

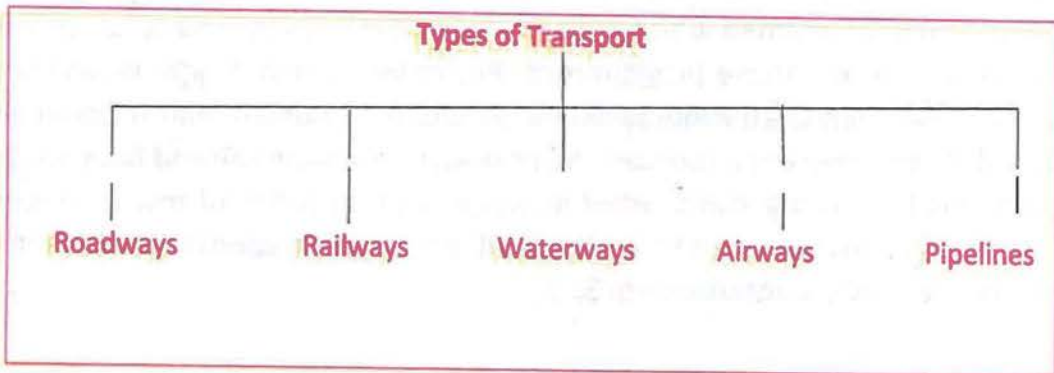
Section-4

TRANSPORT, COMMUNICATION AND TRADE

Have you ever given a thought as to how and from where all essential commodities of life come to your village/town? How does wheat grown in Punjab, rice grown in West Bengal, coal mined in Dhanbad, cotton grown in Maharashtra and letters and messages written by you reach to other places and persons? All this is possible due to means of transport and communication. Means of transport and communication acts as base in the all round development of any region or country. A relationship between production and consumption or demand and supply is being established by these means. That is why they are called lifeline of national economy.

Types of Transport:

Means of transportation is required to travel between two places. At present means of transport and communication are the arteries of socio-economic setup which give shape to the world, affects it and also get affected by them. For transportation in India there is facility of roadway, railway, waterway, airway and pipe line. In hilly regions, especially for tourism, development of ropeway can be seen as a means of transportation.



1. Roadways:

Roadways are the most common, easy and convenient means of transportation. It is used by every person during his life time. You also use roadways for going to school from your home every day. India has one of the largest road networks in the world with about 33 lakh kilometers long road network. Grand Trunk Road is the oldest road of the country. This road was built by Sher-shah Suri and its stretch from Kolkata to Amritsar lies in India. At present it is known as National Highway No. - 1 (NH - 1) from Amritsar to Delhi and National Highway No. - 2 (NH - 2) from Delhi to Kolkata. Road going to Leh via Kargil from Amritsar is known as National Highway No. 1A (NH 1A).

Development of Roadways in India:

The earliest proof of development of roads in India is found in the Harappa and Mohenjodaro civilisation. The rulers during Budha era also constructed roads. In 1857 after first war of Independence, the English rulers developed roads as a supplement to the railways. Not only this, before independence under 'Nagpur Road Plan' considerable efforts were made in the country for the development of roads. As a result, at the time of independence 2.42 lakh kilometer long kuchchi and 1.46 lakh kilometer long pukki roads was there in the country.

After independence adequate attention was given on the development of roads. In 1950-51 the total length of roads in the country was 4 lakh kilometers which increased to 24 lakh in 2000-01 and it further increased to 33 lakh kilometers in 2006-07. During this, several programmes were also implemented which enhanced the development and construction of roads. Among these programmes, Rashtriya Gramin Rojgar Guarantee Yojana, Swarnim Chaturbhuj Sadak Pariyojana and Pradhan Mantri Grameen Sadak Yojana are very important. Apart from these, from MP and MLA quota also small roads are constructed in village and mohallas of towns. Under Pradhan Mantri Grameen Sadak Yojana it is planned to connect settlements which are having a population of 500.

Regional Distribution:

So far as the length of pakka roads are concerned, Maharashtra stands first in the country. 2.70 lakh kilometer long roads exist here. Uttar Pradesh and Odisha are placed second and third respectively. The length of the roads here is 2.47 lakh and 2.36 lakh kilometers respectively. The least length of the pukka roads is found in Lakshadweep, here length of the pakka road is only 01 kilometer long. The density of the roads is maximum in Kerala. Here on every 100 square kilometer area the length of the road is 387 kilometer. Goa and Odisha are placed second and third with total length of roads being 258 and 152 kilometers respectively.

In North India the maximum density of roads is in Punjab with a density of 122 kilometers on every 100 square kilometers. After this, Uttar Pradesh and West Bengal are placed with a density of 103 and 102 kilometers per 100 square kilometers respectively. In the North- East states, Tripura is the first and Nagaland is the second in terms of density of roadways with a density of 134 and 127 kilometers respectively on every 100 square kilometer area. Among Union territories with a density of 1176 kilometer per 100 square kilometers Chandigarh is placed first. With a density of 17381 kilometer per 100 square kilometer Delhi stands first in the whole country.

