## Lesson-13

# **Transport and Communication**

We use different products and services in our daily life. Some of them are available around us and some other needs are fulfilled from somewhere else. We need means of transportation for meeting the demand and supply of goods and services.

Means of transport have developed remarkably due to high scale of investment in capital and technology after Liberalization in 1991.

Infrastructure has an important role in industrial development. The regions which have better basic infrastructure facilities, develop rapidly. Infrastructure can be divided in two parts. In this first is structural infrastructure. It includes transport, electricity and communication. The second part is basic social infrastructure. It includes mainly development of human resources.

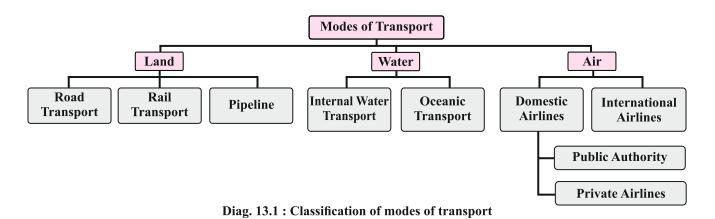
For a long time trade and transport facilities were confined to some specific regions only. With the development of science and technology, trade and transport also developed and its effect can be seen everywhere in the world. Development of transport was possible with the help of means of communication. Thus, transportation,

communication and trade etc. are supplements of one another.

Today India is well connected with all regions of the world despite its large area and diversities in many fields. Road, Air and Seatransport, newspapers, radio, television, cinema, internet etc. are helpful in its social and economic development in many ways. International trade has given new life to the economy through transport and communication. In this way our lives have become more facilitated and comfortable.

Rajasthan has not been included among the advanced states due to lack of infrastructure development. But now, with the improvement in basic infrastructure, economic development is taking place with good pace in the state.

Modern means of transportation and communication are the roots of economic development of the state and the country. So it is clear that the compact and efficient network of transportation and means of communication are essential for international, national and local trade.



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#### **Transport:-**

Well planned transport system plays an important role in the continuous development of a country. There has been large scale development in transport sector in last few years. Transport facilities have reached to the remote areas of the country and people are benefitted out of it.

Transport has much importance in economic development of any region. It is essential for industrial development and it also develops other sectors of economy. Transport network is very useful during natural calamities. Means of transportation are being classified in three sectorsland, sea and air transport.

#### **Land Transport:-**

Carrying goods and services from one place to another on land are means of land transport. They are categorised in the form of roads, railways and pipelines.

#### **Road Transport:-**

Roads are leading and most important in transport sector. At present about 65% goods are transported by roads and 80% passengers travel by road. The road transport is increasing by 7-10% every year and the number of vehicles are increased by rate of 10-12% every year.

Road transport plays an important role in social and economic development of a country. It is also very cheap and convenient for short and medium distance transportation. It is also facilitating other means of transport because it is reliable, fast, and flexible and provides door to door facilities. Rail transport in India is limited to some areas only due to distinct physical features of the country. Thus the road transport becomes important here.

Total length of roads in India in the year 2015 reached upto 54 lakh and 72 thousands kilometers. It includes national highways, main district roads, other district and rural roads. In the national highways there are standard double lanes, four lanes and more wide roads.

#### Due to following reasons road transport is more

#### important than rail transport:-

- Cost of construction of roads is much less than railway lines.
- Roads can also be constructed on uneven, undulating land surfaces and in widely spread remote areas.
- Roads can be constructed in steep slope gradient and in hilly terrain.
- Road transport is much cheaper for short distance, lesser amount of goods and small number of passengers.
- It provides door to door services and cost of loading and unloading of goods is less than other means of transportation.
- Road transport works as a link with all other means of transport as it connects railway stations, airports and sea ports.

Metropolitan and big cities are generally well connected with rail transport and air transport facilities but roads are the only means of transport in rural areas. Roads in transport sector are similar to veins and blood vessels in the human body.

Three - fourth population of Rajasthan lives in villages only. Prosperity can be automatically seen in the villages of the state which are connected by roads. Villages seems to be incomplete without roads. In the absence of roads the social and economic development of villages could not achieve actual speed.

Investment in transport development has increased in planned development of Rajasthan. Expenditure on transport development has also increased in various Five Year Plans. At present the development of road transport is a priority in development heads for the state government.

