

To the Point Indian Geography

For All Competitive Exams

Chapter-wise Presentation of Topics based on Syllabus of General Studies with Comprehensive Coverage of General Knowledge. A Compilation of Old and New NCERT Books (Class 6 to 12) - NCERT Plus & Study Material of IGNOU & NIOS, and many other Standard Books from which Questions are often asked in Exams.

Editor

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UNIT - I

PHYSICAL SETTING OF INDIA

India is a South-Asian country lying entirely in Northern Hemisphere. India comprises most of the Indian subcontinent situated on the Indian Plate, the northerly portion of the Indo-Australian Plate. Having a coastline of over 7,000 km (4,300 miles), most of India lies on a peninsula in southern Asia that protrudes into the Indian Ocean.

India is bordered by Pakistan, the People's Republic of China, Bangladesh, Myanmar, Nepal, Bhutan and Afghanistan. Sri Lanka and the Maldives are island nations to the south of India.

The Indian mainland extends between 8°4'N to 37°6' N latitudes and from 68°7' E to 97°25' E longitudes. Thus the latitudinal and longitudinal extent of India is of about 29 degrees. It measures about 3,214 km from north to south, and 2,933 km from east to west. It has a land frontier of about 15,200 km. The total length of the coastline of the mainland, Lakshadweep Islands and Andaman and Nicobar Islands is 7,516.6 km.

The geography of India is extremely diverse, with landscape ranging from snow-capped mountain ranges to deserts, plains, hills and plateaus. It stretches from the snow-capped Himalayas in the north to the sun-drenched coastal villages of the south and the humid tropical forests on the south-west coast, from the fertile Brahmaputra valley on its east to the Thar Desert in the west.

The drainage system of India comprises Himalayan, Peninsular and Inland Drainage. The rivers of India mainly originate from one of the three main watersheds which are: The Himalaya and the Karakoram ranges; Vindhya and Satpura range in central India and Western Ghats in western India.

The physiographic divisions of India influence its climate and have an impact on climatic conditions of India including temperature, atmospheric pressure, wind system or precipitation. India has a monsoon type of climate. The year is divided into four seasons in India: cold weather season, hot weather season, advancing south-west monsoon season and retreating monsoon season.

However due to change in climate caused due to natural and anthropogenic reasons, India is vulnerable to disasters - floods, tropical cyclones, earthquakes, landslides, tsunami, drought, etc. These disasters cause loss of lives and damage to property, affecting the overall socio- economic development of the country.

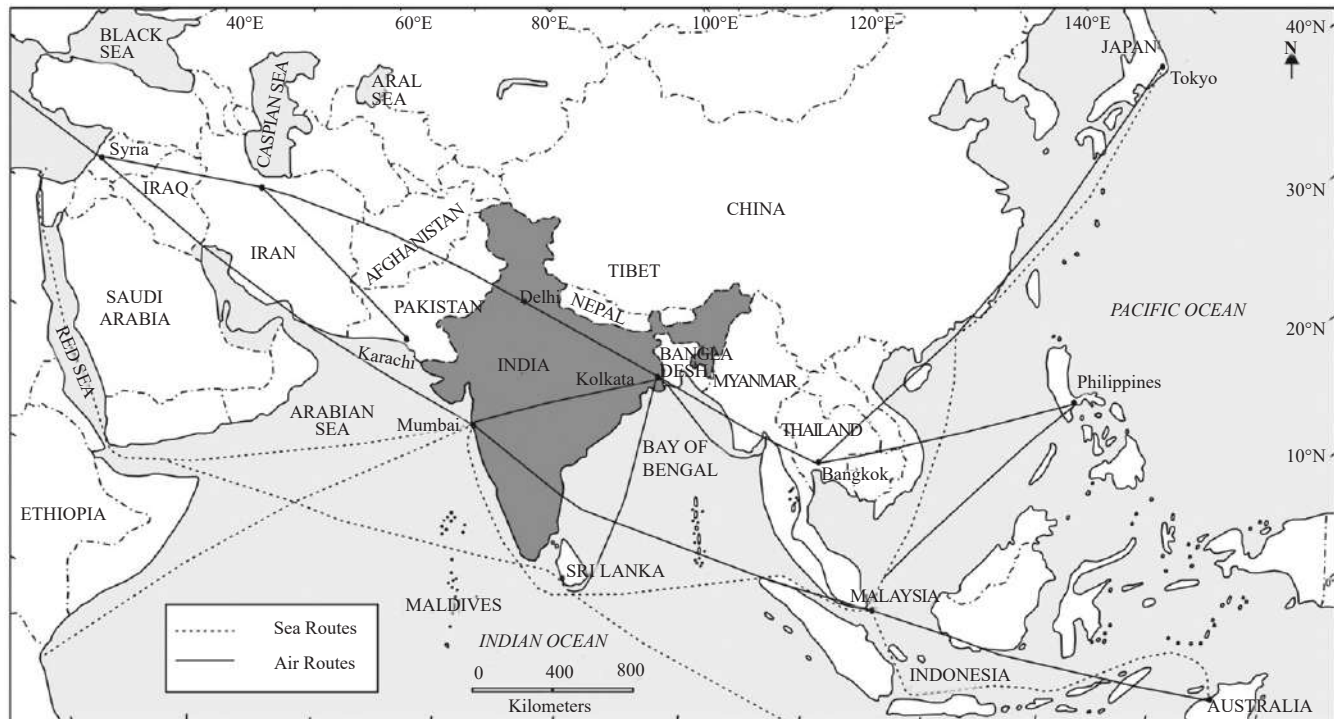
India: Location & Size

India is one of the oldest and greatest civilizations of the world. It is located entirely in the Northern hemisphere. India is the seventh largest country in the world and ranks second in population. It covers an area of 32, 87,263 sq.km. The country stands apart from the rest of Asia, marked off as it is by mountains and the sea, which give her a distinct geographical entity. Bounded by the Great Himalayas in the north, it stretches southwards and at the Tropic of Cancer tapers off into the Indian Ocean between the Bay of Bengal on the east and the Arabian Sea on the west. In this chapter we will learn about the locational setting of India and its size.

Location of India

India is a country of vast geographical expanse. It lies entirely in the Northern hemisphere. It is strategically located in the Indian Ocean and commands important sea

routes connecting Europe and Africa, South-East Asia, East Asia and Oceania. In ancient times too, its location was important from the strategic perspective as it was located on trade and cultural routes connecting various parts of the world.



Location of India in Asia with reference to Important Trade Route

- ❑ Mainland India extends between latitudes $8^{\circ}4'$ N and $37^{\circ}6'$ N and longitudes $68^{\circ}7'$ E and $97^{\circ}25'$ E. Thus, the latitudinal and longitudinal extent of India is about 30° .
- ❑ The north-south extent is about 3,214 km and the east-west extent is about 2,933 km.
- ❑ India has a land frontier of 15,200 km and a coastline of 7,516.6 km.
- ❑ On the south, India projects into and is bounded by the Indian Ocean in particular, by the Arabian Sea on the west, the Lakshadweep Sea to the southwest, the Bay of Bengal on the east, and the Indian Ocean to the south.

India: Geological Structure

The geological structure of a country helps in understanding the types and character of rocks and slopes, the physical and chemical properties of soils, the availability of minerals, and the surface and underground water resources. The chapter mentions the details of geological structure of India.

The geological structure of a country has a direct impact on the socio-economic development of the people of a country or region. It helps in understanding the following:

- ❑ The types and character of rocks and slopes;
- ❑ The physical and chemical properties of soils;
- ❑ The availability of minerals; and
- ❑ The surface and underground water resources.

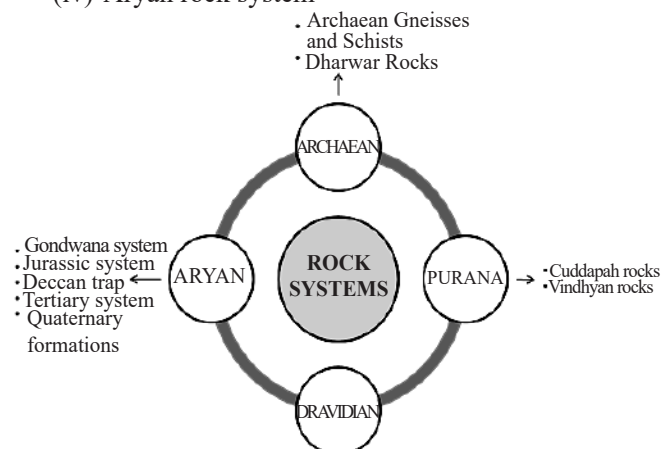
The geological history of India is complex and varied which began with the formation of earth's crust, deposition of sedimentary rocks, orogenesis and laying down of alluvial deposits.

