

# GEOGRAPHY

## DIRECTION AND BEARING

**Meaning:** The two major ways of showing direction are by the use of a compass point or the cardinal point and angular bearing.

**Compass Points:** this is the use of four cardinal points (North, South, West and East) to show the direction of places. But for better accuracy in measurement of direction, the eight cardinal points are used (they include: North, North-east, West, North-West, East, South-East, South-West). There is also the sixteen cardinal points but this is used at advanced levels like sea and air navigation.

**Direction:** The direction of one place or object from another is expressed by means of compass or cardinal points. The prismatic compass is an instrument for showing direction and measuring angles.

**Angular Bearing:** Bearing is the angle measured in degrees clockwise from north point to a direction line. Bearing refers to the difference in angle between two places and the true north. A line drawn to connect the angle formed between the line and true north is called BEARING. Bearing is measured in degrees and in clockwise direction with a protractor. It is only through the use of protractor that one can provide the accurate bearing. Beginning always from north Pole and measured in a clockwise direction.

## Types of North Points

There are three types of North points in relation to bearing.

**TRUE North (Geographic north):** This is the angular bearing which is derived from a line of longitude (meridian) in the direction of the north pole.

**Magnetic North:** this is the bearing obtained through the use of prismatic or magnetic compass. **Grid North:** A grid north is a system of numbered square formed by vertical and horizontal lines and usually shown on map surface. The vertical lines of the grid system do not point to true north or magnetic north. The direction of the vertical lines is therefore grid north.

**Magnetic Variation or Delination:** This is the angle between the true north and the magnet north.

## REPRESENTATION OF RELIEF FORMS

The term **relief** refers to the elevation of land or earth's surface above the sea level.

### Types of relief

There are two types of relief

1. Lowland
2. Highland

**LOWLAND:** These are areas on the earth's surface that are below 300metres above the sea level.

**HIGHLAND:** Highland is the area on the earth's surface that is 300metres above the sea level.

## PHYSICAL FEATURES OF RELIEF REPRESENTATION

**A valley:** This is a depression on the earth surface usually bounded by hills or highlands.

**A spur:** Spurs are projection of highland into lowland. spurs separate one valley from another.

**Conical Hills:** This is a hill which contour lines are usually circular in shape and gets smaller and smaller toward the centre.

**Round Top Hill:** This is a hill which contour lines are circular in shape but the peak or apex is wider or broad.

**A Knoll:** This is a small isolated hill. It has a similar shape like conical hills but its height is low.

**A Ridge:** This is a hill whose contour lines are elongated and run parallel to each other.

**Undulating Lowland:** This is a lowland which rises and falls gently. They are represented by an irregular contour line.

### **METHODS OF REPRESENTING RELIEF ON A MAP**

**Contour Lines:** These are lines that join places on a map that have equal height.

**Contour Layering:** This is the use of different shades of contour to show different heights.

**Hill Shading:** This is a method of height representation used in hilly and mountainous areas. But only one colour is used.

**Spot Height:** This is a point on a map whose height has been accurately measured.

**Trigonometrical Station:** This is a simple point on the ground marking the angle of triangulation when mapping an area.

**Bench Mark:** This is a permanent mark made on an object like roads or buildings.

**Watershed:** This is a highland that divides different water sources into different directions.

## **WORLD POPULATION**

**Introduction:** Population is important both as a factor and as a measure of development in a country. Population is defined as the total number of people living in a given area at a particular time. The population of a particular country could be over-populated, over-populated and under-population. In October 31, 2011, the World population reached 7 billion people. As at March 2016, the world population was estimated at 7.4 billion. The world population was estimated to have reached 7.8 billion people as of March 2020.

### **Top Ten Most Populous Countries**

1. China      2. India      3. United State      4. Indonesia      5. Pakistan  
6. Brazil      7. Nigeria      8. Bangladesh      9. Russia      10. Mexico.

These data were based on the United Nations population division estimates.

### **WORLD POPULATION SIZE**

In studying population of any country, the first considerations are to consider the size of population or total number of people in the country. This is usually done by conducting a census, that is, a head count of age, sex or religion.

### **Pattern of World Population Distribution**

Population distribution is the pattern or size of building or people concentrated in a particular area. World population distribution is uneven (either not similar or the same). Some areas are densely populated while others are moderately or sparsely populated. They are grouped into the densely populated parts of the world. It contains many buildings and people.

a. **Industrial North East USA:** Those countries include United States, Canada, Pittsburgh, New York etc.  
b. **Industrial North -West Europe:** Those countries include Great Britain, France, Denmark, Belgium etc.

c. **Agricultural Monsoon Asia:** Examples of those countries include China, India, Japan, Pakistan, Indonesia (mostly in Java).

d. **The Nile Valley and Delta in Egypt.**

### **The Moderately Populated Part of the World**

A. Agricultural USA      B. Africa      C. Mediterranean EUROPE

D. Temperate and Tropical Grasslands of Southern Continent.

## The Sparsely Populated Parts of the World

Places that are sparsely populated contains few people. It is usually a difficult place to live. These are usually places with hostile environment.

The cold polar land of arctic and Antarctica.

The Canadian, Europe and Asian tundra and Greenland due to cold weather.

The hot desert of the world like Kalahari, the Sahara, the Great Australian Desert etc due to hot weather and dryness with scarcity of rainfall.