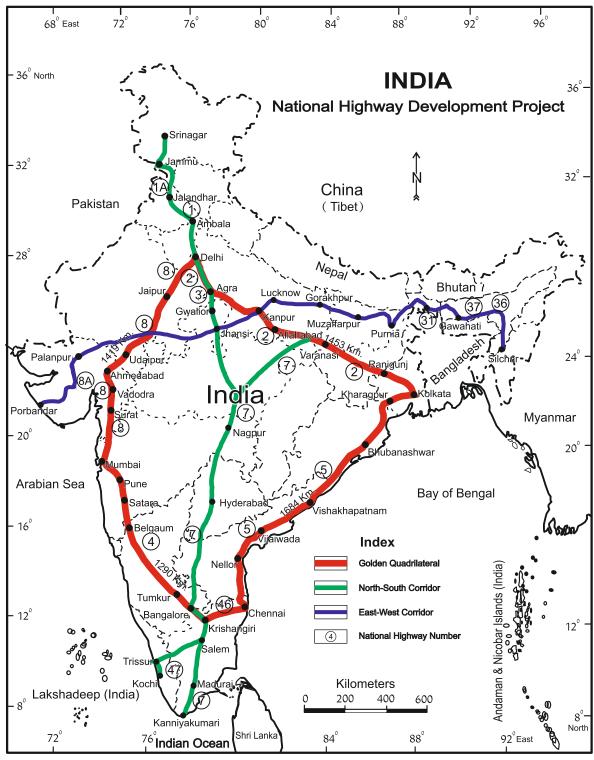
Roads in India have been classified in the following categories on the basis of their capacity:-

- Golden Quadrilateral Supper Highways
- National Highways
- State Highways

- District Roads
- Other Roads
- Border Roads

## Golden Quadrilateral Super Highways-

Government of India has started a six lane road project of super highways for connecting Delhi, Kolkata, Chennai and Mumbai. Two

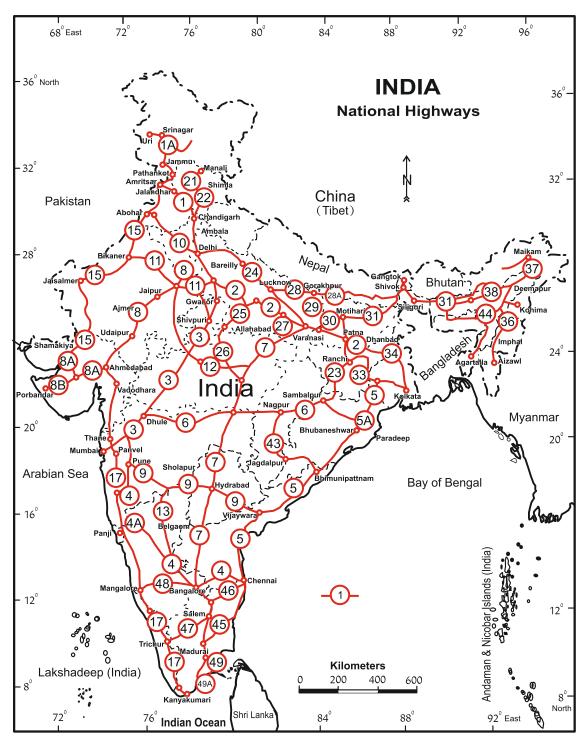


Map 13.1: Golden Quadrilateral Super Highways and important Corridors

corridors are proposed under this project. First North-South corridor which joins Srinagar to Kanyakumari and the second West-East corridor which joins Porbandar to Silchar. The main objective of this super highway project is to minimise the distance and transport time between the metropolitan cites of India. This super highway project is under jurisdiction of National Highway Authority of India (NHAI).

## National Highways:-

National highways connect distant places



Map 13.2: Major National Highways of India

of the country. This is primary roads network system and its construction and maintenance is under the jurisdiction of Central Public Work Department (CPWD).

Various important National Highways are spread from North to South and from East to West directions. The historical Shershah Suri road from Delhi to Amritsar is known as National Highway-1. The total length of national highways in India is about 66590 kilometers.

