Class 10 Geography Chapter 7: Lifelines of National Economy - Notes, Important Questions and MCQs (2026-27)

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These Lifelines of National Economy Class 10 notes cover Class 10 Geography Chapter 7 as per the 2026-27 NCERT book: the importance of transport, roadways and their classification, the Golden Quadrilateral, Border Roads and the Atal Tunnel, railways, pipelines, waterways and national waterways, major sea ports, airways and UDAN, communication, international trade and tourism as a trade.

You also get a 2026-27 exam scope note, tables of road classes, national waterways and major ports, a complete map-work list, NCERT-style questions with answers, 10 MCQs and a free PDF with no signup.

Use the table of contents below to jump to the part you need, or read top to bottom for a complete revision of the chapter.

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Chapter Overview

Goods and services do not move on their own from supply to demand locations; transport makes this possible, and traders bring products to consumers. The pace of a country’s development depends on both the production of goods and services and their movement, so efficient transport is a prerequisite for fast development.

Transport works with communication and trade; together they are complementary. Railways,

Important Topics and Concepts

Roadways

- India has the second largest road network in the world, about 62.16 lakh km (2020–21). Roadways came before railways in India.
- Roads are preferred because construction cost is lower than railways; they can cross dissected and undulating land and steep slopes, including the Himalayas; they are economical for a few persons and small amounts of goods over short distances; they give door-to-door service, reducing loading and unloading costs; and they act as feeders to railway stations, airports and seaports.

Classification of roads

- Golden Quadrilateral Super Highways: six-lane highways linking Delhi–Kolkata–Chennai–Mumbai–Delhi. The North-South corridor links Srinagar and Kanniyakumari; the East-West corridor links Silchar (Assam) and Porbandar (Gujarat). They reduce time and distance between mega cities and are built by the National Highway Authority of India (NHAI).
- National Highways: primary road systems linking extreme parts of the country. The historic Sher Shah Suri Marg runs between Delhi and Amritsar.
- State Highways: link a state capital with district headquarters.
- District Roads: connect district headquarters with other places in the district.
- Other Roads: rural roads linking villages with towns, boosted by the Pradhan Mantri Grameen Sadak Yojana, which aims to link every village to a major town by an all-season motorable road.
- Border Roads: built and maintained by the Border Roads Organisation, set up in 1960, for strategic roads in northern and north-eastern border areas.
- By material, roads are metalled (cement, concrete or bitumen; all-weather) or unmetalled (unusable in the rainy season).

Atal Tunnel

The world’s longest highway tunnel, the Atal Tunnel (9.02 km), was built by the Border Roads Organisation in the Pir Panjal range at about 3,000 metres above sea level. It connects Manali to the Lahul-Spiti valley all year round; earlier the valley was cut off for about six months each year because of heavy snowfall.

Railways

- Railways are the principal mode of transport for freight and passengers in India, used for business, sightseeing and pilgrimage, and have been a great integrating force for more than 150 years.
- The first train ran from Mumbai to Thane in 1853, covering 34 km. Indian Railways is the largest public sector undertaking and is organised into 17 zones.
- The network runs on multiple gauges over 67,956 km: broad gauge (1.676 m) 63,950 km, metre gauge (1.000 m) 2,402 km and narrow gauge (0.762 and 0.610 m) 1,604 km.

- Distribution is shaped by physiographic, economic and administrative factors. The northern plains favour railways, though wide rivers need bridges. Peninsular hills are crossed through low hills, gaps or tunnels; the Himalayas, the sandy plains of western Rajasthan, swamps of Gujarat and forests of MP, Chhattisgarh, Odisha and Jharkhand are difficult. The Sahyadri is crossed through ghats.
- The Konkan railway along the west coast helps movement but faces track sinking and landslides. The railway line has been extended from Banihal to Baramula in the Kashmir valley.
- Problems: ticketless travel, theft and damage of property, and unnecessary chain-pulling.