The geological history of India is characterized by three major events -

- (i) Peninsular India was part of the old landmass since the formation of the Earth's crust
- (ii) Upheaval of Himalayas in tertiary period
- (iii) Aggradation of Indo-Gangetic plain during Pleistocene period. This continues till present via the sedimentation in the floodplains of the rivers and lower part of Gangetic plain.

Based on this complex and varied geological history, the Geological Survey of India has classified rock systems of the country into four major divisions:

- (i) Archaean rock system
- (ii) Purana rock system
- (iii) Dravidian rock system
- (iv) Aryan rock system



Archaean Rock System

The term 'Archaean' which refers to the oldest rocks of the earth's crust, was introduced by J.D. Dana in 1782.

- ❑ Archaean era (prior to 2.5 billion years; Precambrian Period) is known for the earliest phase of tectonic evolution which was marked by the cooling and solidification of the upper crust of the earth's surface. This is represented by the exposure of gneisses and granites, especially on the Peninsula.
- ❑ This rock system forms the core of the Indian Craton i.e. block of Indian Subcontinent of Gondwanaland.
- ❑ The Archaean group of rocks consists of two systems -
 - (i) **Archaean System:** Granites and Gneisses
 - (ii) **Dharwar System:** First metamorphosed sedimentary rocks

Archaean Gneisses and Schists

- ❑ **Geologic Time:** Archaean rocks are the oldest rocks formed in the pre-Cambrian era.
- ❑ These rocks are formed due to the solidification of molten magma.
- ❑ **Features:** The features of Archaean rocks are:
 - ◆ The rocks are primarily gneisses and granites.
 - ◆ These are all azoic or unfossiliferous i.e. devoid of any form of life.
 - ◆ They are thoroughly crystalline.
 - ◆ They are extremely contorted and faulted and practically devoid of any sediment.
 - ◆ They have a well-defined foliated structure.
 - ◆ These rocks are largely intruded by plutonic intrusions.
 - ◆ They often underlie the strata formed subsequently and the system is generally known as the basement complex or fundamental gneisses.

- ❑ **Occurrence:** The Archaean rocks cover two-thirds of the peninsular India. They also occur in roots of the mountain peaks all along the Greater Himalayas, trans-Himalayan ranges of Zaskar, Ladakh and Karakoram.

India: Physiography

The present geological structure and physiography of India is an outcome of endogenic and exogenic forces and lateral movement of the Indian plate. Indian plate was to south of the equator millions of years ago. This plate is moving northward and this movement is still continuing. This movement has significant consequences on physical environment of Indian subcontinent and has given shape to present physiographic divisions of India.

India is bounded by the seawaters from three sides and the young Himalayan mountains system separates it from Asia on its northern side. As a result of this, it has become an independent entity, and it is known as the Indian subcontinent.

- ❑ The country shows a huge diversity in physical and structural features as its land comprises various natural features like snow-clad folded mountains in the north, plateaus in the south and plains in between them.
- ❑ The present structure and physiography of Indian landmass has evolved over a very long time as a result of endogenic and exogenic forces.

The Indian Plate

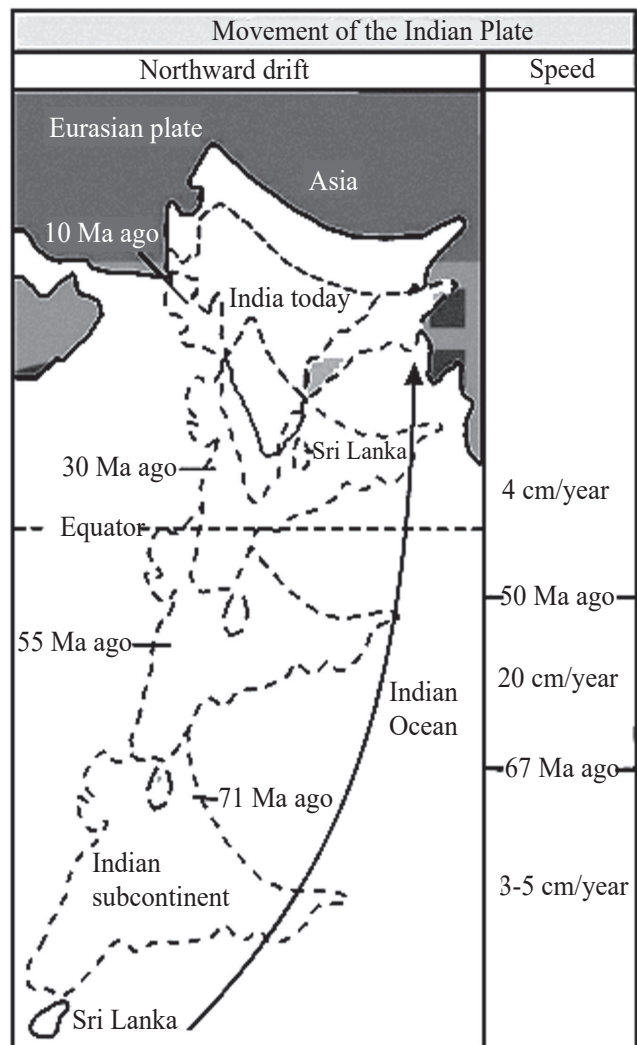
- ❑ The Indian plate is a major tectonic plate lying near the equator in the Northeast Hemisphere.
- ❑ It is bordered by four major plates -
 - (i) The Eurasian (consisting of Europe and Asia) plate lies to the north,
 - (ii) The Arabian plate to the west,
 - (iii) The African plate including Somali to the south west, and
 - (iv) The Australian plate to the south east.
- ❑ The minor Burma plate lies to the east.

Drift of Indian Plate

- ❑ The Indian plate was once an integral part of the Gondwanaland during the late Palaeozoic era.
- ❑ Indian plate began to separate from the Gondwana at about 165-150 million years ago due to mantle plumes.
- ❑ After separating from Gondwana in a sequential manner, the Indian plate moved northeast to north direction at a uniform rate and got welded with the Asian plate.
- ❑ This collision was the source of formation of Himalaya mountain range. The great plains were formed by

the deposition of sediments brought by Himalayan Rivers.

- ❑ The Deccan Traps were formed as a result of the Indian plate passing over the reunion hotspot.
- ❑ At present, the Indian plate is moving at a speed of 4 cm per year.



