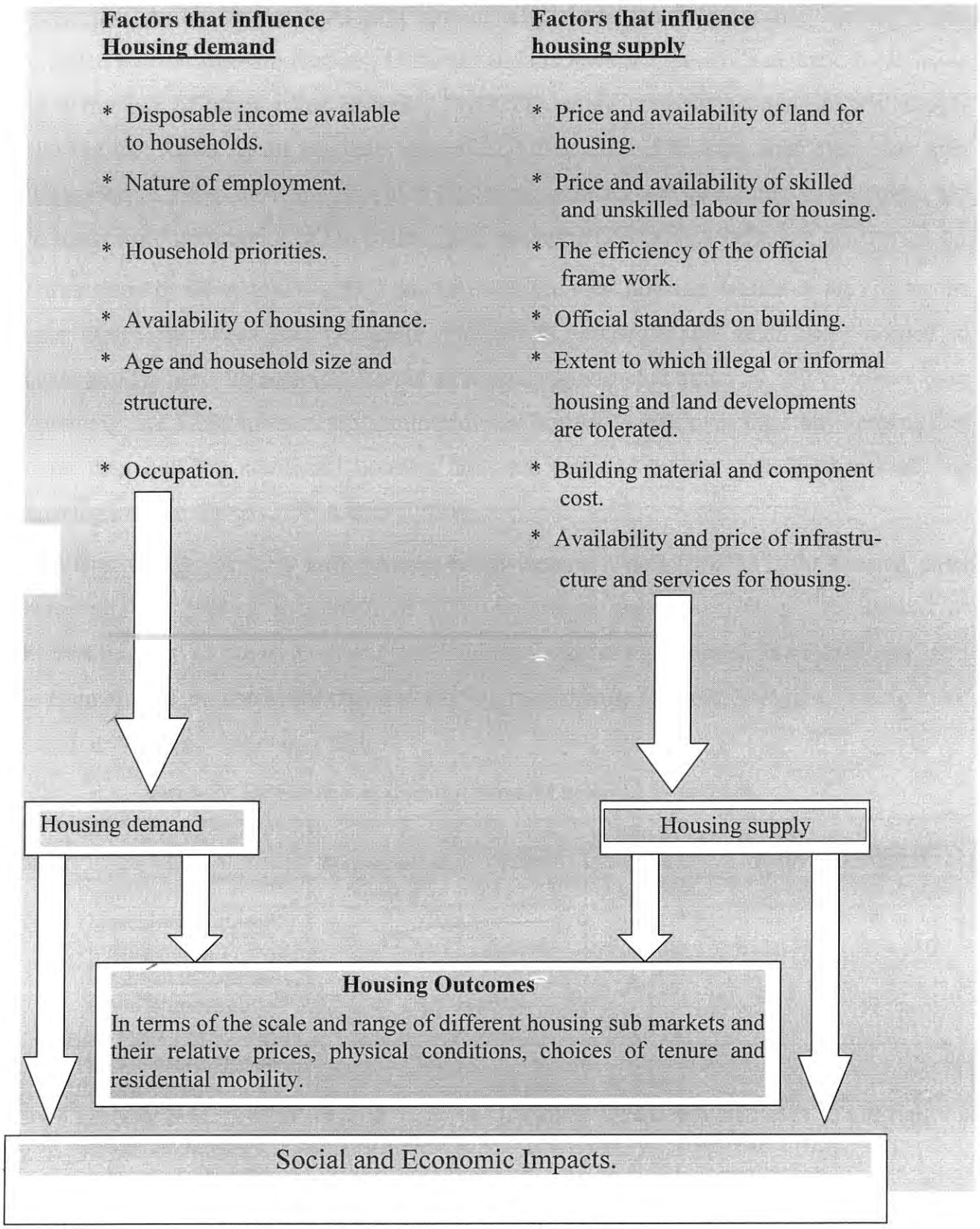
First and foremost, it would be essential to make a distinction between housing needs and housing demand. Housing need refers to the number of dwelling units which are regarded as socially desirable in terms of structural quality, rates of occupancy, sanitary and other facilities and which fulfill certain standards of health, privacy, etc.

Housing demand, on the other hand, reflects only part of this socially felt need for housing (World Bank, 1992, in Tadesse, 2000:10). 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 to rent.

According to the UNCHS global report (1996), factors that influence housing demand and housing supply which will help to formulate housing development strategy such as condominium housing development programs are summarized in the following diagram:

Fig:- The factors that influence housing supply and demand.



Source: UNCHS global report, (1996)

CHAPTER THREE

FINDING AND ANALYSIS

3.1 An over view of recent condominium housing development in Addis Ababa:

To solve the housing problem in the city, the city government have constructed houses of various typologies. Since 1995 to 2003, about 5858 public houses in Akaki, Addis Ketema, Kolfe, Bole and Yeka were constructed. However, the objective of this housing development was mainly to accommodate those households that were relocated because of redevelopment activity in the inner settlement area (AAHA,2006).

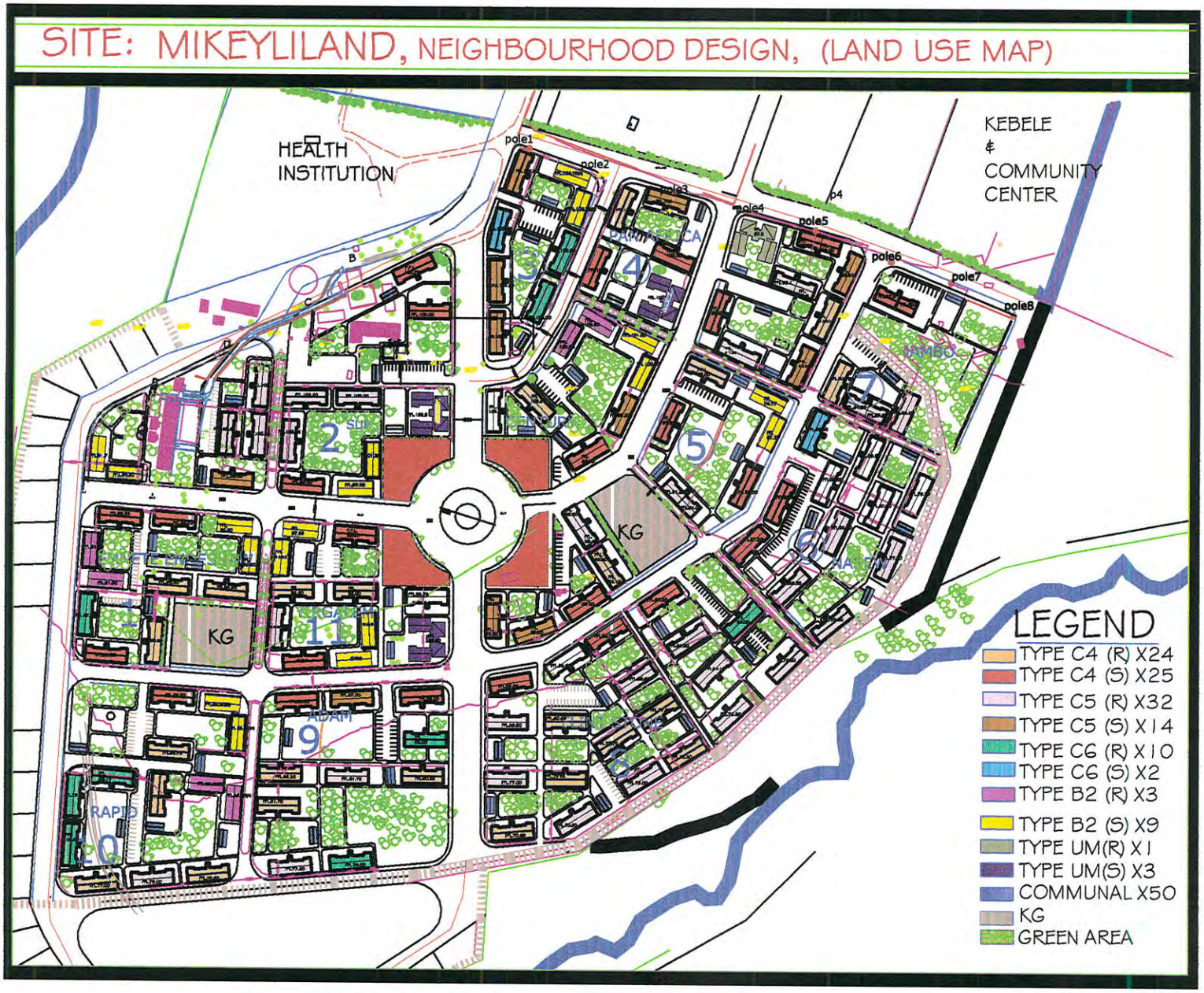
Beginning from the year 2003 onwards, the city government has engaged extensively in the provision of housing via setting a housing development as a priority field of intervention to be addressed. For this, the government has declared the condominium proclamation No. 370/2003 in the year 2003 in order to promote condominium housing constructions. The city targeted as much of 50,000 housing unit per year.

The principal objective is to ease the critical shortage of shelter and also revitalize the slum and decayed corners of the capital (AABOFED, 2006). Based on this, between the years 2003 to June 2006, 32,388 condominium housing with a total area of 1,738,506m^2 units have been constructed (AAHDPO, 2006). It is planned for the year 1999 E.C. to construct 33,000 housing units.

Out of this total number of housing units, 21,093 (65%) is constructed by the Housing Development Project Office (HDPO), and the rest 11,295 (35%) are constructed by German Technical Co-operation (GTZ).

The largest site with a total of 123 blocks or 4,642 housing units in the city is the Mikeliland site in Kolfe Keranio constructed by HDPO.

Fig 3 Mikeliland, the largest site in the city



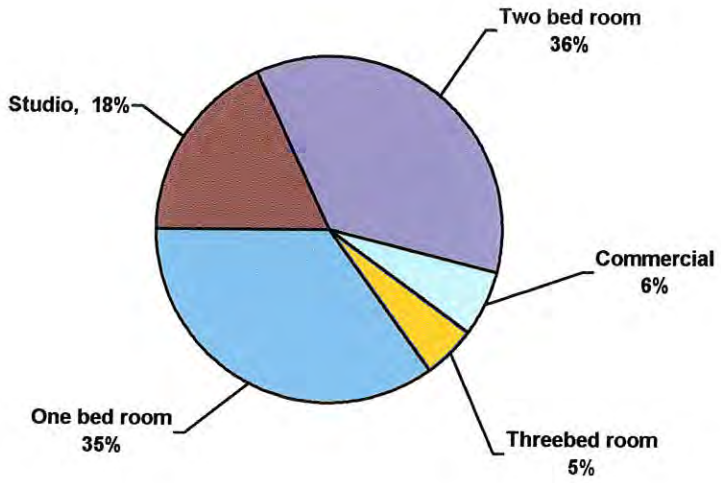
Source: Kolfe keranio HDPO

Table 8 Distribution of condominium housing construction in the city of Addis Ababa since 2003 to 2006.

