

TRANSPORT, COMMUNICATION AND TRADE IN INDIA

25.1 INTRODUCTION

In the previous lesson, you have studied energy as an important infrastructural resource. Transport, communication and trade are yet another important services. They facilitate agriculture and industry to grow to their fullest potential. Transport carries the people and goods from one place to another. It helps both the production, distribution as well as consumption processes. Communication is the process of receiving and sending messages between two persons or agencies located at different places. Radio and Television are the means of mass-communication which provide information, news and entertainment to the people spread over vast distances. Telephone and telegraph services bring the people closer to one another. Their contribution in promoting business and trade is incalculable. Trade involves exchange of goods among people living in different regions or countries of the world. It plays a vital role in accelerating the progress of agriculture and industry of a country.

In this lesson, you will study the relative importance of transport, communication and trade in India. You would also learn about the distribution and density of transport and communication networks. In trade you will know its volume and direction.

25.2 OBJECTIVES

After studying this lesson you will be able to :

- explain the relative importance of transport and communication in India;
- identify the pattern of distribution of major transport routes on map of India
- explain the factors responsible for the distribution and development of various means of transport in India;

- explain the benefits derived from modern means of communication
- highlight the integrated role of transport and communication for the development of the economy of the country,
- explain the importance of international trade:
- explain the recent trends in foreign trade of India

25.3 IMPORTANCE OF TRANSPORT

India is a vast country with long distances. A dense and efficient network of transport is essential to promote social cohesion, accelerate economic prosperity and ensure security and territorial integrity.

Transport consists of three different modes - land, water and air. Each one of them has some advantages and disadvantages. They all compete with one another. More importantly they complement each other and in the process constitute a single integrated network.

While air transport is of recent origin, the other two have been as old as the nomadic man himself. The land transport comprises road and rail transport. Of the two the rail transport is relatively new. It is highly useful for carrying heavy goods over long distances at affordable costs. It is most convenient and cost effective for long distance passengers. The road transport on the other hand is very handy and convenient to carry goods and passengers over relatively short distances. Goods can be transported and handed over to a customer at his doorstep safely and at a reasonable cost.

Water transport for passengers is now no more attractive, but it is an ideal means of transport to carry heavy and bulky goods along navigable rivers and across the oceans of the world. By far this is the most inexpensive means of transport despite being rather slow.

Air transport has become tremendously popular for people who are called upon to visit urgently various parts of the world at a very short notice. Despite high fares, it is indeed very economic as it saves both time and energy. It is now also used for carrying perishable goods and precious cargo from one part of the world to another.

Transport system links areas of production with those of consumption. It facilitates the movement of goods, services and people at local, regional, national and international levels.

- * An efficient network of transport is essential to achieve the economic prosperity and to maintain the security of the country.
- * Transport takes place through three different modes - land, water and air.

25.4 RAIL TRANSPORT

Indian railway network is the fourth largest in the world after Russia, the U.S.A. and

Canada. In a vast country like India, it has brought the people of the farthest corners of the country closer to one another. Railways are ideal for carrying goods and people over long distances. It employs the largest number of persons among the Central Government departments.

The first train steamed off in the country in 1853 from Mumbai to Thana, covering a distance of 34 km. During these years, Indian railways have grown into a vast network. The following table may give you an idea about the growth of the railway system during the post-independence era.

Table 25.1
Operations of Indian Railways

	1950-51	1995-96
Electrified Route in Thousand km.	0.4	12.3
Total Route length in thousand km.	53.6	62.9
Originating Traffic in million tonnes	93.0	404.9
Total Goods Traffic in Billion* Tonne-km**	44.1	273.7
Passengers Originating in Millions	1284.0	4038.0
Passenger-km + in Billions	66.5	341.9

*1000 million = 1 billion (1 million = 1,000,000.00)

**1 tonne km = when 1 tonne of goods is carried over one km.

+ 1 passenger-km = when one passenger travels one km.

The above table gives us an idea of quantitative progress made by the railways over 45 years. In the first place the total route length has increased very slightly. However, nearly 20% of its route length has been electrified. It means over this track the traffic is far cleaner and faster. It also means considerable saving in transporting charges of coal which the railways consumed for their own running. To that extent the railway wagons are now free to carry commercial goods of its clients. Similarly, the route length has increased only marginally; but the passenger-km traffic has increased more than five times. Even the goods traffic in terms of tonne-km has increased by well over six times. This also speaks of qualitative increase in the efficiency of the railways. This has become possible by electrification of part of the route and dieselisation of the track. The number of steam or coal engines had come down to mere 347 by 1994-95 from 8120 in 1950-51. Now there are 4259 diesel engines as compared to mere 17 in 1950-51. Similarly electric locomotives have increased from 72 to 2302 by 1994-95.

As seen earlier, the new railway lines have been added only marginally. However, there has been considerable increase in running track. In 1950-51 it was 59,000 km. By 1994-95, it rose to 79,000 km. It means considerable portions, particularly the busy ones, have been converted from single to double and in some cases even triple tracks. This has enabled railways to run more railway trains, both goods and passengers. The railways have undertaken to convert metregauge railway tracks into broad gauge (1.68 metres) enhancing the capacity of railways to carry more goods and more passengers with an increased speed. By strengthening trunk route railway tracks, Indian Railways run several fast trains. Earlier, there were passenger and express or mail trains, the only two categories. Now there are Super fast Expresses, Rajdhani Expresses, and Shatabdi (the fastest) Expresses running between busy terminals.

Indian railways have taken several measures to improve their efficiency and usefulness to the public :

- considerable increase in railway running track.
- increase in electrification of busy trunk routes.
- conversion of metre gauge railway lines into broad gauge.
- introducing several types of fast and superfast passenger trains.
- running fast goods and special foodgrain trains.

Let us have a glance at the regions of dense, moderate and sparse railway networks.

The Regions of Dense Network

(i) The northern plains and eastern coastal areas possess a dense network of railways. The level land, fertile soils, dense population and spread of industries are the reasons for this dense railway network.

(ii) The plains of Gujarat and Saurashtra, Central Tamil Nadu and Chotanagpur Plateau are the other regions. These regions have well developed industries.

Regions of Moderate Railway Network

The whole of peninsular region except Tamil Nadu and Chotanagpur has a moderate network. The hilly and plateau terrain provides unfavourable conditions for laying railway lines. There are long trunk routes which connect the important industrial cities and ports. The railway lines either pass through the large gaps between hills or through the tunnels.

Regions of Sparse Railway Network

(I) The Himalayan mountain region, comprising Jammu and Kashmir, Himachal Pradesh, Hilly region of Uttar Pradesh, Sikkim and Arunachal Pradesh have hardly a line here and there. The hilly terrain, rugged topography, are the main reasons responsible for the very sparse network. Some foot hill towns such as Jammu, Kathgodam, Kotdwar and Dehradun

are the only rail heads touching this region. There are few narrow gauge tracks between Kalkaji and Shimla and between Siliguri and Darjeeling.