Types of Roads:

Through Nagpur plan roads were divided in to four different types-

- | | |
|-----------------------|--------------------|
| (1) National Highways | (2) State Highways |
| (3) District Roads | (4) Rural Roads |

(1) National Highways:

National Highways acts as a link in connecting different parts and states of the country. They are spread over from one corner to another corner of the country. The National Highway No 7 is worth mentioning in this regard. It is the longest National Highway of the country. Crossing through Varanasi, Jabalpur, Nagpur, Hyderabad, Bengaluru and Madurai up to Kanayakumari,

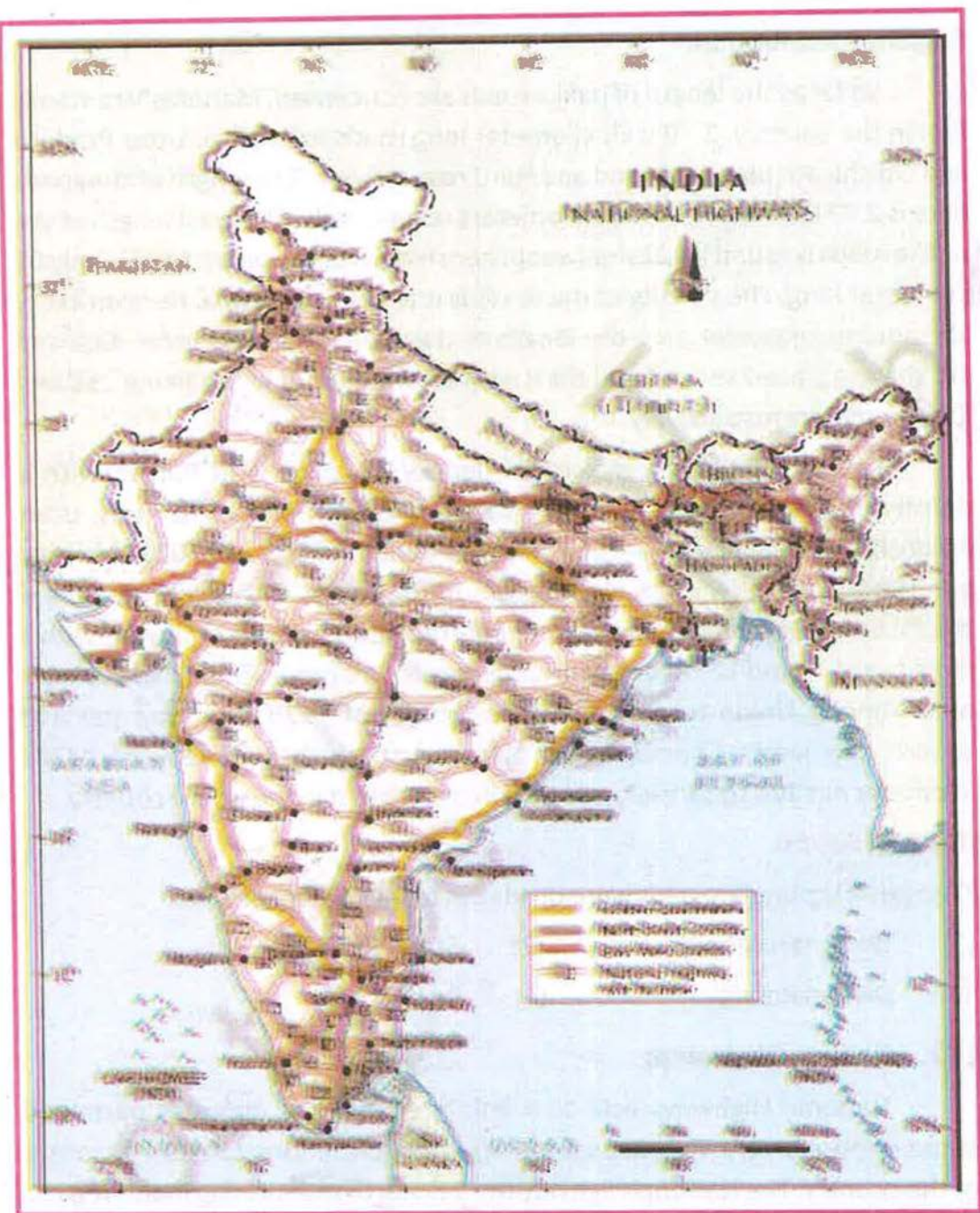


Fig 4.1 India : National Highways

the total length of this Highway is 2369 kilometers. The central government is responsible for the construction and maintenance of these highways. There are 228 National Highways in the country having a total length of 66590 kilometers.

National Highways

Single Lane	- 32%
Double Lane	- 56%
Four/Six/Eight Lane	- 12%

This only 2% of the total length roads of the roads in India. These roads share 40% of the total transportation of the country. All National Highways are having Pakka roads. The traffic on the National Highways ply at a very faster speed due to which unfortunate incidents occur. Therefore, for safety and first aid emergency boxes are also kept at places on these highways.

To encourage economic development in the country, the government has launched extensive National Highways development project. This is the largest National Highways project of the country till date. Following are the activities of phase- I and phase- II of the National Highways development project.

(i) **Golden Quadrilateral Highways:** Launched by central government to link four major cities - Delhi, Mumbai, Chennai and Kolkata by six lane highways with about 5846 kilometer long road. The construction work of these highways is going on.

(ii) **East-West and North-South Corridors:** The construction work on roads linking Silchar in the east and Porbander in the west and Srinagar in the North and Kanayakumari in the south is going on. The total length of East-West corridor is 3640 kilometers and the total length of North-South corridor is 4016 kilometers is proposed.

(iii) **Express Way:** These roads are constructed with an aim to cover distances in short time. The vehicle plying on these roads run at a very fast speed and have to pay additional Toll-Tax. These modern four lane roads include Kolkata-Dumdum express way, Ahmadabad express way, Mumbai West Coast express way. The Mumbai Pune super express way is first international standard highway of the country. It has been proposed to convert 380 kilometer long National highway connecting 10 major ports of the country in to four lane express ways.