Under national main highway development programme total 45,974 km. of 4 and 2 lane roads have been proposed to be constructed during 11<sup>th</sup> five year plan. Its total cost will be 2,20,000 crore. It has been initiated by the government on the basis of public and private partnership. All the villages with a population of 100 persons in plain areas and in hilly areas with a population of 500 persons and above shall be connected with roads under Pradhan Mantri Gram Sadak Yojana. The villages of India shall be brought under market economy through this programme.

Total seven National Highways pass through Rajasthan. Among these National Highway No. 8 is the most important and the busiest highway. Its total length in Rajasthan is 685 kms. This national highway starts from Delhi and passes through Jaipur, Ajmer, Udaipur etc. before it reaches its final destination i.e. Mumbai. The National Highway Number 11 is very important from security point of view. This highway starts from Agra and passes through Bharatpur, Dausa, Jaipur, Sikar etc. before it reaches its final destination i.e. Bikaner. The national highway no. 12 starts from Jaipur and it reaches to Bhopal via Tonk, Bundi, Kota and Jhalawar. The National highway no. 14 passes through Beawar, Pali, Sirohi, Abu-road and finally reach upto Kandla. Its total length in Rajasthan is 299 kilometers. The National Highway no. 3 has only 28 kilometers length in Rajasthan. It passes through Dholpur district of the state. The National highway no. 8 has been converted into 6 lane from Jaipur to Ajmer under Golden Quadrilateral Project. On the similar lines the development of road transport is taking place in the state.

#### State Highways:-

State highways connect important cities, towns and district headquarters in the state and also connect national highways and other main highways of neighbouring states. Construction and maintenance of these highways in states and union territories is the responsibility of Public Works Department (PWD). Total length of state highways in the country is 1,31,899 km.

Some major state highways in Rajasthan have been connected with Mega Highway project and they are being developed into Mega Highways by converting these from 2 to 4 lanes. At present the construction and maintenance of these Mega highways and State highways is being done on contractual basis. For this, contract firms charge toll tax from the vehicles passing through these highways. Government vehicles, ambulances, agriculture vehicles, army vehicles, emergency vehicles and two wheelers are exempted from paying toll tax.

## **Major District Roads-**

Major district roads connect different tehsil-headquarters, major cities and industrial areas to district headquarters and interconnecting roads.

#### Other Roads-

These roads connect villages to cities and towns. They have been developed under Pradhan Mantri Gram Sadak Pariyojana. The main aim of these roads is to connect every village of India with major cities by pucca roads. With the objective to connect all the villages with main roads the Prime Minister of India has launched Pradhan Mantri Gram Sadak Yojana on 25 December 2000. According to 1991 Census, a target was fixed to connect all the villages with roads having population 1000 or more persons and villages with population 500 to 1000 persons by 2003 and 2007 respectively. There is plan to connect villages with population of 250 persons and above in tribal areas under this project.

#### **Border Roads-**

Border roads are constructed and

maintained by Border Road Organization under the authority of Government of India. This organization was formed in the year 1960 to strengthen defense preparedness and rapid economic development in India, with integrated and rapid development of road transportation in border areas of Northern and Eastern regions of the country.

At present the developmental activities of this organisation are being run in Rajasthan, Jammu & Kashmir, Himachal Pradesh, Uttar Pradesh, Sikkim, Assam, Meghalaya, Nagaland, Tripura, Manipur, Mizoram, Arunachal Pradesh, Bihar, Andaman & Nicobar islands and Bhutan. With development of these roads the accessibility have been increased in these remote areas. These roads will also be helpful in the economic development of these regions.

Table 13.1: Length of tar roads in Rajasthan (31-3-2016)

S.No.	Types of Road	Length (in Km.)
1.	National Highways	8120
2.	State Highways	14970
3.	Major District Highways	6598
4.	Other District roads	27707
5.	Rural roads	114780
	Total	172175

Source: website of Public Works Department, Rajasthan

#### Rajasthan Road Vision 2025-

Rajasthan road vision 2025 was prepared to make fundamental change in road network system in Rajasthan. A Long term vision of 25 years was prepared by Public Works Department for the development of roads in the state during first 25 years of the 21<sup>st</sup> century. In this emphasis has been laid on the construction of roads, their maintenance and assurance of quality. In the first 15 years of road vision, all the villages will be connected with roads and then in the next 10 years focus will be on construction of express ways, flyovers and four lane state highways. In this vision, it has been felt that it is essential to develop connecting roads to connect religious places, tourist centers, mining

and industrial areas. Rajasthan can be considered as a model state in road transportation.

