POPULATION

- Definition: - Human population refers to the total number of people living in a given area e.g. district, province or a country.
- This number is determined by taking population census.
- The study of population is termed *Demography*.

Sources of population data

- Data on population can be obtained both from primary as well as secondary sources.

Primary sources of population data

✓ Registration of persons (births, deaths, marriages) helps determine birth and death rates, infant mortality, refugees.
✓ Sample surveys – are based on representative samples of the total population to secure desired information such as fertility rates, people attitudes towards family planning, breast feeding etc.
✓ Censuses - Refers to the total process of collecting, compiling and publishing demographic data at a particular time. It involves physical enumeration of the entire population in an area. Census gathers wide variety of information relating to the;
- Physical characteristics in terms of sex, race, birthplace and tribe.
- Social characteristics such as marital status, religion, education, housing, language.
- Economic characteristics- occupation and income.

Secondary sources of population data

- Secondary sources include Statistical abstracts, Published/ unpublished reports and tally tapes.

Factors influencing population distribution in East Africa

1. **Climate**
    - Areas with extremely low and extremely high temperatures discourage settlement and influence population pattern since the cannot support the growth and development of various agricultural activities
    - High rainfall areas (of above 1000mm) have high population density/densely populated because the high rainfall favour the growth of a variety of food crops. Plenty of food grown support a large population while cash crops attract a large labour force

2. **Relief**
    - High altitude areas of above 2500m above the sea level have low population due to the extremely low temperatures that do not favour settlement and growth of crops
    - Very steep areas e.g. around escarpments have low population density due to the difficulty in putting up buildings. Farming is also difficult due to impacts of soil erosion and landslides
    - Flat areas and depressions are less attractive for settlement because they exhibit poor drainage leading to swampy conditions and flooding – prone to water borne diseases that attack human beings

3. **Soils**
   - Areas with fertile, well drained volcanic soils that allow arable farming e.g. the Kenya highlands are densely populated because the soils encourage the growing of a variety of crops that attract large populations
   - Areas with fertile alluvial soils have attracted dense settlement e.g. around Lake Victoria

4. **Drainage**
   - Well drained areas attract settlements hence have high population density because they are free from water borne diseases
   - Swampy and waterlogged areas are uninhabited since they cannot support farming and settlement
   - Areas prone to flooding are less settled/have low population densities since floods displace people and destroy property and life

5. **Incidences of pests and diseases**
   - Areas prone to pests such as mosquitoes and tse tse flies that cause diseases e.g. malaria and sleeping sickness respectively have few people settled there because such diseases may weaken and kill human beings and livestock

6. **Government policy**
   - A government can influence the distribution of its population by creating settlement schemes to settle the landless or resettling people from areas of dense population concentration.

7. **Land ownership**
   - Places where people own large tracts/parcels of land area sparsely populated compared to places where land is owned communally that has dense population

8. **Urbanization**
   - Urban areas are densely populated due to presence of employment opportunities and improved social amenities compared to the rural areas

Population growth

- This refers to the change that occurs in the number of people in a population over a given period of time.
- It can be negative by having a decrease in the population or positive by having an increase
- It is detected after comparing successive census reports
- Census refers to the enumeration or physical counting of the whole population of an area taking care of demographic, social and economic factors at a given time and place.
- Census may be conducted after 5 to 10 years; in Kenya it is conducted after 10 years

Importance of conducting a population census

- It gives the characteristic features of a population in terms of age, sex, ethnicity, education and occupation
- Provides information on trends and levels of fertility and mortality thus helping the government in the provision of basic amenities
- Helps the government in division of administrative units

Problems of population census

- Expensive to conduct
- May be inaccurate/unreliable especially when informants give false information to the enumerators
- Some people may be counted more than once or omitted during the exercise

- Population growth can be calculated in two ways namely
    (a) Natural population growth
    (b) Numerical population growth

(a) Natural population growth

(i)   CBR
   - This refers to the number of births per 1000 persons in a population
   $$CBR = \frac{Total \quad Number \quad of \quad Births \quad in \quad a \quad year}{Total \quad Population \quad recorded \quad in \quad the \quad year} \times 1000$$

