

7. POPULATION OF ETHIOPIA AND THE HORN

7.1. Population Data: Uses and Sources

Uses of Population Data:

Regular and reliable population data are vital *for effective socioeconomic development planning and administration.*

For instance: Data needed to plan the *provision of services and infrastructures* such as schools, hospitals, roads, water and sewerage facilities, housing, etc.

Demographic data are also are crucial to *administrators, businessmen, researchers and planners.*

Therefore, it vital to have *population information* as *demography influences production, distribution, consumption, and administrative services* at any administrative or natural unit considered.

Sources of population data:

There are ***three conventional sources*** of population data:

A. Census: It is a process of ***collecting, compiling & publishing demographic, economic and social data*** at a specified time to all persons in a defined territory.

Major characteristics of census:

- ❖ **Universality:** Inclusion of all persons in a given area during the count,
- ❖ **Periodicity:** undertaking at regular time intervals, usually 10 and 5 years.
- ❖ **Simultaneity:** undertaking census in a very limited time duration called the ***census day/night***.
- ❖ **Government sponsorship-** being an expensive endeavor, and publication.

Procedures for collecting Census data.

There are two approaches for collecting census data:

Dejure Approach: Involves recording/counting people according to their *usual place of residence* (where he/she lives most of the time).

Defacto Approach: In this approach each individual is recorded *at the place where he/she was found at the time of the census.*

Eg: College/university students who live away from home are included *at their college/university address* rather than being counted in their parents' household.

B. Sample Survey:

It is a method selected with a view that *information acquired from sample population would represent the entire population.*

This method is *advantageous over census* as *costs are reduced; & it is simple to administer & taken much faster.*

However, the method have inherent *weaknesses* related to *sampling errors and inadequate sources.*

Data from *most censuses and sample surveys* include:
Geographic location, age, sex, marital status, citizenship, and place of birth, relationship to the head of household, religion, educational characteristics, occupation, fertility, income, language, ethnic characteristics, disabilities & migration.

C. Vital Registration:

It is a system of **continuous, permanent, compulsory and legal** recording of the **occurrence of vital events** like **births, deaths, marriages, divorces, and adoptions**.

Vital registration data is **more precise** than that of **census and sample survey** -b/c the system provides **time series data**.

Despite its enormous usefulness, **population data** could suffer from **inaccuracy** resulting from:

- *poor and inadequately financed methods of collection;*
- *poorly trained enumerator;*
- *suspicion and ignorance of censuses and false statements specially of **age and income**;*
- *constant changes in administrations;*
- *omission of more inaccessible areas;*
- *wide difference in connotation of terms like language and occupation.*

7.3. Population Dynamics: Fertility, Mortality & Migration

Introduction:

The population of any region (country) ***grows/declines*** as a result of the combined effect of the ***3 demographic variables: Fertility, Mortality and Migration.***

Ethiopia is endowed with a ***large and fast-growing population*** ranking ***2nd*** in Africa after Nigeria, ***12th in the world.***

The ***current growth rate is 2.6%.***

Based on projected CSA data, Ethiopia had an estimated population of ***112 million in 2019.***

Ethiopia has a ***youthful population*** where about ***65% of the population is below 24 years of age.***

The largest proportion of the population ***(80%)*** is rural based.

7.3.1. Demographic Measurements

In Ethiopia, *fertility & mortality* are the *two principal determinants* of population growth as *international migration* is insignificant.

Some of Basic Demographic Measurements are:

1. Crude Birth Rate: Refers to the number of *live births* in a year from *1000 people alive in a given area*.

$$\text{CBR} = \frac{\text{Total annual live birth}}{\text{Total Mid year Population}} \times 1000$$

Example: P = 70,686,000, B = 270,300. CBR = ?

$$\text{CBR} = \frac{270,300}{70,686,000} \times 1000 = 3.8/1000$$

2. General Fertility Rate: Refers to the ***total number of live births in a year per 1000 women*** at a reproductive age(women b/n 15 – 49 years age).

