

**READING MATERIAL**  
**CLASS-XI (2026-27)**  
**GEOGRAPHY (029)**

**MINERALS AND ROCKS**

The earth is composed of various kinds of elements. These elements are in solid form in the outer layer of the earth and in hot and molten form in the interior.

About 98 per cent of the total crust of the earth is composed of eight elements like oxygen, silicon, aluminium, iron, calcium, sodium, potassium and magnesium (Table 5.1), and the rest is constituted by titanium, hydrogen, phosphorous, manganese, sulphur, carbon, nickel and other elements.

**Table 5.1 : The Major Elements of the Earth's Crust**

<i>Sl. No.</i>	<i>Elements</i>	<i>By Weight(%)</i>
1.	Oxygen	46.60
2.	Silicon	27.72
3.	Aluminium	8.13
4.	Iron	5.00
5.	Calcium	3.63
6.	Sodium	2.83
7.	Potassium	2.59
8.	Magnesium	2.09
9.	Others	1.41

The elements in the earth's crust are rarely found exclusively but are usually combined with other elements to make various substances. These substances are recognised as minerals.

Thus, a mineral is a naturally occurring organic and inorganic substance, having an orderly atomic structure and a definite chemical composition and physical properties. A mineral is composed of two or more elements. But, sometimes single element minerals like sulphur, copper, silver, gold, graphite etc. are found.

Though the number of elements making up the lithosphere are limited they are combined in many different ways to make up many varieties of minerals. There are at least 2,000 minerals that have been named and identified in the earth crust; but almost all the commonly occurring ones are related to six major mineral groups that are known as major rock forming minerals.

The basic source of all minerals is the hot magma in the interior of the earth. When magma cools, crystals of minerals appear and a systematic series of minerals are formed in sequence to solidify so as to form rocks. Minerals such as coal, petroleum and natural gas are organic substances found in solid, liquid and gaseous forms respectively.

A brief information about some important minerals in terms of their nature and physical characteristics is given below:

### PHYSICAL CHARACTERISTICS

- (i) External crystal form — determined by internal arrangement of the molecules — cubes, octahedrons, hexagonal prisms, etc.
- (ii) Cleavage — tendency to break in given directions producing relatively plane surfaces — result of internal arrangement of the molecules — may cleave in one or more directions and at any angle to each other.
- (iii) Fracture — internal molecular arrangement so complex there are no planes of molecules; the crystal will break in an irregular manner, not along planes of cleavage.
- (iv) Lustre — appearance of a material without regard to colour; each mineral has a distinctive lustre like metallic, silky, glossy etc.
- (v) Colour — some minerals have characteristic colour determined by their molecular structure — malachite, azurite, chalcopyrite etc., and some minerals are coloured by impurities. For example, because of impurities quartz may be white, green, red, yellow etc.
- (vi) Streak — colour of the ground powder of any mineral. It may be of the same colour as the mineral or may differ — malachite is green and gives green streak, fluorite is purple or green but gives a white streak.
- (vii) Transparency — transparent: light rays pass through so that objects can be seen plainly; translucent — light rays pass through but will get diffused so that objects cannot be seen; opaque — light will not pass at all.
- (viii) Structure — particular arrangement of the individual crystals; fine, medium or coarse grained; fibrous — separable, divergent, radiating.
- (ix) Hardness — relative resistance being scratched; ten minerals are selected to measure the degree of hardness from 1-10. They are:  
1. talc; 2. gypsum; 3. calcite;  
4. fluorite; 5. apatite; 6. feldspar;  
7. quartz; 8. topaz; 9. corundum;  
10. diamond. Compared to this for example, a fingernail is 2.5 and glass or knife blade is 5.5.
- (x) Specific gravity — the ratio between the weight of a given object and the weight of an equal volume of water; object weighed in air and then weighed in water and divide weight in air by the difference of the two weights.

### SOME MAJOR MINERALS AND THEIR CHARACTERISTICS

#### Feldspar

Silicon and oxygen are common elements in all types of feldspar and sodium, potassium, calcium, aluminium etc. are found in specific feldspar variety. Half of the earth's crust is composed of feldspar. It has light cream to salmon pink colour. It is used in ceramics and glass making.

#### Quartz

It is one of the most important components of sand and granite. It consists of silica. It is a hard mineral virtually insoluble in water. It is white or colourless and

used in radio and radar. It is one of the most important components of granite.

### **Pyroxene**

Pyroxene consists of calcium, aluminum, magnesium, iron and silica. Pyroxene forms 10 per cent of the earth's crust. It is commonly found in meteorites. It is in green or black colour.

### **Amphibole**

Aluminium, calcium, silica, iron, magnesium are the major elements of amphiboles. They form 7 per cent of the earth's crust. It is in green or black colour and is used in asbestos industry. Hornblende is another form of amphiboles.

### **Mica**

It comprises of potassium, aluminium, magnesium, iron, silica etc. It forms 4 per cent of the earth's crust. It is commonly found in igneous and metamorphic rocks. It is used in electrical instruments.

### **Olivine**

Magnesium, iron and silica are major elements of olivine. It is used in jewellery. It is usually a greenish crystal, often found in basaltic rocks. Besides these main minerals, other minerals like chlorite, calcite, magnetite, haematite, bauxite and barite are also present in some quantities in the rocks.

### **Metallic Minerals**

These minerals contain metal content and can be sub-divided into three types:

- (i) *Precious metals* : gold, silver, platinum etc.
- (ii) *Ferrous metals* : iron and other metals often mixed with iron to form various kinds of steel.
- (iii) *Non-ferrous metals* : include metals like copper, lead, zinc, tin, aluminium etc.

### **Non-Metallic Minerals**

These minerals do not contain metal content. Sulphur, phosphates and nitrates are examples of non-metallic minerals. Cement is a mixture of non-metallic minerals.

### **Rocks**

The earth's crust is composed of rocks. A rock is an aggregate of one or more minerals. Rock may be hard or soft and in varied colours. For example, granite is hard, soapstone is soft. Gabbro is black and quartzite can be milky white. Rocks do not have definite composition of mineral constituents. Feldspar and quartz are the most common minerals found in rocks.

Petrology is science of rocks. A petrologist studies rocks in all their aspects viz., mineral composition, texture, structure, origin, occurrence, alteration and relationship with other rocks.

As there is a close relation between rocks and landforms, rocks and soils, a geographer requires basic knowledge of rocks. There are many different kinds of rocks which are grouped under three families on the basis of their mode of formation.

They are: (i) Igneous Rocks — solidified from magma and lava; (ii) Sedimentary Rocks — the result of deposition of fragments of rocks by exogenous processes; (iii) Metamorphic Rocks — formed out of existing rocks undergoing recrystallisation.

### **Igneous Rocks**

As igneous rocks form out of magma and lava from the interior of the earth, they are known as primary rocks. The igneous rocks (Ignis – in Latin means ‘Fire’) are formed when magma cools and solidifies. You already know what magma is. When magma in its upward movement cools and turns into solid form it is called igneous rock. The process of cooling and solidification can happen in the earth’s crust or on the surface of the earth. Igneous rocks are classified based on texture. Texture depends upon size and arrangement of grains or other physical conditions of the materials. If molten material is cooled slowly at great depths, mineral grains may be very large. Sudden cooling (at the surface) results in small and smooth grains. Intermediate conditions of cooling would result in intermediate sizes of grains making up igneous rocks. Granite, gabbro, pegmatite, basalt, volcanic breccia and tuff are some of the examples of igneous rocks.

### **Sedimentary Rocks**

The word ‘sedimentary’ is derived from the Latin word sedimentum, which means settling. Rocks (igneous, sedimentary and metamorphic) of the earth’s surface are exposed to denudational agents, and are broken up into various sizes of fragments. Such fragments are transported by different exogenous agencies and deposited. These deposits through compaction turn into rocks. This process is called *lithification*. In many sedimentary rocks, the layers of deposits retain their characteristics even after lithification. Hence, we see a number of layers of varying thickness in sedimentary rocks like sandstone, shale etc.

Depending upon the mode of formation, sedimentary rocks are classified into three major groups: (i) mechanically formed — sandstone, conglomerate, limestone, shale, loess etc. are examples; (ii) organically formed — geyserite, chalk, limestone, coal etc. are some examples; (iii) chemically formed — chert, limestone, halite, potash etc. are some examples.

### **Metamorphic Rocks**

The word metamorphic means ‘change of form’. These rocks form under the action of pressure, volume and temperature (PVT) changes. Metamorphism occurs when rocks are forced down to lower levels by tectonic processes or when molten magma rising through the crust comes in contact with the crustal rocks or the underlying rocks are subjected to great amounts of pressure by overlying rocks. Metamorphism is a process by which already consolidated rocks undergo recrystallisation and reorganisation of materials within original rocks.

