



Anything that can be used to satisfy a need is a resource. A use of a thing gives it a value and it is called a **resource**. A technique and skill is used to turn a substance into a resource. It is people with their demands and abilities that turn nature's bounty into resources, i.e., useful/valuable products. Thus, people or human beings are useful in themselves because they make other things useful. Hence, human beings are resources in themselves called **human resources**. They are most important of all resources as they are able to turn other things into a resource. In other words, **human resource is the ultimate resource**. Human resources are important for everyone as they help other people to develop their abilities and put them to maximum use.

People who are engaged in some **useful activity** are considered to be a human resource. Thus, economically useful people are called human resource. Every human being is a **potential resource** as his / her talent and skill can be utilised to carry out various tasks to increase production. A country can produce more if its people are educated, trained, innovative and able to face challenges. Healthy, educated and motivated people also develop resources as per their requirements. Educating and training people will lead to more production and better services.

There are more than 6.6 billion people in the world. Not every person is skilled to do every work. Their skills in specific directions can be improved. The process is called **Human Resource Development**.

The human resources are not evenly distributed over the world. Number of humans living in a certain region at a certain time is called **population**. Distribution of population in the world is extremely uneven. The population is growing. People differ greatly in their age, sex, literacy level, health condition, occupation and income level.

### **Distribution of Population**

The world population crossed the 6.5 billion mark in the year 2005. The distribution of population in the world is extremely uneven. The

same holds true at regional or national levels. The way in which people are spread across the Earth surface is known as the **pattern of population distribution**. More than 90 per cent of the world's population lives in about 10 per cent area of the land surface. Almost three quarters of the world's people live in two continents Asia and Africa. Many more people live in north of the Equator than south of the Equator.

Very few people live in high latitude areas, tropical deserts, high mountains and areas of equatorial forests. The crowded ( densely populated ) areas are south and south-east Asia, Europe and north-eastern North America.

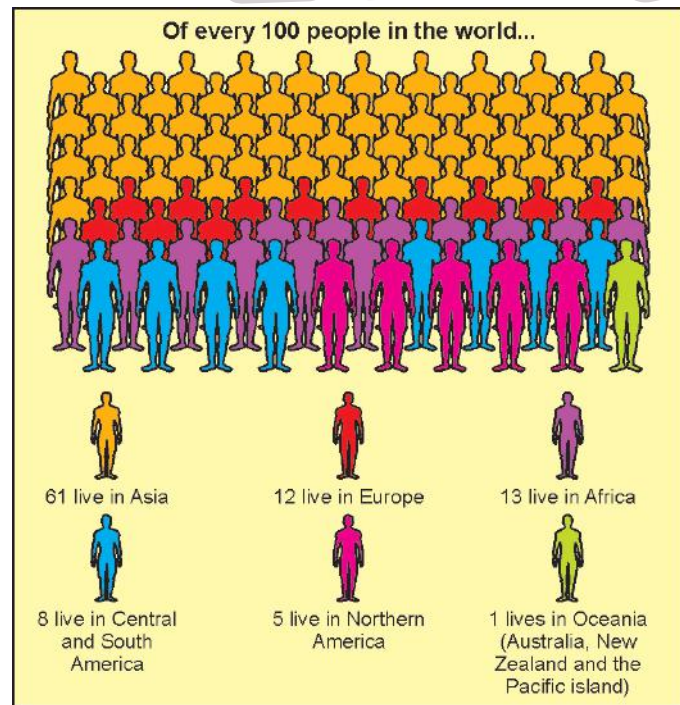
Sixty per cent of the world's people live in just 10 countries. Each one of them has more than a 100 million people. India and China together account for more than one-third of the total world population.

At the national level, northern states of Bihar, West Bengal, Uttar Pradesh and Maharashtra have large population. One out of every six Indians live in Uttar Pradesh alone. In the south only, Andhra Pradesh has largest population. As regards migrant population, Delhi and Chandigarh are at the top.