$$\text{GFR} = \frac{\text{Total annual live birth}}{\text{Total Women 15-49}} \times 1000$$

Example:

$$B = 50,000$$

$$P = 50,000,000,$$

PI = population of women b/n 15 – 49 years age which accounts 1/5th of total population

$$\text{GFR} = \frac{50,000}{10,000,000} \times 1000 = 50/1000$$

3. Total Fertility Rate (TFR): Refers to the *average number of children that a woman would have at the end of her reproductive period.*

$$TFR = 5x \sum_{n=1}^7 \frac{Bi}{Wi}$$

Where,

Bi = Total live births in *age group i*,

Wi = Total number of *women in age group i*

(i = age group, that is : 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49).

4. Crude Death Rate: Refers to the *number of deaths per 1000 population in a year.*

$$CDR = \frac{\text{Total annual Death}}{\text{Total Midyear Population}} \times 1000$$

5. Infant Mortality Rate: Refers to the *total number of deaths of infants under age one* per *1000 live Birth in a year*.

$$\text{IMR} = \frac{\text{Total annual Infant Death}}{\text{Total Live birth}} \times 1000$$

6. Maternal Mortality Rate: Refers to *death of mothers* related to *pregnancy & birth complications* per *100,000 live birth*.

$$\text{MMR} = \frac{\text{Total annual Maternal death due to birth complications}}{\text{Total Live birth}} \times 100,000$$

7. Life Expectancy at birth: Refers to the *average number of years* that a newly born baby is expected to live.

8. Natural Rate of Increase: is the difference b/n *crude birth rate and crude death rate* expressed in percentage.

$$\text{RNI} = \text{CBR} - \text{CDR}$$

7.3.2. Levels & Trends in Fertility & Mortality Rates in Ethiopia

Clear differences in *birth and death rates* b/n *rural and urban areas* of Ethiopia.

Urban areas - have *lower birth and death rates* compared to rural areas mainly due to *better living & health conditions, & better implementation of family planning programme.*

Women in rural areas have an *average of 5.2 children*, compared to *2.3 children among women in urban areas.*

TFR show considerable **variation by regions**.

For instance in **2016 fertility** was the **lowest in Addis Ababa** (1.8 children per woman) followed by **Dire Dawa (3.1), Gambella (3.5), and Amhara (3.7);**

Somali (7.2), Afar (5.5), Oromia (5.4), and Tigray (4.7) are regions that have **TFR rates more than the national average(4.6** - women in Ethiopia have an **average of 4.6 children).**

Mortality rates also show considerable **variation by regions**. **IMR** lower in urban areas than rural areas in Ethiopia.

Life expectancy at birth in shows variation b/n male and female as well as b/n rural and urban in Ethiopia.

Female life expectancy (65.4 years) is higher than *male life expectancy* (61.2 years).

Life expectancy at birth -is greater for urban areas than for rural areas.

It exceeds the national average(62.6 years) in **Addis Ababa(mainly due to relatively easy access to health services);**

while the **lowest** is in Benishangul- Gumuz (47 years) followed by SNNPR (49 years).

Comparison of Birth & Death Rates and Life Expectancy of Ethiopia with Selected Countries.

Country	C.B.R	C.D.R	I.M.R	Life Expectancy (Years)
Ethiopia	36.5	7	49.6	62.6
Kenya	23.9	6	37.1	64.3
Somalia	36.6	11	94	52.8
Eritrea	29.6	7	45	65.2
Djibouti	23.4	8	45.8	63.6

Today, in most developing countries as opposed to ***declining death rates, birth rates have remained high*** due to:

- *Little family planning practices;*
- *Lower status of women*
- *Early marriage, particularly of females;*
- *Parents consideration of children as assets;*
- *The relatively high infant and child mortality rates, that trigger couples to have more births to compensate for the lost;*
- *Perhaps religious influences;*

Countries of the Horn of Africa have *higher population growth rate that exceeds 2.6 percent.*

Some of the *consequences of this rapid population growth* under conditions of slowly growing economy include:

- low per capita GNP
- increased unemployment and under-employment
- social ills such as destitution, begging, theft, prostitution;
- continuous ***inflation*** that erodes purchasing power of the currency;
- shortage of cultivated land and food shortages
- overcrowding of infrastructural and social facilities; housing problems and increase in urban slums and squatter settlements
- Environmental problems such as deforestation, soil erosion, loss of biodiversity and pollution.