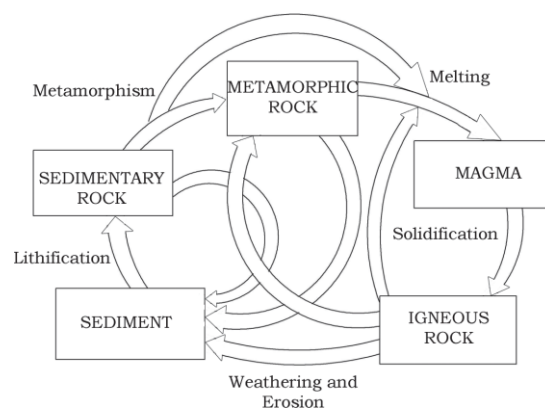
Mechanical disruption and reorganisation of the original minerals within rocks due to breaking and crushing without any appreciable chemical changes is called dynamic metamorphism. The materials of rocks chemically alter and recrystallise due to thermal metamorphism. There are two types of thermal metamorphism — contact metamorphism and regional metamorphism. In contact metamorphism the rocks come in contact with hot intruding magma and lava and the rock materials recrystallise under high temperatures. Quite often new materials form out of

magma or lava are added to the rocks. In regional metamorphism, rocks undergo recrystallisation due to deformation caused by tectonic shearing together with high temperature or pressure or both. In the process of metamorphism in some rocks grains or minerals get arranged in layers or lines. Such an arrangement of minerals or grains in metamorphic rocks is called *foliation* or *lineation*. Sometimes minerals or materials of different groups are arranged into alternating thin to thick layers appearing in light and dark shades. Such a structure in metamorphic rocks is called *banding* and rocks displaying banding are called *banded rocks*. Types of metamorphic rocks depend upon original rocks that were subjected to metamorphism. Metamorphic rocks are classified into two major groups — foliated rocks and non-foliated rocks. Gneissoid, granite, syenite, slate, schist, marble, quartzite etc. are some examples of metamorphic rocks.

### ROCK CYCLE

Rocks do not remain in their original form for long but may undergo transformation. Rock cycle is a continuous process through which old rocks are transformed into new ones.

Igneous rocks are primary rocks and other rocks (sedimentary and metamorphic) form from these primary rocks. Igneous rocks can be changed into metamorphic rocks. The fragments derived out of igneous and metamorphic rocks form into sedimentary rocks. Sedimentary rocks themselves can turn into fragments and the fragments can be a source for formation of sedimentary rocks. The crustal rocks (igneous, metamorphic and sedimentary) once formed may be carried down into the mantle (interior of the earth) through subduction process (parts or whole of crustal plates going down under another plate in zones of plate convergence) and the same melt down due to increase in temperature in the interior and turn into molten magma, the original source for igneous rocks (Figure 5.1).



**Fig 5.1: Rock Cycle**

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**READING MATERIAL  
CLASS-XII (2026-27)  
GEOGRAPHY (029)**

**POPULATION COMPOSITION**



People of any country are diverse in many respects. Each person is unique in her/his own way. People can be distinguished by their age, sex and their place of residence. Some of the other distinguishing attributes of the population are occupation, education and life expectancy.

**SEX COMPOSITION**

The number of women and men in a country is an important demographic characteristic. The ratio between the number of women and men in the population is called the Sex Ratio. In some countries it is calculated by using the formula:

$$\frac{\text{Male Population}}{\text{Female Population}} \times 1000$$

or the number of males per thousand females. In India, the sex ratio is worked out using the formula:

$$\frac{\text{Female Population}}{\text{Male Population}} \times 1000$$

or the number of females per thousand males. The sex ratio is an important information about the status of women in a country.

Adapted from NCERT textbook of Class XII 2022-23 edition.

In regions where gender discrimination is rampant, the sex ratio is bound to be unfavourable to women. Such areas are those where the practice of female foeticide, female infanticide and domestic violence against women are prevalent. One of the reasons could be lower socio-economic status of women in these areas. You must remember that more women in the population does not mean they have a better status. It could be that the men might have migrated to other areas for employment.

### **Natural Advantage v/s Social Disadvantage**

Females have a biological advantage over males as they tend to be more resilient than males yet this advantage is cancelled out by the social disadvantages and discriminations that they face.

On an average, the world population reflects a sex ratio of 990 females per 1000 males. The highest sex ratio in the world has been recorded in Latvia which is 1187 females per 1000 males. In contrast, the lowest sex ratio occurs in U.A.E. which is 468 females per 1000 males.

The world pattern of sex ratio does not exhibit variations in the developed regions of the world. The sex ratio is favourable for females in 139 countries of the world and unfavourable for them in the remaining 72 countries listed by the United Nations.

In general, Asia has a low sex ratio. Countries like China, India, Saudi Arabia, Pakistan, Afghanistan have a lower sex ratio.

On the other extreme is greater part of Europe (including Russia) where males are in minority. A deficit of males in the populations of many European countries is attributed to better status of women, and an excessively male-dominated out-migration to different parts of the world in the past.

### **Age Structure**

Age structure represents the number of people of different age groups. This is an important indicator of population composition, since a large size of population in the age group of 15- 59 indicates a large working population. A greater proportion of population above 60 years represents an ageing population which requires more expenditure on health care facilities. Similarly, high proportion of young population would mean that the region has a high birth rate and the population is youthful.

### **Age-Sex Pyramid**

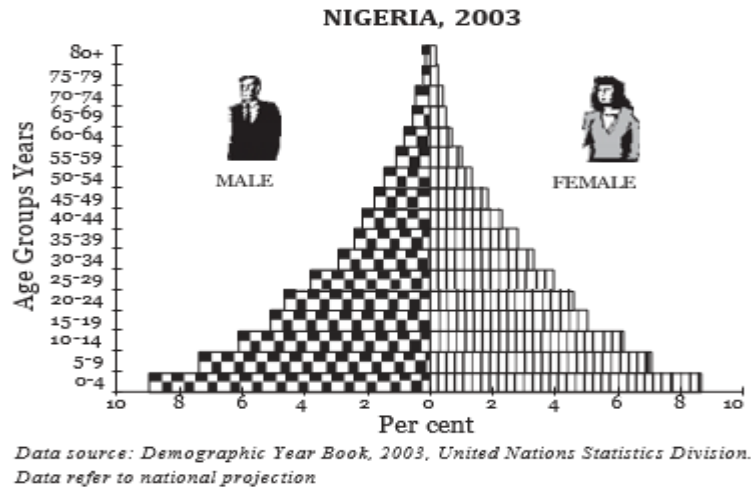
The age-sex structure of a population refers to the number of females and males in different age groups. A population pyramid is used to show the age-sex structure of the population.

The shape of the population pyramid reflects the characteristics of the population. The left side shows the percentage of males while the right side shows the percentage of women in each age group. Fig. 3.1, 3.2 and 3.3 show different types of population pyramids.

### **Expanding Populations**

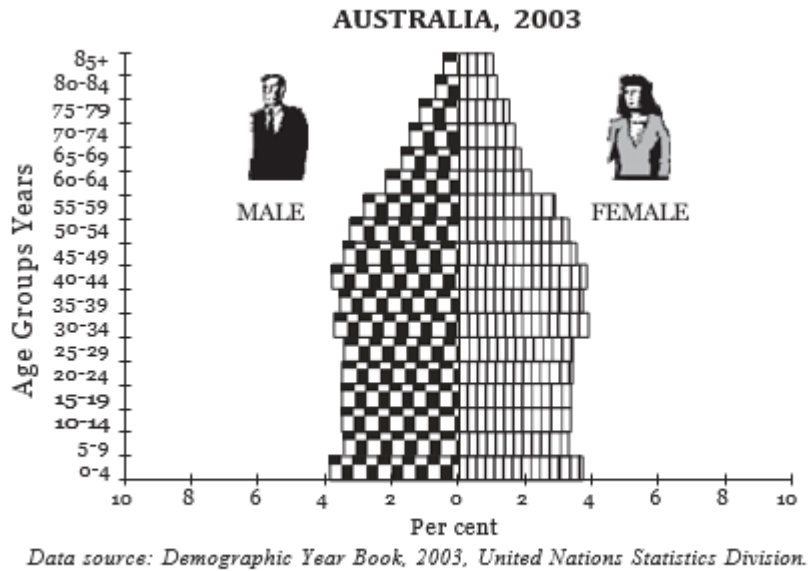
The age-sex pyramid of Nigeria as you can see is a triangular shaped pyramid with a wide base and is typical of less developed countries. These have larger populations in lower age groups due to high birth rates. If you construct the pyramids for Bangladesh and

Mexico, it would look the same.