No	Site location	No. of sites	No. of blocks	Typology of the House					Total	Percentage of the total constructed housing units
				Commercial	Studio	One Bed Room	Two Bed Room	Three Bed Room		
1	Arada	17	53	45	462	674	764	80	2025	7
2	Addis Ketema	7	26	47	317	345	263	49	1021	3
3	Yeka	9	35	49	128	426	479	95	1177	4
4	Kirkos	12	52	111	327	512	629	140	1719	5
5	Gullele	7	26	5	229	260	511	14	1019	3
6	Lideta	6	34	19	393	394	439	39	1284	4
7	Kolfe Keranio	5	184	480	1025	1061	3572	767	6905	21
8	Nefas silk Lafto	7	54	164	398	538	982	160	2242	7
9	Bole	6	60	144	419	575	1130	91	2359	7
10	Akaki Kality	5	39	24	240	290	653	135	1342	4
	Total	**81**	**563**	**1088**	**3938**	**5075**	**9422**	**1570**	**21093**	**65**
11	GTZ	20	363	592	1888	5915	2002	148	10545	33
	Total	**101**	**926**	**1680**	**5826**	**10990**	**11424**	**1718**	**31638**	
12	Gerji Model	1	28	54	144	249	291	12	750	2
	Grand Total	102	954	1734	5970	11239	11715	1730	32388	
	Percentage Of the total Housing unit			**6**	**18**	**35**	**36**	**5**		

Source: Addis Ababa Housing Development Project Office, 2006.

Fig. 4 Percentage proportion of housing typologies.



From the table, it is clear that more emphasis is given to one and two bed rooms followed by the studio type. Housing units for commercial purpose and three bed rooms are not given more emphasis.

3.2 Brief description of the study sites:

Part of the condominium housing construction which are mainly constructed by GTZ, and the Housing Development Project Office (HDPO) are completed and being transferred to beneficiaries.

These are classified in to the following three parts:-

- The Bole-Gerji model housing apartments
- The first phase GTZ constructed apartment houses and
- The first phase HDPO constructed apartment houses.

3.2.1. The Bole-Gerji model housing apartments:

The Bole-Gerji site is located in Bole Sub-city, Kebele 11 of Addis Ababa. According to the documents obtained from the Addis Ababa Housing Development Project Office, the area of the construction site is 45, 864m^2 with an estimated density of 700 persons/hac. The Bole-Gerji housing construction project is considered to be the "pilot" for the Addis Ababa Grand Housing Program. This project consists of 750 housing units in 28 apartment blocks.

Of these G+2 to G+4 housing units, 54 of them are commercial, 144 studios, 249 one bed rooms, 291 two bed rooms and 12 three bed rooms residential housing units. The model site also comprises 32 communal kitchens, 7 laundries, 7 slaughter units and 100 storage provisions. In this model housing units about 696 of them are residential of various sizes ranging from 22m^2 to 105 m^2. The following table summarizes the type of housing unit and the range of their areas:

Table 9 Bole-Gerji housing unit distribution.

No	Site Name	Sub-city	No. of apartment blocks	Typology of the houses				Commercial	Total	Project site area (m^2)
				St.	1B	2B	3B			
1	Bole-Geji	Bole	28	144	249	291	12	54	750	45,864m^2

No.	Typology of the housing unit in Bole-Gerji	Percentage of the total housing unit (%)	Range of area in (m^2)
1	Studio type	20.69	22.02 to 26.43
2	One bed rooms	35.78	40.59 to 54.63
3	2 bed rooms	41.81	63.26 to 82.78
4	3 bed rooms	1.72	105.04

The implementing agency of this project was the GTZ international service (GTZ IS) and the consultant MH-Engineering plc. was responsible for supervision in collaboration with the GTZ/Low-Cost Housing Project (LCH) giving advisory service.

Fig. Bole-Gerji Model Houses.

3.2.2. The first phase GTZ constructed apartment houses:

After completing the Bole-Gerji model housing project, GTZ continued the construction of condominium housing units in 20 sites in all sub-cities except Akaki. Among these sites, which are completed and transferred to beneficiaries are:-

- Balcha site in Lideta sub-city near to Balcha Hospital in Kebele 7/14 with a site area of 7533m^2. The type of building is G+2 which comprises of 102 housing units, all transferred to beneficiaries but only 83 of them occupied by residents.
- Mekanissa I is the other site found in Nefas Silk Lafto sub-city around the Mekanissa area in Kebele 02. It has a site area of 8096m^2 and the housing units comprises 114 with only 88 of them occupied by residents. The type of building is G+2.
- Finally Gullele I site located in Gullele sub-city, Kebele 10/11/12 is constructed in an area of 9860m^2. It has a total of 166 housing units of different types. Like the other buildings, it is G+2 type.

In all the above mentioned housing units, the typology of the houses are studios, one bed rooms and two bed rooms with various sizes. The size of the studio-type ranges from 29.05m^2 to 45.76m^2, while the one bed room ranges from 51.62m^2 to 59.90m^2 and the two bed rooms varies from 78.04m^2 to 86.36m^2 (HDPO, 2006).

Table 10 summary of the 1st phase GTZ site housing unit distribution:

No.	Site Name	Sub-city	No. of apartment blocks	Typology of the houses			Total	Project site area (m^2)
				St.	1B	2B		
1	Balcha	Lideta	7	30	54	18	102	7533
2	Mekanissa	N/S. Lafto	8	36	60	18	114	8096
3	Gullele I	Gullele	13	56	89	21	166	9860
	Total (3)	**3**	**28**	**122**	**203**	**57**	**382**	**25,459**

These sites are selected in this study because residents have started to live for a long period of time as compared with the other and hence rich information about the study can be obtained. And it is assumed that these can best represent the other sites since the over all construction system of the housing units are the same.

Photo of one of the GTZ 1st phase condominium houses.

3.2.3. The first phase HDPO constructed apartment houses:

81 other sites with a total of 21, 093 housing units are being implemented by the Addis Ababa Housing development Project Office (HDPO) in collaboration with MH-Engineering and GTZ/LCH. Unlike the GTZ, the HDPO buildings are all G+4 types with typologies ranging from studio to three bed rooms. The area size and the typologies also varies.

The area size of studios ranges from 21.39m^2 to 36.61 m^2 , the area of one bed room varies from 34.14 m2 to 60.27 m^2, two bed rooms from 46.03 m^2 to 68.63 m^2 and three bed rooms from 59.83 m^2 to 64.04 m^2 (HDPO, 2006).

- Out of the 81 sites, 78 of them are not yet completed, but only 3 sites in two sub-cities (Arada and Kirkos) are completed and transferred and occupied by residents. These are:

  Genfle site: this site is located in Arada Sub-city Kebele 13 on the South eastern of Amist Kilo. It comprises 200 housing units of various sizes. It has a site area of 8530 m^2.

- Ras Desta site: this site is located in Arada sub-city, Kebele 07/08 near to Yohannes Church. It has about 200 housing units in an area of 7860 m^2.
- Meskel Flower site: this site is located in Kirkos Sub-city in Kebele 02/03. There are 136 different types of housing units constructed in an area of 564 m^2.

Table 11 summary of the HDPO housing unit distributions:

No.	Site Name	Sub-city	No. of apartment blocks	Typology of the houses			Total	Project site area (m^2)
				St.	1B	2B		
1	Ginfle	Arada	5	90	90	20	200	8530
2	Ras Desta	Arada	5	100	100	---	200	7860
3	Meskel Flower	Kirkos	4	68	68	---	136	5646
	Total	**2**	**14**	**258**	**258**	**20**	**536**	**22,036**

Photo of one of the HDPO 1st phase condominium houses.

Generally the housing unit distribution in the three category of study sites are summarized in the following table:

Table 12 Summary of condominium housing units distribution in the study areas.

No	Site Name	Sub-city	No. of apartment blocks	Typology of the houses				Total	Project site area (m^2)
				St.	1B	2B	3B		
1	Ginfle	Arada	5	90	90	20	---	200	8530
2	Ras Desta	Arada	5	100	100	---	---	200	7860
3	Meskel Flower	Kirkos	4	68	68	---	---	136	5646
4	Balcha	Lideta	7	30	54	18	---	102	7533
5	Mekanissa	N/S Lafto	8	36	60	18	---	114	8096
6	Gullele I	Gullele	13	56	89	21	---	166	9860
7	Bole-Gerji	Bole	28	144	249	291	12	696	45,864
	Total (7)	**6**	**70**	**524**	**710**	**368**	**12**	**1614**	**93,389**

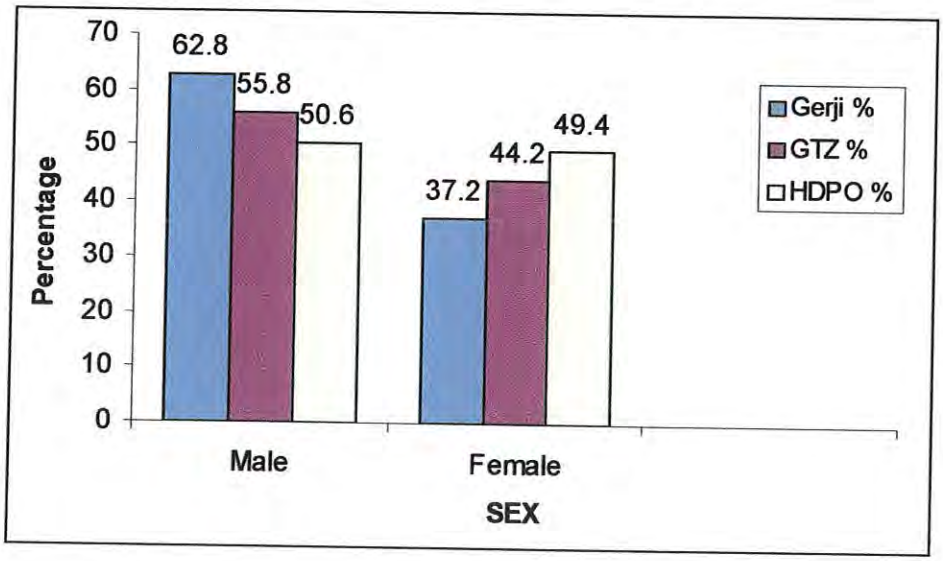
3.3 Socio-Economic condition of residents:

In the socio-economic components of the condominium housing residents, issues like sex, age, marital status, educational level, occupation, and monthly income are considered.

Gender:

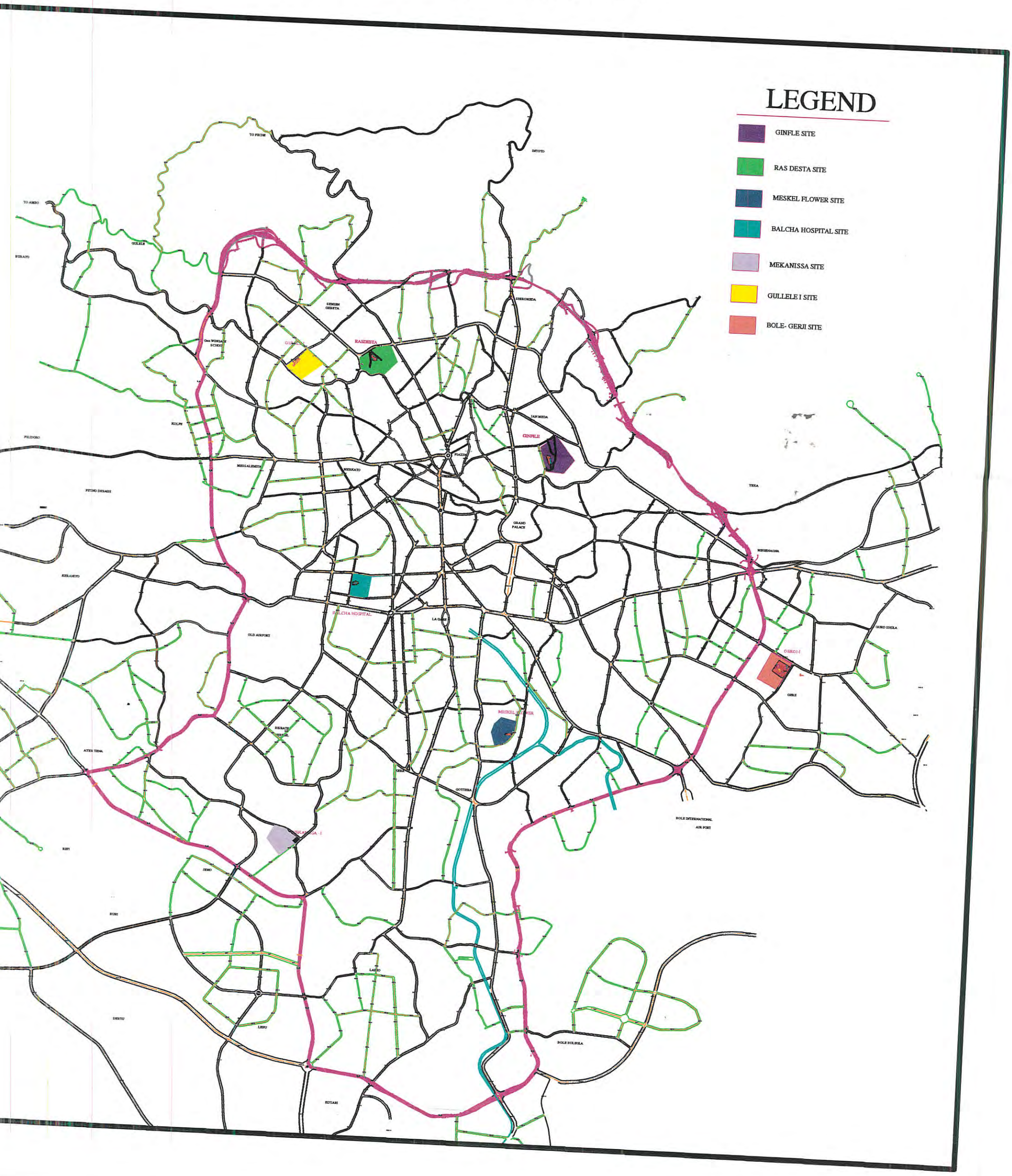
With regard to the gender structure, the data in the table 13 revealed that, 62.8% of the Bole-Gerji, 55.8% of the GTZ and 50.6% of the HDPO site residents are found to be male. On the other hand, the female category of the household heads in the three groups of the site account for 37.2% of the Bole-Gerji, 44.2% of the GTZ and 49.4% of the HDPO.

Fig. 6 Head of household distribution by SEX.



Article 5 of housing transfer proclamation (No. 19/2005) which stipulates a minimum of thirty percent of the home seekers with reserved priority rights shall be female heads of households. When we see the data on the fig. in all the three groups of sites (Gerji, GTZ, and HDPO) the number of female headed households are greater than 30%. Hence, the involvement of females in getting the condominium housing is encouraging. However, when we compare the three sites, the involvement of female headed households in the Bole-Gerji site is lower only 37.2 while in the case of HDPO site the percentage is much higher (49.4%).

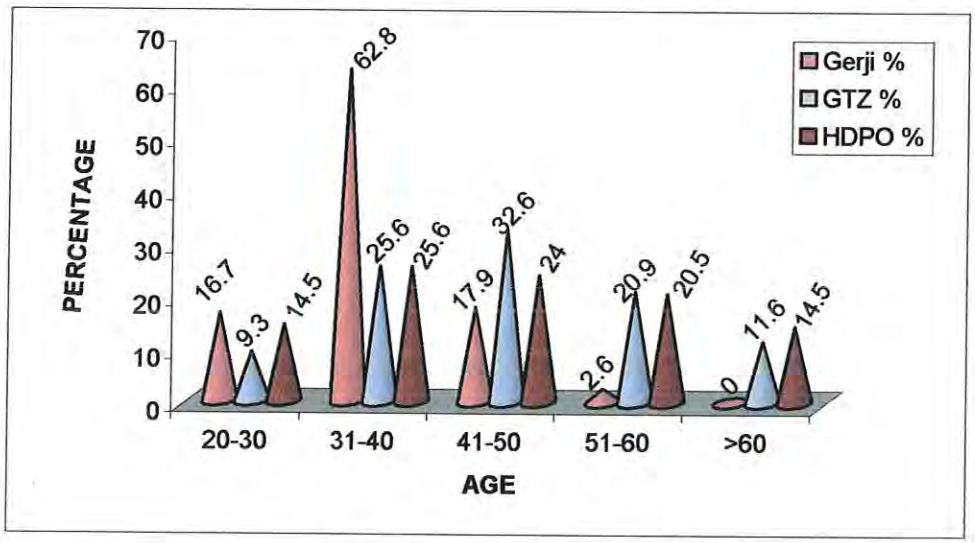
Fig 5 Distribution of the study areas in the city



When we see the household head on both sex category, according to the (2005) National Labour Force survey of CSA, 60.63% are male headed while 39.37% are female headed. But in the case of condominium housing distribution share of the female category, the number has increased particularly in the HDPO constructed houses. The reason could be because of the emphasis given to females by the City Administration.

Age:

Fig. 7 Frequency and percentage distribution of respondents by AGE.



When we see the age structure in the study areas, it varies from site to site.

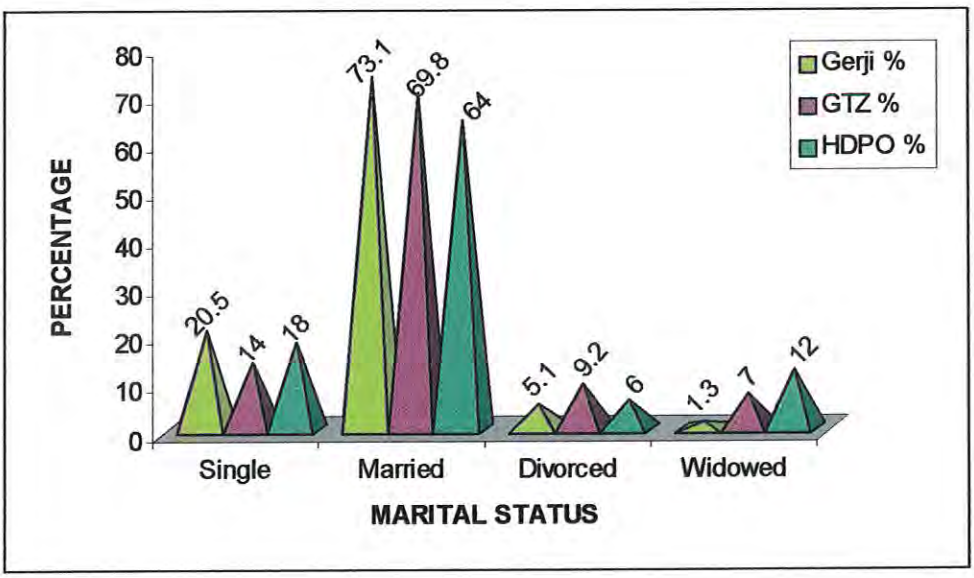
As it can be seen on the figure, (62.8%) of the respondents in Bole-Gerji are between 31 to 40 years of age, while 25.6% and 25.5% of the age category of the respondents are in GTZ and HDPO sites respectively. The next highest number of age groups are between 41 to 50 years of age in the GTZ site which is 32.6%. The highest number of age groups in the study sites are between 31 to 40 years of age followed by 41 to 50 years of age. According to CSA, in 1999 age groups between 15-64 is relatively higher in the city, constituting about two-third of the total population. But age groups above 64 are small (3%). The finding also shows that age groups above 50 and below 30 years of age have lower share of the housing units.

Therefore, the majority of the residents are age groups between 31 to 40 in Bole-Gerji and HDPO and 41-50 in the GTZ sites. When we see household heads whose ages above 50 are very low about 21.9% combined all the study sites. Particularly, in the Bole-Gerji, age groups 51 to 60 are only 2.6% and there is no respondent with age group greater than 60 years of age. Hence in the Bole-Gerji site, old age groups are very few.

Marital status:

As regard to marital status, the majority of the sample residents studied reported that they are married, while a small proportion of them fall under the category of single, divorced and widowed marital status.

Fig. 8 Frequency and percentage distribution of owner Household heads by marital status.



The above figure shows that 73.1% of the Bole-Gerji, 69.8% of the GTZ and 64% of the HDPO condominium housing residents are married. While 26.9% of the Bole-Gerji, 30.2% of the GTZ and 36% of the HDPO site residents are in one way or another out of wedlock. When we compare the finding with the 1994 census result of the city, while the highest number 60.4% were not married, only 29.5% of the residents were married. But 10.1% are divorced or widowed.

Therefore, while the largest number of the residents in the condominium housing are married, 60.4% of the census result in the city are not married. This probably is due to the large number of the applicants are married and are able to pay the down payment and other requirements set to get the housing unit.

The study conducted in the three sites therefore reveals that most of the condominium housing unit beneficiaries are married residents.

Education:

Educational status of the sample of condominium housing residents might have influence on the type of their respective occupation. Education as one of man's cultural needs is the most important factor to bring forth all rounded development. Education enhances the level of income and quality of life, which can also influence the possession of housing to some extent. Data, therefore, on the educational attainment of the respondents is an important indicator of their level and source of income. Educational status of the sample of the condominium housing residents have been presented on table 13.

Table 13 Frequency and percentage of respondents by educational level.

EDUCATIONAL LEVEL	Gerji		GTZ		HDPO		Total	Percent
	Number	%	Number	%	Number	%		
Illitrate	---	---	5	11.6	18	21.7	23	11.2
Literate(writing and reading)	1	1.3	14	33.6	16	19.3	31	15.2
Primary school	3	3.8	6	14	16	19.3	25	12.3
Secondary school	12	15.4	10	22.3	22	26.5	44	21.6
College Diploma	34	43.6	7	16.2	9	10.8	50	24.5
First Digree & above	28	35.9	1	2.3	2	2.4	31	15.2
Other	---	---	---	---	---	---	---	---
Total	78	100	43	100	83	100	204	100

As can be seen from the table the educational level distribution of the condominium housing residents in the three category of study areas are not the same. In the case of Bole-Gerji residents 43.6% are diplomas and 35.9% are with first degree and above. i.e., 79.5% of the respondents are college diploma and above.

On the other hand, it is only 18.5% of the GTZ and 13.2% of the HDPO condominium housing residents with college diploma and above. It is also true that no illiterate respondent was recorded in the Bole-Gerji, while 11.6% and 21.7% were reported in the GTZ and HDPO housing residents respectively. Generally therefore, it is possible to infer from the table that 81.5% of the GTZ residents and 86.8% of the HDPO residents have educational level ranging from illiterate to secondary school.

But in the case of residents in the Bole-Gerji model houses, residents are comparatively with higher educational level than the GTZ and HDPO residents.

With the exception of the Bole-Gerji site residents, it is clear from the table that the household heads in the GTZ and HDPO sites are not qualified. This result implies that residents from GTZ and HDPO are from lower income group who do not get the opportunity to learn and to improve their life standards. It is therefore clear from the data that residents of the Bole-Gerji are better educated and are employed in governmental and non-governmental work activities with a better payment than the other two sites.

Occupation and income:

In connection with this it is also important to discuss about the occupational status of the sample condominium housing heads.

Occupational status is one of the factors that influence the capacity and accessibility of the household heads in the sample to have their housing unit. In the following table, we can look at the distribution of respondents' occupation in the three sites.

Table 14 Distribution of respondents by Occupation.

	Gerji		GTZ		HDPO			
OCCUPATION	Number	%	Number	%	Number	%	Total	Percent
Civil Servant	59	75.6	15	34.9	25	30.1	99	48.6
Private employee	16	20.5	11	25.6	21	25.3	48	23.5
Own business: Formal	2	2.6	3	7	5	6	10	4.9
Own business: Informal	---	---	4	9.2	3	3.6	7	3.4
Daily laborer	---	---	3	7	11	13.3	14	6.9
Other	1	1.3	7	16.3	18	21.7	26	12.7
Total	78	100	43	100	83	100	204	100

As can be observed from table 17, the highest proportion of the sample of the condominium housing residents happens to be civil servant followed by private employee. When we compare the three study areas, 75.6% of the Bole-Gerji model housing unit residents are civil servants, and only 34.9% of the GTZ and 30.1% of the HDPO housing residents are civil servants; while private employees in all the three sites are almost similar.

