UNIT FOUR: HUMAN POPULATION

4.1 CONCEPT AND FACTS ABOUT HUMAN POPULATION

- *Population studies yield knowledge that is important* ***for planning, particularly by governments, in fields such as health, education, housing, social security, employment, and environment preservation****.*
- *Such studies also provide information needed to formulate government population policies, which seek to modify demographic trends in order to achieve economic and social objectives.*
- **Human population** is the number of people living in a definite area.
- The study of human population is also necessary for development and socio-economic activities.

COMPONENTS OF POPULATION CHANGE

- A change in the overall size of a population is the result of the collective effects of changes in

➢ **fertility**,

➢ **mortality** and

➢ **migration**.

- The three factors are collectively known as population-change *dynamics or determinants or components*.
- **Fertility** and **mortality** are biological factors, while migration is purely non-biological.
- The combined effect of the three factors controls the changes in population size and composition.

Fertility

- Is simply the occurence of birth

Measures of fertility

Fertility can be determined using different methods, but it is measured most commonly in terms of:

A. *Crude Birth Rate (CBR),*
B. *General Fertility Rate (GFR) and*
C. *Total Fertility Rate (TFR)*
D. Age specific fertility rate

- *Crude Birth Rate (CBR): this is the total number of births occurring in a given year, per 1000 population.*
- *General Fertility Rate (GFR): this one is the number of births occurring in a given year per 1000 women in the reproductive ages (i.e., women aged 15-49).*
- *Age Specific Fertility Rate (ASFR): this is the number of births that occur in a given year per woman in the reproductive ages, presented in fve-year age groups.*
- *Total Fertility Rate (TFR): this is the number of children a woman may have produced by the end of her reproductive period, given the current ASFR.*

Factors for having Fertility

Factors	Effects
1 **Age at marriage:** the age at which a person marries influences the number of children one can have.	**Early marriage:** more children are born to girls who marry early, because they are exposed to sex for more of their reproductive ages (15-49). They are also exposed to related health problems.
2 **Status of women:** important components of status include access to (or lack of) education, employment, family decision making, etc.	i **Education:** Education usually offers women access to information about how to limit family size, increase their marriage ages, use contraception, and so forth. ii **Employment:** Employment usually motivates women to limit family size, partly because they have less time for performing child-care tasks. Also,

Factors	Effects
3 **Socio-cultural factors:** religion, ethnicity and family structure.	**Religion**: the teachings of some religions oppose the use of contraceptive methods. This encourages large family size. **Ethnicity**: some communities are more biased toward males over females. **Family structure**: Some families need their children to contribute socioeconomically – for example, by working on family farms and by providing their parents with the status of having many children.
4 **Sex preference** (the desire to have children of one sex over the other)	When a family wants children of a particular sex (usually male), but produces children of the other sex, they are likely to keep having

- In developing countries, e.g., Ethiopia, birth rates are high because people want and need large families.
- Also, life expectancy is relatively short due primarily to poverty and its effects

- In developed countries, e.g., Japan, birth rates are low, often because people do not want to have many children. They prefer small family sizes.
- Also, life expectancy is relatively long due, primarily, to comparative wealth and its effects.

How Can Birth Rates be Reduced?

The United Nations stated that two basic conditions must be achieved if birth rates are to be controlled. These include

- *Improved status of women, including their rights to decide between the use of birth control and having children.*
- *Improved educational levels regarding family planning, particularly for women. Also improved access to family-planning supplies.*

Mortality

- Is simply the occurrence of death
- Mortality rates, though decreasing worldwide and are higher in the developing countries than in the developed ones.
- This difference is caused by variations in standards of living, nutrition, medical services, personal hygiene and environmental sanitation

Measures of Mortality

- Mortality become familiar with the following measures.
- *Crude Death Rate (CDR): this is the total number of deaths occurring in a given year, per 1000 people.*
- *Infant Mortality Rate (IMR): this is the number of deaths in a year among infants under one year of age, per 1000 live births.*
- *Child Mortality Rate (CMR): this is the number of deaths in a year among children between one and five years of age, per 1000 children between the same ages.*
- *Under-Five Mortality Rate: this is the number of deaths in a year among infants and children between birth and five years of age, per 1000 live births.*

