

## **CHAPTER II: THE PATTERN OF POPULATION GROWTH AND URBANIZATION**

- Population Characteristics of the Study Area
- **Primacy of Addis Ababa**
- **Distribution and Growth Rate of the Population**
- **Migrations**
- Urban Slum Population

Urbanization has been the dominant demographic trend in the entire world during the last half century. Demographic variables such as population size, growth rates, and growth levels have major impacts on the demand of urban social and economic infrastructure (Girma, 2004).

UN World Urbanization prospects (2011) indicate that the level of urbanization in the world as a whole was about 46.6 percent in 2000, 50.6 percent in 2010 and it is supposed to reach 57.2 percent in 2025. The corresponding figures for African countries are 36.0 percent, 40.0 percent and 47.2 percent respectively. Ethiopia was 14.9 percent urban in 2000 and 16.7 percent in 2010 and it is projected to be 21.3 percent urban by 2025. However, urbanization is occurring rapidly in Ethiopia, and it is expected that urban growth rate will remain the fastest with some decline in Ethiopia than in other African countries on average.

Population data were collected from the Central Statistical Authority of Ethiopia. This source has the most reliable population data in the country. From this source, the following of information was collected.

- Temporal variation of population of the study area
- Variation in population among the ten sub cities of the study area.
- Variation in population among the major towns of the country
- Extent of migration and slum prevalence

The collected data were tabulated, and percentages were computed to make temporal and spatial assessment in the growth pattern of population under the study area. In addition to this, graphs were used to depict the results for more clarifications. Comparisons of growth rates are the main techniques used to assess changes over time and among sub cities.

### **Distribution and Growth Rate of Rural and Urban Population of Ethiopia**

A temporal variation of rural and urban population in Ethiopia is shown in Fig-2.1. During 2000, about 85 percent of the total population in the country was found in rural areas, while the remaining 15 percent lived in urban areas. As it can be seen from

the Fig-2.1, between 2000 and 2010 level of urbanization seems constant with very low change- it increased from 14.9 percent to 16.7 percent.

As described in detail in Table-2.1, the level of urbanization of Ethiopia (4.6 percent) is very low compared to Africa (14 percent) in 1950. Although urban growth rates for Ethiopia is generally greater than that of Africa, it took Ethiopia 50 years to reach the urbanization level of Africa in 1950s. More clearly, by 1950, urbanization level of Africa as a continent was 14.4 percent while 14.9 percent was the urbanization level recorded in Ethiopia in 2000. Generally speaking, as mentioned in the World Fact Book (1991), Ethiopia is under urbanized, even by African standards. Thus, the level of urbanization would be even lower if one used strict urban structural criteria. Ethiopia has the lowest urbanization level and highest urban growth rate. The national urban growth rate is higher than the average African growth rate.

The 1984 census revealed that Ethiopia's population was about 89 percent rural, and this percentage did not appear to have changed by the late 1990s. This segment included many nomadic and semi nomadic peoples. The Ethiopian population always has been predominantly rural (Fig-2.1 & Table-2.1), engaging in sedentary agricultural activities such as the cultivation of crops and livestock-raising in the highlands. In the lowlands, the main activities traditionally have been subsistence farming by semi nomadic groups and seasonal grazing of livestock by nomadic people (Ofcansky & Berry, 1991). In comparison to other Sub-Saharan African (SSA) countries, Ethiopia's urbanization level is very low, according to data published by the country's Central Statistical Agency. It is far less than the average for all SSA, at approximately 30 percent (CSA, 2010).

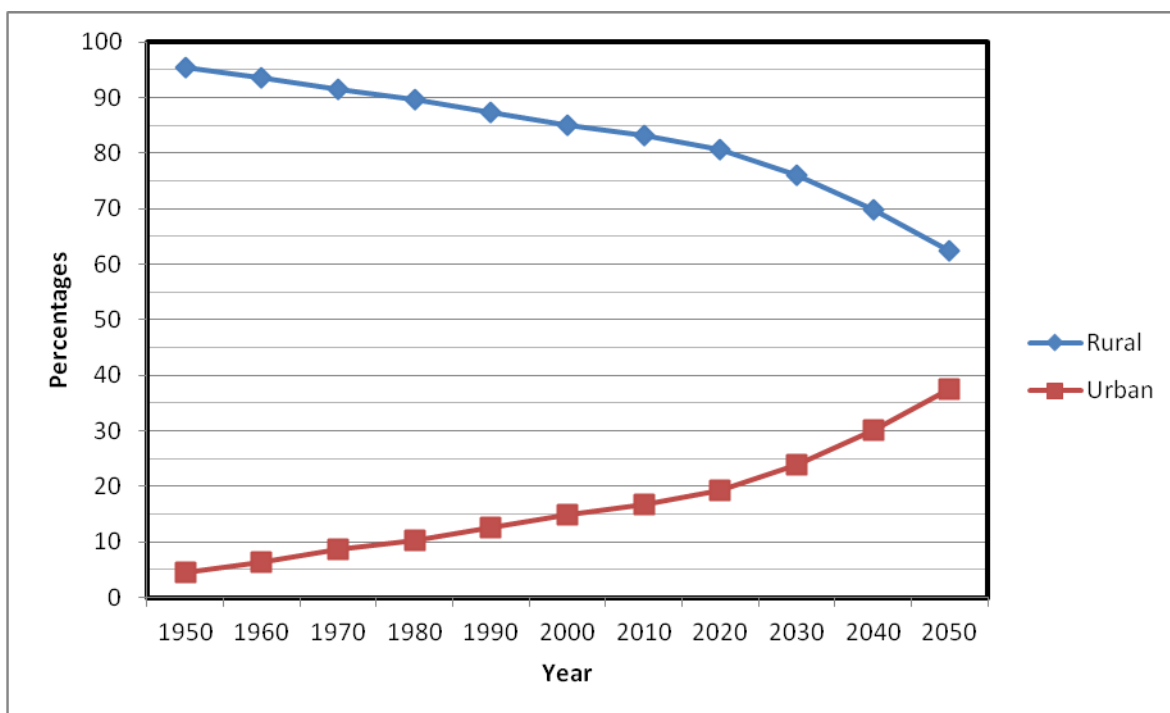


Fig-2.1 Distribution of Population Urban and Rural of Ethiopia

Table-2.1 Distribution and Growth Rates of Rural and Urban Population (in 000s) of Ethiopia