(ii) The North eastern region has also sparse railway network. Only Brahmaputra valley in Assam has main railway line. All hilly states in this region are almost without a railway line. The hilly terrain, thick forest cover, heavy rainfall, low level of economy and sparse population are the main factors for the absence of railway lines.

(iii) Desert region of western Rajasthan has also sparse network of railways. There are some metre gauge railway lines which link the big cities. This area is sparsely populated and has few industries. Moreover the climate is hot and dry. Dry sandy winds obstruct the railway tracks. All these factors hamper the construction of railway lines and their proper maintenance.

The Pattern of Trunk Railway Routes

If you try to trace the busy trunk route railway lines connecting Delhi, Mumbai, Chennai, Calcutta (and back to Delhi), you get a kite-shaped pattern. Further add to it the diagonal lines connecting Mumbai and Calcutta on one hand and Delhi and Chennai on the other, you get a diamond shaped figure. These lines serve as backbone of the entire railway network in the country.

This main pattern needs two important additions one in the Sutlej Basin or the Punjab plains in the north-west and one in the Brahmaputra Valley in Assam. The former consists of lines connecting Delhi with Pathankot, Amritsar-Wagha and Ferozpur. The other trunk connects North-east Bihar and Northern West Bengal with Dibrugarh in east or upper Assam.

All these lines connect Delhi with a broad gauge and the most part of them has been electrified.

The Role of Railways

The role of the Indian railways may be made further clear if you study the following table carefully. Also see if the conclusions drawn at the end are correct objectively.

Table 25.2
Indian Railways Traffic Originating in Million Tonnes.

Commodities	1950-51	1995-96
i) Coal	20.2	164.0
ii) Raw materials(excluding coal) of Iron & steel industry	N.A	38.63
iii) Pig iron, Finished steel lifted from steel plants	-	12.06
iv) Iron-ore for exports	Nil	10.16
v) Cement	2.5	31.80
vi) Food Grains	.8	25.81
vii) Fertilisers	Nil	23.24
viii) Mineral Oil	2.7	28.91

- (i) Coal is the most dominating commodity transported by the railways. Railways promote industrial growth of the coal starved areas.
- (ii) Railways help to increase industrial production by carrying raw materials to industrial centres.
- (iii) Railways also help in distribution of semi-finished and finished products like pig-iron and steel which in turn promote secondary industries.
- (iv) Railways also help in promoting exports of commodities like iron-ore, cement and food grains to earn foreign exchange.
- (v) Railways promote building activity all over the country by carrying cement over long distances.
- (vi) Railways help in boosting agricultural production by carrying huge amounts of fertilisers from one region to another.
- (vii) Railways carry mineral oil, an industrial input, from port cities and refineries to the interior parts of the country.

This should explain why Indian Railways constitute the major national means of transport.

INTEXT QUESTIONS 25.1

Answer the following questions briefly :

- (1) What is the total route length of Indian railways in 1995-96?
- (2) Mention two main advantages of railway transport.
 - (i) _____
 - (ii) _____
- (3) Name two regions in India where railway network is dense.
 - (i) _____
 - (ii) _____
- (4) State the most important reason for the sparse railway network in the North Eastern Region of India.
 - (i) _____
- (5) Mention the main problem in laying railway lines in the peninsular plateau regions.
 - (i) _____
 - (ii) _____

25.5 ROAD TRANSPORT

Road transport is an old means of transport. It plays a significant role in carrying goods and people in all parts of the country. Particularly, the rural economy depends upon the road transport. The importance of roads has increased with the advent of auto vehicles. The relative importance of roads is much more than that of railways. (i) Railway transport is limited to the railway heads while the roads provide door to door services. (ii) Roads can negotiate higher gradient of slopes and can traverse the mountainous regions. Construction of railway lines is difficult and expensive in hilly regions. (iii) Road transport is flexible, reliable and quick. (iv) It is more suitable for carrying perishable goods like milk, fruit and vegetables. (v) Its cost of construction and maintenance is far less than that of the railways.

(vi) For short distance journey, roads are more suitable. They supplement the railways by linking the interior areas with railway heads. Roads are ideal for the promotion of tourism in the country.

With the total length of 2.7 million kilometre, India has the third largest road network in the world. However, it is far from adequate or efficient.

Surfaced and Unsurfaced Roads

Surfaced roads are the metalled roads and are made up of cement, concrete or bitumin. These are all weather roads. The total route length of surfaced roads in India in 1991-92 was 10.65,000 km. Unsurfaced roads are 'Kucha' roads made up of earth. They provide tracks for the bullock carts and link the rural areas with the urban centres. They play an important role in the development of rural economy. During rainy season these roads are of little use. The total length of these roads was estimated to be about one million i.e. 10 lakh km in 1991-92.

Development of Road Transport

There has been a considerable development in the road length after Independence. Route length of surfaced roads has increased from 1.57 lakh km. (1950-51) to 10.65 lakh km. in 1991-92. This is more than six times, the length of unsurfaced roads during the same period has increased from 2.42 lakh km. to over 10 lakh km.