Movement of Indian Plate

DRAINAGE SYSTEM OF INDIA

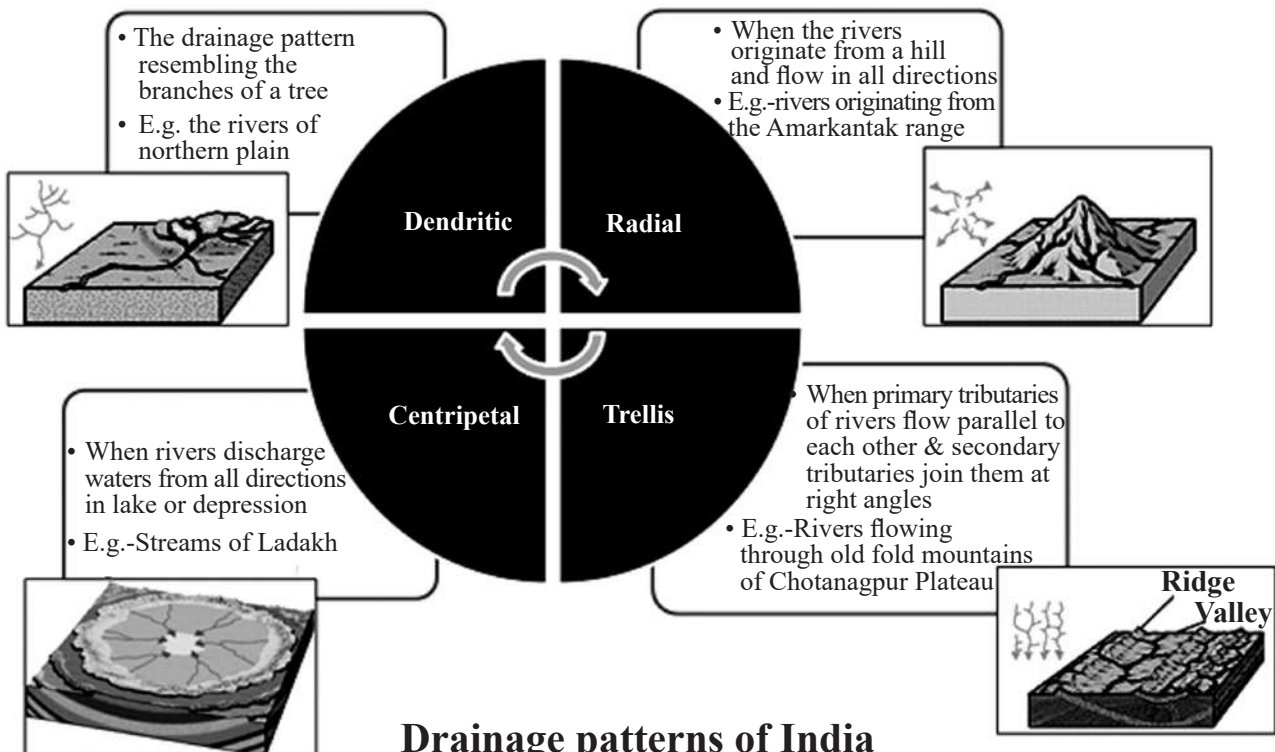
Rivers are important lifeline of an economy. India is blessed with hundreds of large and small rivers, which drain the length and breadth of the country. The annual yield of water in the rivers of the country is 18, 58,100 million cubic meters, 1/3rd (33.8%) of which is contributed by the Brahmaputra followed by the Ganga (25.2%), the Godavari (6.4%), the Indus (4.3%), the Mahanadi (3.6%), the Krishna (3.4%), and the Narmada (2.9%). Indian rivers can be broadly divided as Himalayan and Peninsular rivers. The network of well-defined channels through which water flows is called drainage system. The chapter provides details of drainage systems of India- the Himalayan Drainage System and the Peninsular Drainage System.

The flow of water through well-defined channels is known as drainage and the network of such channels is called a **drainage system**.

- ❑ A river drains the water collected from a specific area, which is called its **catchment area**.
- ❑ An area drained by a river and its tributaries is called a **drainage basin**.
- ❑ The boundary line separating one drainage basin from the other is known as the **watershed**.
- ❑ The catchments of large rivers are called **river basins**

while those of small rivulets and rills are often referred to as **watersheds**.

- ❑ The **drainage pattern of an area is determined by following factors-**
 - ◆ Geological time period,
 - ◆ Nature and structure of rocks,
 - ◆ Topography,
 - ◆ Slope,
 - ◆ Amount of water flowing, and
 - ◆ The periodicity of the flow.



Drainage patterns of India

CLIMATE OF INDIA

The average of weather conditions over a longer period of time is defined as climate. Climatic conditions help to shape various ecosystems and habitats around the globe. Climate affects nearly every aspect of our lives, from our food sources to our transport infrastructure, from what clothes we wear, to where we go on holiday. It has a huge effect on our livelihoods, our health, and our future. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale. Thus, in the present world with increasing evidences of climate change, the understanding of climate has become inevitable. The chapter describes spatial and temporal distribution of temperature; pressure, winds and rainfall; seasons; Indian monsoon: mechanism, onset & variability and climatic classification of India.

Weather refers to the state of the atmosphere over an area at any point of time. Thus, the weather conditions fluctuate very often even within a day. Climate refers to the sum total of weather conditions and variations over a large area for a long period of time. The elements of weather and climate are the same, i.e. temperature, atmospheric pressure, wind, humidity and precipitation.

Unity and Diversity in India's Climate

Unity in India's Climate

- ❑ India has hot monsoonal climate which is the prevalent climate in south and south-east Asia. The monsoon regime emphasises the unity of India with the rest of south-east Asian region.
- ❑ The word monsoon is derived from the Arabic word 'mausim' which literally means season. Monsoon connotes the climate associated with seasonal reversal in the direction of winds.

Diversity in India's Climate

- ❑ The shape, size, location, latitudinal extent of the country and its contrasting relief, have resulted in diverse climatic conditions in different parts of India.
- ❑ These regional variations in climate of India are expressed in the pattern of winds, temperature and rainfall, rhythm of seasons and the degree of wetness or dryness. These regional diversities may be described as sub-types of monsoon climate.
 - ◆ Regional Variation in Temperature: In summer, the mercury occasionally touches 50°C in some parts of the Rajasthan desert, whereas it may be around 20°C in Pahalgam in Jammu and Kashmir.

On a winter night, temperature at Drass in Jammu and Kashmir may be as low as minus 45°C. Thiruvananthapuram, on the other hand, may have a temperature of 22°C.

- ◆ Regional Variation in Precipitation: There are variations not only in the form and types of precipitation but also in its amount and the seasonal distribution. While precipitation is mostly in the form of snowfall in the upper parts of Himalayas, it rains over the rest of the country.
 - While Cherrapunji and Mawsynram in the Khasi Hills of Meghalaya receive rainfall over 1,080 cm in a year, Jaisalmer in Rajasthan rarely gets more than 9 cm of rainfall during the same period.
 - Tura situated in the Garo Hills of Meghalaya may receive an amount of rainfall in a single day which is equal to 10 years of rainfall at Jaisalmer.
 - While the annual precipitation is less than 10 cm in the northwest Himalayas and the western deserts, it exceeds 400 cm in Meghalaya.
 - The Ganga delta and the coastal plains of Odisha are hit by strong rain-bearing storms almost every third or fifth day in July and August while the Coromandal coast, a thousand km to the south, goes generally dry during these months.
 - Most parts of the country get rainfall during June-September, but on the coastal areas of Tamil Nadu, it rains in the beginning of the winter season

India is one of the most disaster-prone countries in the world. The locational and geographical features render it vulnerable to a number of natural hazards such as cyclone, drought, floods, earthquakes, fire, landslides and avalanches. The country has well-established cyclone detection and tracking system, flood forecasting and warning systems - covering major rivers and drought monitoring arrangements. Long-term planning and preparedness for disaster mitigation form part of the process of development planning in India. A number of special programs are in operation over many years for mitigating the impact of natural disasters. As the country has been facing natural hazards over centuries, the local communities have developed their own indigenous coping mechanisms.

A hazard is an agent which has the potential to cause harm to a vulnerable target. The terms "hazard" and "risk" are often used interchangeably. However, in terms of risk assessment, they are two very distinct terms. A hazard is any agent that can cause harm or damage to humans, property, or the environment.

The most frequent occurring hazards are:

- ❑ **Climatic:** Drought, floods, cyclones, ice, snow, and fog
- ❑ **Tectonic:** Earthquakes, Volcanoes, and Tsunami
- ❑ **Mass Movement:** Landslides, land creep, rock-fall, and avalanches.

Natural Hazards, Risk, and Natural Disaster

- ❑ **Natural Hazards** are elements of circumstances in the Natural environment that have the potential to cause harm to people or property or both.
- ❑ These may be swift or permanent aspects of the respective environmental settings like currents in the oceans, steep slope and unstable structural features in the Himalayas or extreme climatic conditions in deserts or glaciated areas.
- ❑ **Risk** is defined as the probability that exposure to a hazard will lead to a negative consequence, or more simply, a hazard poses no risk if there is no exposure to that hazard.
- ❑ **Natural Disaster** is an event of nature, which causes sudden disruption to the normal life of a society and causes damage to property and lives, to such an extent that normal social and economic mechanisms available to the society are inadequate to restore normalcy

Natural Disasters & Hazards in India

India is vast and diverse in terms of its physical and socio-cultural attributes. Its vastness in terms of natural

attributes combined with its prolonged colonial past, continuing various forms of social discriminations and also equally large population have enhanced its vulnerability to natural disasters.