- *Maternal Mortality rate (MMR): this is the annual number of maternal deaths occurring during pregnancy, child birth, or within two months after the birth or termination of pregnancy, per 1000 women between 15 and 49 years of age (reproductive age).*
- *Adult Mortality Rate (AMR): this is the number of deaths in a year among adults between 15 and 49 years of age, per 1000 adults in the same age group.*
- *Age-Specifc Death Rate (ASDR): this is the number of deaths that occur in a given year per 1000 of the population in five-year age group.*
- *Life Expectancy: this is the average number of years a newborn baby is expected to live if he/she is exposed throughout life to the prevailing pattern of age-specifc death rates.*

Africa's and Ethiopian high death rate is attributed to the following major factors:

- *Low standard of living*
- *Low access to health facilities*
- *Poor sanitary practices*
- *Civil war and political instability*
- *Wide spread of famine caused by recurrent drought*
- *Poor nutrition, and*
- *High incidence of disease and infections*

Characteristics of the African Population

- *The following are among the major characteristics of the African Population*
- *High fertility and mortality rates;*
- *Generally young population;*
- *Triangular population pyramid indicating the prevalence of high fertility and mortality rates;*
- *High age dependency ratio and youth dependency ratio and low old dependency ratio;*
- *Low life expectancy; and*
- *High population growth rate.*

Region	Crude Birth Rate per 1000 population	Crude Death Rate Per 1000 Population	Rate of Natural Increase (%)	Infant mortality rate per 1000 live Births	Life expectancy at birth (years)
World	20	8	1.2	46	67
Developed	12	10	0.2	6	74
Developing	22	8	1.4	50	65
Africa	36	12	2.4	74	53
Northern Africa	25	7	1.8	38	67
Western Africa	40	14	2.6	80	50
Eastern Africa	40	13	2.7	76	50
Central Africa	42	14	2.8	95	49
Southern Africa	24	15	0.9	48	50

Migration

- Migration involves movement of people and there by influences both the rate of growth and distribution of population just like the other two components of population change.
- Migration begins in an *area of* ***origin*** and is completed at *an area of* ***destination*** and might involve a stay of a substantial period one year or more
- When migrants cross an international boundary, the movement is called ***international migration***
- if the movement is within a national territory, it is referred to as ***internal migration***.

Causes of Human Migration

Many factors affect migration. These include

- ***economic,***
- ***social*** and
- ***Ecological considerations*** and
- **Climatic factor**
- These factors act in such a way as to '***push***' or '***pull***' migrants

- Pull factors are those which attract the migrant to a particular destination. For example, **good social and welfare services, a pleasant environment and political stability are typical pull forces.**
- Push factors, on the other hand, are forces which work in the migrant's home area.
- They impose pressures which persuade or compel a person to move away. For example, push factors include the impacts of **natural disasters (drought, flood, and famine), low wages, poor employment and political instability**

- ***Economic factors:*** are often regarded as the main motivation for migration, acting as pull or push factors. The principal economic force is the search for employment, accompanied by the exploitation of natural resources, such as minerals, and the availability of good communication networks.
- ***Social factors:*** that influence migration, negatively and positively, include social oppression, political control and the availability of housing, health care and training.
- ***Ecological factors:*** Environmental crises such as droughts, desertification and industrial accidents can have profound impacts on human migration. Environmental or ecological refugees have become the single largest class of displaced people in the world

Measures of migration

- **Immigration Rate(in migration)**: it is the number of people arriving at a destination per 1000 people in a given year.
- **Emigration Rate(out migration)** ;it is the number of departing people from an area of origin per 1000 people of the area of origin in a given year
- **Net Migration Rate (NMR)**: shows the net effect (balance) of immigration and emigration in an area.

Measures of Population Change

- Population change can be measure by the following ways;
- **Rate of natural increase**
- **Net migration rate**
- **Population Growth Rate (PGR):** in order to find the growth rate of a population, we consider **net migration rate** and **rate of natural increase**.
  PGR = BR – DR ± NMR = RNI ± NMR

- *The difference between fertility (births) and mortality* ***(deaths), which is called natural increase.***
- ***The balance between immigration (in-migration) and emigration (out-migration), which is known as net migration.***

Spatial distribution of human population

- Population distribution is the way that population is spread out over a given area.
- That area can be anything from a small region to the earth as a whole.
- For several reasons, human population is spread very unevenly over the earth's surface.
- This distribution of population forms a pattern.