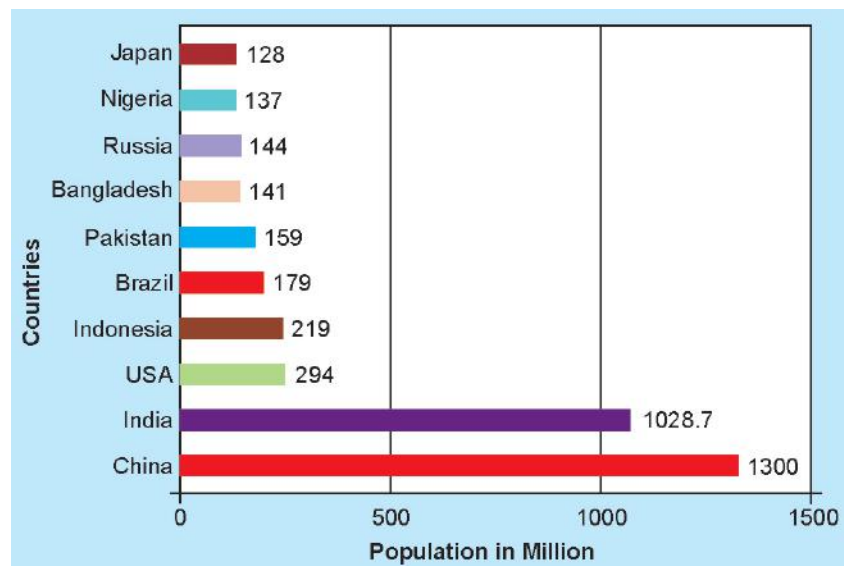
### Density of Population

The number of people living in one sq. km is the average density of population of that area. The average density of population in the whole world is 45 persons per sq. km. Average means we spread all the people over the entire land area in our imagination. Region wise, south central Asia has the highest density of population followed by east and south-east Asia. Average density of population in India is 325 persons per square km.

Within a country the density varies from region to region. The Union Territory of Chandigarh has a density of 7900 persons per sq. km while the National Capital Territory of Delhi has 9300 persons per sq. km. The mountain state of Arunachal Pradesh has a density as low as 13 persons per sq. km and Mizoram has just a little higher 42 persons per sq. km.



World population by continents



World's most populous countries



## Factors Affecting Distribution of Population

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### Geographical Factors

**Land forms or Topography** : Plains are suitable for construction of roads, canals, railway lines and buildings, for farming, manufacturing and service activities. That is why people prefer to live on plains than plateaus and mountains. Thus, Ganga plains are the most densely populated areas of the world while mountains like Himalayas, Alps and Andes are sparsely populated.

**Climate** : Most people avoid extreme climates—very hot like Sahara desert or very cold like polar regions of Russia, Canada and Antarctica.

**Soil** : Fertile plains of Ganga and Brahmaputra in India, Hwang-He, Chang Jiang in China and the Nile in Egypt are densely populated. They provide fertile lands for agriculture.

**Water** : Fresh water is essential for drinking and irrigation. So, people like the fresh water sources to inhabit around. The river valleys of the world are densely populated while deserts have sparse population.

**Minerals** : Discovery of costly minerals in an area attracts a lot of people to settle there. Diamond mines of South Africa and oil wells in the Middle East led to settling of people in these areas.

### Social, Cultural and Economic Factors

**Social** : Areas of better housing, health and education facilities are more densely populated. For example, Pune.

**Cultural** : Places with religion or cultural influence attract many people to settle there. For example, Varanasi, Jerusalem and Vatican city.

**Economic** : Industrial areas and urbanization attract a large number of people for employment, trade, medical facilities and a living style. Mumbai in India and Osaka in Japan are densely populated for the same reason.

## Population Change

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The population change refers to change in the number of people during a specific time .

### Change in the World Population

For an extremely long period of human history, until the 1800s, the world's population grew steadily but slowly. Large number of babies were born, but they died early too. Lack of proper medical facilities and nutritious food was the main reason. As a result the total increase in population was very low. In 1820, the world's population reached one billion. A hundred and fifty years later, in the early 1970s, the world's population reached 3 billion. This is often called population explosion. In 1999, less than 30 years later, the world population doubled to 6 billion.

After the industrial revolution in the 18th century, improved production led to trade and an improved standard of living. Better medical facilities, hygiene and sanitation caused a decline in the death rate. With better food supplies and medicine, deaths were reducing while the number of births remained fairly high. This resulted in the natural growth rate.