(2) State Highways:

The state highways connect state capital with headquarters of different districts. The responsibility of construction and maintenance of these roads is on the state government and this work is executed by the Public Works Department (PWD) of the states. The total length of these roads is only 4% of the total lengths of the roads in the country. These roads are also connected to National highways.

(3) District Roads:

The district roads connect different district head quarters and towns. The total share of these roads is 14% in the total roads of the country. These roads have a very significant role in the regional development. The responsibility of maintenance of all these roads is on state governments.

(4) Rural Roads:

These roads connect villages with each other. These roads include 80% of the total road area of the country. The development of these roads is being done under Pradhan Mantri Sadak Yojana.

(5) Border Roads:

From Political and strategic point of view it is essential to construct roads in border areas. The Border Road Organisation constructs and maintains these roads in India which was established in 1960. In the situation of war the comparative importance of these roads increases. It is through these roads that the essential supplies to the soldiers are sent to the border areas.



Fig-4.2 Transportation on North-East Roadways.

The roads are the most convenient and cheapest means of transportation. Its development is totally dependent on the relief of the area. Its development is easy in plain areas but it is very difficult to construct roads in mountainous and plateau areas. Due to relief features the stair shaped winding roads can be seen in mountainous regions.

It is useless to imagine human life without roads. The development of roads can be seen in all places whether it is village or cities or metropolitan cities but there is adequate variation in their standard. The development of road is directly related to the economic development.

When you go to market to purchase vegetables or other items with your mother father then you take the help of roadways. The transfer of goods and services are done through roadways only. It is such a means of transportation which can be constructed at any place according to the need of the people. Not only this, it acts as a supplement to the other means of transportation. Without its development the railways, waterways, and airways services will remain incomplete. The cost of its construction is less and is the best means of transportation for goods for comparative lesser distances. The most special feature of this means of transportation is that it provides door to door service and acts as a chain for the other means of transportation.

In the total transportation of the country, the total goods transport through roads increased to 600 billion tonnes kilometer in 2003-04 from 6 billion tonnes in 1950- 51. Similarly, during this period the transportation of passengers increased to 3135 billion traveler kilometer from 23 billion traveler kilometer.

1. Railways:

The development of railways started in India from 16th April, 1853 when the first train travelled a distance of 34 kilometers between Mumbai and Thane. After this the East India Company emphasised on the development of railway network for its benefits. Slowly the length of the rail

route in the country began to increase. Government of India also paid adequate attention on the development of railways after Independence. As a result, the length of the railways increased to about 63 thousand 327 kilometers in 2006-07 from 54 thousand kilometers in 1947-48. For administrative convenience the Indian railways has been divided into 16 zones. The Northern railway is the largest railway zone in the country and the smallest is North-East frontier railways.

Railway Zone	Headquarter
1. Northern Railways	New Delhi
2. Eastern Railways	Kolkata
3. Western Railways	Churchgate, Mumbai
4. Southern Railways	Chennai
5. Central Railways	Mumbai central
6. North-East Railways	Gorakhpur
7. East-Central Railways	Hajipur
8. North- East frontier Railways	Maligaon (Guwahati)
9. South-Central Railways	Sikanderabad
10. South-Eastern Railways	Kolkata
11. East Coastal Railways	Bhubaneswar
12. North-Central Railways	Allahabad
13. North-Western Railways	Jaipur
14. South-Eastern Central Railways	Bilaspur
15. South-Western Railways	Hubly
16. West-Central Railways	Jabalpur

Indian Railways:

Particular emphasis has been laid down on the development of railway after independence. During different five year plans, along with the extension of rail routes adequate facilities have also been increased. Following are the special qualities of the Indian railways:

- (i) High speed Rajdhani express and Shatabdi express trains are being operated between two large cities and metropolitan cities.
- (ii) The Janshatabadi express trains are being run to connect small towns with metropolitan cities and large cities.
- (iii) For transportation of goods private container and wagons are being attached to the goods trains.
- (iv) Till 31st March 2006, in Indian railways 44 steam engines, 4793 diesel engines and 3188 electric engines were working.
- (v) The protection guard (A C D) has been arranged in engines to prevent accidents of trains.
- (vi) From 1st August, 1947 the ministry of railways has started rail passenger insurance scheme.
- (vii) In Between Maharashtra, Goa, Karnataka and Kerala the trains are being run under Konkan Rail Project in a stretch of 760 kilometers. In this Rail route between Apta to Mangalore there are 92 tunnels, 1819 small bridges, 179 large bridges and 56 railway stations. On this rail route 6.5 kilometer long tunnel is situated near Ratnagiri. At present, it is the longest railway tunnel in the country.
- (viii) In Kolkata and Delhi Metro Rail is providing underground rail service.

Do You Know?

In large cities, commuters **DMU**, **EMU** and **MEMU** train services are available for the transportation.

- (ix) In Rajasthan Royal train "Palace on wheels" and in Maharashtra "Deccan Odyssey" trains are being operated.
- (x) For joyful journey up to tourist destinations situated in the hills narrow gauge and special gauge trains are being operated. This includes Shimla, Ooty, Mount Abu, Darjeeling etc rail services.
- (xi) For the protection of Railway property and rail passengers, arrangement of G.R.P. and R.P.F. has been made.
- (xii) Till 31st March 2007, 6909 stations, 8153 rail engines, 45360 passenger trains and 1905 other passenger trains were available to Indian railways.
- (xiii) In the North- Eastern states, Meghalaya is the only state where rail route is not available.
- (xiv) The Indian Railways Network is the largest in Asia and the third largest in the world.
- (xv) After Russia, India has the most electric operated trains in the world.
- (xvi) The most unique specialty of Indian railways is the operation of 'Jivan Rekha'. After becoming operational on 16th July 1991, this train is the first mobile hospital of the world.