Pipelines

- Earlier used for water; now carry crude oil, petroleum products and natural gas to refineries, fertiliser factories and thermal power plants. Solids can be moved as slurry.
- They made inland refineries like Barauni, Mathura and Panipat and gas-based fertiliser plants possible.
- Initial cost is high but running costs are minimal, and they rule out trans-shipment losses and delays.
- Three networks: (1) from the upper Assam oil field to Kanpur via Guwahati, Barauni and Prayagraj, with branches to Haldia, Maurigram and Siliguri; (2) from Salaya (Gujarat) to Jalandhar (Punjab) via Viramgam, Mathura, Delhi and Sonipat, with branches to Koyali and Chakshu; (3) the 1,700 km Hazira-Vijaipur-Jagdishpur (HVJ) gas pipeline linking Mumbai High and Bassein gas fields to fertiliser, power and industrial complexes in western and northern India.
- Gas pipelines have expanded from 1,700 km to 18,500 km.

Waterways

- India has been a seafaring country since ancient times.
- Waterways are the cheapest means of transport, best for heavy and bulky goods, fuel-efficient and environment-friendly.
- India has 14,500 km of inland navigation waterways. The National Waterways Act, 2016 declared 111 inland waterways (including 5 declared earlier) as National Waterways.
- Other important inland waterways: Mandavi, Zuari and Cumberjua, the Sunderbans, the Barak and the backwaters of Kerala.
- About 95 per cent of India’s trade by volume (68 per cent by value) moves by sea.

Major sea ports

- India’s coastline of 11,098.81 km has 12 major and about 200 notified non-major ports; major ports handle 95 per cent of foreign trade.
- Deendayal Port (Kandla), Kachchh: first port developed after Independence to ease pressure on Mumbai after Karachi went to Pakistan; a tidal port serving the granary and industrial belt from J&K to Gujarat.
- Mumbai: biggest port with a spacious natural, well-sheltered harbour. Jawaharlal Nehru Port: built to decongest Mumbai and serve as a hub port.
- Mormugao (Goa): premier iron ore exporting port, about 50 per cent of India’s iron ore exports. New Mangalore (Karnataka): exports iron ore concentrates from Kudremukh. Kochi: extreme south-western port at the entrance of a lagoon with a natural harbour.

- V.O. Chidambaranar (Tuticorin), Tamil Nadu: extreme south-eastern port with a natural harbour and rich hinterland. Chennai: one of the oldest artificial ports, next to Mumbai in volume of trade.
- Visakhapatnam: deepest landlocked and well-protected port, originally an outlet for iron ore exports. Paradip (Odisha): specialises in iron ore exports.
- Shyama Prasad Mookerjee Port, Kolkata: inland riverine tidal port serving the Ganga-Brahmaputra basin; needs constant dredging of the Hooghly. Haldia: subsidiary port to relieve Kolkata.

Airways

- Air travel is the fastest, most comfortable and prestigious mode of transport and can cross high mountains, deserts, dense forests and long oceans.
- It is especially useful in the north-eastern states, with big rivers, dissected relief, dense forests, frequent floods and international frontiers.
- Pawan Hans Helicopters Ltd. serves ONGC’s offshore operations and inaccessible areas in the North-east, Jammu and Kashmir, Himachal Pradesh and Uttarakhand.
- UDAN (Ude Desh ka Aam Nagrik), a Regional Connectivity Scheme of the Ministry of Civil Aviation, makes flying affordable and encourages airlines to fly regional and remote routes through incentives.

Communication

- India’s postal network is the largest in the world. First-class mail (cards, envelopes) is airlifted; second-class mail (book packets, registered newspapers, periodicals) goes by surface mail.
- Six mail channels for quick delivery in large cities: Rajdhani, Metro, Green, Business, Bulk Mail and Periodical Channels.
- India has one of the largest telecom networks in Asia; more than two-thirds of villages (excluding urban places) have STD facility, with a uniform STD rate across India made possible by space and communication technology.
- Mass communication: All India Radio (Akashvani) broadcasts in national, regional and local languages; Doordarshan is one of the largest terrestrial networks in the world.
- Newspapers are published in about 100 languages and dialects; the largest number are in Hindi, followed by English and Urdu.
- India is the largest producer of feature films in the world; the Central Board of Film Certification certifies Indian and foreign films.
- Digital India aims at a knowledge-based transformation: IT (Indian Talent) + IT (Information Technology) = IT (India Tomorrow).

International trade

- Trade is the exchange of goods among people, states and countries; trade between two countries is international trade, by sea, air or land.
- The advancement of international trade is an index of economic prosperity, called the economic barometer of a country. No country can survive without it because resources are space bound.
- Balance of trade is the difference between exports and imports: favourable when exports exceed imports, unfavourable when imports exceed exports.

