LOCATION:

An Islamic Republic in South-Asia took over its independence in August 1947. Pakistan shares its land borders (Total 6774 km) with India in east (2912 km), China in North (523 km), Iran (909 km) & Afghanistan (2430 km) both in west and the Arabian Sea in the south with 1,034 km of coastline.

The country is composed of towering peaks in north including 2nd highest mountain in the world (K-2) 8611 m, dry scrubby mountains in west, inhospitable plateau in south west, barren desert in southeast, sandy beaches, lagoons, mangroves swamps, preserved beautiful moist temperate forests in south. The alluvial plains, third of country, are the heart of Pakistan where most of the population lives. Pakistan was the cradle of the earliest known civilization, the Indus Valley civilization.

CLIMATE:

The four well-marked seasons in Pakistan are:-

i) Cold season (December to March).
ii) Hot season (April to June).
iii) Monsoon season (July to September).
iv) Post-Monsoon season (October and November).

Seasonal temperatures vary widely with the exception of the Far North. Summers are hot throughout the country with temperatures ranging to 90-120°F (32-49°C) and little nighttime relief. Trade winds provide some relief during the hot and humid summers in Karachi and a brief cool season comes...
between December and February. In Lahore, Islamabad, and Peshawar a distinct winter season brings daytime temperatures of 60°F (16°C) or less, cold nights, and - in Islamabad and Peshawar - frequent morning frost does occur 28°F (-2°C) during the stark winter season. Altitude governs climate in the Far North and temperatures fall well below freezing point -18°F (-20°C), with pleasant summers in the lower regions and perpetual snow in the higher mountains.

The average annual rainfall varies from 6 inches (40 cm) in Karachi, 15” (38 cm) in Peshawar, 18” (46 cm) in Lahore, to about 30” (76 cm) in Islamabad. Most rain falls during the summer monsoon from July to September, although parts of the Northwest Frontier and the Indus Basin experience a moderate winter rainy season as well.

**POPULATION:**
166.03 million
( 206 people per square kilometer )

**CURRENCY:**
Pakistan Rupee (PKR)

**GDP:**
A semi Industrial Economy
Pakistan’s GDP= US $ 168 Billion

**TOTAL AREA:**
803,940 sq. km.

**Capital:**
Islamabad.

**ROAD SYSTEM:**
Pakistan's road network comprises of Motorways, National Highways, Expressways, Strategic Roads, Provincial / District Roads and Farm to Market Roads as well as urban roads. The entire road network has a length of more than 260,000 km with present road density of 0.32 km per sq. km.

The urban roads are linked with district and provincial road which terminate at National Highways hence form a complete highway network for inter and intra country movement. Road transport presently dominates Pakistan’s transport system carries about 90% passenger traffic and 95% of freight traffic. Pakistan’s National Highways are differentiated in terms of North South and East West Corridors providing connectivity to the population, divided into two parts by River Indus which flows through the center of country.
Due to Pakistan’s significant geographical position, it has remained historical trade route connecting China and land locked Central Asian states. Realizing this fact, newly operational Gawadar Deep Sea Port has been connected with existing road network through Makran Coastal Highway, whereas northward connections i.e. Motorway M-8 and N-85 are presently under construction to provide access to northern countries. Further, construction of Motorways and Expressways, a virgin trade corridor with industrial zones and with time travel concept, have been started by the government of Pakistan aiming to provide connection to Karachi Sea Port and Gawadar Deep Sea Port with rest of the country and especially with north. So far three control access Motorways i.e. M-1, M-2 and M-3 with total length of more than 550 km have been constructed and the work on M-9 and M-4 has been recently started.

OVER ALL TRANSPORT DEMAND:
Total current transport demand in Pakistan has been estimated to be around 239 billion passenger-km and 153 billion ton-km. Over the last decade the growth in travel demand both, in passenger and freight has been increasing in line with GDP, at somewhat higher pace in the last decade and at slightly lower rate since 2000. The growth in passenger and freight traffic volumes over the last five years averaged around
3.4% and 3.2%, respectively. Road share is by far the largest, 89% of passenger transport and 94% of all freight is moved by road. Pakistan Railways carries the remainder traffic, whereas share of air transport is minimal. Over 90% of all Pakistan International trade is handled through two ports at Karachi.

