

Lesson- 2

Population Growth and Distribution



Learning outcomes

The students will–

- ✦ have an idea on population growth and development.
- ✦ know about population distribution.
- ✦ acquire knowledge about population migration.
- ✦ acquire an idea about population explosion.
- ✦ have some idea on human resources.

Generally with the passage of time the population of one place keeps on growing. World population has attained a huge magnitude since the evolution of man on earth. The early man who led a nomadic life, hunting for food, in due course got associated with agriculture and settled down permanently. At that time, people used to build houses according to the facilities available in the natural environment. With growing population, people got distributed over various points of earth's surface. At present people are getting involved in industry, service, etc. People in contemporary world are more attracted towards urban centric life. As such the towns have become densely populated. Population growth and expansion leads to more consumption of limited resources resulting in various problems.

Population Growth and Human Resource Development :

Population growth refers to the change in the number of people during a specific period of time. For example the total population of Assam according to 2001 census was 2,66,38,407. It became 3,11,69,272 in 2011. Hence, population growth within a span of ten years from 2001 to 2011 was 45,30,865. Such type of increase in population during a specific time period is called absolute growth. Population growth takes place when there is no occurrence of death due to some epidemic or disaster or if large number of people migrate to some other place for some reason. Rapid growth of population in a country will create problems such as shortage of food, shortage of drinking water, price rise, housing problem, education, health problems, etc. At the same time, more pressure will be exerted on the existing natural resources. As a result, not only the environment gets damaged but also the availability of resources for future use becomes very uncertain. Such scenario is evident in countries like Ethiopia, Somalia, etc.

According to an estimate, the world population in 2008 was 668 crore. It was 50 crore in the year 1650. After 150 years. i.e., in 1800 AD it became 98 crores which is almost double. Population increased rapidly from 1950 AD. In the next 150 years it reached 252 crore mark. In

the next 50 years i.e. 2001 AD population increased to 613 crore. Increased rate of child birth and reduced death rate due to improved medical science are the most important reasons of population growth. In the last 50 years population increased on an average of around 8 crores per year.

All the people in a country are not at par in terms of education, efficiency, technical skills, intelligence etc. Job proficiency, productive skills, intelligence, etc. are some qualitative attributes of human resource. They are the foundation of human resource, progress of society and the country as well. Proper harnessing of such human resource is called Human Resource Development. Hence, human resource development means attainment of man's qualitative attributes as a resource. This calls for suitable schemes to be implemented by the Government. Providing availability of resource, education, health, suitable employment facilities to all sections of people in the society is the main pre-condition for human development. Qualitative development of population may be termed as human resource development.

Write Answer:

- ✦ Write what do you understand by population growth?
- ✦ What is meant by qualitative development of population?
- ✦ What type of problems are created by population growth?

Population Distribution :

Human settlement has taken place over some selected areas of the earth surface. With the increase in population, people migrate to other places in search of employment and settle there.

Name of countries	Population in 2020	Density (per square km)	Percentage in world population
1) China	1,439,323,776	153	18.47%
2) India	1,380,004,385	464	17.70%
3) USA	331,002,651	36	4.25%
4) Indonesia	273,523,615	151	3.51%
5) Pakistan	220,892,340	287	2.83%
6) Brazil	212,559,417	25	2.73%
7) Nigeria	206,139,589	226	2.64%
8) Bangladesh	164,689,383	1,265	2.11%
9) Russia	145,934,462	9	1.87%
10) Mexico	128,932,753	66	1.65%

Table 2.1 shows population of 10 most highly populated countries of the world in 2020

Source: Economic and Social Affairs Deptt. United Nations Revision 2020

Gradually, with improvement in communication, transport facilities etc., people start looking for new places and resource. For instance, the Britishers developed mining towns in the Australian desert after discovering valuable metals such as gold, diamond etc. Towns were developed in South Africa as well as for extracting diamond, gold etc. Such towns were also developed in the cold region like Alaska of North America. Slowly, distribution was extended to islands in the seas and oceans and desert area also. At present, human settlement is not

possible only in the southern continent and the ice-covered areas around north pole. 60 percent of the world's total population belongs to only 10 countries. Table 2.1 shows 10 highly populated countries.