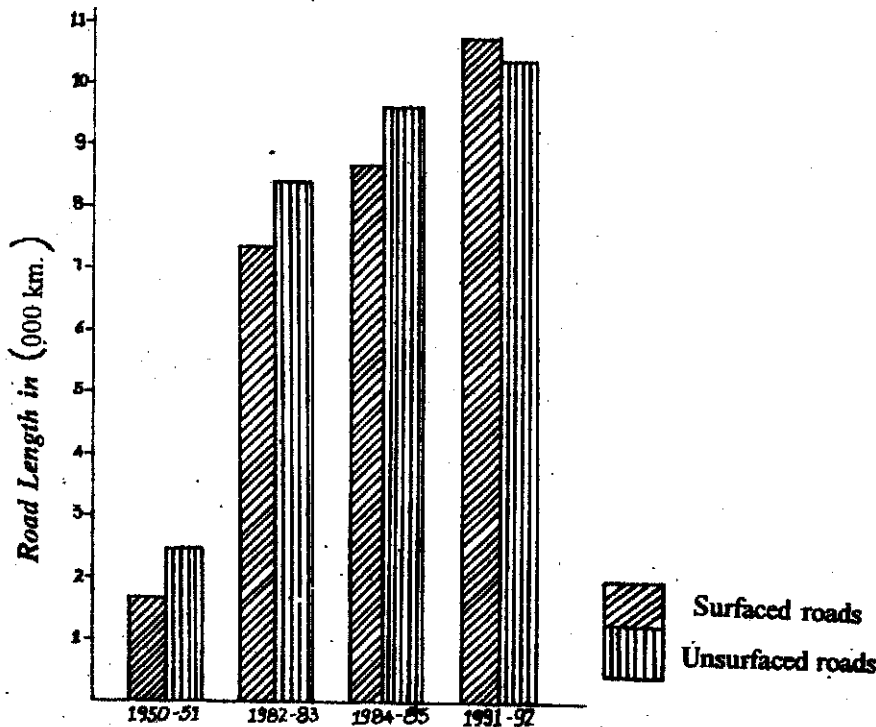


Fig. 25.2 Development of Road Length in India

Not only the route length of roads has increased but the number of commercial heavy vehicles, particularly the buses and trucks has also shown a tremendous increase since Independence. The number of buses has increased from 3400 in 1950-51 to 3,32,848 in 1991-92 registering an annual growth rate of about 54 percent. Within the same period, the number of trucks has increased from 82,000 to about 16 lakh which represents about 6.8 percent annual increase. Vast increase in the road traffic has posed serious problems in handling it smoothly. The number of road accidents has also shown a steady increase. With increased road traffic, pollution of air has been on the rise.

Density of Roads

Road density refers to the average length of roads per 100 square km. area. The road density in India is still very low compared to the developed countries. The road density in Japan is 14 times that of India. The road-people ratio in the US is 33 times more than what we have in India. In 1950-51, the average road density in India was only 12 km per 100 square km. area. Now it has increased to about 63 km

Geographical Distribution of Roads

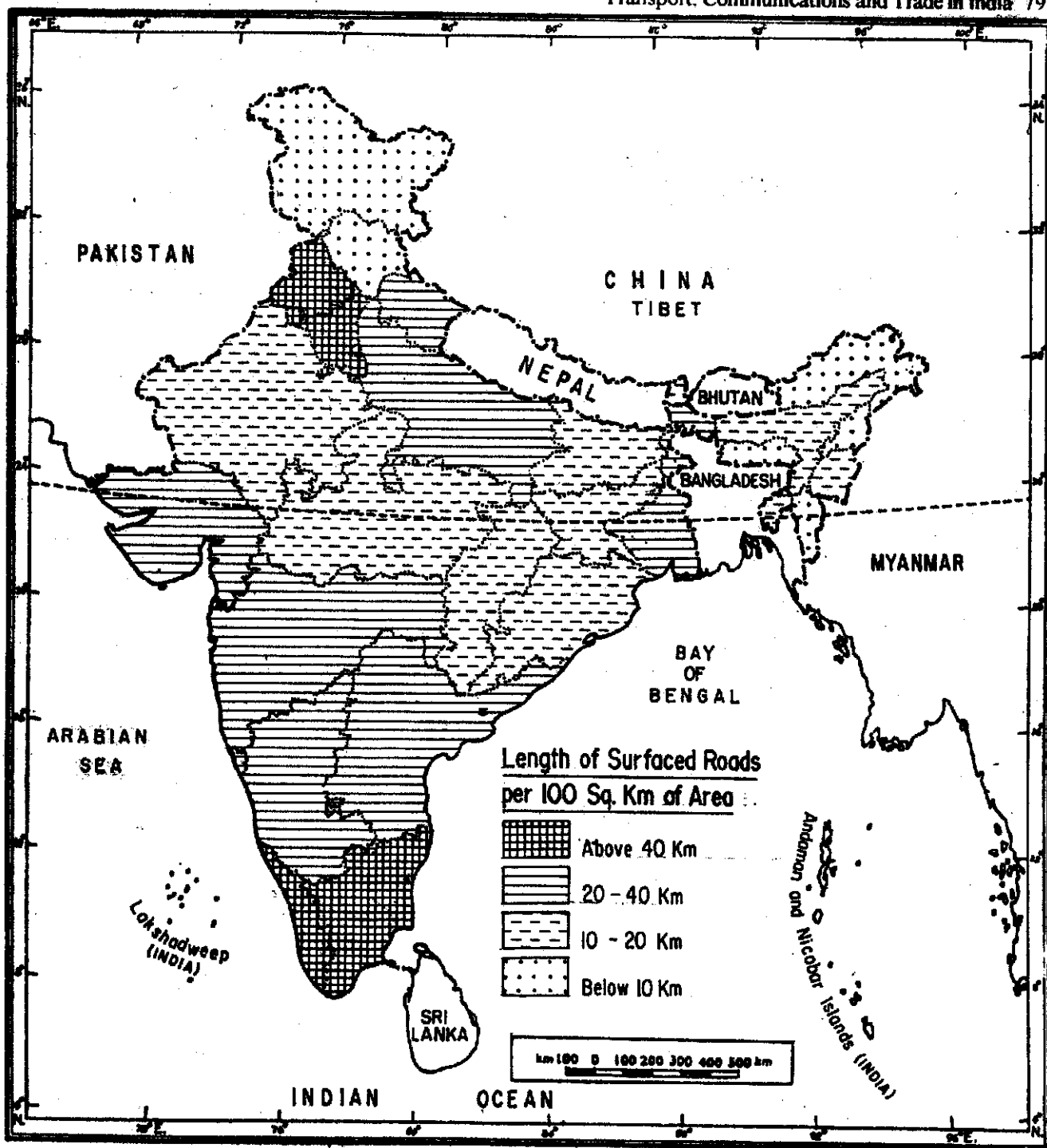
High concentration of road network is found in the Northern Plains because of level land, fertile soil and high density of population. In these parts, unsurfaced roads are more common than surfaced roads. Peninsular plateau has higher proportion of metalled roads because of the easy availability of road building materials. In the Northeastern states, the road network is very sparse due to hilly terrain, thick forest cover and heavy rains causing frequent floods. Sparse population is also the other important reason.

The pattern of road density is also uneven in the country. (see fig 25.3) The map shows the highest road density above 100 km. of road length per 100 square km. area found in Tamil Nadu and Kerala. It is because of the growth of agriculture and manufacturing industries and dense population. The road density between 50 to 100 km. of road length per 100 square km of area is found in Karnataka and Maharashtra in the south because of urbanisation and concentration of industries. It is also found in the northern states such as Punjab, Haryana and Uttar Pradesh. Here it is due to advanced agriculture, dense population, development of industries and urbanisation.

The states of Andhra Pradesh and Bihar have moderate density of roads. In Rajasthan and Madhya Pradesh, the density of road is low due to low population and low economic development.

The Himalayan region and North eastern states have very low density of road network, which is below 20 km. per 100 square km area. As regards the pattern of surfaced roads Punjab in the north and Kerala and Tamil Nadu in the south have the highest road density. The southern states have a good network of metalled roads. The pattern of surfaced road density is more or less the same as the total density of roads.