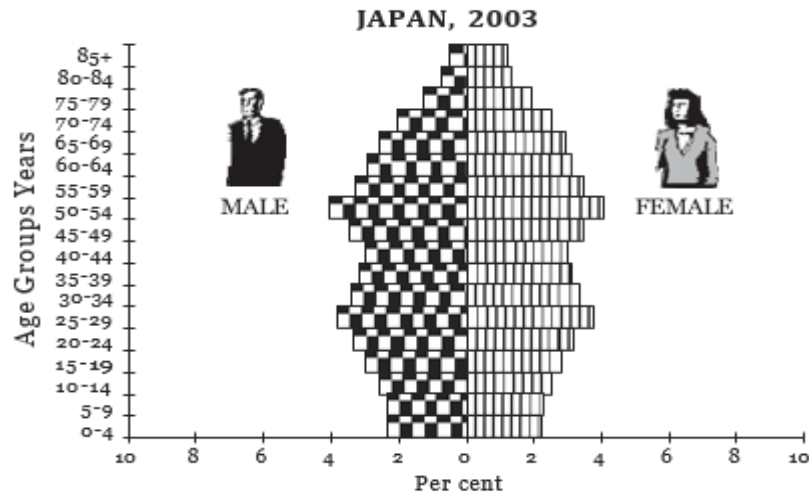
### Constant Population

Australia's age-sex pyramid is bell shaped and tapered towards the top. This shows birth and death rates are almost equal leading to a near constant population.



### Declining Populations

The Japan pyramid has a narrow base and a tapered top showing low birth and death rates. The population growth in developed countries is usually zero or negative.



*Data source: Demographic Year Book, 2003, United Nations Statistics Division.  
Excluding diplomatic personnel outside the country and foreign military and  
civilian personnel and their dependants stationed in the area*

**Fig. 3.3: Declining Population**

### Activity

Draw a population pyramid of the children in your school and describe its characteristics.

### Ageing Population

Population ageing is the process by which the share of the older population becomes proportionally larger. This is a new phenomenon of the twentieth century. In most of the developed countries of the world, population in higher age groups has increased due to increased life expectancy. With a reduction in birth rates, the proportion of children in the population has declined.

### RURAL URBAN COMPOSITION

The division of population into rural and urban is based on the residence. This division is necessary because rural and urban life styles differ from each other in terms of their livelihood and social conditions. The age-sex-occupational structure, density of population and level of development vary between rural and urban areas.

The criteria for differentiating rural and urban population varies from country to country. In general terms rural areas are those where people are engaged in primary activities and urban areas are those when majority of the working population is engaged in non-primary activities.

Fig. 3.4 shows rural urban sex composition of selected countries. The rural and urban differences in sex ratio in Canada and West European countries like Finland are just the opposite of those in African and Asian countries like Zimbabwe and Nepal respectively. In Western countries, males outnumber females in rural areas and females outnumber the males in urban areas. In countries like Nepal, Pakistan and India the case is reverse. The excess of females in urban areas of U.S.A., Canada and Europe is the result of influx of females from rural areas to avail of the vast job opportunities. Farming in these developed countries is also highly mechanised and remains largely a male occupation. By contrast the sex ratio in Asian urban areas remains male dominated due to the predominance of

male migration. It is also worth noting that in countries like India, female participation in farming activity in rural area is fairly high. Shortage of housing, high cost of living, paucity of job opportunities and lack of security in cities, discourage women to migrate from rural to urban areas.

### Literacy

Proportion of literate population of a country in an indicator of its socio-economic development as it reveals the standard of living, social status of females, availability of educational facilities and policies of government. Level of economic development is both a cause and consequence of literacy. In India – literacy rate denotes the percentage of population above 7 years of age, who is able to read, write and have the ability to do arithmetic calculations with understanding.

### Occupational Structure

The working population (i.e. women and men of the age group – 15 to 59) take part in various occupations ranging from agriculture, forestry,

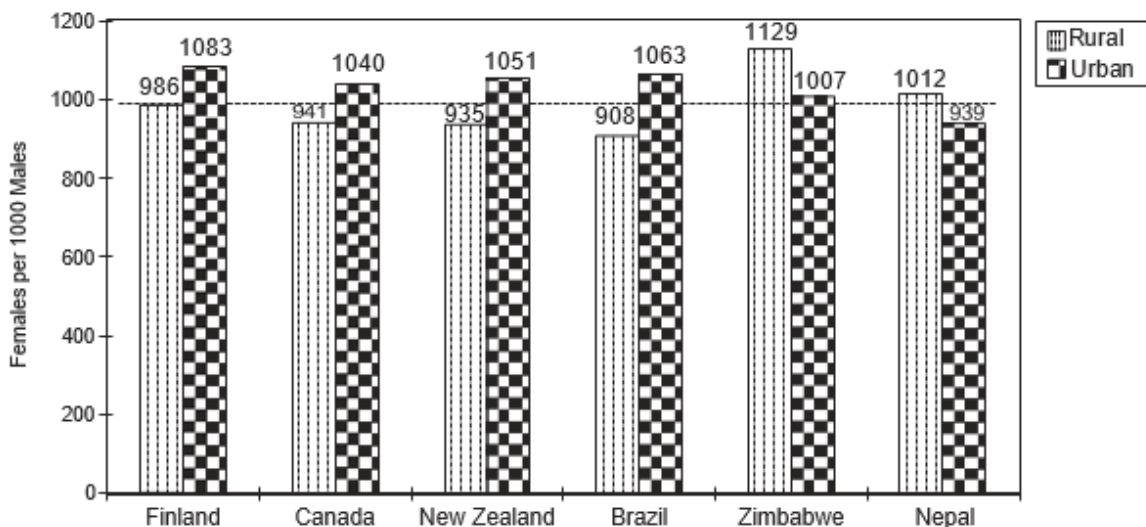


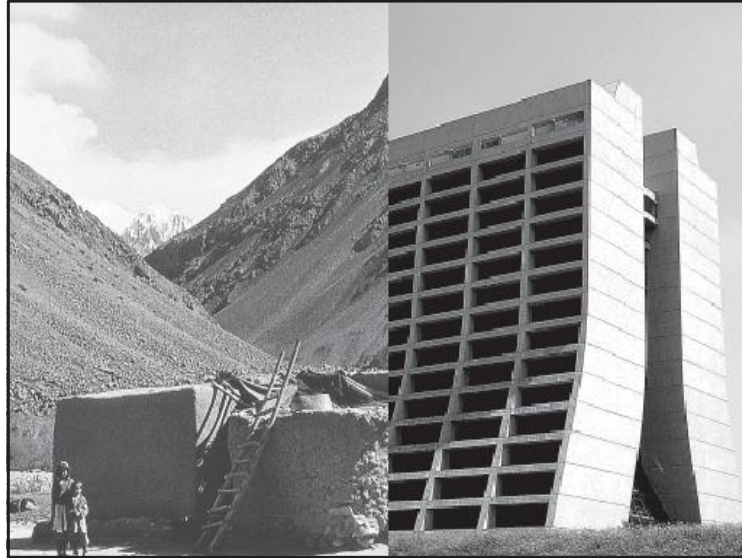
Fig. 3.4: Rural Urban Sex Composition, 2003 (Selected Countries)

fishing, manufacturing construction, commercial transport, services, communication and other unclassified services.

Agriculture, forestry, fishing and mining are classified as primary activities manufacturing as secondary, transport, communication and other services as tertiary and the jobs related to research and developing ideas as quaternary activities. The proportion of working population engaged in these four sectors is a good indicator of the levels of economic development of a nation. This is because only a developed economy with industries and infrastructure can accommodate more workers in the secondary, tertiary and quaternary sector. If the economy is still in the primitive stages, then the proportion of people engaged in primary activities would be high as it involves extraction of natural resources.

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## HUMAN SETTLEMENTS



We all live in clusters of houses. You may call it a village, a town or a city, all are examples of human settlements. The study of human settlements is basic to human geography because the form of settlement in any particular region reflects human relationship with the environment. A human settlement is defined as a place inhabited more or less permanently. The houses may be designed or redesigned, buildings may be altered, functions may change but settlement continues in time and space. There may be some settlements which are temporary and are occupied for short periods, may be a season.

### CLASSIFICATION OF SETTLEMENTS RURAL URBAN DICHOTOMY

It is widely accepted that settlements can be differentiated in terms of rural and urban, but there is no consensus on what exactly defines a village or a town. Although population size is an important criterion, it is not a universal criterion since many villages in densely populated countries of India and China have population exceeding that of some towns of Western Europe and United States.

At one time, people living in villages pursued agriculture or other primary activities, but presently in developed countries, large sections of urban populations prefer to live in villages even though they work in the city. The basic difference between towns and villages is that in towns the main occupation of the people is related to secondary and tertiary sectors, while in the villages most of the people are engaged in primary occupations such as agriculture, fishing, lumbering, mining, animal husbandry, etc.

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#### Sub Urbanisation

It is a new trend of people moving away from congested urban areas to cleaner areas outside the city in search of a better quality of living. Important suburbs develop around major cities and everyday thousands of people commute from their homes in the sub urbs to their work places in the city.

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Differentiations between rural and urban on the basis of functions are more meaningful even though there is no uniformity in the hierarchy of the functions provided by rural and urban settlements. Petrol pumps are considered as a lower order function in the United States while it is an urban function in India. Even within a country, rating of functions may vary according to the regional economy. Facilities available in the villages of developed countries may be considered rare in villages of developing and less developed countries.