- Exports: gems and jewellery, chemicals and related products, agriculture and allied products. Imports: petroleum crude and products, gems and jewellery, chemicals, base metals, electronic items, machinery and agricultural products.
- India has become a software giant, earning large foreign exchange through IT exports.

Tourism as a trade

- Tourism has grown remarkably over the past two decades through government initiatives, infrastructure and global branding.
- Schemes: Swadesh Darshan 2.0, Vibrant Village Programme, PRASHAD (Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive) and Paryatan Mitra.
- Tourism promotes national integration, supports local handicrafts and cultural pursuits, and builds international understanding of India’s culture and heritage.
- Foreign tourists come for heritage, eco, adventure, cultural, medical and business tourism.

What Is Examined in 2026-27

As per the CBSE 2026-27 curriculum, this chapter is assessed in the board exam through map pointing only, while the content is used for an interdisciplinary project with History Chapter 3 and Economics Chapter 4. Learn the map list below thoroughly, and read the notes for your project and understanding. Confirm the exact scope with your school.

- Board exam: locating major sea ports, international airports and other listed features on the map of India
- Project / internal assessment: transport, communication, trade and tourism

National Waterways (First Five)

Asked as MCQs and in map work.

NW No.	Stretch	Length
NW 1	Ganga between Prayagraj and Haldia	1,620 km
NW 2	Brahmaputra between Sadiya and Dhubri	891 km
NW 3	West-Coast Canal, Kerala (Kottapuram–Kollam, Udyogamandal and Champakkara canals)	205 km
NW 4	Specified stretches of Godavari and Krishna with Kakinada–Puducherry canals	1,078 km
NW 5	Brahmani with Matai, Mahanadi and Brahmani delta channels and East Coast Canal	588 km

Map Work: Ports and Airports

Practise locating these on an outline map of India.

- Major sea ports: Deendayal (Kandla), Mumbai, Jawaharlal Nehru (Navi Mumbai), Mormugao, New Mangalore, Kochi, V.O. Chidambaranar (Tuticorin), Chennai, Visakhapatnam, Paradip, Haldia, Shyama Prasad Mookerjee (Kolkata)
- International airports: Amritsar (Raja Sansi), Delhi (Indira Gandhi), Mumbai (Chhatrapati Shivaji), Chennai (Meenambakkam), Kolkata (Netaji Subhash Chandra Bose), Hyderabad (Rajiv Gandhi), Thiruvananthapuram

Major Sea Ports of India: Key Facts

Port	State	Key feature
Deendayal (Kandla)	Gujarat	First port after Independence; tidal port
Mumbai	Maharashtra	Biggest port; natural, well-sheltered harbour
Jawaharlal Nehru	Maharashtra	Built to decongest Mumbai; hub port
Mormugao	Goa	Premier iron ore port (about 50% of exports)
New Mangalore	Karnataka	Exports Kudremukh iron ore concentrates
Kochi	Kerala	Extreme south-west; lagoon entrance, natural harbour
V.O. Chidambaranar (Tuticorin)	Tamil Nadu	Extreme south-east; natural harbour, rich hinterland
Chennai	Tamil Nadu	One of the oldest artificial ports; second to Mumbai in trade
Visakhapatnam	Andhra Pradesh	Deepest landlocked, well-protected port
Paradip	Odisha	Specialises in iron ore exports
Kolkata (S.P. Mookerjee)	West Bengal	Inland riverine tidal port; needs dredging
Haldia	West Bengal	Subsidiary port to relieve Kolkata

Important Definitions and Terms

Term	Meaning
Transport	Movement of goods and services from supply locations to demand locations
Golden Quadrilateral	Six-lane super highways linking Delhi, Kolkata, Chennai and Mumbai
NHAI	National Highway Authority of India, which implements highway projects
PMGSY	Scheme to link every village to a major town by an all-season road
Border Roads Organisation	Body set up in 1960 to build strategic roads in border areas
Metalled roads	All-weather roads made of cement, concrete or bitumen
Gauge	Distance between the rails of a railway track
Trans-shipment	Transfer of goods from one mode of transport to another
National Waterway	Inland waterway declared by law for navigation
Tidal port	Port where ships depend on tides for entry
UDAN	Ude Desh ka Aam Nagrik, a regional air connectivity scheme
Balance of trade	Difference between a country’s exports and imports
Favourable balance of trade	When exports exceed imports
Unfavourable balance of trade	When imports exceed exports

Short Answer Questions

Q1. Why are efficient means of transport called prerequisites for fast development?

