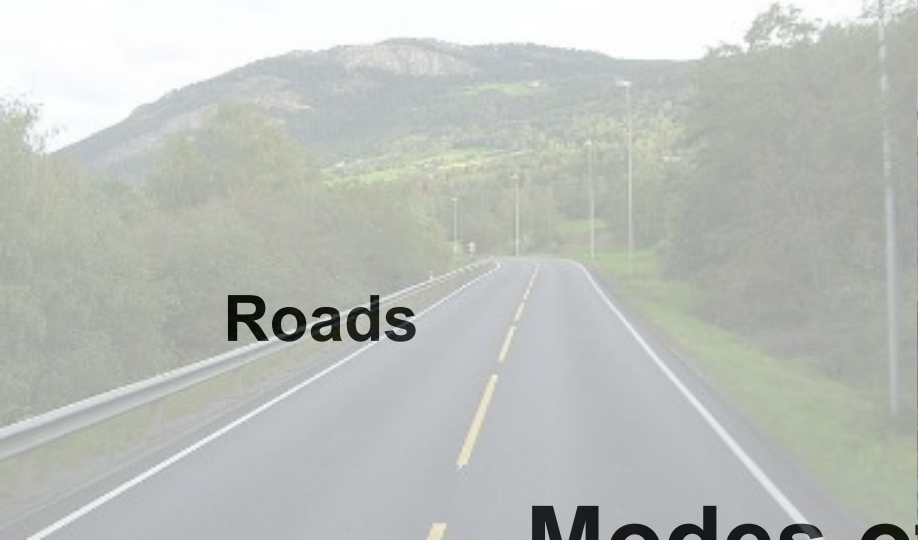


Transport



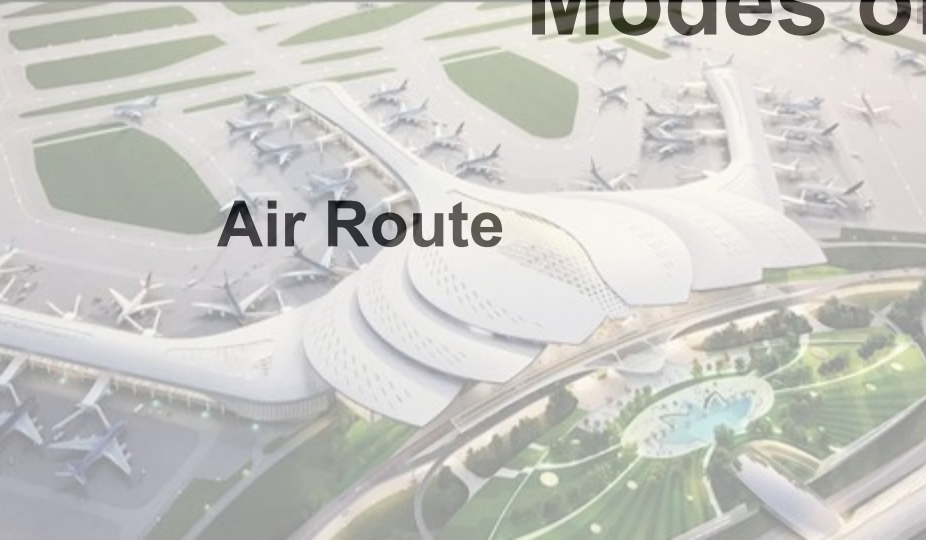


Roads

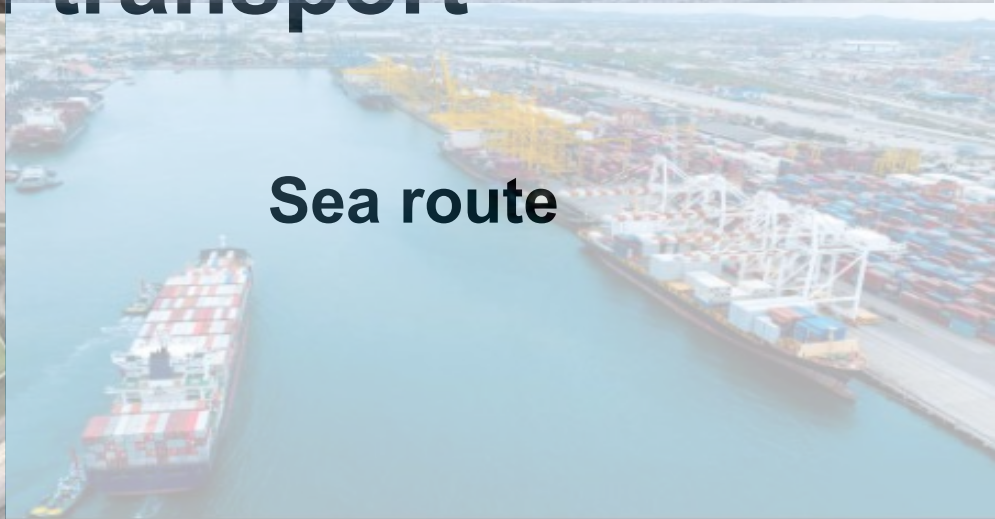


Railway

Modes of transport



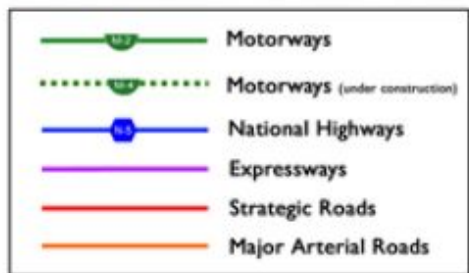
Air Route



Sea route

PAKISTAN

NATIONAL HIGHWAY NETWORK MAP



Road network

Pakistan has a total of **259,000 km of roads**

out of which around 66% are paved, while the remaining 34% are unpaved.

Network at sindh

1. In Sindh the major highways, N-55 (also known as Indus Highway) and N-5 run along both banks of Indus in the South-North direction. Connecting karachi hyderabad sukkur thatta etc. goes all the way to peshawar.
2. M-9 motorway connects karachi to hyderabad
3. M-10 motorway connects karachi to port, kemari port and also provides connection to M-9 , it is 2 lane and 57 km , also known as karachi northern bypass.

Punjab

As the highways in Sindh enter Southern Punjab they still follow both banks of Indus and then move away from Indus. As we move North, we see that many cities are interconnected with a web of dense road network along banks of rivers and also across the doabs, with main foci being Lahore, Faisalabad and Multan

1. M-11 motorway goes from lahore to sialkot
2. M-2 motorway connects lahore to faisalabad and islamabad being 375 km
3. A major road also leads from Lahore to Wagah and eventually into India.