Road density in India is not uniform. It varies from region to region depending upon its relief and climatic conditions, economic development and density of population.



Based upon Survey of India outline map printed in 1979.

The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

The boundary of Madhya Pradesh shown on this map is as interpreted from the North-South Areas (Reorganisation) Act, 1971, but has yet to be verified.

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Roads are divided into three categories : (i) National highways (ii) State highways, and (iii) District and village roads.

National Highways are the trunk roads linking major cities of the country. They are built and maintained by the Central Government. Their total length is 34298 km. Although the national high ways comprise only about 2 percent of the total length of surfaced roads in India, they carry about 40% of goods and passenger traffic.

There are 78 national highways in the country. Some of them are very important as they carry the bulk of road traffic. (see fig. 25.4). National Highway No. 7 is the longest (2683 km) of all, linking Varanasi in the north with Kanaya Kumari in the south.

The state highways are built and maintained by the State Governments. The District and village roads are looked after by the local bodies with some financial assistance coming from the states.

Border roads have been constructed in the remote parts of the country lying close to international border. They connect these areas with the interior parts of the country. The responsibility of their construction and maintenance is on Border Road Organisation. These roads have economic as well as strategic importance. Leh and Manali Road, the world's highest road, is an example of our engineering skill and courage. The average height of this road is 4270 meters above sea level. Most of our border roads run through areas of very harsh climate and most inhospitable terrains.

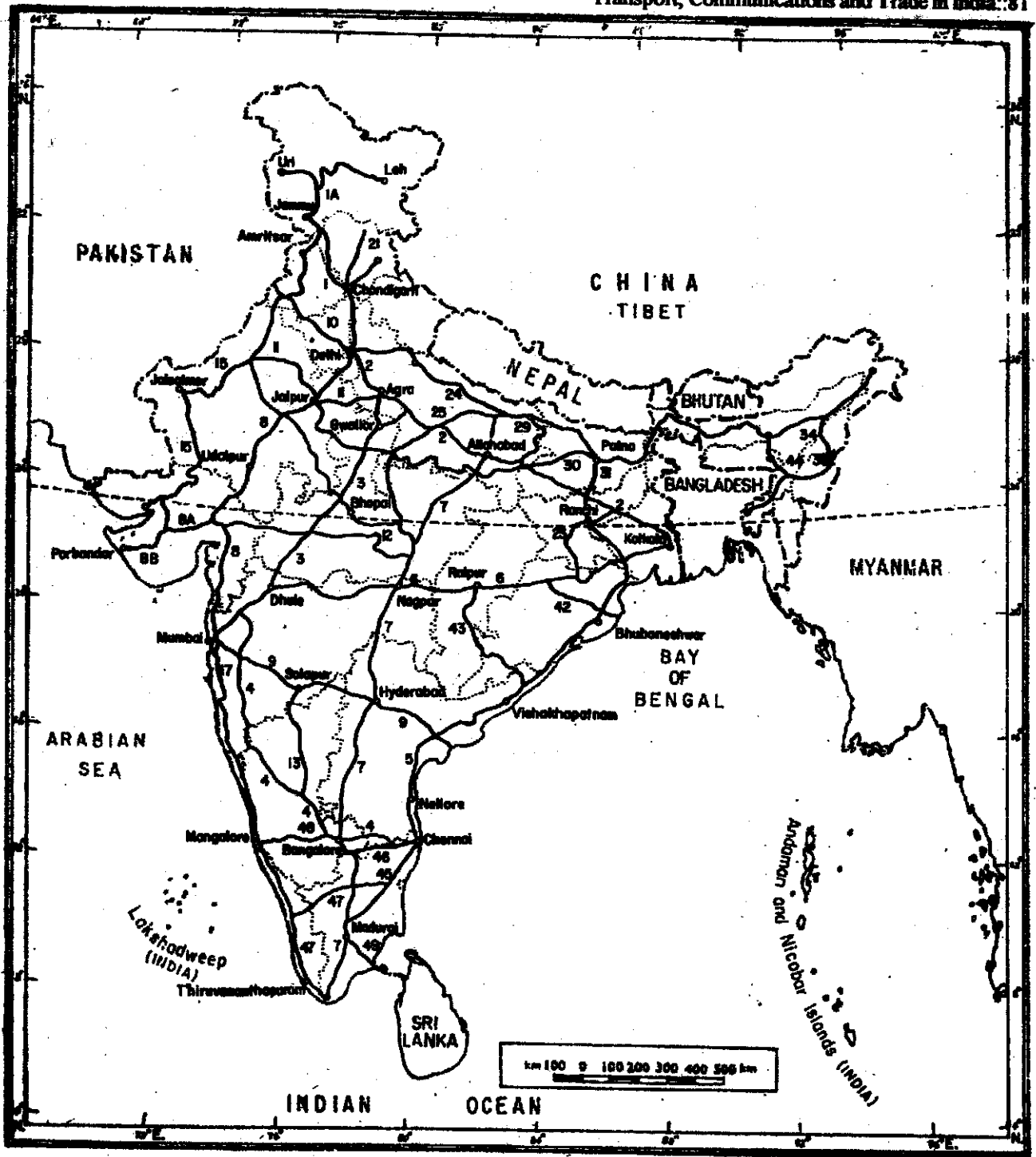
* National Highways connect the major cities of the country. Their length is only 2% but they carry 40% of the total road traffic.

* The state high ways join the district head quarters with state capital. District and village roads connect the villages with small towns and district head quarters.

INTEXT QUESTIONS 25.2

Answer the following questions briefly :

- (1) What was the total length of surfaced roads in 1991-92?
- (2) Give the names of terminal points of the National Highway No. 7
(i) _____ (ii) _____
- (3) Name two states of India having the highest density of roads.
(i) _____ (ii) _____
- (4) Write the terminal points of the world's highest road.
(i) _____ (ii) _____
- (5) In which areas are unsurfaced roads more important?
- (6) Give the most important reason for the low density of road in the North-eastern region of India.



Based upon Survey of India outline map printed in 1973.

The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

The boundary of Bangladesh shown on this map is as prescribed from the North-Eastern Areas (Reorganisation) Act, 1971, but has yet to be verified.

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25.6 PIPE LINE TRANSPORT

Pipeline transport has been developed recently in India. It is the most convenient mode of transport for mineral oil, petroleum products and natural gas. Pipe lines connect oil and natural gas fields with refineries and the main market centres. Now solids are also being transported through pipe lines after converting them into slurry.

There are certain advantages of pipe lines over other modes of transport (i) Pipe line can be laid through difficult terrain as well as under water. (ii) Initial cost of laying pipeline is high but subsequent cost for maintenance and operation is low. (iii) It ensures steady supply and minimises transshipment losses and delays. (iv) Pipe line operation involves very low consumption of energy.