- Population density, also termed as the spread of population over space,
- **Is measurable by the following ways**

	1. Crude density or Arithmetic density
	2. Agricultural density or ***Rural density***

- Crude density=$\frac{\text{total population of an area}}{\text{total area,in sq k.m,of the area}}$

- Agricultural density=$\frac{\text{agricultural/rural population}}{\text{cultivated land}}$

Factors of Population Distribution

- Numerous factors have positively and negatively influenced population distribution.
- The extreme current unevenness in population distribution is due to these factors:
- *Ecological (physical) factors*
- *Socio-economic factors*
- *Political factors*
- *Demographic factors*

- The availability of natural resources,
- the nature of topography,
- the productivity of the soil, and
- many other factors have resulted in an uneven distribution of people.
- There are densely and sparsely populated areas in the world.

Densely Populated Regions

There are three main belts of high population density and concentration in the world.

- These areas are also called “Population Clusters’’ or ‘’Population Nodes’’.
- The three belts alone account for well over two-thirds of the total world’s population. These regions are:

  1 Asiatic population belt

  2 Peninsular Europe

  3 Northeastern North America

Sparsely Populated Regions

In contrast to the above discussed population clusters, there are areas of thin population cover. These areas include:

1 **Tundra:-** These areas support only a very few nomadic peoples.
2 **Hot-dry lands:-** Include many of the tropical desert lands. Shortage of water and high temperature do not encourage permanent settlement. However, in desert areas where water is available, such as oasis and river basins, and mining sites, there are settlements located right in the heart of hot deserts. Example: the Sahara Desert.

3 **Hot-wet lands:-** Because of the unfavorable climate, there are few people living in these areas.
4 **High relief:-** Includes regions of mountainous areas with high altitude, rugged topography and cold temperature. These areas do not encourage large settlements because the terrain makes movement and interaction difficult.

5 **Areas with poor soil:-** Include very large areas of the world which are covered by infertile soil. Such areas do not support agricultural practices and hence are sparsely populated.

Continent	Population, in million	Area, in km_2	Density (p/km_2)
World	6,892	150,000,000	46
Africa	1030	30,251,000	34
Asia	4157	45,066,000	92.2
Europe	739	10,530,750	70.2
Latin America	585	17,825,479	33
North America	344	24,346,000	14.1
Oceania	37	7,772,021	4.7

Population density of the world and its regions in 2000

Sources of Population Data

- The following are among the most commonly used methods of gathering information about human populations
- Population data refers to population information, such as number, age, marital status, births and deaths, occupation, religion, educational status, and other characteristics of the human population information is important for many reasons.
- The data acquired through various methods is used for many purposes that include the following.
- *It provides statistical information for making decisions related to social and economic affairs.*
- *It indicates future requirements of the population in terms of social, health, education, employment and other socio-economic needs.*
- *It helps policy makers to forecast the needs of the population and to understand how to meet them.*

Sources of Population Data

The following three are the major source of population data

- Population census
- Sample survey
- Vital registration

Population Census

- Census is the main source of population data in many countries including Ethiopia.
- **Census** is usually defend as “The total process of collecting, analyzing, compiling and publishing demographic, economic and social data of all persons in a country or delineated territory at a specified time.”
- it is the official counting of all the people of a certain geographical area with a well defend boundary so as to collect socioeconomic and demographic information about the population.

- In Ethiopia, the census is one of the most important ways of collecting population data.
- So far, three censuses have been taken.
- The first was in 1984,
- the second in 1994 and
- the last one in 2007.
- Census in Ethiopia is conducted every ten years

The Main Features of Census

The following are the main features that distinguish census from the rest of the sources of population data.

- **Government Sponsorship:** *It is the responsibility of the national government to provide or seek the resources necessary to conduct census. Obtaining them requires adequate legislative support or legal authority.*

- **Defined territory:** *census refers to specified geographical unit such as state, country, or province. The unit needs to have its own demarcation or boundaries.*
- **Universality:** *Enumeration must include every person within the scope of the territory without omission or duplication. Census of population usually try to count every one in the country as of a fixed day, often known as Census Day.*
- **Simultaneity:** *The census should have a specific well-defned time, and it should be conducted simultaneously throughout the country.*
- **Individual Units:** *in censuses, data is collected on an individual basis. The information that is obtained normally relates to individuals rather than groups. It is compiled and published.*
- **Periodicity:** *Ideally, census should be taken at certain specified time interval, usually every ten or five years. For example, in the United States and Ethiopia, census is conducted every ten years, while Canada and the UK conduct census every five years.*
- **Expensiveness:** *Census is the most expensive method of data gathering. This is because of its universality which necessitates complete coverage of the entire territory and population of the place where the census is taken.*

II *Sample Surveys*

- It collects information only from a part of the whole population.
- They are usually undertaken to generate socio-economic and demographic data in greater detail than conventional censuses can provide.
- Surveys are usually undertaken during a period of transition between two consecutive censuses.
- They are employed to arrive at estimates of demographic characteristics (age, sex, marital status, etc), population size, population distribution, mortality, fertility and migration.
- Sample surveys are also an important source of population statistics in areas where census is not conducted.