#### Rail Transport-

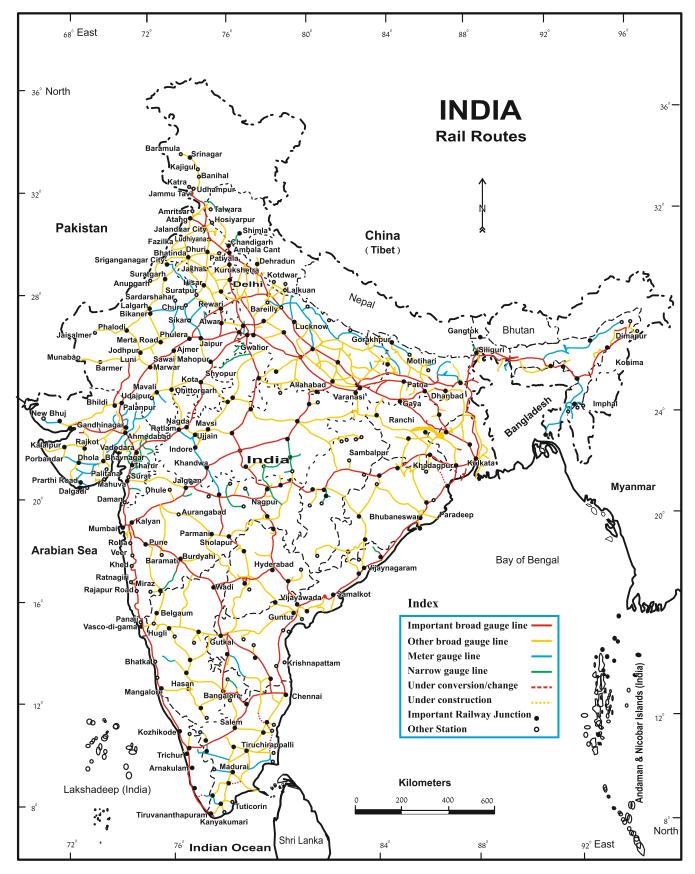
Rail Transport is an important mode of transportation of goods and people in India. Light and heavy goods are transported to long distances by rail transport. Indian railways, as important mode of transportation, have been known as good coordinator of transport network from last 150 years. Indian railway has contributed much in the rapid development of industries and economy of the country. Total length of Indian railway lines was 67,312 km. as on 31 March 2016. There were 7133 railway stations, 9213 railway engines, 53,220 passenger trains, 6493 other coaches and 2 lakh, 29 thousand & 381 trains in Indian Railways.

In India, the first train was started in the year 1853. It was run between Mumbai and Thane on 33.6 km long railway line on 16 April 1853. Indian railway was nationalized in 1951. The first electric train in India was the Deccan Queen which was run in 1929 between Goa and Pune. Today there is a wide network of railways in the country.



Fig. 13.1: Passenger transportation through railways

There are many types of railway lines in the country. Broad-gauge, meter-gauge and narrow-gauge are the main lines. The regions which are rich in natural resources, economic products and heavy minerals like iron ore, coal, mineral oil, minerals and fertilizers are having broad gauge lines and maximum transportation of these take place from this only. But raw material for industrial units is transported through meter gauge only.



Map 13.3: Major Rail routes of India

Although, the transportation by these narrow lines is time consuming and expensive. As a solution to this problem Indian railways has started uni-gauge project or similar railway line project in the 1992. Under this scheme all the meter gauge lines are being converted into broad gauge.

Natural landscape, economic and administrative factors play an important role in the Railway transport in our country. Railway lines pass through hilly areas, plains, swampy regions of Gujarat, forests of Madhya Pradesh and tunnels and connect all parts of the country. Today rail transportation is more important than other means of transportation in national economy the country. There are many problems also associated with rail transportation. Indian Railways is heavily burdened with the pressure of freight and passenger transportation and at the same time it faces challenges from road transportation. The Indian railway is also struggling from many problems such as poor security arrangement, obsolete machinery and technology, poor maintenance, robbery etc.