It is also clear that no respondent from the Bole-Gerji site engaged in informal business or as a daily laborer.

The data generally indicates that most of the sample condominium housing residents are civil servants followed by private employees. But still there are residents who reported that they do not have any occupation, and are living with the support of family and relatives, particularly residents from the GTZ and HDPO sites.

Another point that has to be considered in the socio-economic aspect of the sample condominium housing residents is income of household heads.

Household investment on housing depends on both the willingness to invest and income capacity of the household. Statistics show that majority of the residents of Addis Ababa earn very low income with little margin left for housing.

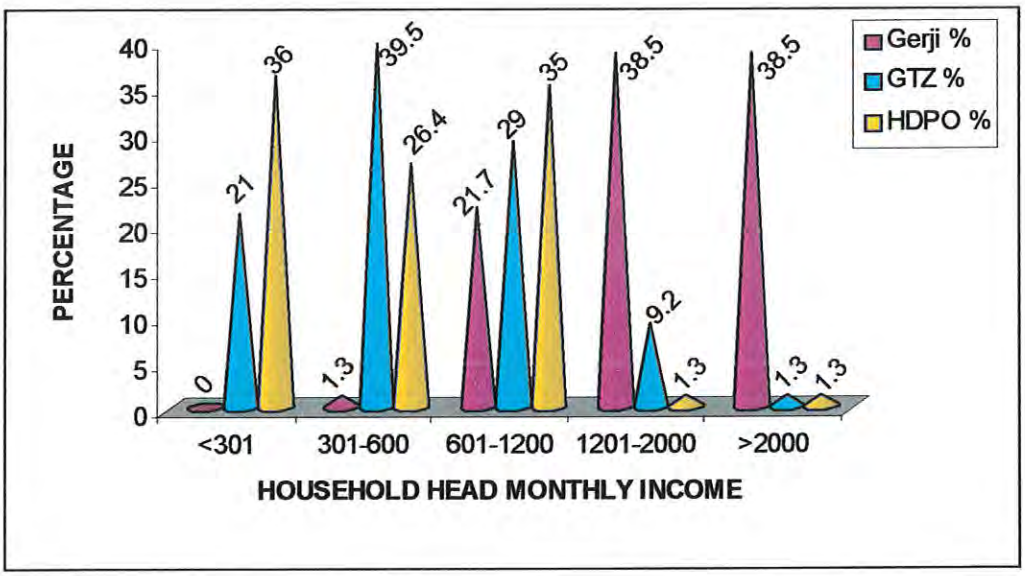
According to the household income, consumption and expenditure survey conducted by the CSA in 1995/96, about 22.9% of the households in Addis Ababa earn a monthly income of less than Birr 217 (or an annual income of less than birr 2,599) per household. And about 61.1% of the households earn a monthly income of less than Birr 550 (or an annual income of less than Birr 6,559) per household. By contrast, those who earn relatively high monthly income (i.e. more than birr 1,050 per month per household) constitute only 17.2%. Besides the largest proportion of the total household income (about 50%) goes to consumption (food). This proportion is very high for majority of low income earning households. The overall implication of this is that not only is small or low the income of the majority of the city's population but their income is not sustainable (Tadesse, 2000).

According to the City Administration (2004) residents of the city are classified in to three income groups for the purpose of condominium housing distribution among residents. Income groups less than 301 and 301 up to 600 are categorized as low income groups. Those with monthly income from 601 to 1200 and 1201 to 2000 are classified as middle income groups, others whose monthly income greater than 2000 are classified as high income groups (CGAA, 2004).

The proclamation of the condominium housing transfer states that home seekers with monthly income up to Birr 300 shall have reserved priority rights to purchase studio.

Those with monthly income from Birr 301 to 600 shall have reserved priority rights to purchase a single bed room with an area of less than $30m^2$. and the main objective of the grand housing development project in the city is to alleviate, housing problem of these low income groups and also middle income groups.

Fig. 9 Owner household heads monthly income distribution in Birr.



It is indicated on the figure that, low income groups are not benefiting much from the Bole Gerji site. In this site 98.7% of the respondents are middle and high income groups. On the other hand the GTZ and HDPO sites accounts 39.5% and 37.6% middle and high income groups respectively.

According to the city government, if those low-income groups up to 300 birr monthly income bought $25m^2$ studio, and if the housing unit price is 20,000, then he/she will be subsidized 30%. i.e, 20,000-6000=14,000 (to be paid by the buyer). The expected down payment for this is 7.5% i.e, 1,050 birr. The remaining 12,950 cost will be paid within 20 years time or 240 months. Hence he/she will pay 648.00 annually or 54 per month.

If other low-income group, with monthly income of 301-600 bought 1 bed room housing unit and if the cost is 25,000 then he/she will be a subsidy of 30%. Hence 25,000-7,500=17,500 will be paid by the buyer. The down payment for this can be 10% and the total cost will be paid within 20 years and 2% interest will be considered.
The down payment for this is 2500. And the remaining 15,750 have to be paid within 20 years or 240 months. Excluding the interest rate, the buyer have to pay 66 birr every month.

When we see the payment modality of the condominium housing residents, the following results are evident:

Table 16 Amount paid for the housing unit.

Payment Modality	Gerji		GTZ		HDPO		Total	Percent
	Number	%	Number	%	Number	%		
Only the required down Payment	23	29.5	41	95.4	72	86.7	136	66.6
50% of the total cost	13	16.7	1	2.3	--	--	14	6.9
80% of the total cost	11	14.1	--	--	--	--	11	5.4
90% of the total cost	3	3.8	--	--	--	--	3	1.5
100% of the total cost	27	34.6	1	2.3	10	12.1	38	18.6
Other	1	1.3	--	--	1	12.1	38	18.6
Total	78	100	43	100	83	100	204	100

According to the report by the respondents indicated on the table, those who have paid only the required down payment account 95.4% and 86.7% of GTZ and HDPO respectively. But when we see Bole-Gerji residents only 29.5% of them are paid the down payment.

It is believed that low-income groups are not able to pay more than the down payment at once and they need time and prefer to pay on monthly bases. On the other hand, in the case of Bole-Gerji, about 69.2% of the households have paid above the required down payment.

On the other hand 34.6% of the Bole-Gerji, 2.3% of the GTZ and 12.1% of the HDPO have paid 100% of the total cost. It is therefore, possible to infer from the table that residents in GTZ and HDPO sites have only paid the down payment. But in the case of Bole-Gerji site it varies from down payment to 100% payment because most of the houses are distributed by the credit union association where beneficiaries can compete with each other based on the amount of payment that they are going to pay.

Previous residential house:

This helps to know where the households were used to live. The following table shows the previous residential house of the household heads.

Table 17 Respondents residential house before acquiring their present dwelling unit.

PREVIOUS RESIDENTIAL HOUSE	Gerji		GTZ		HDPO		Total	Percent
	Number	%	Number	%	Number	%		
Rented from Kebele	29	37.2	38	88.4	72	86.7	139	68.1
Own house	5	6.4	3	7	3	3.7	11	5.4
Rented from A.A. Housing Agency	14	17.9	1	2.3	---	---	15	7.4
Rented from private owner	23	29.5	---	---	6	7.2	29	14.2
Other	7	9	1	2.3	2	2.4	10	4.9
Total	78	100	43	100	83	100	204	100

We can easily observe from the table, that 37.2% of the Bole-Gerji, 88.4% of the GTZ and 86.1% of the HDPO housing unit residents were rented in Kebele houses and 29.5% of the Bole-Gerji and 7.2% of the HDPO housing residents were rented from private owner.

On the other hand some 6.4% of the Bole-Gerji, 7% of the GTZ, and 3.7% of the HDPO housing residents were from their own house, where the city government was taken it for redevelopment purpose and these residents have given priority to get the condominium housing unit.

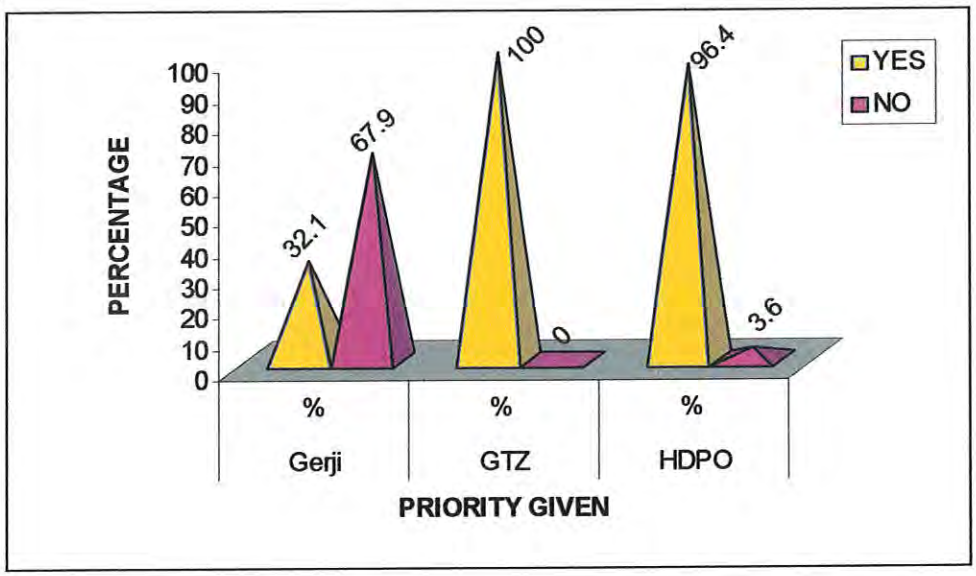
On the other hand those who were rented from A.A. Housing agency have now residents of condominium house probably because the previous house have smaller in size that they do not want to continue living in such houses or the rent that they were paying was high.

It is stated on the literature part of the 1994 Addis Ababa housing census that 40.4% of the housing units in the city are rented from government and 16.4% of them are rented from private household. But only 34.42% are privately owned.

This shows that 56.8% of housing units are rented either by government or private households. The data obtained from the three study sites also shows most of the household heads are from rental houses.

Priority given and reasons:

Fig. 10 Whether or not owner household heads have given priority to get their Condominium housing unit.



According to article 6, sub-article 1, a stock of housing units shall be reserved for home seekers to be cleared from their place of residence on account of development under taking shall have priority to purchase units as per the decision of the city cabinet based on the data to be obtained from Sub-city Land Development and Management Office.

As was indicated on the figure, 100% of the GTZ and 96.4% of the HDPO residents reported that they were given priority to get the housing unit.

But in the case of Bole-Gerji residents, only 32.1% of them have got the priority, the rest 67.9% stated that they do not given any priority.

In the case of the Bole-Gerji residents, results are a bit different. Most of the Bole-Gerji residents, who responded 'NO', stated that their housing unit is obtained because they are member of their credit union association. Hence the association bought the housing units by paying 100% and distributed among the members.

The members who won the chance were given the housing unit as per other pre-condition given by the credit union to them. Therefore the Bole-Gerji household heads are benefited from the credit association they have.

Since sub-article 8 in the proclamation stated that a certain amount of units may be assigned to any association in return for the payment of their total price in one go for the purpose of distributing to its members.

This shows that the Bole-Gerji houses are given to credit union association members based on the amount of money they can afford.