(ii)   CDR
   - This refers to the number of deaths in an year against 1000 by the total population
   $$CDR = \frac{Total \quad Number \quad of \quad deaths \quad in \quad a \quad year}{Total \quad Population \quad in \quad the \quad year} \times 1000$$
- CBR and CDR are referred to as crude because all other characteristics of the population e.g. age and sex are not considered
- Natural population growth is given by
$$Natural \; Population \; Growth = \frac{CBR - CDR}{1000} \times 100$$

(b) Numerical Population Growth

- This is the absolute or actual increase in the number of people in an area within a given period of time
- It is calculated every 10 years by getting the difference between two census/can also be expressed as a percentage

Factors influencing population growth

(i)   Fertility
   - Refers to the number of live births a woman has during her reproductive period
   - The ability to conceive and give birth to a child whether or not live birth or still born is called fecundity. Inability of the same is infecundity/sterility
   - Infertility is the inability of a woman to bear a child. (can be primary or secondary)
   - Fertility is influenced by factors such as
      ✓ Level of education of women
      ✓ Urbanization
      ✓ Career prospects
      ✓ Birth control/family planning measures

- Fertility rate is the ratio of live births in an area to the population of that area expressed per 1000 population in a given year/total number of births/children a woman would have during her reproductive period (15 – 49years)
- Kenya experiences a high fertility rate because of
  ✓ Improved health and nutrition services
  ✓ Weakening of some traditional values
  ✓ Cultural factors e.g. sex preference, polygamy, early marriages, naming of relatives , need for more children for prestige, leads to high child bearing period
  ✓ Economic factors e.g. need for a large pool of family labour and security in old age
  ✓ Lack of effective family planning practices due to ignorance/inaccessibility/use of traditional ineffective birth control methods.
  ✓ High mortality rates therefore need to reproduce for replacement

- Of late there has been a decline in Kenya's fertility rate due to
  ✓ More girls are attending school leading to reduced early marriages
  ✓ Urbanization has led to high cost of living; people thus prefer smaller families
  ✓ Modern career opportunities
  ✓ Increased use of birth control measures
  ✓ Increase in the number of women opting to remain single

(ii) Mortality
- Refers to the death among members of a population
- It reduces the population and affects its structure and composition in terms of age and sex
- May be caused by
  ✓ Outbreak of war/warfare
  ✓ Famine
  ✓ Floods
  ✓ Diseases/epidemics
- Death rate is the average number of deaths per 1000 persons in a population
- Death rate in many countries, Kenya's inclusive is declining because
  ✓ Improved health care provision
  ✓ Improved diet

(iii) Migration

- Definition: - this is the movement of people from one place/region to another resulting in a change of residence temporarily or permanently
- Can be voluntary or forced
- Can be within a country – internal migration or across countries – external/international
- International migration may involve emigration (from your country to another) or immigration (from other countries into a country)

General reasons/causes of migration

- Pressure on land – has pushed people to other areas in search of land.
- Availability of employment opportunities has led to rural – urban influx.
- Religious conflicts/ persecution of specific religions / sect groups force the members to migrate to safe place where they can practice their religion without interference.
- Political unrest, persecution, wars etc. This accounts for influx of refugees and increasing numbers of internally displaced people.
- Natural calamities – floods, disease, earthquakes, famine, drought, lightning etc.
- Government Policy – relocation of people to create room for projects such as schools, irrigation schemes, forest/ games reserves.

Types of migration

(a) Internal migration
   - Refers to the movement of people within a country
   - Include
     ### (i) *Rural to urban*
        - Involves the movement of people from rural areas to urban areas/centres
        - Mainly involves the youth
        - Reasons for rural to urban
          - Can be push or pull factors

Pull factors	Push factors
Transfers	Insecurity
Better living standards	High incidences of disease
Opportunities for better education and health	Lack of adequate land
Recreation	Unemployment
Attractions of Urban life	Diminishing returns on land
Better paying white collar jobs	Rural hard living conditions
Industrial centralization in towns	Low wages/ low prices of farm produce force some people to abandon farm work and seek alternative sources of income in the towns
	Inadequate social services – hospitals, schools, sporting facilities

(ii) *Urban to rural*
   - Involves movement of people from urban areas to settle in rural areas due to
     - Transfer from urban places of work to rural areas
     - Search of employment if industries are established in rural areas
     - After retiring/retrenchment from service
     - To avoid unbearable life in the urban areas/unemployment

(iii) *Urban to urban*
   - Involves movement of people between towns/urban centres – from one town to another due to the following
     - Change of profession
     - Job transfers
     - Leisure

- Investment in a new town
- Search of higher education and better healthcare.