Keeping in view the increasing pressure of passengers and goods, there are attempts for doubling of railway lines, electrification of railway tracks and changing meter-gauge into broad-gauge rapidly under different projects. For the smooth transportation of goods double railway line of 1534 km. is being constructed from Mumbai to Rewari under Dedicated Front Corridor Project which will fulfil the needs of container transport.

Rajasthan has 11% of total railway line network of India. Total length of railway line in Rajasthan was 5870 km. in March 2013-14, which was 9.4% of total length railway lines of 64000 km. Broad gauge in Rajasthan is 82.9% of total length. Here the proportion of the meter gauge and narrow gauge is 15.6% and 1.46% respectively. The average length of railway track in Rajasthan was 17.2 km per thousand sq. km. on 31 March 2012 which was 19.2 km per thousand sq. km. at national level.

Major Railway Routes in Rajasthan are as follows:-

1. Jaipur Mumbai Railway Route 2. Jodhpur Howrah Railway Route 3. Delhi Ahmedabad Railway Route 4. Udaipur Delhi Railway Route 5. Bikaner Delhi Railway Route 6. Jaipur Delhi Railway Route 7. Jaipur Ganganagar Railway Route 8. Phulera Delhi Railway Route 9. Jaipur Sawaimadhopur Railway Route 10. Jaipur Agra Railway Route 11. Jaipur Jammu Tavi Railway Route 12. Jodhpur Guwahati Railway Route 13. Jaipur Luharu Railway Route 14. Jaipur Chennai Railway Route

## **Pipeline Transport**

15. Jodhpur



Haridwar Railway Route

Fig. 13.2: Pipe-line transportation

• Pipeline is comparatively a new mode of transport in India. Earlier use of pipeline was limited in cities and industries for water supply only. Today it is used to supply crude oil, petrol products and natural gas to oil refineries, fertilizer factories and thermal power stations. Solid and soluble substances are transformed into liquid form and carried through pipelines. Establishment of oil refineries in interior areas of the country such as Baroni, Mathura and Panipat and gas based

fertilizer plants in the interior parts have been possible due to the network of these pipelines only. Initial cost of laying pipelines is high but the operating cost is low.

- In pipeline transportation delay in supply and loss in process of transportation is negligible. There are three major pipelines networks in the country.
- One branch is from the oil regions of upper Assam to Kanpur via Guwahati, Baroni, and Allahabad, then from Baroni to Haldia via Rajwandh. The second branch is from Rajwandh to Maurigram and from Guwahati to Siliguri.
- From Salawa to Viramgam in Gujrat and Jalandhar in Punjab via Mathura, Delhi and Sonipat. Another branch connects Koyali near Vadodara to Chaksu and other places.
- Gas pipeline connects Hazira (Gujrat) to Jagdishpur (U.P). It passes through Vijaynagar in Madhya Pradesh. Its branches in Rajasthan are in Kota, Shahjanpur in U.P, Barala and other places in Uttar Pradesh.

#### Water Transport-

Water transport is the cheapest of all means of transportation in a country for long distances because there is no need to construct transportation routes and only construction of ports as well as the means of water transport are sufficient to develop water transport facilities. Though, natural and artificial waterways are essential for its operation. Indians have been undertaking sea voyages since long. Sailors have spread trade and culture far and wide. It is easy to carry heavy and bulky goods by water transport. It is also favourable for saving energy and environment friendly and mode of transportation. Both internal and external water transport is carried on in the country. Transport was done since ancient times through rivers as internal waterways. At present there is 14500 km long navigable water way including rivers, canals, lakes and narrow bays. About 3700 long waterway is being used in major rivers for water transportation.

Out of 4300 km. long canal network, only 900 km. route is usable for water transportation. About 450 lakh ton goods are being carried through internal waterways. There is 14,500 km. long navigable water way in India but only 5685 km. route is used by mechanical ships. Internal waterways are important means of transport in North Eastern states of India.

