

Chapter-10 Transport and Communication

Classification of Transport and Communication

Land

1. Road
2. Railway
3. Pipe lines

Water

1. Inland
2. Oceanic

Air

1. Domestic
2. International

Land transport

Road transport

1. Total road length is 33.1 lakh km
2. 80% passengers, and 70% of freight are carried by roads
3. Shai road connect Indus valley to Sone valley
4. It is renamed as grad trunk road
5. At present it connects Amritsar, Kolkata (NH1 NH2)

Classification of Roads

I. National high ways

1. Constructed and maintained by central govt.
2. Meant for interstate transport
3. Movement of defense men and material
4. Connect state capitals
5. Total length is 65769 km
6. Accounts 2% of road length
7. Carry 40% of traffic
8. Golden quadrilateral 5846 km, 4/6/lane. High density traffic, connect metro cities, time distance and cost distance decreased n-s corridor connect Srinagar to KanyaKumari (4076 km) east west corridor connect Porbandar to Silchar (3640)

State High Ways

1. Constructed and maintained by state CPWD
2. Connect state capitals with Dist. Hqs.
3. Account for 4% of road length

District Roads:

1. Connect Dist. Hq with other towns

Key Notes

2. Account for 14% of road length

Rural Roads

1. Connect rural areas
2. Accounts 80% of road length
3. Regional variation in road density
4. Influenced by terrain and climate

Other Roads

Border Roads and International Highways

1. Bro was started in 1960
2. Help to develop economy
3. Strengthen the defense
4. Improvement of strategic points
5. It is a premier multifaceted construction agency
6. Highest road way connects Manali –Leh with 4270 mts. altitude
7. Maintain harmonious relation with neighboring countries

Highest road density is 387.24 /100sq.km in Kerala lowest road density is 10.48 /100 sq. km in J&K it is high in northern plains and low in mountain areas

Factors influence in road ways

1. Terrain
2. Climate
3. Economic development
4. Industries
5. Cities and towns

Railways:

1. The first railway line started in 1853 between Bombay and Thane
2. It is the largest govt. Sector with the length of 63221 km
3. It is divided into 16 zones
 1. Northern – New Delhi
 2. North Eastern – Gorakhpur
 3. NE frontier – Maligaon
 4. N. Western- Jaipur
 5. N. Central- Allahabad
 6. Western Church Gate Mumbai
 7. W. Central – Jabalpur
 8. Central CST Mumbai
 9. E. Central – Hajipur
 10. Eastern-Kol
 11. S. Western – Hubli
 12. S. Central- Secunderabad
 13. SE Central-Bilaspur
 14. Seastern-Kolkata
 15. Southern Chennai
 16. East Coast- BBSR

Key Notes

2. Highest coal is carried by railways
3. Railway Gauges: broad gauge: 1.676 mts. 46807 km 74.145-meter gauge: 1.000 mts. 13290 km 21.02% narrow gauge 0.672 mts and 0.610 mts. 4.94% 3124 km

Recent Developments in Railways:

1. Conversion of meter and narrow gauges in to broad gauge
2. Steam engines are replaced by diesel and electrical engines
3. Introduction of metro railways
4. Use of CNG
5. Introduction of internet
6. Computer reservation
7. Container services

Water Transport

Advantages

1. Cheapest means of transport
2. Least consumption of energy
3. Suitable for heavy bulky goods
4. No friction
5. Eco friendly
6. There are two types

Inland Water Ways

1. Cheapest mode of transport
 2. Competition from road ways and railways
 3. Water diversion from the rivers cause less navigable
 4. Total 14500 km of navigable water
 5. Account 1% of transport
 6. It consists of rivers, canals, backwaters creeks
 7. 3700 km of navigable rivers are available
 8. 2000 km actually used
 9. Canals are controlled by inland water way authority
 10. There are three inland waterways in India
1. NW Allahabad to Haldia – 1620 km most important waterway, up to Patna mechanized boats and up to Hardwar manual boats
It is divided in to three segments: 1. Haldia to Farakka 560 km 2. Farakka to Patna 460 km 3. Patna to Allahabad 600 km
 2. NW-2 Sadiya to Dibrugarh 891 km steamers can travel up to Dibrugarh
 3. NW -3 Kottapuram to Kollam 205 km includes 168 km west coast canal and Udyoga mandal canal
- Back waters of Kerala also important waterways.

Ocean Route: India has coastline about 7517 km there are 12 major ports and 185 minor ports

95 % of India foreign trade and 70 % of value of trade takes place through sea ways

Key Notes

Air Transport

Advantages

1. Fastest means of transport
2. Connect remote areas
3. no need to maintain routes and construct
4. Suitable for emergency times
5. All continents are connected by air ways
6. Suitable for difficult terrain
7. Reduce travel time
8. Maintained by airport authority
9. It maintains 126 minor airports 11 international air ports and 86 domestic airports
10. 29 civil defense enclaves in defense service also maintained by the authority

There are three divisions

1. Air India: provide international air services
2. Connects all continents
3. Delhi and Mumbai air ports accounts for 52% of air service

Indian airlines connect Indian subcontinent

It is the part of air India

Pawan Hans helicopter services

serves in north eastern states

Pipelines:

Advantages:

1. Most convenient and efficient mode of transporting liquids and gases over long distance
2. Least consumption of energy
3. Suitable for mountain areas and sea bottom
4. Asia's cross country pipe line is constructed between Naharkatia oil field and Barauni oil refinery with the length of 1157 km, it was extended up to Kanpur in 1966
5. Other pipe lines Are Ankaleswar to Koyali, Mumbai High to Koyali Hazira Vijaipur Jagdishpur
6. Salaiya to Mathura – 1256 km
7. Numaligarh to Siliguri 660km

Communication: It is divided into personal- mobile mass radio, TV.

Personal communication has become most important at present.

User can contact with the customer directly. Fastest means of communication.

Communication revolution came into world through internet.

Mass communication consists of radio, tv and satellite communication.

Satellite communication is the recent development most useful at the time of emergency.

When all other communications are failed it is the only communication which can be used.