Major Gauge of Indian Railways

Railway Line (Gauge)	Gauge Length	Length of total Route (K.M.)	Percentage
Broad Gauge	1.676 Meter	49820	74%
Meter Gauge	1.000 Meter	10621	21%
Narrow Gauge	0.762 Meter and 0.610 Meter	2886	5%
Total		63327	100%

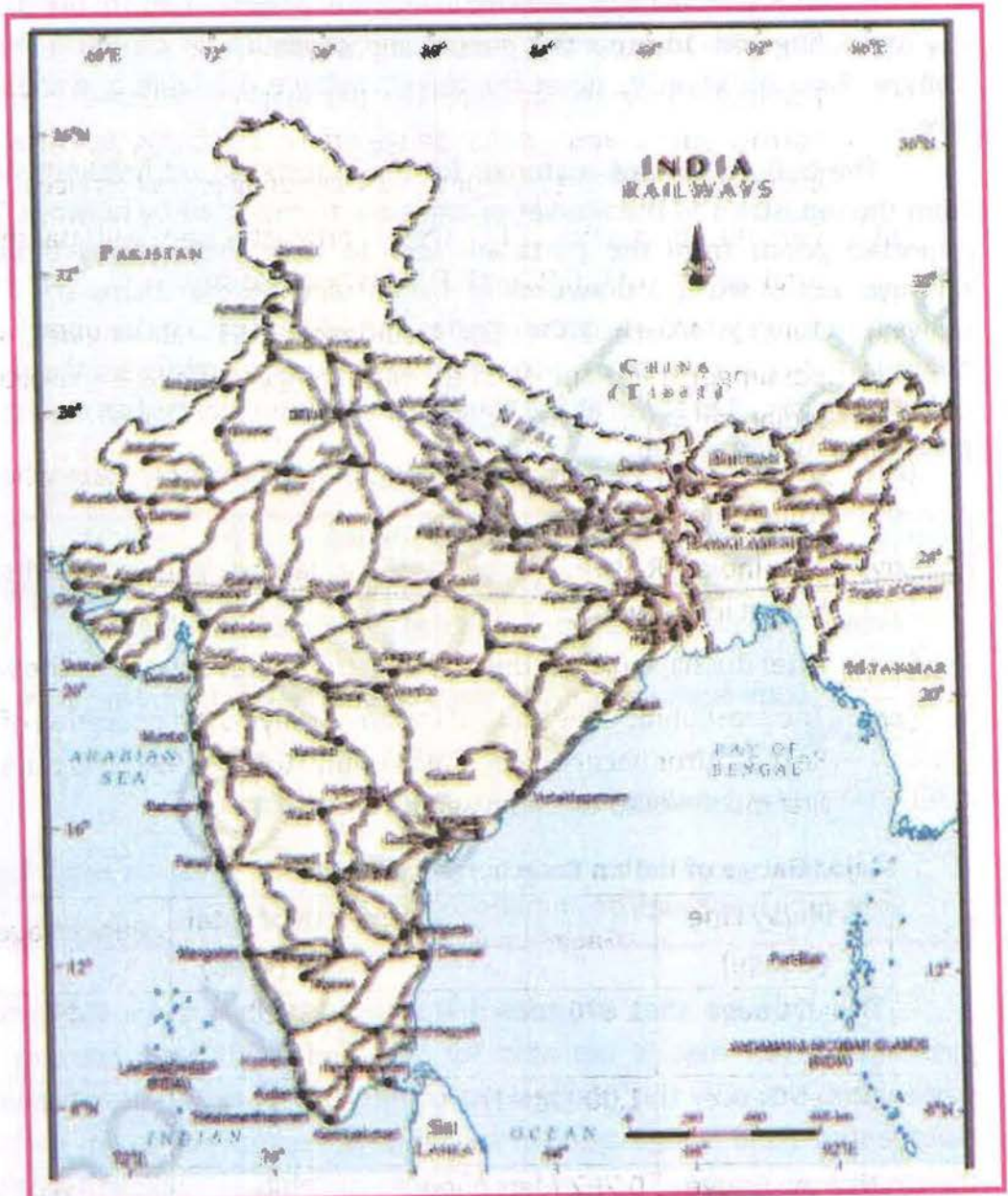


Fig- 4.3 India: Important Railways

Railways play an important role in Indian economy as well as our day to day life. Along with transporting people and goods it also connects Indian Culture. Through Monthly ticket the travel facility is available at a cheaper fare.

The bulk of the raw materials for the industries and finished goods from the industries to the market or cities are transported by railways. The imported goods from the ports are sent to their destinations through railways. But there is a drawback of Indian railways that there are 3700 railway crossings which are without gates and while crossing the unmanned railway crossing accidents are a common sight. Such accidents are the result of human error. Therefore, at the time of crossing such crossings necessary precaution must be taken.

Precautions at the Unmanned Railway Crossings

- (i) **Stop**: Stop before the signal board by decreasing the speed of your vehicle before the speed breaker at the railway crossing.
- (ii) **Look** : Look both side of the track to ensure whether any train is coming.
- (iii) **Hear**: Hear the whistle or sound of the arriving train.
- (iv) **Go** : Make sure that no train is coming from any direction only then your vehicle through on unmanned railway crossing.

The railways that provides transportation facility to 1.24 crore passengers even day, is available for rich and poor both category of passengers. Not only this, though the country is having different types of relief features and a huge area but still railways has made different parts of the country accessible. The number of passengers has increased to 6 billion 21 crore and 90 lakh in 2006-07 from 1 billion 28 crore and 40 lakh in 1950-51. During the same period the revenue earning goods transportation increased

to 72.76 crore tonnes from 7.32 crore tonnes. These facts highlight the significance of railways in the economy of the country. .