Major Natural Disasters in India

1. Droughts

The term 'drought' is applied to an extended period when there is a shortage of water availability due to inadequate precipitation, excessive rate of evaporation and over-utilization of water from the reservoirs and other storages, including the ground water.

- ❑ Drought has been defined differently by different geographers. A long, continuous period of dry weather is known as drought. The Meteorological Department of India defined drought as a period of at least 22 consecutive days recording less than 0.25 cm of rainfall
- ❑ This definition however, does not apply to the whole of India. In areas like Mawsynram and Cherrapunji (1187 cm) even one week recording less than 0.25 mm may be considered as a drought period.
- ❑ In India drought is often associated with the **failure of monsoon, especially in the years of El-Nino** like that of 1982, 1998, and 2009. In a drought year, the vegetation, crops, and surface and underground water tables are adversely affected.
- ❑ An agricultural drought is a period of four consecutive weeks with half or less than half of the normal rainfall or with a weekly rainfall of **5 cm or less during the period from mid-May to mid-October, when about 80 per cent of country's sown area is under kharif crops**. On an average, one in every five years is a drought year in India, while in western Rajasthan every two out of five years are drought years.

UNIT-II

RESOURCES OF INDIA

Resource is defined as everything available in our environment which can be used to satisfy our needs, provided, it is technologically accessible, economically feasible and culturally acceptable. Resources are vital for human survival, improving quality of life and taking a country to shores of development.

The resources available in India can be classified as:

I. Renewable and Non-renewable Resources

(a) Renewable Resources

- Renewable resources are the ones that are consistently available regardless of their use. They can be fairly recovered or replaced after utilization. Examples include vegetation, water, and air. Animals can also be categorized as renewable resources because they can be reared and bred to reproduce offspring to substitute the older animals.
- As much as these resources are renewable, it may take tens to hundreds of years to replace them. The renewable raw materials that come from living things namely animals and trees are termed as organic renewable resources while those that come from non-living things such as sun, water and wind are termed as inorganic renewable resources.

(b) Non-renewable Resources

- Non-renewable resources are the ones that cannot simply be substituted or recovered once they have been utilized or destroyed. Examples of such natural resources include fossil fuels and minerals.
- Minerals are categorized as non-renewable because, even though they take shape naturally through the rock cycle, their formation periods take thousands of years.
- Some animals mostly the endangered species are similarly regarded as non-renewable because they are at the verge of extinction. It brings about the many reasons the endangered species have to be protected by all means.
- The non-renewable materials that come from living things such as fossil fuels are known as organic non-renewable resources while those that come from non-living things such as rocks and soil are referred to as inorganic non-renewable resources.

II. Biotic and Abiotic Resources

- (a) Biotic Resources:** The Biotic resources are the ones that come from the ecosphere (organic and living materials). Forests and forest products, crops, birds,

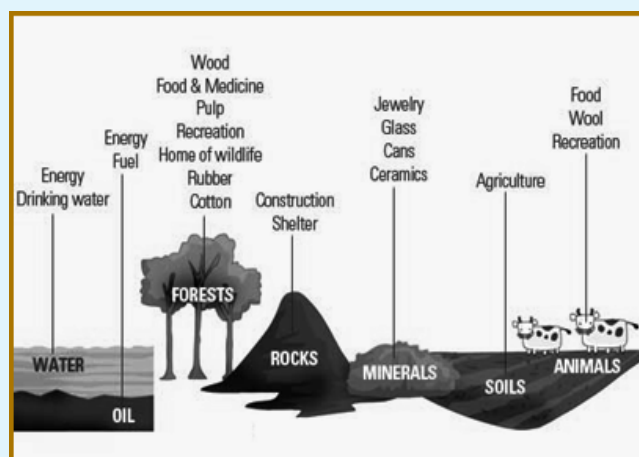
wildlife, fishes and other marine lives are the examples of biotic resources. These resources reproduce and regenerate themselves, hence, are renewable. Fossil fuels such as petroleum, oil, and coal are also included in this grouping because they are generated from decayed organic matter but they are non-renewable.

- (b) Abiotic Resources:** The abiotic resources are the ones that come from non-organic and non-living materials. Examples of abiotic resources are water, land, air and heavy metals like iron, copper, silver, gold, etc. They are exhaustible and non-renewable as they cannot be regenerated or reproduced.

III. Stock Resources

- Stock resources are those that are present in the environment but the necessary expertise or technology to have them exploited. Hydrogen is an example of a stock natural resource.

India has enormous diversity in the availability of resources. There are regions which are rich in certain types of resources but are deficient in some other resources. There are some regions which can be considered self-sufficient in terms of the availability of resources and there are some regions which have acute shortage of some vital resources. Thus, proper planning can ensure judicious use of resources.



India has a wide variety of flora and fauna which needs to be preserved and conserved. This chapter describes natural vegetation - forest types and their distribution in India; status of forests in India and policies related to forests in India. It also describes Wildlife conservation in India via national parks, wildlife sanctuaries, tiger reserves, and biosphere reserves.

India, the seventh largest country in the world by geographical area (constitutes 2.4% of the total geographical area of the world) with varied physiographic divisions, climatic regimes, and ecological habitats - exhibits a rich floral and faunal diversity.

Types and Distribution of Forest and Wildlife Resources

- In India, much of its forest and wildlife resources are either owned or managed by the government through the Forest Department or other government departments.
- These are classified under the following categories:
 - (i) **Reserved Forests:** More than half of the total forest land has been declared reserved forests. Reserved forests are regarded as the most valuable as far as the conservation of forest and wildlife resources are concerned. Jammu and Kashmir, Andhra Pradesh, Uttarakhand, Kerala, Tamil Nadu, West Bengal, and Maharashtra have large percentages of reserved forests of its total forest area.
 - (ii) **Protected Forests:** Almost one-third of the total forest area is protected forest, as declared by the Forest Department. This forest lands are protected from any further depletion. Bihar, Haryana, Punjab, Himachal Pradesh, Odisha and Rajasthan have a bulk of it under protected forests.
 - (iii) **Unclassed Forests:** These are other forests and wastelands belonging to both government and private individuals and communities. All North-eastern states and parts of Gujarat have a very high percentage of their forests as unclassified forests managed by local communities.
- Reserved and protected forests are also referred to as permanent forest estates maintained for the purpose of producing timber and other forest produce, and for protective reasons.
 - ♦ Madhya Pradesh has the largest area under permanent forests, constituting 75 per cent of its total forest area.

Natural Vegetation of India

Natural vegetation refers to a plant community that has been left undisturbed over a long time, so as to allow its individual species to adjust themselves to climate and soil conditions as fully as possible.

- India is a land of great variety of natural vegetation. Depending upon the variations in the climate and the soil, the vegetation of India changes from one region to another.
- Himalayan heights are marked with temperate vegetation; the Western Ghats and the Andaman Nicobar Islands have tropical rain forests, the deltaic regions have tropical forests and mangroves; the desert and semi desert areas of Rajasthan are known for cactii, a wide variety of bushes and thorny vegetation.

Forest as a Concept

The forest is a complex ecosystem consisting mainly of trees that buffer the earth and support a myriad of life forms. The trees help create a special environment which, in turn, affects the kinds of animals and plants that can exist in the forest. Trees are an important component of the environment. They clean the air, cool it on hot days, conserve heat at night, and act as excellent sound absorbers.

FAO Definition of a Forest

- ♦ The Food and Agriculture Organization (United Nations) defines it as "A forest is a land area of more than 0.5ha, with a tree canopy cover of more than 10%, which is not primarily under agricultural or other specific non-forest land use. In the case of young forests or regions where tree growth is climatically suppressed, trees should be capable of reaching a height of 5m in situ, and of meeting the canopy cover requirement."

Forests are further subdivided into plantations and natural forests:

- ♦ **Natural Forests:** These are forests composed mainly of indigenous trees not deliberately planted.
- ♦ **Plantations:** These are forest stands established by planting or seeding, or both, in the process of afforestation or reforestation.

