

### Key Concepts

- Invention of the wheel and beginning of transport
- Reaching distant places
- Trade and voyages
- Modern means of transport

Movement from one place to another has played a major role in the evolution of humankind. It has undergone successes and trials as it has evolved through time.

## TRANSPORT THROUGH THE AGES

Early humans travelled by foot. With gradual settlement at one place and practice of agriculture, humans discovered other ways to travel that were easier and more convenient. They domesticated animals like donkeys, bulls, horses to carry heavy loads. Gradually they invented carts to carry loads. Earlier, carts were pulled by humans. Later on, animals were used to pull carts. Humans also used the flow of water in the rivers and seas to row rafts and boats. Eventually, they learnt to use the force of the wind, and made sailboats.



Wheel

The invention of wheel revolutionised the way humans lived and made transportation easy. Invention of the wheel is estimated to have taken place in the Neolithic Age. A log or a stone rolling downhill may have given them the idea for the wheel. The early humans tied together logs of wood, and fitted them with various different kinds of wheels in their attempt to make a wheel cart. The wheel made human life faster and smoother. It helped in moving heavy loads easily. This also led to making of pottery which was used for cooking and storing food and later for spinning thread for making clothes. Wheels also gave the impetus for making simple machines and gears. Travelling by boats or ships was the most common way of covering longer distances. People travelled to discover new lands and to trade their goods. This brought about a series of voyages

that were undertaken by explorers like Bartholomew Diaz, Christopher Columbus, Vasco da Gama, Ferdin and Magellan. In fact it was Magellan who first sailed round the world crossing the Atlantic and Pacific Oceans to come back to where the expedition started. Magellan's voyage also established the fact that the Earth is round in shape.

The humankind has constantly tried to innovate and develop new and better ways of travelling and reducing the travel time between places. Invention of the steam engine was a major milestone. This helped trade and commerce to flourish.

## MODERN TRANSPORT SYSTEMS

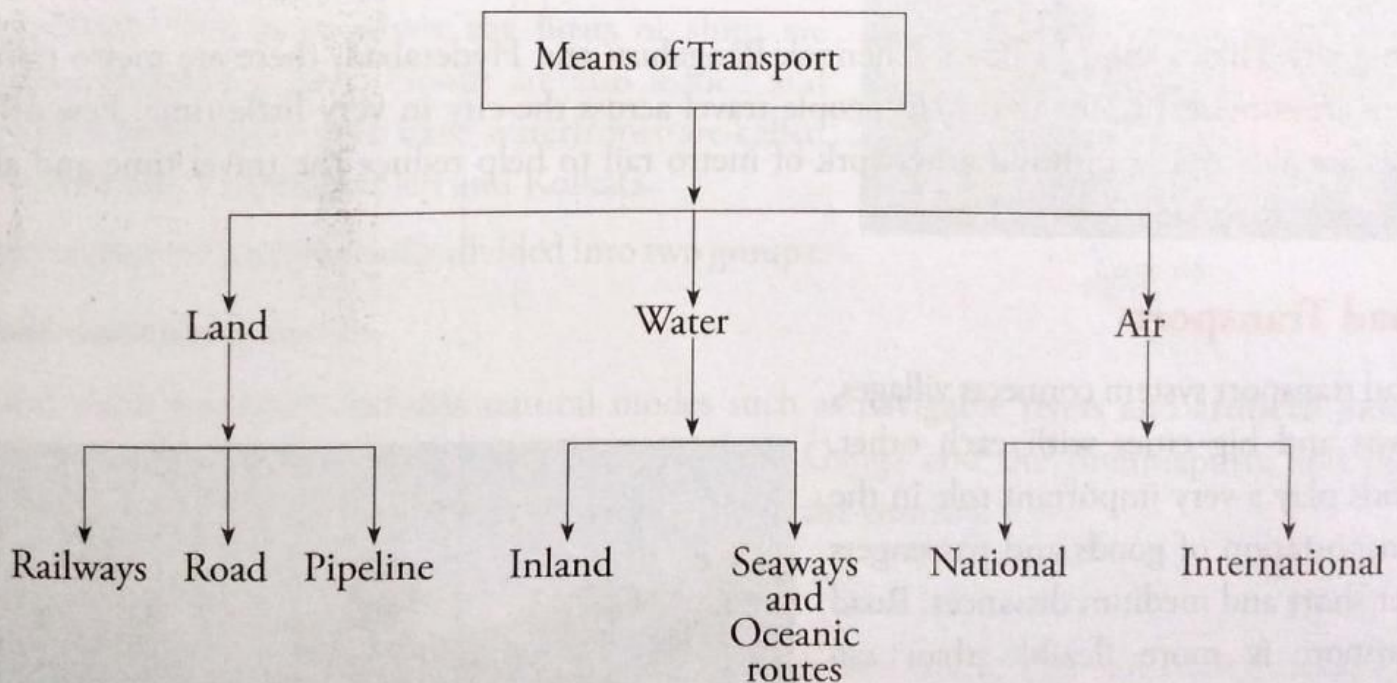
In modern times, we use different means of transport to travel to different places. These means of transport carry people as well as goods. We choose different means of transport on the basis of the distance we would travel, the time available and the money we can spend.

