

Transport & Communication

Transport: refers to the transportation of traded goods from the area of production to the areas of consumption.

Communication: refers to the movements of information from 1 place to another.

Pakistan Railways:

- Extends to 8775km.
- 900 railway stations in total & 54 train halts.
- Network of railway lines from Karachi to Peshawar.
- None in highlands.

Reasons for no Railways in highland areas:

- Rugged landscape.
- High maintenance as higher chances of landslides.
- Economically not feasible due to low population density.
- Lack of skilled labor force.
- Machinery is difficult to be transported to the upper regions.

Explain the distribution of Railways in Pakistan:

- Movement of industrial & agricultural goods.
- Karachi port connected to the rest of the country.
- Soft soil of Sindh & Punjab makes construction easy.
- Rugged landscape & badland topography makes construction difficult.

Recent development:

- Computerized tickets & online reservations.
- Replacement of steam engines with diesel ones.
- Establishment of repair workshops.
- Extension of Karachi Circular Railways.
- 1 window service.
- Introduction of Karakoram express.

Goods Transported:

- Heavy, bulky goods in large abundant quantities quickly.

Problems of Pakistan Railways:

- Lack of capital.
- Worn-out, obsolete, outdated rail.
- Operational inefficiencies & over-staffing.

- Single track on small segment & poor reservations.

Pakistan Roads:

- Most popular means of transport.
- Helps movement of traded goods, primary & secondary goods from production to consumption & labor force.
- Extends to nearly 181,194km.

Types of Roads:

- **Metaled Roads:** properly constructed with Tar using heavy machinery, Flat & Smooth surface, 3 lanes & footpaths. 65%
- **Semi-Metaled Roads:** constructed with Clay Bricks without too-heavy machinery, Flat & not that smooth, single lane.
- **Non-Metaled Roads:** made of coarse sand, mud formed by the excessive use of a track, not properly constructed, uneven, bumpy & irregular. 35%

Reasons for no Roads in highland areas & Balochistan:

- Rugged landscape.
- High maintenance as higher chances of landslides & avalanches.
- Economically not feasible due to low population density.
- Lack of skilled labor force & investments.
- Lack of water.
- Machinery is difficult to be transported to the upper regions.

Importance:

- Better movements of finished products & raw materials.
- More industrial development & development of dry ports.
- Faster travel, & wide roads prevents traffic.
- Offers by-passes.

Superiority over Railways:

- Dense & widespread network.
- Greater areas accessible by roads.
- Door-to-door services by roads.
- Cheaper to construct.

Problems of Pakistan Roads:

- Lack of capital.
- Worn-out, obsolete, outdated roads.
- Expensive to transport bulk.

Pakistan Airways:

- Most popular means of transport respective of air.

Effectiveness of Air Transport:

- Low volume products can effectively transported by air.
- High value, precious items can be transported quickly.
- Perishable & delicate goods can be transported faster.
- Safer.
- Faster passenger transport saving precious time.
- Can be developed over difficult relief.
- May be used in inaccessible areas.
- Facilitates movement of businessmen.
- Promotes tourism.

Factors contributing to development:

- Faster than rail, or road.
- Useful for people who value time.
- Few mountainous destinations are accessible.
- Increased earning & high living standards.
- Air cargo exports has encouraged exports.
- Increasing rate of international migration.

Problems of developing Pakistan Airways:

- Bad weather.
- Lack of flat land for runways.
- Lack of capital.
- Low population density areas have less passengers.

Disadvantages of Pakistan Airways:

- Bad climate may be dangerous to use air transport.
- Expensive & unsuitable for heavy loads.
- Few airports & lack of capital.
- Lack of skilled workforce.
- Doesn't provide door-to-door service.

Recent Improvements:

- Cheap & online reservation.
- Greater security.

Seaports:

- Facilitates movement of ships along the coast to help ships load & unload cargo.

Wharf: is a structure on the off-shore of a harbor where ships may dock.

Seaports in Sindh:

Kemari Port: it receives oil tankers, containers & ships. It has an engineering facility, ship repair jetties.

Development of liquid products terminal for petroleum products. Construction of flyover bridges to prevent traffic. Navigational aids & radars. Expansion of cargo storage. Establishment of container terminals.

Muhammad bin Qasim Port: facilitates raw materials to steel mills, reduces work load at Kemari. Transport & infrastructure is already available, provided with electricity. Available labor & fresh water.

Keti Bandar:

Seaports in Balochistan:

Gwadar Port: reduces burden on Karachi Ports. Facilitates transit trade & increased revenue. Ship breaking industry, oil refineries, steel mills, fish & food processing industries.

Sonmiani Port:

Pasni Port:

Jiwani Port:

Dry Ports:

- Seaports are developed along the coast to promote foreign trade while dry ports are developed in the areas away from the sea to encourage foreign trade.
- Dry ports offer all the facilities of sea ports to the inland cities & encourage import & export of traded goods directly to the inland cities.
- Dry ports not only save time but also help saving money & reduce work load.
- Mostly dry ports are owned, operated, managed and developed by the government.
- Resolves the problem of shortage of space & speeds up custom procedures.

Processes of dry ports:

- Checking - Of consignments and exportable products
- Clearance - Of cargo by the custom officials
- Storage - Of export consignments and imported products on temporary basis in the sheds, warehouses & in open yards

- Transportation - of traded goods from the dry port to the seaport & from the seaport to the dry port

Corruption of custom officials, smuggling & destruction of local industries can happen.