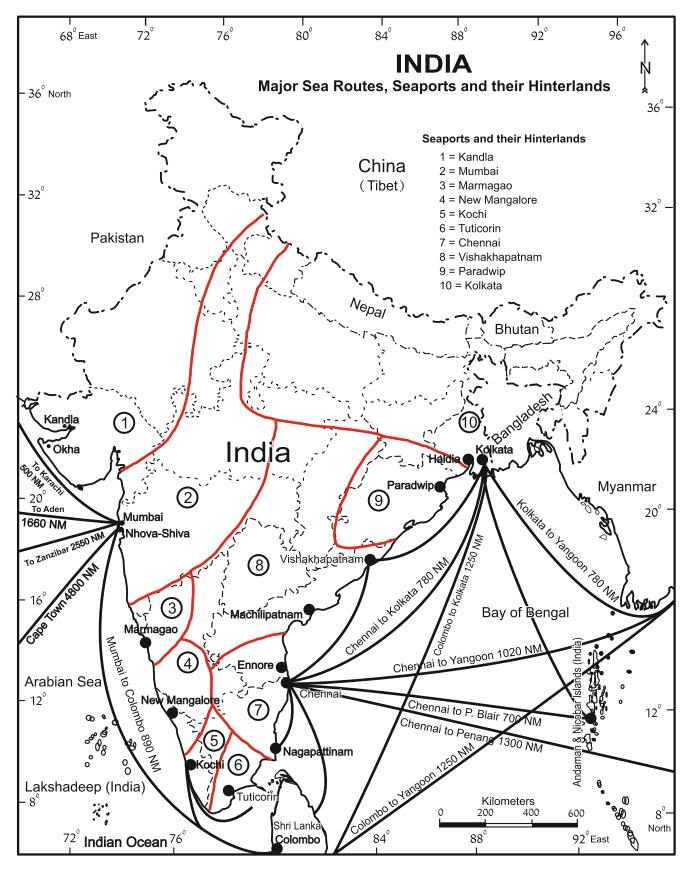
#### **National Waterways-**

Rivers of the country like the Ganga, Hoogly, Yamuna, Brahmaputra, Narbada, Tapti, Bharudi, Krishna, Mahanadi, provide internal waterways. The following waterways have been declared as National waterways by Government of India.

- National Waterway no. 1 1620 km. long Ganga waterway between Haldia and Allahabad.
- National Waterway no. 2 89 km. long Brahamputra waterway between Sadia and Dhuvari.
- National Waterway no. 3 205 km. long canal from Katapuram to Kollam near the west coast of Kerala from Udyogmandal to Chandraprakash.
- National Waterway no. 4 1100 km. long waterway from Kakinada to Bharkanan.
- National Waterway no. 5 588 long waterway from Matai river, Mahanadi, Delta channel, Brahamani river along the East coastal canal.

There are also some waterways for transport including Mandvi, Zurari and Kambariya, Sundarvan, Barak, back waterway of Kerala and tidal extension of some rivers.

Most rivers of the country face water shortage after rainy season so no transport is possible in this season. According to a survey made by the Ministry of Land Transport, there are ten riverways where water is available for the whole year. These riverways have been declared National Waterways.



Map 13.4: Major Sea Routes, Seaports and Hinterlands in India

## Major Seaports-

Activities such as anchoring of ships, fuelling, loading and unloading goods are done at seaports. There are 12 major seaports and 187 medium and small seaports along the 7516.6 km. long coast line. 95% of foreign trade is conducted from these seaports.



Fig. 13.3: Seaport for Water Transportation

After independence Kandla seaport in Kutch was developed as the first seaport. It was developed as complement to Karachi seaport after partition to lessen the trade pressure from Mumbai seaport. Kandla is a tidal seaport. It operates import and export of the industrial and agriculture products from Jammu-Kashmir, Himachal Pradesh, Punjab, Haryana, Rajasthan and Gujrat.

Mumbai is the largest port. It has a natural open large and good harbour for ships. Jawahar Lal Nehru seaport near Mumbai port which could provide facilities of combined port to the region. Marmagoa is an important seaport for iron ore export. About 50% of iron ore of the country is exported from here. New Mangalore seaport in Karnataka exports iron ore from its Kudramukh mines. Kochi seaport is situated at the far South Eastern part on the beach of a lagoon and is a natural port.