International trade across land borders with China, Afghanistan, Iran and India is small, but due to recent favourable political atmosphere trade and tourism is expected to grow at a considerable pace. Vehicle fleet in Pakistan has been on the increase, at around 4.3% per annum.

**ADMINISTRATIVE ROAD CLASSIFICATION:**
In Pakistan roads are broadly classified into four categories: Motorways, National highways, strategic routes, provincial and district roads. Motorways and national highways form the backbone of highway system, providing inter-provincial linkages along major corridors, and the provincial roads act as feeder roads to the national routes. Strategic routes are neither of the above, but serve the areas of strategic importance to the nation. The motorways and national highways are managed by National Highway Authority, whereas provincial roads are managed by the respective provinces through their own systems. District Roads connect small conurbations and provide access to villages and remote areas. The local authorities and municipalities control the intra-urban roads of cities and towns for local travel.

<table>
<thead>
<tr>
<th>Administration</th>
<th>Road Category</th>
<th>Extension (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHA/MOC</td>
<td>National Highway/ Motorway/ Strategic Road</td>
<td>11,887</td>
</tr>
<tr>
<td>C&amp;WD/WSD/FHA</td>
<td>Provincial Road</td>
<td>101,000</td>
</tr>
<tr>
<td>District Government</td>
<td>District Road</td>
<td>94,000</td>
</tr>
<tr>
<td>Municipality/ Cantonment</td>
<td>Municipal and Army Road</td>
<td>54,000</td>
</tr>
</tbody>
</table>

**National Economic Council (NEC)**

The National Economic Council is the supreme policy making body in the economic field. It is headed by the Chief Executive of the Country, President / Prime Minister. Its members include Federal Ministers, the Deputy Chairman of Economic Commission and the Governors / Chief Ministers of all 4-Provinces. The NEC is in overall control of planning machinery and approved all plans and policy relating to development.

**FEDERAL ROAD TRANSPORT ADMINISTRATION:**

- **Organizations**

<table>
<thead>
<tr>
<th>Highways &amp; Motorways</th>
<th>Ministry of Communication</th>
<th>MOC</th>
<th>Ministry is responsible for the National Highways &amp; Motorways</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Highway Authority</td>
<td>NHA</td>
<td></td>
<td>Semi-autonomous organization to promote, organize and implement programs for construction, development, operation, repair and maintenance of national highway and strategic roads</td>
</tr>
<tr>
<td>National Highway Council</td>
<td>NHC</td>
<td></td>
<td>A decision-making group for highway development chaired by the Minister for Communications</td>
</tr>
<tr>
<td>Communication and Works Department of each Province</td>
<td>PCWD</td>
<td></td>
<td>PCWDs are responsible for construction and maintenance of provincial roads within their respective province</td>
</tr>
<tr>
<td>National Highway &amp;Motorway Police National Transport Research Centre</td>
<td>NH&amp;MP</td>
<td>NTRC</td>
<td>An Organization under MOC, responsible for enforcement of traffic regulations, traffic safety and overloading on highways and motorways Carries out research in various modes of transport to help in transport policy and plan formulation/appraisal of transport sector project</td>
</tr>
</tbody>
</table>
• Organizations of NHA