The census of India, 1991 defines urban settlements as “All places which have municipality, corporation, cantonment board or notified town area committee and have a minimum population of 5000 persons, at least 75 per cent of male workers are engaged in non-agricultural pursuits and a density of population of at least 400 persons per square kilometers are urban.

## TYPES AND PATTERNS OF SETTLEMENTS

Settlements may also be classified by their shape, patterns types. The major types classified by shape are:

- (i) **Compact or Nucleated settlements:** These settlements are those in which large number of houses are built very close to each other. Such settlements develop along river valleys and in fertile plains. Communities are closely knit and share common occupations.



*Fig. 10.1: Compact Settlements*

- (ii) **Dispersed Settlements:** In these settlements, houses are spaced far apart and often interspersed with fields. A cultural feature such as a place of worship or a market, binds the settlement together.



*Fig. 10.2: Dispersed Settlements*

## Rural Settlements

Rural settlements are most closely and directly related to land. They are dominated by primary activities such as agriculture, animal husbandry, fishing etc. The settlements size is relatively small.



**Fig. 10.3 : Siting near water**

### Water Supply

Usually rural settlements are located near water bodies such as rivers, lakes, and springs where water can be easily obtained. Sometimes the need for water drives people to settle in otherwise disadvantaged sites such as islands surrounded by swamps or low lying river banks. Most water based 'wet point' settlements have many advantages such as water for drinking, cooking and washing. Rivers and lakes can be used to irrigate farm land. Water bodies also have fish which can be caught for diet and navigable rivers and lakes can be used for transportation.

### Land

People choose to settle near fertile lands suitable for agriculture. In Europe villages grew up near rolling country avoiding swampy, low lying land while people in south east Asia chose to live near low lying river valleys and coastal plains suited for wet rice cultivation. Early settlers chose plain areas with fertile soils.

### Upland

Upland which is not prone to flooding was chosen to prevent damage to houses and loss of life. Thus, in low lying river basins people chose to settle on terraces and levees which are "dry points". In tropical countries people build their houses on stilts near marshy lands to protect themselves from flood, insects and animal pests.

### Building Material

The availability of building materials- wood, stone near settlements is another advantage. Early villages were built in forest clearings where wood was plentiful.



**Fig. 10.4 : House on stilts**

In loess areas of China, cave dwellings were important and African Savanna's building materials were mud bricks and the Eskimos, in polar regions, use ice blocks to construct igloos.

### **Defence**

During the times of political instability, war, hostility of neighbouring groups villages were built on defensive hills and islands. In Nigeria, upstanding inselbergs formed good defensive sites. In India most of the forts are located on higher grounds or hills.

### **Planned Settlements**

Sites that are not spontaneously chosen by villagers themselves, planned settlements are constructed by governments by providing shelter, water and other infrastructures on acquired lands. The scheme of villagisation in Ethiopia and the canal colonies in Indira Gandhi canal command area in India are some good examples.

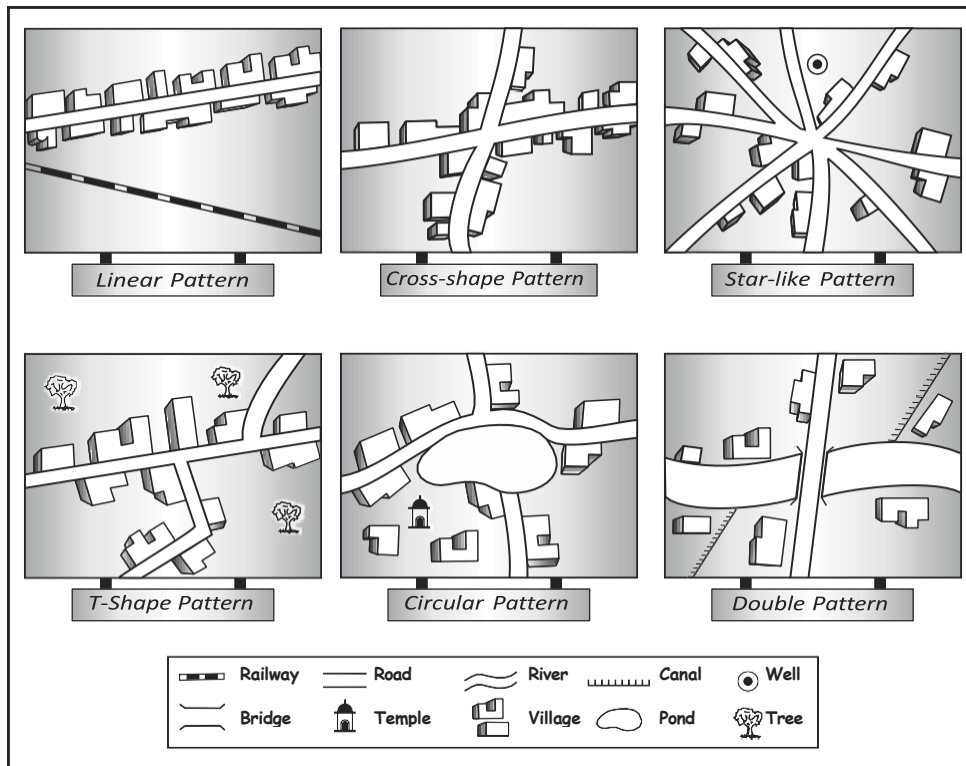
### **Rural Settlement Patterns**

Patterns of rural settlements reflect the way the houses are sited in relation to each other. The site of the village, the surrounding topography and terrain influence the shape and size of a village.

Rural settlements may be classified on the basis of a number of criteria:

- (i) *On the basis of setting:* The main types are plain villages, plateau villages, coastal villages, forest villages and desert villages.
- (ii) *On the basis of functions:* There may be farming villages, fishermen's villages, lumberjack villages, pastoral villages etc.
- (iii) *On the basis of forms or shapes of the settlements:* These may be a number of geometrical forms and shapes such as Linear, rectangular, circular star like, T - shaped village, double village, cross-shaped village etc.
  - (a) *Linear pattern:* In such settlements houses are located along a road, railway line, river, canal edge of a valley or along a levee.
  - (b) *Rectangular pattern:* Such patterns of rural settlements are found in plain areas or wide inter montane valleys. The roads are rectangular and cut each other at right angles.

Adapted from NCERT textbook of Class XII 2022-23 edition.



**Fig. 10.5: Rural Settlement Patterns**

- (c) *Circular pattern:* Circular villages develop around lakes, tanks and sometimes the village is planned in such a way that the central part remains open and is used for keeping the animals to protect them from wild animals.
- (d) *Star like pattern:* Where several roads converge, star shaped settlements develop by the houses built along the roads.
- (e) *T-shaped, Y-shaped, Cross-shaped or cruciform settlements:* T - shaped settlements develop at tri-junctions of the roads (  $\top$  ) while Y - shaped settlements emerge as the places where two roads converge on the third one and houses are built along these roads. Cruciform settlements develop on the cross-roads and houses extend in all the four direction.



**Fig.10.6 : Linear pattern settlement**



**Fig.10.7 : Y shape settlement**

- (f) Double village: These settlements extend on both sides of a river where there is a bridge or a ferry.

### Activity

Identify these patterns on any topographical sheet which you have studied in Practical Work in Geography, Part I (NCERT, 2006) in Class XI

### **Problems of Rural Settlements**

Rural settlements in the developing countries are large in number and poorly equipped with infrastructure. They represent a great challenge and opportunity for planners.

Supply of water to rural settlements in developing countries is not adequate. People in villages, particularly in mountainous and arid areas have to walk long distances to fetch drinking water. Water borne diseases such as cholera and jaundice tend to be a common problem. The countries of South Asia face conditions of drought and flood very often. Crop cultivation sequences, in the absence of irrigation, also suffer.

The general absence of toilet and garbage disposal facilities cause health related problems.

The design and use of building materials of houses vary from one ecological region to another. The houses made up of mud, wood and thatch, remain susceptible to damage during heavy rains and floods, and require proper maintenance every year. Most house designs are typically deficient in proper ventilation. Besides, the design of a house includes the animal shed along with its fodder- store within it. This is purposely done to keep the domestic animals and their food properly protected from wild animals.

Unmetalled roads and lack of modern communication network creates a unique problem. During rainy season, the settlements remain cut off and pose serious difficulties in providing emergency services. It is also difficult to provide adequate health and educational infrastructure for their large rural population. The problem is particularly serious where proper villagisation has not taken place and houses are scattered over a large area.

### **Urban Settlements**

Rapid urban growth is a recent phenomenon. Until recent times, few settlements reached the population size of more than a few thousand inhabitants. The first urban settlement to

reach a population of one million was the city of London by around. A.D. 1810 By 1982 approximately 175 cities in the world had crossed the one million population mark. Presently 48 per cent of the world's population lives in urban settlements compared to only 3 per cent in the year 1800 (Table 10.1).