The Indian railways working as national property have certain problems. Even today number of passengers travel without tickets and inflict revenue loss to the railways. Precious time is wasted by stopping trains through chain pulling. Huge loss to railway property is caused in the event of terrorist, Naxal attacks and during strikes. Effort should be made by everybody to stop these irresponsible acts.

3. Pipelines:

You are well acquainted with the use of pipe for water supply to every home in towns. But at present the importance of pipeline as a means of transportation is increasing day by day. The pipelines are used for the transportation of liquid materials like petroleum along with gas. It is possible to transport through pipelines in deserts, forest, mountainous regions, plains and even through sea.

Pipelines in India:

The future of pipelines in India relies mainly on oil and natural gas. The crude oil is transported from oil fields to oil refineries and from refineries the oil products are sent to markets through pipelines. These are also sent to the market through roadways by oil tankers.

In refineries the different products received from the crude oil (L.P.G., Motor gasoline, Naptha, Kerosene, Aircraft fuel, high speed diesel, light diesel, furnace oil, lube oil etc.) are transported from one place to other with the help of pipeline. At present solids such as minerals can also be transported through pipeline when converted in to liquid form.

Along with the increase in production of petroleum products and increase in imports, there has been successive increase in the pipelines also. Its density is more in the western parts of the country. Till 1985 the total extension of pipelines in the country was 6535 kilometers which increased to 18546 kilometers in 2004.

Distribution of Pipelines:

In India the pipelines can mainly be divided into two categories :-

(A) Oil Pipeline : (i) Crude oil Pipeline (ii) Oil product pipeline

(B) Gas Pipeline : (i) L.P.G. Pipeline (ii) H.B.J. Pipeline

For the transportation of crude oil, pipelines have been laid down in East, North- East and Western India. In the East and the North-East India it runs from Digboi to Barauni up to Haldia which is to be extended up to Paradip. In the western India a pipeline runs through Kandala-Ajmer to Panipat and from Jamnagar to Chaksu. From Chaksu, this pipeline is divided into two parts up to Panipat and Mathura. In south India there is a pipeline which runs between Vishakhapatnam, Vijayawada and Hyderabad. Parallel to this pipeline L.P.G. pipeline is also situated. In Gujarat from Hazira up to Jagdishpur, in Uttar Pradesh 1730 kilometer long Hazira-Bijapur-Jagdishpur gas pipeline is situated. This pipeline is also called as H.B.J. gas pipeline. Gas Authority of India Limited (GAIL) operates about 4500 kilometer long gas pipelines in the country.

So far as the distribution of petroleum products is concerned Guwahati-Siliguri pipeline, Barauni-Kanpur-Lucknow pipeline, Chennai-Trichi pipeline, Kochi- Karur pipeline, Mangalore-Hasan-Bengaluru pipeline, Mumbai-Pune pipeline and Naharkatia-Maungram-Haldia pipelines are important. The most productive pipeline of the country is Guwahati-Siliguri-Barauni-Kanpur-Rajband, Maungram-Haldia pipeline.

Do You Know?

Before laying the pipes, the steel pipes are covered with a layer of Bitumen and then a layer of fiber glass is coated. This prevents pipes from rusting.

For the transportation of solid materials, Kundremukh-Mangalore pipeline for the transportation of iron ore, from Mahan mines situated in Udaipur district up to Debari smelting factory for the transportation of Rock Salt are famous.

Airways:

You must have seen a aircraft flying in the sky above your village/city. The airway is the quickest, modern and costliest means of transportation. Comfortable and happy long distance journey in less time is possible through this means of transportation. In India it connects capital cities, Mega cities, industrial and commercial centres. This means of transportation is utilised in different ways in the country.

Air Transportation in India:

The air transportation in India began in 1911 with a short flight of 10 kilometers between Allahabad and Naini. This flight was meant for postal services. During the course of time, fresh efforts were made in this direction to develop air services. In 1933 Indian National Airways was established with its headquarters at Delhi. At the time of independence, up to the beginning of 1947, 21 aircraft companies were providing air transportation in the country. After independence, the government of India in its quest to develop airways constituted Air Transport Evaluation Committee in 1950 and it is on the suggestion of this committee that air transport was nationalised in 1953. After this the responsibility of internal or domestic air transport services was handed over to Indian Airlines and responsibility of International Air Transport services was handed over to Air India. Also the headquarter of *Bhartiya Viman Nigam* was established in Delhi. Apart from the different cities of India, the Indian Airlines is also providing air services for several neighboring countries. In general the air services made

available by Indian Airlines is possible by the support of several associate air transport companies. This is worth mentioning that from the 8th December, 2005 Indian Airlines is now known as 'Indian'.

Pawan Hans Helicopter Limited is providing Helicopter services in India since 1985, which is providing its services to the nation to accomplish different objectives. 'Airport Authority of India' has been established on 1st April, 1955 to control, development and management of all types of airports and other works of aviation areas. About 450 airports available in the country in which 12 are International Airports.

During last some years there are major development have been noted in aviation area. Today air transport companies are working in both areas i.e. public and private sectors. Important Airline companies in private sector are:- Jet Airways, Sahara Airlines, Deccan Aviation, Go Airways, Kingfisher Airlines, Paramount Airways and Inter Globe Aviation. A private goods transport company known as Blue Dart Aviation is operating goods transportation services in the country. Apart from these domestic services there are 86 such companies which are having Gatt directed flight operation permit. N.A.C.I.L. provides services at international level and also operates flights in south-east Asia and central Asian Nations. Among private Airlines Jet Airways operates air services in different international regions. India has bilateral agreement on air services with 103 countries. To keep in to consideration the expected utility of bilateral rights, only those air service providers will be permitted to operate air services to foreign destinations which have provided domestic air services for at least five years have minimum 20 aircrafts in their fleet.

