

POPULATION STABILISATION REPORT

Ethiopia

March 2014

Abbreviation and acronyms

CMR: Child Mortality Rate

CSA: Central Statistics Authority

EDHS: Ethiopian Demographic Health Survey

FP: Family Planning

GDP: Gross Domestic Product

GER: Gross Enrollment Rate

GPI: Gender Parity Index

GTP: Growth and Transformation Plan

ICPS : Inter-Censal Population Survey

IMR: Infant Mortality Rate

LR: Literacy Rate

MMR: Maternal Mortality Ratio

MOE: Ministry of Education

MOFED: Ministry of Finance and Economic Development

MOH: Ministry of Health

NER: Net Enrollment rate

NNMR : Neonatal Mortality

RH: Reproductive Health

SNNPR: South Nations, Nationalities and People Region

SRH: Sexual and Reproductive Health

TFR: Total Fertility Rate

TGE: Transitional Government of Ethiopia

USD: United States Dollar

U5MR: Under-five Mortality Rate

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CHAPTER ONE

1.1. Introduction

Ethiopia is an ancient country and one of the few African countries to have maintained its independence. It is the tenth largest country in Africa, covering 1,104,300 square kilometers (with 1 million sq km land area and 104,300 sq km water) and is the major constituent of the landmass known as the Horn of Africa. Ethiopia has great geographical diversity; its topographic features range from the highest peak at Ras Dashen, 4,550 metres above sea level, down to the Afar Depression, 110 metres below sea level (CSA, 2009). The climate varies with the topography, from as high as 47 degrees Celsius in the Afar Depression to as low as 10 degrees Celsius in the highlands. Its geographical coordinates are between 8 00 N and 38 00 E.

Ethiopia has a federal system of government composed of nine Regional States: Tigray, Afar, Amhara, Oromia, Somali, Southern Nation Nationalities and Peoples Region (SNNPR), Benishangul-Gumuz, Gambella, and Harari; and two City Administrations council of Dire Dawa and Addis Ababa. The regional states and city administrations are subdivided into 817 administrative Woredas (districts). A Woreda/District is the basic decentralized administrative unit and has an administrative council composed of elected members. The 817 Woredas are further divided into about 16,253 Kebeles, the smallest administrative unit in the governance. Provisions of basic social services, including health care, have been devolved to sub-national regional governments with federal government coordinating policy formulation and implementation.

Map—1 Federal structure of Ethiopia



The Government of Ethiopia follows a market-based and agricultural-led industrialization policy for the development and growth of the economy. The country's economy is predominantly agriculture-based, with agriculture accounting for 83.4 percent of the labor force, about 43.2 percent of the GDP and 80 percent of exports. Despite serious challenges to economic development, Ethiopia has shown an impressive economic growth over the last nine years, as measured by macroeconomic parameters and strong growth averaging over 11% per annum.

Based on the lessons learned from PASDEP implementation, the Ethiopian Government embarked on a successor five-year (2010/11-2014/15) Growth and Transformation Plan (GTP) which reaffirms a vision to reach the level of middle income economy by 2025. The plan provides emphasis on agriculture and rural development, industry, infrastructure, social and human development, good governance and democratization.

Despite Ethiopia's long history, there were no estimates of its total population prior to the 1930s. The first population and housing census was conducted in 1984. The 1984 census covered about 81 percent of the population, and official estimates were made for the remaining 19 percent. A second census was conducted in 1994, and a third in 2007. Unlike the first census, the second and the third censuses covered the entire population. According to a projected estimate by the Central Statistical Agency (CSA) based on the 2012 Inter-Censal Population Survey (ICPS), the population size in 2013 has reached 85.89 million.

Ethiopia is one of the least urbanized countries in the world; only 16 percent of the population lives in urban areas (CSA, 2010). The majority of the population lives in the highland areas. The main occupation of the settled rural population is farming, while the lowland areas are mostly inhabited by a pastoral people, who depend mainly on livestock production and move from place to place in search of grass and water. More than 80 percent of the country's total population lives in the regional states of Amhara, Oromiya, and SNNP.

Population policy had low priority in Ethiopia until the early 1990s. In 1993 the Transitional Government adopted a national population policy (TGE, 1993). Since then, developments have taken place nationally and internationally that have a direct bearing on the country's population. The primary objective of the 1993 national population policy is to harmonize the rate of population growth with socioeconomic development in order to achieve a high level of welfare. The main long-term objective is to close the gap between high population growth rates and low economic productivity and to expedite socioeconomic development through holistic, integrated programmes. Other objectives include preserving the environment, reducing rural-to-urban migration, and reducing morbidity and mortality, particularly infant and child mortality. More specifically, the population policy seeks to accomplish the following:

- Reduce the total fertility rate (TFR) from 7.7 children per woman in 1990 to 4.0 children per woman in 2015;

- Increase contraceptive prevalence from 4 percent in 1990 to 44 percent in 2015;
- Reduce maternal, infant, and child morbidity and mortality rates, as well as promote the general welfare of the population;
- Significantly increase female participation at all levels of the educational system;
- Remove all legal and customary practices that prevent women from the full enjoyment of economic and social rights, including property rights and access to gainful employment;
- Ensure spatially balanced population distribution patterns, with a view to maintaining environmental security and extending the scope of development activities;
- Improve productivity in agriculture and introduce off-farm and non-agricultural activities for the purpose of diversifying employment;
- Mount an effective countrywide population information and education programme addressing issues pertaining to small family size and its relationship with human welfare and environmental security (TGE, 1993a).

Population and development has also been considered as a cross cutting issue in the Growth and Transformation Plan and due emphases has been given to integrate population issues in sector development plans.

This Ethiopian Population Stabilization report provides an analysis of the implementation of the population policy of the country, its strides, and challenges and makes recommendations to inform future interventions for population growth that is commensurate with the overall national development.

Specific objectives of the report are:

- Conduct a trend analysis of Ethiopia's population
- Review the linkage between demographic factors and key reproductive, maternal and child health
- Determine future prospects and projections

1.2 Methodology

The report is largely descriptive and uses secondary data from censuses, surveys, and other national reports.

1.3. Organization of Report

The report is organized into five chapters. It begins with an introductory chapter which provides a general introduction and background to the report, Chapter Two discusses the Population characteristics in terms of Population and Household Size, Sex Composition, Age Structure, Population Distribution, Urbanization and Crude Population Density. Chapter three examines population determinants in which fertility, mortality and migration are addressed. Chapter four reviews population and socioeconomic development in Ethiopia. Chapter five focuses on population stabilization prospects of the country. The report deals with the demographic characteristics of the country since the second census in 1994, but sometimes it refers back to the first census of 1984 for comparison purposes.

CHAPTER TWO

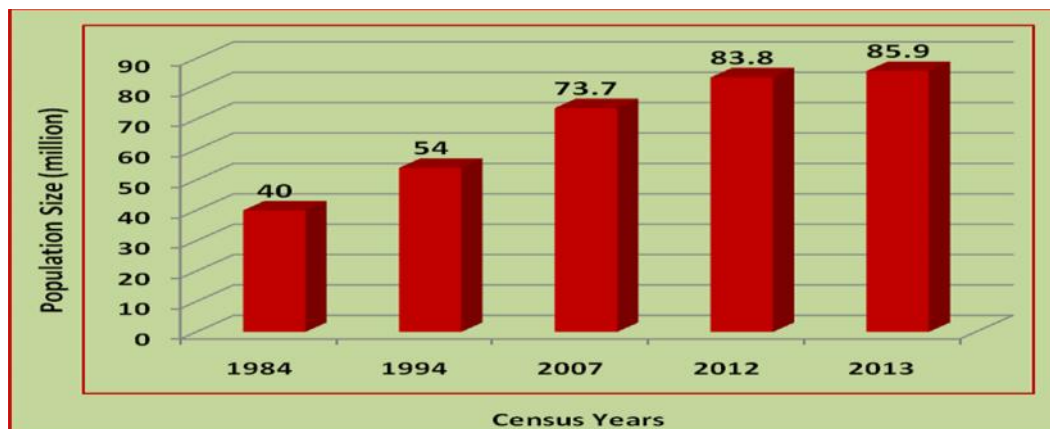
POPULATION CHARACTERISTICS

This chapter looks at the levels, trends and differentials of population and household size; growth and doubling time; and population change of Ethiopia at national and regional levels.

2.1 Population and Household Size

The size of Ethiopian population was 40 million in 1984. This figure increased to 53.4 million in 1994 and further to 73.7 million in 2007. In 2012 the country's population size reached 84.2 million. In 2013 this population size has reached 85.89 million as projected by the Central Statistical Agency (CSA) based on the 2012 Inter-Censal Population Survey (ICPS).

Fig. 2.1 Trends in Population Size of Ethiopia by Census years



Source: CSA: 1984, 1994 and 2007 Census Reports and the 2012 Inter-Censal Population Survey projection

Another important issue related to population size is household size. In Ethiopia the average household size was 4.8 (4.8 in rural and 4.6 in urban) in 1994. In 2007, the household size of the country slightly decreased to 4.7 (4.9 in rural and 3.8 in urban).

There is a regional variation in the average household size ranging from the highest (6.5) in Somali region to the lowest (3.9) in Harari in 2007 (Table 2.1). SNNP and Gambella were regions with increased household size in 2007 since 1994 while the rest of the regions showed decline in average household size.

Table 2.1 Trends in Household Size of Ethiopia

Region	Household size		Changes (members per family) 2007-2012
	1994	2007	
Ethiopia	4.8	4.7	-0.1
Urban	4.6	3.8	-0.8
Rural	4.8	4.9	0.1
Tigray	4.3	4.3	0
Affar	5.7	5.6	-0.1
Amhara	4.5	4.3	-0.2
Oromiya	4.8	4.8	0
Somali	6.6	6.5	-0.1
Beni-Gumuz	4.5	4.5	0
SNNP	4.7	4.8	0.1
Gambella	4.5	4.6	0.1
Harari	4.3	3.9	-0.4
Addis Ababa	5.1	4.1	-1
Dire Dawa	4.7	4.4	-0.3

Source: CSA (1991, 1999, 2010): The 1984, 1994 and 2007 Population and Housing Census of Ethiopia, Results at Country Level.

2.2 Sex Composition

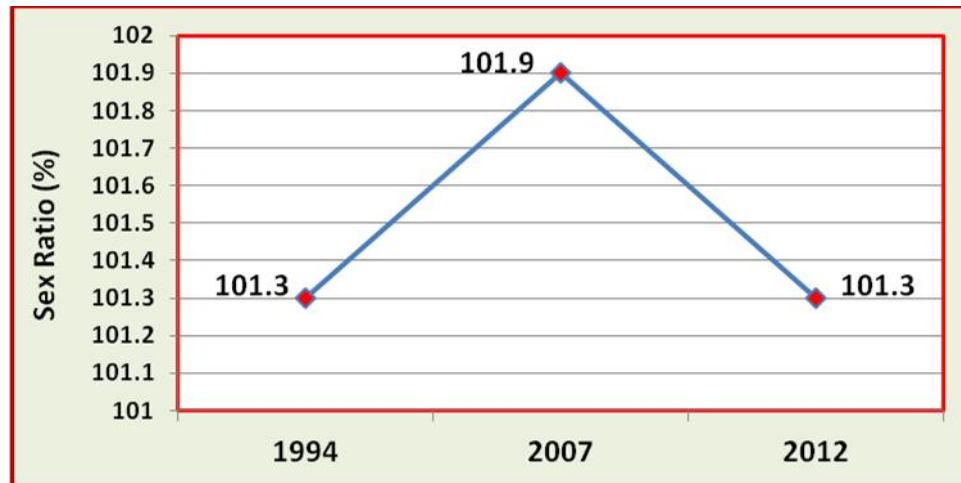
In Ethiopia female population constitute 26.6 million in 1994 which was 49.7 percent of the total population of the country while males constitute 26.9 million (50.3 percent). In 2007 the number of females reached 36.5 million accounting for 49.5 percent of the total population while the males took 37.2 million (50.5 percent).

In 2012 the size of female population is projected to be 41.6 million (49.7 percent) while that of males is expected to be 42.1 million accounting for 50.3 percent.

