

≡ Lifelines Of National Economy ≡

Indian Economy Ke Important Sources

The movement of goods and services can take place on three different surfaces of the Earth: land, water, and air. Therefore, transportation can also be classified into three main types: land transportation, water transportation, and air transportation.

ROADWAYS

India has one of the largest road networks in the world, aggregating about 54.7 lakh km.

Growing Importance of Road Transport over Rail Transport :-

- **Lower construction costs:** The cost of building roads is much lower than the cost of building railways. This is because roads do not require expensive bridges or tunnels.
- **Greater flexibility:** Roads can be built in more difficult terrain than railways. This makes them a more viable option for transporting goods and people in remote areas.
- **Door-to-door service:** Road transport can provide door-to-door service, which is not always possible with rail transport. This can save businesses and individuals time and money.
- **Connectivity:** Roads can connect to other modes of transportation, such as railways, airports, and seaports. This makes them a more versatile option for transporting goods and people over long distances.

TYPES OF ROADS

On The Basis Of Carrying Capacity

Golden Quadrilateral Super Highways

This is a network of highways that connects India's four major metropolitan areas: Delhi, Kolkata, Chennai, and Mumbai. It is also known as the "Golden Quadrilateral".

National Highways

These are highways that connect important cities and towns in the country. They are maintained by the National Highway Authority of India (NHAI).

State Highways

These are highways that connect the state capital with various district administrative centers. They are maintained by the State Public Works Department (PWD).



District Roads

These are highways that connect the district's administrative center with other locations. They are maintained by the Zila Parishad.

This category includes rural roads that connect rural regions, villages, and

Other Roads

towns. They are maintained by the Pradhan Mantri Grameen Sadak Yojana (PMGSY).

The Border Roads Organisation (BRO) is responsible for building and maintaining roads in the country's bordering regions. This organization was founded in 1960 to improve the vital border routes in the northern and northeastern regions.

On the Basis of the materials used in the construction of roads

Metalled roads

Roads that are surfaced with a hard material such as bitumen, coal tar, cement, or concrete. They are also known as paved roads. Metalled roads are durable and can withstand heavy traffic. They are also less susceptible to damage from weather conditions.

Unmetalled roads

Roads that are not surfaced with a hard material. They are also known as dirt roads or gravel roads. Unmetalled roads are less durable than metalled roads and can be damaged by weather conditions. They are also more susceptible to potholes and other surface defects.

RAILWAYS

Railways are the primary mode of transportation for goods and passengers in India. It is one of the largest and busiest transportation networks in the country. Railways play an important role in the Indian economy. It connects all parts of the country and transports goods and passengers from one place to another.

Challenges Faced By Railways :-

- To install the railway lines, bridge construction is necessary over the vast beds of rivers.
- Railway tracks are inserted through small hills, chasms, or tunnels in the peninsular region's rugged topography.
- Due to their high elevation points on the surface, low population density, and lack of employment prospects, the Himalayan mountainous regions are also unsuitable for the development of railway lines.
- Sand-covered plains make it challenging to install railway lines.

PIPELINES

A pipeline is a long tube that carries fluids, such as water, oil, and natural gas, from one place to another. Pipelines are usually buried underground to protect them from damage.

There are three important pipeline transportation networks in India:

- The Assam-Kanpur pipeline transports crude oil from the oil fields in Assam to the Kanpur refinery in Uttar Pradesh. The Salaya-
- Jalandhar pipeline transports petroleum products from the Salaya refinery in Gujarat to the Jalandhar refinery in Punjab. The Hazira-
- Jagdishpur pipeline transports natural gas from the Hazira gas field in Gujarat to the Jagdishpur gas-based power plant in Uttar Pradesh.