Year	Total population	Rural population	Percent rural	Urban population	Percent urban	Urban Growth rate	Rural Growth rate
1950	18,434	17,586	95.4	848	4.6	5.30	1.75
1960	22,550	21,100	93.6	1,451	6.4	5.74	2.19
1970	28,948	26,462	91.4	2,486	8.6	4.52	2.39
1980	35,409	31,722	89.6	3,686	10.4	4.87	2.72
1990	48,292	42,197	87.4	6,095	12.6	5.24	3.01
2000	65,515	55,753	85.1	9,762	14.9	3.95	2.37
2010	84,976	70,818	83.3	14,158	16.7	3.76	2.23

Source: - WUP, 2011

There is rapid economic development in the city during the recent years. This development is recorded in the areas of micro and small industrial and service activities, the spatial concentration of which significantly contribute to the rapid expansion of the city in all directions, particularly to the South, East and North West side. Being a primate city, there is a huge concentration of economic activities which attracts large number of population, capital, infrastructure, and service activities.

All these developments lead to create formal and informal employment opportunities in the city. As a result, rapid changes have been brought in population distribution, concentration and growth patterns. Further, the population concentration and growth patterns significantly influence the development and growth of the city. And so, it is relevant to know about the pattern of spatial concentration of population as well as population growth pattern. Keeping the above aspects under consideration, the following points will be assessed in this chapter.

- a) Growth pattern of the city in relation to other major towns of the country
- b) Growth pattern of the city's population
- c) Extent of slum population of the city
- d) Contribution of migration to the growth of the city's population

## **POPULATION CHARACTERISTICS OF THE STUDY AREA**

According to Table 2.2, the total population of the city in 2000 was 2,495,000 while that of 2007 was 2,738,248. In 2010, the total population of the city reached 2,917,295. CSA (2010) portrays that the population density of Addis Ababa is 3984 persons per square kilometer and that of urban and rural parts of Addis Ababa are 7008 and 121 persons per square kilometer, respectively. It is wise to remember that the highest and the lowest population density of Addis Ababa is greater than 400 people per hectare in central sub cities and 2 people per hectare in the outskirts (Bahru, 1987).

**Table-2.2 Temporal Variations in the Population Size of the Study Area**

<b>Year</b>	<b>Total Population</b>	<b>Average Growth Rate</b>
1910	65,000	
1935	100,000	2.1
1950	317,925	13.4
1961	443,728	4.00
1970	750,530	5.84
1976	1,099,851	6.37
1984	1,423,111	3.22
1994	2,112,737	3.95
2000	2,495,000	2.77
2007	2,738,248	2.80
2010	2,917,295	2.90

Source: CSA, 2010; AACG, 2010

In order to assess the density status of sub cities of Addis Ababa, Location Quotient is used.

$$\text{Location Quotient (LQ)} = (\text{Ai/EBi})/(\text{Bi/EBi})$$

Ai = the level of the activity in area i

Bi = the level of the base i

In this analysis, population is taken as the level of activity (Ai) and Area is regarded as base in calculating LQ. If the calculated value is greater than 1, population is densely concentrated; if it is less than 1, sparsely populated, and if it is equal to 1 population is evenly distributed (Mc Daniel, 2008; Ashok, 1995).

The results of the analysis show that central sub cities are densely populated while peripheral sub cities are sparsely populated. However, at individual sub city level, Kolfe Keranio and Gulelle are the only two which are densely populated while, Nefas Silk Lafto is evenly distributed (Table- 2.3).

## Population Density

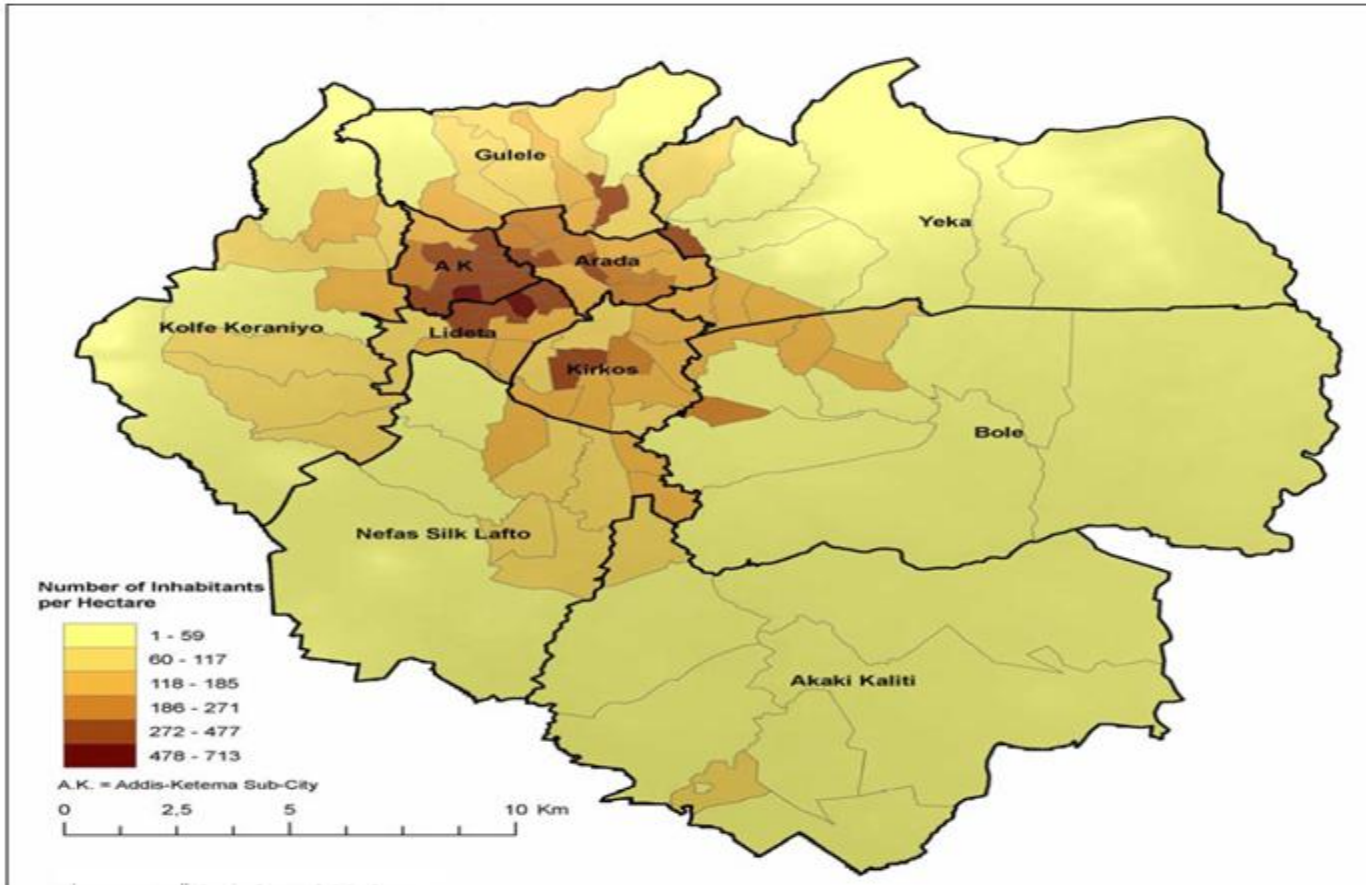
Table-2.3 Distribution of Population, and Area of Sub Cities of the Study Area