There are three main types of transport:

1. Land transport
2. Water transport
3. Air transport

### Good to know!

In 1886, a German inventor Karl Benz came up with the idea of motor run wagons.



## Land Transport

Scooters, cars, buses and trains are vehicles that travel on land and are called land transport. Land transport is categorised as rail transport and road transport. Pipeline transport is used as



a mode of transportation of goods or materials such as crude and refined petroleum, natural gas, etc.

## Rail Transport

Trains are one of the fastest means of travel on land. In India, the railway system is the main artery of the country's inland transport. The first rail in India was started in 1853 between Mumbai and Thane over a distance of 34 km. Since then, Indian railway system has grown steadily to become one of the largest in Asia and the fourth largest in the world.

Railways are very important because:

- They help to carry goods over long distances.
- Railways carry passengers from one place to another.
- They link major and large cities.
- They are used to carry manufactured goods from the industry to the market.

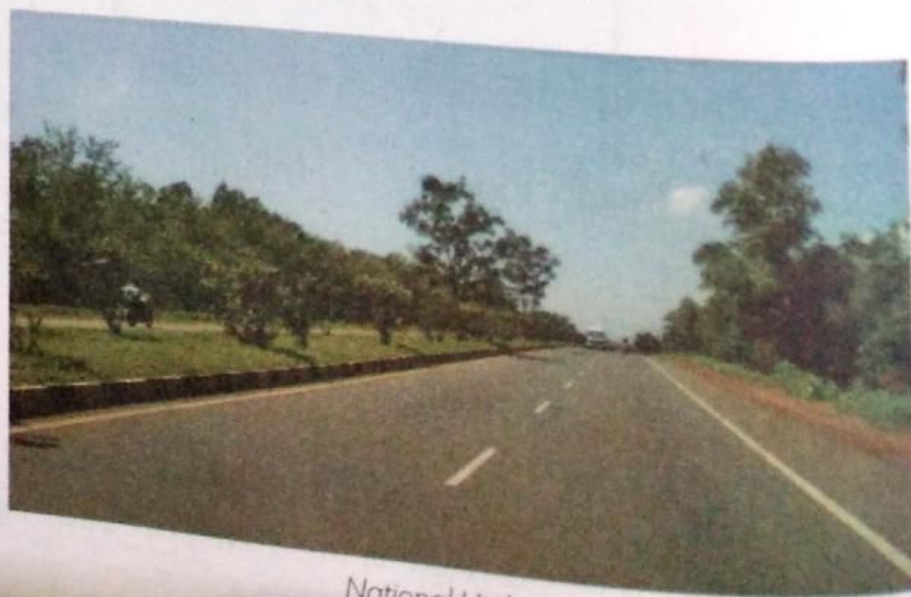


Railway Station

In big cities like Delhi, Kolkata, Chennai, Bengaluru and Hyderabad, there are metro trains. They are superfast trains that help people travel across the city in very little time. Few other cities are also trying to build a network of metro rail to help reduce the travel time and also decongest the roads.

## Road Transport

Road transport system connects villages, towns and big cities with each other. Roads play a very important role in the transportation of goods and passengers over short and medium distances. Road transport is more flexible than rail transport. Buses and trucks can be stopped anywhere and at any time on the road for loading and unloading passengers and goods whereas trains stop only at particular stations.