7.3.3. Migration in Ethiopia and the Horn

Migration is *a geographic mobility* which could be *permanent or temporary change of residence*.

Implications of Migration:

- Migration yields an increased level of urbanization;
- It enhances rural-urban linkages in creating an integrated economy
- It influences spatial population distribution
- It is a means of achieving economic efficiency
- It is a cause and consequence of inequality and unequal development
- It is a cause of diversity; and a mechanism of spreading cultures
- Create the condition of strengthening, a sense of nationhood and national unity
- Motivating to creativity and open society to new ideas than a homogenous group of people.

Types of Migration: *Internal & International migration*

A. Internal Migration in Ethiopia

Population movement in Ethiopia accelerated in the *early twenty century* with the *rise in urban centers*.

B. International migration:

International Migration in Ethiopia accelerated after the *1974 revolution* where many people were attempting *to escape political conflict, persecution and famine*.

Today, large numbers of Ethiopian migrants are found in *Middle East, USA, Canada, Europe, Sudan, Kenya, South Africa & Botswana*.

Ethiopia's diaspora, estimated to be about *four million-*
Ethiopia considered as *one of the largest number of emigrants overseas* from all African countries.

The causes of cross-border/International migration:

They migrate for various reasons by looking in to **advantages and disadvantages of *staying Vs. moving.***

Reasons for international migration are both ***push and pull factors-***
as discussed hereunder:

- Lack of employment and livelihood opportunities
- Negative attitudes attached with ***low paying & informal job and poor work ethics.***
- Rural underemployment and lack of resources
- Unfavorable political context and insecurity, civil war
- Existence of large number of local brokers with networks extending to countries of destination;
- Misinformation and false promises by brokers/traffickers;
- Demand-side factors of migration (shortage of labor in low-paying, informal, and perilous jobs, such as domestic work, construction, agriculture in destination countries).

International Labour Organization/ILO/ in 2016 identified the following migration source areas of Ethiopia with high and growing incidence of emigration:

- ILO identified migration source areas of Ethiopia
- **Dessie area:** Kemise, Bati, Kalu, Tehuledere, Haiq, Worebabo, Mersa, Dessie and Woldia
- **Shashemene area:** Shashemene-Zuria, Kofele, Kore and Assassa.
- **Jimma area:** Kaffa, Wolega and Iluababora, Dedo, Agaro, Setema, Sigmo, and Gomma
- **Mekelle/Tigray area:** Alamata, Kobo, Raya, Erob, Edagahamus, Gulomehadi, Etsebi, and Weneberta.
- **Other source areas:** Assela-Zuria, Adama-Zuria, Ambo, Fitcha, Chanco, Hirna, Gelemso, Shewa Robit, Debre Birhan, and Debre Tabor

7.4. Age and Sex Structure of Ethiopian Population

1.Age Structure(age ratio):- refers to population distribution by age groups.

The most used age groups are:

- **Five-year age interval** (0-4, 5-9, 10-14, ..., 60-64, 65 and above) &
- **Broad age groups** (0-14, 15-64, 65 & above).

Age groups 0-14 – are known as **young age**

Age groups 15-64 - **working age**

Age group 65 and above- are **old age**

In Ethiopia **young age population** is **very large/high percentage**, about half of the population, While the **old age** population is **very small**.

On the contrary most developed countries have **working age population of about 60% or more**, and **old age population of about 10% or more**.