It shows that the country has almost proportional distribution of population by sex. Sex ratio, defined as the number of males per 100 females in the population, is an important social factor to

bring equity between males and females in a society. Country level average sex ratio in Ethiopia was 101.3 and 101.9 percents in 1994 and 2007. This has reached at 101.3 percent in the 2012 Inter-Censal Population Survey.

Fig. 2.2 Trends in national Average Sex Ratio (%) Ethiopia by Census Years



Source: CSA 1994 and 2007 Population and Housing Census of Ethiopia and ICPS 2012.

Sex ratios in the 2012 Inter-Censal Population Survey projection is highest in the Afar regional state (123.3 percent) showing the excess of males over the size of females. The data shows 123 men belong to 100 women. The lowest is found in Addis Ababa city Administration (90.5 percent) indicating the relatively lower number of males compared to the size of females which is 90 males belonging to 100 females.

.2.3 Age Structure

Age structure of a population is the number of people in different age group in a country at a time. It is one of the most basic characteristics of population. Numbers and percentage of a population within the children (young), Adult (middle aged) and the aged (old) group determine social and economic structure of the population. The dominant age group in a country will highly influence the priority issues and the focus of the government in the allocation of resources, man power and materials in general.

Below are the age characteristics of the Ethiopian population by the major age categories classified by five year age groups, child, working, old, reproductive age (women) and school age population. The data and discussions are presented based up on the 1994 and 2007 censuses and the 2012 Inter-Censual Population Survey (ICPS) projection.

2.3.1 Distribution of National Population by Five Year Age Groups

The general pattern of Ethiopian population seen by five year age groups shows more proportion in the lower ages (children) and then gradually declining up to the higher ages. Specifically, the age group 0-4 years shares the highest proportion in the population (15%) in 2012. This is an indication for the high fertility level the country has at the present day. The existing national average Total Fertility Rate (TFR) of the country was 4.8 as revealed by the 2011 Ethiopian Demographic Health Survey (EDHS) which means that on an average an Ethiopian mother has five children at the end of her child bearing ages according to the current fertility situation in the country.

The socio-economic burden of this child age population is very important through raising the demand for schooling (schools, teachers, books, and many other schooling inputs), health care as well as other basic needs including food as they are unable to support themselves due to their ages. However this age group is potential resource for labor if it is utilized through proper planning and providing them with the proper skills to be economically productive enough. Specially, the expected decline in fertility implies an expected decline in huge supply of young labor so that it is an opportunity to properly utilize this excess labor resource to develop the economy.

Table 2.2 Trends in age Distribution of Ethiopian National Population by five year age groups, 1994-2012) (in million)

Age Groups	1994				2007				2012 (ICPS Projection)			
	Male	Female	Total	%	Male	Female	Total	%	Male	Female	Total	%
All Ages	26.73	26.39	53.13	100	37.2	36.5	73.75	100	42.14	41.61	83.75	100.0
0-4	3.97	3.87	7.84	14.8	5.48	5.31	10.78	14.6	6.38	6.19	12.57	15.0
5-9	4.39	4.23	8.63	16.2	6.10	5.87	11.98	16.2	5.85	5.7	11.55	13.8
10-14	4.02	3.64	7.66	14.4	5.41	5.00	10.41	14.1	5.43	5.24	10.67	12.7
15-19	3.03	2.96	6.00	11.3	4.45	4.29	8.75	11.9	4.84	4.68	9.52	11.4
20-24	2.06	2.19	4.26	8.0	3.10	3.30	6.40	8.7	4.16	4.14	8.3	9.9
25-29	1.77	2.02	3.80	7.2	2.62	3.03	5.66	7.7	3.38	3.48	6.86	8.2
30-34	1.37	1.61	2.99	5.6	2.09	2.13	4.22	5.7	2.78	2.9	5.68	6.8
35-39	1.28	1.46	2.75	5.2	1.82	1.9	3.78	5.1	2.15	2.25	4.4	5.3
40-44	1.13	1.16	2.29	4.3	1.46	1.41	2.87	3.9	1.73	1.82	3.55	4.2
45-49	0.88	0.77	1.65	3.1	1.15	1.10	2.25	3.1	1.39	1.4	2.79	3.3
50-54	0.78	0.79	1.58	3.0	0.93	0.96	1.89	2.6	1.12	1.11	2.23	2.7
55-59	0.48	0.39	0.88	1.7	0.63	0.54	1.17	1.6	0.87	0.85	1.72	2.1
60-64	0.56	0.51	1.08	2.0	0.64	0.59	1.24	1.7	0.68	0.64	1.32	1.6
65-69	0.32	0.23	0.56	1.1	0.44	0.36	0.81	1.1	0.52	0.48	1	1.2
70-74	0.29	0.24	0.54	1.0	0.36	0.32	0.68	0.9	0.37	0.34	0.71	0.8
75 ⁺	0.35	0.25	0.60	1.1	0.49	0.36	0.85	1.2	0.49	0.39	0.88	1.1

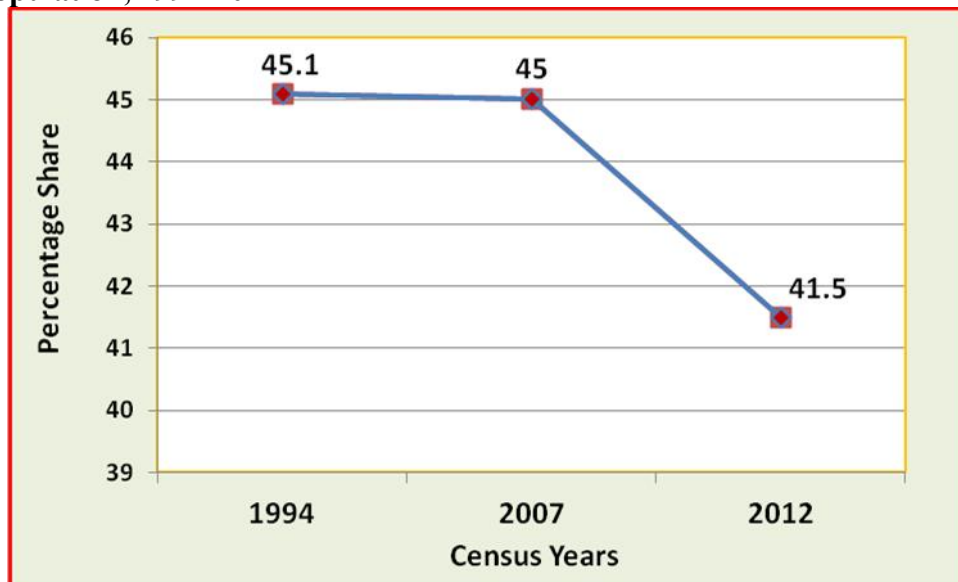
Source: CSA, Reports of the 1994 and 2007 Population and Housing Census and the 2012 Inter-censal Survey.

2.3.2 Child age Population

Child age population refers to the population aged below 15 (0-14) years which requires huge investment for socio-economic support like education and health. The size of the population in this age category in comparison with the rest of the age groups is an indirect indication of the existing fertility level of a country in which higher size relative to other ages implying high fertility and vice versa.

The child age population of Ethiopia was 24.1 million accounting for 45.1 percent in 1994 and increased to 33.2 million that constituted 45 percent of the total country's population in 2007. In 2012 the child age population reached at 34.8 million which is 41.5% of the total population (Table 3.1).

Fig. 2.3 Trends in the Proportion of Child age Population (0-14 Years) of Ethiopian National Population, 1994-2012



Source: CSA, Reports of the 1994 and 2007 Population and Housing Census and the 2012 Inter-censal Survey.

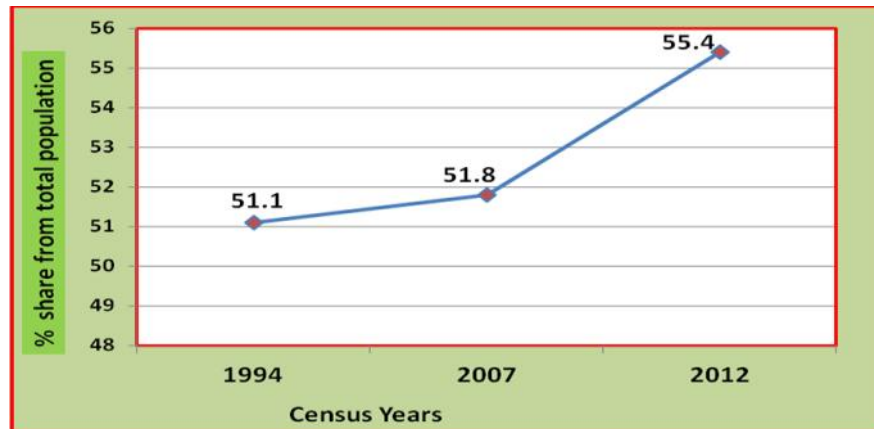
The regional distribution of the child age population shows variation with the highest the SNNP region in both 2007 and 2012 ICPS projection. This region has 47.9 and 46.2 percent of the regional total population size in 2007 and 2012, respectively. Contrary to the SNNP region Addis Ababa has the lowest child age population relative to its total population both in 2007 as well as 2012 with 24 and 23 percent in 2007 and 2012, respectively.

2.3.3 Working age Population

This age group consists of the population aged 15-64 years which is the productive age group and highly helpful for the country's socio-economic development. The total national population size of this working age population was 27.3 million (accounting for 51.1 percent of the total national population) in 1994 and increased to 38.2 million (which accounts for 51.8% percent of the total national population) in 2007. The recent Inter-censal Population Survey (ICPS) in 2012 revealed that the population belonging to this age category has reached 46.4 million (that shares 55.4% of the total 83.74 million national population of the country).

The trend in the size of the working age population of the country showed progressive increase between the three previous censuses the country conducted so far. It has shown a 0.7 percentage point increase between 1994 and 2007 and a 3.6 percentage points increase between 2007 and 2012.

Fig. 2.4 Trends in the Proportion of working age population at of Ethiopia (1994-2012)



Source: CSA, Reports of the 1994 and 2007 Population and Housing Census and the 2012 Inter-censal Survey.

Regionally the size of working age Population was highest in Oromia in 1994, 2007 and 2012 with 9.2, 13.3, and 16.3 million. The lowest was found in the Harari regional state with 77, 275, 107,8360 and 131, 171, respectively in the years specified above.

Respective to the relative size of regional total population size, the highest percentage of working age population was recorded in Addis Ababa city administration both in 1994, 2007 as well as 2012.

2.3.4 Old Age Population

Old Age Population of the country, the population aged 65 and over, shares smaller proportion relative to the child and working age categories. In terms of size, this age group was 1.7, 2.3 and 2.6 million in 1994, 2007 and 2012, respectively. Its relative shares were 3.2 percent in 1994 and 2007, and 3.1 percent in 2012 from the total national population of the country.

Regional data on old age population showed that the highest share of old age population from regional total population is recorded in the Tigray regional state accounting for 4, 4.4 and 4.1 percent of the region's total population respectively in 1994, 2007 and 2012. The lowest old age population percentage share, on the other hand, was observed in Gambella regional state with 1.2, 1.5 and 1.7 percent in 1994, 2007 and 2012, respectively. However, in terms of relative absolute size of old age population, the Oromia region has the highest size both in the three census years discussed above than the rest of the regions of the country.

Fig. 2.5 Trends in the size of Old age population of Ethiopia by Census Years (1994-2012)



Source: CSA, Reports of the 1994 and 2007 Population and Housing Census and the 2012 ICPS.

2.3.5 School Age Population

School Age Population is the total population belonging to the official age of schooling which includes primary education (grades 1-8 and aged 7-14 years) and secondary education (grades 9-12 and aged 15-18 years).