Sub City		Population	Total Area( km)	LQ
Central	Addis Ketema	271,644	8.98	5.6
	Arada	225,999	11.56	3.6
	Lideta	214,796	12.40	3.2
	Qirkos	235,441	16.26	2.7
	Total	947,880	49.20	3.6
Peripheral	Kolfe Keraniyo	456,219	65.10	1.3
	Gullele	284,865	32.73	1.6
	Yeka	368,418	82.30	0.8
	Bole	328,900	120.93	0.5
	Akaki Qaliti	195,273	126.13	0.3
	Nefas Silk Lafto	335,740	65.10	1.0
	Total	1,969,415	492.29	0.7

Source: AACG, 2010; LQ is calculated using the above formula.

## PRIMACY OF ADDIS ABABA

The urban population of Ethiopia is concentrated in a few urban centers, predominantly in Addis Ababa (CSA, 1999). This concentration of urban population at only one spot (Addis Ababa) made it not only the largest city in Ethiopia but also a textbook example of a primate city, as it is at least 14 times as large as Dire Dawa, the second largest city in Ethiopia. Details for the urban primacy of Addis Ababa as a primate city of Ethiopia are shown in Fig-2.3.



Source: AACG, 2010

Fig-2.2 Distribution of Population According to Density in the Study Area



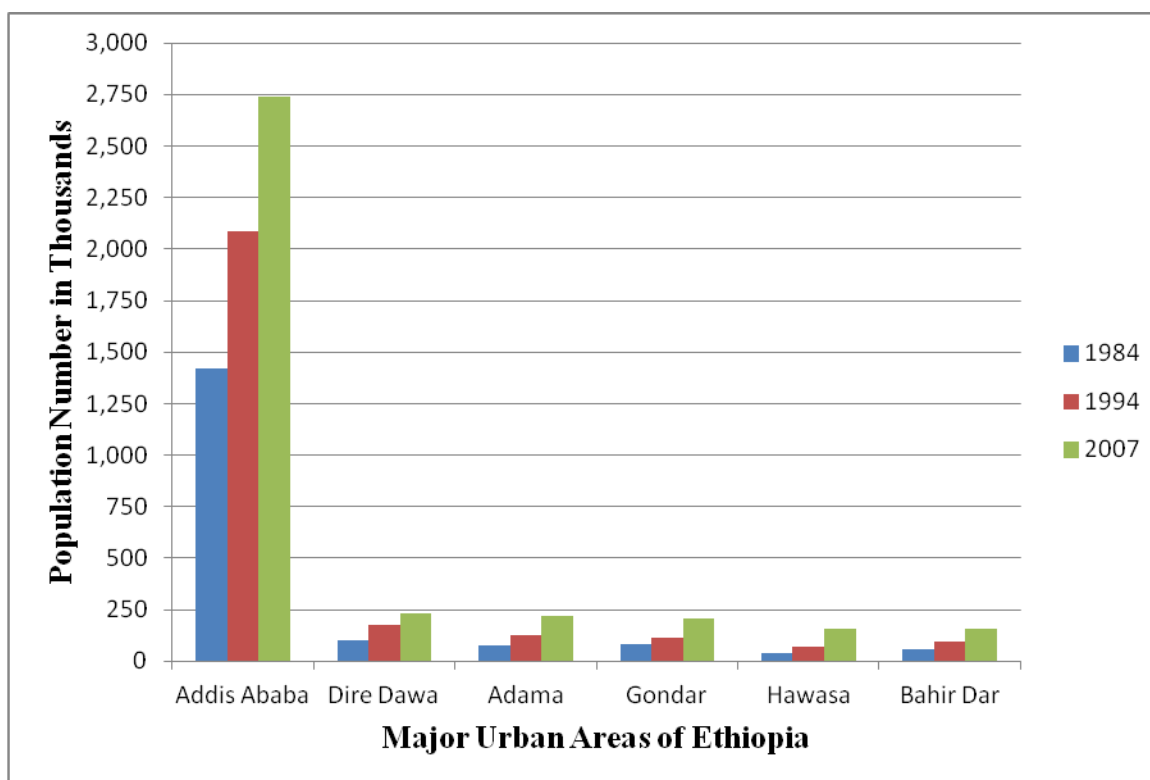


Fig-2.3 Distribution of Urban Populations According to Population Size of Major Towns in Ethiopia

As details are presented in Table-2.4, in 1960 out of the total urban population of Ethiopia (1,451, 000), Addis Ababa shared 443,328 which was about 30 percent. This proportion has been decreased to 25.56 percent in 2000 and 23.92 percent in 2010. Two important reasons are responsible for this reduction in the percentage of the total population of Addis Ababa compared with that of national urban population. The first is as shown in Table 2.6, the average annual growth rate of the city has been declining though the city still absorbs up to 120,000 new residents (UN-Habitat, 2006). The second reason is that the growth of other regional urban centers such as Dire Dawa, Adama Special Town, Gondar, Hawasa, Bahir Dar, Jijiga, Mekelle, and Jima share proportion of urban population to some extent.