MINERAL RESOURCES OF INDIA

Minerals are valuable natural resources. They constitute the vital raw materials for many basic industries and are a major resource for development. India is endowed with a rich variety of mineral resources due to its varied geological structure. The wide availability of the minerals provides a base for the growth and development of the mining sector in India. The country is endowed with huge mineral resources of fuel, metallic and non-metallic minerals including minor minerals. Since independence, there has been a pronounced growth in the mineral production both in terms of quantity and the value as well. India produces as many as 95 minerals, which includes 4 fuel, 10 metallic, 23 non-metallic, 3 atomic and 55 minor minerals (including building and other materials). The social and economic development of a nation depends on its capacity to utilize its natural resources and avoids its wasteful use to the extent possible. The most important characteristics of minerals which have bearing on our present and future well-being is that they are non-renewable resources. Hence, the need to conserve these resources and to recycle them cannot be over emphasized.

A mineral is a natural substance of organic or inorganic origin with definite chemical and physical properties.

- ❑ India is endowed with a rich variety of mineral resources due to its varied geological structure. Majority of the valuable minerals are products of pre-Palaeozoic age and are mainly associated with metamorphic and igneous rocks of the peninsular India.
- ❑ The Mining industry in India is a major economic activity which contributes significantly to the economy of India. The GDP contribution of the mining industry varies from 2.2% to 2.5% only but going by the GDP of the total industrial sector it contributes around 10% to 11%. Even mining done on small scale contributes 6% to the entire cost of mineral production.
- ❑ India has large reserves of Iron ore, Bauxite, Chromium, Manganese ore, Baryte, Rare earth and Mineral salts. India produces as many as 95 minerals, which includes 4 fuel, 10 metallic, 23 non-metallic, 3 atomic and 55 minor minerals (including building and other materials).
- ❑ Major non-metallic minerals like limestone, dolomite, gypsum, calcium, sulphate etc are found in Cuddapah and Upper Vindhyan System
- ❑ Much of the peninsular region west of a line from Mangalore to Kanpur has very little mineral wealth. East of the line which covers the state of Karnataka, Andhra Pradesh, Orissa, Madhya Pradesh, Chhattisgarh, Jharkhand, Bihar and West Bengal have the major reserve of metallic minerals like iron, bauxite, manganese, etc. and non-metallic minerals like coal, limestone, dolomite, gypsum, etc.
- ❑ Most of the metallic minerals in India occur in the peninsular plateau region in the old crystalline rocks.
- ❑ Over 97 per cent of coal reserves occur in the valleys of Damodar, Sone, Mahanadi and Godavari.
- ❑ Petroleum reserves are located in the sedimentary basins of Assam, Gujarat and Mumbai High i.e. off-shore region in the Arabian Sea.
- ❑ New reserves of minerals have been located in the Krishna-Godavari and Kaveri basins.
- ❑ Most of the major mineral resources occur to the east of a line linking Mangaluru and Kanpur.
- ❑ The vast alluvial plain tract of north India is devoid of minerals of economic use.
- ❑ India is poorly endowed with non-ferrous metallic minerals except bauxite.
- ❑ Minerals are generally concentrated in four broad belts in India. There may be some sporadic occurrences here and there in isolated pockets.

Distribution of Minerals in India

The distribution of mineral resources is uneven as occurrence of mineral resources is associated with certain types of geological formation.

- ❑ Coal deposits are mostly associated with Gondwana System
- ❑ Dharwar and Cuddapah Systems contain resources of major metallic minerals like copper, lead, zinc etc

ENERGY RESOURCES OF INDIA

Energy is a key driver of economic growth. Efficient, reliable and affordable energy is essential for the sustainable development, improving the quality of life and inclusive growth of the overall economy. Development of conventional forms of energy for meeting the growing energy needs of society at a reasonable cost is the responsibility of the government. Development and promotion of non-conventional and renewable sources of energy such as solar, wind and bio-energy, etc., are also getting sustained attention. Nuclear energy development is being geared up to contribute significantly to the overall energy availability in the country.

The socio-economic development of a country is largely controlled by the availability of power and energy resources.

- ❑ The main power resources of India are coal, petroleum and natural gas. In recent years, the development of alternative renewable sources of energy is getting increasing attention by the government.
- ❑ Energy production and consequently its availability directly affect future production, imports, exports and investment, all of which have a significant impact on a country's economy.
- ❑ The need of the hour is of energy systems capable of delivering to the ever growing and emerging needs of developing economies.
- ❑ Growing energy demands in India have driven the need to shift to cleaner fuels and larger energy systems. Thus, in India, there has been a thrust to increase installed generating capacity of power and to decrease the reliance on primary fossil fuels to cater to these needs.
- ❑ Generating and providing reliable power at competitive prices in a sustainable manner by optimizing the use of multiple energy resource with innovative eco-friendly technologies has been at the core of policy planning in India.
- ❑ This is being done to reduce dependence on fossil fuels, ensure security of supply and reduce emissions of CO₂ and other greenhouse gases.

Installed Generation Capacity (Fuel-wise) - As on 31.05.2022		
Category	Installed Generation Capacity (MW)	% of Share in Total
Fossil Fuel		
Coal	2,04,080	50.7%
Lignite	6,620	1.6%

Installed Generation Capacity (Fuel-wise)-As on 31.05.2022		
Category	Installed Generation Capacity (MW)	% of Share in Total
Gas	24,879	6.2%
Diesel	510	0.1%
Total Fossil Fuel	2,36,088	58.6%
Non-Fossil Fuel		
RES (Incl. Hydro)	1,59,949	39.7%
Hydro	46,723	11.6 %
Wind, Solar & Other RE	1,13,226	28.1 %
Wind	40,706	10.1 %
Solar	56,951	14.1 %
BM Power/ Cogen	10,206	2.5 %
Waste to Energy	477	0.1 %
Small Hydro Power	4,886	1.2 %
Nuclear	6,780	1.7%
Total Non-Fossil Fuel	1,66,729	41.4%
Total Installed Capacity (Fossil Fuel & Non-Fossil Fuel)	4,02,817	100%

WATER RESOURCES OF INDIA

Water is a natural resource fundamental to life, livelihood, food security and sustainable development. It is used for drinking, cleaning, agriculture, transportation, industry, recreation, and animal husbandry, producing electricity for domestic, industrial and commercial use. However, it is also a finite resource. Therefore, development, conservation and management of water resources are crucial especially for a developing economy like India where the demands are rising rapidly due to increase in population, urbanisation and industrialisation.

India accounts for about 2.45 per cent of world’s surface area, 4 per cent of the world’s water resources and about 16 per cent of world’s population.

- ❑ Rivers, estuaries, groundwater and other water bodies constitute the water resource of India. Water resources of a country constitute one of its vital assets.
- ❑ India is gifted with a river system comprising more than 20 major rivers with several tributaries. Many of these rivers are perennial and some of these are seasonal.
- ❑ The rivers like Ganges, Brahmaputra and Indus originate from the Himalayas and carry water throughout the year. The snow and ice melt of the Himalayas and the base flow contribute the flows during the lean season.
- ❑ Average water yield per unit area of the Himalayan rivers is almost double that of the south peninsular rivers system, indicating the importance of snow and glacier melt contribution from the high mountains.

Surface Water Resources

There are four major sources of surface water: rivers, lakes, ponds and tanks. In the country, there are about 10,360 rivers and their tributaries longer than 1.6 km each.

- ❑ The mean annual flow in all the river basins in India is estimated to be 1,869 cubic km. However, due to topographical, hydrological and other constraints, only about 690 cubic km (32 per cent) of the available surface water can be utilized.
- ❑ Water flow in a river depends on size of its catchment area or river basin and rainfall within its catchment area. Precipitation is relatively high in the catchment areas of the Ganga, the Brahmaputra and the Barak rivers, thereby these rivers, accounting for only about one-third of the total area in the country, have 60 per cent of the total surface water resources.
- ❑ Reservoirs are an important source of water resources for the country. However, they are particularly prone

to seasonality, and are greatly impacted by rainfall and temperature patterns.

- ♦ Reservoir live storage is at its peak during monsoon months and lowest in summer months, requiring careful planning and coordination of storage, release and utilization of reservoirs.