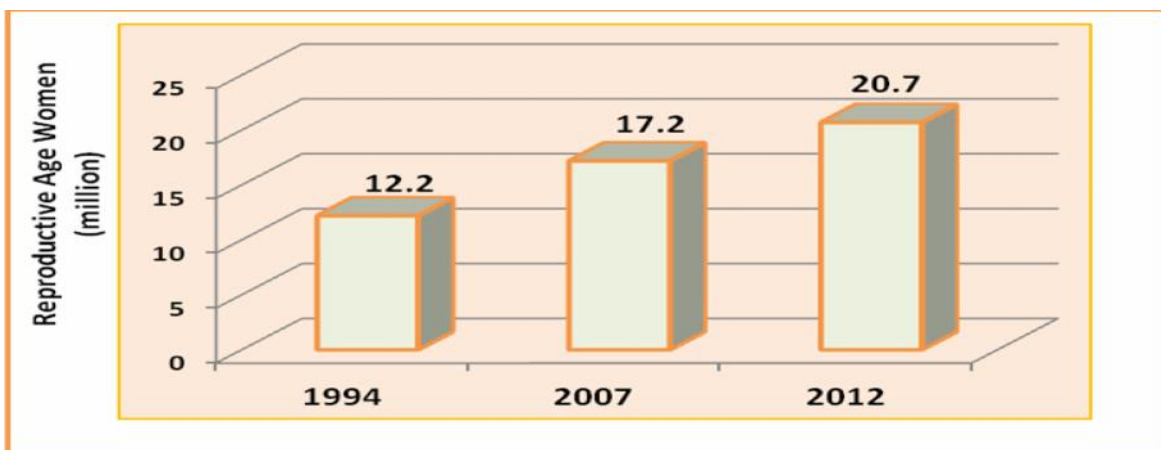
The Primary school age population (aged 7-14 year) and secondary school age population (aged 15-18 years) in 2005 were 14.7 million and 6.8 million, respectively. In 2011, both primary and secondary school age population were increased to 17.3 million and 7.4 million, respectively.

2.3.6 Women in Child Bearing Ages

Women in Child Bearing /Reproductive ages refer to the number of women able to give births (aged 15-49 on average) in a country/region at a given time. The number of women in child bearing age in a country determines the population growth as well as the volume of demand for contraceptives. The total size of reproductive age women in Ethiopia was 12.2 million in 1994. This number increased to 17.2 million in 2007. It was a 5 million difference within 13 years interval time. In 2012 it is projected to reach 20.7 million by the Inter-Censal Population Survey (ICPS) conducted by the Central Statistical Agency (CSA).

Regional data showed that the highest number of women in child bearing age was found in Oromiya region (7 million) while the lowest was in Harari region (57,823) in 2012.

Fig. 2.6 Trends in the size of Reproductive Age Women Ethiopia by Census Years



Source: CSA, Reports of the 1994 and 2007 Population and Housing Census and the 2012 ICPS.

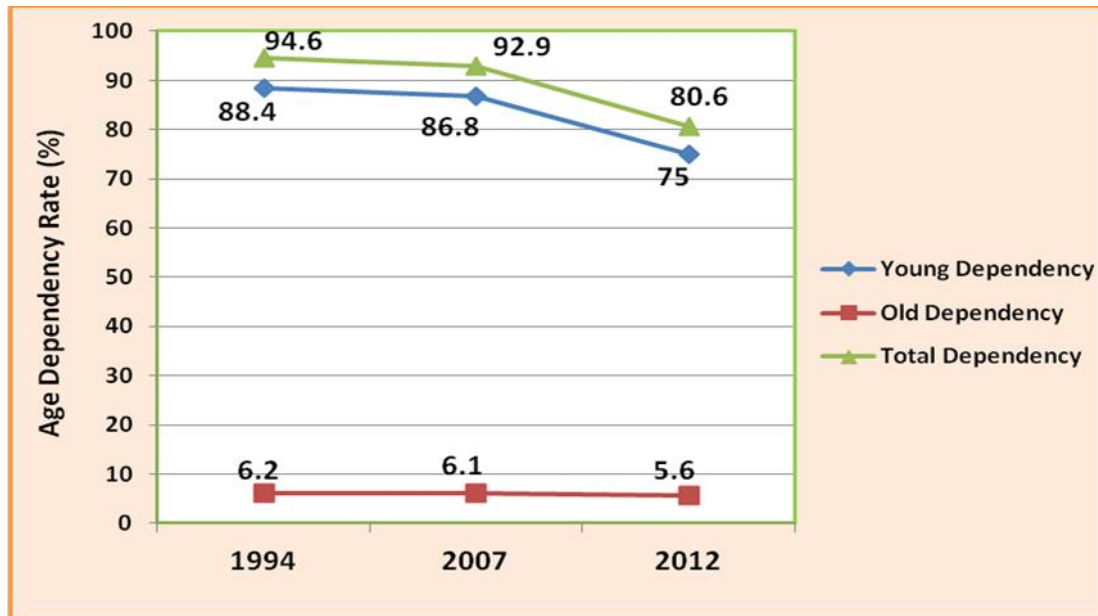
2.3.7 Age Dependency Ratio

Age dependency ratio is the ratio of persons in the ages defined as dependent (under 15 and over 64 years) to persons in the ages defined as economically productive (15-64 years) in a population.

The total dependency rates of Ethiopia were 94.6, 92.9 and 80.6 percent in 1994, 2007 and 2012, respectively. Breaking this in to young and old dependencies one can observe from the three

censuses conducted that the young dependency rates were 88.4, 86.8 and 75 percents in 1994, 2007 and 2012, respectively, while the old dependency rates were 6.2, 6.1 and 5.6, respectively in the above census years. All the three dependency rates showed declining trend from 1994 to 2012 (Fig. 3.4).

Fig. 2.7 Trends in National Age Dependency Rates of Ethiopia by census Years



Source: CSA, Reports of the 1994 and 2007 Population and Housing Census and the 2012 ICPS.

2.4 Population Distribution by Region

The percentage share of regions' population from the national total population showed that the biggest region constitutes the highest share in both census periods-1994 and 2007. Accordingly, Oromia region account 35 percent and 36.6 percent of the total population of the country, respectively. On the contrary the lowest share in those census periods, 1994 and 2007, were observed in Harari (0.2 percent of the total population in both census years).

Table 2.3 Levels and trends in Regional Distribution of Population and percentage shares

Residence/ Region	1994		2007		2013	
	Population Size	% Share	Population Size	% Share	Population Size	% Share
Ethiopia	53,477,265	100	73,750,932	100	85,889,000	100
Tigray	3,136,267	5.9	4,316,988	5.9	4,866,000	5.7
Affar	1,060,573	2.0	1,390,273	1.9	1,634,000	1.9
Amhara	13,834,297	25.9	17,221,976	23.4	19,626,000	22.9
Oromia	18,732,525	35.0	26,993,933	36.6	31,948,000	37.2
Somali	3,198,514	6.0	4,445,219	6.0	5,165,000	6.0
Ben-Gumuz	460,459	0.9	784,345	1.1	947,000	1.1
SNNP	10,377,028	19.4	14,929,548	20.2	17,403,000	20.3
Gambella	181,862	0.3	307,096	0.4	383,000	0.4
Harari	131,139	0.2	183,415	0.2	220,000	0.3
Addis Ababa	2,112,737	4.0	2,739,551	3.7	3,170,000	3.6
Dire Dawa	251,864	0.5	341,834	0.5	415,000	0.5

Source: CSA, 1994 and 2007 Population and Housing Census of Ethiopia, and ICPS 2012.

2.5 Population Distribution by Urban and Rural

There is a big difference between the urban and rural distribution of Ethiopian population. In 1994, 86.3 percent Ethiopian population was living in rural areas. In 2007, the proportion of rural population of the country slightly declined to 83.9 percent. During these similar periods the proportion of people living in urban areas was only 13.7 percent and 16.1 percent, respectively.

There is also big regional variation in the concentration of urban and rural population. Addis Ababa being the capital city of the country, 98.7 percent and 100 percent of its population in 1994 and 2007 live in urban area. Against to this the lowest proportion of urban and highest proportion of rural population (6.8 percent of urban and 93.2 percent of rural population in 1994 and 10 percent of urban and 90 percent of rural population in 2007) was in SNNP region.

2.6 Urbanization

Urbanization is the process of population concentration in non-agricultural activities and areas. Urbanization is also an indicator for betterment of life and development as more facilities are found in urban areas compared to rural areas.

2.6.1 Level of Urbanization

Level of urbanization refers to the proportion of country's or region's population living in urban areas as a percentage of the national total or regional total population at a given specific time. Level of urbanization in the country was 13.7 percent in 1994 and 16.1 percent in 2007. The regional distribution showed that the highest level of urbanization in 1994 and 2007 (98.7 percent and 100 percent, respectively) were found in Addis Ababa. On the opposite the lowest level of urban people in the above similar periods (6.8 percent and 10 percent, respectively) were observed in SNNP region.

Table 2.4 Percentage of Urban Population and Changes in Ethiopia by region and years

Region	Levels of Urbanization			Change (Percentage points)	
	1994	2007	2013	2007-2013	1994-2013
Ethiopia	13.7	16.1	18.7	2.6	5
Tigray	14.9	19.5	23.4	3.9	8.5
Affar	7.5	12.6	16.7	4.1	9.2
Amhara	9.2	13.3	15.3	2	6.1
Oromia	10.5	12.3	13.9	1.6	1.6
Somali	13.7	14.0	14.3	0.3	0.6
Ben-Gumu	7.8	13.5	18.7	5.2	10.9
SNNP	6.8	10.0	14.7	4.7	7.9
Gambella	15.1	25.4	30.6	5.2	15.5
Harari	5.8	54.2	55	0.8	49.2
Addis Ababa	98.7	100	100	0	1.3
Dire Dawa	68.8	68.2	62.7	-5.5	-6.1

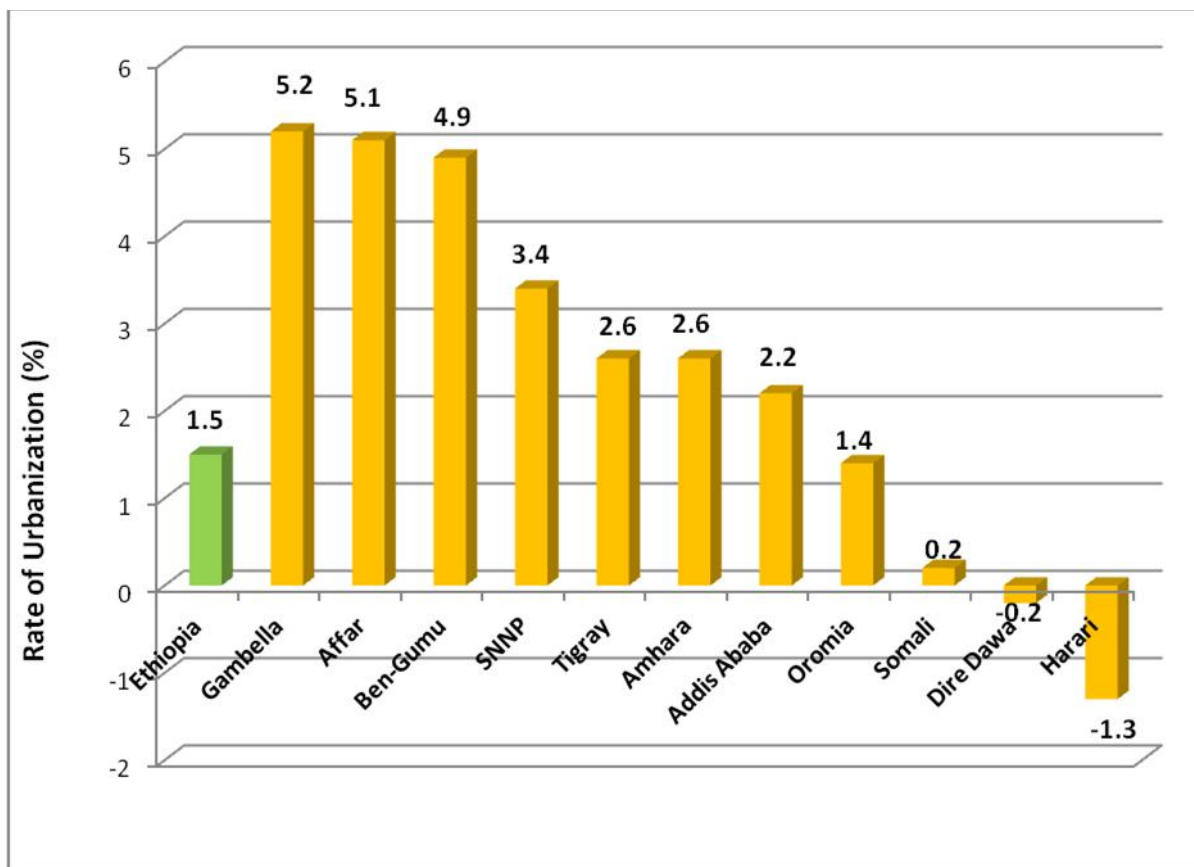
Source: CSA, 1994 and 2007 Population and Housing Census Reports of Ethiopia, and ICPS 2012.