**Table 10.1: Percentage of World's Population Living in Urban Areas**

<b>Year</b>	<b>Percentage</b>
1800	3
1850	6
1900	14
1950	30
1982	37
2001	48

### **Classification of Urban Settlements**

The definition of urban areas varies from one country to another. Some of the common basis of classification are size of population, occupational structure and administrative setup.

### **Population Size**

It is an important criteria used by most countries to define urban areas. The lower limit of the population size for a settlement to be designated as urban is 1,500 in Colombia, 2,000 in Argentina and Portugal, 2,500 in U.S.A. and Thailand, 5,000 in India and 30,000 in Japan. Besides the size of population, density of 400 persons per sq km and share of non-agricultural workers are taken into consideration in India. Countries with low density of population may choose a lower number as the cut-off figure compared to densely populated countries. In Denmark, Sweden and Finland, all places with a population size of 250 persons are called urban. The minimum population for a city is 300 in Iceland, whereas in Canada and Venezuela, it is 1,000 persons.

### **Occupational Structure**

In some countries, such as India, the major economic activities in addition to the size of the population in designating a settlement as urban are also taken as a criterion. Similarly, in Italy, a settlement is called urban, if more than 50 per cent of its economically productive population is engaged in non-agricultural pursuits. India has set this criterion at 75 per cent.

### **Administration**

The administrative setup is a criterion for classifying a settlement as urban in some countries. For example, in India, a settlement of any size is classified as urban, if it has a

municipality, Cantonment Board or Notified Area Council. Similarly, in Latin American countries, such as Brazil and Bolivia, any administrative centre is considered urban irrespective of its population size.

### Location

Location of urban centres is examined with reference to their function. For example, the sitting requirements of a holiday resort are quite different from that of an industrial town, a military centre or a seaport. Strategic towns require sites offering natural defence; mining towns require the presence of economically valuable minerals; industrial towns generally need local energy supplies or raw materials; tourist centres require attractive scenery, or a marine beach, a spring with medicinal water or historical relics, ports require a harbour etc. Locations of the earliest urban settlements were based on the availability of water, building materials and fertile land. Today, while these considerations still remain valid, modern technology plays a significant role in locating urban settlements far away from the source of these materials. Piped water can be supplied to a distant settlement, building material can be transported from long distances.

Apart from site, the situation plays an important role in the expansion of towns. The urban centres which are located close to an important trade route have experienced rapid development.

### Functions of Urban Centres

The earliest towns were centres of administration, trade, industry, defence and religious importance. The significance of defence and religion as differentiating functions has declined in general, but other functions have entered the list. Today, several new functions, such as, recreational, residential, transport, mining, manufacturing and most recently activities related to information technology are carried on in specialised towns. Some of these functions do not necessarily require the urban centre to have any fundamental relationship with their neighbouring rural areas.



What would be the effects of Information and Communication Technology (ICT) as a function on the development of existing and new settlements?

### Activity

Prepare a list of cities where earlier functions have been replaced by newer ones.

In spite of towns performing multiple functions we refer to their dominant function. For example, we think of Sheffield as an industrial city, London as a port city, Chandigarh as an administrative city and so on. Large cities have a rather greater diversity of functions. Besides, all cities are dynamic and over a period of time may develop new functions. Most of the early nineteenth-century fishing ports in England have now developed tourism. Many of the old market towns are now known for manufacturing activities. Towns and cities are classified into the following categories.

### **Administrative Towns**

National capitals, which house the administrative offices of central governments, such as New Delhi, Canberra, Beijing, Addis Ababa, Washington D.C., and London etc. are called administrative towns. Provincial (sub-national) towns can also have administrative functions, for example, Victoria (British Columbia), Albany (New York), Chennai (Tamil Nadu).

### **Trading and Commercial Towns**

Agricultural market towns, such as, Winnipeg and Kansas city; banking and financial centres like Frankfurt and Amsterdam; large inland centres like Manchester and St Louis; and transport nodes such as, Lahore, Baghdad and Agra have been important trading centres.

### **Cultural Towns**

Places of pilgrimage, such as Jerusalem, Mecca, Jagannath Puri and Varanasi etc. are considered cultural towns. These urban centres are of great religious importance.

Additional functions which the cities perform are health and recreation (Miami and Panaji), industrial (Pittsburgh and Jamshedpur), mining and quarrying (Broken Hill and Dhanbad) and transport (Singapore and Mughal Sarai)

## **DO YOU KNOW**

Urbanisation means the increase in the proportion of a country's population who live in urban areas.

The most important cause of urbanisation is rural-urban migration. During the late 1990s some 20 to 30 million people were leaving the countryside every year and moving into towns and cities.

Developed countries experienced rapid urbanisation during the nineteenth century.

Developing countries experienced rapid urbanisation during the second half of the twentieth century.

### **CLASSIFICATION OF TOWNS ON THE BASIS OF FORMS**

An urban settlement may be linear, square, star or crescent shaped. In fact, the form of the settlement, architecture and style of buildings and other structures are an outcome of its historical and cultural traditions. Towns and cities of developed and developing countries reflect marked differences in planning and development. While most cities in developed countries are planned, most urban settlements of developing countries have evolved historically with irregular shapes. For example, Chandigarh and Canberra are planned cities, while smaller towns in India have evolved historically from walled cities to large urban sprawls.

### **Addis Ababa (The New Flower)**

The name of Ethiopian capital Addis Ababa, as the name indicates (*Addis-New, Ababa-Flower*) is a 'new' city which was established in 1878. The whole city is located on a hill-valley topography. The road pattern bears the influence of the local topography.



***Fig. 10.8: Morphology of Addis Ababa***



***Fig. 10.9: Skyline of Addis Ababa***

The roads radiate from the govt headquarters Piazza, Arat and Amist Kilo roundabouts. Mercato has markets which grew with time and is supposed to be the largest market between Cairo and Johannesburg. A multi-faculty university, a medical college, a number of good schools make Addis Ababa an educational centre. It is also the terminal station for the Djibouti-Addis Ababa rail route. Bole airport is a relatively new airport. The city has witnessed rapid growth because of its multi-functional nature and being a large nodal centre located in the centre of Ethiopia.

## Canberra

Canberra was planned as the capital of Australia in 1912 by American landscape architect, Walter Burley Griffin. He had envisaged a garden city for about 25,000 people taking into account the natural features of the landscape. There were to be five main centres,



**Fig. 10.10 : Morphology of a planned city – Canberra**

each with separate city functions. During the last few decades, the city has expanded to accommodate several satellite towns, which have their own centres. The city has wide-open spaces and many parks and gardens.

### Types of Urban Settlements

Depending on the size and the services available and functions rendered, urban centres are designated as town, city, million city, conurbation, megalopolis.

### Town

The concept of 'town' can best be understood with reference to 'village'. Population size is not the only criterion. Functional contrasts between towns and villages may not always be clear-cut, but specific functions such as, manufacturing, retail and wholesale trade, and professional services exist in towns.

## City

A city may be regarded as a leading town, which has outstripped its local or regional rivals. In the words of Lewis Mumford, “ the city is in fact the physical form of the highest and most complex type of associative life”. Cities are much larger than towns and have a greater number of economic functions. They tend to have transport terminals, major financial institutions and regional administrative offices. When the population crosses the one million mark it is designated as a million city.

## Conurbation

The term conurbation was coined by Patrick Geddes in 1915 and applied to a large area of urban development that resulted from the merging of originally separate towns or cities. Greater London, Manchester, Chicago and Tokyo are examples. Can you find out an example from India?

## Megalopolis

This Greek word meaning “great city”, was popularised by Jean Gottman (1957) and signifies ‘super- metropolitan’ region extending, as union of conurbations. The urban landscape stretching from Boston in the north to south of Washington in U.S.A. is the best known example of a megalopolis.

## Million City

The number of million cities in the world has been increasing as never before. London reached the million mark in 1800, followed by Paris in 1850, New York in 1860, and by 1950 there were around 80 such cities. The rate of increase in the number of million cities has been three-fold in every three decades – around 160 in 1975 to around 438 in 2005.

**Table 10.2: Continent-wise Distribution of Million Cities**

<b>Continent</b>	<b>Earl y 195 0</b>	<b>Mi d 197 0s</b>	<b>Mi d 200 0</b>
Europe	23	30	58
Asia	32	69	206
North and Central America	16	36	79
South America	8	17	43
Africa	3	8	46
Australia	2	2	6
World Total	84	162	438

Source: [www.citypopulation.de/World.html](http://www.citypopulation.de/World.html)

## Distribution of Mega Cities

A mega city or megalopolis is a general term for cities together with their suburbs with a population of more than 10 million people. New York was the first to attain the status of a mega city by 1950 with a total population of about 12.5 million. The number of mega cities is now 25. The number of mega cities has increased in the developing countries during the last 50 years vis-à-vis the developed countries.

