Amhara National Regional state Educational Bureau
Geography Worksheet for Grade 10 students

WORLD POPULATION

3.1 SIZE AND TREND OF WORLD POPULATION GROWTH

- Population doubling time is the time taken, in years, for a population of a given region or country to double at a given rate of population growth. It can calculated within the following formula:

Doubling time=70/Growth rate

3.2 Components of population change

- Fertility
- Mortality
- Migration

FERTILITY

- Is the actualoccurrence of give births

Measures of fertility

a) Crude birth rate (CBR)
b) General fertility rate (GFR)
c) Total fertility rate (TFR)

a) Crude birth rate (CBR)

CBR=B/P X Kwhere B is the total number of live births during a year, P is mid- year total population and K is a constant, conventionally 1000.

b) General Fertility Rate (GFR)

GFR = B/P_1 X k where B is the total number of live births during a year, P_1 mid-year population women between 15 and 49 years age and K is a constant, conventionally 1000.

c) Total Fertility Rate (TFR)

Formula:

(∑ ASBR) X 5, where∑ is summation of, ASBR is each five year age specific birth rate defined as B_X/P_X X 1000

Where B_X is the number of live births to mothers of age x and p_x is the number of residents women age x.

Factors of fertility and their effects

Factors Effects

- Age at marriage - Early marriage
- Status of women - Education
- Socio- economics factor

  - Religion

  - Ethnicity
  - Family structure
- Sex preference

MORTALITY

- **is the occurrence of death**

I) Measure of mortality

CDR=D/P X **K** Where **CDR** is crude death rate, **D** stands fortotal observed deaths**, P is** total mid-year population, and K is aconstant**.**

II) Infant mortality rate (IMR)

IMR=number of deaths below the age of 1 year**x** 1000

Number of live births in the year

MIGRATION

- Involves movement of people

The most common measures of migration.

a) Immigration rate

Immigration rate= number of immigrants**x**1000

Total population at destination

b) Emigration rate

Emigration rate= number of emigrants **x** 1000

Total population at origin

c) Net migration

Net migration rate= number of immigrants - number of emigrants **x** 1000

Total population

Measures of population change

I) Rate of natural increase = BR-DR

II) Population growth rate (PGR)

PGR=BR-DR ±NMR = RNI ± NMR

3.3 POPULATION STRUCTURE

Sex structure or composition

SR=$\frac{P_m}{}$ **x 100** **Where SR** is sex ratio which may also be referred as masculinity

P_f ratio $P_m$stands for the total number of males, and P_f stands for total number of females.

Dependency ratio

- People under 15 and over 65 are considered dependent up on the working population.

ADR=young + elderly **x** 100 = (population 0-14) +(population 65 +) x 100

Adults (population 15-64)

3.4 Spatial distribution of world population

- **The most** important characteristic feature of current world population distribution is its extreme unevenness.

3.4.1 Factors of population distribution

- Ecological
- Socio-economic
- Political
- Demographic

3.4.2 Population density

- **Spread of population over space**

a) Crude density or arithmetic density

Crude density = total population of an area

Total area, in sq.km of the area

b) Agricultural density or rural density

- It is the ratio of agricultural(rural) population to cultivated land

Agricultural density= Rural population

Cultivated land

EXERCISE

Part I: Matching items

Direction: Match the items under column 'A' with those under column 'B'.

Column "A" **Column "B"**

_____1. The rate of frequency of death In a population — A. Population pyramid

B. Fertility

_____2. Average number of children that Would be born alive to a woman — C. Crude density

D. Mortality

_____3. Age structure diagram — E. Evacuee

_____4. Actual occurrence of live births — F. Total fertility rate

_____5. Movement of people caused by Natural disaster problems

Part II: short answer questions

Direction: Answer the following questions briefly

1. State the three components of population change.

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2. List the factors that affect fertility distribution in the world.

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3. What are the factors of population distribution?

Part III: WORK OUT ITEMS

Direction: Question 9-19 refers to the demographic and economic data of a hypothetical country given below. These questions should be attempted only by **NON- BLIND** students.

Male population 4.5 million

Female population 5.5 million

Urban population 60% of the total

Total live births 50,000

Total deaths 30,000

Number of infants who dead below 1 year age 1,000

Woman ages 15-19 years 10,000

Total area 50,000 km^2

Cultivated area 1/5 of the total

Population ages below 15 years 45% of the total

Population ages above 64 years 5%

Net migration rate zero.