There are some limitations of pipe line transport such as the capacity of pipeline cannot be increased once it is laid. The security of pipelines in certain areas and the detection of leakage is difficult. Petroleum pipe lines in Assam connect oil fields with the oil refineries of Assam and Bihar. Pipe line between Kandla and Mathura is the longest oil pipe line (1220 km). There are several pipe lines in the Gujarat and Maharashtra connecting the oil fields, refineries and marketing centres. The longest gas pipe line has been laid from Hazira (Gujarat) to Jagdishpur (UP) via Bijaipur (MP). This HBJ pipe line is 1730 km in length and supplies natural gas to six fertiliser plants and two thermal power plants. Pipe line transport has reduced the burden of railways significantly. Owing to their advantages, more pipe lines have been proposed for smooth supply of oil and natural gas. Gas fired thermal power stations are being set up in the distant and remote parts due to facilities of pipeline transport.

* Pipeline transport is very convenient mode for the regular and smooth supply of oil and natural gas.

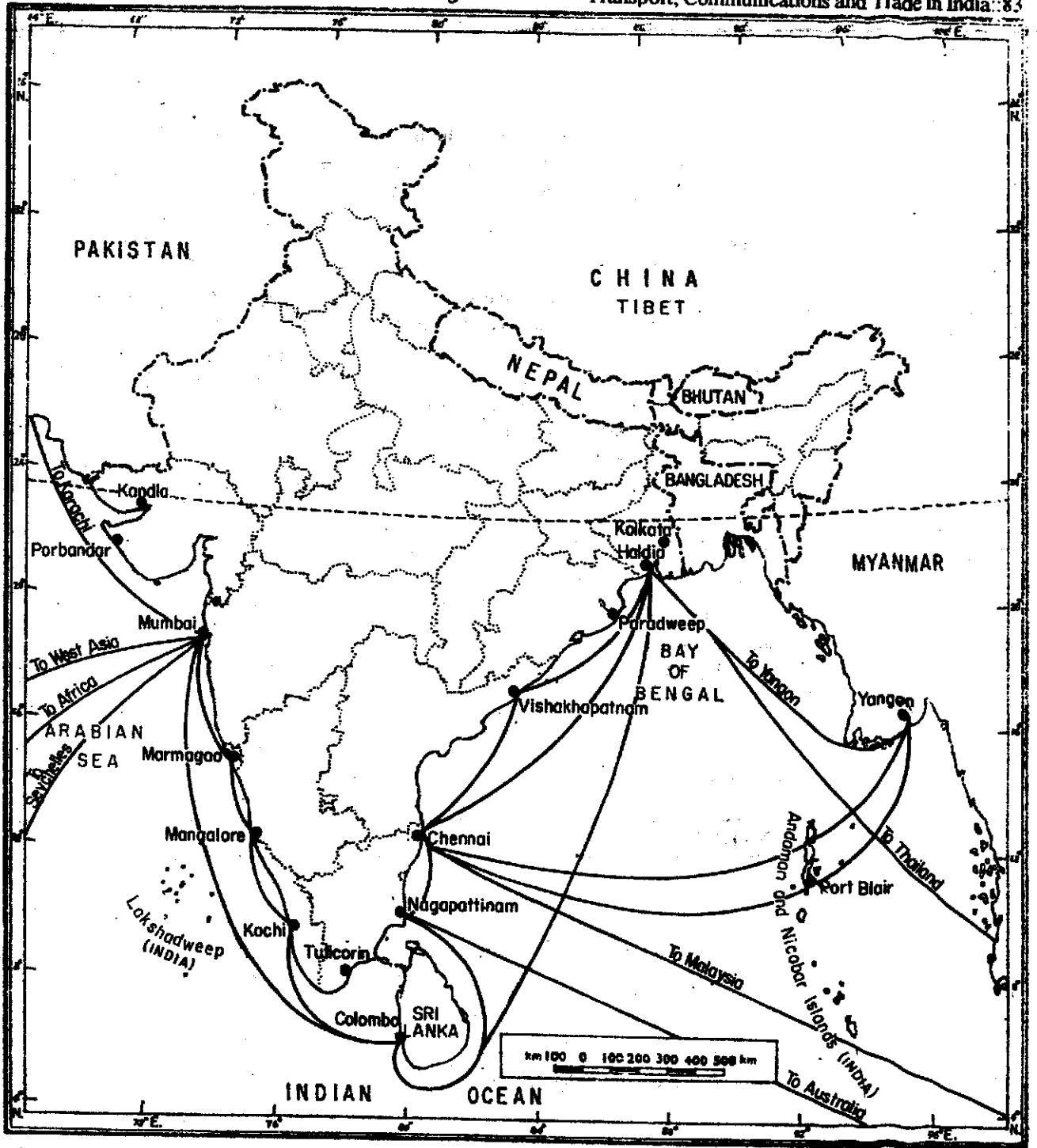
25.7 WATER TRANSPORT

The Indian mainland together with its island groups has a long coastline of over 6100 km. This long coast line is dotted with 11 major ports managed by the central government. Then there are 139 minor ports operating under the jurisdiction of the state governments. The 11 major ports handle 90% of international water borne trade of the country. These major ports alone handled 215 million tonnes of sea imports and exports, against the actual capacity of handling only 177 million tonnes. In other words, there is tremendous pressure on the existing ports causing considerable delay and inconvenience to trading parties.

The major ports along the western or Arabian Sea coast are Kandla, Mumbai, Jawahar Lal Nehru Port (at Nhava Sheva on the opposite side of Mumbai harbour), Marmagao, New Mangalore and Kochi. Thus all the states on the western coast have at least one major port. The remaining five ports are Tuticorin, Chennai, Visakhapatnam, Paradeep (Paradwip) and the joint port of Calcutta - Haldia. Thus all the coastal states on the Bay of Bengal have at least one port each. The Jawahar Lal Nehru port of Navi Mumbai is the most modern port, fully mechanised and is meant for relieving pressure on Mumbai port.

* Water transport is cheaper and helps in the promotion of foreign trade.

* Eleven major ports on the coast line handle 90% of India's sea imports and exports.



Based upon Survey of India outline map printed in 1975.

The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

The boundary of Meghalaya shown on this map is as ascertained from the North-Eastern Areas (Reorganisation) Act, 1971, but has yet to be verified.

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Inland Water Ways

The position of inland water ways in India is very poor. The total length of navigable water ways is only 5200 km which can be used by mechanised boats and steamers. We are actually utilizing only about 2000 km long water ways.