Inter- State River Water Disputes in India	
River (s)	States
Ravi and Beas	Punjab, Haryana, Rajasthan
Narmada	Madhya Pradesh, Gujarat, Maharashtra, Rajasthan
Krishna	Maharashtra, Andhra Pradesh, Karnataka, Telangana
Vamsadhara	Andhra Pradesh & Odisha
Cauvery	Kerala, Karnataka, Tamil Nadu, and Puducherry
Godavari	Maharashtra, Andhra Pradesh, Karnataka, Madhya Pradesh, Odisha
Mahanadi	Chhattisgarh, Odisha
Mahadayi	Goa, Maharashtra, Karnataka
Periyar	Tamil Nadu, Kerala

Groundwater Resources

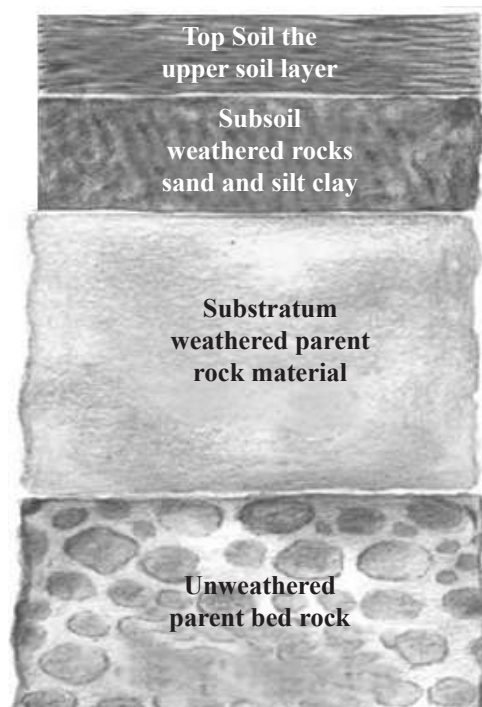
Ground water is a crucial resource for India’s agriculture, industry and drinking water security.

- ❑ The total replenishable groundwater resources in the country are about 432 cubic km.
- ❑ The level of groundwater utilization is relatively high in the river basins lying in north-western region and parts of south India.
- ❑ The groundwater utilization is very high in the states of Punjab, Haryana, Rajasthan, and Tamil Nadu.
- ❑ There are States like Chhattisgarh, Odisha, Kerala, etc., which utilize only a small proportion of their groundwater potentials.

Soil as a Resource of India

Soil is a very important renewable natural resource. It is the basis of food production that sustains various living organisms on Earth. It is a living system and it takes millions of years to form a few centimetre thick layer of soil. The various factors affecting the formation of soil includes the natural relief, parent rock or bed rock, climatic conditions, vegetation, other living organisms, and time. Various forces of nature such as change in temperature, action of running water, wind and glaciers, chemical and organic changes etc. also contribute to its formation. Healthy soils are essential for good quality food production, nutrition, as well as natural water filtration. Conservation and preservation of soil is very important as it improves resilience to the impacts of extreme events including droughts and floods. Soil also helps in regulating the Earth's climate and is a storehouse of carbon.

- ❑ Soil is defined as upper layer of the Earth composed of loose surface material. It is a mixture of many substances including endless variety of minerals, remnants of plants and animals, water and air.
- ❑ Soil is an important segment of our ecosystem, as it serves an anchorage for plants and source of nutrients. Thus, soil is the medium and fundamental raw material for plant growth. Through its relative fertility, it affects man's economic activities and shapes the destiny of our country. Therefore, it is a valuable national and fundamental Earth resource of the country.
- ❑ Soil is the mixture of rock debris and organic materials which develop on the Earth's surface. The major factors affecting the formation of soil are relief, parent material, climate, vegetation and other life-forms and time. Besides these, human activities also influence it to a large extent. Since each of the elements varies over space, soils also differ from place to place.
- ❑ Soil consists of organic and inorganic materials such as mineral particles, water, air and humus.
- ❑ The actual amount of each of these depends upon the type of soil. Some soils are deficient in one or more of these, while there are some others that have varied combinations.
- ❑ **'Horizon B'** is a transition zone between the 'horizon A' and 'horizon C', and contains matter derived from below as well as from above. It has some organic matter in it, although the mineral matter is noticeably weathered.
- ❑ **'Horizon C'** is composed of the loose parent material. This layer is the first stage in the soil formation process and eventually forms the above two layers.
- ❑ **'Parent Rock'**: Underneath the three horizons is the rock which is also known as the parent rock or the bedrock.



Soil Profile

Soil Profile

The arrangement of layers of soil is called soil profile. These layers are called horizons.

- ❑ **'Horizon A'** is the topmost zone, where organic materials have got incorporated with the mineral matter, nutrients and water, which are necessary for the growth of plants.

UNIT-III

ECONOMIC ACTIVITIES IN INDIA

India has emerged as the fastest-growing major economy in the world, and is expected to be one of the top three economic powers globally over the next 10-15 years, backed by its robust democracy and strong partnerships. People in India are engaged in economic activities across primary, secondary and tertiary sector.

India is an agriculturally important country. Two-thirds of its population is engaged in agricultural activities. Agriculture is a primary activity, which produces most of the food that we consume. Besides food grains, it also produces raw material for various industries.

The economic strength of a country is measured by the development of manufacturing industries. Manufacturing has emerged as one of the high growth sectors in India. With impetus on developing industrial corridors and smart cities, the Government aims to ensure holistic development of the nation. The corridors would further assist in integrating, monitoring and developing a conducive environment for the industrial development and will boost manufacturing.

India is well-linked with the rest of the world despite its vast size, diversity and linguistic and socio-cultural plurality. Railways, airways, waterways, newspapers, radio, television, cinema and internet, etc. have been contributing to its socio-economic progress. Modern means of transport and communication serve as lifelines of a nation and its modern economy.

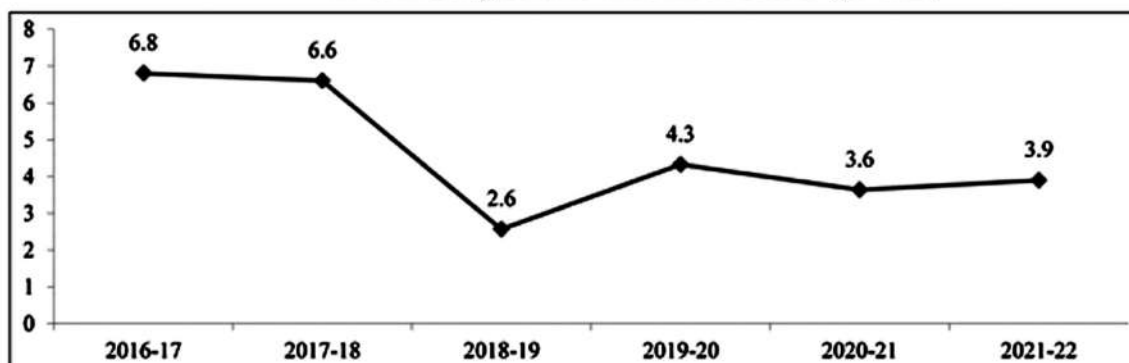
A dense and efficient network of transport and communication is a prerequisite for local, national and global trade of today. It is necessary for development of a country as it makes a country part of global supply chains.

Agriculture forms the backbone of Indian economy. It was largely subsistence in nature before independence. However, with advancement in technology, problems in Indian agriculture were recognized and the need for diversification of agriculture and harnessing of resources for the development of dairy farming, poultry, horticulture, livestock rearing and aquaculture was emphasized. About 54.6 per cent of the population is engaged in agriculture and allied activities (Census 2011) and it contributed 17.8 per cent to the country's Gross Value Added for the year 2019-20 (at current prices). The chapter deals with cropping seasons of India, agricultural regions, major crops grown in India and the inputs required to increase agricultural productivity.

Agriculture is the process of producing food, feed, fiber and many other desired products by the cultivation of certain plants and the raising of domesticated animals (livestock).