Basic requirements / features:

- Efficient transport system including railway network with container service
- Road network connecting dry port to the rest of the country and to the seaport
- Large storage area including sheds, open space and warehouses
- Efficient managerial staff including custom officials, security staff etc.
- Management offices/customs administration
- Labor force including drivers, loaders, watchmen etc.
- Import and export examination area
- Railway yard & Refrigeration facilities for the storage of perishable items

Benefits of developing transport and communication in Pakistan:

- Social Benefits:
 1. Access to information technology
 2. Spread of education
 3. Easy access to health facilities
 4. Easy approach for population control programs
 5. Better social outlook
 6. Better standard of living
 7. Expansion of urban centers
 8. Reduced rural to urban migration
- Economic Benefits:
 1. More employment opportunities
 2. Promote industrialization
 3. More taxes and revenue for government
 4. Price stability by reducing transportation cost
 5. Reduced economic disparity
 6. Easy availability of fertilizers and improved seeds
 7. Better access to market
 8. Increases export of perishable items
- Political Benefits:
 1. Promotes defense of the country by facilitating the movement of troops
 2. Improved law and order situation
 3. Promote political awareness among rural population
 4. Helps improving government administration by facilitating the movement of government officials.

Advantages of developing transport and communication to a Remote rural area:

- Development of minerals and other economic resources
- Promotes Trade by providing access to international markets for local products, E.g. Gwadar port, to Iran and Afghanistan
- Industrial development by increasing the accessibility of an area
- Development of employment opportunities
- Access to consumer goods such as better food, machines etc.
- Access to better health and education facilities.
- Distance learning through online lectures and courses on different subjects such as those offered by Allama Iqbal open university
- Promotes tourism by providing better access and connectivity to different tourist destinations in the country

Disadvantages of developing transport and communication to a remote rural area:

- People can leave more easily from rural areas resulting in more rural-urban migration
- Difficulty of construction to many mountainous areas of north & west with high risk of damage or blockage by land or mud sliding, avalanches etc.
- High cost of construction and maintenance due to lack of machinery & skilled labor forces etc.
- Lack of power or electricity for powering devices of telecommunication
- People may see better lives and opportunities elsewhere and think of migrating there
- Low population in most northern and western parts of the country therefore such developments may be uneconomic
- Large scale deforestation takes place when roads and transmission lines are built

Telecommunication:

The science and technology of sending and receiving information such as sound, visual images or computer data over long distances through the use of electrical radio, or light signals, using electronic devices to encode the information as signals and to decode the signals as information.

Means of telecommunication:

- Telegraph
- telephone line
- radio signals
- television channels
- internet

- mobile phones services etc.

Organizations working for the development of telecommunication:

- PTCL Pakistan Telecommunication Company Limited
- PTA Pakistan Telecommunication Authority
- NTC National Telecommunication Corporation
- PPO Pakistan Post Office

Impacts of telecommunication:

Telecommunication has a significant social, cultural and economic impact on modern society.

Economic impacts:

- For retailers:
 1. In the case of online retailer "amazon.com people can buy many things at home
 2. Even the conventional retailers has benefited from better telecommunication infrastructure compared to their competitors by providing home deliveries
 3. In cities, home owners use their telephones to organize many home services ranging from pizza deliveries to electricians.
- For industries and companies:
 1. Companies have used telecommunications to help build global business empires- chains & networks of multinational companies.
 2. Publicizing their products through internet can help giving their product an international exposure.
 3. New export markets can be searched and explored through internet, television & Radios.
 4. Telecommunication facilitate trade activity between two or more countries by establishing quick links & by facilitating money transfer.
 5. Telecommunication helps understanding the nature of demand and new trends in the international markets.
 6. Arrangements for better quality raw materials are very convenient & efficient mainly in times of raw material shortage in the national market.
 7. In rural areas, isolated villagers use cellular phones to speak directly to wholesalers & arrange a better price for their goods.
- In buying and sell the goods:
 1. Locating supplies
 2. Advertising goods/publicity
 3. Arranging transport
 4. Finding orders/tendering
 5. Faster method
 6. Arrange delivery

7. Can communicate internationally
- In the expansion and modernization of industries:
 1. increased funds by sales and advertising
 2. Obtaining machinery and building materials (on best prices)
 3. Arranging transport
 4. Expert advice
 5. Easy communication with branches in other areas/countries & contact with investors

Social impact

- Improved education:
 1. Use of internet in the classroom
 2. Use of multimedia in the classroom
 3. Bringing all information to the classrooms
 4. Distance learning - Allama Iqbal open university
 5. Virtual universities - online courses
 6. Online lectures of different disciplines

Government efforts to develop & promote Telecommunication in Pakistan:

- Provision and expansion of telecommunication infrastructure in the country
- Development of internet centers across Pakistan
- Launch of online learning programs across the country
- Broadcasting technical training programs on radio and television
- Steps taken for the establishment and development of software industry
- Establishment of skills development council mainly for ICT training

Problems of developing and promoting telecommunication:

- Expensive to develop & use
- Difficult to establish in mountainous/rugged areas
- High maintenance cost
- Lack of skills to establish and develop
- Land/mud sliding, thunderstorms and avalanches can damage
- Lack of power supply in many highland areas
- Political instability/tribal influence-chances of damage
- Can lead to terrorism/increased crime rate
- Lack of government will to develop and promote telecommunications
- Few private/foreign companies investing in telecommunication sector