China, India and the U.S.A are the three most populated countries in the world. A country's population density is important along with the rise and decline in the population. In terms of population the ranks of Bangladesh and Russia are 8th and 9th respectively. But the population density of Bangladesh is 12.65 compared to Russia's 9.

Certain environment factors influence the population distribution pattern. Amongst them, availability of sufficient amount of water, physiographic climatic conditions and fertility of soil, etc. are worth mentioning. In addition to these availability of natural resources, industrial development, urbanization, etc. also influence population distribution. Moreover, the

administrative policies, religious secularism etc. also plays a significant role in population distribution.

Population Concentration and Density :

Area wise population distribution can be dense, medium or thin. In ancient times, many human civilizations originated along the river valleys. The population pattern was clustered in such areas. Generally the soil of the river valleys and coastal plains is fertile and suitable for agriculture. Moreover, such areas have adequate water for industry, animal husbandary, etc. Here settlement pattern is dense and the number of towns are more due to facilities such as fishing and cheaper means of transport. Normally, when the settlement pattern is very dense in a place due to natural or human factors, it is known as population concentration.

Again, due to setting up of a big industry in some place, the residents avail facilities such as education, health, bank service, development system, water supply, market, etc. The possibility

Let us know :

- ✦ Asia ranks first in terms of population.
- ✦ According to 2020 census, total population of Asia is 4641 million. It is 60 percent of the world population. Africa ranks 2nd in terms of population. Its population is 1341 million, i.e. 17.21 percent of the world population. Population of Europe is 447.7 million or 9.78 percent. Population of North America and South America are 592 million and 430.75 million respectively.

Activity :

- ✦ What do you mean by population distribution?
- ✦ Mention the factors influencing population distribution?

of employment generation is also more in such a place. As a result, the industrial areas become highly populated very quickly.

On the basis of population concentration, four major areas can be identified in the world. These are- East Asia, South-East Asia, West and Central Europe and North-Eastern Coastal Regions of USA. 75 percent of the world's total population live in these four densely populated areas. East Asia includes Hwang Ho Valley, Yang Sikiang Basin of China, East Coastal Region of Japan in Asia. This monsoon region is suitable for agriculture. Craft industry has progressed tremendously in Japan. Climate is moderate too. Due to such reasons population is very dense.

India's Ganga-Brahmaputra plain, deltaic region of Bangladesh and the Indus Valley of Pakistan falling in the South-East Asian region is the second most densely populated region. The third most densely populated region of West and Central Europe is composed of countries like