As compared to census, sample survey is:

- *Less expensive because it does not involve the entire population;*
- *Capable of providing very detailed information about the population;*
- *If the sample takers are well-trained and strict supervision is in place, it can provide data of a better quality than census; and*
- *Able to estimate margins of error, or the accuracy of the data.*

III *Vital Registration*

- It refers to the continuous registration of such vital events as births, deaths, marriages and divorces.
- These events are recorded as they occur.
- Data on vital events are gathered from birth and death certificates, marriage licenses, divorce records and other official registers.
- The building up of a reliable vital registration system is an expensive and extensive process.

The completeness of registration and the reliability of the data gathered through vital registration can be affected by several factors including the following:

- *Level of literacy and awareness of the importance of population data in the population;*
- *Social custom may lead to non-registration as a result of superstitions or taboos;*
- *The rural population may be widely dispersed or inaccessible*

Factors Affecting the Quality of Data

i
ii
iii

- Inadequate financing.
- The use of different methods of census enumeration by different countries.
- Inadequate awareness about the importance of population data among the general population.
- Double entry (counting of a person twice).
- Neglecting or ignoring certain groups of people.
- False information about the age and the occupation of people.

POPULATION THEORIES

- Modern population theory is generally thought to have evolved in the late eighteenth century, in the writings of Malthus.
- Malthus's work stimulated interest in population and in the economic and social issues associated with it.

- The main purpose of population theory is to seek appropriate answers to the following population-related questions.
- *How large can world population ultimately become, and more particularly how many human beings can the planet feed and the environment sustain?*

- *How does population growth determine the socio-economic issues of countries?*
- *How do biological, economic, social, and political factors determine population growth?*

A. Malthusian (Malthus)

Population Increase

↓

Increased demand for food

↓

Less food per Person

↓

Increased mortality/death

↓

Decreased fertility/birth

↓

Decrease in population growth

B *Anti-Malthusian (Boserup)*

Population Growth

↓

Increased Demand for Food

↓

Improvement in Technology

↓

Population Growth Continues

Malthusian Population Theory

- Malthus warned of a constant tendency for human population growth to exceed food production.
- Malthus took an exceedingly pessimistic view. He believed that the supply of food can only increase by a constant amount, in ***arithmetical progression (1 – 2 – 3 – 4 – 5)***, but
- That the human population has a tendency to multiply in ***geometric progression,*** ***(1 – 2 – 4 – 8 – 16)***, multiplying itself by a constant amount each time.

- Malthus referred to the catastrophes as ***positive checks*** that control fast population growth and in the long term maintain a balance between population and resources.
- This would be in the form of famine, diseases or war.
- Such catastrophes would occur as human beings fought over increasingly scarce resources

- Malthus considered that, in order to avoid the inevitable occurrence of the positive checks, human beings should adopt ***preventive checks***.
- By preventive checks, Malthus meant “moral restraint”, which includes late marriage, avoiding sexual conduct before marriage and having fewer children

- Today, supporters of Malthus's pessimistic view, who fear that population growth will outstrip food supply and other resources, leading to the catastrophic consequences (the positive checks) predicted by Malthus, are called ***Malthusians or neo-Malthusians***.

Anti-Malthusian Population Theories

- Anti-Malthusians are optimists who argue against Malthus.
- two anti-Malthusian theories – one was developed by
- Karl Marx, and
- Ester Boserup.

Marxian Population Theory

- Marx stated that there could be no population problem under a socialist mode of production and of ownership of resources. He believed that population becomes a *problem* of *surplus* people only under capitalist modes of production.
- Marx focused on the economic structure of society and believed the solution would be found in a new social order

- "Boserup thought that "As the size of population increases,
- **Increased Demand for Food**
- **Improvement in Technology**
- **Population Growth Continues** it results in technological innovations and advancement."

she said that

"Necessity is the mother of invention"

World population growth trends

- The world's population has been experiencing continuous growth since the 15th century due to:

- The rapid increase in the size of the human population is attributed to many factors that include:
- *advancements in scientific knowledge, agriculture, industry, medicine, and social organization;*
- *humans; ability to control famine and disease, which have been major killers of humans;*
- *the relatively lower cost of importing vaccines, antibiotics, insecticides, and high-yielding varieties of seeds;*
- *Improvement in peoples living conditions, which have resulted in the decline of deaths from infectious and parasitic diseases;*
- *increase in life expectancy in most developing countries from about.*

WORLD HUMAN POPULATION GROWUTH TRENDS

Date	Population (millions)	Doubling time (years)
5000 B.C	50	-
800 B.C	100	4,200
200 B.C	200	600
1200 A.D	400	1,400
1700 A.D	800	500
1900 A.D	1,600	200
1965 A.D	3,200	65
1990 A.D	5,300	38
2020 A.D (estimate)	8,230	55

World population growth and doubling time

Region	Population (millions) 2010	Annual growth rate in % 1975 - 2009	Doubling time (year) 1975 - 2010
World	6,909	1.53	46
Asia	4167	1.62	43
Africa	1033	2.59	27
Europe	733	0.23	304
L.America	589	1.73	41
N.America	352	1.07	65
Oceania	36	1.49	47

Continents	1750	1800	1850	1900	1950	2000	2050
Africa	13.4	10.9	8.8	8.1	8.9	13.1	20.3
Asia	63.5	64.9	64.1	57.4	56.2	60.7	59.0
Europe	20.6	20.8	21.9	24.7	21.4	12.0	7.1
L. America	2.0	2.5	3.0	4.5	6.5	8.6	5.3
N. America	0.3	0.7	2.1	5.0	8.6	7.9	7.9
Oceania	0.3	0.2	0.2	0.4	0.5	0.5	0.5

Country	Population (million)	Percentage share
China	1,331	19.54%
India	1,171	17.20%
USA	307	4.51%
Indonesia	243	3.57%
Brazil	191	2.80%
Pakistan	181	2.66%
Bangladesh	162	2.38%
Nigeria	153	2.25%
Russia	142	2.09%
Japan	128	1.88%
Total	4,009	58.88%

- Africa has one of the world's largest populations.
- The continent is the world's second most populous next to Asia.
- According to the World Population Data sheet, by the mid of 2009, the continent had a total population of 999 million (nearly 1 billion).
- This makes up nearly 14.7 % of the world's total population

- Africa has one of the world's fastest growing populations.
- The continent has been experiencing rapid changes in its population size as a result of many factors including the interactions between fertility and mortality.
- Despite the gradual decline in the birth and death rates, the continent continues to experience high rateof population growth.

Year (AD)	Population in million	Year (AD)	Population in million
1000	50	1930	164
1200	61	1940	191
1400	74	1950	222
1600	90	1960	278
1650	100	1965	320
1750	100	1975	413
1850	100	1985	536
1900	130	1995	720
1920	140	2000	800

Population growth in Africa from 1000 to 2000 A.D

: Demographic characteristics of Africa by major regions

No	Region	CBR	CDR	RNI	TFR	IMR	NMR
1	Sub-Saharan Africa	39	13	2.6	5.3	80	-1
2	Northern Africa	25	7	1.8	3.0	38	-1
3	Western Africa	40	14	2.6	5.5	80	-1
4	Eastern Africa	40	13	2.7	5.4	76	-1
5	Central Africa	42	14	2.8	6.1	95	0
6	Southern Africa	24	15	0.9	2.8	48	3
7	Africa	36	12	2.4	4.8	74	-1

Distribution

- Some parts of the continent, particularly the vast Sahara, have few permanent residents.
- While, others rank among the world's most densely populated areas.
- The Nile Valley of Egypt, the Atlantic coastal area that stretches from Côte d'Ivoire to Cameroon, Rwanda, Burundi, and South Africa's province of KwaZulu-Natal are among the most densely populated areas in the continent

- The term “economic growth” is used to describe the increase in the total amount of production and wealth of a given economy
- Economic growth is usually quantitative as it is related to increasing production of goods and services, thereby allowing a state conceive how much income it has generated

- On the other hand, economic development refers to growth in structural and technological change.
- Because of this, development is both quantitative and qualitative in that it involves increment in production, service provision and income implies, improvements in the over all living conditions of the population.

