

Transport in India

The present transport system of the country comprises several modes of transport including rail, road, coastal shipping, air transport etc.

Road Transport

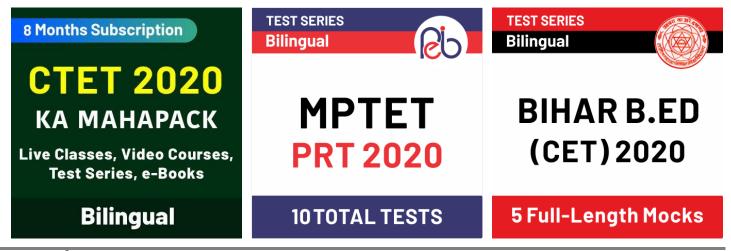
- ➤ The total road length of the country increased from 3.99 lakh Kms on 31st March, 1951 to 54.8 lakh Kms as on 31st March, 2017, growing at a Compound Annual Growth Rate of 4.2%. About 60% freight traffic and 87.4% passenger traffic is carried by the roads.
- India now world's 2nd largest road network at 5.8 million km.
- Indian road network is consist of 1000 km -Expressways, 79,243 km -National Highways, 1,31,899 km -State Highways and Other major district and rural roads.

National Highways

- They are constructed and maintained by the central government.
- The development and maintenance of the National Highways system is carried out through three agencies-1. National Highways Authority of India (NHAI), 2. State Public Works Departments (PWDs) and 3. Border Roads Organisation (BRO).
- The NHDP is the largest highway project ever undertaken in the country.
- The NHDP is being implemented mainly by National Highways Authority of India (NHAI).

Bharatmala Project

The Ministry (MORTH) has taken up detailed review of national highways network with a view to improving road connectivity to costal/border areas, backward areas, religious places, tourist places etc.



Some Impo	rtant National Highways	
N.H.1	Delhi - Ambala - Amritsar - Indo-Pak Border	
N.H.2	Delhi - Agra - Kanpur - Varanasi - Kolkata	
N.H. 3	Agra - Gwalior - Indore - Nasik - Mumbai	
N.H.4	Junction with N.H. 3 near Thane - Belgaum - Bangaluru- Ranipet-Chennai	
N.H.5	Junction with N.H. 6 near Baharagora-Cuttack Bhubaneshwar-Visakhapatnam	
	Vijayawada-Chennai	
N.H.7	Varanasi - Jabalpur - Nagpur - Hyderabad - Bangaluru- Madurai - Kanyakumari	
N.H.8	Delhi - Jaipur – Ahmedabad - Vadodara – Mumbai	
N.H. 9	Pune - Solapur - Hyderabad – Vijayawada - Machhilipatnam	
N.H. 10	Delhi-Fazilka-Indo Pak Border	
N.H.11	Agra-Jaipur-Bikaner	
N.H.12	Jabalpur-Bhopal-KhilchipurJhalawar-Kota-BundiJaipur	
N.H. 15	Pathankot - Amritsar – Bhatinda - Ganganagar – Bikaner – Jaisalmer – Barmer - Samakhiali	
N.H. 22	Ambala - Kalka - Shimla - Rampur – Indo – Tibet (China) Border near Shipki-La	
N.H. 24	Delhi - Bareilly - Lucknow	
N.H. 39	Numaligarh- Imphal - Palel - Indo - Myanmar Border	
N.H. 44	Nongstoin and connecting Shillong - Passi Badarpur - Agartala-Sabroom	
N.H. 47	Salem - Coimbatore - Trichur – Ernakulam -Thiruvananthapuram - Cape Commorin -	
	Kanyakumari	
N.H. 48	Bangaluru - Hassan - Mangaluru - A	
N.H. 49	Kochi - <mark>Madur</mark> ai - <mark>Dhanu</mark> shkodi	
N.H. 55	Siligu <mark>ri - Da</mark> rjeeling	
N.H. 80	Mok <mark>amah</mark> - Raj Mahal- Fara kka	
N.H. 102	Ch <mark>hapra - Rew</mark> ag <mark>hat-Muzaff</mark> arpur	
N.H. 205	Ananthpur - Renugunta-Chennai	
N.H.217	Raipur (Chhattisgarh)-Gopalpur	
NH.229	Tawang – Bomdila – Ziro – Aalong - Pasighat (Arunachal Pradesh)	
N.H.327	Bangaon (Bariyahi Bazar) on NH107-Supaul-Pipra (106) Tribeniganj-Bhargama-Araria-	
Ext.	Bahadurganj-Raniganj Thakurganj-Galgalia	
N.H.947	Sarkhej-Virumgaon-Jamnagar-Dwarka-Okha	
N.H.953	Vyara (NH-6)-Netang-Rajpipla-Bodali	

Longest National Highway

- > The longest NH in India is 3745 km long NH 44 (Srinagar-Kanyakumari). Earlier it was NH-7 (Varanasi Kanyakumari: 2369 km)
- ➤ The new NH 44 is the combination of NH 1A, 1, 2, 3, 7, 26 and NH - 75.
- ➤ It passes through 12 states J&K, HP, Punjab, Haryana, Delhi, UP, MP, Maharashtra, Telangana, Andhra Pradesh, Karnataka and Tamil Nadu.