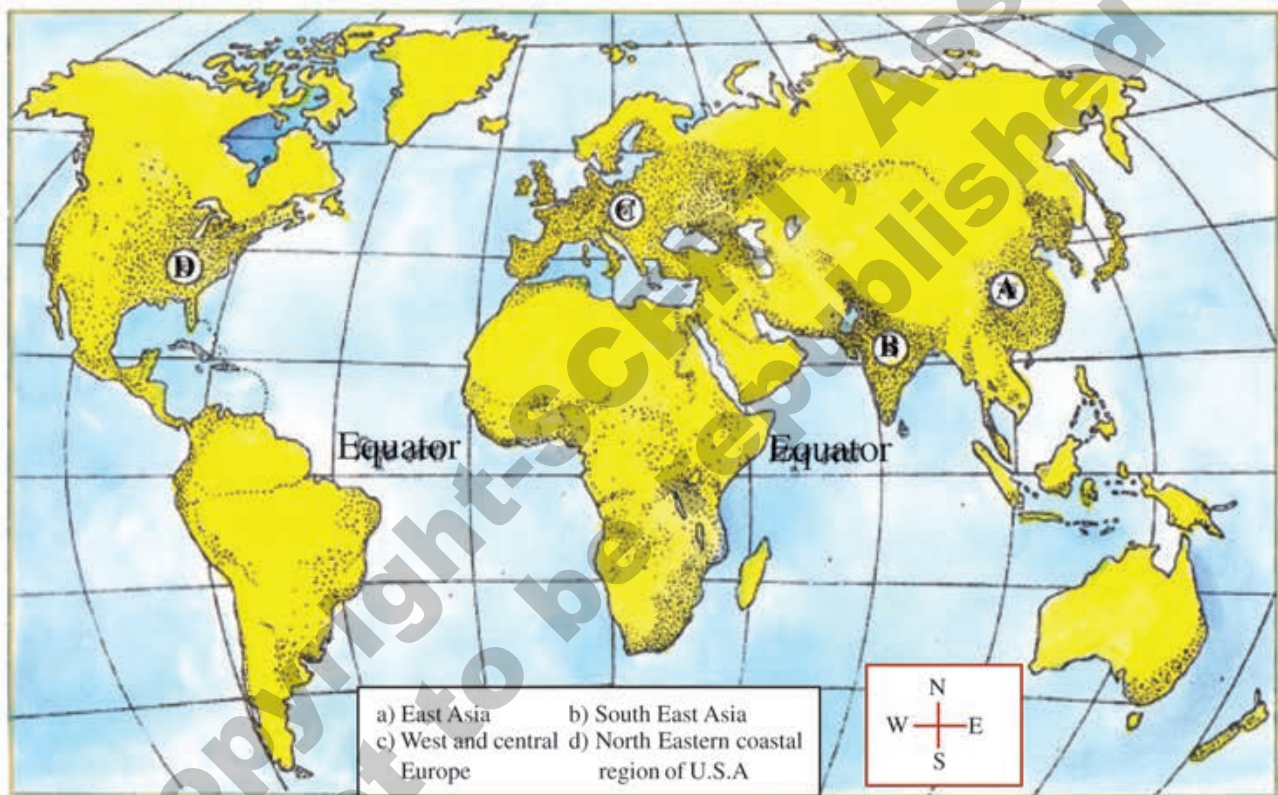


Fig : 2.1 Four major densely populated region of the world.

Great Britain, Belgium, Netherland, Germany, France etc. The countries of this region are highly advanced in the field of education, technology, industry, trade, etc. Human settlement is very dense in these countries. The world's fourth most densely populated region consist of USA, Southern Canada, Cuba, etc. Here, population concentration is dense due to huge industries, developed agriculture, abundance in mineral resource, educational facilities, etc.

In general, the main factors of dense population are availability of water, fertile and plain lands, healthy climate, abundance in natural resources etc. On the other hand, industrialization, urbanization, improved education, transport, health service and entertainment facilities also help in concentration of population.

Write Answer :

- ✦ What do you mean by population concentration? Give examples.
- ✦ What are the factors responsible for population concentration?

Population concentration in a place creates hassles in people's activities. Various steps are undertaken to solve the problems arising out of such hassles. Due to the scarcity of space in developed countries, tall buildings are constructed for housing, government offices, etc. Similarly, underground tunnels are constructed for transport system.

Activity :

- ✦ Identify on the map the countries covered by densely populated areas of the world as mentioned in the textbook.
- ✦ What type of alternative measures have been taken to solve the problems arising due to dense population?

Population Density :

There is a certain limit for having population concentration in a place. In comparison to a large area having no resource at all, more people settle down in small places having sufficient resources. As a result, the settlement becomes high in proportion to the area of the place. The size of population of a place and the land area can be expressed in figures. In this manner density of population of that place can be determined. This means the number of people living in per square kilometre area of a place gives the population density of that place. Generally, the population density of a place is taken into account while implementing various developmental schemes.