The pace of development depends on producing goods and services and moving them from

Q2. Why does road transport have an edge over rail transport in India?

Roads cost less to build, can cross undulating terrain and steep slopes including the Himalayas, are economical for small loads over short distances, give door-to-door service and act as feeders to railway stations, airports and seaports.

Q3. What is the Golden Quadrilateral?

It is a road project of six-lane super highways linking Delhi, Kolkata, Chennai and Mumbai, along with the North-South (Srinagar–Kanniyakumari) and East-West (Silchar–Porbandar) corridors, implemented by NHAI to reduce time and distance between mega cities.

Q4. State the merits of pipeline transport.

Pipelines carry crude oil, petroleum products, gas and slurry to refineries and plants; they made inland refineries possible; running costs are minimal after high initial cost; and they rule out trans-shipment losses and delays.

Q5. Which physical factors affect the distribution of railways in India?

The northern plains, with level land, dense population and rich agriculture, favour railways, though wide rivers need bridges. The Himalayas, peninsular hills, the sandy plains of Rajasthan, swamps of Gujarat and dense forests of central India make railway construction difficult.

Q6. Why is air travel preferred in the north-eastern states?

The region has big rivers, dissected relief, dense forests, frequent floods and international frontiers, which make surface transport difficult. Air transport makes access easier.

Q7. What is meant by balance of trade?

Balance of trade is the difference between a country’s exports and imports. It is favourable when exports exceed imports and unfavourable when imports exceed exports.

Q8. How does tourism help the country?

Tourism promotes national integration, supports local handicrafts and cultural activities, creates jobs, earns foreign exchange and builds international understanding of India’s culture and heritage.

Long Answer Questions

Q1. Explain the classification of roads in India.

Golden Quadrilateral Super Highways link Delhi, Kolkata, Chennai and Mumbai, with North-South and East-West corridors, built by NHAI.

National Highways link extreme parts of the country and are the primary road system.

State Highways link state capitals with district headquarters.

District Roads connect district headquarters with other places in the district.

Other Roads link villages with towns, boosted by PMGSY.

Border Roads, built by the Border Roads Organisation since 1960, serve strategic border areas;

Q2. Describe the major sea ports along the west coast of India.

Deendayal (Kandla) in Kachchh: first port after Independence; tidal port serving north-west India.

Mumbai: biggest port with a natural, well-sheltered harbour.

Jawaharlal Nehru Port: built to decongest Mumbai and act as a hub port.

Mormugao (Goa): premier iron ore exporting port, about half of India's iron ore exports.

New Mangalore: exports iron ore concentrates from Kudremukh.

Kochi: extreme south-western port at the entrance of a lagoon with a natural harbour.

Q3. Why is international trade called the economic barometer of a country? Describe India's trade.

Advancement of international trade shows a country's economic prosperity, so it is called its economic barometer.

No country can survive without trade because resources are unevenly distributed.

Balance of trade shows whether exports exceed imports (favourable) or not (unfavourable).

India exports gems and jewellery, chemicals and agricultural products.

India imports petroleum crude and products, gems and jewellery, chemicals, base metals, electronics and machinery.

India earns large foreign exchange from IT exports and has trade relations with all major trading blocs.

MCQs with Answers

1. Which two extreme locations are connected by the East-West corridor?(a) Mumbai and Nagpur (b) Silchar and Porbandar (c) Mumbai and Kolkata (d) Nagpur and SiliguriAnswer: (b) Silchar and Porbandar

2. Which mode of transport reduces trans-shipment losses and delays?(a) Railways (b) Roadways (c) Pipeline (d) WaterwaysAnswer: (c) Pipeline

3. Which state is not connected with the HVJ pipeline?(a) Madhya Pradesh (b) Maharashtra (c) Gujarat (d) Uttar PradeshAnswer: (b) Maharashtra

4. Which is the deepest landlocked and well-protected port on the east coast?(a) Chennai (b) Tuticorin (c) Paradip (d) VisakhapatnamAnswer: (d) Visakhapatnam