Based on the above demographic and economic data, calculate

1. Crude Birth Rate (CBR)
2. General Fertility Rate (GFR)
3. Crude Death Rate (CDR)
4. Infant Mortality Rate (IMR)
5. Rate of natural increase (RNI)
6. Population Growth Rate(PGR)
7. Sex ratio(SR)
8. Age dependency ratio (ADR)
9. Crude density
10. Population doubling time
11. Agricultural density

3.4.3 Human migration

Types of migration

- Permanent migration
- International migration
- Internal migration
- Step migration
- Seasonal migration

Causes of human migration

- Include economic, social and ecological

<u>Push factor spull factors</u>

- Harsh climate -favorable climate
- Natural disaster - employment opportunities
- Poor employment - political stability
- Housing shortage - high wages
- Political instability - good welfare services
- Low wages
- Planning decision

3.4.4 Urbanization

- Refers to the process through which the transformed being predominantly rural, in economy, cultural and life style to being predominantly urban.

Factors that affect urbanization

- High rate of natural increase of population
- Significant of rural to urban migration.
- Industrialization

3.5 Population of Ethiopia

Components of population change in Ethiopia

Fertility in Ethiopia

- Ethiopia's total fertility rate is one of the highest in the world

Mortality in Ethiopia

- Ethiopia has the one of the highest levels of mortality in the world
- The main causes of such high mortality are the effects of poverty, low living standards and poor access to health services.

Population structure of Ethiopia

Age structure

- Ethiopia's population is predominantly young

Sex structure

- **In 2007**, Ethiopia had an almost balanced(one to one) sex ratio, both in rural and urban areas.

Population policy of Ethiopia

- There are two major types of population policy used by different countries in the world

a) Pro- natalist (populationist) policies
   - They are designed to encourage population growth

b) Anti-natalist policies
   - They are designed to reduce birth rates
   - Ethiopian government adopted ananti-natalist population policy since 1993.

EXERCISE

PART I TRUE –FALSE ITEMS

Direction: For each of the following items write "TRUE" if the statement is correct, or write "FALSE" if the statement is not correct.

----------1. Policy that designed to encourage population growth is pro-natalist population policy.

_____ 2. The population structure of Ethiopia is described as predominantly young.

Part II:short answer questions

Direction: Answer the following questions briefly

1. Write the two major types of population policy used by different countries in the world.

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2. State the factors that affect urbanization.

Multiple Choice items

Direction: For the following items, choose the best or correct answer for each item that best satisfies the item.

1.All of the following are pull factors that attract the migrant to a particular destination, except.

A Favorable climate C. Harsh climate

B Employment opportunities D. Political stability

2. Among the following components which are negative factors of Population Change.

A. Emigration and death C. Birth and death

B. Death and Immigration D. Birth and Immigration

UNIT -4

ECONOMIC SYSTEN AND DEVELOPMENT

TYPES OF ECONOMIC SYSTEM

Traditional economic system -Command economic system

Free market economic system -Mixed economic system

Traditional economy

- trade is mainly by a barter system
- Practiced in extremely backward areas

Market economy

Characterized by;-Private property,Economic freedom,Prices that are determined by the law of supply and demand,Decentralized decision making

Command economy

Characterized by;-The government develops and enforces plans,Goods and services are distributed through government agencies

Mixed economy

Both government and private sectors play an important role in answering the ‘what’ and ‘for whom’ questions concerning society as whole**.**

Sustainable economic development
Components of sustainable development

Environment,Society,Economy

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Indicators of economic development

GDP,PER-capital income,Standard of living

Economic organizations of the world

World bank,IMF,WTO

Globalization

Is the process by which people their ideas and their activities in previously relatively separated parts of the world become interconnected, and are draw-to the same social space at the same historical time.It does not imply homogenization

EXERCISE
PART I True- false items

Direction: For each of the following items write “TRUE” if the statement is correct, or write “FALSE” if the statement is not correct.

__1. Most countries of the world have a command market economy.

----2. The philosophy of integrating and democratizing the world’s culture, economy and infrastructure refers as globalization**.**

PART II. Short answer questions

Direction: Answer the following questions briefly

1. List the major economic systems practiced in the world.

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2. State the components of sustainable development.

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3 . What are the main indicators of development in the world?

----------**Multiple Choice items**

Direction: For the following items, choose the best or correct answer for each item that best satisfies the item.

1. What is the economic system that both government and private sector involve?

A.Free market economy C. Command economy

B. Mixed economy D. Traditional econmy

2. In which economic system government intervention is minimum.

A. Mixed C. Command
B. Market D. Traditional

3. All of the following countries follow command economic policy, except.

A. China C. USA
B. North Korea D. Cuba

4. Among the economic organization of the world which one is known for guaranty loans to its member nations is

A. World trade organization
B. International bank for reconstruction and development
C. United nation development program
D. General agreement on tariff and trade

5 .Which of the following statement is NOT true about globalization?

A. It bring equality among nations
B. It creates new opportunities and benefits.
C. It requires integration of the world economy.
D. The strong and wealthy nations have the power to promote certain of their advantages**.**