Some important inland water ways are :

- (i) Ganga river between Allahabad and Haldia covering a distance of about 1500 km. Big steamers and crafts can ply upto Patna. This water way is declared as National water way No. 1.
- (ii) Brahmaputra river is navigable upto Dibrugarh a distance of 1384 km. out of which only 736 km. lies in India, the rest being in Bangladesh.
- (iii) In south, the lower reaches of Godavari, Krishna and Mahanadi serve as inland water ways. Buckingham canal between Tamil Nadu and Andhra Pradesh is also an inland water way which is now hardly in use.

The following factors affect the inland water ways in India.

- (i) Diversion of water of rivers for irrigation.
- (ii) Silting of river beds reduces the depth of river water.
- (iii) Seasonal fluctuations in the water level of the rivers.
- (iv) Presence of bridges, water falls and cataracts in the course of rivers.
- (v) An unequal competition with railways and road ways.

India's inland water ways have not been developed as they can not compete with the railways and roads.

INTEXT QUESTIONS 25.3

Answer the following questions briefly :

- (1) Name two main commodities which are usually carried by pipe line transport.
(i) _____ (ii) _____
 - (2) Which gas pipe line in India is the longest?

 - (3) Which port in India handles the largest cargo traffic?

 - (4) Name two main navigable rivers of India.
(i) _____ (ii) _____
-

25.8 AIR TRANSPORT

Air transport is the fastest and highly convenient mode of transport, although it is more costly than other modes. One can cover a journey between Delhi and Bangalore in about two and a half hours by an aeroplane while this distance is covered in about 42 hours by a railway express train.

Air transport becomes very important in the regions where surface means of transport are difficult to develop. These regions may have dense forests, marshy land, hilly terrain and high mountains.

India is favourably situated on a busy international air route, connecting North America, Europe and South-west Asia on the one hand and East and South-east Asia together with Australia on the other.

There are two public sector and a number of new private sector companies operating commercial air transport services in India.

Air India is the international air carrier. It handles the foreign traffic which includes both cargo and passenger services. Air India operates in more than 70 countries. Regular and more frequent flights are to the USA, Canada and European countries.

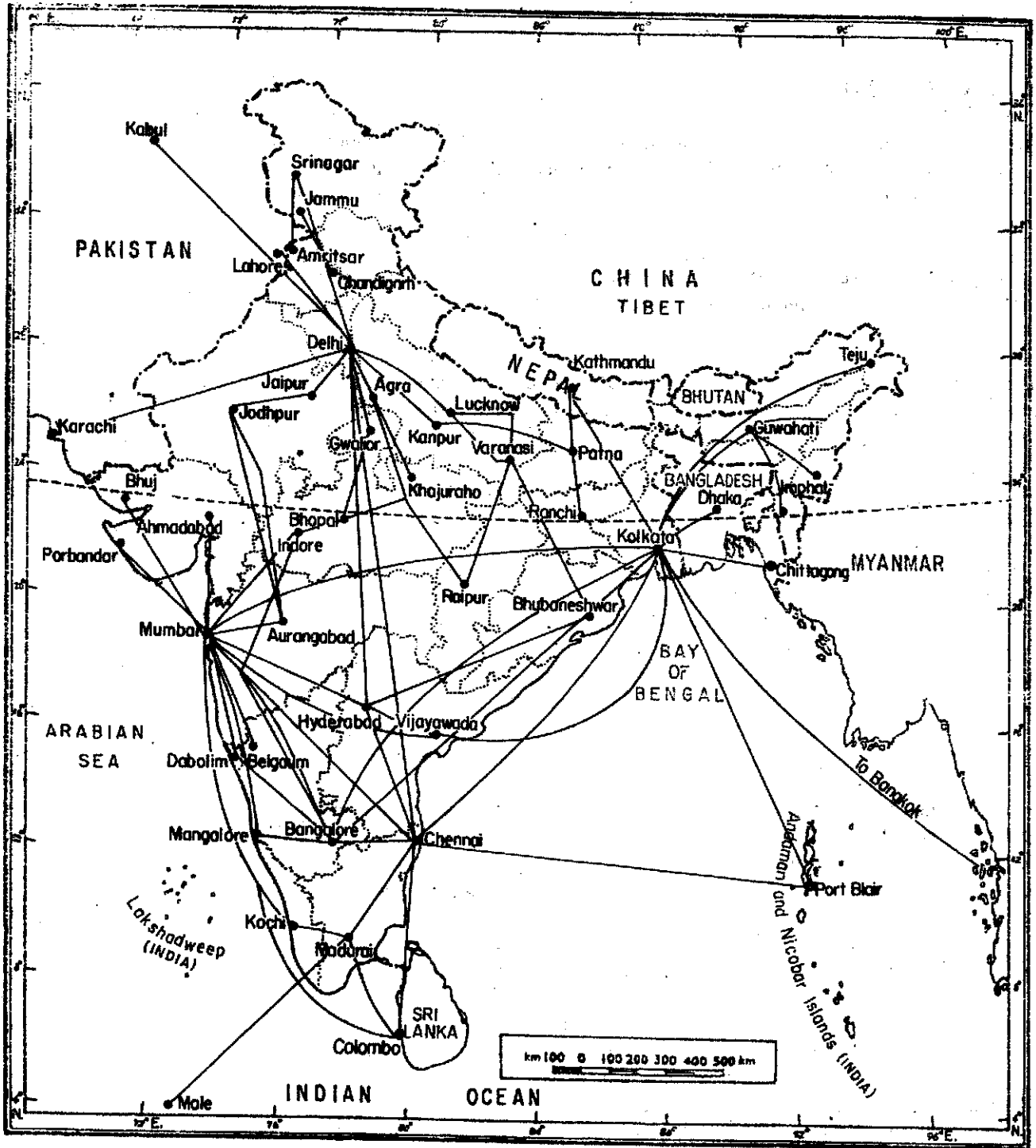
Currently, there are 26 air crafts most of them Boeing 747 in the fleet of Air India. In 1993-94 Air India carried about 20 Lakh passengers. There are five international airports which are located at Delhi, Mumbai, Calcutta, Chennai and Thiruvananthapuram, handle the entire foreign air traffic.

Indian Air Lines handles the domestic air transport. There are regular flights among the state capitals and major cities of the country. The places of tourist interest are also served by this airline. Besides it, Indian airlines operate in eleven neighbouring countries such as Sri Lanka, Nepal, Bangladesh, Pakistan, Malaysia, Singapore, Male and Middle East.

Recently, six private schedule air lines have been allowed to operate domestic air transport services. Pawan Hans Helicopter services has been operating in some selected sectors.

Promotion of air transport in the North-eastern region is a necessity owing to several adverse physical factors like mountainous terrain, thick forest cover, big rivers with frequent floods. Socially and economically too, the region needs to be drawn closer to the rest of India.

- * Air transport is the fastest though costlier mode of transport. It has brought the world closer.
- * Air India and Indian Air lines are the two main air carriers operating in the country.



