UNIT FOUR: POPULATION OF AFRICA

Introduction

In the previous unit, you learned about Africa's natural resources, including drainage systems, soils, vegetation, wildlife, and mineral resources. This unit shifts focus to the population and demographic characteristics of Africa. We'll explore topics such as population growth trends, birth and death rates, population composition, methods of presenting age and sex distribution using population pyramids, population density, and settlement patterns across Africa.

Key Terms

- **Birth rates**: The number of live births per 1,000 people in a year.
- **Fertility**: The ability to produce offspring, often measured by the average number of children born per woman.
- **Demographic characteristics**: Traits used to describe the population, such as age, gender, birth rates, and death rates.
- **Migrations**: The movement of people from one place to another.
- **Mortality**: The incidence of death within a population.
- **Population changes**: Variations in the size and composition of a population over time.
- **Population doubling time**: The period it takes for a population to double in size.
- **World population**: The total number of people living on Earth.

Global Population Trends

After World War II, world population growth accelerated, particularly in less developed countries. From 1960 to 1975, a billion people were added to the world population, and another billion between 1975 and 1987. The human population began the 20th century with 1.6 billion people and ended with 6.1 billion. By 2020, the global population had surpassed 7 billion, with Asia hosting 59.4% and Africa 17.5% of this population. Advances in modern medicine and improvements in living standards have led to reduced mortality rates and increased life expectancy, fueling rapid population growth.

Population Size and Growth in Africa

Population Size

Africa is the second most populous continent, with a population of over 1.3 billion as of 2020, making up 17.5% of the global population. Sub-Saharan Africa has the world's highest rate of natural population increase at about 3% per year,

with the population expected to grow from 700 million in 1995 to 1.6 billion by 2030. Africa's rapid population growth is due to high fertility rates, with an average of six children per woman.

Population Growth

Africa has experienced rapid population growth, especially since the 1950s. Historically, the population grew slowly, but it has accelerated significantly in recent decades. The continent's population is expected to double in a shorter time than anywhere else in the world due to high fertility and declining mortality rates. This rapid growth presents challenges such as food production, healthcare, environmental sustainability, and education, as well as opportunities like a youthful workforce.

Factors Responsible for Africa's Rapid Population Growth

Several factors contribute to Africa's rapid population growth:

- High crude birth rates
- High fertility rates
- Early childbirth
- Low contraceptive use
- Declining infant and maternal mortality rates
- Increasing life expectancy
- Decreasing HIV/AIDS-related deaths

Components of Population Change

Population change is influenced by three main factors: fertility (births), mortality (deaths), and migration (immigration and emigration). The demographic balancing equation is used to calculate population changes over time:

Demographic Balancing Equation:

$$Pt - Po = B - D + I - O$$

Where:

- Pt= Population at the end of the period
- Po= Population at the beginning of the period
- B = Births
- D = Deaths
- I = In-migration
- O = Out-migration

Africa's Major Demographic Trends

Fertility Patterns

Fertility in Africa, measured by the Total Fertility Rate (TFR), has declined over the past two decades but remains the highest in the world. In 2020, the average TFR in Africa was 4.3 children per woman, down from 5.1 in 2004. Fertility rates vary across regions, with Central Africa having the highest rates and Southern Africa the lowest.

The Crude Birth Rate (CBR) is another measure of fertility, indicating the number of live births per 1,000 people. Africa also leads the world in this measure, with a CBR of 33 per 1,000 in 2020.

Mortality Patterns in Africa

Mortality refers to the occurrence of death within a human population. It is an important factor in understanding population dynamics, as it tends to reduce the size of the population. Mortality can be measured in several ways, including:

1. **Crude Death Rate (CDR):** The number of deaths per 1,000 people in a given year. For instance, if a country has a CDR of 8, it means that 8 people die for every 1,000 inhabitants in that year.
    - **Example Calculation:**
        - Assume Country X had 856,000 deaths in 2020 and a mid-year population of 53,500,000.
        - CDR = (856,000 / 53,500,000) × 1,000 = 16 deaths per 1,000 people.
2. **Infant Mortality Rate (IMR):** The number of infants who die before reaching their first birthday per 1,000 live births in a given year.
    - **Example Calculation:**
        - Suppose Country Y had 5,000 infant deaths and 40,000 live births in 2020.
        - IMR = (5,000 / 40,000) × 1,000 = 125 infant deaths per 1,000 live births.
3. **Maternal Mortality Ratio (MMR):** The number of women who die from pregnancy-related causes per 100,000 live births.
    - **Example Calculation:**
        - Assume Country Z had 10,000 maternal deaths and 3,500,000 live births in 2020.
        - MMR = (10,000 / 3,500,000) × 100,000 = 286 maternal deaths per 100,000 live births.
4. **Life Expectancy:** The average number of years a newborn is expected to live, assuming current mortality rates remain constant. In 2020, the