Measures of Age Structure(Ratio):

I. Young to Old Ratio:

$$\text{YDR} = \frac{\text{Youth (15 - 64)}}{\text{Old > 65}} \times 100$$

II. Age Dependency Ratio (ADR): Shows the magnitude of the *young and old ages* dependency on the ***working/ economically active age population.***

It is expressed as:

$$\text{ADR} = \frac{P_{0-14} + P_{65 \text{ and above}}}{P_{15-64}} \times 100$$

$$\text{III. Old age index (OI)} = \frac{P_{65+}}{P_{15-64}} \times 100$$

Dependency of old age population on economically active age group population.

2. Sex Structure(Sex Ratio): refers to the *ratio of male population to female population at different age groups.*

It is usually expressed as:

$$\text{Sex Ratio(SR)} = \frac{\text{Male}}{\text{Female}} \times 100$$

In the interpretation of the result, if a sex ratio is:

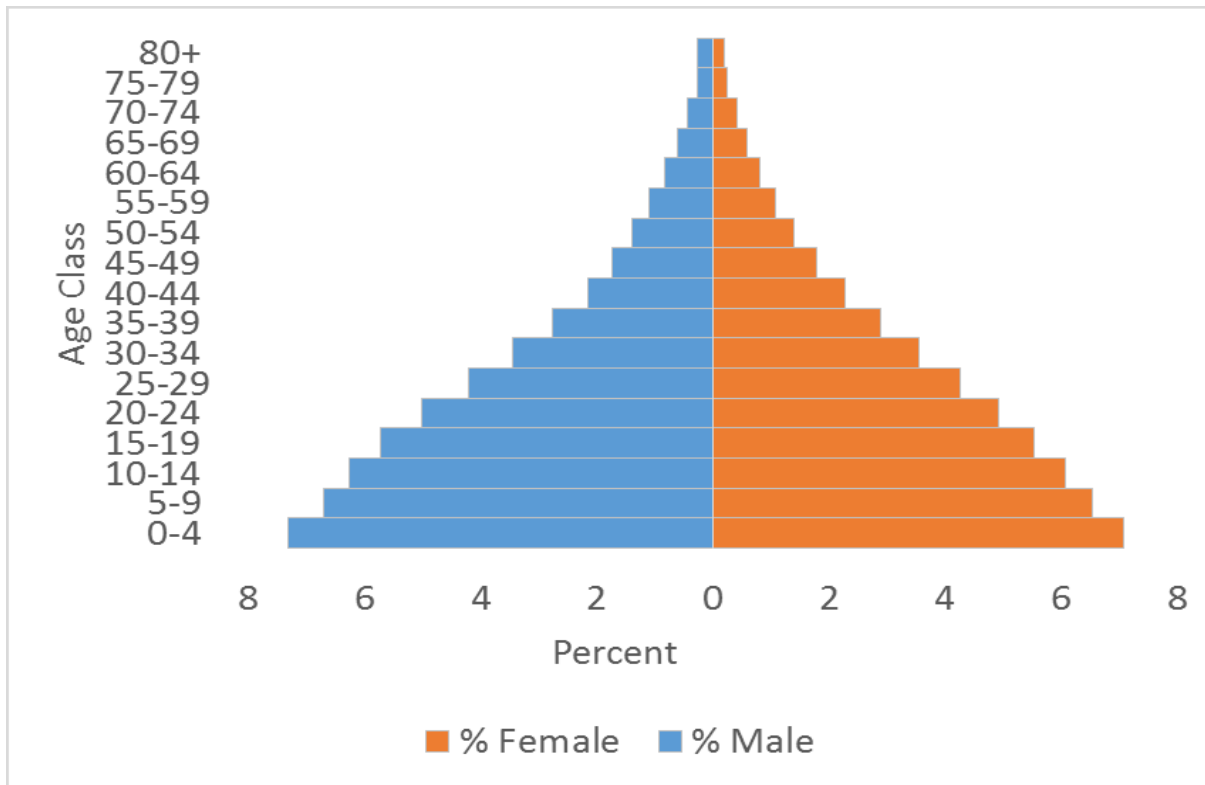
Equal to 100 – It implies that there are ***equal numbers*** of males & females

> 100 -Indicates the presence of ***more males than females***

< 100 – Implies there are ***less numbers of males than females.***

Sex ratios are generally ***lower for urban areas***, and ***higher for rural areas*** primarily due to ***larger female migration to urban areas.***

Population pyramid: A graphical illustration of population by sex and age.