The difference between the birth rate and death rate is called the **natural growth rate**. The number of live births per 1000 people in a year is called **birth rate**. Number of deaths per 1000 people in a year is called **death rate**. When the birth rate is more than death rate, the population increases.

The population increase in the world is mainly due to **rapid** increase in natural growth rate.

### Change in the Population of Countries

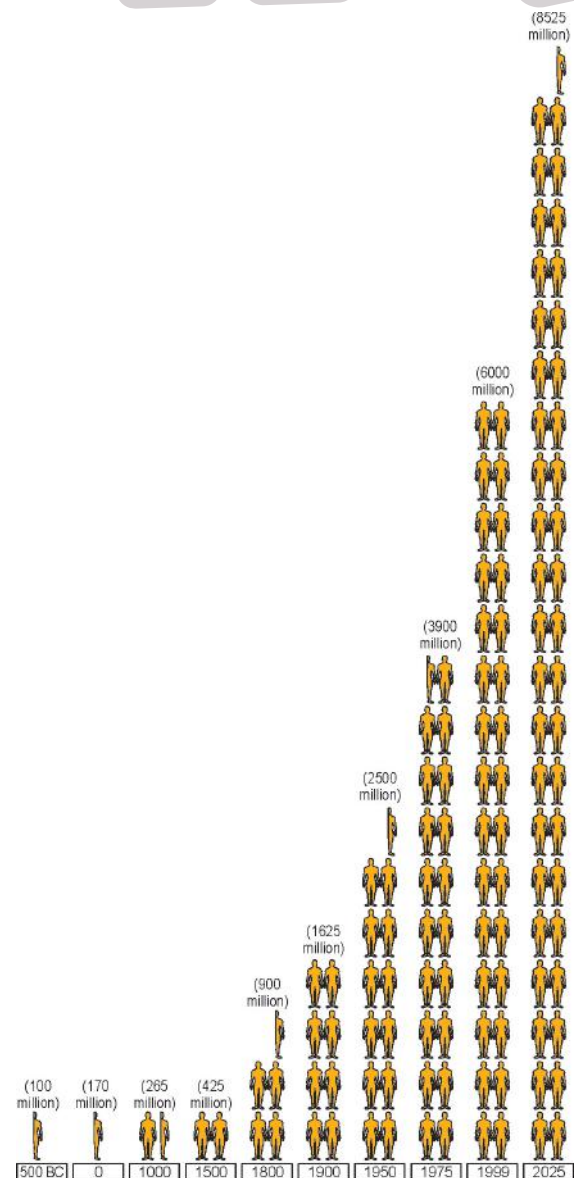
The change in the population of a country is a result of natural growth and migration. **Migration** is the movement of people in and out of an area. People may move within a country or between countries. Within a country large number of people may move from the rural to urban areas in search of employment, trade, education and health facilities.

**Emigrants** are people who leave a country. **Immigrants** are people who arrive in a country. The general trend of international migrations is from the less developed nations to the more developed nations mostly in search of better employment opportunities. Countries like the USA and Australia have gained in population numbers by in-migration or immigration. Countries like Sudan has lost in population numbers due to out-migration or emigration.

At present the countries of Asia, Africa and South America are experiencing a higher rate of population growth than countries of Europe, North America and Australia. The population growth of Chad, a country in Africa is the fastest.

### Change in the Population of India

A country's population is officially counted by a process known as census. In India, it is undertaken every ten years. According to the 2001 census, India's population was 1028.7 million, making it the second most populous country in the world, after China. Since 1901, our country's population has grown four times. Death rate has declined and average life expectancy, that is, the average number of years a person can expect to live, has increased. This is because of improved medical facilities and better food supplies.