*National Highway Authority*

- **National Highway Council**
  - GM (Audit)
  - GM (Coord)
  - Chairman

- Executive Board
  - DG (Admin)
  - Secy NHA

**M (Plg)**
- GM (Plg)
- 2 x GM (Con)
- GM (B/C)
- GM (BOT)

**2 x M (Con)**
- 2 x GM (Con)
- Project GMs
- PSDP
- Chinese
- Japanese
- Deposit
- Works

**M (Fin)**
- GM (B/A)
- GM (Fin)

**M (Ops)**
- GM (Ops)
- GM (EALS)
- GM (NHIP)
- 10 x R GMs
- GM (MW)

**M (AP)**
- GM (ADB HQ)
- Project GMs
- ADB
- NTC
PAST AND FUTURE OF ROADS IN PAKISTAN:
The transport share in GDP is 10% and it provides employment to approximately 2.0 million people which are 5% of the country total employment. The existing transport infrastructure is inadequate and needs extensive recovery. Since the trade facilitation systems are archaic therefore they are imposing a cost, in excess of Rs. 220 billion annually on the economy.

Pakistan at the time of inception in 1947 inherited a system of transport, which though limited in scope, was functioning quite efficiently. During the last fifty years, however, the system has undergone radical transformation, Some of the old and established modes e.g. railway have lost their pre-eminent role, road transport has acquired a predominant position and civil aviation has emerged as an important carrier. Other modes have also experienced sea change, both negative and positive. Nationally, the freight and passenger traffic has been growing at about 3% and 4.5% per year for the last 30 years.

Presently the density of road in Pakistan is 0.32 km per sq.km which is planned to be enhanced to 0.42 per sq.km through a construction of 80,000 km of roads in the years ahead. However the road system have expended to more than 250,000 km since independence in 1947 but still the percentage of unpaved roads is 37% and there is a shortfall of 150,000 km, which is depriving almost 40% rural population from getting into mainstream of the economy.

There are 14 National Highways, Four Motorways and two Strategic roads under the jurisdiction of National Highway Authority. Most sections of N-5 are duallized (4-lane road with median) except Karachi-Hyderabad (M-9) which is being upgraded to a Motorway standard with 6-lane, controlled access facility.

Motorways are tolled national highways with control access and high speed free flowing traffic lanes, passing through new alignment / virgin corridor connecting Gawadar and Karachi Ports with rest of the country in north.

NHA’s VISION:
“National Highway Authority (NHA) to grow into an efficient service provider to road users in Pakistan for Safe and Comfortable travel on National Highways and Motorways”.

NHA’s MISSION STATEMENT:
“To maintain and operate the National Highways Network, to minimize the road transportation cost, to provide driving comfort and safety to the road users at all times and preserve the Asset investment in Roads and Bridges”.

ROAD AND TRANSPORT STRATEGY:
There is growing recognition within the Government of Pakistan (GOP) that the sustainability of economic growth is closely linked to the efficiency of its transport system. To support sustained growth and increase competitiveness, the GOP is taking a strategic and holistic approach to the transport sector.
and has launched a major initiative to improve the trade and transport logistics chain along the north-south ‘National Trade Corridor’ (NTC) linking Pakistan’s major ports in the south and south-west with its main industrial centers and neighboring countries in the north, north-west and east. Together the ports, road and railways along NTC handle 95 percent of external trade and 65 percent of total land freight serving the regions of the country which contribute 80-85 percent of GDP.

The main objective of the NTC initiative is to reduce the cost of trade and transport logistics and bring it up to international standards in order to reduce the cost of doing business in Pakistan and ultimately enhance export competitiveness and the country’s industrialization. The National Trade Corridor Improvement Program (NTCIP) consists of “Sustain delivery of an efficient, safe and reliable National Highways system” & “Modernize the trucking industry and reduce the cost of externalities for the country”.

Moreover, NHA has seriously noticed the fatalities of accidents on the national highways and this year trauma centers on motorways and Makran Coastal Highway are being established. It is yet another initiative that NHA has taken to facilitate road users.

**LINKS:**

- National Highway Authority  
  [www.nha.gov.pk](http://www.nha.gov.pk)
- National Transport Research Center  
  [www.ntrc.gov](http://www.ntrc.gov)
- Ministry of Environment Pakistan  
  [www.moenv.gov.pk](http://www.moenv.gov.pk)
- Pakistan Environment Protection Agency  
  [www.environment.gov.pk](http://www.environment.gov.pk)