2.6.2 Rate of Urbanization

Rate of urbanization is the rate by which the urban population is growing over time in comparison to the rural population of a country or region. The rate of urbanization between the two census periods was 1.5 percent.

There was big variation in the rate of urbanizations among regions. The highest and lowest rates of urbanization in the years between 1994 and 2007, (4.9 percent and -0.2) were registered in Benishangul-Gumuz region and Dire Dawa city administrative council, respectively.

Fig. 2.8 Regional Distribution of Rate of Urbanization in Ethiopia, 1994-2007.



Source: CSA (1999, 2010): 1994 and 2007 Population and Housing Census of Ethiopia,

2.7 Crude Population Density

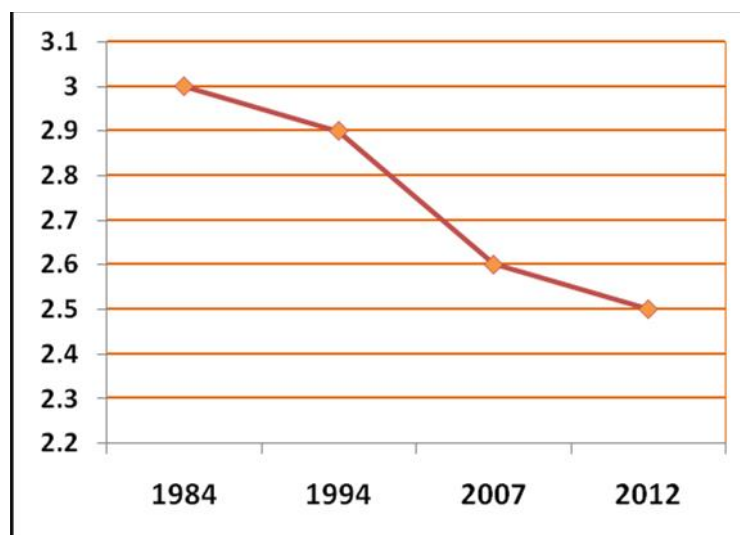
Crude Population Density is the most common way of measuring population distribution. Usually it is expressed as the number of people per unit of land area. Population density of the country in 1994 and 2007 were 47.3 and 65.3 persons/sq.km, respectively. This indicates that the number of people who settled per square kilometer is increasing from time to time.

Regional distribution of population showed that the highest concentrations of population in 1994 and 2007 (4009.1 persons/sq.km and 5198.5 persons/sq.km, respectively) were found in Addis Ababa City Administration. Against to this the lowest population concentrations in those similar periods (6.1 persons /sq.km and 10.3persons/sq.km, respectively) were found in Gambella region.

2.8 Population Growth and Doubling Time

The annual population growth rate of Ethiopia in the inter-censal period before 1984 was 3.2 percent per year on an average while that between 1984 and 1994 was 2.9 percent. It was also calculated as 2.6 percent between 1994 and 2007 and expected to decline at least to 2.5 percent per annum between 2007 and 2013 according to the previously observed trends and the 2012 inter-censal survey projections.

Fig. 2.9 Trends in the Annual Population Growth Rate of Ethiopian Population



Source: CSA: 1984, 1994 and 2007 Census Reports and Annual Statistical Abstract

The general pattern, therefore, indicates that annual population growth rate in Ethiopia is in a slightly declining trend following the launching and implementation of the national population policy of Ethiopia in 1993. The policy is under implementation with more emphasis on the expansion of family planning services and promotion of small, happy and prosperous family among the Ethiopian population.

Despite the interesting news on the declining of annual population growth rate the actual number of people increasing each year as per the above specified annual population growth rate showed increasing trend over the past two decades.

Table 2.5 Trends in Total Population Size, Average Annual Population Growth Rate and Annual Increase of People (1984-2013)

Years	Total Population Size (million)	Annual Population Growth Rate (%)	Annual Addition of People (million)
1984	40.0	3.0	1.3
1994	53.5	2.9	1.6
2007	73.8	2.6	1.9
2013	85.9	2.5	2.1

Source: CSA, Reports of the 1984, 1994, 2007 Census and 2012 Annual Statistical Abstract.

As the above table shows the actual number of people added in Ethiopia from the 40 million in 1984 was 1.3 million which increased to 1.6 million in 1994, to 1.9 million in 2007 and further to 2.1 million in 2012. As a result of the increasing trend in the number of people added each year on the country's population the total population is rapidly increasing from time to time. The declined in annual population growth and total fertility rates recorded in this country is not significant enough to stop the rapid population increase of the population witnessing the fact that rapid population growth is still one major issue to Ethiopia's socio-economic development planning.

The Ethiopian population recorded a doubling time of about 27 years between 1994 and 2007 on an average while that between 2007 and 2012 is found to be 28 years.

CHAPTER THREE

DETERMINANTS OF POPULATION

Population is determined by three demographic processes, namely, fertility, mortality and migration. This chapter looks at the levels, trends and differentials of fertility, mortality and migration in Ethiopia at national and regional levels for the period 2000 -2011.

3.1 Fertility

Fertility is the natural human capability of producing offspring. Fertility is one of the most important components of population dynamics determining the size and structure of the population, the well being of mothers as well as their offspring.

The main measures of fertility are Crude Birth Rate (CBR), General Fertility Rate (GFR), Age Specific Fertility Rate (ASFR) and Total Fertility Rate (TFR).

3.1.1. Measures of Fertility

A. Crude Birth Rate (CBR)

Crude Birth Rate (CBR) is defined as the number of births per 1000 population during a specified period, usually one year.

The crude birth rate in Ethiopia was decreasing from 41.3 in 2000 to 35.7 in 2005 and to 34.5 births per 1,000 populations in 2011. It showed a decrement of 1.2 percentage points (16.5%) and 6.6 percentage points (3.4%) during the period 2000-2011 and 2005-2011, respectively.

Table 3.1 Levels, Trends and changes in National Level Crude Birth Rate (CBR)

Residence	CBR			Changes (pts. Per 000)	
	2000	2005	2011	2011 over 2005	2011 over 2000
Total	41.3	35.7	34.5	-1.2	-6.8
Urban	30.7	23.4	26.4	3.0	-4.3
Rural	42.9	37.3	36.2	-1.1	-6.7

Source: CSA Ethiopian Demographic and Health Survey Reports of 2000, 2005 and 2011.

There is also substantial difference in the CBR by urban-rural residence in all three surveys conducted in the past. The CBR was higher in rural areas (42.9, 37.3 & 36.2 per 1,000 population) compared with urban areas (31, 23 & 26 per 1,000 population) in 2000, 2005 & 2011, respectively. The CBR in rural areas decreased by 1.1 percentage points (2.6%) and 6.7 percentage points (15.6%) during the period 2005-2011 and 2000 – 2011, respectively. In urban areas, however, there observed unusual increase in CBR by 3.0 percentage points (12.8%) between 2005 and 2011 while it declined by 4.3 Percentage points (14%) during the periods 2000-2011.

B. General Fertility Rate (GFR)

General Fertility Rate (GFR) is the number of live births per 1000 women of the childbearing age group (15-49) in a given year.

The GFR in Ethiopia in 2000, 2005 and 2011 were 193, 179 and 161 live births per 1,000 women of reproductive age, respectively. The rate has moderately decreased by 18 points (16.6%) and 32 points per 1000 population (10.1%) between the periods 2000 -2011 and 2005 -2011, respectively.

C. Age Specific Rate (ASFR)

Age Specific Rate (ASFR) is the other and more refined measure of fertility performance defined as the number of births per five year age groups women of the reproductive ages.

The level and trend of national level age specific fertility rate in Ethiopia showed a general decline in the level of births in all of the five year groups of reproductive ages during the previous three surveys with the highest for the age group 25-29 years and the lowest for the last age category (fig. 2.2).

Fig. 3.1 Trends in Ethiopian Age Specific Fertility Rate, 2000-2011

Source: CSA, Ethiopian Demographic and Health Survey Reports 2000, 2005 and 2011.

D. Total Fertility Rate (TFR)

Total Fertility Rate (TFR) is the average number of children that would be born to a woman by the time she ended childbearing according to the existing fertility levels if she were to pass through all her childbearing years.

The TFR in Ethiopia decreased from 5.5 children in 2000 to 5.4 children in 2005, and then decreased further to 4.8 children in 2011 with a one child drop in the past one decade and a decline of 1.1 children (18.6%) observed over the past 11 years. Table 2.3 below reveals that substantial declines in fertility from the three surveys (2000, 2005 and 2011) have taken place in both rural (from 6.4 to 5.5) and urban areas (from 3.3 to 2.6). Thus, the reduction of TFR for urban and rural areas over the period 2000 – 2011 were 0.7 children (21.2%) and 0.9 percentage points (14.1%), respectively.

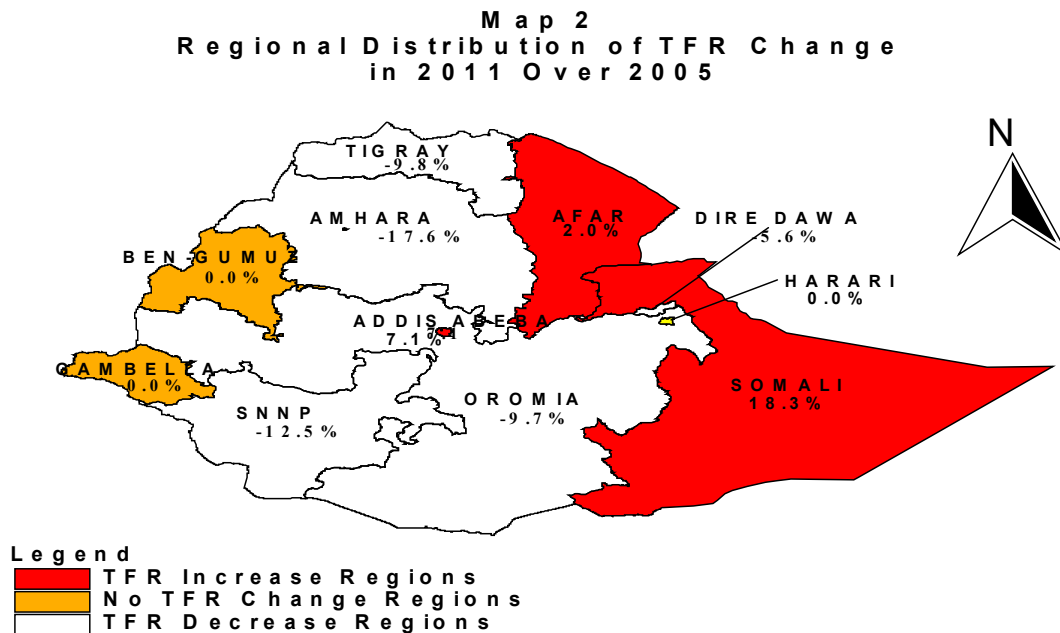
Table 3.2 Trends in TFR Changes in Ethiopia by Residence, 2005-2011 and 2000-2011.

Residence	% Changes	
	2011 over 2005	2011 over 2000
Total	-11.1	-18.6
Urban	8.3	-21.2
Rural	-8.3	-14.1

Source: Computation based on EDHS Reports of 2000, 2005 and 2011. CSA.

According to 2011 EDHS, there is substantial difference in the total fertility rate among regions, ranging from 1.5 children per woman in Addis Ababa, which is below the replacement level of fertility, to 7.1 children per woman in Somali region. Fertility levels of Somali, Oromiya, Benishangul-Gumuz, Affar, and SNNP are higher than the national average fertility level.

Map 2--- Regions of No change and increased TFR in 2011 over 2005



3.1.2. Levels and Trends in some Major determinants of Fertility

The level and trend of fertility depends in an area on a number of demographic and socio-economic factors which themselves are subject to change over space and time.