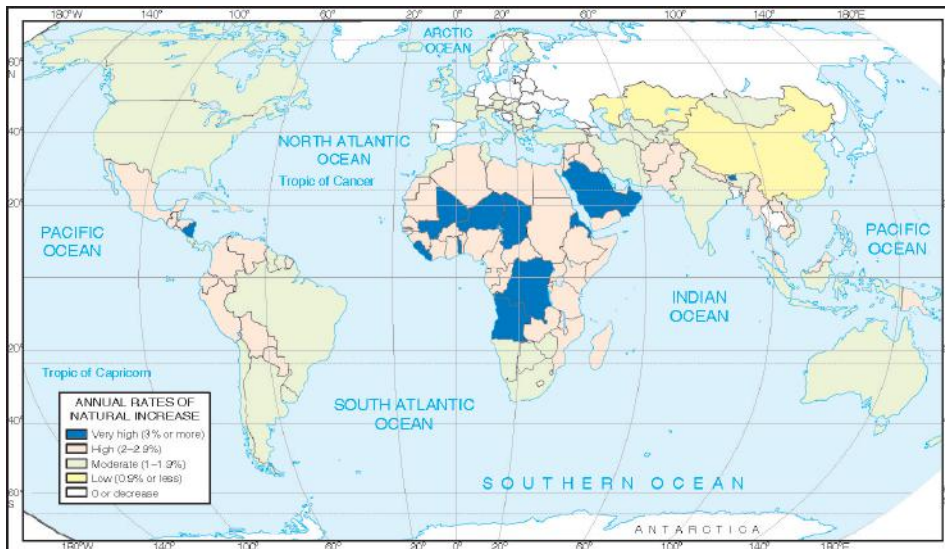


World Population Growth

Fact File	
India's population change pattern	
Year	Population in million
1901	238
1911	252
1921	251
1931	279
1941	319
1951	361
1961	439
1971	548
1981	683
1991	844
2001	1028.7



## Patterns of Population Change in Different Countries



World : Differing rates of population growth

Rates of population growth vary across the world :

Although, the world's total population is rising rapidly, not all countries are experiencing this growth. Nearly 95 per cent of the population increase is taking place in developing countries while the developed countries show a static or declining population. At present, the countries of Africa, Asia and South America are experiencing a

higher rate of natural growth in population than countries of Europe, North America and Australia. The population of USA is increasing not because of rate of natural growth but because of immigration.

Some countries like Kenya have high population growth rates. They had both high birth rates and death rates. Now, with improving health care and medical facilities, death rates have fallen, but birth rates still remain high leading to high growth rates. In other countries like United Kingdom, population growth is slowing because of both, low death and low birth rates.

## Composition or Structure of the Population

We can know the basic characteristics of the whole population by the study of the composition of the human resources. **Composition of the population** includes its classification on the basis of age, sex, literacy level, health condition, occupation and income level. Thus, we can find their economic value as a human resource. Merely a great number of people is not human resource without value or utility. For example, both Bangladesh and Japan are very densely populated but Japan is far more economically developed than Bangladesh.

### Population Pyramid or Age -Sex Pyramid

Out of the factors of the population composition cited above, age and sex are natural factors which cannot be changed. We can, however, change their affects by providing health care facilities, education, training and employment.

**A graphical presentation of the age-sex composition of a population :** First we divide the total population into various age groups, e.g, 5 to 9 years, 10 to 14 years and so on. The percentage of the total population is subdivided into males and females, in each of those groups. If we draw a horizontal age-sex bar graph, it looks like a pyramid. That is

why we call it as population pyramid or age-sex pyramid. The numbers of children (below 15 years ) are shown at the bottom (see the horizontal dividing line) and reflect the level of births. The size of the top shows the numbers of aged people above 65 years (see the horizontal dividing line ) and reflects the number of deaths.

Age structure of the population is an important characteristic. The population comprises three broad groups—people below the age of 15 years, people aged between 15 to 65 years and people above 65 years of age. While the first and the third group consist of a **dependent population**, the age group from 15 years to 65 years, is considered to be the **working population**, i.e. economically active. By observing the population pyramid we can calculate the number of dependents in a country. However, the actual working population is generally aged between 20 to 60 years.

We shall now study and compare the **population pyramids of three different types**.