Table-2.4 Addis Ababa's Share of Total Urban Population of Ethiopia

<b>Year</b>	<b>Urban population of Ethiopia</b>	<b>Addis Ababa population</b>	<b>Population Share (%)</b>	<b>Change</b>
1960	1,451,000	443,328	30.55	-
2000	9,762,000	2,495,000	25.56	-4.99
2010	14,148,000	3,384,569	23.92	-1.64

Source: WUP, 2011; CSA, 1999

However, this primacy has been on the decline in the recent past, partly because of increased capital expenditure flows to regional capitals and other major towns of the country. As a result, Addis Ababa's share of the total urban population has dropped from 30 percent in 1984 to 26 percent in 2000 and 24 percent in 2010.

As shown in Table-2.5, the growth rate of Addis Ababa was lower than other major urban areas in the country. This shows that the urban population share of Addis Ababa had been declined.

Table-2.5 Distribution and Growth Rate of Urban Population According to the Size of Major Towns of Ethiopia

<b>Urban Area</b>	<b>Total Population</b>			<b>Growth Rates</b>
	1984	1994	2010	1984-2010
Addis Ababa	1,412,600	2,100,031	2,917,295	106.5
Dire Dawa	98,100	164,851	262,884	168.0
Adama	76,300	127,842	271,562	255.9
Gonder	69,000	112,249	254,450	268.8
Hawasa	36,200	69,169	212,665	487.5
Bahir Dar	54,800	96,140	191,015	248.6
Mekele	61,600	96,938	273,601	344.2
Jimma	61,000	88,867	149,166	144.5

Sources: CSO, 1984; CSA, 1994; CSA, 2008

## DISTRIBUTION AND GROWTH RATE OF THE POPULATION

As shown in Table-2.6, Addis Ababa has experienced highly accelerated population growth from the year 1910 onwards. The rapid population increase of the city has been mainly attributable to natural urban population increase and internal migration. According to the country's 1994 population and housing census, out of the total population of the city, 46.7 percent were migrants from rural and other urban areas in Ethiopia (CSA, 1999).

As shown in Fig-2.4, Addis Ababa's population growth pattern has at best been irregular during the greater part of its history, largely due to changes in the country's social, economic and political conditions. As official statistics show, the city today is experiencing one of its slowest-ever growth rates, just slightly below three percent per annum. Even with this admittedly low growth rate, the capital continues to attract 90,000 to 120,000 new residents every year. In general, it appears that much of this growth (probably up to 70 percent of the total), takes place in the slums and squatter settlements of the city.

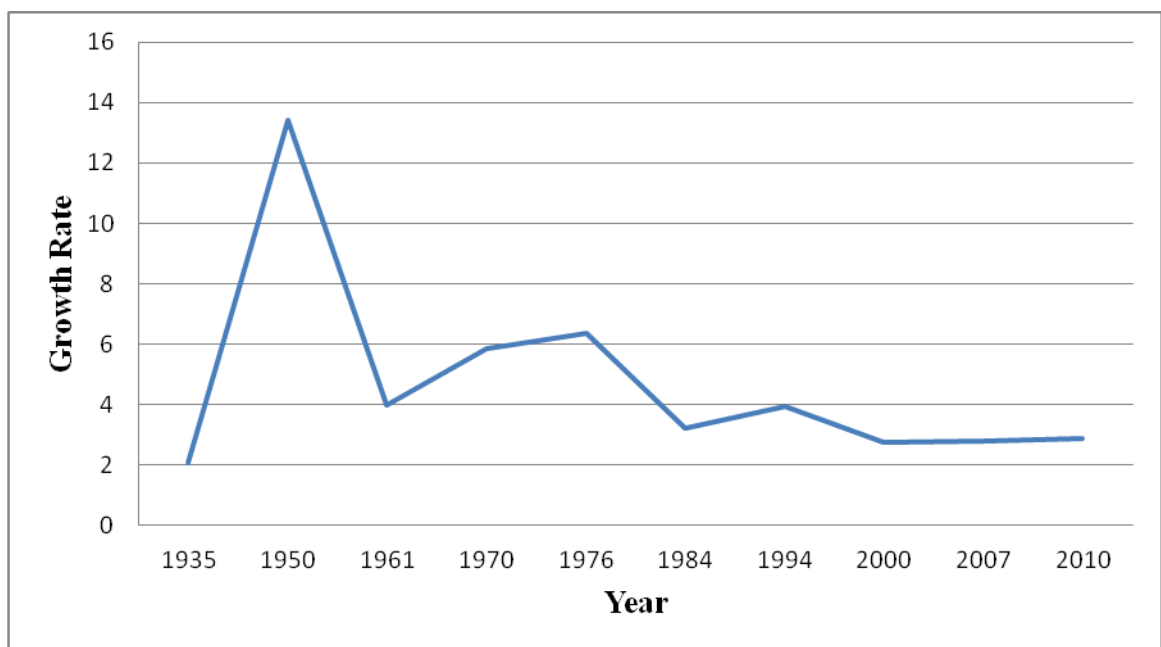


Fig-2.4 Temporal Variations in the Average Growth Rate of the Study Area

Natural increase and substantial migration are the main factors contributing to the fast growing population of the city. The data revealed that there was

exceptionally high average annual rate of growth between the years 1935 and 1950. This was perhaps due to established road network and work opportunity created by the Italian Administration in its short rule of the country that attracted people to urban settlement. During the period 1950-1961 the average annual growth rate of the population decreased. From 1961-1970 the population grew at an average rate of about 5.84 percent per annum, which has increased by more than one percent per annum between 1970 and 1976. The rate declined by more than 3 percent per annum between 1976 and 1984. This decline seems due to the political unrest in the country since the February 1974 revolution.