Based on the data available and the relative importance of these factors in determining fertility, however, the levels, trends and differentials of four very important factors are assessed below. These are family planning (contraceptives use and unmet need), marital status, age at first marriage of women and women age at first sex.

D. Family planning

Whereas family planning regulates the number and time of children families need to have, it is an indispensable tool for the improvement of the health and well being of mothers and their children. In addition to these it is one of the major strategies of harmonizing population growth with socio-economic development through balancing family size with individual economic capacity.

This report analyzes the trends, levels and differentials of family planning from the birth control perspective focusing on contraceptives use coverage (CPR) and the unsatisfied need for it (Unmet need for contraception) in the country at national level, by residence and regional level.

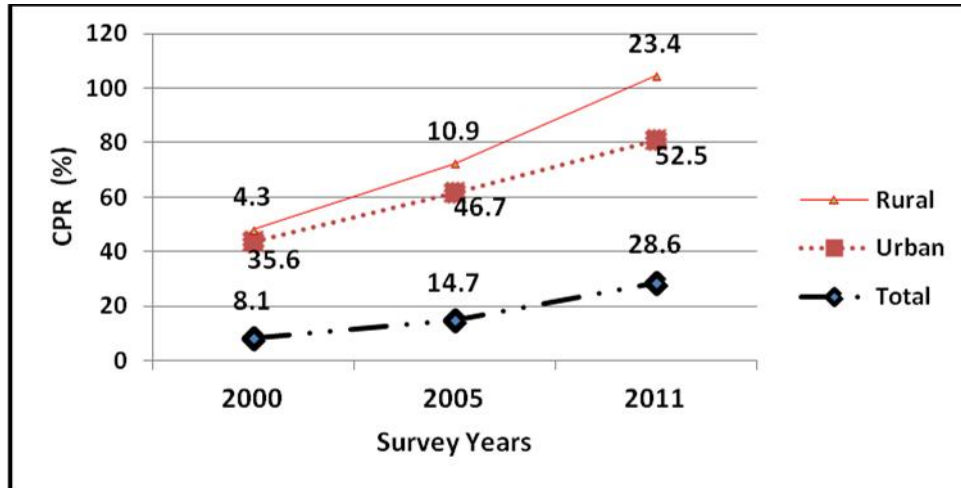
i. Contraceptive Prevalence Rate (CPR)

The measure Contraceptive Prevalence Rate (CPR) provides information on the coverage of contraceptives utilization in an area which is an indication of the proportion of women who have a lower risk of conception at a given time. Contraception is a good indicator of the extent to which couples have access to reproductive health services. Thus, levels and trends of CPR have serious implications on the size of Ethiopia's population as well as improvements in maternal and child health.

The country level CPR in Ethiopia has shown remarkable increment from 8.1 percent in 2000 to 14.7 in 2005 and further to 28.6 percent in 2011. It showed 13.9 and 20.5 percentage point increments in the period 2005 -2011 and 2000 -2011, respectively. The one decade CPR

development history of Ethiopia showed on average of about 2% annual increase rate between 2011 and 2000 as shown in Fig. 2.6.

Fig. 3.2 Levels and Trends in CPR (All methods) of Ethiopia by Residence, 2000-2011



Source: CSA, Ethiopian Demographic and Health Survey Reports of 2000, 2005 and 2011.

There observed also an increasing trend of CPR coverage by residence both in urban and rural areas in 2000, 2005 and 2011. In the urban areas CPR was 35.6, 46.7 and 52.5 percents which showed an increase of 5.8 and 16.9 percentage points in 2011 from 2005 and from 2000 CPR levels, respectively. In the rural areas CPR was 4.3, 10.9 and 23.4 percents in these three consecutive survey years, respectively, and showed more rapid improvements even than the urban areas with increment of 12.5 and 19.1 percentage points during 2011-2005 and 2011-2000, respectively.

Use of contraceptive methods varies notably by region. In 2011 it ranged from the highest 62.5% in Addis Ababa to the lowest 4.3% in Somali Region. Regions like Harari, Amhara, and Dire Dawa also have relatively good levels of current CPR (34.7, 33.9, and 33.9 percent, respectively) than the other regions.

ii. Unmet Need for Family Planning

The proportion (%) of currently married women who want no more children at least for two years before having another child (to limit number of children or to space) and currently not using contraception is unmet need for family planning. The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behavior.

There has been encouraging changes in unmet need for family planning over the past eleven years. In 2000 the country had an unmet need level of 36 percent among currently married women. This declined to 34 percent in 2005 and further to 25 percents in 2011.

Unmet need is higher among rural women (37.3, 35.8 and 27.5 percent, respectively)) than among urban among women (25, 17 and 15 percent, respectively) in the previous three surveys of 2000, 2005 and 2011.

E. Women Age at first Marriage

The median age at first marriage has an effect on a population's fertility. The significance of this factor depends on the extent to which childbearing is limited to marriage. Women who marry early will on average have a longer exposure to the risk of pregnancy; therefore, early age at first marriage would imply early age at childbearing and a higher level of fertility for the society under natural fertility.

The median age at first marriage among women in Ethiopia has risen very slowly and slightly over the last three surveys, from about 16.4 years in 2000 to 16.5 years in 2005 and to 17.1 years in 2011, an increase of 0.6 and 0.7 percentage points for the period of 2005 -2011 and 2000- 2011, respectively.

It can be seen from the surveys that urban women in the age group 20 -49 marry later (17.8, 19.4 and 19.3) than their rural counter parts (16.2, 16.1 and 16.6 years) in 2000, 2005 and 2011, respectively. Overall women age at first marriage in the country decreased by 0.7, 1.5 and 0.4 years in 2011 from 2000 at country, urban and rural levels, respectively.

The median age at first marriage among women of the same age group in 2011 varies significantly by region, ranging from 19.4 years in the Dire Dawa to 15.1 years in Amhara. This indicates that women in Dire Dawa marry more than 4 years later than women residing in the Amhara Region.

F. Women Age at First Sex

Age at first marriage is usually used as a proxy for the onset of women's exposure to sexual intercourse and risk to pregnancy. But the two events may not occur at the same time because some women may be engaged in sexual activity before marriage.

The median age at first sexual intercourse has increased over the past three surveys from 16.4 in 2000 to 16.5 years in 2005 and to 17.1 years in 2011 for women age 20-49. This suggests that Ethiopian women have not shown significant change in age at first sexual intercourse over the past 10 years, which is an increase of 3.6 and 4.3 percent during the period of 2005 -2011 and 2000 – 2011, respectively. Over the past three surveys urban women have their first sexual experience at somewhat later ages than rural women.

3.2 Mortality

Mortality refers to the number of deaths in a population at a given time. Mortality contributes to population change by affecting the number of people who exit a Population. Mortality is a useful and key indicator of the health status of a population besides serving an element in the computation of population changes. Measures of mortality include Crude Death Rate (CDR), Neonatal Mortality Rate (NNMR), Infant Mortality Rate (IMR), Child Mortality Rate (CMR), Under-five Mortality (U5MR) and Maternal Mortality Ratio (MMR).

This mortality sub chapter analyzes the levels, trends and differentials of Crude Death Rate (CDR), Neonatal Mortality Rate (NNMR), Infant Mortality Rate (IMR), Child Mortality Rate (CMR), Under-five Mortality (U5MR) and Maternal Mortality Ratio (MMR) in Ethiopia by residence and regions.

3.2.1 Neonatal Mortality (NNMR)

In Ethiopia neonatal mortality rate decreased from 58.1 deaths in 2000 to 41 in 2005 and further decreased to 37 deaths per 1,000, in 2011. There observed a 4.0 and 21.1 percentage point changes during the periods of 2005 – 2011 and 2000 – 2011, respectively, at country level.

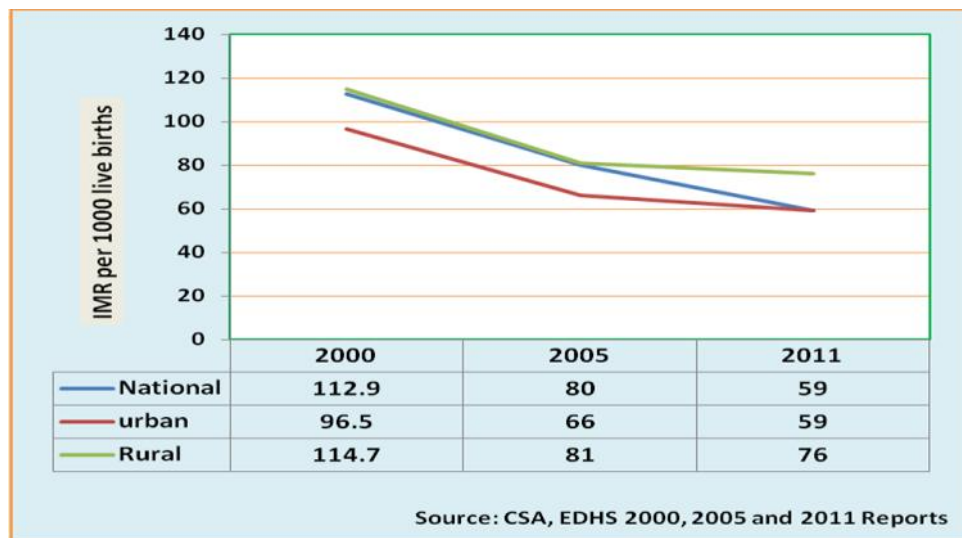
Neonatal Mortality in urban areas is consistently lower than in rural areas. It was 46.3, 35, 41 deaths per 1,000 live births compared with 59.5, 41, 43 deaths per 1,000 live births in rural areas in the last three surveys, respectively. The pattern of the change in neonatal mortality during the years 2005-2011 showed an increasing situation both in the urban (by 6.0 percentage points) and in rural (by 2.0 percentage points) areas despite the various efforts the government is making in the country. Trend during the twelve years of 2000-2011, however, is a declining by 5.3 and 16.5 percentage points in urban and rural areas, respectively.

The regional neonatal mortality rate differentials are ranging from the lowest 21 deaths per 1,000 live births in Addis Ababa to the highest 62 deaths per 1,000 live births in Benishangul-Gumuz regions in 2011.

3.2.2 Infant Mortality Rate (IMR)

Infant mortality rate is the probability of dying between birth and the first birthday of life. This rate is often used as an important indicator of the status of health in a country. Infant mortality rate decreased from 113 deaths per 1000 live births in 2000 to 80 in 2005 and further to 59 deaths per 1,000 live births in 2011 at country level. Over the past three surveys infant mortality is higher in rural areas (114.7, 81, 76, deaths per 1,000 live births) than in urban areas (96.5, 66, 59 deaths per 1,000 live births).

Fig. 3.3 Trends in IMR at Country Level by years (0-5 years) Five years preceding the surveys



The pattern of infant mortality change shows that it has been reduced in 2011 by 21 and by 53.9 deaths per 1000 live births from what it has been in 2005 and in 2000, respectively, at national level. The decline was 7 and 37.5 for urban and 5 and 38.7 deaths per 1000 live births for rural areas during the above similar period of 2005 – 2011 and 2000 and 2011, respectively.

Table 3.3 Trends and Level in IMR by Residence at country level

Residence	Changes (%)	
	2011 over 2005	2011 over 2000
Total	-21	-53.9
Urban	-7	-37.5
Rural	-5	-38.7

Source: CSA, Ethiopian Demographic and Health Survey Reports of 2000, 2005 and 2011

The infant mortality rate in the country has wide regional variations ranging from a low of 40 deaths per 1,000 live births in Addis Ababa to a high of 101 deaths per 1,000 live births in Benishangul-Gumuz regions.

3.2.3 Child Mortality Rate (CMR)

Child mortality is the probability of dying between exact age one and five. Childhood mortality in general and infant mortality in particular are often used as broad indicators of social development or as specific indicators of health status.

Child mortality decreased from 84.5 deaths per 1,000 live births in the 2000 to 56 in 2005 and further to 31 in 2011 with a decline of 44.6 and 63.3 percent during the period 2005 -2011 and 2000 – 2011, respectively. Childhood mortality is higher in rural areas (87.8, 58, and 42 deaths per 1,000 live births) than in urban areas (57.6, 34, and 25 deaths per 1,000 live births).