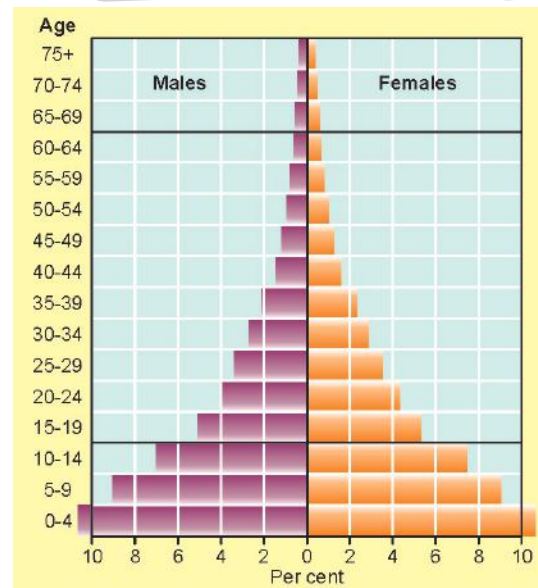
1. The population pyramid of a country in which birth rate and death rate both are high is broad at the base and rapidly narrows towards the top. It shows that although many children are born, a large percentage of them die in their infancy. Relatively few become adults and there are very few old people. This can be seen in the pyramid for Kenya.

2. In countries like India, death rates ( especially amongst the very young ) are decreasing, the pyramid is broad in the younger age groups, because more infants survive to adulthood. Thus it contains a relatively large number of young people, i.e. , a strong and expanding labour force.

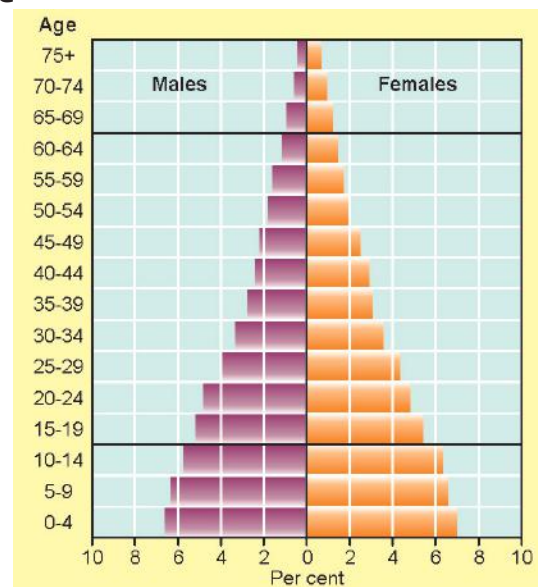
3. In countries like Japan, low birth rates make the pyramid narrow at the base. Decreased death rates allow numbers of people to reach old age.

In developing countries, many females die due to neglect, ill-health, multiple pregnancies, and neglect at child birth. Neglect means lack of proper food, medical attention and education. Educated females become self-reliant and assertive.

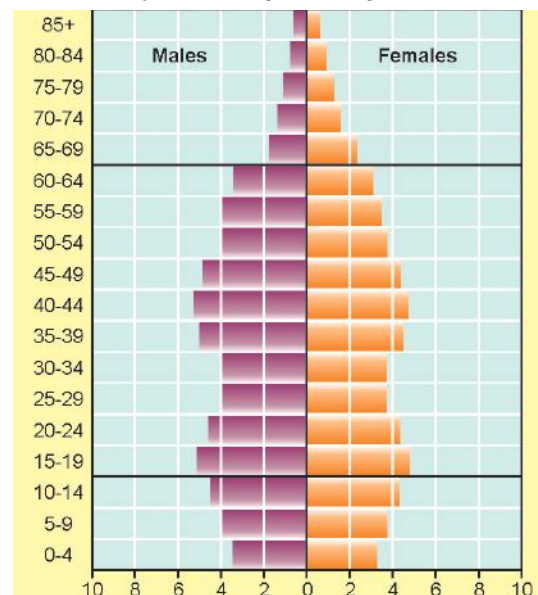
In India, education and other facilities are increasing. But it needs an awareness, a positive outlook and spirit to develop and help others to develop for turning the potential human resources into actual human resources.



Population Pyramid of Kenya



Population Pyramid of India



Population Pyramid of Japan



## Key Words

- » Human resources : economically useful people.
- » Population : number of humans living in a certain region at a certain time.
- » Population density : number of people living per square kilometre.
- » Birth rate : number of live births per 1000 people in a year.
- » Death rate : number of deaths per 1000 people in a year.
- » Natural growth rate : difference between the birth rate and death rate.
- » Migration : movement of people in and out of an area.
- » Census : official counting of a country's population.

