CHAPTER - 10
TRANSPORT AND COMMUNICATION

GIST OF THE LESSON:

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

- Total road length is 33.1 lakh km
- 80% passengers, and 70% of freight are carried by roads
- Sher shah suri road connect Indus valley to Sone valley
- It is renamed as grand trunk road
- At present it connects Amritsar to Kolkata

CLASSIFAICATION OF RAODS

I NATIONAL HIGH WAYS

- Constructed and maintained by central govt./NHAI
- Meant for inter state transport
- Movement of defense men and material
- Connect state capitals
- Total length is 65769 km
- Accounts 2% of road length
- Carry 40% of traffic
- 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 Kanya kumari (4076 km)

East west corridor connect Porbandar to Silchar (3640)

STATE HIGH WAYS

- Constructed and maintained by statePWD
- Connect state capitals with Dist. Hqs.
- account for 4% of road length

DISTRICT ROADS

- Connect Dist.,. HQ with other towns
- account for 14% of road length

RURAL ROADS

- Connect rural areas
- accounts 80% of road length
- Regional variation in road density
- Influenced by terrain and climate

OTHER ROADS

BORDER ROADS AND INTERNATIONAL HIGHWAYS

- BRO was established in 1960
- Helps to develop economy
- strengthen the defense
- Improvements in connecting the strategic points
- It is a premier multifaceted construction agency
- Highest road way connects Manali –Leh with4270 mts. altitude
- 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 INFLUENCING ROAD WAYS

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

RAILWAYS

- The first railway line started in 1853 between Bombay and thane
- It is the largest govt. Sector with the length of 63221 km
- It is divided into 16 zones

Northern – 1. New Delhi 2. North Eastern – Gorkpur 3. NE Frontier – Maligoan 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-Seceuderabad 13. SE Central-bilaspur 14. Seastern-Kolkota 15. Southern- Chennai 16. East Coast-BBSR

Coal is transported in large volume by railways

RAILWAY GAUGES : broad gauge :1.676 mts. 46807 km 74.145 meter gauge: 1.ooo mts. 13290 km 21.02% narrow gauge 0.672mts & 0.610 mts. 4.94% 3124 km

RECENT DEVELOPMENTS IN RAILWAYS

- Conversion of meter and narrow gauges into broad gauge
- Steam engines are replaced by diesel and electrical engines
- Introduction of metro railways
- Use of CNG
- Introduction of internet
- Computerization of reservation
- container services

WATER TRANSPORT

ADVANTAGES

- Cheapest means of transport
- Least consumption of energy
- Suitable for heavy bulky goods
- No friction
- Eco friendly

FACTS ABOUT WATER TRANSPORT

- There are two types of Inland water ways
- Cheapest mode of transport
- Competition from road ways and railways
- Water diversion from the rivers cause less navigable
- Total 14500 km of navigable water ways
- Account 1% of transport
- It consists of rivers, canals , backwaters creeks
- 3700 km of navigable rivers are available
- 2000 km actually used
- Canals are controlled by inland water way authority

10. There are three inland waterways in India

1. National waterway No.1 - 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. National Waterway –No 2- Sadiya to Dubri 891 km steamers can travel up to Dibrugarh

3. National Waterway No -3- Kottapuram to Kollam 205 km it includes 168 km west coast canal and Udyogamandal canal

   Back waters of Kerala also important waterways

OCEAN ROUTES

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

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

AIR TRNSPORT

ADVANTAGES

- Fastest means of transport
- Connect remote areas
- no need to maintain routs and construct
- Suitable for emergency times
- All continents are connected by air ways
- Suitable for difficult terrain
- Reduce travel time
- Maintained by airport authority
- It maintains 126 minor airports 11 international air ports and 86 domestic airports
- 29 civil defense enclaves in defense service also maintained by the authority

There are three divisions

- Air India: provide international air services
- Connects all continents
- Delhi and Mumbai air ports accounts for 52% of air service Indian airlines connect Indian subcontinent

I t is the part of air India Pawan Hans helicopter services serves in north eastern states

PIPELINES

ADVANTAGES

- Most convenient and efficient mode of transporting liquids and gases over long distance
- least consumption of energy
- Suitable for mountain areas and sea bottom
- 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
- Other pipe lines are Ankaleswar to Koyali , Mumbai High to Koyali Hazira-Vijaipur-Jagdishpur
- Salaiya to Mathura – 1256 km
- Numaligarh to Siliguri 660km

COMMUNICATION

It is divided into personal- mobile mass radio, TV Personal communication has become most important. Atpresent 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.

One Marks Questions

Q1. What is the total length of roads in India?

Ans. 33.1 lakh kms.

Q2. Name the two terminal stations of East West Corridor?

Ans. Silchar and Porbandar.

Q3. Which is the Longest National highway of India?

Ans. National highway No. 7 (Varanasi to Kanyakumari)

Three Marks Questions

Q1. Why is road transport gaining more importance over rail transport? Explain.

Ans. 1. Construction of roads is cheaper.

2. Roads can be constructed even on hilly surface.

3. Roads provide door to door service while railway do not.

Q2. Which are the different railway gauges in India?

Ans. There are three railway gauges –

1. Broad Gauge- distance between two lines is – 1.676 mtr.
2. Meter Gauge- distance between two lines is –1.00 mtr.
3. Narrow Gauge -distance between two lines is –0.762 mtr.

Five Marks Questions

Q1. Explain the main features of pipeline transport also give two example.

Ans. Useful for transporting gas and liquid material

1. It can be laid down in any type of surface and climate
2. Cost of transport is reduced
3. Help in quick supply of petroleum products
4. No wastage of petroleum due to leakage
5. Environment friendly as no pollution is caused
6. E.g. HVJ pipeline, Jamngar-Loni, LPG pipeline.