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INTEXT QUESTIONS 25.4

Answer the following questions:

- (1) Name international air carrier of India.
 - (2) Name the Public Sector air transporting company, providing domestic air transport services.
 - (3) In which region of India is the air transport a necessity?
 - (4) Name five international airports of India.
 - (i) _____ (ii) _____ (iii) _____
 - (iv) _____ (v) _____
 - (5) In which two ways, does the air transport differ from other modes of transport?
 - (i) _____ (ii) _____
-

25.9 COMMUNICATION

Communication system contributes to the development of the economy, social relationships and also helps in promoting cultural unity. Internationally, it brings diverse people of the world close to one another

In the event of any impending calamity, accident or emergency, instant means of communication flash the news across the globe so that relief can be rushed to the spot immediately

Postal Services

It is the most commonly used mode of communication in India, the postal services play a vital role in the rural areas of the country. About 99% of the villages are enjoying postal services to day.

At present about 1.53 lakh post offices are providing postal services covering every part of the country. In tune with the rest of the world the Indian postal services are also being modernised.

(1) (Postal Index Number) PIN has facilitated the prompt delivery of mail (ii) Speed post service has been introduced for fast and quick delivery of post (iii) Quick Mail Service (QMS) is another step in this direction.

Besides these, satellite money order scheme was introduced in 1994 as a pilot project for providing services to hilly, backward and remote areas from six principal cities. International mail services carried by air and sea is an important step in linking the foreign countries with India

Telecommunication

It is the modern device for the communication at individual and mass level. Telegraph, Telephone, Talex and Fax are the main means of tele communication.

- (1) **Telegraph** : is comparatively an old mean for providing quick communication in event of any emergency. At present about forty thousand telegraph offices have been working in the country.
- (2) **Telephone** : There has been a very fast progress in telephone facilities. In the country, the number of telephone connections was 82 thousand in 1986 which increased to about 55 lakhs in 1993. It has recorded an increase by 67 times within seven years. Telephone services have been expanding very rapidly in the country. STD (Subscriber Trunk Dialing) facilities are available to all the big and small towns of the country. On the same lines, we in India can dial the number we want in as many as 87 countries of the world.
- (3) **Telex** : Telex services make possible to send information in printed form. More than 200 cities of India enjoy this service. Use of satellite has revolutionised the Tele communication system to day.

Mass-Communication

Radio and television are the electronic media of mass communication. They play an important role in individual and social life.

Radio is a powerful medium which provide all sorts of useful information, news and variety of entertainment. There are about 96 radio broad casting stations in the country and provide services to more than 95% of the total population.

Television service was started in 1959 in India. However, the real expansion of T.V. Service began after 1980. Only recently several channels on television have been made available to private parties. This has promoted keen competition to improve the quality of programme even of Door Darshan. So far it has set up television studios in forty cities. Its programmes are relayed from as many as 750 relay stations enabling to cover 86% of the country's population. Door Darshan's programmes are now watched by 270 million viewers in their homes. The satellite has provided television services even in the remote areas of the country.

Cinema is yet another mean of mass communication. It entertains millions of people everyday

Print media

Newspapers, periodicals and journals fall in the category of print media. Print media expanded very rapidly after independence. There were 37254 daily newspapers and different journals in Indian languages on 31 December 1995.

Among the 4236 dailies as many as 1877 were on Hindi alone on 31st December 1995. About 6500 weekly magazines and 13600 other periodicals are in circulation all over the country.

INTEXT QUESTIONS 25.5

Answer the following questions.

- (1) Give one technical term for sending and receiving messages by individuals through (i) letters etc.; (ii) electric codes; (iii) through special electrically charged wires; (iv) printed words e.g. books and journals etc. and (v) instant information etc. received publicly by everybody.
 (i) _____ (ii) _____ (iii) _____
 (iv) _____ (v) _____
- (2) Name four means of mass-communications and state how they are different from post, telegraph and telephone.

- (3) What is print media?

25.10 TRADE

The services which involve the activities of buying and selling of goods are termed as trade. Like transport, communication, banking etc. it is also a tertiary service and an important infrastructure for the development of economy including agriculture and industry in the country. Trade may take place at various levels - local, regional, national or international.

The growth of trade depends on accessibility of a well developed market and well advanced communication system.

International Trade

It involves selling and buying various commodities at the international level. International trade may be multilateral or bi-lateral; depending upon the number of parties involved.

India's international trade has grown very rapidly after Independence. Though, India has trade relations with about 190 countries of the world, the major trade partners are the USA, Russia, countries of West Europe, Japan and Oceania. India has increased her trade with African and Arabian countries also. 40% of the total export in 1994-95 was carried on with the countries of Asia and Oceania, Russia and her allies are also our major partners.

Export

During the colonial era major commodities of our exports were either raw materials like

cotton, jute, leather, spices, minerals or food items like wheat, tea, coffee and spices etc. All the trade was channelised through Britain. After Independence there has been significant changes in the items of export because of the rapid industrial development in the country. Now India exports nearly 7500 commodities to as many as 190 countries of the world. There has been an appreciable growth in exports since 1950-51 when it was worth only of Rs. 607 crores. It has increased to Rs. 106,465 crores by 1995-96. There has been an increase of over eight times in the exports between 1984 and 1996. (see fig. 25.7)

At present major items of exports include textiles, gems and jewellery, chemicals and their related products, engineering goods, agricultural products, leather and allied manufactured products, ores and minerals and marine products. India during 1994-95 exported textiles valued at Rs. 20471 crores; and gems and jewellery worth Rs. 1413 crores. However, India has to import all the raw industrial gems or jewels before they are cut and polished for re-export.

There has been a significant change in the export products since Independence. The largest value of exports is now obtained from manufactured products.

Imports : After Independence, there has been a sharp increase in the value of imports in India. We now import 6000 commodities from 140 countries. During pre-Independence period, main items of imports were machinery, manufactured goods, textiles, chemicals, medicines etc. After independence in the early decades, India's import consisted mainly of food grains because of the partition of the country.

India's total value of import in 1950-51 was of Rs. 581 crores which had increased to Rs. 121,646 crores in 1995-96. It is a significant increase in the imports during 45 years (see fig. 25.7)

At present about 40% of total imports include petroleum and petrol products, fertilizers, newsprints, pulp and waste paper, chemicals, coke, medicines and artificial resins. However, nearly half of it goes to petroleum and petroleum products. Other main commodities of imports are industrial diamonds or precious stones, machinery, nonferrous metals, project goods and edible oils etc. These form about 30% of the total imports. The major part of our imports is from the USA, Canada and countries of Europe including Russia.

