

## 7<sup>th</sup> – Human Environment Settlement



Human beings are social in nature. They live in groups rather than alone. In previous times, humans were nomadic, moving continuously in search of food and water.

**Settlements:** human settlements refer to the locations where people build their home. A community is a group of people living in a particular area and bound by a common culture or religion.

**Temporary or permanent settlements:** Temporary settlements are those where people live for a short while and then move on to some other location. People who practice jhum cultivation (i.e., shifting agriculture) keep moving every two to three years. Nomadic people move with their cattle from one place to other. However, with development, permanent settlements have emerged. Permanent settlements are occupied by people over a long period of time.

**Clustered or scattered settlements:** settlements where the houses are built near each other, or grouped together, are called clustered settlements. We can find clustered settlements in the plains, which are flat and where the infrastructure, i.e., roads, railways, trade and communication lines, is well developed. Scattered settlements are those in which the houses are not close to one another. Scattered settlements come up in agricultural or mountainous areas.

**Settlement Patterns:** Based on the patterns the settlements form we classify them as circular, linear, parallel, radial settlement.

**Circular Settlements:** Settlement built around ponds or reservoirs are called circular settlements. People use water from the pond for their regular use.

**Linear Settlements:** Settlements built along a road or along a railway track are called linear settlements. If settlements are found on both sides of the track or roads they are called parallel settlement.

**Radial Settlements:** Settlement which emerge and radiate from a central point and form a radial or star-shaped pattern are called radial settlements. These settlements are found in cities and trading towns.

**Rural settlements:** are village. They are found where people are engaged in primary activities like farming, fishing, hunting and food gathering. In rural areas, people built houses of different shapes and sizes. In areas that flood regularly due to heavy rainfall (e.g., in the Amazon Basin and the Brahmaputra Valley) people build houses on stilts. In very hot regions, people in rural areas build houses made of mud, mortar and clay with thatched roofs. In the polar regions, people build igloos which are hemispherical structures made of ice blocks.

**Urban Settlements:** around 5000 years, as civilizations grew around river valleys, urban settlements, towns and cities started developing. People living in urban settlements are engaged in secondary (manufacturing) and tertiary (services) activities. Cities have better infrastructure, like transport and communication systems, and provide better medical facilities, educational institutions and banking than are available in rural areas. Urban settlements are much larger in area and population size. The average income of people who live in urban areas is generally higher than that of people living in rural areas.

Urban settlement can be classified on the basis of their main function.

1. Towns where surface or underground mining is the most important function are called mining or quarrying towns. Huuti (gold) and Dhanbad (coal) in India are

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some examples. Johannesburg in South Africa and Sudbury in Canada are some examples.

2. Towns where processing or manufacturing is the major activity are called industrial towns. Chicago, Essen, Glasgow, Jamshedpur, Bhilai, Mumbai and Osaka are some examples.

3. The towns that manufacture automobiles, junctions where rail routes or roadways meet and those with transit facilities for change in the mode of transport are called transport towns. Berlin, Chennai, Detroit, London, Paris and Seattle are some example.

4. Towns where extensive marketing of finished products, services and capital take place are called commercial towns. London, Mumbai, New York, Shanghai, and Tokyo are some examples.

5. Administrative towns are towns from which the governments of a state or nation functions. London, Paris, Chandigarh, Gandhinagar and New Delhi are some examples.

6. Towns that function as a base for the armed forces are called defence towns. These towns have barracks, training academies, naval docks and airfields. They are also called garrison towns. Jalandhar in India, and Portsmouth and Plymouth in the UK, are some examples.

7. Cultural and educational towns are known for education, religion and culture. Pittsburgh, Oxford and Cambridge are educational towns. Jerusalem, Rome, Mecca and Madurai are some examples of religious towns. Agra, Lucknow and Hyderabad are some examples of cultural towns.

**The Rural-Urban Interdependence:** Rural areas and urban areas are highly dependent on each other. While urban areas depends on rural areas for food grains and raw materials, the rural sector depends on the urban sector as a market for their produce and source of finished products. Today, there is large- scale migration of people from rural to urban regions. This has negative impact on the economy of villages as able-bodied people move to the cities in search of better opportunities. It also causes overcrowding in the cities.

**Transport:** is the movement of people and material from one place to another. Primitive humans walked long distances and carried their burden along with them on their head or shoulders. With the invention of the wheel, people used animal-driven carts to carry goods for them. With the invention of steam- and oil-powered transport, several new means of transport evolved those were much faster than existing methods. Today, roads, railways, waterways and pipelines are the major means of transport. The four major means of transport are roadways, railways, waterways and airways.

**Roadways:** are considered the best means of transport for the following reasons.

- They provide door-to-door service.
- They are the main means of transport in remote landlocked villages.
- They are easier to build and maintain in difficult terrain, like forests and mountains.