- Africa is generally regarded as a developing continent.
- Many countries in it have very low GDP and per capita income.
- As a result, the majority of the African people ache from the pain of low standard of living

- African countries that resulted in low per capita income has always been the factor that determined the low standard of living of the continent's population. Consequently,

- Low GDP,
- low income per capita,
- poor housing conditions,
- poor transport,
- Inefficient communication networks,
- low educational and health coverage,
- widely spread unemployment,
- high mortality rate soaring human fertility in Africa

Natural Resources in Africa

- Africa is generally considered as a continent with untouched natural resources.
- The continent is rich in terms of all sorts of resources ranging from varied soil types to diverse climate, enormous mineral wealth, energy sources, wildlife and huge human power.
- the continent's richness in resource potential,
- Africa falls far behind from fully exploiting its resources.
- Though soils with varying quality and diverse climate are common in Africa, agriculture is still less productive and at subsistence level.
- The huge energy potential of Africa in terms of hydro-electric power, solar energy and fossil fuels is also practically untapped.
- Minerals are also not well extracted even in areas where the extraction of such minerals as gold and diamond is said to be well developed.
- The wealth is rather more of a cause for conflict and civil war than for development. Pertaining to the huge manpower,

Conflicts associated with natural resources in Africa

Country	Duration of Conflict	Resources
Angola	1975-2002	Gems, Opium
Angola, Cabinda	1975-	Oil, Diamonds
Congo	1997	Oil
DRC	1996-97, 1998-2002	Copper, Coltan, Diamonds, Gold, Cobalt
Liberia	1989-1996	Timber, Diamonds, Iron, Palm Oil, Cocoa, Coffee, Marijuana, Rubber, Gold
Morocco	1975-	Phosphates, Oil
Sierra Leone	1991-2000	Diamonds
Sudan	1983-2005	Oil

Indicators of Development

Major Indicators of Development are

- ***Gross domestic product (GDP)***
- ***Per capita income:***
- ***Standard of living***
- *Illiteracy rate*
- *Infant mortality rate*
- *Expected life expectancy*
- *Population growth rate*
- *Percentage of population who have access to clean water*
- *Level of infrastructural development, etc.*

Challenges of Economic Development in Africa

The following are the major challenges of Africans economic development

- Lack of capital,
- skilled human power and modern technology are the major problems hampering its development.
- Political instability, civil war, lack of good governance and the resultant widely spread corruption, maladministration,
- poor infrastructure and the subsequent poor regional inter-connectedness,
- poor export performance, declining industrial outputs,
- environmental degradation and many other cultural factors have influenced negatively the work habit of the majority of Africans dominant factors impeding its economic development.
- As a result, the per capita income of the majority of Africans becomes very low negatively affecting the standard of living of the continent's population.
- Social services are poorly developed.
- Health problems including HIV/AIDS and illiteracy are common.
- Saving and local capital accumulation are extremely limited
- rapid population growth.

Prospects of Economic Development in Africa

- This is due to the establishment of so many continental, regional and sub regional organizations that are meant to facilitate socio-economic development in the continent.
- Minimize the challenges by making awareness for the community and implement strong law

POPULATION OF ETHIOPIA

POPULATION SIZE AND GROWTH RATE

- Ethiopia is the 2nd most populous country in Africa, next to Nigeria.
- According to the 2007 Census, the population of Ethiopia is 73.8 million.
- The country's population is among the fastest growing in the world.

Population estimates and growth rates in Ethiopia (1900-2007)

YEAR	1900	1920	1940	1960	1970	1984	1994	2007
Population (Million)	11.8	12.9	16.3	23.5	29.5	42.6	53.5	73.8
Growth Rate (%)	0.2	1.0	1.5	2.2	2.8	3.1	2.9	2.0

- Ethiopia has one of the fastest growing populations in the world.
- Over the two decades between the three censuses, the population of Ethiopia increased from
- 42.6 million in 1984 to 53.5 million in 1994 and to 73.8 in 2007.

Age Structure

- ***Age structure*** *is the distribution of a given population into age groups.*
- ***Two important statistical tools for understanding age structure are***

  A. *Age groups*

  B. *Population pyramids*

Age Groups: Although we can use different sets of numbers to define age groups, the most widely used age groups are the fiIve-year age groups *0-4*, *5-9*, *10-14*, …, *60-64*, *65+* and

- broad age groups *0-14*, *15-64*, *65+*.