The Recent Trends in Foreign Trade of India

At the time of Independence, India's foreign trade was very limited. India was the main exporter of primary commodities and imported manufactured products and machinery. After independence there has been a rapid progress in the field of industry and agriculture. The international market has also expanded. The commodities of export and import have shown a great change in the last decades. India has developed trade relations with the countries of Asia, Africa and Oceania for the promotion of her exports. Incentives such as, providing export credits at lower interest, and by removing restrictions and controls on the exports has helped in the promotion of export. Main stress is given to export of value added commodities.

We have also adopted a policy of liberalisation of imports. Adoption of new import policy has strengthened the economy of the country. Some commodities which help in the manufacturing industries can now be imported on easy terms.

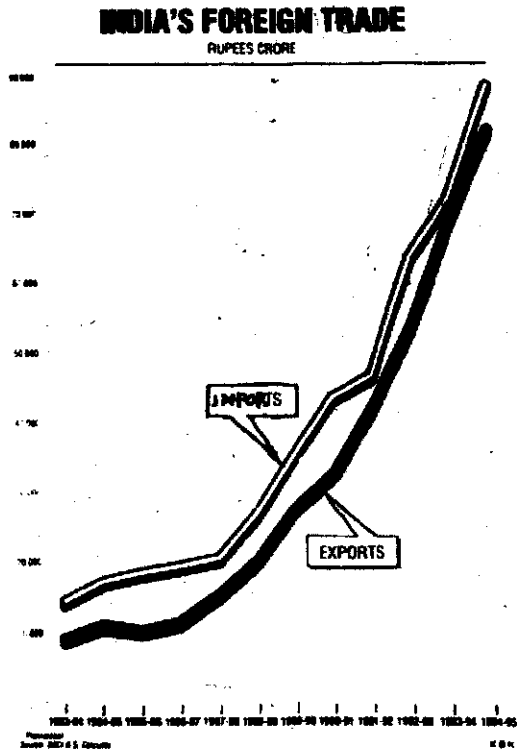


Fig. 25.6 Recent Trends in Foreign Trade in India

- * During the past two decades, India's imports have shown a considerable change
- * In recent years, India's foreign trade has risen steadily from Rs. 1214 crores in 1950-51 to Rs. 2,28,111 crores in 1995-96 (see graph)
- * There has been a great change in the foreign trade of India-especially in the commodities of export and imports.

Balance of Trade

Difference between value of exports and imports is termed as balance of trade. When the value of exports and imports of a country is equal it is a situation of balanced foreign trade. If exports exceed the imports, it is favourable; and on the other hand when imports are more than exports, it is unfavourable trade.

At the time of Independence, our foreign trade was favourable but after Independence, in the first two decades, the imports of India increased rapidly due to the imports of food grains. At present the imports of the country exceed the exports. Thus, our foreign trade

has become unfavourable. It is worth noting that our exports and imports have increased in volume and value remarkably. But over the past 45 years our share in world trade has decreased considerably. It is not even one per cent of the world trade.

INTEXT QUESTIONS 25.6

Answer the following questions.

- (1) Name the two components in which foreign trade is divided.
(i) _____ (ii) _____
 - (2) What is the important change in India's exports since independence?

 - (3) Name two most important trade partners of India.
(i) _____ (ii) _____
 - (4) Name the commodity which has the largest share of our imports.

 - (5) Name the policy India has adopted for promoting foreign trade

 - (6) What is balance of trade?

-

WHAT YOU HAVE LEARNT

- Transport, communication and trade are important infrastructural resources of economy. These services provide support for the development of entire economy, particularly agriculture and industries.
 - Railways, roads and pipe lines are the means of land transport. They play an important role in strengthening the national unity. They also promote social and economic prosperity in the country. Water transport is an inexpensive but slow means of transport. The development of inland water transport is limited only to the eastern part and eastern coastal plains. India is ideally situated on the busy Suez route joining Australia and south-east Asia and Europe. The air transport is the fastest through costliest means of transport. It is also suitable in the areas where construction and maintenance of surface transport is difficult, such as Northeastern region. All these means of transport have brought the world closer.
 - Rail transport provides services particularly for long distance and carries bulk of traffic at one time. Northern plains, eastern coastal plains, and Gujarat plains have dense network of railways; while the Northeastern region, Western Rajasthan and the Himalayan region have sparse railway network.
-

- Road transport provides door to door services. It is flexible and is suitable for short distances. Punjab, Kerala and Tamil Nadu have the highest density of surfaced roads.
- Communication involves sending or receiving messages at individual or mass level. It includes postal services, telegraph, telephone, teleprinters, radio, television and print media. Radio and television belong to electronic telecommunication media.
- Transport and communication are interrelated and they strengthen and supplement each other.
- The trade relations of India have grown very rapidly after Independence. India has bilateral trade with many developed and developing countries.
- There has been a significant change in the commodities of export and import after independence. India has now adopted the policy of liberalisation of trade removing restrictions on imports. Despite phenomenal growth in foreign trade India's share in world trade is very low - not even one per cent.

TERMINAL EXERCISE

Answer the following questions :

1. Explain two merits of railway transport.
2. Explain two main reasons for the development of dense railway network in the Northern plains of India.
3. State two main advantages of road transport.
4. Why is air transport more favourable in the northeastern region of India?
5. Distinguish between :
 - (i) National high way and state high ways.
 - (ii) Electronic media and print media.
 - (iii) Exports and Imports.
6. Examine the role of postal services as a means of communication in India.
7. Explain briefly the recent changes in the trade of India with other countries, giving suitable examples.

CHECK YOUR ANSWERS

INTEXT QUESTIONS

25.1

(1) 62900 Km. 2. (a) Suitable for passengers covering long distances (b) carry the heavy goods in bulk. 3. Northern plains and plains of Gujarat and Saurashtra 4. Hilly terrain / Forested cover/ heavy rain 5. Hills and mountain ranges having rough terrain.

25.2

1. 10.65 Lakh Km. 2. Varanasi and Kanyakumari 3. Punjab and Kerala 4. Leh to Manali Raod 5. Rural sector 6. Sparsely populated poor in natural resources / Hilly terrain/ Heavy rain with thick forest

25.3

(1) Petrol and Natural gas (2) HBJ Pipe Line Hazira, Bijaipur, Jagdishpur (3) Mumbai (4) Ganga and Brahamputra

25.4

(1) Air India (2) Indian Air Lines (3) Northeastern part of India (4) (i) Mumbai (ii) Delhi (iii) Calcutta (iv) Chennai and (v) Thiruvananthapuram (5) (i) Fastest mode (ii) Costlier

25.5

(1) Means of Communication (2) (i) Radio. (ii) Television. (iii) Books and (iv) Newspapers and journals

25.6

(1) Exports and Imports (2) Switch over from primary to secondary products (3) The USA and Russia (4) Petroleum & Petroleum products (5) Liberalisation of trade and reduction in import restrictions (6) A difference between the value of exports and imports