Table 18 Reasons for getting priority of condominium housing unit.

Reasons for priority	Gerji		GTZ		HDPO		Total	Percent
	Number	%	Number	%	Number	%		
Because of relocation through land development	3	12	35	81.4	66	82.5	104	67
By exceptional government order	5	20	6	14	6	7.5	24	15.5
Other	17	68	2	4.6	8	10	27	17.4
Total	25	100	43	100	80	100	155	100

In this regard, it is important to know why some of the household heads have been given priority chance. Accordingly, 81.4% of the GTZ and 82.5% of the HDPO residents have got the chance because their previous holdings were taken for any developmental purposes. But in the case of Bole-Gerji only 12% of the household have got the chance due to relocation.

As it was indicated in the literature review, to most people, the size of their housing unit is the first concern or question a family asks when it looks at a new house or apartment (Lawrence, 1996).

As has been presented on the figure, 51.1% of the Bole-Gerji site residents and 56.8% of the GTZ site residents responded that their housing unit is adequate for them to live, on the other hand, respondents from the HDPO sites, only 46.7% of them said that their dwelling unit is sufficient size to live. The study also revealed that residents in the studio and one bed room housing typologies are not happy with the area of their dwelling unit since the area is smaller than their expectation. In addition to this, documents from the HDPO shows that there is variation in the area of the housing units of the same typology. The area variation of the studio ranges from $20m^2$ to $48m^2$, one bed room from $40m^2$ to $60m^2$ and two bed rooms $63m^2$ to $87m^2$, three bed room 105 to $105.4m^2$. These variation of areas of dwelling units have created dissatisfaction among the residents. Those who are living in the studios, and one bed room housing units have said that their room size is insufficient and inconsistency of room size.

Particularly those who live in the studios have stated that since there is no separate bed room for their children, they are encountering difficulty especially during bed time. And since it doesn't have guest room and space to store food provisions the problem is exceptionally serious to them.

The following table shows household member distribution in the studio housing typologies in the three study sites and what over crowdedness looks like in these studio housing units:

Table 19 Over crowdedness in studio housing units of the study areas.

										Total
	Number of household members	1	2	3	4	5	6	7		28
Gerji site	Number of housing units	3	4	7	6	3	2	1	--	26
	Person per room	0.11	0.15	0.27	0.23	0.11	0.08	0.04		
GTZ site	Number of household members	1	2	3	4	5	6			21
	Number of housing units	1	2	1	2	1	3	--	--	10
	Person per room	0.1	0.2	0.1	0.2	0.1	0.3			
HDPO site	Number of household members	1	2	3	4	5	6	7	8	36
	Number of housing units	3	6	6	10	8	8	3	1	45
	Person per room	0.07	0.13	0.13	0.22	0.18	0.18	0.07	0.02	

From the table, it is clear that housing units with household members greater than two shows crowdedness. Hence in Bole-Gerji site, overcrowded studios are as high as 73% where as those with one or two family members are only 27%. In the GTZ sites 70% are crowded, while 30% are normal. And in the HDPO site over crowdedness reached as high as 80%. Therefore, more crowded studio housing units are in the HDPO sites; only 20% have normal crowdedness in this site.

Three categories of density of occupation of housing units could be identified according to the UN recommendations of "overcrowding" (UN, 1967), these classifications are:

a) Housing units with more than one room occupied on the average by less than one person per room are classified as under occupied.

Fig. 13 Quality of exterior doors as reported by household heads.

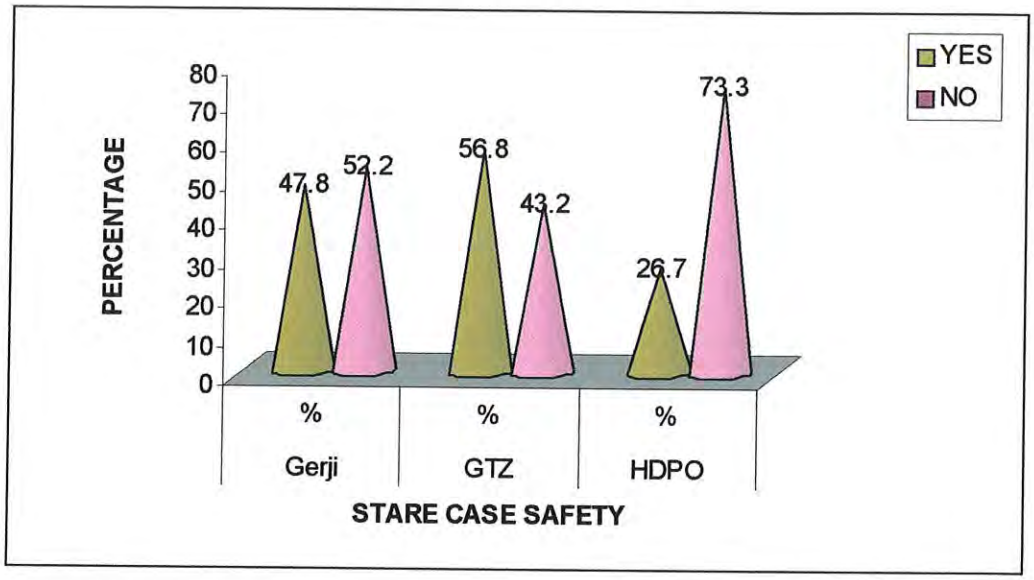
The study conducted on the three sites, as indicated on figure revealed that exterior door quality especially in the GTZ and HDPO sites are poor.

63.6% of the GTZ and 60% of the HDPO residents confirm that their door locks are not properly functioning. But 62.2% of the respondents from the Bole-Gerji model housing unit respondents reported that their exterior doors are lockable and functioning well. Some residents justification for the poor quality of exterior door devices is that due to the use of poor quality door locks in the market which are supplied at lower cost.

The problem of locking devices, as was revealed from the data is worsening. This shows that there is no controlling mechanism or quality standard set in the type of the device. And the workmanship quality in this area is questionable.

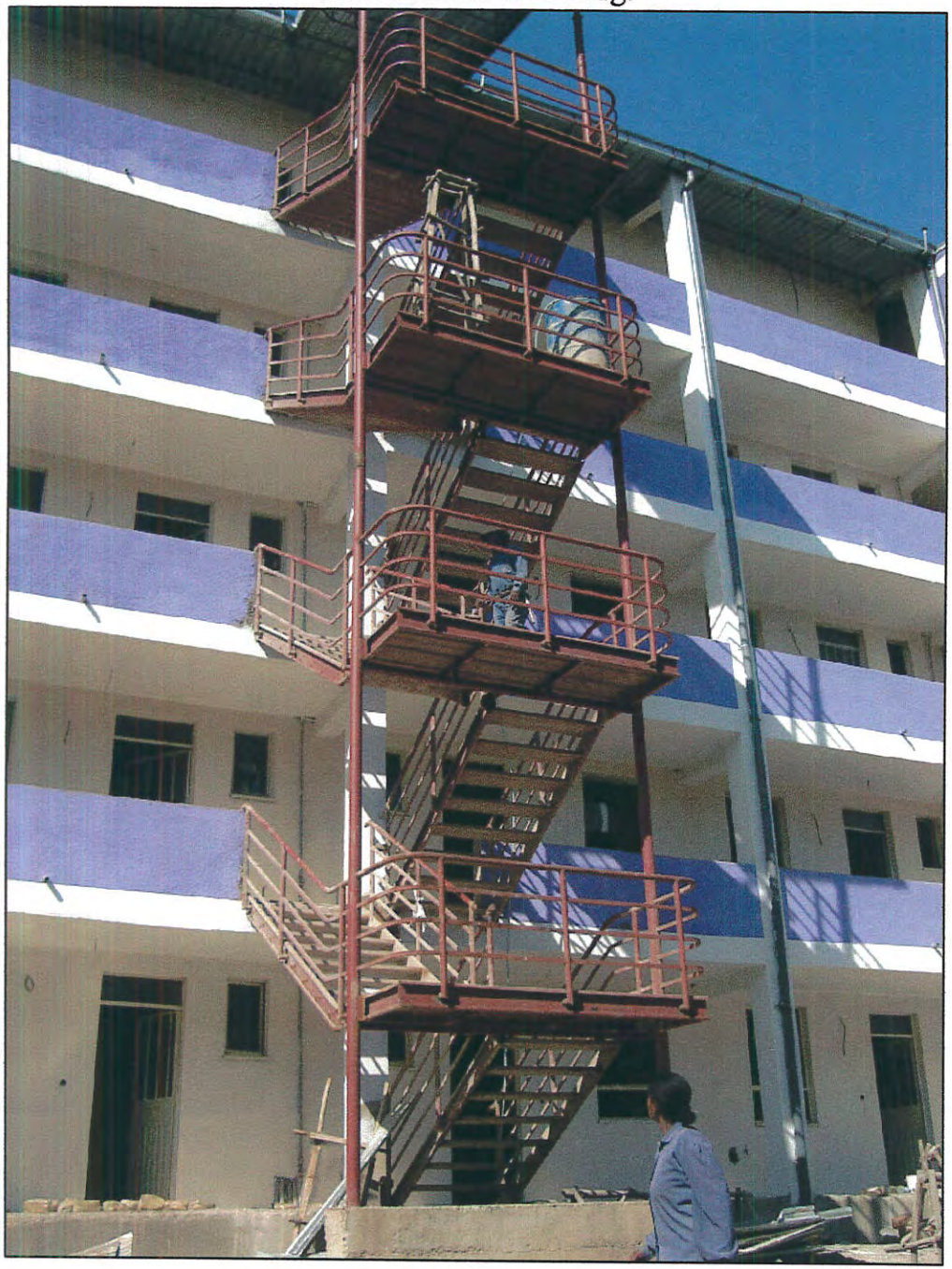
Another component of the condominium hosing structure is the metal made stair case. The residents opinion on this structure is also investigated.

Fig. 14 Stare case safety reported.



Since one of the major constructional structure in the condominium housing is the steel made stair case, a question was asked for the residents whether the structure is safe for them.

Stair case for G+4 Bldg.



Stair case for G+2 Bldg.

Source: own picture, 2007

As was indicated on the figure 52.2% of bole-Gerji residents and 73.3% of the HDPO site residents are against the existing stair case structure.

But 56.8% of GTZ site residents respond that the structure is safe. Some of the reasons given by respondents who said NO are the following:

- Since the structure is made up of steel, it will corrode and will be out of use in a short period of time. And when it breaks some where in the middle, then there is no any alternative to move down or up particularly for those who live in the 1st , 2nd , 3rd , and 4th floor residents.
- The load carrying capacity is not proportional to the number of residents, which will facilitate its damage.
- It is not safe for children, and elderly people to move up and down and it makes sound, which disturbs residents while inside their housing unit.

  Respondents, therefore, strongly oppose with the existing iron made stair case and wants to be changed by concrete type.

  Photo that shows the stair case structure for G+2 and G+4 buildings are shown on page 65.

Opening and illumination:

In the consideration of housing quality, natural illumination is also of great importance. Each room of any house must have adequate natural or artificial illumination to permit normal indoor activities and to support the health and safety of occupants. There must be at least one window in the living room and in each sleeping room (Neilson, 2004).

Table 20 The condition of natural illumination of dwellings.

