

UNIT FOUR

POPULATION AND DEMOGRAPHIC CHARACTERISTICS

4.1 Concept of Human Population

Definition: Human population refers to the total number of people living in a specific area, such as a city or country, at a given time.

Importance of Studying Human Population:

1. **Dynamic Nature:** Human populations change over time, showing both quantitative (numbers) and qualitative (characteristics) shifts. These changes impact socio-economic development.
2. **Policy Implications:** Changes in population size, composition, and distribution can influence government policies in areas like health, education, and housing.
3. **Planning:** Understanding population characteristics helps in planning for various needs and services, such as healthcare and infrastructure.
4. **Economic and Social Development:** The population provides the labor force needed for economic activities and contributes to wealth creation.

Significance: Studying human populations is crucial for managing resources, planning developments, and understanding social dynamics.

4.2 Trends of Population Growth in Ethiopia

Current Trends:

- **Population Size:** As of 2020, Ethiopia's population was approximately 114.9 million.
- **Growth Rate:** The current growth rate is about 2.6 percent per year.

Historical Growth:

- **1900:** Population was 11.8 million.
- **1960:** Population reached 23.5 million.
- **1990:** Population doubled to 51.2 million.
- **2007:** Population was 73.8 million.
- **2020:** Population increased to 114.9 million.

Growth Rate Changes:

- **Pre-1920:** Growth rate was less than 1%.
- **1950s:** Growth rate increased to 2%.
- **1980-1990:** Growth rate around 3%.
- **2010-2020:** Growth rate stabilized at 2.6%.

Focus: Ethiopia has one of the fastest-growing populations globally, with significant increases over the decades.

4.3 Population Composition

Definition: Population composition refers to the structure of a population based on various characteristics such as age, sex, occupation, and more.

Key Aspects:

1. Age Structure:

- **Definition:** Classification of the population into different age groups.
- **Importance:** Affects economic and cultural aspects of society.
- **Tools:**
 - **Age Groups:** Often divided into 0-4, 5-9, 10-14, etc.
 - **Population Pyramids:** Graphical representation showing the distribution by age and sex.

Population Pyramid:

- **Shape:** Triangular for high birth and death rates (typical of developing countries like Ethiopia).
- **Description:** Broad base (many young people) and narrow top (fewer elderly).

2. Sex Structure:

- **Definition:** The ratio of males to females in a population.
- **Importance:** Affects social and economic dynamics.
- **Sex Ratio Calculation:** Number of males per 100 females.
 - **Example:** Ethiopia's sex ratio in 2020 was approximately 100.12 males per 100 females.

Age Dependency Ratio (ADR):

- **Definition:** The ratio of dependent population (young and elderly) to the working-age population.

- **Calculation:** $ADR = (\text{Number of dependents} / \text{Number of working-age population}) \times 100$.
- **Ethiopia's ADR:** 76.8 in 2020, indicating a high dependency burden.

Focus: Understanding age and sex structure is essential for planning and addressing demographic challenges.

Example Calculation for ADR: For a country with:

- 40% children (0-14)
- 50% working-age (15-64)
- 10% elderly (65+)

The ADR is calculated to show how many dependents (young and old) there are for every 100 working-age individuals.

4.4 Population Distribution

Objectives:

- Discuss the spatial distribution of population in Ethiopia.
- Identify factors affecting population distribution in Ethiopia.

Key Terms:

- **Dense Population:** High number of people in a given area.
- **Sparse Population:** Low number of people in a given area.
- **Population Distribution:** How people are spread out across a given area.
- **Population Density:** The number of people per unit area, usually measured in people per square kilometer.

What is Population Distribution?

Population distribution describes how people are spread out over a specific area. In Ethiopia, this distribution is not uniform and is influenced by various factors. It is measured by population density, which is the average number of people living per square kilometer.