## Problems of Human Settlements in Developing Countries

The settlements in developing countries, suffer from various problems, such as unsustainable concentration of population, congested housing and streets, lack of drinking water facilities.

**table 10.3: Mega Cities of the World (as on 28. 01. 2006)**

<b>Sl. No.</b>	<b>Name of the City</b>	<b>Country</b>	<b>Population (in millions)</b>
1.	Tokyo	Japan	34.2
2.	Mexico city	Mexico	22.8
3.	Seoul	South Korea	22.3
4.	New York	U.S.A.	21.9
5.	Sao Paulo	Brazil	20.2
6.	Mumbai	India	19.9
7.	Delhi	India	19.7
8.	Shanghai	China	18.2
9.	Los Angeles	U.S.A.	18.0
10.	Osaka	Japan	16.8
11.	Jakarta	Indonesia	16.6
12.	Kolkata	India	15.7
13.	Cairo	Egypt	15.6
14.	Manila	Philippines	15.0
15.	Karachi	Pakistan	14.3
16.	Moscow	Russia	13.8
17.	Buenos Aires	Argentina	13.5
18.	Dhaka	Bangladesh	13.3
19.	Rio de Janeiro	Brazil	12.2
20.	Beijing	China	12.1
21.	London	G. Britain	12.0
22.	Tehran	Iran	11.9
23.	Istanbul	Turkey	11.5
24.	Lagos	Nigeria	11.1
25.	Shenzhen	China	10.7

Source: [www.citypopulation.de/World.html](http://www.citypopulation.de/World.html)

They also lack infrastructure such as, electricity, sewage disposal, health and education facilities.

## Activity

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### Rural/Urban Problems

Can you identify the problems faced by your city/town/ village in terms of any one of the following?

Availability of potable water.

Electricity supply.

Sewerage system.

Transportation and communication facilities.

Health and educational infrastructure.

Water and air pollution.

Can you think of solutions to these problems?

### **Problems of Urban Settlements**

People flock to cities to avail of employment opportunities and civic amenities. Since most cities in developing countries are unplanned, it creates severe congestion. Shortage of housing, vertical expansion and growth of slums are characteristic features of modern cities of developing countries. In many cities an increasing proportion of the population lives in substandard housing, e.g. slums and squatter settlements. In most million plus cities in India, one in four inhabitants lives in illegal settlements, which are growing twice as fast as the rest of the cities. Even in the Asia Pacific countries, around 60 per cent of the urban population lives in squatter settlements.



**Fig. 10.11: Slums**

## **What is a Healthy City?**

World Health Organisation (WHO) suggests that, among other things, a 'healthy city' must have:

A 'Clean' and 'Safe' environment.

Meets the 'Basic Needs' of 'All' its inhabitants.

Involves the 'Community' in local government.

Provides easily accessible 'Health' service.

### **Economic Problems**

The decreasing employment opportunities in the rural as well as smaller urban areas of the developing countries consistently push the population to the urban areas. The enormous migrant population generates a pool of un- skilled and semi-skilled labour force, which is already saturated in urban areas.

### **Socio-cultural Problems**

Cities in the developing countries suffer from several social ills. Insufficient financial resources fail to create adequate social infrastructure catering to the basic needs of the huge population. The available educational and health facilities remain beyond the reach of the urban poor. Health indices also, present a gloomy picture in cities of developing countries. Lack of employment and education tends to aggravate the crime rates. Male selective migration to the urban areas distorts the sex ratio in these cities.

### **Environmental Problems**

The large urban population in developing countries not only uses but also disposes off a huge quantity of water and all types of waste materials. Many cities of the developing countries even find it extremely difficult to provide the minimum required quantity of potable water and water for domestic and industrial uses. An improper sewerage system creates unhealthy conditions. Massive use of traditional fuel in the domestic as well as the industrial sector severely pollutes the air. The domestic and industrial wastes are either let into the general sewerages or dumped without treatment at unspecified locations. Huge concrete structures erected to accommodate the population and economic play a very conducive role to create heat islands.

## Urban Strategy

The United Nations Development Programme (UNDP) has outlined these priorities as part of its 'Urban Strategy'.

*Increasing 'Shelter' for the urban poor.*

*Provision of basic urban services such as 'Education', 'Primary Health care', 'Clean Water and Sanitation'.*

*Improving women's access to 'Basic Services' and government facilities.*

*Upgrading 'Energy' use and alternative 'Transport' systems.*

*Reducing 'Air Pollution'.*

Cities, towns and rural settlements are linked through the movements of goods, resources and people. Urban-rural linkages are of crucial importance for the sustainability of human settlements. As the growth of rural population has outpaced the generation of employment and economic opportunities, rural-to-urban migration has steadily increased, particularly in the developing countries, which has put an enormous pressure on urban infrastructure and services that are already under serious stress. It is urgent to eradicate rural poverty and to improve the quality of living conditions, as well as to create employment and educational opportunities in rural settlements. Full advantage must be taken of the complementary contributions and linkages of rural and urban areas by balancing their different economic, social and environmental requirements.

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## MIGRATION



### Types, Causes and Consequences

Ram Babu, working as an engineer in Bhilai Steel Plant, Chhattisgarh, was born in a small village of district Bhojpur, Bihar. At an early age of twelve he moved to a nearby town Ara to complete his intermediate level studies. He went to Sindri, Jharkhand, for his engineering degree and he got a job at Bhilai, where he is living for the last 31 years. His parents were illiterate and the only source of their livelihood was meagre income from agriculture. They spent their whole life in that village.

Ram Babu has three children who got their education up to the intermediate level at Bhilai and then moved to different places for higher education. First one studied at Allahabad and Mumbai and is presently working in Delhi as a scientist. The second child got her higher education from different universities in India and is now working in USA. The third one after finishing her education settled at Surat after marriage.

This is not a story of only Ram Babu and his children but such movements are increasingly becoming universal trend. People have been moving from one village to another, from villages to towns, from smaller towns to bigger towns and from one country to another. In your Book Fundamentals of Human Geography you have already learnt about the concept and definition of migration. Migration has been an integral part and a very important factor in redistributing population over time and space. India has witnessed the waves of migrants coming to the country from Central and West Asia and also from Southeast Asia. In fact, the history of India is a history of waves of migrants coming and settling one after another in different parts of the country. In the words of a renowned poet Firaque Gorakhpuri;

SAR ZAMIN-E-HIND PAR AQWAM-E-ALAM KE FIRAQUE

KAFILE BASTE GAYE, HINDOSTAN BANTA GAYA

(The carvans of people from all parts of the world kept on coming and settling in India and led to the formation of India.) Similarly, large numbers of people from India too have been migrating to places in search of better opportunities specially to the countries of the Middle-East, Western Europe, America, Australia and East and South East Asia.

Adapted from NCERT textbook of Class XII 2022-23 edition.

## Indian Diaspora

*During colonial period (British period) millions of the indentured labourers were sent to Mauritius, Caribbean islands (Trinidad, Tobago and Guyana), Fiji and South Africa by British from Uttar Pradesh and Bihar; to Reunion Island, Guadeloupe, Martinique and Surinam by French and Dutch and by Portuguese from Goa, Daman and Diu to Angola, Mozambique to work as plantation workers. All such migrations were covered under the time-bound contract known as Girmmit Act (Indian Emigration Act). However, the living conditions of these indentured labourers were not better than the slaves.*

*The second wave of migrants ventured out into the neighbouring countries in recent times as professionals, artisans, traders and factory workers, in search of economic opportunities to Thailand, Malaysia, Singapore, Indonesia, Brunei and African countries, etc. and the trend still continues. There was a steady outflow of India's semi-skilled and skilled labour in the wake of the oil boom in West Asia in the 1970s. There was also some outflow of entrepreneurs, storeowners, professionals, businessmen to Western Countries.*

*Third wave, of migrant was comprised professionals like doctors, engineers (1960s onwards), software engineers, management consultants, financial experts, media persons (1980s onwards), and others migrated to countries such as USA, Canada, UK, Australia, New Zealand and Germany, etc. These professional enjoy the distinction of being one of highly educated, the highest earning and prospering groups. After liberalisation, in the 90s education and knowledge-based Indian emigration has made Indian Diaspora one of the most powerful diasporas in the world.*

*In all these countries, Indian diaspora has been playing an important role in the development of the respective countries.*

## Migration

You are familiar with Census in India. It contains information about migration in the country. Actually migration was recorded beginning from the first Census of India conducted in 1881. This data was recorded on the basis of place of birth. However, the first major modification was introduced in 1961 Census by bringing in two additional components viz; place of birth i.e. village or town and duration of residence (if born elsewhere). Further in 1971, additional information on place of last residence and duration of stay at the place of enumeration were incorporated. Information on reasons for migration were incorporated in 1981 Census and modified in consecutive Censuses.

In the Census the following questions are asked on migration:

- Is the person born in this village or town? If no, then further information is taken on rural/urban status of the place of birth, name of district and state and if outside India then name of the country of birth.
- Has the person come to this village or town from elsewhere? If yes, then further questions are asked about the status (rural/urban) of previous place of residence, name of district and state and if outside India then name of the country.