(iv) Rural to rural

- Involves movements within people from one part of a country to another within the rural – side.
- Reasons: -
  - Population pressure which leads to land fragmentation has led to migration of people to settlement schemes and less populated rural areas in search of land.
  - Insecurity in areas such as North Eastern, Mt. Elgon has forced people to move to safer areas
  - Establishment of large plantations (Mwea, Ahero) attracts people from the neighborhood as they search for employment.
  - Pastoral communities (Maasai, Borana, Samburu) migrate from one rural area to another in search of pasture and water for their livestock
  - Inheritance of land /land disputes cause people to move and settle elsewhere.
  - Natural catastrophes – floods, disease, famine in Kano and lower Tana cause people to move to more secure higher grounds
  - Government policy of moving people from one rural area to another to create room for government projects

(b) External migration

- Aka international migration involves the movement of people across international borders so as
  - Pursuit of higher education
  - International job offers
  - Warfare/Refugees/political unrest
  - Tourism
  - Visiting relatives overseas/attending international conferences
  - Political persecution/political asylum

Effects of migration
(a) On the origin

- Shortage of labour on the farms leading to reduced food production hence food shortage
- Imbalance in the male to female ratio as most migrants are males. This may result to family break ups
- Under development in the rural areas
- Depopulation especially if the migration is forced

(b) On the destination

- Increase in population
- Economic development in an area especially if the migrants are engaged in meaningful income generating activities
- Increased cases of crime from migrants who fail to secure employment
- Pressure on existing social amenities
- Presence of refugees would drain the resources of a country/insecurity as some refugees may engage in unlawful practices

Problems which result from the high population growth rates in East Africa
- High dependency ratios as the youth outnumber the working population. This slow down economic growth due to greater consumption expenditure.
- Unemployment since population growth surpasses the rate of employment creation.
- High population exerts pressure on land this leads to environmental degradation such as soil erosion, cultivating wetlands/ water catchments, land fragmentation and landlessness.
- High population growth leads to pressure on basic facilities/social amenities e.g. schools, health facilities, recreational facilities, power rationing and perennial water shortages.
- High population growth creates market for goods and services.
- Leads to importation of food stuffs due to food shortage thus draining foreign exchange earnings.
- High population growth may lead to unemployment forcing many people to turn to crime and other social delinquent behaviors (immoral practices)
- High rates of migration.
- Congestion in towns and cities leading to traffic congestion and mush rooming of slums.

Population trend
- Refers to the various changes that take place in a population of a given country and their impact on socio – economic environment
- These changes go through demographic transition i.e. historical changes in birth rate and death rate from high to low
- There are four phases of demographic transition face i.e.
    (a) Stage 1 – involves little or no increase in population
    (b) Stage 2 – characterized by high birth rate, decline in death rate and high population growth rate – Kenya is at this stage
    (c) Stage 3 – decline in birth rate, low death rate and moderate population growth
    (d) Stage 4 – low birth rate and low death rate, population growth rate is low leading to population replacement. The population becomes static and can only produce to replace dying one

Factors leading to slow population growth
- Warfare that leads to death among members of a population/migration
- Epidemics/outbreak of diseases
- Famine as a result of prolonged drought
- Family planning practices/late marriages
- Emigration
- Natural calamities
- Socio – cultural factors

Under population is a situation where the population is too small for the full utilization of the available resources. In this circumstance, a higher population could be supported without a fall in living standards.

Problems resulting from under population

- Small labour force may lead to importation of foreign expatriates.
- Underutilization of existing resources such as schools, hospitals
- Slow growth of industries due to the small market and shortage of labour force.
- Un-even distribution of population causes regional imbalance in a country.
- Rural depopulation caused by high influx to urban areas lead to abandonment of same areas of farms. This creates remoteness as it becomes uneconomical to lay infrastructure in such sparsely populated areas.
- Urbanization – Urban sprawl has engulfed land which would otherwise be suitable for agriculture.

Over population – refers to a situation where an area has a higher population than its available resources can support.