Tutikorin seaport is on the South Eastern coast in Tamil Nadu. It is a natural harbour and its hinterland is also very rich. It operates trade of different goods with Sri Lanka, Maldives and coastal regions of India. Chennai is the oldest port and Vishakhapatnam is the best natural port of the

country. Ships are built and repaired here. Chennai is the second largest port in foreign trade and loading of goods. Paradeep seaport in Orissa exports iron ore. Kolkata is an internal river port. It is situated on the banks of Hoogly River 148 km. away from the seacoast. It has to be cleaned regularly as it is a tidal port and there is constant deposit of sand at the bottom of Hoogly River. Haldia port has been developed as secondary seaport to reduce the increasing pressure of trade on Kolkata port. Haldia has well equipped coast and oil containers. There is almost no waterways in Rajasthan due to absence of seacoast and perennial flowing rivers. Kandla and Mumbai are ports closet to Rajasthan.

## Air Transport-

Air transport is the fastest, most comfortable and prestigious means of transport. India is a vast country with its physical diversity so this transport is very important. Remote areas like high mountains, desert, dense forest and long sea routes can easily be crossed by it. It connects the remote areas of the country. Air transport in the country started in 1911 when the first postal service was sent from Allahabad to Naini. Air transport was nationalized in 1953. Today in India domestic and international air services are provided by Indian Airlines, Air India and many private Airlines. Pawanhans Helicopter Limited is the leading helicopter service in India which provides services to Oil and Natural Gas Commission in emergency and inaccessible remote parts of the country such as North Eastern states, Jammu & Kashmir, Himachal Pradesh and Uttrakahand etc. It is also working for tourism promotion in India. Indian Airlines also provides its services to neighbouring countries like Nepal, Bangladesh, Pakistan, Afghanistan, Sri Lanka, Myanmar and Maldives.

International Airport Authority of India manages four major air ports of India. Mumbai, Kolkata, Delhi and Chennai where as National Airport Authority manages national Airports and run ways of civilian flights on defence airports. At present the responsibility of management of many

airports is given to the private sector.



Fig. 13.4: Airport and Air Transportation

The airports of the country have been divided into four categories according to their work, characteristics, importance and facilities provided by them.

International Airports- International air services are available here. The following airports in the country provide international air services. Jawahar Lal Nehru Airport (Santacruz Airport Mumbai), Subhash Chandra Bose Airport (Dumdum Airport Kolkata), Indira Gandhi International Airport (Delhi), Meenambakam (Chennai) and (Thirunvanthpuram Airport). Besides these, there are also international airports at Bangalore, Hyderabad, Ahmedabad, Kochi, Thrunvanthpuram, Calicut, Coimbatore, Nagpur, Pune, Jaipur, Lucknow, Shrinagar, Goa, Amritsar, Guwahati, and Nedumbsery.

First Class Airports- They provide landing and taking off facilities to all kinds of aeroplanes. They are in Agartala, Ahmedabad, Rajsansi (Amritsar), Amusi (Lucknow), Patna, Begumpet (Hyderabad) Saint Thomas (Chennai), Safdarganj (Delhi), Guwahati, Jaipur, Nagpur, Tiruchirapalli and Barapan (Shilong).

Apart from these, there are **38 airports of medium and 28 airports of small level** and government aided flying clubs where children are given training.

Sanganer Airport at Jaipur in Rajasthan is a first class airport. There are two terminals where government and private airlines operate domestic

and international flights. It provides flights to all major cities of the country. Then there are airports of medium level at Ratanada (Jodhpur) and Dabok (Udaipur). They provide flight services to some important cities of the country. There is a small airport in Kota and an airport at Kishangarh near Ajmer is also under construction from where air services will be available in near future.

#### **Communication services-**

Man has been using means of communication since inception of human civilization. Man has made much progress. He has made achievements which have provided him comfort and all facilities. Man has made revolutionary progress in communication sector. He is the creator and master of new communication facilities and techniqes. New sources and means of communication have provided him better facilities.

Today, sitting at one place sending and receiving message from distance has become very easy. The major medium of communication such as radio, television, newspaper groups, press, cinema, internet, cable, mobile, satellite services are provided by private sector. Public communication network of India is very large. Postal communication of India handles personal letters and speed post services. It operates parcels, cards, envelopes and sealed letters. They are carried to different places by buses, trains, railways, aeroplanes and waterways. Telephone, internet and mobile services are modern means of communication.