Distribution in Ethiopia:

In Ethiopia, population density varies significantly:

- **Highlands:** Most people live in the highlands of Ethiopia. These areas are favorable due to their moderate climate, fertile soil, good vegetation, and fewer diseases. About 77.5% of the population lives in areas above 1800 meters in altitude, which make up only 37.6% of the country's land area.
- **Lowlands:** The lowland regions are less populated due to their harsh climate, high temperatures, and poor soil and vegetation conditions. Tropical diseases also contribute to the lower population density in these areas.

Measuring Population Distribution:

Population density is calculated using the formula:

Population Density (CD)=Total Population (TP)/Total Area (TA)

For instance, in 2020, Ethiopia's population density was approximately 103.9 people per square kilometer.

Regional Population Density:

Different regions in Ethiopia have varying population densities:

- **High Density:** SNNPR (173 people/km²), Amhara (131.9 people/km²).
- **Low Density:** Afar (23.9 people/km²), Somali (19.5 people/km²).

Factors Affecting Population Distribution:

1. Physical Factors:

- **Climate:** High altitudes generally have better conditions for living due to cooler temperatures and more rainfall. Lowland areas are hotter and drier.
- **Soil Fertility:** Fertile soils in highlands support agriculture, attracting more people.
- **Natural Water Supply:** Areas with adequate water sources are more densely populated.
- **Relief:** Gentle slopes are more suitable for settlement than steep, rugged terrain.
- **Vegetation Cover:** Rich vegetation supports agriculture and living conditions.

2. Human Factors:

- **Economic Activities:** Areas suited for agriculture or industry attract more people. Pastoralist regions have lower densities due to the extensive land required for grazing.
 - **Historical Patterns:** Historical migration and settlement patterns also impact current population distribution.
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4.5 Urban and Rural Settlement Patterns

Objectives:

- Describe settlement patterns of the Ethiopian population.
- Differentiate between urban and rural settlement patterns in Ethiopia.

Key Terms:

- **Settlement:** A place where people live and carry out various activities.
- **Urban Settlement:** Settlements with high population density and non-agricultural economic activities.
- **Rural Settlement:** Settlements with lower population density and primarily agricultural activities.
- **Dispersed Settlement:** Settlements spread out over a large area.
- **Nucleated Settlement:** Settlements where homes are clustered together.

Settlement Overview:

Settlement refers to the grouping of people in a specific area. Settlements range from small villages to large cities and are influenced by both physical and human factors.

Types of Settlements:

1. Rural Settlements:

- **Permanent Settlements:** These are stable and remain in one location for long periods. They are mostly found in the highlands of Ethiopia, where conditions are suitable for farming. Rural areas may have dispersed settlements (spread out) or nucleated settlements (clustered together). The Derg Regime's villagization program created nucleated settlements, but some people reverted to their original sites due to dissatisfaction.
- **Temporary Settlements:** These are mobile and used by nomadic people in the lowlands. The harsh climate in areas like the Rift Valley forces people to move seasonally with their herds.

2. Urban Settlements:

- **Characteristics:** Urban settlements are larger, more compact, and focus on non-agricultural activities. They include cities and towns and serve as centers for trade, industry, and services. Urban areas are more densely populated compared to rural areas.
- **Urbanization:** The process of urbanization in Ethiopia is a recent phenomenon and is not influenced by colonialism. Urban centers are categorized based on criteria such as population size, non-agricultural employment, and availability of social services.

Conclusion:

Understanding population distribution and settlement patterns helps in grasping the broader socio-economic and environmental contexts of Ethiopia. Factors such as climate, soil, and economic activities significantly impact where people choose to live and work.

4.6 Health and Disease in Ethiopia

Ethiopia has made significant strides in improving public health, reflected in increased life expectancy from 56.8 years in 2005 to 65.5 years in 2016. The Ethiopian Demographic and Health Surveys (EDHS) from 2005, 2011, and 2016 show a decline in neonatal, infant, under-five, and maternal mortality rates.