Population pyramids of developing countries like Ethiopia have **very broad bases** showing the **dominancy of young age population**, and **small percentage of old age groups**.

Population pyramid of Ethiopia, 2017

The **age distribution** of population in Ethiopia shows that country's population is dominated by **youthful population** resulting in **heavy youth dependency**.

7.5. Population Distribution in Ethiopia

The spatial distribution of population in Ethiopia characterized by **very uneven** as a result of **physical and human factors**.

7.5.1. Measures of Population Distribution

Population distribution is measured in terms of **population density**- which is the **average number of people per unit area**.

The most common **ways of measuring population density** are:

- **Crude Density,**
- **Physiological Density &**
- **Agricultural Density.**

A. Crude Density: Total population divided by **total area** (*people per kilometer square*).

It is known as **crude** because it **does not show variations** in population distribution within a given area.

$$\text{Crude density} = \frac{\text{Total population}}{\text{Total area}}$$

Low density regions are Gambella, Somali, Afar and Benishangul-Gumuz.

The largest population density regions are SNNPR, Amhara and Harari.

For instance: Wanago, Damot Gale, Aleta Wendo, Yirga Chefe, Dara, Kacha Bira, Angacha, Sodo Zuria, Shebedino and Kedida Gamela **have crude densities of exceeding 500 people/km²;**

Extremely low densities include Guba of less than 10 people/km²) include Gog, Vaso, Dolo Bay and Liben.

B. Physiological Density: The number of **people per unit of area of arable land** (Land which is suitable for agriculture). It is the **ratio of total population to arable land of a country**.

Ethiopia has very low physiological density.

$$\text{Physiological density} = \frac{\text{Total population}}{\text{Total arable land}}$$

C. Agricultural Density: It is the proportion b/n **rural population actually engaged in agriculture** and **the area of cultivated land**.

$$\text{Agricultural density} = \frac{\text{Agricultural population}}{\text{Cultivated land}}$$

This density measure **more meaningful** than both **crude and physiological density measures** as it gives **a better indication of population pressure on land resources**.

7.5.2. Factors Affecting population Distribution in Ethiopia

Physical and human factors makes uneven population distribution in Ethiopia.

A. Physical Factors – The most important physical factors affecting population distribution in Ethiopia are: *climate (mainly RF & Temp.), nature of soil (fertility) and vegetation cover.*

The other physical factors include ***drainage and slope.***

High temperatures combined with *low RF* diminish habitability in the *lowlands* of Ethiopia. → *Sparse population distribution.*

In contrary, the *highland plateaus* of Ethiopia with *adequate RF & moderate temperature* tend to be *densely settled.*

Steep slopes and surface ruggedness also restrict *human access, habitation and cultivation.*

Attractiveness of a region for human occupation may depend partly on the *nature of the soil.*

The fertile highland soils of Ethiopia offer high concentration of population in the plateaus.

In Ethiopia most of the above physical factors are influenced by “**altitude**”- which is the most crucial **factor** influencing **population distribution**.

In general, Lowlands are characterized **by**:

- **Scarcity of rainfall, high temperature, and poor vegetation and soil conditions;**
- **Prevalence of tropical diseases** like malaria and yellow fever. → **sparse population distribution**.

In contrary, **high population concentration** along the **valleys of major rivers** like the Nile and **on high plateau areas of Ethiopia** which is characterized **better soil fertility** and **rich vegetation cover**.

B. Human Factors: Human factors which have influenced population distribution in Ethiopia are two:

I. The Historical Pattern of Population Movement

Decline of *Axumite & establishment of central highlands kingdom* is among human factors affecting population distribution.

Historically there was *two waves of population movements: Northward movement* of the **Oromos** during the **16th and 17th centuries**.