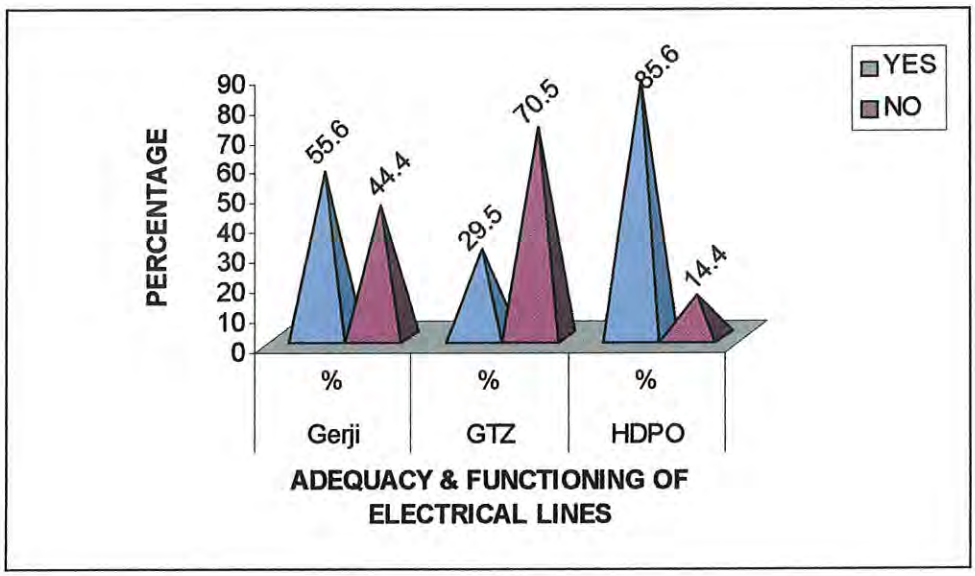
NATURAL ILLUMINATION	Gerji		GTZ		HDPO		Total	Percent
	Number	%	Number	%	Number	%		
Have sufficient natural illumination	85	94.4	42	95.5	86	95.6	213	95
Are poorly illuminated	4	4.4	2	4.5	3	3.3	9	4
Are almost dark	1	1.1	---	---	1	1.1	2	1
Total	90	100	44	100	90	100	224	100

Each room of the condominium housing units must have adequate natural or artificial illumination to permit normal in door activities and to support the health and safety of occupants. Since it is uneconomical to use electric light during the day time, housing units must have natural illumination.

The study conducted on the three condominium housing sites (Gerji, GTZ and HDPO) shows that more than 94% of the residents in each site do not face any natural illumination or day light problem However, some residents living on the ground floor in all the sites have problems in getting day light as compared to others.

A dwelling unit must also have sufficient electrical sources so as occupants can use essential electrical appliances. And also electrical fixtures and wiring must not pose a fire hazard. The kitchen area, bath room, living and sleeping rooms must have a permanent ceiling or wall-mounted fixture in proper operating condition (Neilson, 2004).

Fig. 16 Adequacy of electrical system as reported by residents.



As was observed on figure 30, 55.6% of the Bole-Gerji model housing residents and 85.6% of HDPO housing unit residents indicated that there is no electrical line problems in their housing units. Where as 70.5% of the GTZ constructed housing unit residents have problems with the electrical functions in their dwelling areas. Some of the reasons explained by residents why the electrical system is with problem is that the electrical system is not free of hazardous conditions.

There are some exposed, un insulated, or frayed wires, improper connections, improper insulation or grounding systems, overloading of capacity are observed in their sites.

Hanging light fixtures or outlets from electric wiring, missing cover plates on switches and outlets, badly cracked outlets or cover plates, exposed fuse box connections and overloaded circuits are common.

Switches and sockets are of poor quality and do not properly function. The power carrying lines to their housing unit, according to the respondents are not proportional to the power needed by the residents, usually lower power than needed.

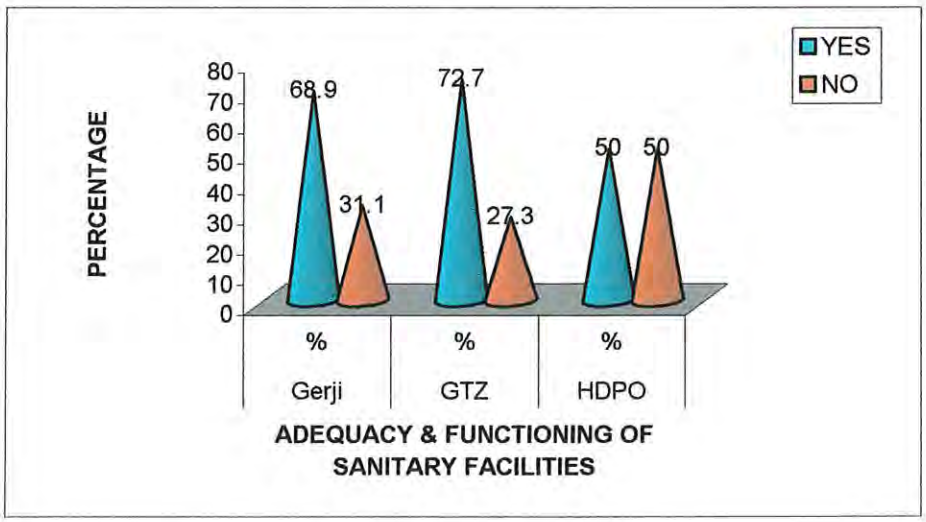
It is also indicated that since the electrical meter boxes are kept and fixed on the foot of the iron made stair case inside the iron made box it is found to be far from their housing unit and is not safe for residents.

Sanitary facilities:

Appropriate sanitary facilities are also part of the major criteria to assure for the quality of any housing unit. A dwelling unit must include sanitary facilities within the unit. The sanitary facilities must be in proper operating condition and adequate for personal cleanliness and disposal of human waste and usable in privacy.

The sanitary facilities must utilize an approved public or private disposal system, including a locally approved septic system (Smith, 1983).

Fig. 17 Residents response towards the adequate and functioning of sanitary facilities.



As was indicated on figure 31, the study clearly shows that 68.9% of the Bole-Gerji model housing unit residents and 72.7% of the GTZ constructed housing unit residents do not face any problem of sanitary facilities; but half of the respondents 50% of the HDPO housing unit residents, 31.1% of Gerji and 27.3% of the GTZ reported that the sanitary facilities are not properly functioning. According to the information obtained from the interview made with some residents damaged or broken fixtures and plumbing leaks are the major ones. There is a problem of seepage and leakage. The internal potable water lines control gate valves are not fixed with the respective sanitary items.

Therefore, since the water line installed does not function properly, water seeps and leaks and hence the water reading gauges record the usage of water. Due to the wastage of water on the way, the volume of water decreases especially on the upper floor.

According to some project engineers interviewed, due to limited waste water lines in the city, septic tanks are being constructed near to the housing units. How ever the volume of the septic tanks are not considering the amount of waste water discharge by the residents. For instance $140m^3$ capacity septic tank is being constructed for 120 housing units which is not sufficient. The septic tanks built for the accumulation of waste were filled with water and waste within a short period of time. Hence the beneficiaries are not in a position to use their toilets.

Since the pipefittings are not very tight, the drainage system is not functioning properly. Waste water from the toilet room and kitchen flow back in to the rooms.

Also wastewater leaks and seeps from the upper house to the lower houses. This situation has created a serious problem for the residents. The drainage pipes are visible and exposed inside and outside their buildings that are ready for any future damage. Pipelines that carry waste towards the septic tank are not properly constructed and leakage here and there is a common phenomena according to the residents.

According to an expert for (GTZ condominium housing), there are technical problems associated with sanitary facilities of the condominium housing units in particular and in the respective site in general.

He point out that construction is being done with incomplete design of site works mostly without sanitary, drainage, sewerage, solid waste, water, electric and also road.

After the accomplishment of the construction of buildings challenges, difficulties and problems have occurred to supply the basic infrastructure and services such as condos built with out reservation of space for septic tanks (in areas where sewerage line does not exist), lack of consideration of soil character while selecting sanitary options like designing septic tank with out soak away pit in sites where the soil type is black cotton and rocky. Due to this overflow of septic tanks and leakage to adjacent areas have occurred.

Even though there are respondents who reported that they do not face any problem of sanitary facilities function, some interviewed residents and professionals point out that there are problems associated with sanitary and drainage facilities where the consequence could be in the long-run and needs an urgent attention.

Fig. 18 Photo showing leakage problem of sanitary installation in the Balcha site of GTZ.

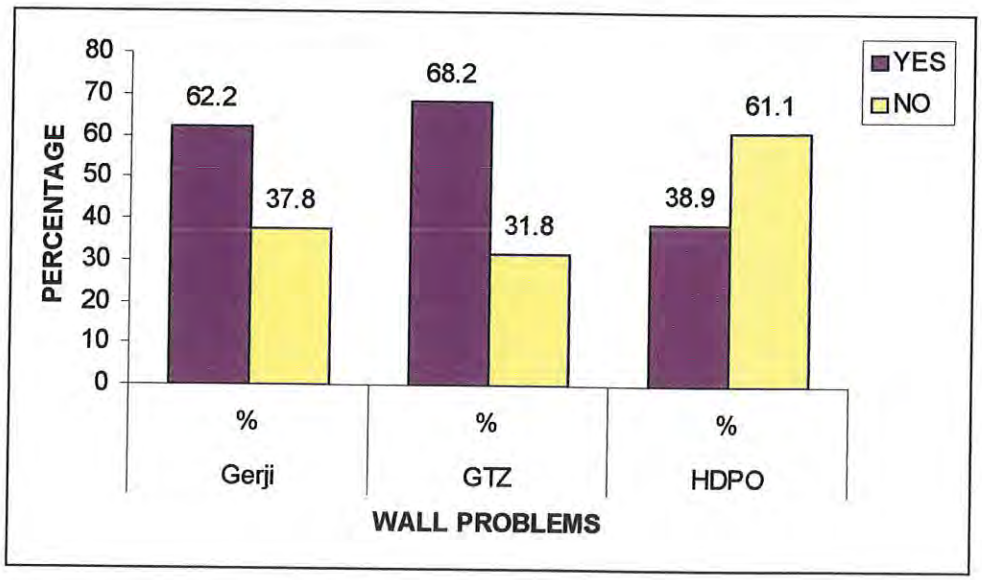
Source: Own picture, 2007

Structure:

Considering the structural aspect of a building the wall of any housing unit or building have great share or contribution to the aspect of hosing quality. Dwelling units must be structurally fit. The structure must not present any threat to the health and safety of the occupants.

Ceilings, walls, and floors must not have any serious defects such as large holes, loose surface materials, missing parts or other serious damage. The roof and walls of the building must be structurally fit and weather-proof (Smith, 1983).

Fig. 19 Existence of wall problems.



As the result from the figure indicated, there is a serious problems on the walls of the building constructed in the Bole-Gerji housing apartments and the GTZ first phase constructed housing apartments, and this condition is better in the HDPO constructed housing units. 62.2% of the Bole-Gerji residents, 68.2% of the first phase GTZ housing unit residents and 38.9% of the HDPO housing unit residents confirmed that, the structure of the walls of their housing unit have problems. The major reasons for the creation of such problems according to the researcher personal observation and some interviewees are the fact that the window glasses are not correctly fitted and hence rain water enters into the room through the window which damages the wall and also since the external wall has not been plastered in the case of Bole-Gerji and the GTZ constructed housing apartments,

water leaks inside the room through the loose surface of the wall, and these create a major and serious problem for the residents health and damage of internal paints.

Not properly fitted window frames and down pipes on the surface of the wall aggravated the problem on the structure of the wall.

Fig. 20 Photo showing leakage problem on a wall structure on the Balcha site of the GTZ.

3.6 Locational suitability:

Locational suitability is a vital feature of any dwelling or apartment house to the occupant's place of work and to stores, schools, homes of friends and relatives and other frequently visited places and social services. Accessibility is determined not only by distance from the dwelling but also by the time and cost of the journey. Hence homes or apartment blocks should be near to major infrastructure and social services (Smith, 1983).