Problems of over – population in developing countries

- Mass unemployment
- Poor housing hence emergence of slum and gather settlements
- Poor health care, malnutrition spread of diseases
- Slow growth of industries consequent upon prevalence of unskilled labor, poverty.
- High dependency ratio
- Erosion of social/moral fabric and values.
- Strain on infrastructural facilities/existing social amenities (perennial water and power rationing).

Population Structure

- This refers to the characteristics and composition of a given population in terms of age and sex at a given time
- It is graphically represented using an age sex pyramid
- Population pyramids have different shapes depending on the population structure and the demographic stage of the country

Kenya's population pyramid

- Draw pyramid on page 214 for Kenya
- Over 60% of the population comprises of youth below 20 years old – this depicts a high birth rate
- About 5% comprises of older people over 65years old this depicts high death rate/low life expectancy/High infant mortality rate
- The population has high dependency ratio i.e. proportion of unproductive population (below 20 years and above 65 years) in relation to productive age

$$Dr = \frac{C + Op}{Wp}$$

$Dr =$ Dependency Ratio
$C =$ Children
$Op =$ Old Population
$Wp =$ Working Population

- Females comprises of 60% while males about 40%

Implications of a young population
1. High demands for unproductive goods e.g. Toys, Sweets.
2. Increases demands for social amenities e.g. maternity facilities.
3. High dependency ratio because of the unproductive group being very high.
4. High causes of juvenile delinquency – street children pick pocketing.
5. Increase in large numbers of unemployed people.

Population of Sweden

- Sweden has a low population density of 20 people per square km.
- Swedish population mainly lives in the urban areas

Factors influencing population distribution in Sweden
1. **Relief** - a large proportion of the country is mountainous, steep slopes with thin soils, the subsoil is permafrost. Population in the highlands is low and scattered.
2. **Climate** – 60% of the population is found in the warmer southern part with fertile soils the north is avoided due to chilly climate cold winters and snow covering most of the areas.
3. **Forests** account from 55% of the land especially steeps slopes.
4. **Drainage**- Sweden has a dense drainage e.g. small numerous lakes/rivers such areas are avoided.
5. **Mining centre** – have high densities due to immigrants who provide labour.
6. **Urbanization** – Urban centers form nucleated settlement e.g. Stockholm, Gutenberg and Norrkoping and most of population live in urban areas

Population growth of Sweden

- Sweden is in the final/fourth stage of demographic transition i.e. the birth rates equal the death rates
- It experiences a slow population growth rate because
  ➢ Move towards smaller families due to high costs of living
  ➢ Introduction of birth control measures
  ➢ Improved health/medical care facilities
  ➢ Urbanized population thus the need for fewer children to maintain a high living standard

Population Structure of Sweden

- Draw the age sex pyramid for Sweden on Certificate Geography Bk 4 pp 214
- It is a developing country and its population is characteristic of the following
  - ➢ The pyramid has a narrow bottom bulges out in the middle and a bit wide at the top.
  - ➢ The narrow base implies low birth rate.
  - ➢ A broad bulge in the older age group reflects a high life expectancy – over 80 yrs
  - ➢ Characterized by a low mortality rate
  - ➢ There is a low population growth rate
  - ➢ There is low dependency ratio 37% depending on 63% working population

Comparison between population in Kenya and Sweden

Kenya	Sweden
Consists of young people below 20yrs of age	Has an ageing population.
Has low life expectancy	Has high life expectancy
A high percentage population lives in rural areas	Most people live in urban centers
Experiences a high population growth rate	Experiences a slow population growth rate
High fertility/birth rate	Low fertility/birth rate
High dependency ratio	Low dependency ratio
High death/mortality rate	Low death/mortality rate

Effects of ageing population
Ageing population has a large number of old people aged 65 yrs and over which may have the following effects.
- Increased dependency ratio.
- Increased cost of health care for the aged who are prone to ill health.
- Shortages of man power/ labour in some professions
- Under utilization of already set up social facilities for the young people.
- Provision of pension poses financial problems.
- High degree of occupational and geographical immobility amongst the aged.
- Older people many resist social – economic and scientific changes.
- There is a heavy burden on the community i.e. they demand more sick leaves
- Production will be turned towards goods used by the old.
- Lack of natural regeneration of population