The data also indicate an upward trend between 1984 and 1994. This was perhaps partly due to instability and war in the northern and western parts of the country so that people fled to the city because of war displacement. From the 1994 census onwards the population growth rate projection shows declining trend but did not stay constant.

Generally, the overall picture of Addis Ababa city's population growth pattern reveals accelerated urban growth. Thus high population growth and haphazard nature, which has unleashed tremendous agglomeration of unplanned and shanty settlements in the periphery with high population density in some parts of the center characterizes Addis Ababa City. Understanding of the human population dynamics is extremely important when considering the impact of various human activities upon environments. According to Central Statistic Authority (CSA, 1999), Addis Ababa had a population of 65,000 in 1910, which grew to 100,000 in 1935. In a little over 25 years it had increased to 317,925. The population of Addis Ababa has grown from 443,728 in 1961 to 750,530 in 1970, 1,099,851 in 1976, 1,423,111 in 1984 and 2,112,737 in 1994. The results of the 1994 census showed that out of 2,112,737 populations in Addis Ababa, 1,023,452 were males and 1,089,285 were females. Moreover, the population size indicated 3.26 percent increase from that of 1984. This change has occurred due not only to natural increase and migration but also reclassification in the geographical area (CSA, 1999).

Table-2.6 Population Size and Average Annual Population Growth Rate

Year	Total Population	Average Growth Rate
1910	65,000	
1935	100,000	2.10
1950	317,925	13.4
1961	443,728	4.00
1970	750,530	5.84
1976	1,099,851	6.37
1984	1,423,111	3.22
1994	2,112,737	3.95
2000	2,495,000	2.77
2007	2,738,248	2.80
2010	2,917,295	2.90

CSA, 2010

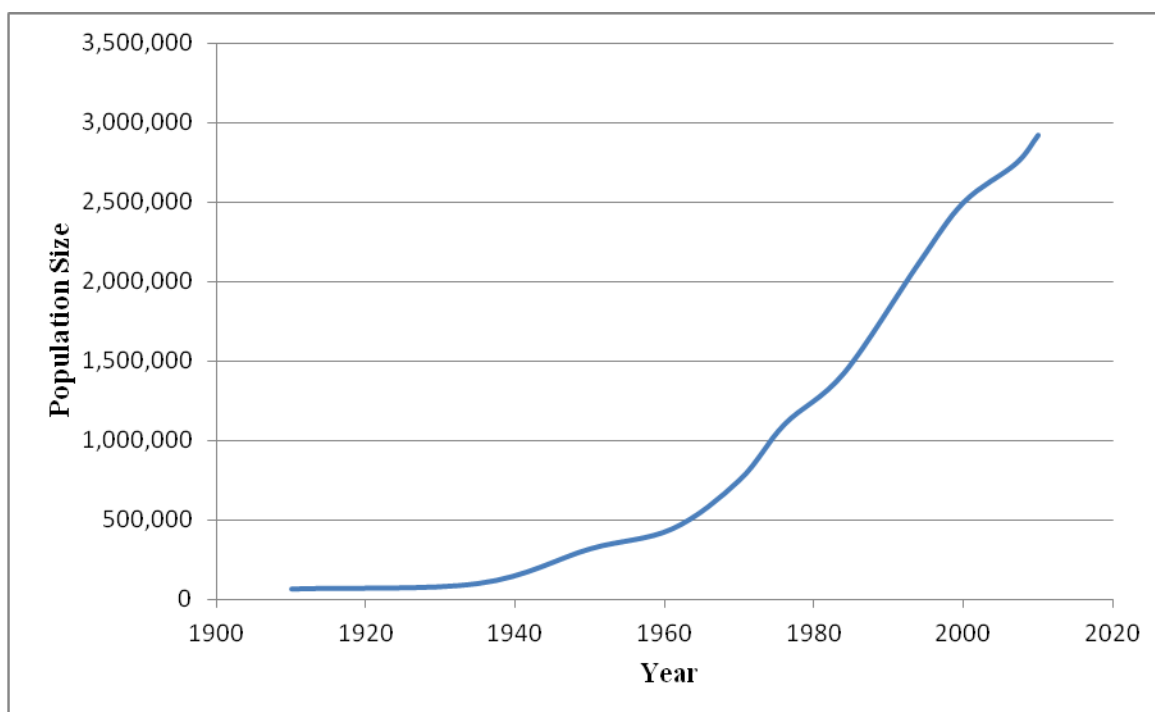


Fig-2.5 Temporal Variations in the Population Growth of the Study Area

Table-2.7 Distribution of Population Size According to Sub Cities

Sub City	Population Size					
	Male	%	Female	%	Total	%
Arada	99,392	7.62	112,617	7.85	212,009	7.74
Lideta	96,221	7.38	105,392	7.35	201,613	7.36
Addis Ketema	124,741	9.56	130,351	9.09	255,092	9.32
Kirkos	103,314	7.92	117,677	8.21	220,991	8.07
Bole	145,057	11.12	163,657	11.41	308,714	11.27
Gullele	129,239	9.91	138,142	9.64	267,381	9.76
Kolfe Keranio	207,506	15.91	221,148	15.42	428,654	15.65
Akaki Qaliti	88,676	6.80	92,526	6.45	181,202	6.62
Nifas Silk Lafto	148,892	11.41	167,216	11.66	316,108	11.54
Yeka	161,480	12.38	185,004	12.90	346,484	12.65
Total	1,304,518	100.00	1,433,730	100.00	2,738,248	100.00

Source: CSA, 2010

As indicated in Table-2.7, the percentage share of population in peripheral sub cities was greater than the share of central sub cities. Kolfe Keranio was the most populated sub city sharing about 15.65 percent of the total population of the city, followed by Yeka (12.65 percent). Nefas Silk Lafto and Bole were the third and fourth populous sub cities constituting 11.54 percent and 11.27 percent respectively. The least populated sub city was Akaki Quality with the proportion of 6.62 percent of the total population.

However, when these figures are seen together with land areas of sub cities, central sub cities are more populous than peripheral sub cities.