Child mortality has shown encouraging trends in the last few years. The overall child mortality has been reduced by 25 and 53.5 deaths per 1000 live births in 2011 over 2005 and 2000, respectively as the same table shows in the change column. The child mortality, although less than the rural pace, has declined by 9 deaths per 1000 live births in 2011 from what it was in 2005. The rural areas reduced child mortality by nearly double rate than the urban areas in 2011

from 2005 (-16 deaths per 1000 live births). The urban and rural areas generally reduced this mortality indicator by 32.6 and 45.8 deaths per 1000 live births in 2011 from 2000.

Table 3.4 Trends and Level in CMR in Ethiopia by Residence in the five years preceding the surveys

Residence	CMR			Changes (deaths /1000 live births)	
	2000	2005	2011	2005-2011	2000-2011
Total	84.5	56	31	-25	-53.5
Urban	57.6	34	25	-9	-32.6
Rural	87.8	58	42	-16	-45.8
Urban-Rural Difference	30.2	24.0	17.0	-7	-13.2

Source: CSA, Ethiopian Demographic and Health Survey Reports of 2000, 2005 and 2011

3.2.4 Under Five Mortality Rate (U5MR)

The Ethiopian government has prioritized child health and promulgated a child survival policy, which is believed to have significantly helped to reduce child mortality. Recent evidences show that Ethiopia has already achieved the under-five mortality goal well before the deadline in 2015. However, there exist significant disparities across socio-economic groups and the national regional states.

Under-five mortality rate showed fast declining trend from 187.8 deaths per 1000 live births in 2000 to 132 in 2005 and again to 88 deaths per 1000 live births in 2011. Under Five Mortality is higher in rural areas (192.5, 135, and 114 deaths per 1,000 live births) than in urban areas (148.6, 98, and 83 deaths per 1,000 live births).

Under five mortality rate has shown a 44 deaths per 1000 live births reduction in 2011 over 2005 and almost 100 deaths from that of the 2000 at national level. During 2005-2011 the urban areas of Ethiopia have reduce under five mortality by 15 deaths while the rural areas did by 21 deaths per 1000 live births. However, the under five mortality reduction was 65.6 and 78.5 deaths per 1000 live births during the eleven years of 2000-2011.

Under five mortality rate shows wide regional difference It ranges from 53 per 1,000 live births in Addis Ababa to 169 per 1,000 live births in Benishangul-Gumuz regions in 2011.

3.2.5 Maternal Mortality Ratio

The maternal mortality ratios of Ethiopia for the period 2000, 2005 and 2011 as 871, 673 and 676 deaths per 100,000 live births. It indicates that it decreased between 2000 and 2005 by 22.7%, but slightly increased again between 2005 and 2011 by 0.44%. The rate of reduction is relatively slow and this insufficient progress calls for renewed attention to diagnose the bottlenecks and design interventions that address the bottlenecks and significantly contribute to reduction of maternal deaths in the country.

3.2.6 HIV Prevalence Rates

Ethiopia has approved the 2000 UN Resolution 60/262 on HIV and has developed and implemented a Multi-sectoral Plan of Action for Universal Access to HIV Prevention, Treatment, Care and Support (2007–2015).

Table 2.18 shows the findings of the 2005 and 2011 demographic and health surveys. The data show almost a stalled prevalence of infection rates estimated at 1.9% and 0.9% for women and men in 2005; and a 1.9 % for women and 1.0 % for men in 2011. It revealed no change of the prevalence for women but 0.1 percentage points increase for men during the period of 2005 - 2011.

There is, however, a marked difference between urban and rural areas for both sexes. In urban areas, the prevalence for women declined from 7.7% in 2005 to 5.2% 2011 where as for men it increased from 2.4% in 2005 to 2.9% 2011. In rural areas, the prevalence for women reveals increasing trend from 0.6 % in 2005 to 0.8% in 2011 but for men declined from 0.7% in 2005 to 0.5 % in 2011. Generally we can note a decline of 2.5 and 0.5 percentage points for women and men in urban area and an increment of 0.2 percentage points for women as well as a decline of 0.2 percentage points for men in rural Ethiopia during the period of 2005 -2011.

Table 3.5 Trends, Levels and changes in HIV Prevalence Rates for Women and Men aged 15-49 in Ethiopia by Residence and region (% HIV Positive).

Residence	HIV Prevalence Rates				Change (2005-2011) (percentage points)	
	2005		2011		Women	Men
	Women	Men	Women	Men		
Total	1.9	0.9	1.9	1.0	0	0.1
Urban	7.7	2.4	5.2	2.9	-2.5	0.5
Rural	0.6	0.7	0.8	0.5	0.2	-0.2

Source: CSA, Ethiopian Demographic and Health Survey Reports of 2005 and 2011

3.2 Migration

The third component of population dynamics is migration. Migration has internal (with in the national territory) and international (outside the national territory) divisions. Due to the complexity of migration and the serious problems with migration data availability this profile is confined only to internal migration. This report, therefore, overviews the internal migration situation of Ethiopia during the 1994 -2012 using the 1994 and the 2007 censuses as well as the 2012 inter censual enumeration.

3.2.1 Internal Migration

Internal migration refers to the movement of people from place to place within a national territory for permanent or semi permanent residence. It includes region to region, urban to urban, urban to rural, rural to rural and rural to urban movements of people.

The proportion of internal migration at country level in 1994 was 6.91 million which was accounting for 14.1% of the total population of the country. Out of this 3.19 million (13.1%) were male migrants while the rest 3.72 million (15.2%) were female migrants.

In 2007 the total number of internal migrants increased to 12.222 million (16.6% of the total population of the country) of which 15.95 and 17.3 percent were male and female migrants, respectively.

Regionally the highest proportion of internal migrants, 46.6 percent (46.5 percent of male migrants and 46.4 percent of female migrants) in 1994 and 47.6 percent in 2007 (45.2 percent of male migrants and 49.7 percent of female migrants) were registered in Addis Ababa.

The lowest proportion of in migrants in 1994 (9.8 percent, (8.9% male and 10.6 % female migrants) and 2007 (10.3 percent (10.1% male and 10.5% migrants) were recorded in SNNP and Somali regional states, respectively. In both census years, both at national and regional levels the proportion of female migrants were higher than the males parts.

CHAPTER FOUR

POPULATION AND SOCIOECONOMIC DEVELOPMENT

4.1 Macro economy

4.1.1 Gross Domestic Product (GDP) and GDP Per capita

Gross Domestic Product and GDP per capita are among the commonly used indicators of economic development with respect to national population. The Ethiopian economy is among the fastest growing economies of the continent. The total GDP of the country was 94.4 billion birr in 2005 which has increased to 159.2 billion in 2010 and further raised to 559.6 billion birr in 2013 with 11.5, 11.4 and 9.7 percent annual growth rate, respectively. The economy is agriculture dominated economy with a rapidly growing service sector from year to year. Agriculture was taking 47.1 percent of the national GDP in 2005. This agricultural GDP share declined to 41.1 in 2010 and further to 42.9 percents in 2013 while the service sector was sharing increasingly higher proportion of the national GDP contribution with 40.4, 46.6 and 45.2 percents in 2005, 2010 and 2013, respectively.

The GDP per capita, the ratio of total GDP to the total population of the country, is showing improvements from time to time though it is among the low per capita level groups of the global economy. The average GDP per capita of an Ethiopian citizen was 1,172 birr (132.6 USD) in 2000. This has grown to 1,441 birr (216.6 USD) in 2005 and further to 10,051.5 birr (550 USD) in 2013 with 8.0, 10.7 and 10.4 percents annual growth rates in 2005, 2010 and 2013, respectively. (Table 4.1).

Table 4.1 Distribution of GDP by sectors (in '000' birr), % share

Sectors	2005/6			2010/11			2012/13		
	GDP (000)	%	Annual Growth Rate (%)	GDP (000)	%	Annual Growth Rate (%)	GDP (000)	%	Annual Growth Rate (%)
Agriculture	44,062,631	47.1	10.9	64,698,256	41.1	9.0	238,700,000	42.9	7.1
Industry	12,561,013	13.4	10.2	21,177,988	13.4	15.0	69,100,000	12.4	18.5
Services	37,747,374	40.4	13.3	73,368,452	46.6	12.5	251,800,000	45.2	9.9
Total GDP	94,371,317		11.5	159,244,695		11.4	559,600,000	100	9.7

Source: Ministry of Finance and Economic Development, 2003, 2004 and 2005E.C. Annual Review Report.

Table 4.2 Distribution of GDP Per capita (in USD and Birr) and Annual Growth Rate

2005/6			2010/11			2012/13		
USD	Birr	Annual Growth Rate (%)	USD	Birr	Annual Growth Rate (%)	USD	Birr	Annual Growth Rate (%)
216.6	1,441.0	8.0	382.2	1,946.4	0.7	550	10,051.5	10.4

Source: Ministry of Finance and Economic Development, The 2003, 2004 and 2005E.C. Annual Review Reports.

4.1.2 Human Development Index (HDI)

Human Development Index (HDI) is another indicator of socio-economic development based on improvements in education, health and life expectancy. It was 0.250 in 2000 and improved to 0.287 in 2005. This result again increased to 0.383 in 2011, according to the United Nations Human Development Report of the 2011. The Ethiopian Human Development Index has grown by 14.8% from 2000 to 2005 and by 33.5% from 2005 to 2011 (Table 4.3). The average life expectancy also, according to the same source of the UN, is getting improved from 51.4 years for both sexes in 2000 to 53.8 years in 2005. Life expectancy has further improved to 56.1 in 2011

Table 4.3 Levels and Trends in Human development Index and Life Expectancy of Ethiopia

Development Indicators	2000	2005	2011	2012
HDI	0.250	0.287	0.383	0.396
Life Expectancy (both sexes, years)	51.4	53.8	56.1	59.7

Source: United Nations (2000, 2005 and 2011). Human Development Reports 2000, 2005 and 2011.

4.1.3 Labor Force

The labor force size of the country is increasing from time to time following the growing population of the country. The total labor force was 36.63 million in 1994 out of which 26.5 million (72.4%) was economically active. By economically active we mean the proportion of the population aged ten years and above that is ready to work which includes those employed and unemployed but ready to work if job is available. This size grew to a total of 50.98 million in 2007 out of which 35.33 million (69.3%) was economically active. The total labor force of the country has grown by 39.2% between 1994 and 2007. As the lion share of the country's population is residing in the rural areas the largest proportion of the labor force is in the rural areas of the country taking 41.57 million in 2007 out of which 30.16 (63.4%) is economically active. The urban areas of the country, on the other hand, share relatively smaller proportion of this labor force size, 9.41 million in the same year of which 5.16 (75.1%) are economically active. In 2007, 81.5 percent of the total labor force of the country is concentrated in the rural areas while the urban areas take the rest 17.9 percent.

Regionally the Oromia and Amhara regions are regions with the highest total labor force with 17.87 million (of which 13.09 million active) and 12.28 million (of which 8.51 million active), respectively, in 2007. The highest proportion of economically active labor force was in Benishangul-Gumuz region (76.3%) while the lowest was that of Somali region (57%).

4.1.4 Unemployment Rate

Unemployment rate is the percentage share of the unemployed population from the economically active population. Unemployment rate in Ethiopia was 2.9% in 1994 and has increased to 3.85 in 2007 showing a 0.95 percentage points increase between 1994 and 2007. The distribution of unemployment rate by sex shows that the female unemployment rate is higher (3.1% in 1994 and 4.4% in 2007) compared with the male unemployment rate (2.8% in 1994 and 3.3 in 2007). The increase in unemployment rate is about three times more for females (1.3 percentage points) than for males (0.5 percentage points) between 1994 and 2007.

The data on unemployment by residence revealed a higher rate in urban areas both in 1994 and 2007 (22% in 1994 and 17.6% in 2007) than in the rural areas (0.7% in 1994 and 1.4% in 2007). Similarly at national level the pattern of unemployment is higher for females.

Regionally Dire Dawa (22.9%), Addis Ababa (22.5) and Harari (11.5%) have the highest unemployment rate in 2007 while lowest were in Benishangul-Gumuz (1.8%) and Amhara (1.9%) in the same year under discussion.