Population of Ethiopia by Broad Age Groups and Census Periods (2007)

Age Group	Population (%), by Census Year		
	184	**1994**	2007
0-14	49.8	45.4	45.0
15-64	50.2	51.4	51.8
65+	3.4	3.2	3.2

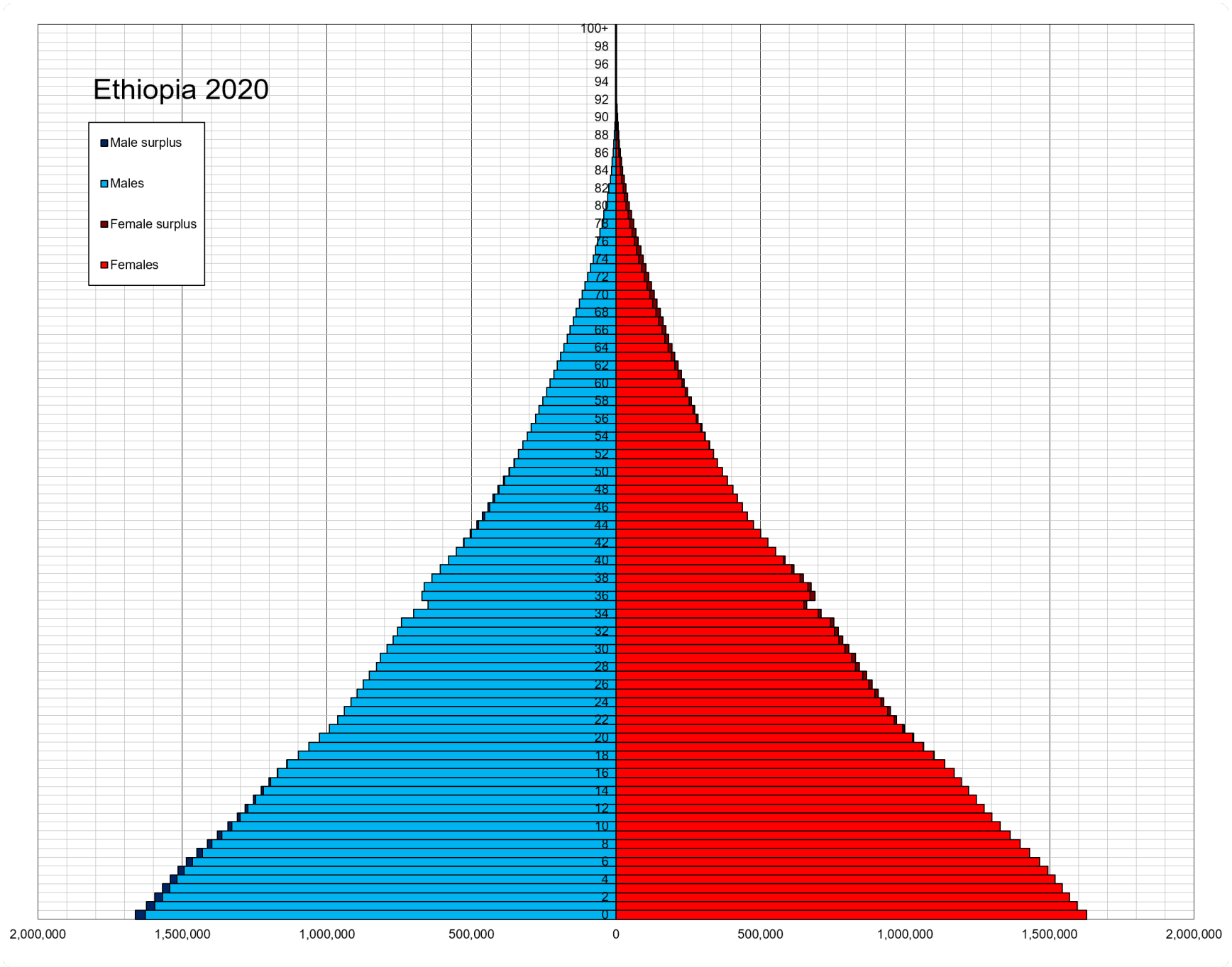
- Population pyramids of developing countries like Ethiopia have very broad bases, showing the dominance of the young-age population.
- These pyramids become increasingly narrower towards the top, advancing through the age groups, showing that the percentage of the population becomes less and less in the upper age groups (65-69, 70-74, etc.).