4. Furthermore, two roads from Bahawalpur and Multan respectively, merge into one near the border and then lead to India
5. M-1 is islamabad to peshawar motorway.
6. M-14 Motorway goes from islamabad to D. I Khan .

Balochistan

In Balochistan, the main focus is the city of Quetta, from which roads lead in all direction.

1. To North we head to Chaman and Afghanistan. Another road leads West to Dalbandin and then to Iran.
2. To North-East leads to Western Punjab and to Southern Khyber-Pakhtunkwa through Zhob. One road also leads to Sukkur in Sindh
3. N-40 and N-25 form RCD highway connecting Quetta and Karachi with Iran
4. Near the coast Makran Coastal highway connects Gwadar and other fishing centres like Pasni with Karachi

Gilgit and KPK

1. Karakoram Highway connects Hassan Abdal with China via Khunjerab Pass, after passing through Abbottabad and Gilgit
2. Murree Express Highway connects Islamabad with Murree and Muzaffarabad

KPK

The Indus Highway connects Dera Ismail Khan with Peshawar. From Peshawar a highway leads into Afghanistan at Torkham through the Khyber pass

Reasons for distribution of motorways

The road network of Punjab is the densest followed by Sindh and then of Balochistan. This is because there is a lot of population in Punjab which needs to be connected.