**In India roads are classified into five categories:**

1. National highways, which connect state capitals,
2. Border roads, which maintain the supply line to the remote areas along India's borders,



3. State highways, which connect the district capitals within a state,
4. District roads, which connect the various towns in a state, and
5. Villages roads.

The **National Highway Development Authority** building the Golden Quadrilateral (5846km) connecting four of India's major metropolitan cities (Chennai, Mumbai, Delhi and Kolkata), the East–West Corridor (7300 km) connecting Silchar in the east and Porbandar in the west, and the North–South Corridor connecting Srinagar and Kanyakumari.

**Railways:** are a mode of land transport that carries passengers and bulky goods over distances. The railways carry heavy goods and people over long distances quickly and cheaply. The invention of the steam engine and the industrial revolution helped in speedy development of rail transport. The railways are fairly fast, safe, cheap and comfortable for the movement of people and materials. Today, steam engines have been largely replaced by diesel and electrical engines. Super fast trains have been introduced to make the journey faster. The railways network is well developed over the plain areas. Indian railway network is well developed. It is the largest in Asia. The Indian Railways network is one of the largest in Asia and the fourth largest in the world.

Railways which run across continents and link their two ends are called trans-continental railways. Major trans-continental railways are:

- The Trans-Siberian Railways (St. Petersburg to Vladivostok )
- The Trans-Canadian Railways (St. Halifax to Vancouver )
- The Union and pacific railway (New York to San Francisco)
- The Australian Trans-Continental Railway (Perth to Sydney)
- The Orient Express (Paris to Istanbul)

**Waterways:** are the cheapest for carrying heavy and bulky goods over long distances. They are mainly of two types- inland waterways and sea routes. Sea routes and oceanic routes are mostly used for transporting merchandise and goods from one country to another. These routes are connected with the ports. Waterways can be classified into two types-inland waterways and marine waterways.

**Inland waterways:** Rivers and lakes which are navigable are used as waterways. Mostly sail boats and steamers are used as a mode of transport in inland waterways. In India, the rivers Ganga and Brahmaputra and their tributaries, the rivers Godavari and Krishna and their canals, the backwaters of Kerala, the Mandavi and Zuvari rivers in Goa and the tidal rivers of the Sundarbans are examples of inland waterways.

**Marine waterways:** Marine Waterways are sea routes and oceanic routes through which goods and people move from one country to another. Some important ocean routes are the Cape of Good Hope sea route, the Mediterranean -Indian Ocean route, the Northern Atlantic sea route and the south pacific sea route.

**Airways:** is the fastest way of transport developed in the early twentieth century. It is also the most expensive due to high cost of fuels. Air traffic is adversely affected by bad weather like fog and storms. It is the only mode of transport to reach the most remote and distant areas especially where there are no roads and railways. Helicopters are extremely useful in most inaccessible areas and in time of calamities for rescuing people and distributing food, water, clothes and



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medicines. Air transport is a boon for regions dominated by hills and inaccessible areas, and to reach disaster hit regions.

Helicopters, particularly, play a major role in rescue and relief operations. There are both domestic (those that connect places within a country) and international (those that fly between different countries) air services. Western Europe, Eastern USA and South-East Asia have dense networks of airways.

**Communication:** The advancement in the field of communication has brought about an information revolution in the world. Different modes of communication are used to provide information, to educate as well as to entertain. Through newspapers, radio and television we can communicate with a large number of people. They are therefore called mass media.

- The Semaphore was invented in 1791 which made communication in maritime trade easier. It involved two flags held in different positions to show the letter of the alphabet and convey the message.

- The Morse code was developed by S Morse in 1837. The Morse code uses a series of dots and dashes to convey the alphabet, punctuation marks and numbers. Morse code is used on the telegraph and radio to send messages.

- The development of the postal system was a major achievement.

- When the printing press was invented, it was possible to print books, magazines and newspaper on a large scale. The invention of radio and television introduced a wireless medium in communication. All these made communication possible with millions of people at the same time. They came to be known as means of mass communication.

- The invention of the telephone in 1875 by Graham Bell was another major achievement as it added speed to communication. Today, with the advent of mobile phones, fax machines and the internet, telephones have become an integral part of modern offices.

- Satellites have made communication easier and faster. They help in weather forecasting, oil-fields exploration, forest survey, underground Water location, agriculture, etc.

Different satellites are launched for different purposes:

- Weather Satellites are fitted with powerful cameras. These cameras take pictures of the earth's surface and atmosphere which help in making weather forecasts.

- Geographical Satellites provide information about the earth's resources. They also help in making accurate maps.

- Communication Satellites are geo-stationary satellites. These satellites are mainly used for telephone calls and television broadcasts. With the help of these satellites, we can even watch a programme which is being held in any part of the world 'live', on our television sets.