- The practice of agriculture is also known as “farming”, while scientists, inventors and others devoted to improving farming methods and implements are also said to be engaged in agriculture.
- India's geographical condition is unique for agriculture because it provides many favourable conditions. There are plain areas, fertile soil, long growing season and wide variation in climatic condition etc.
- Apart from this, India has been consistently making innovative efforts by using science and technology to increase production.
- **Contribution in Workforce and GVA:** Agriculture plays a vital role in India's economy. 54.6 of the total workforce is engaged in agriculture and allied sector activities (Census 2011) and accounts for 18.8% (First Advance Estimates) of country's Gross Value Added (GVA) for the year 2021-22 (at current prices)
- **Land Use:** As per the Land Use Statistics 2018-19, the total geographical area of the country is 328.7 million hectares, of which 139.3 million hectares is the reported net sown area and 197.3 million hectares is the gross cropped area with a cropping intensity of 141.6%. The net area sown works out to be 42.4% of the total geographical area. The net irrigated area is 71.6 million hectares.
- **Growth of Agriculture and Allied Sectors:** The agriculture and allied sectors grew at a positive growth rate of 3.6 per cent during 2020-21 due to good monsoon and various government measures to enhance credit availability, improve investments, create market facilities, promote infrastructure development in the agriculture sector and increase provision of quality inputs to the sector.
 - ♦ The timely interventions in the form of Atma Nirbhar Bharat (ANB) Abhiyan coupled with other growth promoting schemes (ANB and other schemes are discussed under respective sections) have further helped agriculture to achieve an improved growth of 3.9 per cent in 2021-22.
 - ♦ The growth in livestock and fisheries sector has helped to improve the performance of agriculture sector. GLKPPJ755C

Growth of Agriculture and Allied Sectors (per cent)



India has been in the midst of a great social, political and economic change ever since reforms were introduced in various spheres of the economy. A diverse industrial base has been setup in the country beginning from independence. Since then, India has been able to provide an industrial base for its domestic economy and also establish its position at the global level.

Industry is the production of goods or related services within an economy. Industries are considered as the backbone of modernization of a Nation and its economic development. They help in establishing a base for modern industrial economy and are critical for the rapid socio-economic development of a country.

Industrialization is a process by which the center of gravity of the economy shifts from agriculture to industry.

Industrialization involves two things:

- (i) Adoption of technologically superior techniques of production that help to transform basic raw materials and intermediate goods into manufactured goods.
- (ii) Application of modern techniques of management and organisation like economic calculations, accountancy and management techniques, etc.

Importance of Industrial Development

- ❑ **Base for Modern Economy:** Industries are considered as the backbone of modernization of a Nation and its economic development. They help in establishing a base for modern industrial economy. Industries are critical for the rapid socio-economic development of a country.
- ❑ **Reducing Inequalities:** Industrial development is a necessary precondition for eradication of unemployment and poverty from our country. This was the guiding philosophy behind establishing an Industrial system mainly driven by the Public Sector under the socialist pattern of society.
- ❑ **Minimizes Regional Disparities:** Industries also help in bringing down regional disparities as manufacturing and processing centres are established in tribal and backward regions.
- ❑ **Expand Trade:** Export of manufactured goods expands trade and commerce, and brings in much needed foreign exchange.
- ❑ **Prosperity of Country:** Countries that transform their raw materials into a wide variety of finished goods

of higher value are socially as well as economically prosperous. India's prosperity also lies in increasing and diversifying its manufacturing industries as rapidly as possible.

- ❑ **Strengthen Backward and Forward Linkage:** Industries help in modernization of agriculture and generate income by enabling the processing of agricultural produce. It reduces dependence of people on agricultural income by generating employment in secondary as well as tertiary sectors.
 - ◆ Development and competitiveness of manufacturing industry assists agriculturists in increasing their production by making the production processes very efficient.
 - ◆ For example, the agro-industries in India have given a major boost to agriculture. They depend on the latter for raw materials and sell their products such as irrigation pumps, fertilisers, insecticides, pesticides, plastic and PVC pipes, machines and tools, etc. to the farmers.

Brief History of Industrial Development in India

Modern industrial development started in India with the establishment of first cotton textile mill at Mumbai in 1854.

- ❑ Jute industry began in 1855 with the establishment of a jute mill in the Hooghly Valley near Kolkata with foreign capital and entrepreneurship.
- ❑ Coal mining was first started at Raniganj in 1772.
- ❑ Railways were introduced by the British in 1854.
- ❑ An Indian industry was established in the name of Tata Iron and Steel Plant was set up at Jamshedpur in 1907.
- ❑ Several other medium and small size industries like cement, glass, soaps, chemicals, jute, sugar and paper followed.
- ❑ The industrial production in pre-independence period was neither adequate nor diversified.

TRANSPORT & COMMUNICATION

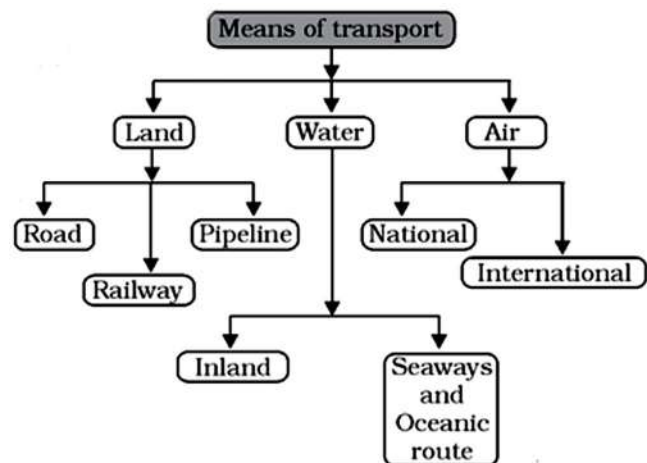
We use several commodities on a daily basis. But, the question arises that how these commodities are supplied to us for consumption? From the fields and factory, the finished products are brought to the market place from where consumers purchase it. It is the transportation which is in play in the background which makes items available to us. We not only use material things, like fruits, vegetables, books, clothes, etc., but also use ideas, views and messages in our daily life. We exchange our views, ideas and messages from one place to another or one individual to another while communicating with the help of various means.

Transport and communication infrastructure is a key driver for any developing economy. The state of development of transport and communication is a good indicator of the robustness the economic activities in the country.

- ♦ A well-knit and coordinated system of transport plays an important role in the sustained economic growth of a country.
 - ♦ A well-developed communication system assists in inter-regional and local exchange of goods and commodities. It also promotes contact among cultures of different regions and in the longer run promotes exchange of thoughts and ideas in the society.
- Both transport and communication are interdependent on each other as communication systems also support the growth of transport infrastructure.
 - The sector is vital for propelling India's overall development and enjoys intense focus from Government for initiating policies that would ensure time-bound creation of world class transport and communication infrastructure in the country.
 - The Transport and Communication infrastructure includes the development of Roadways, Railways, Waterways, Airways, Satellite communication systems and other supplementary infrastructure.

Transport

Human beings use various methods to move goods, commodities, ideas from one place to another. A well-knit and coordinated system of transport plays an important role in the sustained economic growth of a country. The present transport system of the country comprises several modes of transport including rail, road, coastal shipping, air transport, etc.



Land Transport

Roads

Road transport is a critical infrastructure for economic development of a country. It influences the pace, structure and pattern of development.

- India has about 62.16 lakh km of road network, which is the second largest in the world. This comprises national highways, expressways, state highways, major district roads, other district roads and village roads.
 - ♦ The break-up is: National Highways/Expressways–1,36,440 km; State Highways–1,76,818 km; other roads–59,02,539 km.
- Over 64.5% of all goods in the country are transported through roads, while 90% of the total passenger traffic uses road network to commute.
- India has a road density of 1.80 km square kilometre, which is higher than that of Japan, the United States, China, Brazil and Russia.

International Trade

No country is self-sufficient in terms of fulfilling needs of its citizens. Thus, international trade is mutually beneficial. India's overseas trade has undergone change in terms of volume, composition as well as direction. The rise in India's overseas trade is a result of momentum picked up by manufacturing and service sectors, liberal policies of government and diversification of markets.

The exchange of goods among people, states and countries is referred to as trade. The market is the place where such exchanges take place.

Advancement of international trade of a country is an index to its economic prosperity. It is, therefore, considered the economic barometer for a country.