Fig. 13.5: Postal - Letter Box

#### Internet-

Internet started in 1969. At that time it was used in limited areas as exchange of information. Launching of e-mail in 1972 brought about a revolution in communication. Through e-mail any message or information can be sent to any corner of the world in seconds where internet service is available. Some message can be sent to thousands of persons through e-mail. Video conferencing is done with the help of internet which is less expensive and saves time. Persons sitting at different places in the country or abroad can have conversation through audio-visual aids.

Photos and films can be sent from one place to another easily and fast. Events taking place in one corner of the world can be seen and sent to another within minutes. Internet services can also be had through telephone lines, broadband services and mobile services through 2G, 3G and 4G network services.



Fig. 13.6: Tower and radar for internet, mobile and satellite services

#### Telephone-

Telephone is a very important means of communication invented by Graham Bell. After its invention working improved rapidly. Persons sitting at different places can talk to each other and also exchange information. After introducing S.T.D. and I.S.D it was possible to talk to people in foreign countries by dialing number directly. There are code numbers for cities and countries in STD and ISD to talk directly without any delay.

#### Mobile-

Invention of mobile phones brought about a revolution in telephone communication services. Direct contact can be had through mobile service with the persons using mobiles. Fast internet services like 3G and 4G are also available on mobile phones. Videos calling facility is also available on mobile phones. Different mobile applications have made communication services fast and easy. New techniques are being introduced regularly in this sector.

## **Important Points**

- 1. Transport is needed to carry goods and services from where they are produced to the places of demand.
- 2. Transport and communication are the backbone of the economy of a country.
- 3. There are three major sectors of transport-
  - 1. Land 2. Air 3. Water
- 4. Land transport takes place via railways, roads and pipelines.
- 5. Golden Quadrilateral Super Highways connect four major metros of the country named Delhi, Kolkata, Chennai and Mumbai with one another.
- 6. Seven National Highways pass through Rajasthan and their length is 685 km.
- 7. National highway no. 8 is the main highway passing through Rajasthan. It proceeds from Delhi via Jaipur, Ajmer and Udaipur to reach Mumbai.
- 8. State Highways are those highways which connect towns, cities, district head quarters, national highways and state highways connecting neighbouring states.
- 9. The first train in the country was operated on 22 December 1851. The first train was run between Mumbai and Thane on 16 April 1853 and the distance was 33.6 km.
- 10. Pipeline transport is a new means of transport. It was used to supply water to cities but today

- it is used to supply crude oil, petrol, gas, diesel and ores (in liquid form) from one place to another.
- 11. Water transport is the cheapest means of transport because there is no need to construct roads.
- 12. There are five National Waterways and other waterways in the country through which transportation is carried out.
- 13. Air transport is the fastest and most comfortable means of transport and it can cross remote places like high mountains, deserts, dense forests and long routes easily.
- 14. Air transport service in Rajasthan is available in Jaipur, Jodhpur, Udaipur and Kota and very soon it will also be available in Ajmer.
- 15. Television, radio, postal services, telephone, mobile and internet services are important mediums of communication.
- 16. Message from one place to another can be sent quickly through e-mail services.
- 17. Mobile services and inventions coming up frequently in this sector are responsible for revolutionary changes in communication.

#### **Exercise**

## Very Short Answer Type Questions-

- 1. What is transport?
- 2. Which are major sectors of land transport?
- 3. Name the Super Highway which connects four major metro cities of the country.
- 4. How many National Highways pass through Rajasthan?
- 5. Write the name of first electric train of India.
- 6. Write the name of separate railway project under construction for the operation of goods trains.
- 7. Name the cheapest means of transport.
- 8. Which is the fastest means of transport?

- 9. Write the full form of e-mail.
- 10. Write the name of essential communication service for video calling.

## **Short Answer Type Questions-**

- 1. What is Pradhan Mantri Gram Sadak Yojana?
- 2. Give the classification of the major road transport routes.
- 3. What is the importance of border roads?
- 4. Why is water transport the cheapest way of transport?
- 5. Write the names of major international airports of India?
- 6. Mention the advantages of pipeline transport.

#### **Essay Type Questions-**

- 1. Mention the reasons of the increasing importance of rail transport as compared to road transport.
- 2. Why are means of transport and communication called the life line of the country and its economy?
- 3. What is Rajasthan Road Visions 2025?
- 4. Describe the progress made in transport sector in Rajasthan.
- 5. Describe the modern means of communication.