National Highway

## Classification of roads

On the basis of their importance, maintenance and administration, Indian roads can be divided into five categories:

1. National highways
2. State highways
3. District roadways
4. Village roads
5. Border roads

### Stop to Answer

- Find out which state has the longest coastline.

## Water Transport

It is the oldest and cheapest mode of transport. It is also fuel efficient. They are most suitable for carrying heavy and bulky goods. Vehicles like boats, ferries and ships travel on water. There are motor boats that use engines to move fast and there are sail boats that use the wind to sail the boats. There are passenger ships and cargo ships. Passenger ships carry people from one place to another. These days, people travel on cruise ships to enjoy their vacation. Goods that are huge and heavy are sent by cargo ships. The place where the boats or ships are boarded is called a port. Goods are also loaded and unloaded here. Cities that have waterfronts are called port cities like Visakhapatnam and Kolkata.

Water transport can be broadly divided into two groups:

### Inland water transport

Inland water transport includes natural modes such as navigable rivers and artificial modes such as canals. The two great rivers of India—the Ganga and the Brahmaputra and their tributaries still carry the largest part of river traffic in the country.

### Oceanic routes

India has a vast coastline. Shipping provides transport facilities in this vast coastal tract. The entire coastline is studded with 12 major ports and 185 minor and intermediate ports. About 95 percent of the goods in overseas trade is transported by the seaways. Coastal shipping also carries domestic traffic.



Cargo ship



## Air Transport

This is the fastest mode of travel. It saves time but it is expensive. Aeroplanes and helicopters are the common means of air transport. There are big airbuses and large aircrafts that carry many passengers and goods. There are cargo planes too that carry only goods. Helicopters are useful in travelling short distances. They also help in rescue operations in flood affected areas and people trapped in the jungles or mountains.



Aircraft

Air transport is essential for a vast country like India where distances are large, and the topography and climatic conditions are so diverse. It is also important to connect with other countries. Vast dimensions of India have enabled the country to set up a large number of airports in different parts. Airports are supervised by the Airport Authority of India (AAI) since 1 April 1995.

Transport system is largely based on technological innovation. As advances in technology continues, so does travel and exploration mainly to reduce travel time and also to make travel more convenient.



### New Words

<b>Passenger</b>	:	traveller other than the driver of a vehicle
<b>Cargo</b>	:	goods carried on a ship, aircraft, or motor vehicle
<b>Rescue</b>	:	save people from a dangerous or difficult situation
<b>Impetus</b>	:	to motivate or boost

### Recap

- Earlier, carts were pulled by humans. Later on, animals were used to pull carts.
- The invention of wheel revolutionised the way of humans lived.
- Travelling by boats or ships was the most common way of covering longer distances.
- There are three main types of transport—land transport, water transport, air transport.
- Land transport is categorised as rail transport and road transport.
- Road transport system establishes easy contact among villages, towns and big cities.
- Water transport can be broadly divided into two groups—inland water transport and oceanic routes.
- Aeroplanes and helicopters are the common means of air transport.

## EXERCISE

### A. Choose the correct answer.

1. The invention of wheel/cart revolutionised the way of human living and made transportation easy.
2. The voyage of Vasco da Gama/Ferdinand Magellan established that the Earth is round in shape.
3. Land/Water transport is categorised as rail transport and road transport.
4. Inland/Oceanic water transport includes natural modes such as navigable rivers and artificial modes such as canals.
5. Big aircrafts/Helicopters are used to transport a large number of people to long distances.

### B. Write true or false.

1. Early humans travelled by car. ....
2. Invention of the wheel is estimated to have taken place in the Neolithic Age. ....
3. In India, the railway system is the main artery of the country's inland transport. ....
4. Water transport is the fastest mode of transport. ....
5. Helicopters help in rescue operations in flood affected areas. ....

### C. Answer the following questions.

1. Write briefly about the evolution of transport through the ages.
2. Write a short note on land transport.
3. Why are airways important for us?
4. Classify Indian roads.
5. What are the advantages of water transport?

### D. Picture study

1. Identify the means of transport in the given picture.
2. When was it first used in India?



### E. Project work

Make a PowerPoint presentation on the famous voyage of Magellan around the world.