According to 2011 census, the total population in Assam is 3,11,69,272 and its total land area is 78,438 sq. km Hence the density of population in the state is 397 persons per square km.



Fig : 2.2 Population density in different regions of the world

Population density varies area wise. Density is more than 200 persons per sq. km. in the north eastern region of USA, countries of western and central Europe, south and south-east Asian countries. On the other hand, population density is less than a person per sq. km. in sub-polar Greenland, Tundra region, sub-tropical polar region, equatorial rainforest regions of South America.

Migration :

Earlier, people move from one place to another and establish settlements. Such type of movement of people from one place to another for work related activity or other reasons and settling down either permanently or temporarily is called population migration. The place from which people move from is called place of origin and the place into which they come in and settle down is called place of destination. High rate of migration results in rapid increase of population in the place of destination. This reduces the per person availability of land and other resources in that place. In addition to that, political, linguistic and cultural problems arise in some places of destination. Normally, people migrate to some other place due to reasons like war, natural disaster, epidemic, bank erosion, political unrest, etc. Migration is more when the advantages are more in the place of destination than in the place of origin. At present, migration also take place to avail better education, employment, secured life, etc., People migrate from rural areas to towns in search of employment in industry, factory, construction work, etc. Such type of migration may extend to other state as well. People migrate from various states to the industrial regions of Mumbai, Gujarat, Delhi, Andhra Pradesh, etc. In this way people migrate from one place to another.

Activity :

- ✦ What do you mean by population migration? Write the different causes of migration?
- ✦ Describe what are place of origin and place of destination. (Take teacher's help)

Population Explosion :

World population has increased steadily since the time of origin of man and reached the present position. Loss of human life due to occurrence of natural disasters, epidemics, etc. at different points of time did not lead to a decrease in the growing population. Earlier vacant space are now filled with human occupation. World population reached almost to 50 crores during the mid 1700 century. In the subsequent time, the death rate was reduced with improved health services, that helped to control epidemics and cure various diseases. As a result, there was a rapid increase in population since the beginning of the 19th century. Such a sudden change in population is called population explosion. World population started increasing at a rapid rate from 1950 AD. onwards and stood at 613 crores in 2001 and 669 crores in 2008.

India ranks second in the world in terms of population. In 2008 India's population was 114 crores. It became 121.1 crores in 2011. In 2020, the population is almost 136 crores. In the

year 1951, the population density per sq. km was 117 persons and 313 persons in 2001. Population density increased to 382 persons in 2011 and 464 persons in 2020. Hence, it is evident that population in India has been increasing rapidly. Population of Assam in 1901 was 32 lakhs. In 1961, it became 1.08 crores and almost 3.12 crores in 2011. Density of population per sq km was 41 persons in the year 1901 and became 397 persons in 2011. Imagine the future of this world with limited resources faced with such increase in population or population explosion! But the geographical areas of Assam from 1901 decreases much till 2011, as many new states were formed from Assam. Now, think what will happen to our earth with limited resources in the future if population increases in such a manner.

The population explosion has become the major obstacle in the progress of the developing nations. As a result, different problems evolve such as ecological imbalance, food scarcity, slow progress, price rise of commodity, unemployment, shortage of housing facilities, education and health problems, etc. This indicates that population explosion creates problems for human resource development as well.

Let us know :

According to 2020 census, Nigeria has the highest rate of population explosion (3.84%). Most of the countries with population explosion are in the continent of Africa.

Write Answer:

- ◆ What do you mean by population explosion?
- ◆ What are the problems created by population explosion?

You have come to know a few things regarding population from the above discussion. Population includes all the people living in an area. Today even human beings are considered as resources like all other natural objects having utility for man. You have learnt about this in the lesson titled 'Resource' in class VII. The people contributing physically and mentally in the development of the society as well as the century are considered as Human Resource. On the other hand, people lacking in such qualities can not be termed as human resource in the true sense of the term. Human intelligence, technical skills, job proficiency and education forms the basis for extraction of resources and their civilization. It is because of such reasons, human resource is called the best form of resource.