Southward movement of the Tigre, Amhara, Agew and Guraghe during *7th century*.

These *two waves of population movements* resulted in *denser population distribution in & around the central highlands*.

II. Types of Economic Activities

Carrying capacity of cultivated lands, dev't of commercial farms, expansion of urban areas, industrial growths, transportation routes are important factors for population re-distribution over time.

1. The *arid and semi-arid lowlands* of Ethiopia that are inhabited by *pastoral herding* are the low *population density areas*.

Compared to *areas of pastoral herding*, *cultivated lands have greater carrying capacity* thereby *supporting higher population densities*.

2. The ***type of crop cultivated*** could also result in **varying densities**.

E.g: ***northern and north central*** Ethiopia that grow ***cereal crops*** have relatively ***low yield per unit area***; and hence they have relatively ***low carrying capacity and moderate density***.

On the contrary the ***Enset and Coffee regions*** of Ethiopia have ***greater yield per unit area, and hence have high density population*** in some ***South-central Zones and weredas***.

3. ***Development of commercial farms*** like in **Awash valley** is also a significant factor in **causing population movements & changes in the population concentration**.

4. ***Urban and industrial growths & transportation routes*** are also important factors that cause ***population re-distribution over time & explaining density variation***.

7.6. Socio-cultural Aspects of Ethiopian Population: Education, Health and Languages

7.6.1. Education

Education in Ethiopia characterized by: *gender parity, regional differences, urban-rural differences and access differences.*

There is wide regional variation, with Dire Dawa and Afar having the *lowest Gross Enrolment Rate (GER)*, whereas Gambella and Addis Ababa have *very high GERs*.

With regard to *gender parity*, in Addis Ababa *more females are attending school than males* whereas *lower female participation in Somali and Harari regions*.

Nationally GER for males is higher compared to *females*, though in Tigray, Amhara and Addis Ababa *more females* are attending secondary education.

Afar & Somali regions have the lowest GER in secondary education.

7.6.2. Health

Root causes for poor health status in Ethiopia are:

- 1. Lack of access to clean water:** rivers and lakes remain the most important sources of water- which are largely unsafe.
- 2. Lack of adequate nutrition:** About half of children under the age of five are malnourished, stunted or wasted. Malnutrition still remains high as the country has not attained food security.
- 3. Beliefs, behaviors and traditional practices** have a negative effect on health status include ***circumcision, early marriage and low value of girls and children.***
- 4. Lack of health services:** The health care infrastructure of the country had suffered from ***under funding;*** and ***health service coverage is less than 50% of the population.***
The services tend to be ***urban biased.***

7.6.3. Languages Families and Languages of Ethiopia

Ethiopia is a country where about **80 languages** are spoken.

Afan Oromo and Amharic are the **major mother tongues** accounting **33.8% and 29.3%** respectively.

Somaligna (6.2%), Tigrigna (5.9%), Sidamigna (4.0%), Wolaytigna (2.2%), Guragigna (2%), Afarigna (1.7%), Hadyiyagna (1.7%), and Gamogna (1.5%).

The Ethiopian languages belong to two **Supper Families: Afro-Asiatic and Nilo-Saharan.**

A. Afro-Asiatic Supper Family:

Most Ethiopian languages belong to ***Afro-Asiatic Supper Family***.

This supper family is divided into **3 families**: ***Semitic, Cushitic & Omotic***.

Semitic languages: include Amarigna, Tigrigna, Guragigna, Siltigna, Aderigna, and Argobigna.

Cushitic languages: has the ***largest number of speakers***. It consists of languages such as Oromigna, Somaligna, Sidamigna, Afarigna, Kembatigna, Hadiyigna, Alabigna, Gedeogna, and others.

Omotic languages: Include Wolaitigna, Gamogna, Kullogna, Kefigna & Kontigna.

Relatively has ***small number of speakers***.

B. Nilo Saharan: Are languages spoken in the *western lowlands* of Ethiopia along the border with Sudan, in Gambella & Benishangul Gumuz Regional States.