4.1.5 Poverty

Trend in the proportion of population below poverty line shows decline from time to time. In 1995 38 percent of the country's population was below poverty line while this has declined to 29.6 percent in 2011 at national level as the GTP progress report revealed.

The poverty level by residence shows that 25.7 and 30.4 percent of the urban and rural population of the country is found in poverty in 2011 as the same report indicated.

4.2 Basic social Services

Basic services such as drinking water supply, educational and health facilities, electric power, and the like need reliable demographic information while they, at the same time, are basic indicators of level of quality of life.

4.2.1 Access to Safe Drinking Water

The safe drinking water coverage in Ethiopia is steadily improving from time to time as the previous censuses showed. The national safe drinking water coverage of Ethiopia was 23.9 percent in 1994 which increased to 45.5 percent in 2007. The censuses have shown significantly wide gap in safe drinking water supply coverage between urban and rural areas. The urban areas of the country by far have high coverage (81.2 and 91.9 percents in 1994 and 2007, respectively) compared with the rural areas (14.8 and 34.5 percents in 1994 and 2007, respectively).

Region wise, Addis Ababa (98.6%), Dire Dawa (87.7%) and Harari (76.9%) have the highest safe drinking water supply coverage while Somali (26.3%), Afar (31.2%), Benishangul-Gumuz (36.7%) and Oromia (37.9%) were identified as low safe drinking water supply coverage regions in 2007.

4.2.2 Access to Electric Power Supply

Of the country's total housing units 17.4 percent got access to electric light in 2007. During the same year 2.5 percent of the rural areas and 79.9 percent of the urban areas were made accessed to electric light service. There is a wide gap between urban (79.9%) and rural (2.5%) areas informing us that much has to be done to narrow the gap observed.

Regionally, the three urban regions of the country take the maximum coverage. Addis Abba (99.4%) by far Harari (95.5%) and Dire Dawa (93.8) have highest service coverage of urban electric light supply in 2007 while the lowest urban electric light coverage is in Amhara region 95.2%.

4.2.3 Education

Population and education have strong and two way relationship. This is because the size of population, school age population in particular, can determine educational expenses in various ways.

4.2.3.1 Educational Access

Three common measures of educational access are used here; each of which considers different segment of the population, i.e Gross Enrollment Rate (GER), Net Enrollment rate (NER) and Literacy Rate (LR).

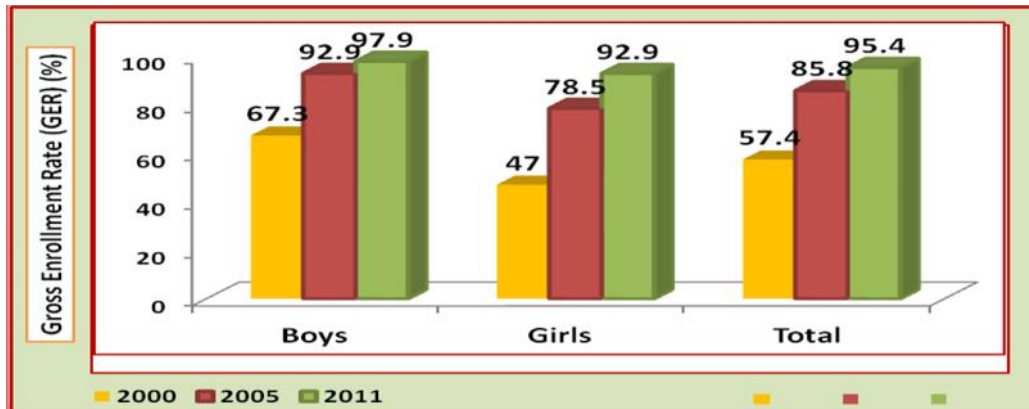
The access to educational services in Ethiopia has improved considerably in the last few years due mainly to the government's emphasis to the sector. Rapid expansion of school facilities with huge investment to the rural parts of the country where the larger proportion of the population resides is the major reason together with community awareness creation on education.

i. Gross Enrollment Rate (GER)

A. Primary Gross Enrollment Rate

Gross Enrollment Ratio (GER) is the number of pupils (irrespective of age) enrolled at a particular grade level as a percentage of the corresponding school age population officially belonging to that particular school level. Accordingly, Gross primary school enrollment is the percentage of total enrolment in primary schools, irrespective of age, from the corresponding primary school age population, officially categorized as primary, aged 7-14 years.

The primary school enrollment ratio for Ethiopia, as indicated in figure 3.5 below, depicts increasing trend for both boys and girls. It was increased from 57.4 % in 2000 to 85.8% in 2005 and further to 96.4 % in 2011. In all the three respective years indicated above, the GER for boys (67.3, 92.9 and 99.5 percents) is continuously higher than girls (47, 78.5 and 93.2 percents) over the three years under consideration.

Fig. 4.1 Trends and Levels in Primary Gross Enrollment Rate (GER) of Ethiopia by year

Source: MoE (2011). Educational Abstract Annual Abstracts 2000, 2005 and 2011

. There is a wide difference among regions in terms of primary gross enrollment ratios with the highest (132%) in Gambella regional state and the lowest in Afar (40.1%) and Somali (61.3%) regional states in 2011. Gambella is leading in both boys and girls GER than other regions. Amhara and Addis Ababa are unique regions of other regional states in their better girls GER than boys in 2011 as table 3.1 reveals (Amhara 104.9 % GER of girls vs. 103.4% GER boys) and Addis Ababa 103.8% GER girls vs. 102.4% GER boys).

B. Secondary Gross Enrollment Rate

At the secondary school level (grades 9-12) in 2000 the national average GER were 14.8, 10.9 and 12.9 percents for boys, girls and both sexes, respectively which have increased to 54.2, 20.3 and 49 percents, respectively in 2011. There is a wide difference at the country level GER between boys and girls which is also true at regional levels.

Regional disparity is one fact observed in the country's education which the Ethiopian government is working on to narrow the gap, if not to close at all. In 2011 at regional level Addis Ababa city Administration has the highest (108%) GER while Afar regional state has the lowest (10.2%) which was slightly lower than Somali regional state (11.7%).

ii. Net Enrollment Rate

Net Enrollment Rate (NER) is the number of pupils enrolled at a particular grade level who officially belong to that school level as a percentage of the corresponding school age population officially categorized in that particular school level, in a given year.

The primary net enrollment ratio for the country has been increasing between 2005 and 2011 for both sexes with slightly higher for boys compared to girls. In 2005 the net enrollment ratio for primary schools (1-8) was 73.9% and increased to 85.3% in 2011 for both sexes. The NER for boys was 78 and 87 percents while it was 69.8 and 83.5 for girls in 2005 and 2011 both of which have shown encouraging improvements over the past five years in the country. Net enrollment ratio is usually lower than the gross enrollment ratio since it excludes over-aged and under-aged pupils that are included in the gross enrolment rate.

Like gross enrollment ratio, there is a difference among regions in terms of primary net enrollment ratios with the highest in Gambella region (97.6%) and the lowest (31.9%) in Afar region in 2011. A very unique thing here to note is the fact that in three of the regional states of the country the net enrollment rate of girls is better than that of boys Tigray, Affar and Amhara regions had more net enrollment of girls than boys in 2011 which is unusual in other regions and in the years before. The attempt by the government here is to balance the situation between boys, girls as well as among regions and between that of urban and rural areas.

iii. Literacy Rate

Literacy, one's ability to read and write a sentence in any language, is a very crucial pre-condition for any socio-economic development. In the Ethiopian case, a person is considered as literate if he/she can read and write a simple sentence in any language while literacy rate is the proportion of population aged ten and above able to read and write.

Literacy rate has been increasing over the past years in the country in general and in regions in particular. During the second population and housing census (1994) 29.8%, 16.9 % and 23.4% of Ethiopian male, female and both sexes population aged ten years and above were literate, respectively. These figures have further improved in the third population and housing census of 2007. According to the 2007 Population and Housing Census of Ethiopia, 46.2, 33.3 and 39.8 percents of the male, female and both sexes population were found to be literate.

Regionally, Addis Ababa City Administration had the highest literacy rate (85%) followed by Dire Dawa City Administration (61.4%) while the lowest literacy rate was in Somali regional state (14%) followed by Afar regional state (17.3%) for both sexes in 2007.

4.2.3.2 Gender Parity Index (GPI)

Gender Parity Index (GPI) is the ratio of female to male Gross Enrolment Rate (GER).

According to table 4.4 below gender parity indices in Ethiopia were 0.84, 0.90 and 0.94 at primary level, and 0.7, 0.63 and 0.76 at secondary level, in 2005, 2007 and 2011, respectively. The data shows a better GPI for the primary school (1-8) compared to the secondary school (9-10). This implies that there was more girls' enrolment at primary school than secondary school.

Table 4.4 Levels and Trends in GPI by region, school level and year

Regions	Primary (Grades 1-8)			Secondary (Grades 9-10)		
	2005	2007	2011	2005	2007	2011
Ethiopia	0.84	0.90	0.94	0.7	0.63	0.76
Tigray	0.9	0.98	1.00	0.6	0.89	1.05
Afar	0.8	0.77	0.96	0.9	0.58	0.86
Amhara	0.9	0.96	1.01	0.9	0.83	1.00
Oromiya	0.6	0.85	0.89	0.6	1.22	0.74
Somali	0.5	0.85	0.91	0.5	0.39	0.72
B.Gumuz	0.6	0.76	0.78	0.5	0.56	0.73
SNNPR	0.6	0.84	0.88	0.5	0.47	0.66
Gambela	0.6	0.83	0.90	0.3	0.31	0.64
Harari	0.7	0.82	0.84	0.8	0.63	0.71
Addis Ababa	1.0	1.00	1.01	0.8	0.98	0.76
Dire Dawa	0.8	0.85	0.91	0.7	0.66	0.83

Source: Ministry of Education Educational Statistics Annual abstract 2000/1, 2005/6

Regionally, a perfect balance between boys and girls is recorded in Tigray (GPI of 1.0) while in Amhara and Addis Ababa the girls enrollment rate exceeds that of the boys enrollment at primary level in 2011 as indicated on table 6.8. In general GPI in Ethiopia has a good level and trend though it is a little bit lower at secondary levels.

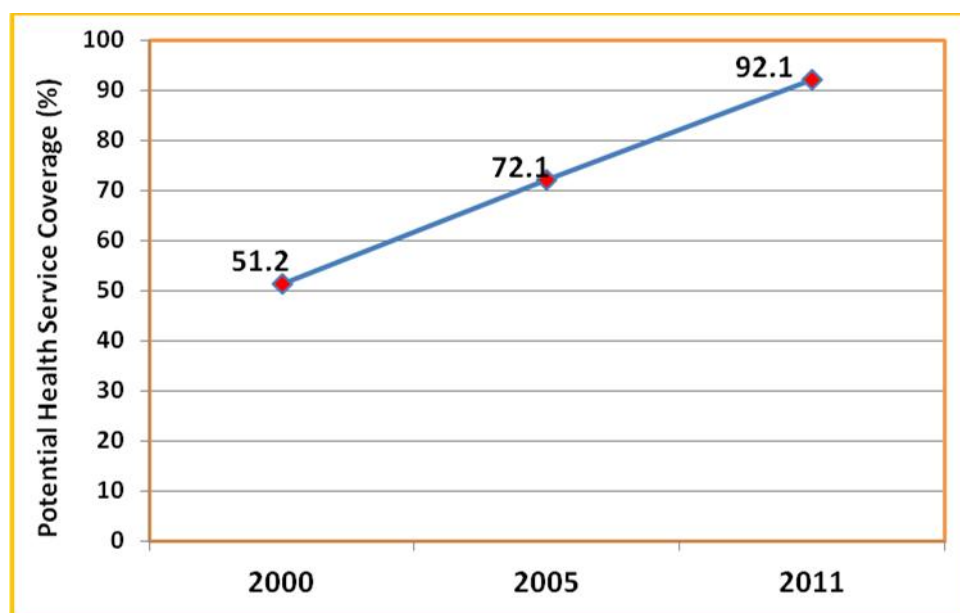
4.2.4 HEALTH SERVICES

Health Care is one of the essential components of basic social services that have a direct linkage to the growth and development of a country. Improved health provision is one guarantee for having healthy productive citizens for the overall socio-economic development. Rapid Population growth, on the other hand, affects the amount of resource to be allocated for health care. Change in population size, age structure and spatial distribution also affects the amount and type of health services. So, harmonizing population growth with health facilities is very important issue for socio-economic development.