The high mountains of Himalayas, Rockies and parts of Andes due to rugged relief and cold weather.

The dense tropical rainforest like Amazon basin, Congo basin both are inhabited.

## World Population Structure

Population structure of any area shows the number of males and females within different age group in that population. This information is displayed as age-sex or population pyramid. Population pyramid are used to show the structure of population according to age and sex.

## Factors Affecting Population Distribution

**Climate:** Areas with good climate tends to be densely populated as there is enough rain while areas with severe climate tend to be sparsely populated example Sahara Desert.

**Mineral Resources:** Areas that are rich in mineral resources attracts high population than areas with little or no mineral resources.

**Job Opportunity:** Good job opportunities encourage high population concentration, particularly in more economically developed countries while limited job opportunities caused some areas to be sparsely populated.

**Relief:** Lowland areas attracts more population than countries that have more of rugged terrain.

**Social Amenities:** This attracts more population due to good roads, hospitals etc but countries without good social amenities attracts few populations.

## SETTLEMENT

A settlement is defined as a place containing two or more buildings with people living in them.

### TYPES OF SETTLEMENT

i. Rural Settlement                      ii. Urban Settlement

**Rural Settlement:** This is a small settlement containing few people in a relatively small area with socially homogeneous people that know one another very well.

### TYPES OF RURAL SETTLEMENT

**HOMESTEAD:** This settlement has just one compound or one family residence separated by farmland or bushes. It is usually isolated.

**FARMSTEAD:** It consists of two or more homestead usually dispersed and separated by farmlands and occupied by up to fifty persons.

**HAMLET:** This type of settlement has up to hundreds of people. It is made up of dispersed, nucleated or linear homesteads. People engage in primary activities.

### CHARACTERISTICS OF RURAL SETTLEMENT

The buildings could be dispersed, nucleated or both.

It has few social amenities

They are mainly involved in primary activities like farming, lumbering and fishing.

They have people with the same cultural background and language.

It is a relatively small area with social homogeneous people that know one another very well.

## **URBAN SETTLEMENT**

An urban settlement is a relatively large, densely populated area with socially heterogeneous people who do not know one another very well.

### **TYPES OF URBAN SETTLEMENT**

**TOWN:** It is a population made up of several thousands of people. They perform several services.

**CITY:** This is a large town. It has a greater service to perform than town example Lagos, Ibadan, Enugu etc.

3. **METROPOLIS:** This is a major city especially the capital. It is the most important and it contains millions of people. Example Lagos.

4. **CORNUBATION:** Cornubation is made up of two or more towns or cities which have grown to match with one another. Example Lagos-Ikeja.

**MEGALOPOLIS:** This is the largest types of urban settlement made up of large cities with several millions of people.

### **CHARACTERISTICS OF URBAN SETTLEMENT**

The buildings are mainly nucleated or very close to each other.

It has many social amenities.

They are mainly involved in secondary and tertiary activities like manufacturing, construction and commercial services.

The level of interaction between the inhabitants are very high.

It is a relatively large area with socially heterogeneous people that did not know themselves very well.

### **FACTORS THAT AFFECTS THE LOCATION OF SETTLEMENT**

**FERTILE SOIL:** The soil must be fertile to promote agricultural activities that attract commercial agriculture.

**ADEQUATE PROVISION OF SOCIAL AMENITIES:** Many people settle in areas where social amenities are available.

**ECONOMIC ACTIVITIES:** people tend to settle in areas where economic activities take place because it attracts job opportunities.

4. **CLIMATE:** Favourable climate also tends to attract people in an area which equally leads to the growth of a settlement.

5. **RELIEF OR TOPOGRAPHY:** The gentler or low a land is, the more people dwell and farm on the land.

### **SETTLEMENT INTERACTION**

This is the type of human interaction existing within a settlement and its environment.

#### **TYPES OF SETTLEMENT INTERACTIONS**

**URBAN SETTLEMENT INTERACTION:** This is the type of human interactions or activities existing in urban settlement and its environment.

**RURAL SETTLEMENT INTERACTION:** This is the type of human interactions or activities existing in rural settlement and its environment.

#### **INTERDEPENDENCES BETWEEN RURAL AND URBAN SETTLEMENT**

Urban and rural settlements interdepend on each other for their continuous existence.

### **DEPENDENCE OF URBAN SETTLEMENT ON RURAL SETTLEMENT**

Rural settlement supplies locally made products, example-mats, handfans, hoes and cutlasses.

Unskilled labourers are usually from rural to urban industrial areas.

Rural areas supplies agricultural produce such as food stuffs like yams, cassava, cereals etc.

Medical herbs and roots are usually brought from rural to urban areas for treatment of people with some health issues.

Rural areas supply some raw-materials like cotton, cocoa, rubber for industrial use in urban areas.

### **DEPENDENCE OF RURAL SETTLEMENT ON URBAN SETTLEMENT**

It provide lucrative jobs for people in rural settlement.

It provides medicinal services to people in rural areas due to equipped hospitals in urban settlement.

It provides large market where the rural dwellers can sell their goods.

It provides manufactured or finished goods like milk, sugar and beverages to the rural dwellers.

It provides administrative headquarters because most urban centres are seat of government.

It provides information because information flows from urban to rural areas mostly.