Balochistan has a rugged terrain along with a low population, which makes road building difficult and uneconomical

In Khyber-Pakhtunkhwa, the road network connects different valleys like of Peshawar with other areas. Also has less motorways due to the terrain.

The main pattern of road network in Sindh is South-North, because roads follow banks of River Indus and that there's only one river in Sindh. Also on East we have more or less an inhospitable area of the Thar desert

Limitations of road

1. It is expensive and time consuming over long distances
2. It can only carry goods in limited quantity as compared to air and especially rail transport
3. It is also affected by traffic jams
4. Like rail network it may not be able to serve some areas like the Northern Mountains. This is because of the harshness of the terrain, which makes it expensive to construct roads.
5. Landslides are common and destroy road network

Importance of road network

1. Provides door to door service
2. Reaches areas where railway or air cannot
3. Used by all the population easily as its free compared to air or sea
4. It can serve areas 24/7 , no waiting
5. All the major commodities such as oil and gas are transported either through tank or pipeline via the roads.
6. It is less time consuming due to easy loading and unloading of goods, weight check
7. Does Not require as much documentations

Advantages and disadvantages motorways

1. Congestion from other roads is relieved as it has 6 lanes
 2. Industrial growth promoted in areas where motorway is built
 3. Tourists may find it easy to commute through roads
 4. Operations at dry ports may increase drastically
 - 5.
1. Expensive to build and maintain
 2. Industrial good could be limited for those who prefer rail due to the bulk production of their goods
 3. Chronic poverty in rural areas may still not be solved as motorways connect main cities not everywhere

AIR ROUTES

Distribution of Air Routes

- Most of the air routes follow the South-North direction, with less following East-West direction
- Most of the air routes run across the Indus Plains
- Karachi has the most flights in the country. Lahore, Faisalabad, Multan, Quetta and Peshawar are also major foci. All these are international airports along with the newly built airport at Sialkot
- Some minor routes branch from major airports, like Bannu is only accessible by air from Peshawar
- There are few flights in the North of country and also in West Balochistan, where low population and extremes of climate limit the number of passengers and flights

Importance of Air Transport

- It is **quick and cheap** over **long distances**, it can serve other continents which is impossible by road and rail
- It is suitable for high value and light weight goods like computers both for import and export etc
- It can serve areas which are cut off to rail and road networks like Skardu
- It is mostly used by tourists coming to Pakistan and is also important for dispersing vital food and medical supplies during for example earthquakes etc

Requirements for an Airport

- Cheap, flat and abundant land is required for making the most important part of airport that is the runway
- A lot of capital is required for the construction of lounges, parking facilities, control tower etc
- Facilities like water supply, electricity, sanitation along with security are necessary
- Trained officers of customs and traffic controllers are also required
- Good transport infrastructure like road and rail network is vital for success
- Nearby population which can use the airport is also a pre-requisite. It's no use building an airport far away from population for example in a desert

Reasons for the distribution

1. Karachi is a metropolitan city and has numerous flights due to having international airport
2. The air ports are located in areas where there is more population who can afford flights such as lahore and islamabad
3. Areas like Quetta, Peshawar, Lahore, Karachi and Islamabad are administrative capitals, where important offices of government are located, which need to be connected
4. Areas like Karachi and Lahore etc are located in plain areas, for an international airport a long runway is necessary.
- 5.

RAILWAY

Pakistan has a rail network of around 7,791

km.