Air transportation makes it possible to cross forest, mountains, plateau, rivers, lakes, sea etc. The long distance destinations is covered by it in a very short time. The Airport Authority of India (A.A.I.) managed 13.08 lakh flights (10.59 lakh domestic and 2.49 lakh international), 1168.7 lakh passengers (870.6 lakh domestic and 298.1 lakh international) and 17.14 lakh

Metric tonnes of goods (5.67 lakh Metric tonnes domestic and 11.47 lakh Metric tonnes international) in 2007-08.



Fig- 4.5 India : Important Ports and International Airports

The air transportation has brought the distant places closer. Not only this, there are many difficult areas in the country which cannot be reached either by road or by railways but such places can be reached by air transport very easily.

(V) Waterways:

Waterways have been an ancient means of transport. Several adventurous journeys were undertaken in the world through waterways. There are two types of waterways - (A) Inland waterways (B) International waterways. India has about 14,500 kilometer long navigable waterways through which about 5 crore tones of goods are transported every year.

In inland waterways mainly rivers, canals and Lakes are used for transportation. The inland waterways of India are lagging behind but it is in the developing stage. For the first time in India in 1806, in south India Bakigham canal was constructed and linked with Konnanor canal and finally it was connected to Godavari and Krishna rivers and 720 kilometers long waterways was created. Later it was further extended to 40 kilometers and connected to Pulikat Lake.

After Independence in 1952, the central government established 'Ganga-Brahmaputra Water Transport Board' in which included Assam, West Bengal, Bihar and Uttar Pradesh. In 1960 this board suggested for the survey of transportation in the river Ganga. Keeping this fact in mind the ministry of Shipping and transport conducted survey in river Ganga from Farakka to Allahabad.

During the course of time on 27th October, 1986 Indian Inland Waterways Authority was established. The authority has been handed over the responsibility of developing national waterways, its maintenance and regulation. It also gives advice to central as well as state government in the matters of development of inland waterways. Its headquarters is in Noida and regional offices are in Patna, Kolkata, Guwahati and Kochi and branch office is at Allahabad, Varanasi, Bhagalpur, Farakka and Kollam.

The following five inland waterways of India have been declared as national waterways

- (i) National waterways No. 1 : Its total length is 1620 kilometers between Allahabad and Haldia.
- (ii) National waterways No. 2 : Developed in Brahmaputra river it has a total length of 891 kilometers from Sadia to Dhubari. This waterway is jointly utilised by India and Bangladesh both.
- (iii) National waterways No. 3 : This canal is 205 kilometers in length from Kollam to Kottapuram which has been developed as western ghats canal and includes Chanpakara and Udhgmandal canals.
- (iv) National waterways No. 4 : This waterway extends along Krishna Godavari rivers for 1095 kilometers. This canal runs in Andhra Pradesh, Tamil Nadu and Puducherry along Puducherry — Kakinada canal.
- (v) National waterways No. 5 : This 623 kilometer long waterways is being developed alongside East Coast canal, Matai river, Brahmani river and Mahanadi delta.

Apart from these national waterways inland waterways have been developed, in Goa 555 kilometers, in Gujarat 320 kilometers and in Karnataka. The Indian Inland Waterways Authority has proposed the names of few other waterways to be upgraded as national waterways. For all round development of the inland waterways transportation in the country, it is essential to develop tributary waterways along with the national waterways.

In the field of inland waterways and trade, there is a treaty between India and Bangladesh which enables the ships of both nations to enter each other territories through stipulated waterways.

National Inland Navigation Institute is functional in Patna since 2004. This institute which is of national importance is the first institute of its kind in the country. Here the trainees are trained to become crew members of the ships.

International Waterways:

From the international waterways point of view, India has 7517 kilometer long coast line along which 12 major and 200 minor ports have been developed. About 90% (At cost value 70%) of the trade is operated through these sea routes. India holds 20th position in the world in commercial shipping fleet. Following are the large ports of India:-

Ports	State
1. Mumbai	Maharashtra
2. Nhava Sheva	Maharashtra
3. Kolkata, Haldia	West Bengal
4. Chennai	Tamil Nadu
5. Tuticorin	Tamil Nadu
6. Kandla	Gujarat
7. Kochi	Kerala
8. Ennore	Tamil Nadu
9. Paradip	Odisha
10. Vishakhapatnam	Andhra Pradesh
11. Mormugao	Goa
12. Mangalore	Karnataka

Communication:

The exchange of messages is called communication. Human beings developed different means of communication from time to time according to their needs. In the ancient times, messages were sent by clapping, beating of drums, burning of

Important Means of Communication
Postal service, Telegram, Telephone, Fax, Radio, Cinema, News Paper, Magazines, Internet, e-mail.

fire or through several different ways whereas during medieval period messages were sent through fast runners and through Pigeons. But all these means were not public and sending message to large group of people was not possible through this process, besides, it took longer time for the messages to reach their destination. Therefore, in the modern era such means of communication are required which is quick, accessible to distant areas and can reach to large group of people. Keeping these things in mind, in the modern times, various means of communication have been developed. We have been able to develop such means of communication through which it has become possible to send messages to large group of people.