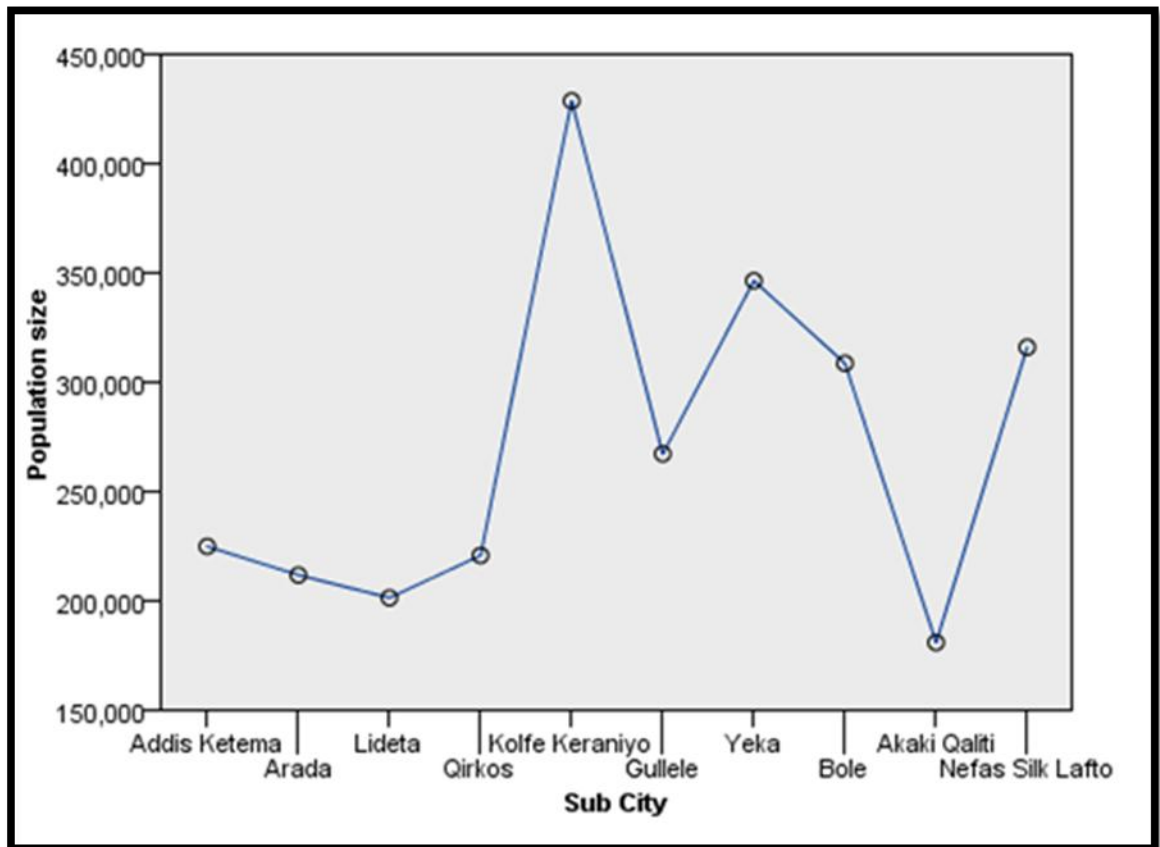


Fig-2.6 Distribution of the Study Area’s Populations by Sub Cities, 2010

## MIGRATIONS

Similar to the rest of the developing world, migration has been the main engine driving urban population dynamics in Ethiopia contributes greater percentages to the annual growth rates than the annual balance between births and deaths. It supplies and replenishes the towns and cities of the country with new waves of able-bodied men and women primarily from rural origins. Ethiopian historical studies suggest that this process has been in play for two millennia. Addis Ababa the capital, just over a century old “... is only the last in a long succession of capital cities dating back to the first century B.C” (Priya & Sven, 2004).

### Sub City Distribution of Migrant Population

Details as are presented in Table-2.8 show that the proportion of migrant population was higher in Kolfe Keranio sub city with 17 percent of the total migrant population, followed by Yeka and Bole constituting each 13 percent of the migrant population. The least proportion of migrant population is found in Akaki Qaliti

constituting only 6 percent. Hence, one can easily understand that the majority of migrants reside in peripheral than in central sub cities.

Table-2.8 Distribution of Migrant Population According to Sub Cities

<b>Sub City</b>		<b>Total Population</b>	<b>Migrants</b>	<b>% Migrants</b>	<b>Non Migrants</b>	<b>% Non Migrant</b>
Peripheral	Akaki Qaliti	181,202	78,195	6	103,007	7
	Nefas Silk Lafto	316,108	162,387	12	153,721	11
	Kolfe Keranio	428,654	216,405	17	212,249	15
	Yeka	346,484	173,107	13	212,249	15
	Bole	308,714	171,303	13	137,411	10
	Gullele	267,381	114,954	9	152,427	11
Central	Lideta	201,613	87,008	7	114,605	8
	Kirkos	220,991	102,134	8	118,857	8
	Arada	212,009	91,856	7	120,153	8
	Addis Ketema	255,092	105,618	8	149,474	10
<b>Total</b>		<b>2,738,248</b>	<b>1,302,967</b>	<b>100</b>	<b>1,435,281</b>	<b>100</b>

Source: AACG, 2010.

### **Temporal Variations in the Extent of Migration**

According to Table-2.9, migration accounts for a significant portion of the city's population growth. In 1994, about 46.42 percent of the populations were migrants, and in 2007 about 47.58 percent of the populations were migrants.

The study conducted by AACG (2008) also confirms that the city attracts large number of migrants from all regions in the country. According to this study, migrants account for 46.5 percent of the population in the City.



Table-2.9 Temporal Variations in the Migration Status of the Study Area

Year	Total Population	Non Migrants	% non-migrant	Migrants	Percent Migrant
1994	2,100,031	1,119,523	53.3	974,839	46.42
2007	2,738,248	1,435,281	52.4	1,302,967	47.58

Source: CSA, 2008; CSA, 1994

Drought and famine, demobilization of soldiers (after the fall of the Dergue regime and the Ethio-Eritrea conflict during 1998-2000) and displacement of people due to conflicts have increased the level of migration in Addis Ababa. For example, 113, 418 migrants flooded Addis Ababa during Ethio- Eritrea conflict and at the end of 1997 there were 53, 000 migrants in the city.