5. The first train in India ran from Mumbai to Thane in(a) 1835 (b) 1853 (c) 1857 (d) 1905Answer: (b) 1853

6. National Waterway No. 1 is on the river(a) Brahmaputra (b) Ganga (c) Godavari (d) MahanadiAnswer: (b) Ganga

7. Which port accounts for about 50% of India's iron ore exports?(a) Paradip (b) Mormugao (c) New Mangalore (d) KandlaAnswer: (b) Mormugao

8. The Border Roads Organisation was established in(a) 1950 (b) 1960 (c) 1971 (d) 1985Answer: (b) 1960

10. When the value of imports exceeds exports, the balance of trade is(a) Favourable (b) Unfavourable (c) Neutral (d) SurplusAnswer: (b) Unfavourable

Quick Revision Points

- Transport, communication and trade are complementary.
- Roads: second largest network, 62.16 lakh km.
- Road classes: Golden Quadrilateral, NH, SH, district, other (PMGSY), border roads.
- NS corridor: Srinagar–Kanniyakumari; EW corridor: Silchar–Porbandar.
- BRO 1960; Atal Tunnel 9.02 km, Manali–Lahul-Spiti.
- Railways: first train 1853 (Mumbai–Thane, 34 km); 17 zones; 67,956 km.
- Pipelines: Assam–Kanpur, Salaya–Jalandhar, HVJ (1,700 km); gas pipelines 18,500 km.
- Waterways: cheapest; 14,500 km; 111 NWs (2016); NW1 Ganga, NW2 Brahmaputra, NW3 Kerala.
- 95% trade volume by sea; 12 major ports.
- Kandla first port; Mumbai biggest; Mormugao iron ore; Visakhapatnam deepest landlocked; Chennai oldest artificial; Kolkata riverine tidal.
- Airways: Pawan Hans, UDAN.
- Largest postal network; six mail channels.
- Balance of trade: favourable vs unfavourable.
- Tourism schemes: Swadesh Darshan 2.0, Vibrant Village, PRASHAD, Paryatan Mitra.

Chapter Summary

Transport, communication and trade are the lifelines of India’s economy. India has the second largest road network, classified from Golden Quadrilateral super highways to rural and border roads, and a vast railway network that has integrated the nation for over 150 years. Pipelines carry oil and gas efficiently, waterways are the cheapest transport, and 12 major ports handle 95 per cent of foreign trade. Airways, supported by UDAN, connect difficult regions.

Communication through the postal network, telecom, radio, television, newspapers and films links people across India. International trade is the economic barometer of a country, and tourism has grown into an important trade that supports national integration, handicrafts and international understanding.

Exam Tips and PYQ Pattern

- For 2026-27, focus on map pointing of major sea ports and international airports for the board exam.
- NCERT MCQs: East-West corridor, pipelines and trans-shipment, HVJ states, Visakhapatnam.
- Remember unique features of each port; port-identification MCQs are common.
- Use this chapter with History Chapter 3 and Economics Chapter 4 for your interdisciplinary project.
- Revise the national waterways table and road classification.

Frequently Asked Questions

Which is the biggest port in India?

Mumbai is the biggest port, with a spacious natural and well-sheltered harbour.

What is the Golden Quadrilateral?

Six-lane super highways linking Delhi, Kolkata, Chennai and Mumbai.

What is in the 2026-27 board exam from this chapter?

As per the CBSE curriculum, map pointing only; the content is used for an interdisciplinary project. Confirm with your school.

Which is the cheapest means of transport?

Waterways are the cheapest means of transport and suit heavy, bulky goods.

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Conclusion

Lifelines of National Economy shows how transport, communication, trade and tourism bind India together and drive its growth. Master the ports and airports map work for the board exam, and use the tables on roads, waterways and ports for your project and revision.

More Notes: Class 10 Geography Chapter 6: Manufacturing Industries notes | Class 10 Geography Chapter 6: Manufacturing Industries notes | Class 10 Geography Chapter 1: Resources and Development notes | All Class 10 Social Science notes

Author Bio: Written and reviewed by the Nextoper Editorial Team, a group of CBSE social science educators who build chapter notes directly from the NCERT textbook and past board paper patterns.

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