Contributing Factors to Health Improvements:

1. **Health Extension Program (HEP):** This program has expanded access to essential health services.
2. **Public Health Interventions:** Efforts in malaria control, access to safe drinking water, improved sanitation, and childhood vaccinations have led to better health outcomes.

Ongoing Challenges:

1. **Lack of Clean Water:** Many rural areas rely on unsafe water sources.
2. **Malnutrition:** High rates of child malnutrition persist, with about half of children under five being malnourished. This is linked to food insecurity and poor nutritional knowledge.
3. **Health Practices:** Traditional practices such as Female Genital Mutilation (FGM) and early marriage negatively affect health.
4. **Inadequate Health Services:** Limited healthcare infrastructure and low coverage, especially in rural areas, contribute to the high disease burden.

Impact on Health:

- **Physical and Mental Health:** Poor nutrition and health conditions impact children's physical and mental development.
- **Economic Impact:** Malnutrition affects productivity and agricultural output, impacting the country's economy.

Disease Burden:

- **Common Diseases:** Prenatal-maternal conditions, respiratory infections, malaria, nutritional deficiencies, diarrhea, AIDS, and tuberculosis are major causes of death.
- **Health Workforce:** The number of healthcare professionals is low, with severe shortages of doctors, nurses, and midwives.

Regional Disparities:

- **Healthcare Access:** Some regions have high population-to-hospital ratios, indicating inadequate healthcare facilities and access issues.

4.7 Impacts of Population Growth on Sustainable Development in Ethiopia

Population Growth and Environmental Degradation:

Rapid population growth in Ethiopia exacerbates environmental degradation. Key issues include:

1. **Deforestation:** To meet the increasing demand for food, fuel, and land, forests are being cleared, leading to soil erosion and loss of biodiversity.
2. **Land Degradation:** Over-grazing and poor agricultural practices result in land degradation and desertification, reducing agricultural productivity.

Impact on Food Production:

1. **Declining Agricultural Output:** Smallholder farming is heavily dependent on traditional methods and rainfall. Population pressure leads to land overuse and reduced soil fertility, affecting food production.
2. **Malnutrition:** The decline in food production contributes to widespread malnutrition, particularly among children.

Fuel Wood Consumption:

1. **Forest Resource Decline:** High demand for fuel wood leads to deforestation, which accelerates soil erosion, destroys biodiversity, and impacts rainfall patterns.

Pollution:

1. **Water and Air Pollution:** Overpopulation leads to increased waste and pollution, affecting water quality and air purity, especially in urban areas.

Provision of Social Services:

1. **Education:** Rapid population growth has increased the demand for education, resulting in overcrowded classrooms and unmet educational needs.
2. **Healthcare:** The growing population puts pressure on healthcare services, with many lacking access to adequate medical facilities and clean water.

4.8 Language and Religious Diversity in Ethiopia

Language Diversity:

Ethiopia is linguistically diverse, with over 80 languages spoken, belonging to two major language families:

1. **Afro-Asiatic:**

- **Cushitic:** Spoken in central, southern, eastern, and northeastern Ethiopia. Examples include Oromo, Somali, and Sidama.
- **Semitic:** Spoken in northern and central Ethiopia. Examples include Amharic, Tigrinya, and Gurage.
- **Omotic:** Spoken in the south-central and southwestern parts of Ethiopia. Examples include Wolaita and Dawuro.

2. **Nilo-Saharan:**

- Spoken in the western lowlands along the border with Sudan. Examples include Kunama, Gumuz, and Nuer.

Religious Diversity:

Ethiopia is home to a variety of religions, including:

1. **Orthodox Christianity:** 43.5%
2. **Islam:** 33.9%
3. **Protestant Christianity:** 18.6%
4. **Catholicism:** 0.7%
5. **Others:** 3.2%

This diversity reflects Ethiopia's rich cultural and religious heritage, contributing to its unique societal fabric.