Age Dependency Ratio

- *The **Age Dependency Ratio (ADR**) is the relationship between the working or economically active population and the non-working population.*

- $$ADR = \frac{(\text{population aged } 0 - 14) + (\text{population aged } 65+)}{\text{population aged } 15 - 64} \times 100$$

- The result indicates dependent number of population per 100 independent(economically active population)


Ethiopia 2020
Male surplus
Males
Female surplus
Females
100+
98
96
94
92
90
88
86
84
82
80
78
76
74
72
70
68
66
64
62
60
58
56
54
52
50
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
2,000,000
1,500,000
1,000,000
500,000
0
500,000
1,000,000
1,500,000
2,000,000

- The negative implications of heavy youth dependency in Ethiopia can be summarized as follows.
- *Even higher levels of fertility are likely to be reached when the youth group reaches reproductive age.*
- *The capacity to save is highly constrained at both the household and the national level.*
- *Limited national resources must be diverted from investment and other developmental activities in order to use those resources to provide services and meet the young peoples' basic needs, such as food, housing, education, health care, etc.*
- *The demand for the nation's employment opportunities will increase as the youth group reaches working age; this results in a further high levels of unemployment*

- *Age structure/composition is one of the most important demographic characteristics of a population.*
- *Age information is often used to understand the sizes of school-age, labor-force, elderly, and other populations.*
- *A population pyramid is usually employed to show the age distribution of a given population by sex.*
- *The population pyramid of Ethiopia has a broad base that narrows towards the top as age increases. This shape is typical of a population with high fertility rate.*

Sex Structure

- Sex stricture ;which is the ratio of male population to female population.

- Sex Ratio $\frac{\text{Male Population}}{\text{Female Population}} \times 100$

  The result indicates number of male per 100 female

Census Year	Rural	Urban	Nation
1984	100.9	86.8	99.4
1994	102.6	93.3	101.3
2007	102.5	98.8	101.9

- Sex ratios in Ethiopia are generally lower for urban areas and higher for rural areas.
- This is primarily due to large number of females migrating to urban areas.

THE SPATIAL DISTRIBUTION OF POPULATION IN ETHIOPIA

- ***Population distribution*** *refers to the way how population spreads out over a given area, i.e., of any size from a small area to the earth as a whole.*
- The distribution of population is indicated by population density.
- ***Population density*** *is the average number of people per square kilometer in a given area*

Densely and Sparsely Populated Areas of Ethiopia

- In terms of density of population, Addis Ababa, Dire Dawa, and Harari Regions have exceptionally different and much higher population densities than the rest of the nation.
- The most densely populated region in Ethiopia is the Southern Nations, Nationalities and Peoples Region (SNNP) (133 persons/km2),
- followed by the Amhara (108.2 persons/km2) and
- Tigray (86.2 persons/km2) regions.
- On the other hand, the Somali, Afar and Gambela regions are the most sparsely populated regions in the country

IMPACTS OF RAPID POPULATION GROWTH IN ETHIOPIA

population growth causes serious

- environmental degradation in the area where it occurs, including
- deforestation,
- pollution,
- soil erosion,
- depletion of resources, etc

POPULATION POLICY OF ETHIOPIA

- *The population policies of countries can be broadly categorized into two groups as: anti-natalist and pro-natalist policies.*
- *Anti-natalist population policy seeks to lower fertility rates, in particular, and population growth rates, in general.*
- *Pro-natalist population policy seeks to increase fertility rates, in particular, and population growth rates, in general.*

- Similar to most of the developing countries, the type of population policy used in Ethiopia is basically anti-natalist.
- Such policies promote lowered fertility rates, in particular, and lowered population growth rates, in general.

URBANIZATION IN ETHIOPIA

- Urbanization is the process of population shifts from rural areas to cities, and the resulting growth of urban areas

- In the history of Ethiopia, major factors contributed to the origin and development of most urban centers
- *The interconnection of the different parts of the country by all weather roads, which radiate from Addis Ababa.*
- *The five-year Italian occupation, which intensified the construction of roads, and the development of small-scale industries and service giving institutions*

- Two main areas have relatively large concentrations of urban centers and urban population:
- The *Shewan* and
- The *Harerghe* plateaus.
- Together, these regions account for more than 50 percent of the urban population of the country.
- The major reasons for this situation are:

A. *Concentration of industries that results in relatively higher opportunities for employment.*

B. *Concentrations of social services and facilities, such as schools, health institutions, water supplies, electricity, transportation, etc that result in, relatively, better living conditions*

Levels and Distribution of Urbanization in Ethiopia

In spite of the high rate of rural-urban migration in Ethiopia, the level of urbanization has been very low in the country.

- Less than 3 percent of Ethiopia's population lived in urban areas in the 1940s.
- This fgure increased to about 8.5 percent in 1967 and then to 9.7 percent in 1970.
- The three censuses of the country indicate that the percentage of urban population was
  - 10.6 percent in 1984,
  - 13.7 percent in 1994, and
  - 16.1 percent in 2007

THANK YOU

FOR

COMING!!!