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5 Full Length Mocks

State Highways and other Roads

- They are constructed and maintained by the state government.
- ➤ Roads on the borders are constructed and maintained by the Border Roads Organisation (BRO).
- BRO was established in May 1960.
- ▶ BRO is a premier construction agency for the construction of roads airfields, bridges, buildings, hospitals and schools.
- The BRO, through 'Project Dantak' is constructing and maintaining a large road infrastructure and executing other prestigious projects in Bhutan.
- > The BRO is doing highly commendable jobs of construction and maintenance in Myanmar and Afghanistan too.

Rail Transport

- Indian Railway network is the largest in Asia and world's fourth largest under one management.
- The first rail in India started on April 16, 1853 between Bori Bunder, Mumbai and Thane (34 kms or 21 miles).
- Indian Railway Board was established in March, 1905.
- Indian Railway was nationalised in 1950.
- There are three types of rail lines in India:
- Broad Gauge,
- Meter Gauge
- Narrow Gauge.
- The management and governance of the Indian railways is in the hands of the Railway Board. The Indian Railways network is divided into 18 zones.
- ➤ Kolkata Metro Zone (17th zone) has been established on 29 December, 2010.

Air Transport

- Airways in India started in 1911.
- Indian National Airways Company was started in 1933
- > All the airway companies were nationalised in 1953 and were put under two corporations namely -India Airlines and Air India.
- Airports Authority of India came into being in April 1995, is a Mini Ratna- Category IPSE involves in building, upgrading, maintaining and managing airports infrastructure across the country. It owns an maintains 125 airports comprising 21 International airports, 77 domestic airports and 19 domestic civil enclaves.
- Indira Gandhi Rashtriya Udan Akademi (IGRUA) was set up at Fursatgani, Raebareli (U.P.).

GAGAN

- ❖ GPS Aided Geo Augmented Navigation (GAGAN) system is a prestigious satellite based augmentation system of India, jointly developed by Airports Authority of India and Indian Space Research Organisation for enhanced Air Navigation Services across the country.
- ❖ It is fully operational since May 2015 and available on 24x7 basis. Presently GAGAN Signal-in-Space is available to users from two geostationary satellites (GSAT-8 and GSAT-10) and third Geosatellite GSAT-15 is in the process of integration with GAGAN system.



Major International Airports of India

Name of Airport	Place
Chhatrapati Shivaji International Airport (Santa Cruz Airport)	Mumbai
Netaji Subhash Chandra Bose Airport (DumDum Airport)	Kolkata
Indira Gandhi International Airport	Delhi
Chennai, Anna (Meenambkkam) International Airport	Chennai
Trivendram International Airport	Thiruvananthapuram
Guru Ramdass Jee (Rajasansi) International Airport	Amritsar
Dr. Babasaheb Ambedkar International Airport	Nagpur
Kampagowada (Bangaluru) International Airport	Bengaluru
Devi Ahilya Bai Holkar Airport	Indore (M.P.)

Water Transport

- Central water tribunal was established in 1887.
- Its headquarters is in Kolkata.
- The waterways of India have been divided into internal waterways and Oceanic waterways.

Internal waterways: a) this transport is through rivers, canals and lakes.

- b) India has got about 14,500 km of navigable waterways which comprises rivers, canals backwaters, creeks etc.
- c) the waterways from Haldia to Allahabad was made a National water way in 1986.

Oceanic waterways: the 6 major ports Kolkata, paradip, Vishakhapatnam, kamarajar, Chennai and V.O. Chidambaranar are on the east coast and other 6 ports cochin, New Mangalore, Mormugao, Mumbai Jawaharlal Nehru Port and Deendayal Port are on the west coast. These major ports are under direct control of the central government and fall in the union list 7th schedule of the constitution.

- Largest port of India is Jawaharlal Nehru port in Mumbai.
- The largest natural port of India is Vishakhapatnam.

Haldia port is developed as the first green port of India.