WATERWAYS

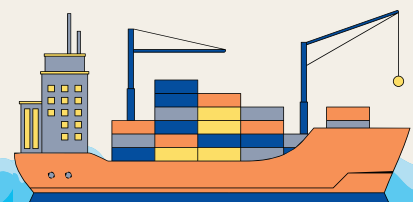
Waterways are a cheap and efficient way to transport goods. They are especially useful for carrying heavy and bulky items. In India, there are 5 national waterways:

- National Waterway 1: The Ganga River between Allahabad and Haldia (1620 km)
- National Waterway 2: The Brahmaputra River between Sadiya and Dhubri (891 km)
- National Waterway 3: The West-Coast Canal in Kerala (Kottapuram-Kollam, Udyogamandal and Champakkara canals-205 km)
- National Waterway 4: Specified stretches of Godavari and Krishna rivers along with the Kakinada Puducherry stretch of canals (1078 km)
- National Waterway 5: Specified stretches of river Brahmani along with Matai river, delta channels of Mahanadi and Brahmani rivers and East Coast Canal (588 km)

In addition to these national waterways, there are also a number of inland waterways in India, such as the Mandavi, Zuari and Cumberjua rivers, the Sunderbans delta, the Barak River, and the backwaters of Kerala.

MAJOR SEA PORTS

India's trade with foreign countries is carried from the ports. There are 2 major and 200 notified non-major (minor/intermediate) ports in India.



Major Ports In India

1. Kandla in Kachchh was the first port to be developed after independence. It is also known as the Deendayal Port.
2. Mumbai is the biggest port with a spacious natural, and well-sheltered harbour.
3. Marmagao Port (Goa) is the premier iron ore exporting port of India.
4. Mangalore Port, located in Karnataka, caters to the export of iron ore.
5. Kochchi is the extreme southwestern port located at the entrance of a lagoon.
6. Tuticorin Port is situated in the extreme southeast.
7. Chennai is one of the oldest artificial ports in India.
8. Visakhapatnam is the deepest landlocked and well-protected port
9. Paradwip Port, located in Odisha, specialises in the export of iron ore.
10. Kolkata is an inland riverine port.
11. Haldia port was developed as a subsidiary port in order to relieve growing pressure on the Kolkata port.

AIRWAYS

Air Travel is the quickest, most convenient, and prestigious form of transportation. It enables access to remote areas such as high mountains, deserts, forests, and oceans.

- In 1953, air transport was nationalized.
- Air India offers both domestic and international air travel services.
- Pawanhans Helicopters Ltd. provides helicopter services to Oil and Natural Gas Corporation for off-shore operations in challenging terrains and inaccessible areas.
- Unfortunately, air travel is not affordable for the general public.

COMMUNICATION

Communication in India primarily relies on television, radio, the press, and films.

- The Indian postal system holds the distinction of being the world's largest, managing both parcels and personal written messages.
- First-class mail is transported by air and covers both ground and aerial routes.
- Second-class mail, which includes book packets, registered newspapers, and periodicals, is carried through surface mail, encompassing land and water transportation.

- India boasts one of Asia's most extensive telecom networks, achieved by integrating space technology and communication technology to establish Subscriber Trunk Dialling (STD) services nationwide.

MASS COMMUNICATION

- Mass communication serves the dual purpose of entertainment and spreading awareness about national programs and policies. It encompasses mediums like radio, television, newspapers, magazines, books, and films.
- India Radio Channel (Akashwani) broadcasts diverse programs in national, regional, and local languages.
- Doordarshan, the national television channel, stands as one of the world's largest terrestrial networks.
- India publishes a substantial number of newspapers across approximately 100 languages and dialects.

INTERNATIONAL TRADE

- Trade refers to the exchange of goods among individuals, regions, and nations. When this exchange happens between two countries, it's known as international trade.
- International trade is often seen as an economic indicator for a country. It consists of two main aspects: exports and imports. The balance of trade, which is the distinction between a country's exports and imports, plays a significant role.
- When a country's export value surpasses its import value, it is referred to as a favorable balance of trade.
- Conversely, if the value of imports is greater than exports, it's termed an unfavorable balance of trade.
- India exports various commodities to other nations, including gems and jewelry, chemicals and related products, agriculture and related goods, and more.
- On the flip side, India imports items like crude petroleum and its products, gems and jewelry, chemicals and related products, base metals, electronics, machinery, and agriculture-related products.



TOURISM IN INDIA

- Promotes national integration
- Provides support to local handicrafts and cultural pursuits
- Helps in the development of international understanding of Indian culture and heritage. Foreign tourists visit India for heritage tourism, eco-tourism, adventure tourism, cultural tourism, medical tourism and business tourism.

More than 15 million people are directly engaged in the tourism industry.