average life expectancy in Africa was 64 years, with variations across regions—74 years in Northern Africa and 59 years in Western Africa.

Trends in Mortality in Africa

Over the past decades, mortality rates in Africa have been decreasing. The crude death rate dropped from 14 per 1,000 in 2007 to 8 per 1,000 by 2020. However, this decline is not uniform across the continent. For example, Northern Africa had a lower CDR (6 per 1,000) compared to Southern Africa (11 per 1,000).

Infant Mortality Rate (IMR) has also shown improvement but remains high in many regions. Central Africa had the highest IMR (62 per 1,000 live births), while Northern Africa had the lowest (22 per 1,000 live births) by mid-2020.

Factors Contributing to High Mortality Rates in Africa:

- Low standard of living.
- Limited access to healthcare.
- Poor sanitation.
- Political instability and conflicts.
- Recurrent droughts and famines.
- High prevalence of diseases and infections.

Future Mortality Trends

Advancements in healthcare, better sanitation, and the discovery of vaccines are expected to continue reducing mortality rates in Africa. Child mortality, for example, is projected to decline significantly by 2030. However, challenges such as malaria and other communicable diseases still pose significant threats.

Life Expectancy in Africa

Life expectancy varies widely across Africa. While Northern Africa has a higher life expectancy, regions like Western Africa lag behind. The overall life expectancy in Africa was 64 years in 2020, with some regions like Northern Africa achieving 74 years, while Western Africa had an average of 59 years. As mortality continues to decrease, Africa is expected to see an aging population, with life expectancy projected to surpass 64 years by 2030.

Population Structure of Africa

Introduction

Understanding the demographic structure of Africa's population is crucial for analyzing its socio-economic dynamics. This section explores Africa's population structure, including age distribution, sex ratio, and the population pyramid.

1. Age Structure

The age structure of a population is categorized into three main groups:

- **Young Population (0-14 years)**
- **Working Population (15-64 years)**
- **Old Population (65+ years)**

Key Points:

- **Young Dominance:** Africa has a predominantly young population. For example, by mid-2020, Africa's median age was 19.7 years, much younger than Europe's median age of 42.5 years. A low median age indicates high fertility rates and rapid population growth.
- **Age Dependency Ratio (ADR):** This ratio shows the proportion of dependents (young and old) compared to the working-age population. High ADR in Africa (e.g., 85.2 in Sub-Saharan Africa) reflects a large number of young dependents relative to the working-age population.

Table: Africa's Population by Age and Major Regions, 2020

Region	Young Population (0-14 years)	Working Population (15-64 years)	Old Population (65+)	ADR (x 100)
Sub-Saharan Africa	43	54	3	85.2
Northern Africa	33	62	5	61.3
Western Africa	44	53	3	88.7
Eastern Africa	42	55	3	81.8
Central Africa	46	51	3	96.1
Southern Africa	29	65	6	53.8

Region	Young Population (0-14 years)	Working Population (15-64 years)	Old Population (65+)	ADR (x 100)
Africa	41	56	3	78.6

Implications:

- **High Fertility Rates:** Result in increased demands for resources like food, education, and healthcare.
- **Economic Pressure:** High dependency ratios can strain economic resources as a large portion of the population is not yet working or is retired.

2. Sex Structure

The sex structure refers to the ratio of males to females in a population, measured as the number of males per 100 females.

Example Calculation: If Country X has 3.6 million males and 4 million females, the sex ratio is calculated as: Sex Ratio=(3,600,0004,000,000)×100=90\text{Sex Ratio} = \left(\frac{3,600,000}{4,000,000}\right) \times 100 = 90Sex Ratio=(4,000,0003,600,000)×100=90 This means there are 90 males for every 100 females.