II Communication : A Story II

In the night of 16th June, Shubham who lived in Patna remembered to extend his best wishes to his mother on her birthday who lived in Shekhopur village of Vaishali district. He had number of facilities available to him. One was through computer, he could have sent his message through e-mail or he could have talked to her on telephone and passed on his message. Due to non supply of electricity at that time it was not possible for Shubham to send his message through e-mail. He was in no position to send his message immediately by writing letter. Sending message through telegram could have taken some time and fax facility was also not available near his home in the village. In this situation Shubham immediately picked up his phone and talked to his mother on phone and extended his best wishes for her birthday. The story makes it clear that Telephone/Mobiles are easy and convenient means of sending and receiving messages.

At present the importance of means of communication has increased so much that through this it has become easier to receive and send goods and services through domestic, national and international trade. Similarly, the contribution of means of communication is highly commendable in sending essential information related to flood, storm, terrorist activities to the people and create awareness and alertness to face such situations. In short, it can be said that the present era is an era of communication facilities. Books are also a good means of communication.

Communication Facilities in India:

In India almost all means of communication or facilities are available. At first in 1837 the postal service started in India. It was contributed by the East India company.

In 1854, the Indian postal department was established which has progressed considerably in its services since then. Today the postal services is not only fully computerised but also connected to satellites. The postal department has divides the whole country into 8 Zones for rapid delivery of letters and to improve the postal system. This consist of 6 digits in which first digit is for zone, later two are for sub-zone and remaining three for post office where the post has been sent. It is called 'PIN Code'. Bihar and Jharkhand have been included in PIN Code No. 8.

Do You Know?

- In Cities there is facility of getting services at home such as ration, tutor for tuition, domestic gas cylinder and medical facilities etc. through telephone services.
- Through internet payment of telephone bill, electric bill and loan installment payment facility is available.

In course of improvement of its services and for quick delivery of its services, the postal department is providing the facility of six postal channels. It is called Rajdhani channel, Metro channel, Green channel, Magazine or Document channel, Heavy channel and Trade channel.

Different Postal Channels:

1. Rajdhani Channel: This postal service is for 6 special state capitals from New Delhi for which yellow Letter Boxes are used. In other words, if a letter is dropped in yellow letter boxes kept in the post offices the envelop or letter will directly go to New Delhi. Then it will be distributed.

- 2. Metro Channel:** This postal service is for Bengaluru, Kolkata, Chennai, Delhi, Mumbai and Hyderabad. The post marked with PIN code of these places should be dropped in blue color letter boxes.
- 3. Green Channels:** Posts marked with local PIN code are dropped in green color letter boxes.
- 4. Document Channel:** This postal service is for sending News papers and different magazines.
- 5. Heavy Channel:** This postal service is available for the posts of large business organisations.
- 6. Trade Channel:** This postal service is available for the posts of small business organisations.

The postal department is not only distributing letters and magazines these days but they have also diversified their services. At present, the postal services are providing services such as speed post, media post, satellite post, express post, data post, greeting post, e-post, bill post etc. Apart from these services the postal department is also doing works related to rapid postal service, banking and life insurance. On an average, there is one post office in every 21.16 square kilometer area and one post office is serving 6623 persons in the country.

After postal services, the most popular means of communication is telecommunication that includes various types of telephone services. There are 26 crore wireless telephone consumers in the country. Mobile phones are the most popular. Several private companies are providing their services in this field. STD facility is also available in all urban and rural areas. The government has put in creditable effort in this field. In the field of telecommunication, India is a leading nation in Asia and stands 10th in the world.

From the point of view of public communication Radio is a formidable means of communication. In India the Radio broadcasting was started by 'Radio Club of Bombay' in 1923. In 1930 'Indian Broadcasting System' was started which was named as 'All India Radio' in 1936. After independence, it was again re named as 'Akashvani'. At present this means of communication is working under 'Prashar Bharti'. Apart from government service, the Radio services are also made available by several private companies.

At present, the most popular means of communication is Television. Its services started from 1959 in India. It was named 'Doordarshan' (DD) in 1976. The color broadcasting started in 1982 during the Asian games. Like Radio several private companies are also providing their quality services in this field. This means of communication is very popular amongst all class of people — children, old, women, poor and rich. In real sense, it is the most important means of communication in the country.

The News paper and magazines are formidable medium of communication. About 65 thousand papers/magazines (2007) are printed in the country. Out of this about 25000 News papers and magazines are printed in Hindi language. After this English, Urdu, Bengali and Gujarati are placed.

Transport, communication and economic activities are having constructive relationship as a means of development. The importance of transportation has also been described in the ancient Indian religious books. It is important even today but its form, qualities and speed have changed.

Along with the regional development, the means of transportation and communication also affects common life style. From the Panchayat level to national level, in maintaining atmosphere of peace in the society, to and fro movement of the police and soldiers and for conversation this medium is essential. But its development level is regulated by the cultural level. In a country like India which is having large geographical area and diversified culture, the various means of transport and communication unify the country together. Not only this, means of communications contribute in the upliftment of the socio-cultural level. The transportation contact of India with Pakistan, Nepal and Bangladesh is an indicator of socio-cultural development between the countries.

Without any means of transport and communication, it is almost impossible to perform any economic activities. These means affect our life style also. Our life is dependent upon these means from birth to death. We take support of these means for the supply of grains, vegetables and fruits for our survival.

International Trade:

You must have seen purchase-sale of goods among two people in your village/city markets. The purchase — sale of goods and services among two people, states or countries is called trade. When this trade is among two or more than two countries then it is called international trade. The

international trade of a country is a barometer of its economic prosperity but this trade is also fully dependent on the means of transport and communication. The development of these means has brought changes in the form and pace of trade. Import-export and balance of trade is studied under trade.

Do You Know?