In the last two decades Ethiopia has shown encouraging results in health service coverage as well as a remarkable achievements realized by the expansion and construction of health facilities and improvement of the quality of health service. The health extension program in the country, among many others, is an innovative health service improvement program that aims at universal coverage of primary health care. The program is based on a strategy of expanding physical health infrastructure and developing health human resources, particularly the extension workers who provide basic preventive and curative health services as well as awareness to the rural and more recently to the urban communities in the country.

4.2.4.1 Potential Health Service Coverage

Potential health service coverage is the population covered in percentage based on the existing health centers and health stations in catchment's area. In 2000 the national potential of health service coverage was 51.2%. In 2005 it improved to 72.1 percent. This further has raised to a 92.1 percent coverage in 2011. The national potential health service coverage difference between 2000 and 2011 was 40.9 percentage points which accounts for 79.9 percent of that of the 2000 PHSC.

Fig. 4.2 Trends in National Potential Health Service Coverage (%)

Source: Ministry of Health, Health and health Related Indicators 2000/1, 2005/6 and 2010/1

4.2.4.2 Maternal Health Care

The maternal health care has very significant role in reducing maternal and childhood morbidity and mortality. It is also one of the common indicators and measure of poverty. This section looks at the levels and trends in the ANC, Delivery and PNC in Ethiopia across the three demographic and health surveys the country has conducted.

i. Antenatal Care (ANC) Coverage

The national level antenatal care coverage in Ethiopia was 26.7percent in 2000 which has slightly improved to 27.6 percents in 2005 and further to 33.9 percent in 2011. In the urban areas, the ANC coverage was 66.6% in 2000 and 68.9% in 2005. In 2011 it further increased to 76.0%. In the rural areas ANC was 21.6, 23.7 and 26.4 percents in 2000, 2005 and 2011, respectively.

The ANCC change between 2000 and 2011 were 7.2 percentage points for the country as a whole while it was 9.4 and 4.8 percentage points for urban and rural areas, respectively. These

changes are 6.3, 7.1 and 2.7 percentage points between 2005 and 2011 for the country as a whole, in urban and rural area, respectively.

Region wise, Addis Ababa has the highest ANC coverage (93.6%) in 2011 while Somali has the lowest (21.5%) in 2011. Concerning the ANC coverage change among regions Gambella, Affar and Harari are noticeable for their highest change (17.9, 17.3 and 15.2 percentage points, respectively) for the five years period between 2005 and 2011 while Amhara and Tigray lead in ANC coverage change for the twelve year period between 2000 and 2011 (14.7 and 13.7 percentage points, respectively).

ii. Deliveries Assisted by skilled Birth Attendants

This indicator explains the proportion of women who are assisted by skilled health professionals during deliveries..

Five percent of the mothers in Ethiopia had been receiving assistance from skilled health professionals in 2000 which has slightly improved to 5.7% in 2005 and to 10% in 2011. Health professional assisted deliveries in urban areas were 34.5% and 2.3% in rural areas in 2000 both of which improved to 44.6% and 2.6% in 2005, respectively. In 2011 this figure reached 50.8 percent in urban areas and 4.0 percent in rural areas. There is a wide gap in the service between urban and rural areas of the country.

The change in professional assisted deliveries between the five years period of 2005 and 2011 was 4.3 percentage points at national level. The urban and rural areas recorded 6.2 and 1.4 percentage points change in the same indicator. The country recorded a 5.0 percentage points increase in professional assisted deliveries at national level in 2011 compared to its record twelve years back in 2000. This change is observed to be higher in the urban areas (16.3 percentage points) compared with the rural areas (1.7 percentage points).

iii. Postnatal Care Coverage

Quite a large number of maternal health complexes arise on the child as well as on the mother within 48 hours after birth. To protect this it is recommended for mothers to have postnatal care within two days of birth.

Table 4.5 Levels and Trends in the percentage of Women with Postnatal check up in the first two days after birth and changes by region, residence and year

Residence/ Region	Postnatal checkups (%)			Changes (% pts)	
	2000	2005	2011	2005-2011	2000-2011
Total	7.8	4.6	6.7	2.1	-1.1
Urban	38.1	30.9	32.2	1.3	-5.9
Rural	3.9	2.1	2.7	0.6	-1.2
Tigray	14.9	6.9	13.1	6.2	-1.8
Afar	6.4	4.6	6.0	1.4	-0.4
Amhara	4.1	3.3	5.1	1.8	1
Oromiya	6.4	3.7	5.0	1.3	-1.4
Somali	16.8	3.2	5.4	2.2	-11.4
Ben- Gumuz	9.8	3.2	6.5	3.3	-3.3
S.N.N.P	6.4	2.9	5.5	2.6	-0.9
Gambela	24.9	10.5	18.8	8.3	-6.1
Harari	39.6	23.7	28.4	4.7	-11.2
Addis Ababa	69.4	49.4	47.7	-1.7	-21.7
Dire Dawa	36.6	22.6	18.7	-3.9	-17.9

Source: CSA EDHS Reports of 2000, 2005 and 2011 (% changes are computed based up EDHS data)

4.2.4.3. Health Human Resource and Infrastructure

i. Population to Health professionals Ratio

The size of population per one physician was 47,836 in 2000. This has been reduced to 29,777 people per physician in 2005, and raised again to 53, 642 population per physician in 2011. The population per physician has almost doubled in 2011 from what it was in 2005 indicating the faster increase of population over the number of physicians in the country. The population per physician ratio of 53, 642 is too large compare to the WHO standard ratio of a maximum of 10,000 people per physician. One nurse was serving 8,461 people in 2000. This figure was reduced to 3,883 people per nurse in 2005 and further 2,272 people per nurse in 2011. The population to nurse ratio is in a good trend which is better than the WHO standard ratio.

At regional levels, Amhara has the highest population size per physician (118,805) while lowest was recorded in Harari (8,465) in 2011. Nurses in SNNP were found busy in 2011 serving 4,310 people per nurse while nurses in Harari served relatively lower number of people (750 per nurse) in 2011.

ii. Population to Health Infrastructure Ratio

The national level population per hospital ratio was 594,036 people in 2000 but was slightly reduced to 543,964 in 2005. This increased to 671,402 people per hospital in 2011. The ratio per health center was 171,058 in 2000 and has been improved to 118,216 in 2005 and further to 30,794 people per health center in 2011.

CHAPTER FIVE

POPULATION STABILIZATION PROSPECTS

The size and composition of the country's population can exert a powerful influence on its development. Population size and growth influence the range of industries the country can support, the pool of talent that can be called on, the potential of communities, and the demand for and supply of government services. Similarly, the size, composition and distribution of the population affect the social, economic and physical environments.

However, it is very essential to note here that the negative impacts of population are determined by the strength of the efforts made to guide the demographic process in a desirable way so as to adjust the huge and growing population for opportunities through proper and timely care that countries take.

Population and development are closely related things in two directions because people are both beneficiaries and effectors of socio-economic development. Population affects socio-economic development through its three variables of fertility, mortality and migration which determine the size, age-sex and spatial distribution, and growth rate of population. This, in turn, determines the labor force and market supply which are critical factors in an economy. Population also plays critical role in determining the amount of national saving, investment and public consumption because the larger the population size and the higher its growth the higher will be the amount of public consumption and so the smaller will be the national savings and investments at the end of the day. The socio-economic development conditions, on the other hand, also affect the demographic situations and affect the fertility, mortality and migration situations because all the contraception, health services and spatial movements of people are guided highly by the existing socio-economic conditions of any area. As a result it is necessary to see always the balance between population and socio-economic development side-by-side based on evidences on the ground.

5.1 Future Prospects of Ethiopian Population Size

Based up on the 2007 Population and Housing Census and the 2012 Inter-Censual Population Survey the Ethiopian Population is projected by Central Statistical Agency (CSA) for the coming years. The Medium variant projection projected the country's total population to be 85.8 million for 2013, 87.9 million for 2014 and 90 million for 2015. Table 5.1 below summarizes this by sex and region.

It is obvious that rapid population growth is likely to reduce per capita income growth and well-being, which tends to increase poverty. The effects of poverty become even more serious, especially where there is high rate of unemployment amongst the economically active population of a country. A major contributory factor to the high population growth is the declining but still high fertility levels which is largely responsible for the growing of the young population. This is occurring alongside considerable backlogs in developing human capital, improving living standards, building the needed infrastructure, as well as expanding access to services such as health and education, and to energy.

Table 5.1 Medium Variant Projection of Ethiopian Population Size by Sex and Region, 2013-2015.

Region	2013			2014			2015		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Ethiopia	85,838	43,165	42,674	87,952	44,205	43,748	90,075	45,250	45,902
Tigray	4,866	2,397	2,469	4,960	2,444	2,516	5,055	2,492	2,564
Affar	1,634	900	734	1,679	923	756	1,723	946	777
Amhara	19,626	9,831	9,795	20,019	10,026	9,993	20,399	10,215	10,184
Oromiya	31,948	16,043	15,906	32,816	16,473	16,343	33,692	16,907	16,785
Somali	5,165	2,822	2,344	5,307	2,887	2,420	5,452	2,955	2,498
Ben-Gumuz	947	480	467	976	495	481	1,005	510	496
SNNP	17,403	8,631	8,771	17,836	8,844	8,992	18,276	9,060	9,216
Gambella	383	200	183	396	206	190	409	213	196
Harari	220	111	109	226	114	112	232	117	115
Addis Ababa	3,120	1,480	1,639	3,195	1,515	1,680	3,272	1,551	1,722
Dire Dawa	415	208	207	427	214	213	440	221	219

Source: CSA, 2012 Inter-Censal Population Survey Report.

5.2 The Demographic Transition of Ethiopia

Ethiopia's demographic processes play a vital role in its development. In particular, structural changes that occur in the context of rapid population growth have a direct as well as indirect impact on national development. Areas of impact include economic growth, poverty reduction, resource allocation, productivity, and the general welfare and well-being of the population.

The theory of demographic transition states four stages of demographic development based on the past European demographic experiences. At all of these four stages the characteristics of fertility and mortality differs due mainly to the variation in socio-economic developments countries pass.

The first stage, stage one, is the stage of lower socio-economic development including health services so that both fertility and mortality are high due to the high impacts of diseases and epidemics increasing mortality and ignorance to family planning. The second stage, stage two, is the stage where different medicines began to be innovated to prevent disease and epidemics so that it is the stage where mortality began to decline, but fertility still remaining high. Stage three is the stage of introduction of family planning technology so that it is the stage of declining fertility. Therefore, this stage demographically is the stage of declining both fertility and mortality. The last stage is stage of low fertility and mortality achieved through better socio-economic development after long demographic and socio-economic measures.

Comparing Ethiopian demographic and socio-economic situation with the above stages of demographic transition one can find Ethiopia in the third stage where both fertility and mortality are declining. This decline in fertility takes us in to the concept of demographic bonus. The decrease in fertility results in the decrease of population size in the lower age groups (child age population) forming gradually a narrow based population pyramid than the former broad based one of high fertility. As a result the last high fertility group after whose fertility began to decline is a demographic bonus of high young labor supply to the country because after this group the excess supply of labor is reduced due to the declined fertility.

Therefore, Ethiopia now has huge young age population which it needs to critically put in production and use it for its socio-economic development which in the future it may not get again. If the country properly uses this demographic bonus resource it is a great opportunity for its development and, otherwise, it loses this young generation once and for all. It is, thus, important for Ethiopia to formulate strategies and programmes to deal with such issues in order to attain its objective of becoming a middle-income country by 2025.

In order to utilize this demographic bonus, the country has to improve sexual and reproductive health, create employment opportunities, increase resource allocation to population sector, and above all educate the youth to put them in production which require serious concern and investment rising from commitment to the issue. Besides, the country should further enhance integrating population variables into development planning and policies of major sectors of the economy and at all levels.

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