## SUMMARY

- ▶ It is people with their demands and abilities that turn nature's bounty into resources, i.e., useful/valuable products.
- ▶ Human beings are useful in themselves as they make other things useful. Hence, human beings are resources in themselves called human resources.
- ▶ Human resources are important for everyone as they help other people to develop their abilities and put them to maximum use.
- ▶ Every human being is a potential resource as his/her talent and skill can be utilised to carry out various tasks to increase production.
- ▶ Distribution of population in the world is uneven.
- ▶ More than 90 per cent of the world's population lives in about 10 per cent area of the land surface.

## Exercise Time

### A. Tick (✓) the only correct choice amongst the following :

1. In 1999, the world population reached
  - a. 1 billion
  - b. 3 billion
  - c. 6 billion
  - d. 6.5 billion
2. In 2025, the world population is expected to be
  - a. 6 billion
  - b. 7 billion
  - c. 8 billion
  - d. 8.525 billion
3. This is densely populated
  - a. Sahara
  - b. Antarctica
  - c. Polar regions
  - d. Osaka
4. The average density of population in the whole world per sq. km is
  - a. 45 persons
  - b. 325 persons
  - c. 13 persons
  - d. 42 persons
5. Most people prefer to live on
  - a. mountains
  - b. plateaus
  - c. plains
  - d. forests

### B. Fill in the blanks :

1. Official counting of a country's population is called \_\_\_\_\_.
2. \_\_\_\_\_ is the most populous country in the world.
3. \_\_\_\_\_ in India has the highest population density of 9300 persons per sq. km.
4. Number of \_\_\_\_\_ births per 1000 people in a year is called birth rate.
5. Population \_\_\_\_\_ means total number of people living per sq. km.



**C. Match the Following :**

- |                                 |                      |
|---------------------------------|----------------------|
| 1. Densely populated continent  | a. Delhi             |
| 2. Sparsely populated continent | b. Arunachal Pradesh |
| 3. 9300 persons per sq. km      | c. Asia              |
| 4. 13 persons per sq. km        | d. India             |
| 5. 325 persons per sq. km       | e. Australia         |

**D. Write true (T) or False (F) against the following statements in given brackets :**

- |                                                                                         |                          |
|-----------------------------------------------------------------------------------------|--------------------------|
| 1. 90 per cent of the world population lives in Asia.                                   | <input type="checkbox"/> |
| 2. Uttar Pradesh does not have large population.                                        | <input type="checkbox"/> |
| 3. Migration also affects population density.                                           | <input type="checkbox"/> |
| 4. Average life expectancy is the average number of years a person is expected to live. | <input type="checkbox"/> |
| 5. Religious places attract many people to settle there.                                | <input type="checkbox"/> |

**E. Define the following terms :**

- |                       |                        |                    |
|-----------------------|------------------------|--------------------|
| 1. Population Density | 2. Natural Growth Rate | 3. Age-Sex Pyramid |
|-----------------------|------------------------|--------------------|

**F. Answer in one word or one phrase :**

1. How much was the world population in 1999 ?
2. What was India's population in 2001 census ?
3. How much per cent of total population growth is taking place in developing countries ?
4. Of every 100 people in the world how much live in Asia ?
5. How much world population is expected in the year 2025 ?

**G. Answer these question briefly :**

1. Why are people considered a resource ? Describe their importance.
2. What are the causes for the uneven distribution of population in the world ?
3. The world population has grown very rapidly. Why ?
4. What is meant by population composition ?
5. Discuss the role of any two factors influencing population change.
6. Mention all the factors that affect the distribution of population.

**H. Answer the question in detail :**

1. Compare and contrast Jamshedpur and Pittsburgh in the context of development of iron and steel industry.
2. Why did cotton textile industry rapidly expand in Ahmedabad and Osaka ?

**PROJECT WORK**

1. Make a study of the factors responsible for rapid growth of India's population. Suggest measures to check this rapid growth.
2. Discuss the characteristics of society with 'too many under the age of 15' and one with 'too few under the age of 15' with reference to need for schools, teachers, toys, hospitals, labour supply, pension schemes, wheel chairs.