- When goods are brought from other or outside countries to our country then it is called Import.
- When goods are sent from our country to other or outside countries then it is called export.

At present all the nations of the world depend upon international trade. This trade is done because of several factors, but its main reason is the regional availability of resources or their uneven distribution when they are needed in every country. The difference between import and export establishes the balance of trade. When import is more in comparison to export then it is called negative balance of trade, on the other hand when export is more in comparison to import then it is called positive balance of trade.

International Trade of India:

After independence, the country witnessed rapid industrial and socio-economic development. In this situation, India is maintaining trade relations with all geographical regions and trading sections. Not only this, with the economic development of the country trade is also constantly increasing. The international trade of India in 1950-51 was of 1214 crore rupees which increased to 75751 crore rupees in 1990-91 and in 2007-08 it further increased to 1605022 crore rupees.

International Trade of India

(In Crore Rupees)

Year	Export	Import	Trade Deficit/loss
1991-92	44042	47851	- 3809
2001-02	209018	245200	- 36182
2005-06	456483	635013	- 178530
2006-07	571779	840506	- 268727
2007-08	640172	964172	- 324678
(Provisional)			

Though, there has been significant increase in the **total trade of the** country, but import is increasing in comparison to export. As a result of which the international trade of the country is becoming a symbol of negative balance of trade. Which means that trade deficit is increasing every year. In fact, the increase in the import expenditure due to continuous increase in the petroleum prices is responsible for this deficit.

During the year 2006-07 and 2007-08, of the total export of India 51.54% was exported to Asia and Oceania. After that Europe (22.99%) and

America (17.04%) were placed. In the same period India received maximum import from Asia and Oceania (65.52%), after that Europe (19.97%) and America (9.05%) were placed.

The export goods from India includes engineering goods, Petroleum Products, Precious stones and Ornaments, Chemicals and chemical based materials, Garments, Agro-based products, Ores and minerals and other goods whereas the import goods mainly include Petroleum and petroleum based products, machinery, electronic goods, gold and silver, fertilizer, chemicals, non-ferrous metals and other goods.

The government is continuously making efforts to increase its export, also keeping a strict vigil over export disposal works and also making export policies. On 31st August, 2004 International Trade Policy 2004-09 was announced keeping this target in mind that during these five years, India's share in the world trade will double.

India is the first nation of Asia which has recognised the importance of export resource region in export enrichment. Asia's first export enrichment region has been established at Kandla. After this, seven more such regions have been established. Ending the shortcomings of the export enrichment region, in April 2000 the policy of special economic zone was declared. The special economic zone policy is in effect since 10th February, 2006. All eight export enrichment regions namely - Kandla and Surat (Gujarat), Santacruz (Maharashtra), Chennai (Tamil Nadu), Kochi (Kerala), Falta (West Bengal), Vishakhapatnam (Andhra Pradesh) and Noida (Uttar Pradesh) are now converted in to Special Economic Zones. The benefit received from the Special Economic Zones is proof of this fact that there has been additional increase in investment, employment, export and structural development.

At present, India has emerged as software super power at the international level. As a result of which India is earning more precious foreign exchange through information technology trade.

QUESTIONS

OBJECTIVE TYPE QUESTIONS

1. What was the total length of the roads in the country at the time of independence?
(a) 2.42 lakh K.M. (b) 1.46 lakh K.M.
(c) 3.88 lakh K.M. (d) 5.78 lakh K.M.
2. With the regards to Pucca roads, which state is placed at the first position?
(a) Bihar (b) Maharashtra
(c) Tamil Nadu (d) Kerala
3. Which of the following is not a category of Roads?
(a) East-West Corridor (b) Express way
(c) Golden Quadrilateral highways (d) Border Roads
4. In which cities of India is Metro Rail service available?
(a) Kolkata and Delhi (b) Delhi and Mumbai
(c) Kolkata and Chennai (d) Delhi and Bengaluru
5. In which year was the Indian Airlines named 'Indian'?
(a) 2006 (b) 2003
(c) 2008 (d) 2005
6. In which year was the Indian inland waterways authority constituted?
(a) 1986 (b) 1988
(c) 1985 (d) 1989
7. In which state is Ennor port situated?
(a) Gujarat (b) Goa
(c) Tamil Nadu (d) Karnataka

8. India has been divided into how many postal zones?
(a) 7 (b) 5
(a) 6 (d) 8
9. How many special economic zones have been developed in the country?
(a) 10 (b) 7
(c) 15 (d) 5
10. Where is Falta special economic zone situated?
(a) Bihar (b) West Bengal
(c) Kerala (d) Odisha

SHORT ANSWER TYPE QUESTIONS:

1. Describe the regional distribution of roads in India.
2. Describe the important qualities of the Indian Railways.
3. Describe briefly the different postal channels of India.
4. Describe the export and import goods of India.
5. Write about important national waterways of India.

LONG ANSWER TYPE QUESTIONS:

1. Describe the qualities of International trade of India.
2. Present a detailed account of different types of roads found in India.
3. Describe the importance of means of transport and communication in Indian economy.
4. Describe Pipeline transport in India.

MAP WORK:

Locate the following on the given map of India:

1. East-West corridor with two frontier cities.
2. Three important Ports on the Eastern coast.
3. Head Quarter towns of East- Central, Eastern and North-Eastern Frontier Railways.
4. Five important international Airports of India.

PROJECT WORK:

Write the names of headquarter towns of 16 railway zones on the map of India.

ACTIVITY:

1. Know the distance (Road) between your home and school.
2. Know the length of Pacca and kacha roads of your area.
3. Prepare a list of important cities situated on East West and North South corridors.
4. Prepare a list of five important national level News papers and five regional level News papers of the country.