In addition, reasons for migration from the place of last residence and duration of residence in place of enumeration are also asked.

In the Census of India migration is enumerated on two bases:

- (i) place of birth, if the place of birth is different from the place of enumeration (known as life-time migrant);
- (ii) place of residence, if the place of last residence is different from the place of enumeration (known as migrant by place of last residence). As per 2011

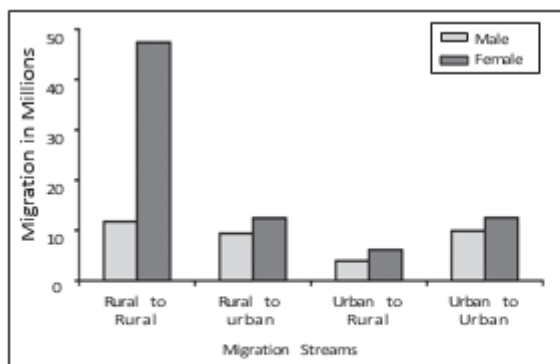
census, out of 1,210 million people in the country, 455.8 million (about 37%) were reported as migrants of place of last residence.

## Activity

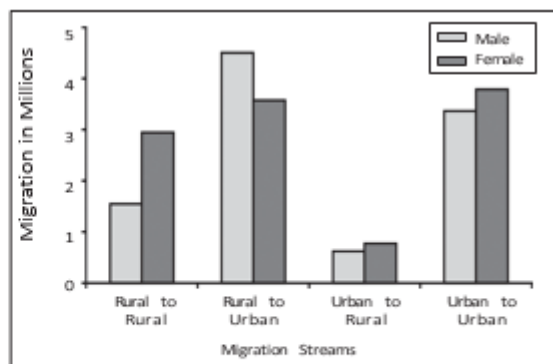
Conduct a survey of five households in your neighbourhood to find out their migration status. If migrants, classify these on the basis of the two criteria mentioned in the text.

### Streams of Migration

A few facts pertaining to the internal migration (within the country) and international migration (out of the country and into the country from other countries) are presented here. Under the internal migration, four streams are identified: (a) rural to rural (R-R); (b) rural to urban (R-U); (c) urban to urban (U-U); and (d) urban to rural (U-R). In India, during 2011, out of 455.0 million migrants, enumerated on the basis of the last residence, 141.9 million had changed their place of residence in the last ten years. Out of these, 118.7 million were intra-state migrants. The stream was dominated by female migrants. Most of these were migrants related to marriage.



**Fig. 2.1 a: Intra-state Migration by Place of Last Residence Indicating Migration Streams India, 2011**



**Fig. 2.1 b: Inter-state Migration by Place of Last Residence Indicating Migration Streams India, 2011**

Source: Census of India, 2011

## Activity

Examine Fig. 2.1 a and 2.1 b showing intra-state and inter-state migration in India according to the Census 2001 and find out:

- (i) Why are the numbers of females migrating from rural to rural areas in both the diagrams higher?
- (ii) Why is the inter-state male migration higher from rural to urban?

The distribution of male and female migrants in different streams of intra-state and inter-state migration is presented in Fig. 2.1 a and 2.1 b. It is clearly evident that females predominate the streams of short distance rural to rural migration in both types of migration. Contrary to this, men predominate the rural to urban stream of inter-state migration due to economic reasons.

Adapted from NCERT textbook of Class XII 2022-23 edition.

Apart from these streams of internal migration, India also experiences immigration from and emigration to the neighbouring countries. Table 2.1 presents the details of migrants from neighbouring countries. Indian Census 2011 has recorded that more than 5 million person have migrated to India from other countries. Out of these, about 88.9 per cent came from the neighbouring countries: Bangladesh followed by Nepal and Pakistan.

### Activity

Represent the data given in Table 2.1 by pie diagrams assuming the migration from neighbouring countries 47,66,231 persons as 100 per cent).

### Spatial Variation in Migration

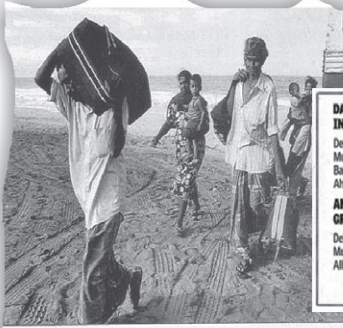
Some states like Maharashtra, Delhi, Gujarat and Haryana attract migrants from other states such as Uttar Pradesh, Bihar, Rajasthan, etc. Maharashtra occupied first place in migrants, followed by Delhi, Gujarat and Haryana. On the other hand, Uttar Pradesh was the state, which had the largest number of net out-migrants from the state.

**Table 2.1 : Migrants classified by place of last residence outside India, 2011**

Countries	No of Migrants	% of total Migrants
<b>Total migration</b>	<b>53,63,099</b>	<b>100</b>
<b>Migration from neighbouring countries</b>	<b>47,66,231</b>	<b>88.9</b>
Afghanistan	6,476	0.1
Bangladesh	27,47,062	51.2
Bhutan	7,964	0.1
China	18,114	0.3
Myanmar	59,282	1.1
Nepal	8,10,158	15.1
Pakistan	9,18,982	17.1
Sri Lanka	1,98,193	3.7

### Causes of Migration

People, generally are emotionally attached to their place of birth. But millions of people leave their places of birth and residence. There could be variety of reasons. These reasons can be put into two broad categories: (i) **push factor**, these cause people to leave their place of residence or origin; and (ii) **pull factors**, which attract the people from different places.



Some of the Sri Lankan refugees who arrived at Rameswaram on Wednesday.

## 'Chalo Dilli' is mantra for migrants

Over 665 Come To City Every Day; Maximum From UP & Haryana, Not Bihar

DAILY MIGRATION IN CITIES	
Delhi	665
Mumbai	236
Bangalore	165
Ahmedabad	121

ANNUAL POPULATION GROWTH RATE	
Delhi	4.27%
Mumbai	2.69%
AP-India	2.79%

SOURCE: DELHI'S FIRST HUMAN DEVELOPMENT REPORT 2008



Delhi's population is increasing at 4.2%, compared to all-India average of 2.79%, says first HDH report

## More Sri Lankan refugees arrive

By Swati Das/TNN

More Sri Lankan refugees arrived at Rameswaram on Wednesday. One boat travelled six hours to reach Kundikal in northern sea of the shallow and calm Palk Straits. On Sunday, another boat arrived from the same area. The report attributes the migration to better employment opportunities in India — a factor that is reflected in economic factors like growth of services and health care in India. According to statistics in human development reports, the sex ratio of 921 females per 1,000 males is compared to the all-India average of 943. It is just a shade better than the 943 average of 2007. Delhi has a sex ratio of 885 per 1,000 males in the age group of 0-6 years. While it is the first for the Capital since the 1990s, it is still lower than the national average of 943. According to sources, the report was prepared by the Tamil Nadu Government. It is the first of its kind in the state since the 1990s.

## Refugee rush increases at Rameswaram: As tension between government troops and the LTTE mounts in Sri Lanka, the influx of refugees in Rameswaram has increased.

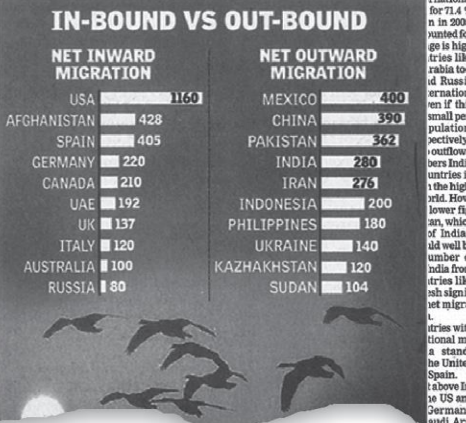
The number on Friday stood at 7,440, with a record 120 refugees arrived.

The refugees, "rebel" LTTE Lankan army Tamil Tigers innocent lives. From the given news items try to identify the political and economic causes of migration.

## Migrant outflow: India No. 4 In Terms Of Inflow, It Doesn't Even Make It To Top Ten

Rema Nagarajan

New Delhi: It comes as a surprise that the US is the country with the largest number of migrants. But you would guess which country comes second largest in terms of migrants. Believe it or not, it is Afghanistan. According to data from the United Nations Population Division, Afghanistan's average annual migration is about 4.3 lakh, more than the US's roughly 1.5 million. On the list is another country you're unlikely to guess — Spain — which has an inflow almost twice as that into Germany. The net migrant inflow to the country is next on the list. On the other side of the chart, Mexico tops with the highest net outflow, followed by China. India is not a far behind Pakistan. So why would people be moving into Afghanistan? The answer lies in migration.