- ◆ Where one country exchanges goods, or merchandise with another country, it is known as international trade or overseas trade or foreign trade. It may take place through sea, air or land routes.
- ◆ Local trade is carried in cities, towns, and villages. State level trade is carried between two or more states.
- Export and import are the components of trade. The balance of trade of a country is the difference between its export and import.
 - ◆ When the value of export exceeds the value of imports, it is called a favorable balance of trade. On the contrary, if the value of imports exceeds the value of exports, it is termed as unfavorable balance of trade.
- International trade has under gone a sea change in the last fifteen years. Exchange of commodities and goods have been superseded by the exchange of information and knowledge.
- India has emerged as a software giant at the international level and it is earning large foreign exchange through the export of information technology.
- India has been maintaining trade links with China, Myanmar, Indonesia, Malaysia, Thailand, Iran, Iraq, Afghanistan, Saudi Arabia, Egypt, Greece, etc. since ancient times.
- With the establishment of British rule in India, our trade ties became stronger with Britain. India used to export raw materials such as cotton, tea, iron-ore, etc. to Britain and import manufactured goods, machinery, medicines, etc. from that country.

Importance of Foreign Trade

The importance of the imports and exports for a country are as follows -

Importance of Imports

- **Help in Development of Economy:** Capital goods like machinery and equipment are required for development of agriculture, industrial and service sector. A developing country does not have sufficient resources or technical know-how to produce such goods or even if it is producing these goods, the production may not be sufficient. This deficiency can be made by importing these goods. Thus, imports can increase the productive capacity of a country.
- **To Meet Shortages:** Imports can fill the gap between domestic demand and domestic supply of essential goods.
- **Better Living Standards:** The developing countries may not be producing non-essential goods like luxury and semi-luxury items. However, the rising income levels in the developing countries create demand for such goods. Thus, a country can get these goods from other countries.
- **Quality of Production:** The import of goods may help in improving the quality of domestic production. When faced with competition from foreign goods, the domestic producers try to improve the quality of their products in order to effectively compete with foreign producers.

Importance of Exports

- **Help in increasing Production:** Exports help in selling surplus production.
- **Help in Employment and Income Generation:** Exports increase size of market which further encourages production. Larger production involves greater use of man-power, thereby generating greater employment opportunities and income.

UNIT - IV

DEMOGRAPHICS OF INDIA

The word 'Demography' has been derived from the Greek words 'Demos' and 'Graphy' which mean 'Population' and 'Science'. Thus, demography is the scientific study of human population. The three components of population change i.e. Birth, Death and Migration are core to the domain of population studies. Demography also deals with associated social factors such as age, sex, marital status, occupation, literacy etc. for enabling a holistic understanding of demographic change.

India is the second most populous country in the world next only to China. As per the Census of India 2011, the population of India stood at 1,210.9 million (623.3 million males and 587.6 million females) as on March 1, 2011. Out of this 833.7 million (68.9 per cent) lived in rural areas and the rest 377.1 million (31.1 per cent) lived in urban areas.

With a population of 1,028.7 million in 2001, the decadal growth rate of population in India between 2001 and 2011 was 17.7 per cent. The population of India is estimated to have reached 1363 million in 2021 and is projected to reach 1,522.3 million by 2036.

While India possesses only 2.42% of the world's total land area, she is required to sustain almost 17% of the world's population. In terms of area, India stands seventh preceded by Russia, Canada, China, the United States of America, Brazil and Australia. Barring China, the total population of these large five countries is far less than that of India.

The spatial distribution of population of India is not uniform. The distribution and density of the population is influenced both by physical factors and socio-economic factors. The population density of India in 2011 was 382 per sq. km with a decadal growth rate of 17.7 per cent. The density of population increased in all states and union territories between 1991 and 2011.

In India, the human settlements are broadly divided into two-rural and urban. Rural areas have predominantly primary activities, whereas urban areas have domination of secondary and tertiary activities. Generally the rural areas have low density of population than urban.

India has the second largest concentration of indigenous population in the world. The population of Scheduled Tribes (STs) in the country, as per Census 2011 is 10.45 crore. STs constitute 8.6 percent of the country's total population and 11.3 percent of the total rural population. There are over 700 Scheduled Tribe communities spread over different States and Union Territories of the country.

For the development of the country, it is essential to understand the demographic composition of the country. The understanding of indigenous communities helps to formulate effective policies for their development.

The understanding of human population i.e. our numbers, distribution, growth and characteristics provides the basic background for comprehending several aspects of our environment. Humans are producers and consumers of earth's resources, thus, it is important to know number of people residing in the country, where do they live, etc. This chapter discusses the patterns of distribution, density, growth and composition of India's population.

India has the second largest population in the world after China. Its distribution is, however, most uneven. During 1975–2010 the population doubled to 1.2 billion.

- ❑ The Indian population reached the billion mark in 1998. India is projected to be the world's most populous country by 2024, surpassing the population of China.
- ❑ It is expected to become the first political entity in history to be home to more than 1.5 billion people by 2030.

World Population Prospects Report 2022

On 11th July, 2022, the 27th edition of the 'World Population Prospects' was released by the United Nations Department of Economic and Social Affairs, Population Division.

India Related Findings

- ◆ India's population stands at 1.412 billion in 2022, compared to China's 1.426 billion.
- ◆ Presently 417 billion, India's population is expected to rise to 1.429 billion to surpass China.
- ◆ From data it is clear that cohorts of 0-14 years and 15-24 years will continue to decline while those of 25-64 and 65+ will continue to rise for the coming decades.

Census

Census is not only a head count exercise. Besides the size of the total population, the Census in India collects and publishes information on various characteristics of the population, such as, age and sex distribution, social and cultural factors such as religion, literacy, languages known, migration and economic activities of the people.

- ❑ Besides, during housing Census conducted a year before the population count, information is also collected on type of housing, amenities and assets possessed by households.
- ❑ The Census of India 2001, was historic and epoch making, being the first census of the twenty-first century

and the third millennium. It reveals benchmark data on the state of abundant human resources available in the country, their demography, culture and economic structure at a juncture, which marks a centennial and millennial transition.

- ❑ Census 2011 was the 15th census of its kind since 1872.

Why Census is important?

- ❑ The Indian Census is the most credible source of information on Demography (Population characteristics), Economic Activity, Literacy and Education, Housing & Household Amenities, Urbanisation, Fertility and Mortality, Scheduled Castes and Scheduled Tribes, Language, Religion, Migration, Disability and many other socio-cultural and demographic data since 1872.
- ❑ It is the only source of primary data in the village, town and ward level.
- ❑ It provides valuable information for planning and formulation policies for Central and the State Governments and is widely used by National and International Agencies, Scholars, business people, industrialists, etc.
- ❑ The Delimitation or reservation of Constituencies – Parliamentary, Assembly, Panchayats and other Local Bodies- is also done on the basis of the demographic data thrown up by the Census.
- ❑ Census is the basis for reviewing the country's progress in the past decade, monitoring the ongoing Schemes of the Government and most importantly, plan for the future.

Population Size and Population Growth Rate

Growth of population is the change in the number of people living in a particular area between two points of time. Its rate is expressed in percentage.

The term tribe is derived from the Latin word ‘tribus’. Earlier Romans used this term to designate the divisions in the society. Later use suggests that it meant poor people. The present popular meaning of a ‘tribe’ in India is a category of people, included in the list of the scheduled tribes. Tribal populations are relatively isolated and closed groups, forming homogeneous units of production and consumption. Being backward in economic terms, they were and are exploited by the non-tribals. This chapter gives a description of major tribal communities found in India.

A tribe can be defined as a community living in hilly forest or well demarcated areas having its own culture, religion, language and strong ethnic identity.

The criteria followed for specification of a community as a Scheduled Tribe are:

- ❑ Indications of primitive traits
- ❑ Distinctive culture
- ❑ Geographical isolation
- ❑ Shyness of contact with the community at large
- ❑ Backwardness

Tribal groups are at different stages of social, economic and educational development. While some tribal communities have adopted a mainstream way of life, at the other end of the spectrum, there are certain Scheduled Tribes, known as Particularly Vulnerable Tribal Groups (PVTGs).

Government of India follows the following criteria for identification of PVTGs:

- ❑ Pre-agricultural level of technology
- ❑ Low level of literacy
- ❑ Economic backwardness
- ❑ A declining or stagnant population.

Characteristics of Tribal Community

Common Territory: The tribe has a definite territory in which its members reside. Generally, they live in forests or hilly areas. Their territory is relatively isolated or semi-isolated compared to other social group. For Example, the Naga, Rengma Naga, Sema Naga and other tribals reside in Nagaland; Garos, Khasis, Khasas live in Assam; Bhils