The city compared with other parts of the country enjoys a relatively higher concentration of facilities; infrastructure and industries. The main reason for high migration to the city is economic reasons. Studies on those who lived for less than 5 years demonstrate the migrants who come searching for a job is the highest ranking reason (35.44 percent). This was followed by education (19.89 percent), accompanying of family (12.12 percent) and living with relatives (7.60 percent) (CSA, 1999).

### **Distribution of Migrants by Age Group**

Migration is not a random event; it is selective of the most able, or the most capable, most desperate, most pressed, most informed, most to gain, etc. members of society. Therefore, migration can foster economic and industrial development in that it is age selective. Given many authors' and researchers' argument that migration is the prime catalyst driving development (Priya & Sven, 2004), Ethiopia's under-development might in part be the result of insufficient migratory moves.

As can be seen from Table-2.10, the major proportion of migrant during the two census periods (1994 & 2007) are people by age group of 15-29. The percentage of migrants by age group remains very low until about age fourteen. It reaches 13.5 percent in the 15–19 group and plateaus at about 15.6 percent where it stays through the age groups of 20 – 24, and then drops to 14.5 percent by age 25 – 29.

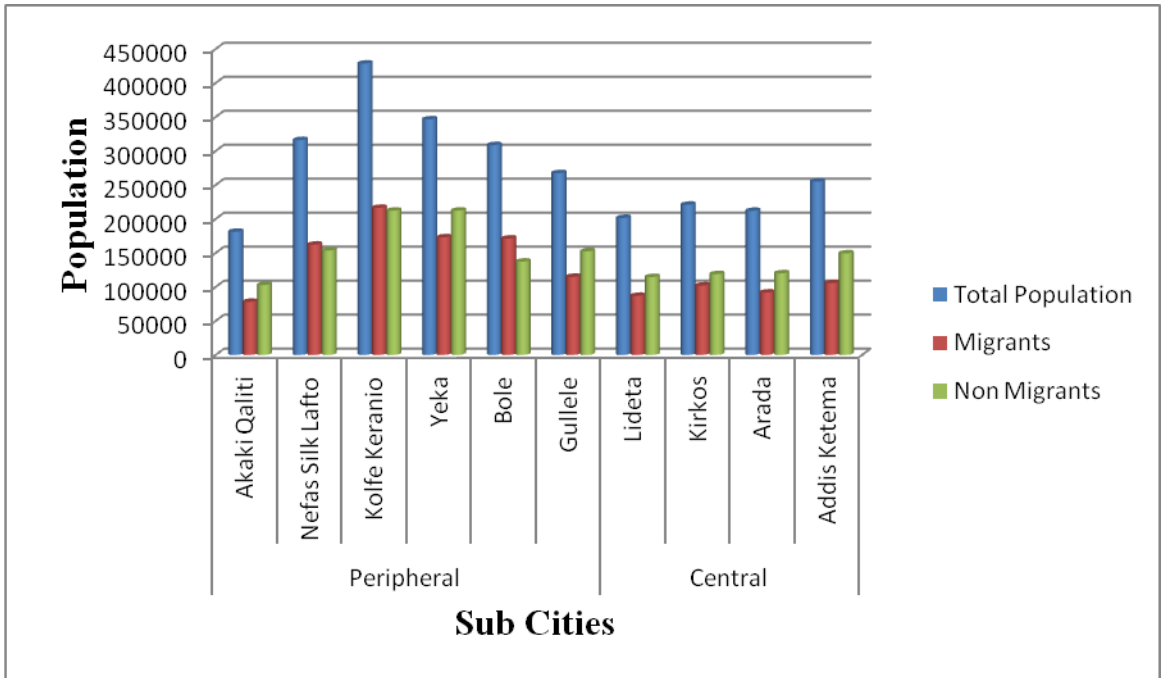


Fig-2.7 Distribution of Migrants and Non Migrant Population According to Sub City of the Study Area

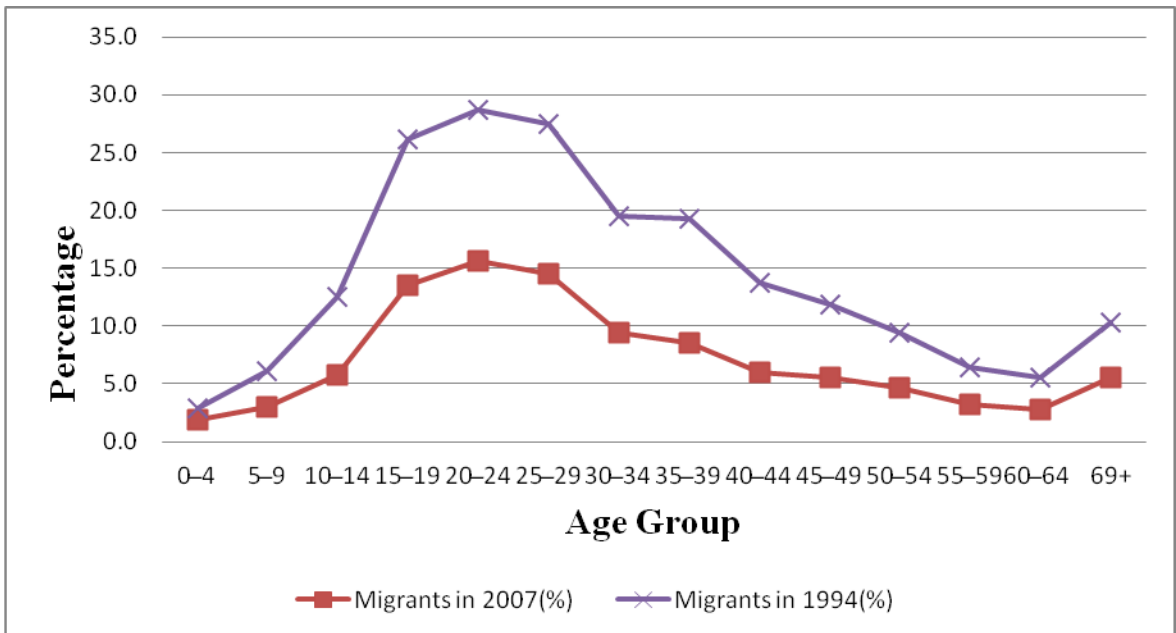


Fig-2.8 Percentage Distribution Total Population According to Age Group in the Study Area