## Be humane to refugees from Sri Lanka: PUCL

Ongoing war a human rights violation: K.G. Kannabiran

Staff Reporter

COIMBATORE: The Tamil Nadu Government should deal with the refugees from Sri Lanka who are fleeing the war there with humanity, K.G. Kannabiran, national president of the People's Union of Civil Liberties (PUCL), told presspersons here on Wednesday. Besides providing security, it was for the State Government to provide security.

- Call for permanent ceasefire in Sri Lanka for next five years
- Government urged to re-introduce reservation in professional colleges for refugees' children

re-introduce the two per cent reservation in professional colleges for the children of refugees. According to them, reservation had been denied in the last three years. The Tamil Nadu Government should withdraw all cases under the Prevention of Terrorism Act (including the case against 26 people arrested in Dharmapuri on charges of naxalism), Mr. Kannabiran said. Government

In India people migrate from rural to urban areas mainly due to poverty, high population pressure on the land, lack of basic infrastructural facilities like health care, education, etc. Apart from these factors, natural disasters such as, flood, drought, cyclonic storms, earthquake, tsunami, wars and local conflicts also give extra push to migrate. On the other hand, there are pull factors which attract people from rural areas to cities. The most important pull factor for majority of the rural migrants to urban areas is the better opportunities, availability of regular work and relatively higher wages. Better opportunities for education, better health facilities and sources of entertainment, etc., are also quite important pull factors.

Examine the reasons for migration for males and females separately in Fig. 2.2. On the basis of the figures, it can be seen that reason for migration of males and females are different. For example, work and employment have remained the main cause for male migration (26 per cent) while it is only 2.3 per cent for the females. Contrary to this, about 67 per cent of females move out from their parental houses following their marriage. This is the most important cause in the rural areas of India except in Meghalaya where reverse is the case.

I am Aarif Khan. I live in village with my wife and four children. I work here in the field on daily base basis at the rate of Rs. 30 a day. Here there is no availability of work for all the 30 days. Further, I have also taken some land on lease for agriculture. I could give education to my children. My wife is sick and suffering with tuberculosis due to lack of health care facilities and shortage of money I am unable to get treatment of my wife. I am very puzzled with the prevailing situation.



I am Subbalakshmi, belong to fishermen community from coast of Tamil Nadu. The devastative tsunami has swept away all the family members except my two children. Everything is destroyed. Till then, I am living in a slum of Chennai. I work here as a domestic servant and my children go to school and also help me by picking rags during off time. However, I miss my place but I would not go back. I cannot forget the giant waves. I have to safeguard my children.



I am Mohan Singh working in a hosiery factory in Ludhiana. There I get Rs 2,000 a month after working 8 hours a day. I have an opportunity to earn extra by over time. Medical, educational, recreational facilities are also available here. However, the absence of family members and children causes anxiety. The job opportunities are many.



I am Manish Gawarkar, Science graduate from Bhandara. Here in Mumbai I am doing my Post graduation along with a part time job. However, the cost of living is high and people have no leisure time for others. I came to Mumbai as it was my dream. The city offers a lot of opportunities, high salary and chance of going abroad.

### Activity

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**Why is the female marriage migration law in Meghalaya different?**

In comparison to these marriage migrations of the male, is only 4 per cent in the country.

### **Consequences of Migration**

Migration is a response to the uneven distribution of opportunities over space. People tend to move from place of low opportunity and low safety to the place of higher opportunity and better safety. This, in turn, creates both benefits and

Adapted from NCERT textbook of Class XII 2022-23 edition.

problems for the areas, people migrate from and migrate to. Consequences can be observed in economic, social, cultural, political and demographic terms.

### **Economic Consequences**

A major benefit for the source region is the remittance sent by migrants. Remittances from the international migrants are one of the major sources of foreign exchange. In 2002, India received US\$ 11 billion as remittances from international migrants. Punjab, Kerala and Tamil Nadu receive very significant amount from their international migrants. The amount of remittances sent by the internal migrants is very meagre as compared to international migrants, but it plays an important role in the growth of economy of the source area. Remittances are mainly used for food, repayment of debts, treatment, marriages, children's education, agricultural inputs construction of houses, etc. For thousands of the poor villages of Bihar, Uttar Pradesh, Odisha, Andhra Pradesh, Himachal Pradesh, etc. remittance works as life blood for their economy. Migration from rural areas of Eastern Uttar Pradesh, Bihar, Madhya Pradesh and Odisha to the rural areas of Punjab, Haryana, Western Uttar Pradesh accounted for the success of their green revolution strategy for agricultural development. Besides this, unregulated migration to the metropolitan cities of India has caused overcrowding. Development of slums in industrially developed states such as Maharashtra, Gujarat, Karnataka, Tamil Nadu and Delhi is a negative consequence of unregulated migration within the country.



*Can you name some other positive and negative consequences of migration?*

### **Demographic Consequences**

Migration leads to the redistribution of the population within a country. Rural urban migration is one of the important factors contributing to the population growth of cities. Age and skill selective out migration from the rural area have adverse effect on the rural demographic structure. However, high out migration from Uttarakhand, Rajasthan, Madhya Pradesh and Eastern Maharashtra have brought serious imbalances in age and sex composition in these states. Similar imbalances are also brought in the recipients states. What is the cause of imbalance in sex ratio in the place of origin and destination of the migrants?

### **Social Consequences**

Migrants act as agents of social change. The new ideas related to new technologies, family planning, girl's education, etc. get diffused from urban to rural areas through them.

Migration leads to intermixing of people from diverse cultures. It has positive contribution such as evolution of composite culture and breaking through the narrow considerations and widens up the mental horizon of the people at large. But it also has serious negative consequences such as anonymity, which creates

social vacuum and sense of dejection among individuals. Continued feeling of dejection may motivate people to fall in the trap of anti-social activities like crime and drug abuse.

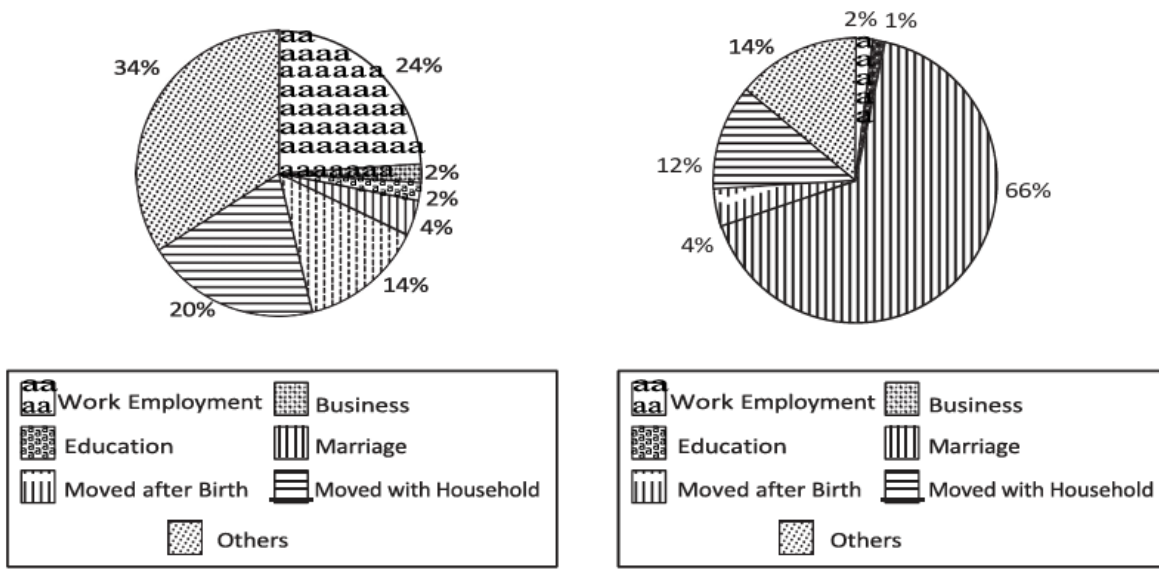


Fig. 2.2 a : Reasons for Male Migration by Last Residence, India, 2011

Fig. 2.2 b : Reasons for Female Migration by last Residence India, 2011

### Environmental Consequences

Overcrowding of people due to rural-urban migration has put pressure on the existing social and physical infrastructure in the urban areas. This ultimately leads to unplanned growth of urban settlement and formation of slums shanty colonies. Apart from this, due to over-exploitation of natural resources, cities are facing the acute problem of depletion of ground water, air pollution, disposal of sewage and management of solid wastes.

### Others

Migration (even excluding the marriage migration) affects the status of women directly or indirectly. In the rural areas, male selective out migration leaving their wives behind puts extra physical as well mental pressure on the women. Migration of 'women' either for education or employment enhances their autonomy and role in the economy.

If remittances are the major benefits of migration from the point of view of the source region, the loss of human resources particularly highly skilled people is the most serious cost. The market for advanced skills has become truly a global market and the most dynamic industrial economies are admitting and recruiting significant proportions of the highly trained professionals from poor regions. Consequently, the existing underdevelopment in the source region gets reinforced.

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