The USA, Germany, France, Japan, China, Russia, Great Britain, Canada etc. are comparatively advanced nations of the world. In these countries the levels of efficiency in technical education, number of highly educated people is much more than other countries. These highly qualified people are the invaluable resources of a country. They help the country to march forward through various productive activities. On the other hand, shall we call the people who fail to contribute physically and mentally in the developmental activities as Human Resource? What

would be the condition of the country having large number of such incapable people? A country rich in natural resource may not progress economically or industrially if it is weak in terms of its human resource.

Availability of natural resource is limited. Excessive use has paved the way for extinction of many of them. As opposed to that, human population is increasing day by day. Today, rapid population growth is a big problem for the entire world. This problem has become an obstacle in the process of the human resource development by creating numerous other problems.

Activity :

- ✦ What qualities make man a human resource?
- ✦ In which aspects lack of efficient human resource may weaken a country ?
- ✦ Why human resource has been called the best form of resource?

India is a developing country. The Indian government has undertaken various schemes for human resource development in the field of food, housing facilities, free and compulsory primary education, suitable employment opportunity, health service, etc. because the development of a nation is mainly dependent on its human resource development.

Free trade has become possible in the whole world today due to globalisation. International trade has spread with the engagement of technically sound professionals by various multinational corporations. This has encouraged more people to migrate to other countries. This may, however, affect the development of the home nation.

Activity :

- ✦ Mention the steps that have been taken for human resource development in our country.
- ✦ What do you think are the reasons of our country's human resources to move out?

Let us remember :

- ✦ Population distribution refers to the settlement of people in different parts of the world; it may be dense or sparse.
- ✦ Population concentration refers to the dense human settlement in a place.
- ✦ The world is divided into four major densely populated regions on the basis of population concentration– a) East Asia, (b) South-East Asia, (c) West and Central Europe and (d) North-Eastern Coastal region of USA.
- ✦ Population density is the number of people living in per square kilometre area of a place.
- ✦ Population migration refers to the movement of people from one place to another and permanent or temporary settlement in a new place in search of jobs or for some other reasons.

- ✦ Man create resource by making the naturally available objects into usable commodities.
- ✦ Man has been termed as the best form of resource for his capability to convert various natural elements into resource, productive ability and the ability to make discoveries.
- ✦ Natural resources are decreasing day by day with its increased use and on the other hand human population is increasing day by day.
- ✦ Human resource migrate to avail higher education, employment, etc.
- ✦ Population growth refers to increase of population in a place during a specific time period. Population growth means its numerical increase and development implies its qualitative improvement.

Exercises :

1. Choose the correct answers–
 - (a) Which area has the maximum population-
1) Equatorial region 2) North pole 3) East Asia (4) Sahara desert in Africa.
 - (b) Which continent has the highest population-
1) Europe 2) Africa 3) Asia 4) Australia.
 - (c) The population of Assam in 2011 was-
1) 2.24 crore 2) 3.12 crore 3) 2.35 crore 4) 2.46 crore.
 - (d) Which of the continent named below doesn't have permanent human settlement-
1) Asia 2) South America 3) Antarctica 4) Europe.
2. Fill in the blanks–
 - (a) Population growth refers to increase of _____ in population.
 - (b) Majority of the world's total population live in the _____ hemisphere.
 - (c) The number of people living in per square kilometre area of a place is called the _____ of that place.
 - (d) When people move into a new place and settle down in that place, it is called the place of _____.
3. Write short notes on–
 - a) Human Resource Development. b) Population Concentration.
 - c) Population Explosion.
4. Explain (in 80 words)–
What is population migration? What are its causes? What are the Consequences of population migration ?
5. Project work–
 - a) Determine the advantages accounting for population increase in your village or town.
 - b) Write the names of the most populous countries based on population distribution according to their continents.