Residents of the present condominium housing units, are therefore expected to come from such condition of houses in the city. Accordingly their comparison with the previous times have presented in the following table:

Table 21 Comparison of locationsl suitability and structural quality of current condominium housing units with their previous one.

RESPONDENTS EVALUATION	Gerji		GTZ		HDPO		Total	Percent
	Number	%	Number	%	Number	%		
The present is better	63	80.7	41	95.3	71	85.6	175	85.8
The previous is better	8	10.3	---	---	10	12	18	8.8
They are equal	6	7.7	2	4.7	2	2.4	10	4.9
Other		1.3	---	---	---	---	1	0.5
Total	78	100	43	100	83	100	204	100

Residents of the condominium housing unit were asked to explain what the house they are living now, when compared with the one in which they were used to live previously looks like.

Accordingly residents in all the category of the sites, i.e. in Bole-Gerji (80.7%), in GTZ (95.3%) and the HDPO (85.6%) of the respondents confirm that their present dwelling unit is better than the previous one.

They have also pointed out that they are well satisfied about the fact that, the house will be theirs on the bases of short or long term payment. Since they specially used to live in a house where, in the case of the majority, there was no personal electrical and water lines as well as toilet rooms, in the present condominium housing such problems have been solved. In addition to this, they have also stated that from the stand point of the size of the house and raw materials with which the house has been constructed, the present situation is much better as compared to the previous one.

The information obtained from respondents in the above table reveals that majority of the residents have been living in the city since birth.

How ever 24.3% of the Bole-Gerji, 55.8% of the GTZ and 43.4% of the HDPO residents reported that, they have been living in the city for about 20 to 30 years.

According to the housing transfer office managers at sub-city level and the manager of housing agency at city level, they have indicated that they face screening problems of beneficiaries due to lack of complete information about the back ground of the applicants, complete organizational structure and low qualified human resource at city and sub-city level. Due to this accurate and complete screening activities are not carried out as expected.

The other point of discussion is with regard to distribution of the residents before coming to their present condominium housing units. This is to investigate whether there is fair distribution of chances given by the Housing Transfer Office to the inner sub-cities and sub-cities with expansion areas.

Based on this four inner sub-cities and six sub-cities with expansion areas are categorized in to two groups for the purpose of analysis.

Table 23 Respondents previous sub-city before coming to their present residential location.

PREVIOUS SUB-CITY	Gerji		GTZ		HDPO		Total	Percent
	Number	%	Number	%	Number	%		
Arada, Lideta, A.Ketema,Kirkos	38	48.7	26	60.5	80	96.4	144	70.6
Gullele, Bole, Kolfe, Lafto, Yeka, Akaki	40	51.3	17	39.5	3	3.6	60	29.4
Total	78	100	43	100	83	100	204	100

According to the results indicated on the table, the previous residential sub-city of residents is not uniform. Out of the total 204 respondents 144 are from the inner sub-cities (Arada, Lideta, Addis Ketema, and Kirkos) and only 60 are from sub-cities with expansion areas (Gullele, Bole, Kolfe, lafto, Yeka and Akaki).

As was indicated on the figure 37, 76.7% of the GTZ, 68.7% of the HDPO and 34.6% of Bole-Gerji residents reported that they do not know where they can get their unit ownership title deed.

Both those who have complete their required payment and those who do not completed their required payment don't know which office will provide them with the unit ownership title deed. Respondents from the Bole-Gerji and HDPO housing units, who have completed their required payment are dissatisfied on the works of the housing transfer because they do not know who is responsible in issuing the title deed. Some interviewed residents indicated that they are confused between the offices of Sub-city Land Development and Management Office, Housing Development Project Office, Addis Ababa City Housing Administration, and the sub-city Housing Transfer Office. They do not know which office is responsible for their ownership title deed.

This clearly indicates that the housing transfer office is not serving its customers effectively in notifying where and how residents can get their unit ownership title deed.

Awareness about the rules and regulations of condominium housing access and contractual obligation.

Effective implementation of the formulated rules and regulations of the housing transfer office also considers the following.

To implement effective condominium housing unit transfer to beneficiaries and to aware the rights and duties of a purchaser, and other related matters, there are rules and regulations already formulated and published.

Among these regulations, where the purchaser is a resident in a government house such as Kebele house, he or she shall hand over it to the owner within a month after he has received the unit is one. The other regulation stated in the proclamation is that not with standing the payment of the total price of the unit, the purchaser may not transfer the unit to third parties through sale or donation until the lapse of 5 years.

Table 24 Short summary of findings in relation to the objective of condominium housing development program.

No.	Focus of the study	Result of findings	Objective achievements of the program
1	Socio-economic composition	-Females share in the condominium housing is > 30% in all sites.	Objective achieved as compared to 30% target.
		-Educational level of respondents ranges from illiterate to first degree and above.	Objective of reaching lower to higher edu. Level achieved.
		- The Lion-share of condominium housing is taken by civil servants.	Objective of equity among various occupation is not achieved.
		- Bole-Gerji site is mostly occupied by high income groups. Involvement of low income group is minimal.	Objective of getting main target groups not achieved.
		- 95.4% of the GTZ and 90.0% of the HDPO housing units are used for relocation purpose and to those who have got special government order. Hence all the urban poor in the city are not equally benefiting from the program.	Objective is not achieved in assuring fair distribution and getting the main target groups of the urban poor in the city to whom the program was formulated.
2	Housing standard and conditions	- Privacy, opening and illumination, locational suitability and present housing unit as compared to the previous one are all positively perceived by residents.	Objective in relation to the stated four aspects of housing quality standards is achieved.
		- Exterior door quality - Stair case safety - Function of electrical lines and sanitary facilities - And wall conditions are found to be poor quality	Objective to the stated quality standards not fully achieved.
3	Applications of Housing transfer Rules & regulations	- Access to unit ownership title deed - Awareness and knowledge on the rules and regulations. - Availability of information about a housing unit to be purchased are all not practically and successfully applied. And are negatively perceived by residents.	Objective of effective housing transfer modalities is not achieved.

CHAPTER FOUR

CONCLUSION AND RECOMMENDATIONS:

4.1 CONCLUSION:

It was stated and agreed by many scholars that housing, as a shelter and place of social development, has significant contribution for individual, family and nation's well being and stability. Housing is also a welfare issue by the fact that human beings have the right to be sheltered in.

Based on the study made on the first beneficiaries of the condominium housing units, their socio-economic composition varies from site to site where the study has been conducted. In the case of sex-composition, even though male out number females, the involvement of females in the share of condominium housing is encouraging.

The study also have indicated that unlike the results of the 1994 census where over 60.4% of the city residents are never married, the majority of the condominium housing residents (over 60%) are found to be married. Considering the educational status of the three site categories, there is a great disparity between the Bole-Gerji, model housing residents and the other two. While more than 80% of the Bole-Gerji residents are with college diploma and above, more than 80% of the GTZ and HDPO respondents range from illiterate to secondary school only. And also 44% of all the three site residents are civil servants with 71.1% of them in the Bole-Gerji site.

The study on household head monthly income also revealed that the Bole-Gerji model housing residents are mainly middle and high income group with only 1.3% under low income group while in the GTZ and HDPO residents a large number of them are low income group according to City Administration classification of income group of condominium housing beneficiaries.

It has been shown that the program was originally designed to serve the middle and low income groups who are challenged by housing shortages.

Nonetheless, in the case of Bole-Gerji model housing unit residents, the condominium housing program misrepresent the original objective of addressing the poor homeless society. In other words, the Bole-Gerji model housing scheme do not serve the poor rather it is the rich who is benefited from the program.

Concerning the ownership condition the study report confirmed that while 100% of the GTZ and more than 96.4% of the HDPO residents have given priority to get the condominium housing unit, 67.9% of the Bole-Gerji residents on the other hand do not get the priority chance.

Condominium housing quality which is one of the main aspect of the study also showed that a number of the quality components investigated such as location, privacy and natural illumination are positively viewed by the study groups and hence have relatively good qualities. On the other hand a problem of quality was reported by respondents and interviewees, particularly on the quality of exterior doors, stare case structure, electrical and sanitary facilities and the wall condition of the GTZ sites. These quality problems are so serious as reported by the resident that needs an immediate action.

Some of the reasons according to respondents, and the researcher observation to the existence of poor physical structure quality of their housing unit in particular and the building in general are:

- Pipe fittings and drainage systems are not built properly, flowing back of dirty water from toilet room and kitchen to the rooms.
- Exposed drainage pipes.
- Window glasses are not correctly fitted and external walls are not plastered which created water leakage to the internal part of the rooms. Hence water seepage and leakage are serious problems observed.
- Smaller size of septic tank, and lack of alternative toilet room are some among the many problems mentioned by the residents and interviewees.

In the investigation made on the performance of the housing transfer office and the practicality of the rules and regulations, findings showed that there are problems in the realization of the rules and regulations formulated by the City Administration.

Particularly the notification where some one can get his or her unit ownership title deed, and other basic rules and regulations clearly stated in the proclamation No. 19/2005 of the transfer of the condominium housing units are not clearly known and understood by the residents; and as a result some dissatisfactions and not fulfilling their previous agreements are the results in many condominium housing residents. These clearly shows that awareness creation by the Addis Ababa Housing Agency is not encouraging which hampered the implementation and realization of the housing transfer modalities stated in the proclamation.

Hence during the construction activity, external walls must be plastered and window frames and glasses have to be correctly fitted. To do this appropriate and skilful contractors must be employed in the work process with professionals follow up and control.

6. With regard to housing transfer performance, a number of problems have been addressed. Even though a number of rules and regulations were formulated and supported by proclamations, regulations and working procedures are not properly implemented by the implementing agency, and are not seriously followed by beneficiaries. To alleviate such problems:

   a. The organizational structure and human capacity must be improved and revised both at city and sub-city level.

   b. There has to be strong co-ordination between the Addis Ababa Housing Agency, Addis Ababa Housing Development Project Office, Sub-city Housing transfer Office and the Sub-city Land Development and Management Office during the transfer, recording and documentation process of the condominium housing units.

   c. Residents who have paid 100% of the cost of their housing units must get their ownership title deed as was indicated in the proclamation No. 19/2005.

   d. The formulated rules and regulations of the housing transfer office must be known by any home seeker using mass medias, and other means to effectively carry out the work of the agency. And these rules must be detailed and complete enough so that it will be understandable and practical.

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ANEX A Definition of Terms

The following terms/concepts have been contextually defined to avoid ambiguities in the usage of certain key concepts.

Condominium: Is an apartment house, or a unit in an apartment house, in which the various units are individually owned. Each owner receives a recordable deed for their unit, enabling them to mortgage and sell it independently of the owners of others. In a condominium, there is always property owned in common with others, as well as the individual units, which are owned outright.

Dilapidated Housing Unit: A housing unit that is dangerous to the health, safety, or well-being of the occupants due to critical or wide spread defects.

Down payment: The cash or its equivalent given for the purchase of property; equals the purchase price less the amount borrowed.

Household: A person or group of persons occupying a separate housing unit.

Housing: is defined as the living environment of humans, consisting the dwelling unit, the infrastructure associated with the dwelling units such as roads, water supply, sewage system, electricity, etc.. and the community facilities like schools, health centers, recreational centers, etc.

Housing condition: refers to housing quality, which includes the size of the house relative to the number of its inhabitants, the quality of construction materials, and the extent of provision for water supply, electricity, sanitation and drainage. It also include the availability and provision of other facilities and amenities like schools, health services, infrastructures, etc.

Housing demand: is the requirement of that segment of the population who can afford to have dwelling units.

Housing needs: is the total requirement of dwelling units for the present and future size of population.

Housing unit: A house, apartment, room, or group of rooms having separate cooking facilities or entrance and intended for occupancy by one household.