This language Supper Family include Kunamigna, Bejigna, Gumuzigna, Maogna, Kewamigna, Nuerigna, Annukigna, & others.

7.7. Settlement Types and Patterns

7.7.1. Types of Settlement

Rural Settlements:-

- Can be *temporary or permanent* depending on whether.

Temporary / Mobile Settlements:

The lowlands in Rift Valley & peripheral areas, being generally ***hot and dry***, are characterized by ***pastoral herding and mobile settlements***- where ***pastoralists*** have always been searching for new sites for ***water and pasture for their livestock***.

➤ **Permanent Settlements:**

Settlements are considered as permanent if there ***are no frequent changes in their locations.***

Most Ethiopian ***rural highland settlements where crop cultivation is practiced*** are permanent.

Permanent settlements are of two types:

I. Scattered/Diffused / Dispersed): Are settlements characterized by dispersed ***homesteads & households.***

II. Grouped/ clustered or nucleated:- Are settlements characterized by concentration of large number of homesteads and households at one place.

7.7.2. Urban Settlements and Urbanization in Ethiopia

Urbanization refers to the increase in the percentage of the population living in urban centers.

It entails the process of becoming urban, changing from agricultural/rural economy, culture and lifestyle to being of urban.

Today, the urban population is about **20%** of the country's population.

The major criteria used to classify settlements as ***urban in Ethiopia*** are:

- I. Minimum of 2,000 people;
- II. Chartered municipality;
- III. 2/3rd of the population engaged in non-agricultural activities;
- IV. The presence of social services and amenities

An overview of the History of Urbanization in Ethiopia

Before the foundation of Addis Ababa as a capital city, only prominent urban centers were ***Axum, Lalibela and Gondar.***

Modern urbanization was associated with establishment of Addis Ababa as a capital by Emperor Menelik II in the late 19th century.

Low level of urbanization can be attributed to:

- ❖ The self-sufficiency of agriculture which reinforced rural peasant life;
- ❖ Low level of industrialization, low level structural transformation and economic development;
- ❖ Continual warfare for centuries b/n kingdoms in to which the country is divided; and the frequent changes of the royal residence.
- ❖ Lack of employment, and housing shortage in urban areas that discourage in migration;
- ❖ Political instability, ethnic conflict and social unrest during the late 1970s and 1980s;

Hierarchy of Urban centers in Ethiopia:

i. The Addis Ababa Metropolitan cluster includes Addis Ababa and its surrounding towns; and Adama and its surrounding towns

ii. Secondary city clusters consist of:

- Lake Tana Urban Cluster: Bahir Dar, Gondar Debre Tabour, Debre Markos
- South Rift Valley Urban Cluster: Hawassa-Shashemene-Dila; and Hosana-Sodo-Arba Minch
- Eastern Urban Cluster: Dire Dawa, Harar, Jigjiga
- Mekelle Urban Cluster: Mekelle, Adigrat, Shire, Axum
- Dessie- Kombolcha Urban Cluster.
- Jima Urban Cluster: Jima, Agaro, Mizan, Tepi, Gambella

iii. Tertiary urban clusters include:

- Nekemte Urban Cluster: Nekemte, Dembidolo, Gimbi, Metu, Assosa
- Gode - Kebri Dar oasis city network
- Semera-Mille – Asaita oasis city network

Growth Rate of Urban Centers

Ethiopia's towns are classified into three categories based on growth rates:

i. Declining Towns: Includes towns whose populations are declining in absolute numbers because *net out migration is greater than natural increase.*

This could be due to lack of employment opportunities and worsening living conditions.

Example: Axum, Goba and Maichew.

ii. Slow Growing Towns: towns that *grow at the rate which is less than the rate of natural increase.*

Example: Towns such as Holeta, Harar and Gore.

iii. **Fast Growing Towns:** towns with *growth rates of greater than the natural rate of increase.*

These towns pull large numbers of people from the *declining or slowly growing towns and rural areas* due to the opportunities they offer associated with expansion in industries, social services or a change in their administrative status as zonal or regional capitals.