Implications:

- **Socio-Demographic Impact:** A skewed sex ratio can influence marriage rates, fertility rates, and labor market dynamics.

3. Population Pyramid

A population pyramid visually represents the age and sex structure of a population. It typically shows:

- **Expansive Pyramid:** Broad base indicating high birth rates and rapid population growth, common in developing countries.
- **Constructive Pyramid:** Narrow base indicating lower birth rates and an aging population, typical in developed countries.
- **Stationary Pyramid:** Even distribution indicating low birth and death rates, leading to a stable population size.

Types of Population Pyramids:

1. **Expansive Pyramid:**
    - **Characteristics:** Wide base, high birth and death rates.
    - **Example:** Many African countries with high fertility rates and lower life expectancy.
2. **Constructive Pyramid:**
    - **Characteristics:** Narrow base, larger elderly population.
    - **Example:** Developed countries with low birth rates and high life expectancy.
3. **Stationary Pyramid:**
    - **Characteristics:** Balanced distribution of age groups, low growth rate.
    - **Example:** Some developed nations with stable populations.

Major Characteristics of African Population

- **High Fertility and Mortality Rates:** Results in a young and rapidly growing population.
- **Triangular Population Pyramid:** Reflects high birth and death rates.
- **High Age Dependency Ratio:** Indicates a high proportion of dependents.
- **Low Life Expectancy:** Contributes to high mortality rates.
- **High Population Growth Rate:** Driven by high fertility rates.

4.4 Distribution and Density of Africa's Population

Key Terms:

- **Population Distribution:** The way people inhabit and occupy the earth's surface.
- **Population Density:** The number of people living per unit area, usually per square kilometer.
- **Spatial Variation:** The difference in the distribution and density of population across different areas.

Population Distribution:
In Africa, population distribution is highly uneven. Some regions are sparsely populated, while others are densely inhabited. For example, the vast Sahara Desert has very few permanent residents, whereas the Nile Valley in Egypt, Mauritius, Rwanda, and Burundi are among the continent's most densely populated areas.

Population Density:
Africa's average population density was about 44 people per square kilometer in 2019. However, this density varies significantly across different regions:

- **Eastern and Western Africa**: Highest crude population density with 65 persons per square kilometer.
- **Sub-Saharan Africa**: 49 persons per square kilometer.
- **Southern Africa**: Lowest density with 25 persons per square kilometer.
- **Central Africa**: 27 persons per square kilometer.
- **Northern Africa**: 31 persons per square kilometer.

Factors Influencing Population Distribution and Density:

- **Physical Factors:** Climate, relief, availability of water, soil fertility, and mineral resources.
- **Human Factors:** Economic conditions, political situations, and social factors.

Regional Variations:
While countries like Nigeria, Ethiopia, Egypt, the Democratic Republic of the Congo (DRC), and the Republic of South Africa are the most populous, the most densely populated countries include Mauritius, Rwanda, Burundi, Comoros, and Seychelles.

4.5 Urban and Rural Settlement Patterns in Africa

Key Terms:

- **Rural:** Areas with low population density, usually associated with farming and other primary activities.
- **Settlement:** The place where a community lives.
- **Urban:** Areas with high population density, typically associated with industrial and service activities.
- **Urbanization:** The process of increasing population concentration in urban areas.

Urbanization in Africa:
Africa presents significant contrasts in urbanization levels. Some countries, like Burundi, Rwanda, Malawi, Ethiopia, and Burkina Faso, remain predominantly rural. On the other hand, countries like Gabon and Western Sahara have over 80% of their population living in urban areas.

Challenges of Urbanization:
Rapid urban growth in Africa, driven by migration from rural to urban areas, presents challenges in providing land, infrastructure, and basic services to migrants. This has also put pressure on healthcare services.

Urbanization by Region:

- **Northern Africa**: 51% urban population.
- **Western Africa**: 45% urban population.
- **Eastern Africa**: 26% urban population, making it the least urbanized region.
- **Central Africa**: 47% urban population.
- **Southern Africa**: 62% urban population, the most urbanized region.

Trends and Projections:
Currently, 41% of Africa's population lives in urban areas. This figure is expected to increase, leading to a larger urban population than rural in about two decades. Countries with high urbanization rates include Gabon, Libya, Djibouti, Algeria, and South Africa, while countries like Kenya, Ethiopia, and Burundi have lower urbanization rates.