Table-2.10 Age Selectivity of Migration Status of the Study Area

Age Group	2007	%	1994	%
0 to 4	25,092	1.9	9,918	1.0
5 to 9	38,674	3.0	30,586	3.1
10 to 14	75,042	5.8	65,709	6.7
15 to 19	175,759	13.5	123,134	12.6
20 to 24	203,481	15.6	127,994	13.1
25 to 29	189,070	14.5	126,363	13.0
30 to 34	122,850	9.4	97,771	10.0
35 to 39	110,645	8.5	105,578	10.8
40 to 44	78,344	6.0	75,246	7.7
45 to 49	72,289	5.5	61,452	6.3
50 to 54	60,630	4.7	46,762	4.8
55 to 59	42,423	3.3	30,874	3.2
60 to 64	36,886	2.8	26,465	2.7
69+	71,781	5.5	46,987	4.8
Total	1,302,966	100.0	974,839	100.0

Source: CSA, 1994; CSA, 2008

It can be concluded that migration can be beneficial for migrants, but only if they get basic social services and amenities. It can also be economically beneficial for both areas of origin and host cities; with present standing of economic development it can be said that migrants benefit most though there is a huge constraint in areas of basic services and amenities which will be discussed latter.

## URBAN SLUM POPULATION

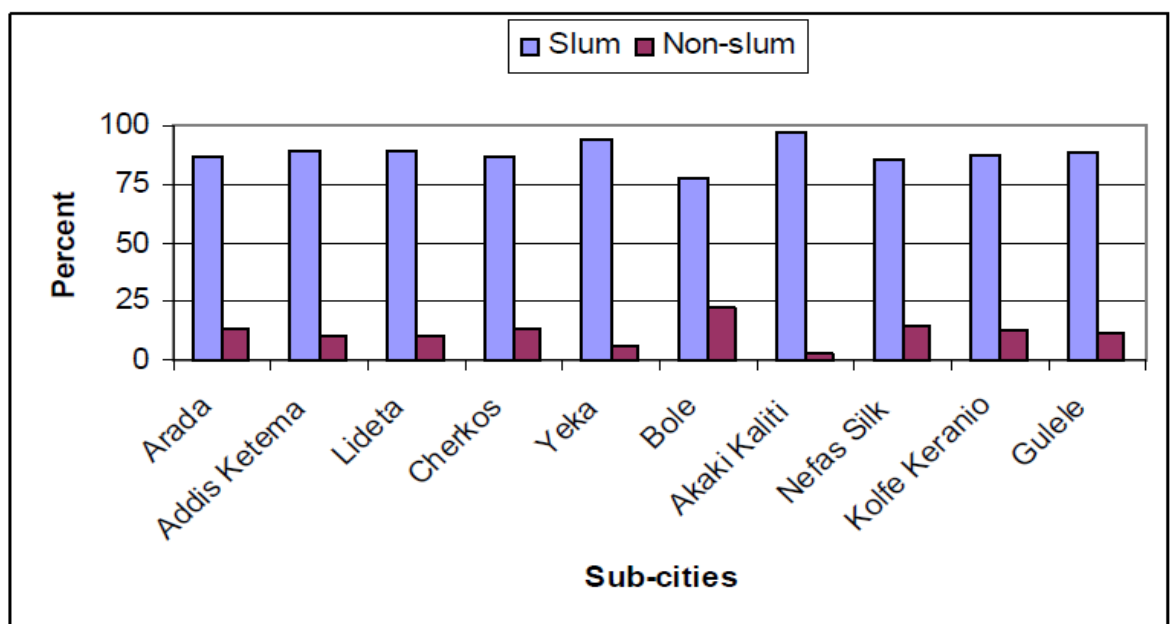
Despite its long history, Ethiopia remains under-urbanized, even by African standards. Only 17 percent of its population (13,225,000, in 2008) lives in urban areas (CSA, 2006). One shouldn't be misled, however, into thinking that low urbanization here meant fewer problems. The majority of living quarters in the study area is nothing more than slums that have mushroomed overnight as people flocking to cities found it impossible to find decent accommodations upon arrival. Homeless International's study of the slums in Addis Ababa has characterized the city as "... nothing but a gigantic slum interspersed with modern high-rise buildings and a few affluent neighborhoods" (Solomon and McLeod, 2004).

A study conducted Solomon and McLeod (2004) has found that more than 80% of the city's population is living in slums (Plate-2.1& 2.2) which are characterized by overcrowded neighborhoods with no or little basic infrastructure and

municipal services, worn out physical structures, under unhygienic conditions lacking safe drinking water and sewage, sprawling informal settlements in disaster prone areas, illegal land occupation and absence of tenure security, high rate of HIV/AIDS, high rate of unemployment and informal economy being vulnerable to all kinds of risks.

Addis Ababa, with the highest concentration of basic service, facilities for population than other urban centers in Ethiopia, enjoys a ‘privileged position’ (Tegenge, 2000). This position with its limited range of function has played an important role in attracting migrants from different areas. The high population concentration intensified the problem of housing. Demand for housing increased at a higher rate than its supply encouraging both unplanned settlement and planned urban expansion in the periphery (Solomon, 1999; Tarekegn, 2002).

Unplanned settlement had significant impact on urban sprawl. According to AACG (2008), out of the total housing units built in the city between 1984 and 1994 about 80 % of them are constructed without a plan. This much was contributed by the emergence and development of squatter settlements that caused rapid urban settlement expansion of the city to the periphery. As population increases in the city, the city administration plans to move to the periphery in search of space for accommodation. In this regard, not only residential areas are needed but also space for investors who seek to get land in the city.



Source: UN- Habitat, 2010

Fig-2.9 Distributions of Slum Houses According to Sub City



Plate-2.1 Urban Slums in the Study Region



Plate-2.2 Slum Settlements in the Study Area