Around 7,479 km (96%) is broad gauge with

293 km (0.04%) of it being electrified. While

the remaining 4% is narrow gauge



Distribution of rail network

SINDH

1. The rail network in Sindh starts from Karachi, where broad gauge double lines lead to Hyderabad, and then follow the bank of Indus into Northern Sindh towards Rohri

2. A broad gauge single line branches from Hyderabad and heads onto Khokrapar and then into India. Also many broad gauge single lines connect small cities in Sindh which are west of Indus including Dadu and Larkana etc

PUNJAB

1. From Rohri the double broad gauge continues till Lodhran
2. From Khanewal to Raiwind and ultimately Lahore a broad gauge double line (electrified) runs
3. From Lahore a broad gauge double line then runs through Wagah into India
4. The pattern of railways across the most of Punjab is across the doabs and across the banks of Eastern tributaries of River Indus. Broad gauge single line are the most common

Rohri _____ Lodhran _____

Khanewal _____ Raiwind _____ Lahore

Balochistan and KPK

From Rohri in Sindh, a broad gauge single line branches and heads to Quetta in Balochistan. From Quetta a broad gauge double line leads to Afghanistan through Chaman, while another single line leads to Iran via Dalbandin and Taftan. Density of rail network is very low

KPK

From Rawalpindi a broad gauge double line operates till Attock, after which all major cities of Khyber-Pakhtunkhwa are served by broad gauge single line or narrow gauge single line. Density of rail network is low

Importance Of rail transport

1. Rail transport is cheap over long distances inside a country
2. It is also quick for long distances within a country
3. It can carry the goods in bulk, which is impossible with road transport and to a limited extent with air
4. It is suitable for low value, high weight cargo
5. It is not affected much by traffic
6. It is vital for success of dry ports and for deep sea port of Gwadar, unless Makran coast is provided with a modern rail link the prospects of Gwadar developing are bleak

Limitation

The maintenance of railway tracks is a very costly process, involving much labour and capital

It is expensive to send small amounts of goods over a short distance

Railways operate by a fixed schedule so rail transport isn't flexible nor is it door to door

A lot of time is wasted during unloading and uploading of cargo, during which it can be either stolen or lost as different trains operate on different gauges

The rail infrastructure in Pakistan is very old and unreliable

DRY PORTS

They are inland ports, which are basically terminals inland and are directly connected to ports by either rail or road networks. They can be export or import orientated. For example the Sialkot dry port is export orientated meaning that it is organized in such a manner that in which it is much easier to export goods as compared to importing goods.

Features of a dry port are:

- Facilities for storage, preservation and consolidation of goods
- Refrigeration facilities
- Loading area with lifts and cranes etc
- Custom clearance services
- Connection with road and railway infrastructure

Importance of DRY ports

1. Dry ports have custom clearance services,

which mean that goods are cleared before they reach port, thus saving hassle at port.

Time is saved this way and goods can be exported easily and on schedule.

2. Storage space is saved at the port area as goods are only sent from the dry port only when they are needed by the schedule

3. Furthermore, containerization means that there is less of a chance to damage to goods or that they may get stolen, as previously goods had to be sent to port where they would be then put in containers

4. Taxes can be collected at the dry port. Also, less storage space is required at the sea port, thus freeing up land for extension of port
5. Refrigeration facilities are present so perishable items can be stored and need not to be delivered directly to the port immediately.
6. Transport charges are reduced as now goods are transported in bulk and this lowers the cost to importer/exporter.
7. Producers inland can easily export their products (at higher price than what they would have sold to domestic consumers), this incentivizes them to produce more and improve the quality of their goods (to attract more foreign customers)

- Lahore Dry Port Established in 1973
- Karachi Dry Port Established in 1974
- Quetta Dry Port Established in 1984
- Peshawar Dry Port Established in 1986
- Multan Dry Port Established in 1988
- Rawalpindi Dry Port Established in 1990

Private dry ports

- Sialkot Dry Port Established in 1986.
Busiest dry port in Pakistan. First private dry port in Asia
- Faisalabad Dry Port Established in 1994
- Pak-China Sust Dry Port
- NLC Dry Port at Thokar Niaz Beg Lahore
- NLC Dry Port at Quetta