Lease: a contract by which the right to the exclusive possession of land is granted for a fixed time by the lesser, to the tenant, or lessee, for a consideration, usually a rent.

SUB-CITY:- GULLELE

No.	Site Name	No. of Blocks	Typology of the House					Total	Remark
			Commerical	Studio	One Bed Room	Two Bed Room	Three Bed Room		
1	Menen I	3		30	30	60		120	
2	Menen II	2			30	20		50	
3	Israel Embassy	4		40	40	80		160	
4	Kebele 08	3		30	30	60		120	
5	Chilot	3		30	30	60		120	
6	Tsion	6	5	49	50	131	14	249	
7	Kebele 12	5		50	50	100		200	
	Total	**26**	**5**	**229**	**260**	**511**	**14**	**1019**	

SUB-CITY:- KOLFE KERANIO

No.	Site Name	No. of Blocks	Typology of the House					Total	Remark
			Commerical	Studio	One Bed Room	Two Bed Room	Three Bed Room		
1	Repi I	34	72	165	165	692	151	1245	
2	Repi II	9	18	60	60	183	29	350	
3	Keranio II	13	30	90	90	240	30	480	
4	Keranil III	5	12	38	38	92	8	188	
5	Mikeliland	123	348	672	708	2365	549	4642	
	Total	**184**	**480**	**1025**	**1061**	**3572**	**767**	**6905**	

SUB-CITY:- NEFAS SILK LAFTO

No.	Site Name	No. of Blocks	Typology of the House					Total	Remark
			Commerical	Studio	One Bed Room	Two Bed Room	Three Bed Room		
1	Batu I	13	59	69	69	284	63	544	
2	Batu II	8	17	81	131	76	25	330	
3	Batu III	5	6	28	78	56	20	188	
4	Batu IV	15	50	106	106	326	48	636	
5	Batu V	2		20	20	40		80	
6	Mekanissa II	6	20	48	88	108	4	268	
7	Nefas Silk Shell	5	12	46	46	92		196	
	Total	**54**	**164**	**398**	**538**	**982**	**160**	**2242**	

SUB-CITY:- BOLE

No.	Site Name	No. of Blocks	Typology of the House					Total	Remark
			Commerical	Studio	One Bed Room	Two Bed Room	Three Bed Room		
1	Japan Embassy	8	12	76	76	152		316	
2	Bole Mikael	7	12	46	86	112		256	
3	International studium	10	34	58	74	184	28	378	
4	Gerji V	21	44	156	188	464	54	906	
5	Adwa Park	10	30	74	106	164		374	
6	Bole Ring Road	4	12	9	45	54	9	129	
	Total	**60**	**144**	**419**	**575**	**1130**	**91**	**2359**	

SUB-CITY:- AKAKI KALITY

No.	Site Name	No. of Blocks	Typology of the House					Total	Remark
			Commerical	Studio	One Bed Room	Two Bed Room	Three Bed Room		
1	Kaliti Gebrael I	5	6	56	106			168	
2	Kaliti Gebrael II	1				20	10	30	
3	Comet Transport	16	18	84	84	303	65	554	
4	Total	10		60	60	195	35	350	
5	Cheralia	7		40	40	135	25	240	
	Total	**39**	**24**	**240**	**290**	**653**	**135**	**1342**	

NUBMER OF HOUSES CONSTRUCTED BY GTZ/IS (PHASE I)

No.	Site Name	Sub-City	No. of Blocks	Typology of the House					Total	Remark
				Commerical	Studio	One Bed Room	Two Bed Room	Three Bed Room		
1	Kebena Shell	Arada	6		27	33	15		75	
2	Tourist Hotel	Arada	2		12	12			24	
3	Addis Ketema	A/Ketema	7		30	54	18		102	
4	Balcha Hospital	Lideta	7		30	54	18		102	
5	Kirkos I	Kirkos	3		12	18	12		42	
6	Kirkos II	Kirkos	4		24	24			48	
7	Yeka Signal	Yeka	6		30	36	30		96	
8	Gullele I	Gullele	13	20	56	89	21		186	
9	Gullele II	Gullele	9	10	22	49	39		120	
10	Mekanissa I	N/S Lafto	8		36	60	18		114	
	Total		**65**	**30**	**279**	**429**	**171**		**909**	

42
48
90

NUBMER OF HOUSES CONSTRUCTED BY GTZ/IS (PHASE II)

No.	Site Name	Sub-City	No. of Blocks	Typology of the House					Total	Remark
				Commerical	Studio	One Bed Room	Two Bed Room	Three Bed Room		
1	Yeka I	Yeka	9	11	61	104	75		251	
2	Yeka II	Yeka	43	49	276	976	276		1577	
3	Lideta Millifoni	Lideta	8	10	40	130	62	2	244	
4	Kolfe Keranio	Kolfe	27		152	396	180	6	734	
5	Asco	Kolfe	15	33	63	240	78		414	
6	Lafto I	Lafto	38	80	138	790	184	6	1198	
7	Lafto II	Lafto	54	154	251	1044	423	78	1950	
8	Mekanisa Kore	Lafto	57	149	246	846	335	16	1592	
9	Gerji II	Bole	16		128	96	64	32	320	
10	Gerji III	Bole	31	76	254	864	154	8	1356	
	Total		**298**	**562**	**1609**	**5486**	**1831**	**148**	**9636**	

21	Gerji Model House	1	28	54	144	249	291	12	750	Transferred

ANNES – C LIST OF QUESTIONNAIRE FOR THE COLLECTION OF PRIMARY DATA:

QUESTIONNAIRE TO BE FILLED BY CONODOMINIUM HOUSING OWNERS AND RESIDENTS.

KEBELE: _____

SITE NAME: _____

HOUSE NUMBER: _____

HOUSING TYPOLOGY: _____

HOUSE FLOOR: _____

I. SOCIO-ECONOMIC CONDITION OF RESIDENTS:

1. Sex

   a) Male ---------- ☐

   b) Female ---------- ☐

2. Age: _____ years old.

3. Marital status:

   a) Single ---------- ☐

   b) Married ---------- ☐

   c) Divorced ---------- ☐

   d) Widowed ---------- ☐

   e) Separated ---------- ☐

4. Religion:

   a) Orthodox ---------- ☐

   b) Moslem ---------- ☐

   c) Catholic ---------- ☐

   d) Protestant ---------- ☐

   e) Other, specify _____
   _____

5. Ethnic group:

   a) Amhara ---------- ☐

   b) Oromo ---------- ☐

   c) Tigray ---------- ☐

   d) Gurage ---------- ☐

   e) Other, specify _____
   _____

6. Total number of household members:

   a) Male _____

   b) Female _____

7. Educational level:

   a) Illiterate ---------- ☐

   b) Literate (writing and reading) ---------- ☐

   c) Primary school ---------- ☐

   d) Secondary school ---------- ☐

   e) College diploma ---------- ☐

   f) First degree and above ---------- ☐

34. If your answer to ques. No. 33 is YES, how many?

a) 1 ----------
b) 2 ----------
c) 3 ----------
d) 4 ----------
e) Other, specify_____

_____

35. Are the electrical lines in your housing unit functioning well?

a) Yes ----------
b) No ----------

36. If your answer for ques. No. 35 is NO, what problems did you observe?

a. Melting of wires ----------
b. Existence of an uninsulated wires ----------
c. Inappropriate installation of conduits ----------
d. Other, specify_____

_____

37. Does your dwelling unit equipped with well functional sanitary facilities?

a) Yes ----------
b) No ----------

38. If you answer for ques. NO. 37 is NO, what problems did you face?

a. Sanitary facilities lack privacy ----------
b. Lack of proper operating hot and cold running water ----------
c) Lack of appropriate disposal system ----------
d) Leakage problem ----------
e) Other, specify_____

_____

39. Is there any sewer problem in the site?

a) NO ----------
b) YES ----------

40. If your answer for ques. No. 39 is YES, what are the major problems?

a) Lack of appropriate sewer lines ----------
b) Lack of septic tanks ----------
c) Smaller size of septic tanks ----------
d) Other, specify _____

_____

41. Does the wall of your block externally plastered?

a) Yes ----------
b) No ----------

42. If your answer for ques. No. 41 is NO, what problems did you face?

a) Water seepage when it rains ---------- ☐
b) Formation of bad smell inside the housing unit ---------- ☐
c) Damage of the internal paint ---------- ☐
d) Other, specify _____

_____

43. Does your housing unit located on the upper most floor of the block?

a) Yes ---------- ☐
b) NO ---------- ☐

44. If your answer for ques. No. 43 is YES, is there any problems because of its location?

a. Yes ---------- ☐
b. No ---------- ☐

45. If your answer for ques. No. 44 is YES, what are the problems?

a. Roof leakage ---------- ☐
b. Shortage of pipe water supply ---------- ☐
c. Other, specify _____

_____

LOCATIONAL SUITABILITY:

46. In your opinion is the site appropriate for residential housing?

a. Yes ---------- ☐
b. No ---------- ☐

47. If your answer for ques. No. 46 is NO, what problems does the site have?

a. Problem of flooding ---------- ☐
b. Problem of access ---------- ☐
c. Problem of enough space for play ground ---------- ☐
d) Drainage problem ---------- ☐
e) Other, specify _____

_____

48. Did you face any health problem because of the location of the site?

a. Yes ---------- ☐
b. No ---------- ☐

49. If your answer to ques. No. 48 is YES, what is/are the major cause/s of the problem?

a) Sanitation problem ---------- ☐
b) Problem of air pollution ---------- ☐
c) Problem of noise pollution ---------- ☐
d) Other, specify _____

_____

50. How can you evaluate your present housing unit with that of your previous one?

a. The present is better ---------- ☐
b. The previous is better ---------- ☐
c. They are equal ---------- ☐
d. Other, specify _____

_____

PERFORMANCE OF THE HOUSING TRANSFER:

51. What is the number of years you have continuously lived in Addis Ababa?

a) Below 2 years ---------- ☐
b) 2 to 3 years ---------- ☐
c) 4 to 8 years ---------- ☐
d) Since birth ---------- ☐
e) Other, specify _____

_____

52. From which sub-city did you come?

_____

53. Did you pay the total price of your dwelling unit?

a) Yes ---------- ☐
b) No ---------- ☐

54. Did you get your unit ownership title deed?

a) Yes ---------- ☐
b) N0 ---------- ☐

55. Does the housing transfer office notify you the place where you can get your unit ownership title deed?

a) Yes ---------- ☐
b) No ---------- ☐

56. Do you know clearly the rules and regulations of the housing transfer office?

a) Yes ---------- ☐
b) No ---------- ☐

57. Did you get enough information about condominium housing units before purchasing it?

a) Yes ---------- ☐
b) No ---------- ☐

58. If your answer for ques. No. 57 is NO, what problems did you face after purchasing it?

a) Smaller in size than expected ---------- ☐
b) Far from social services ---------- ☐
c) Different social problems ---------- ☐
c) Other, specify _____

_____

59. Do you have any disability problem?

b. Yes ---------- ☐
c. No ---------- ☐

60. If your answer for ques. No. 59 is YES, on which floor is your residential unit?

a) Ground floor ---------- ☐
b) 1st floor ---------- ☐
c) 2nd floor ---------- ☐
d) 3rd floor ---------- ☐
e) 4th floor ---------- ☐

DECLARATION

I declare that this thesis is my original work and has not been presented for a degree in any university and all the sources of materials used for the thesis are duely acknowledged.

Name: ABADI SEYOUM

Signature: _____

Date: Mar. 2007

Place: Addis Ababa University

This thesis has been submitted for examination with my approval as a university advisor.

Wondmu Abeje (PH.D)

Signature: