

BPSC PATHSHALA

BPSC Mains General Studies – Geography & Economics

General Studies Paper-II

Section II: Geography & Economics

Topic: Indian Geography

Structured Notes for **BPSC Mains Examination**

Prepared for serious aspirants focusing on **concept clarity, cultural understanding and answer writing preparation.**

These notes cover important topics of **Indian Geography** relevant for **BPSC Mains GS Paper-II.**

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LESSON 1: INDIAN GEOGRAPHY

Topics covered under this lesson

1. Climate & Atmospheric Processes

- 1.1 Characteristic of Indian Monsoon
- 1.2 Effect of Monsoon on Indian Economy
- 1.3 Rain Shadow Area
- 1.4 Urban Heat Island

2. Water Resources & River System

- 2.1 Inland Waterway in India
- 2.2 River Disputes among Indian States
- 2.3 River Valley Projects: Pros and Cons

3. Emerging Geography Concepts

- 3.1 Blue Economy
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1. Climate & Atmospheric Processes

1.1 Characteristic of Indian Monsoon

1. Introduction: Understanding the Characteristic of Indian Monsoon

The **Indian Monsoon** defines the climate pattern of India and plays a central role in shaping the country's agriculture, economy, and daily life. India is often described as having a **monsoon type climate**, which means that winds change direction seasonally and bring rainfall during specific months of the year.

The word *monsoon* simply means **seasonal reversal of winds**. During summer, winds blow from the sea towards the land and bring heavy rainfall. During winter, the direction reverses, and winds move from land to sea. This seasonal change is the most important characteristic of Indian climate.

The **Indian Monsoon** is not just about rainfall; it reflects a complex system influenced by temperature differences, pressure changes, ocean currents, and global atmospheric conditions. For example, when north India becomes extremely hot in May and June, it creates low pressure. This low pressure pulls moisture-laden winds from the Indian Ocean, leading to the arrival of monsoon.

For a country like India, where a large population depends on agriculture, the monsoon acts as the backbone of the economy. A good monsoon means better crop production, stable food prices, and stronger rural income. A weak monsoon can lead to drought, water shortage, and economic stress.

Understanding the of **Indian Monsoon** helps us understand why some regions receive heavy rainfall while others remain dry, why rainfall does not occur continuously, and why global events like El Nino affect India's rainfall.

2. Monsoon Definition

To understand the **Indian Monsoon**, we must first understand what monsoon actually means. The word *monsoon* is derived from the Arabic word "**mausim**", which means *season*. In simple terms, monsoon refers to the **seasonal reversal of winds**.

Seasonal Reversal of Winds

- In **summer**, land heats up faster than water.
- This creates **low pressure over land** and **high pressure over sea**.
- Winds move from sea to land and bring rainfall.

In **winter**, the situation reverses:

- Land cools faster than water.
- High pressure develops over land.
- Winds move from land to sea, usually dry in nature.

3. Why Monsoon is Strong in India

India lies mainly in the **tropical and sub-tropical region**. It is surrounded by water bodies on three sides — the Arabian Sea, the Bay of Bengal, and the Indian Ocean.

Because of this geographical position:

- India receives moisture-laden winds during summer.
- The Himalayan Mountains block these winds and prevent them from escaping northwards.
- As a result, heavy rainfall occurs over large parts of the country.

4. Monsoon as a Climate System

The **Monsoon** is not just about rainfall. It is a large atmospheric system influenced by:

- Temperature differences
- Pressure belts
- Movement of the Sun
- Ocean currents
- Global weather patterns

Just like a railway timetable runs according to multiple signals and tracks, the monsoon also works through several interconnected factors.

5. Major Seasons of Indian Monsoon

To clearly understand the **Indian Monsoon**, it is important to know the two main monsoon seasons that shape India's rainfall pattern. Although India has four climatic seasons, the monsoon occupies **two major seasonal divisions**:

5.1 Southwest Monsoon Season (June to September)

This is the **main rainy season** of India and the most important part of the **Characteristic of Indian Monsoon**.

Key Features

- Begins in **early June** from the Kerala coast
- Covers almost the entire country by mid-July
- Winds blow from **southwest direction**
- Brings nearly **75% of India's annual rainfall**
- Supports **kharif crops** like rice, cotton, maize, and sugarcane

Why It is Important

- Fills rivers, dams, and groundwater
- Determines agricultural output
- Impacts rural income and food supply
- Influences inflation and overall economy

If the southwest monsoon fails, it directly affects farmers and food prices across India.

5.2 Retreating or Northeast Monsoon Season (October to November)

This season marks the **withdrawal of the southwest monsoon**.

Key Features

- Winds reverse direction and blow from **land to sea**
- Skies become clearer in North India
- Temperature rises temporarily — called **October Heat**
- Associated with **cyclones in the Bay of Bengal**
- Provides heavy rainfall to **Tamil Nadu and Coromandel Coast**

Unlike most of India, which depends on the southwest monsoon, **Tamil Nadu depends mainly on the northeast monsoon** for agriculture and water supply. These two seasons together explain the seasonal nature of rainfall, which is a core part of the Characteristic of Indian Monsoon.

6. Characteristic of Indian Monsoon: Key Features

The **Indian Monsoon** is not limited to rainfall alone. It reflects a unique and dynamic climate system that shapes India's environment, agriculture, and economy. The following features explain its true nature in a clear and connected manner.

6.1 Seasonal Nature

One of the most important aspects of the **Indian Monsoon** is its seasonal concentration of rainfall. Nearly 75% of India's annual rainfall is received within just four months, from June to September. This means rainfall is not evenly distributed throughout the year. For the remaining months, many regions remain dry. Because of this seasonal pattern, farmers depend heavily on the timely arrival of the monsoon. A delay of even a few weeks can affect crop sowing and production.

6.2 Sudden Onset and Burst of Monsoon

Another striking feature of the is its sudden arrival. After intense summer heat in May and early June, the monsoon often begins with heavy rainfall and strong winds. This sudden beginning is known as the "burst of monsoon." For example, when the monsoon reaches Kerala, rainfall increases sharply within a short period. It is not a gradual change but a dramatic shift in weather conditions.

6.3 Uneven Distribution of Rainfall

The **Indian Monsoon** also includes uneven distribution of rainfall across regions. Some areas, like the Western Ghats and Northeast India, receive extremely heavy rainfall. In contrast, regions such as Rajasthan and Ladakh receive very little rainfall. Even within the same state, rainfall can differ due to mountains and relief features. This uneven pattern creates flood conditions in some areas and drought in others.

6.4 Break in Monsoon

Rainfall during the monsoon season does not occur continuously. There are periods when rain stops for several days. This dry interval is known as the "break in monsoon." These

breaks are connected with the shifting position of the monsoon trough, which is a low-pressure belt. Such interruptions can affect crop growth, especially if they occur during important stages of farming.

6.5 Regional Variations

Despite an overall unity in the monsoon system, there are noticeable regional differences. **Coastal regions** generally receive more rainfall than interior parts. The Northern Plains experience heavy rainfall during July and August, while **Tamil Nadu** receives most of its rainfall during October and November through the **retreating monsoon**. These variations highlight the complex nature of the **Indian Monsoon**.

6.6 Dependence on Global Factors

The **Monsoon** is also influenced by global climatic conditions. Events like **El Nino**, which involve warming of the **Pacific Ocean**, can weaken the Indian monsoon. Changes in ocean temperature and air pressure patterns at the global level directly affect rainfall in India. This shows that the Indian monsoon is not an isolated system but part of a larger global climate network.

7. Factors Influencing the Formation of Southwest Monsoon

Indian Monsoon is mainly shaped by the formation of the **Southwest Monsoon**. This formation does not happen due to a single reason. It is the result of several interconnected natural factors working together like parts of a machine. Understanding these factors helps us clearly understand why and how monsoon rainfall occurs in India.

7.1 Differential Heating of Land and Water

One of the most important factors behind **Indian Monsoon** is the difference in heating between land and water. During summer, the **Indian landmass** heats up much faster than the surrounding seas. As a result, a strong low-pressure area develops over north and northwest India. At the same time, the Indian Ocean remains comparatively cooler and develops high pressure. Winds always move from high pressure to low pressure, so moisture-laden winds start blowing from the sea towards the land. This movement of winds marks the beginning of monsoon circulation.

7.2 Shift of the Inter Tropical Convergence Zone (ITCZ)

Another important factor influencing the **Indian Monsoon** is the movement of the Inter Tropical Convergence Zone, commonly known as ITCZ. The **ITCZ is a low-pressure belt** near the **equator** where trade winds from both hemispheres meet. During summer, as the Sun moves towards the Tropic of Cancer, this low-pressure belt also shifts northward over the Indo-Gangetic Plain. In this position, it is called the Monsoon Trough. The northward shift of ITCZ plays a crucial role in attracting moisture-bearing winds towards India.

7.3 Presence of High Pressure near Madagascar

A high-pressure area exists over the southern Indian Ocean, roughly east of Madagascar around 20° South latitude. The strength and position of this high-pressure region influence the intensity of monsoon winds. When this high-pressure system is strong, it pushes the

southeast trade winds across the equator, helping in the formation of powerful southwest monsoon winds.

7.4 Heating of the Tibetan Plateau

The Tibetan Plateau also plays a significant role in shaping the **Indian Monsoon**. During summer, this plateau becomes intensely heated because of its high elevation. The heating creates strong vertical air currents and develops a low-pressure area at high altitude. This further strengthens the pull of moist winds towards the Indian subcontinent.

7.5 Role of Jet Streams

Jet streams are fast-moving air currents present in the upper atmosphere. During winter, the westerly jet stream flows south of the Himalayas. However, in summer, it shifts northward. At the same time, a tropical easterly jet stream develops over the Indian Peninsula. The withdrawal of the westerly jet and the establishment of the easterly jet help in the proper development and sudden onset of the monsoon. These upper atmospheric changes are essential in determining the timing and intensity of rainfall.

All these factors together explain why the **Indian Monsoon system** is complex and highly dependent on both surface and upper atmospheric conditions.

7.6 Role of Southern Oscillation and El Nino

The **Indian Monsoon** is not influenced only by local factors within India. It is also affected by global weather systems. Two important global phenomena that influence the Indian monsoon are the **Southern Oscillation** and **El Nino**. These events occur far away in the Pacific Ocean, yet they directly affect rainfall in India.

Southern Oscillation

Southern Oscillation refers to the periodic change in air pressure between the eastern Pacific Ocean and the eastern Indian Ocean. Normally, when the eastern Pacific region has high pressure, the eastern Indian Ocean has low pressure. This pressure difference supports strong monsoon winds over India.

However, in certain years, this pressure pattern reverses. The eastern Pacific develops lower pressure compared to the Indian Ocean. This reversal weakens the monsoon circulation. As a result, India may experience below-normal rainfall. This periodic change in pressure conditions is known as Southern Oscillation.

In simple terms, it is like a balance. When pressure conditions remain normal, monsoon remains strong. When the balance is disturbed, monsoon performance also changes.

El Nino

El Nino is closely linked with Southern Oscillation. It refers to the unusual warming of surface waters in the eastern Pacific Ocean near the coast of **Peru**. The term “El Nino” means “The Child” in Spanish, as this warm current usually appears around Christmas.

When El Nino develops, it **increases sea surface** temperature and weakens **trade winds**. This weakens the monsoon winds that bring rainfall to India. Many years of drought or weak monsoon in India have been associated with strong El Nino events.

For example, during strong El Nino years, agricultural production in India may decline due to reduced rainfall. This shows how the **Indian Monsoon** is connected to global ocean-atmosphere systems.

Together, **Southern Oscillation and El Nino** demonstrate that the Indian monsoon is part of a larger global climate network. Changes in distant oceans can directly influence rainfall patterns over the Indian subcontinent.

8. Onset and Branches of Southwest Monsoon

The onset of the Southwest Monsoon is one of the most important events that defines the **Indian Monsoon**. Its arrival brings relief from extreme summer heat and marks the beginning of the main rainy season in India.

8.1 Onset of Southwest Monsoon

The onset of the monsoon is closely linked with the movement of the Sun and the shift of the **Inter Tropical Convergence Zone (ITCZ)**. In June, when the Sun shines vertically over the Tropic of Cancer, the ITCZ shifts northward over the Indo-Gangetic Plain. This shift creates a strong low-pressure area over north India.

At the same time, southeast trade winds from the Southern Hemisphere cross the equator. Due to the Coriolis force (the force caused by the Earth's rotation), these winds change direction and begin to blow from the southwest towards India. As they travel over the warm Indian Ocean, they collect large amounts of moisture.

The withdrawal of the westerly jet stream from north India and the development of the tropical easterly jet stream over the peninsula also support the sudden arrival of the monsoon. This sudden and heavy beginning is known as the "burst of monsoon," which is a major part of the **Indian Monsoon**.

8.2 Arabian Sea Branch

When the southwest monsoon reaches the Indian coast, it divides into **two main branches**. The first is the Arabian Sea branch. This branch strikes the Western Ghats of Kerala and Karnataka. Because of the high mountains, the winds are forced to rise, cool down, and release heavy rainfall. As a result, the western coastal plains receive very heavy rainfall. However, as the winds move further inland, their moisture decreases. Regions like the Deccan Plateau receive comparatively less rainfall due to the rain shadow effect.

8.3 Bay of Bengal Branch

The second branch is the Bay of Bengal branch. This branch moves towards northeast India and is deflected by the Arakan Hills of Myanmar. It then enters West Bengal and Bangladesh from the southeast direction.

The Bay of Bengal branch causes heavy rainfall in Assam and Meghalaya. Places like Mawsynram and Cherrapunji receive some of the highest rainfall in the world due to this

branch. After that, the winds move westward along the Ganga plain and provide rainfall to northern India.

The division of the monsoon into two branches explains the regional variation in rainfall, which is an important part of the **Indian Monsoon**.

9. Retreating Monsoon and Its Characteristics

The retreating monsoon season marks the gradual withdrawal of the Southwest Monsoon. This phase is equally important in understanding the **Indian Monsoon**, as it shows how wind direction and rainfall patterns change after September.

9.1 Withdrawal of Southwest Monsoon

The withdrawal begins from northwest India in early September. Gradually, the monsoon winds retreat southwards. By mid-October, the monsoon withdraws from the Northern Plains, and by early November, it leaves the southern parts of India. As the monsoon retreats, the skies become clear, rainfall decreases in most parts of the country, and temperature begins to change.

9.2 October Heat

One of the striking features of this season is the rise in temperature combined with high humidity. Even though rainfall decreases, the land remains moist due to earlier rains. Because of this combination of heat and humidity, the weather becomes uncomfortable and oppressive. This condition is commonly known as “October Heat.”

It is similar to the feeling experienced after light rainfall on a hot day, when the atmosphere becomes humid and sticky.

9.3 Rainfall in Southern Peninsula

While most of India becomes dry during this period, the southeastern coast receives significant rainfall. States like Tamil Nadu depend mainly on this season for rainfall. This happens because winds reverse direction and start blowing from the northeast towards the Bay of Bengal. While crossing the Bay of Bengal, these winds collect moisture and bring rainfall to the Coromandel Coast.

9.4 Cyclonic Activity

Another important feature of the retreating monsoon is the formation of cyclonic depressions over the Andaman Sea and the Bay of Bengal. These cyclones often move towards the eastern coast of India.

Such cyclones can be very destructive, causing heavy rainfall, strong winds, and flooding in coastal areas. A large part of Tamil Nadu’s annual rainfall is received through these cyclonic systems.

The retreating phase highlights how the **Characteristic of Indian Monsoon** is not limited to one season but involves a complete cycle of advance and withdrawal.

10. Regional Variations in the Characteristic of Indian Monsoon

Although the **Indian Monsoon** shows an overall unity across the country, its impact is not uniform everywhere. India's diverse relief, mountains, plateaus, plains, and coastal regions create noticeable differences in rainfall and climate patterns.

10.1 Western Ghats and Coastal Regions

The western coastal plains receive very heavy rainfall during the Southwest Monsoon. When moisture-laden winds from the Arabian Sea strike the Western Ghats, they are forced to rise. As the air rises, it cools and releases rainfall. This process is known as *orographic rainfall* (rain caused by mountains blocking winds).

As a result, Kerala and coastal Karnataka receive heavy rainfall. However, the eastern side of the Western Ghats, known as the rain shadow region, receives much less rainfall. Parts of Maharashtra and Karnataka fall in this category.

10.2 Northern Plains

The Northern Plains receive rainfall mainly from the Bay of Bengal branch of the monsoon. Rainfall generally decreases from east to west. For example, West Bengal receives more rainfall compared to Punjab and Haryana. This gradual decrease happens because monsoon winds lose moisture as they move inland.

10.3 Northeast India

Northeast India is one of the wettest regions in the world. The Bay of Bengal branch gets trapped by the hills of Meghalaya and Assam. When winds are forced to rise suddenly, very heavy rainfall occurs.

Places like Mawsynram and Cherrapunji receive extremely high annual rainfall due to this geographical setting.

10.4 Rajasthan and Western India

Western Rajasthan receives very little rainfall. This is because the Aravalli Range runs parallel to the direction of monsoon winds. As a result, winds are not forced to rise and do not release much rainfall. This explains why Rajasthan has desert conditions despite the arrival of monsoon winds.

10.5 Tamil Nadu and Southeast Coast

Unlike most of India, Tamil Nadu receives less rainfall during the Southwest Monsoon. The Western Ghats block much of the moisture before it reaches this region. However, Tamil Nadu receives significant rainfall during the Retreating (Northeast) Monsoon season in October and November. This makes it different from other parts of India.

These regional differences clearly show that the **Characteristic of Indian Monsoon** is influenced strongly by relief features and geographical location.

11. Importance of Indian Monsoon in Indian Economy

The **Indian Monsoon** is not only a climatic feature but also the backbone of India's economy. Since a large part of India's population depends on agriculture, the performance of the monsoon directly affects livelihoods, income levels, and overall economic stability.

Agriculture and Food Security: Nearly half of India's agricultural land depends on rainfall rather than irrigation. A timely and well-distributed monsoon ensures proper sowing and growth of **kharif crops** such as rice, cotton, maize, and pulses.

If rainfall is adequate, crop production increases, food supply remains stable, and farmers earn better income. On the other hand, a weak or delayed monsoon can lead to drought, crop failure, and rising food prices. In simple terms, the **Indian Monsoon** decides whether rural India prospers or struggles in a given year.

Water Resources: Monsoon rainfall replenishes rivers, lakes, ponds, and groundwater. Major dams and reservoirs depend on monsoon water for storage. This water is later used for irrigation, drinking supply, and industrial purposes. A good monsoon ensures sufficient water availability throughout the year. A poor monsoon may create water scarcity, especially in semi-arid regions.

Power Generation: Hydroelectric power plants rely on adequate water levels in rivers and dams. Strong monsoon rainfall increases electricity production from hydropower sources. In years of weak monsoon, power shortages may occur in some states. Thus, the **Indian Monsoon** also influences energy production.

Impact on GDP and Inflation: Agriculture contributes significantly to India's economy. Good agricultural output boosts rural demand for goods and services. This stimulates industries such as fertilizers, tractors, consumer goods, and transportation. However, poor rainfall can reduce agricultural output, increase food prices, and create inflationary pressure. Therefore, economists closely monitor monsoon forecasts every year.

Overall Economic Stability: A normal monsoon brings stability, growth, and confidence in markets. A deficient monsoon may require government intervention through relief packages, subsidies, or imports of food grains. This clearly shows that the **Characteristic of Indian Monsoon** is deeply linked with India's economic health and development.

12. Conclusion

The **Indian Monsoon** explains not only India's climate pattern but also the foundation of its agriculture, water resources, and economic stability. From the sudden burst of rainfall in June to the retreating phase in October, the monsoon follows a complex but organised system influenced by land-sea temperature differences, movement of pressure belts, jet streams, and even distant ocean conditions like El Nino.

One of the most important features of the **Indian Monsoon** is its seasonal and uneven nature. Rainfall is concentrated in a few months and varies greatly from region to region. While the Western Ghats and Northeast India receive heavy rainfall, regions like Rajasthan remain comparatively dry. Similarly, Tamil Nadu depends mainly on the retreating monsoon instead of the southwest monsoon. These variations show how geography shapes climate within the country.

Understanding the **Characteristic of Indian Monsoon** is essential for multiple reasons. Farmers rely on it for crop planning, governments depend on it for water management and economic forecasting, and policymakers use monsoon data to prepare for floods or droughts. Even inflation, food security, and rural employment are closely connected to monsoon performance.

In simple terms, the monsoon is not just a weather event — it is a life-support system for India. A strong and timely monsoon brings prosperity, while a weak one can create economic and social challenges.

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LESSON 2: BIHAR GEOGRAPHY

Topics covered under this lesson

1. Physical Features

- 1.1 Physiographic Division of Bihar
- 1.2 Climate of Bihar

2. Natural Base

- 2.1 Soil of Bihar
- 2.2 River System of Bihar
- 2.3 Natural Resources in Bihar
- 2.4 Mineral Resources of Bihar

3. Water & Disaster Geography

- 3.1 Flood in Bihar
- 3.1 Drought in Bihar
- 3.3 Irrigation in Bihar
- 3.4 Inland Waterways in Bihar

4. Human Geography

- 4.1 Urbanization in Bihar

1. Physical Features

1.1 Physiographic Division of Bihar

1. Introduction

The **Physiographic Division of Bihar** reflects the natural relief features, geological structure and surface configuration of the state. Bihar is located between **24°20'10" N to 27°31'15" N latitude** and **83°19'50" E to 88°17'40" E longitude**. It extends about **483 km from east to west** and nearly **345 km from north to south**, covering a total geographical area of **94,163 square kilometres**, making it the 12th largest state of India by area.

Geographically, Bihar occupies a strategic transitional position between the **Himalayan region in the north** and the **Peninsular plateau in the south**. This location plays a major role in shaping its relief features. The northern boundary is influenced by the Himalayan foothills, while the southern part connects with the Chotanagpur Plateau. On the basis of relief, geological structure and origin, the Physiographic Division of Bihar is broadly classified into three major regions:

1. Shiwalik Ranges and Terai Region
2. The Ganga Plains
3. Southern Plateau Region

These divisions are distinct in terms of altitude, slope, soil composition and rock structure.

2. Geological Background of Bihar

The **Physiographic Division of Bihar** is closely linked to its geological structure. Bihar presents a combination of very young alluvial formations and some of the oldest rock systems of the Indian subcontinent. Broadly, the geological structure of Bihar can be classified into three major rock systems: **Tertiary rocks, Quaternary alluvium and Precambrian rocks**.

Tertiary Rock System

The Tertiary rock system is found in the north-western part of Bihar, particularly in the Shiwalik region of West Champaran. These rocks were formed during the Tertiary period when the Himalayan mountains were undergoing formation. The Shiwalik hills consist mainly of sandstones, clays and conglomerates. These are relatively soft and sedimentary in nature. This region represents the youngest mountain formation processes associated with the Himalayan uplift.

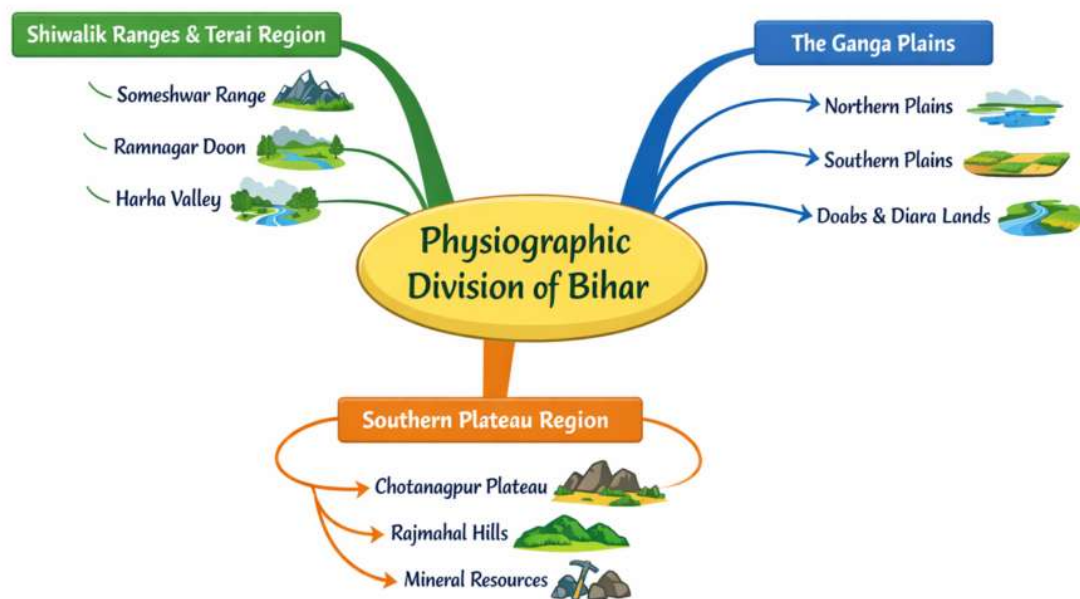
Quaternary Alluvium

The largest portion of Bihar is covered by Quaternary alluvium. Nearly 90 percent of the state is made up of recent alluvial deposits brought by the Ganga and its tributaries such as Ghaghara, Gandak, Kosi, Bagmati and Mahananda. These deposits were formed during the Quaternary period and are still being renewed every year through river action. This thick alluvial cover forms the vast Ganga plains of Bihar and represents the most extensive geological formation in the state.

Precambrian Rocks

The southern part of Bihar, particularly the plateau fringe areas adjoining Jharkhand, consists of very ancient Precambrian rocks. These rocks include gneiss, granite and schist. They are among the oldest rock formations in India and form part of the Chotanagpur Plateau extension. These hard crystalline rocks are responsible for the rugged topography and presence of isolated hills in districts like Gaya, Nawada and Rohtas.

Thus, the geological background of Bihar explains the clear division between the Himalayan foothill region, the extensive alluvial plains and the southern plateau region. The Physiographic Division of Bihar is directly shaped by this geological diversity.



3. Major Physiographic Division of Bihar

3.1 Shiwalik Ranges and Terai Region

The Shiwalik Ranges and Terai Region form the smallest yet significant part of the **Physiographic Division of Bihar**. This region is located in the north-western part of the state, mainly in **West Champaran district** along the India–Nepal border. It covers approximately **932 square kilometres** and represents the Tertiary rock system of Bihar.

This region is an extension of the **Shiwalik (Outer Himalayan) Range**, which is the youngest mountain range of the Himalayas. The rocks found here mainly consist of sandstone, clay and conglomerates. Due to their relatively soft nature, these hills are prone to erosion. This physiographic region is further divided into three parts:

Someshwar Range

The Someshwar Range is the northernmost part of Bihar. It extends from the **Triveni Canal in the west to Bhikhnathori in the east** along the Nepal border. The maximum height of this range is about **874 metres**, which is the highest point in Bihar.

Several river-cut passes are found here due to streams flowing from Nepal. Important passes include **Someshwar Pass, Bhikhnathori Pass and Marawat Pass**. These passes serve as important routes between Bihar and Nepal.

Ramnagar Doon

The Ramnagar Doon lies south of the Someshwar Range and covers about **214 square kilometres**. It is a narrow valley region with an average elevation of around **240 metres**. This area is relatively flat compared to the surrounding hills and forms the southernmost part of the Terai belt in Bihar.

Harha Valley (Doon Valley)

The Harha Valley lies between the Someshwar Range and Ramnagar Doon. It covers approximately **643 square kilometres**. The Harha River flows through this valley, which gives it the name Harha Valley.

Although it lies in a hilly belt, the valley itself is comparatively plain. The region is rich in forest resources and has relatively higher rainfall compared to the plains of Bihar.

The Shiwalik Ranges and Terai Region represent the only true hilly tract in Bihar influenced directly by Himalayan geology. This region marks the northernmost boundary in the Physiographic Division of Bihar.

3.2 The Ganga Plains

The Ganga Plains form the largest and most important part of the **Physiographic Division of Bihar**. This region extends from the foothills of Nepal in the north to the southern plateau fringe adjoining Jharkhand. It occupies nearly the entire central portion of the state and covers about half of Bihar's total geographical area.

The Ganga Plains have been formed by the continuous deposition of alluvium brought by the **Ganga River and its tributaries** over millions of years. These rivers deposited sediments in the trough between the Himalayas in the north and the Peninsular Plateau in the south. The result is a vast, flat and fertile plain composed mainly of Quaternary alluvium. On the basis of location and river system, the Ganga Plains are divided into two major parts:

- Northern Plains of Bihar
- Southern Plains of Bihar

Northern Plains of Bihar

The Northern Plains extend from the Nepal border in the north to the Ganga River in the south. This region has been formed mainly by the deposition of alluvium brought by the northern tributaries of the Ganga such as **Ghaghara, Gandak, Bagmati, Burhi Gandak, Kosi and Mahananda**.

These plains represent the Quaternary rock system and consist mainly of new and old alluvium. The land slopes gently from north to south towards the Ganga River. The gradient of slope in this region is relatively steeper compared to the southern plains. Due to this steeper gradient and heavy rainfall in the Himalayan catchment areas, rivers carry large volumes of water and sediments, leading to frequent floods. The rivers divide the Northern Plains into several doabs (land between two rivers). The major doabs include:

- Ghaghara–Gandak Doab
- Gandak–Kosi Doab
- Kosi–Mahananda Doab

Flooding is a major characteristic of this region. Districts such as Madhubani, Supaul, Araria, Madhepura, Saharsa, Khagaria and Darbhanga are frequently affected. The northernmost part near the Nepal border is swampy in nature, while the middle part is slightly elevated.

Several important fluvial landforms are found here:

Diara

Diara lands are formed when a river divides into two channels and later rejoins, leaving a stretch of land between them. These regions are composed of new alluvium (Khadar) and are highly fertile. Example: Raghapur Diara.

Chaur (Chharan Lake)

Chaur refers to low-lying areas or seasonal lakes formed when river branches get cut off from the main channel during the dry season. These are waterlogged areas during monsoon but dry up partially in summer.

Southern Plains of Bihar

The Southern Plains extend from the southern bank of the Ganga River to the foothills of the Southern Plateau region. Compared to the Northern Plains, this region has a gentler slope, approximately **6 cm per kilometre**, sloping from south to north towards the Ganga Basin.

This region is composed mainly of older alluvium (Bhangar), brought by peninsular rivers such as **Son, Punpun, Phalgu, Kiul and Ajay**. The soil is generally sandy and absorbs water quickly, yet groundwater availability remains adequate.

The Southern Plains are physiographically more complex than the Northern Plains. Isolated hills and rocky outcrops appear in several districts. Important hill formations include:

- Gaya Hills (about 266 metres)
- Rajgir Hills (about 466 metres)
- Kharagpur Hills (about 510 metres)
- Barabar and Giriak Hills

The western part of the Southern Plains is wider than the eastern part. Due to its gentle slope, swamps are formed near the southern bank of the Ganga between Barh (Patna district) and Bhagalpur. These swamps are locally known as **Tal**. An important example is **Mokama Tal**.

Unlike the Northern Plains, this region faces drought conditions at intervals of two to three years, leading to agricultural uncertainty. The Southern Plains are further divided into three parts:

- Ganga–Son Doab (Kaimur, Rohtas, Buxar, Bhojpur)
- Plains of Magadh (central part)
- Plains of Ang (eastern part)

The Ganga Plains, both northern and southern, form the core of the **Physiographic Division of Bihar**, supporting dense population, fertile agriculture and major settlements.

3.3 Southern Plateau Region

The Southern Plateau Region forms the third major component of the **Physiographic Division of Bihar**. This region is located along the southern boundary of the state between the Southern Plains and the Chotanagpur Plateau of Jharkhand. It extends from **Kaimur in the west to Banka in the east**.

This region represents the extension of the Chotanagpur Plateau into Bihar. Unlike the alluvial plains, the plateau region is composed of very ancient and hard crystalline rocks belonging to the **Precambrian age**. The dominant rock types include **gneiss, granite and schist**, which are resistant to erosion.

Relief Features

The Southern Plateau Region is characterised by rugged terrain, undulating surfaces and isolated conical hills. Important hill formations in this region include:

- Pretshila Hills
- Ramshila Hills
- Jethian Hills
- Rajmahal Hills (eastern extension)

The Rajmahal Hills are considered among the oldest geological formations in Bihar. These hills are remnants of ancient volcanic activity and are composed mainly of basaltic rocks.

Mineral Resources

The plateau region is relatively rich in mineral resources compared to the plains of Bihar. Most of the mineral deposits of the state are found in this region. Limestone, pyrite and minor mineral resources occur in districts such as Rohtas, Kaimur, Nawada and Jamui.

Sub-Divisions

The Southern Plateau Region can be divided into two parts:

Western Part

This is the extension of the Chotanagpur Plateau in Bihar. It covers districts like Kaimur, Rohtas, Aurangabad, Gaya, Nawada and parts of Jamui. The terrain is rocky and undulating with scattered hill ranges.

Eastern Part

This part is the extension of the Rajmahal Hills. It includes districts such as Bhagalpur, Munger, Banka and parts of Jamui. The region consists of old volcanic rocks and isolated hill structures.

The Southern Plateau Region differs significantly from the Ganga Plains in terms of geology, soil type and relief. While the plains are composed of fertile alluvium, the plateau region consists of hard crystalline rocks and comparatively thinner soils.

Thus, the Southern Plateau Region completes the three-fold classification under the **Physiographic Division of Bihar**, marking the transition from the alluvial plains to the peninsular plateau system.

4. Important Physiographic Features

The **Physiographic Division of Bihar** is marked not only by major regions like plains and plateaus but also by several distinct fluvial and structural landforms. These features are mainly the result of river activity, slope variation and geological structure.

Doabs

A doab refers to the land between two rivers. In the Northern Plains of Bihar, rivers flowing from Nepal divide the region into several important doabs. Major doabs include:

- **Ghaghara–Gandak Doab**
- **Gandak–Kosi Doab**
- **Kosi–Mahananda Doab**

These doabs are formed due to the parallel flow of rivers from north to south before they join the Ganga. The soil in these regions is generally fertile alluvium. However, due to frequent flooding and river course shifting, these areas remain highly dynamic in nature.

In Southern Bihar, an important example is the **Ganga–Son Doab**, covering districts such as Kaimur, Rohtas, Buxar and Bhojpur.

Diara

Diara landforms are formed when a river splits into two branches and later rejoins, leaving a stretch of land in between. These regions are usually found along the Ganga and its tributaries.

Diara areas consist of **new alluvium (Khadar)**, making them highly fertile. Due to regular deposition of fresh silt, these lands are suitable for intensive agriculture. However, they are also prone to flooding and river erosion. A well-known example is **Raghopur Diara** in the Ganga basin.

Chaur (Chharan Lake)

Chaur refers to low-lying, waterlogged depressions found mainly in the Northern Plains of Bihar. These are seasonal wetlands formed due to poor drainage or when river channels get cut off during the dry season.

During the monsoon, chaurs become flooded and resemble lakes. In the dry season, water recedes partially, and some areas are used for seasonal cultivation. Chaurs are common in districts like Darbhanga, Madhubani and Saharsa.

Tal

Tal refers to swampy depressions found in the Southern Plains of Bihar near the southern bank of the Ganga. These are formed due to the gentle slope of the land (about 6 cm per kilometre), which prevents quick drainage of rainwater.

The most prominent example is **Mokama Tal**, located between Barh (Patna district) and Bhagalpur. Tal regions remain waterlogged during the monsoon and dry up gradually in winter. These areas influence cropping patterns and settlement distribution.

River Meanders and Natural Levees

The rivers of Bihar, especially in the alluvial plains, exhibit meandering patterns due to low gradient. Continuous lateral erosion and deposition create natural levees along riverbanks. These levees are slightly elevated ridges formed by sediment deposition during floods.

Such features are common along the Ganga, Gandak and Kosi rivers and contribute significantly to the landscape of the state.

These landforms collectively enhance the diversity within the **Physiographic Division of Bihar**, making the state geographically dynamic and river-dominated in character.

5. Conclusion

The **Physiographic Division of Bihar** clearly reflects the state's transitional geographical position between the Himalayas and the Peninsular Plateau. From the Shiwalik hills in the north-west to the vast Ganga plains in the centre and the ancient plateau region in the south, Bihar exhibits distinct relief features shaped by geology and river systems.

The dominance of alluvial plains, combined with limited hilly and plateau areas, defines the physical landscape of the state. These physiographic divisions form the natural foundation of Bihar's geography and explain the variation in relief across different regions.

LESSON-3: INDIAN ECONOMY

Topics covered under this Lesson

1. Growth & Welfare

- 1.1 Inclusive Growth
- 1.2 Poverty and Government Programs
- 1.3 Social Sector Schemes

2. Demography & Employment

- 2.1 Demographic Dividend in India
- 2.2 Unemployment in India
- 2.3 Migration in India

3. External Sector

- 3.1 India and WTO
- 3.2 Trade War and Protectionism
- 3.3 Trade Deficit
- 3.4 Foreign Direct Investment (FDI)

4. Financial System

- 4.1 Monetary Policy
- 4.2 Fiscal Policy
- 4.3 Monetary Policy Committee

5. Economic Reforms & Governance

- 5.1 Disinvestment in PSU
- 5.2 Merger of PSU Banks
- 5.3 Ease of Doing Business
- 5.4 Start-up Ecosystem
- 5.5 Corporate Social Responsibility (CSR)
- 5.6 JAM Trinity

1. Growth & Welfare

1.1 Inclusive growth

Inclusive growth means economic growth that creates employment opportunities and helps in reducing poverty.

- It means having access to essential services in health and education by the poor. It includes providing equality of opportunity, empowering people through education and skill development.
- It also encompasses a growth process that is environment friendly growth, aims for good governance and helps in creation of a gender sensitive society.
- As per OECD (Organisation for Economic Co-operation and Development), inclusive growth is economic growth that is distributed fairly across society and creates opportunities for all.

Elements of Inclusive Growth

Skill Development

- Harnessing the demographic dividend will depend upon the employability of the working age population, their health, education, vocational training and skills. Skill development plays a key role here.
- India is facing a dual challenge in skill development. First, there is a paucity of highly trained workforce and second, there is non-employment of conventionally trained youths
- UNICEF 2019 reports stats that at least 47% of Indian youth are not on track to have the education and skills necessary for employment in 2030.

Financial Inclusion

- Financial Inclusion is the process of ensuring access to financial services to vulnerable groups at affordable costs.
- Financial inclusion is necessary for inclusive growth as it leads to the culture of saving, which initiates a virtuous cycle of economic development.

Technological Advancement

- The world is moving towards an era of **Industrial Revolution 4.0**. These technological advancements have capabilities to both decrease or increase the inequality depending on the way these are being used.
- Several initiatives have been taken by the government, eg. **Digital India Mission**, so that a digitally literate population can leverage technology for endless possibilities.
- Technology can help to combat other challenges too, eg:
 - **Agriculture-** Modern technology can help in making an agro-value chain from farmer to consumer more efficient and competitive.
 - **Manufacturing-** Technology can resolve the problems of finance, procuring raw materials, land, and linkages with the user market. GST was made possible only with the help of sound technology.

- **Education-** Innovative digital technologies can create new forms of adaptive and peer learning, increasing access to trainers and mentors, providing useful data in real-time.
- **Health-** Technologies could transform the delivery of public health services - extend care through remote health services
- **Governance-** Technology can cut down delays, corruption, and inefficiency in the delivery of a public service

Economic Growth

- India is among the fastest-growing major economies in the world. However, currently Indian economy is facing slowdown due to both cyclic and structural challenges.
- However, the target of becoming a \$ 5 trillion economy by 2024-25 can allow India to reduce inequality, increase social expenditure and provide employment to all.

Social Development

- It means the empowerment of all marginalised sections of the population like SC/ST/OBC/Minorities, women and transgenders.
- Empowerment can be done by improving institutions of the social structure i.e. hospitals especially primary care in the rural areas, schools, universities, etc.
- Investment in social structures will not only boost growth (by fiscal stimulus) but will also create a healthy and capable generation to handle future work.

Challenges in Achieving Inclusive Growth

Poverty

- As per the **Multidimensional Poverty Index (MPI) 2018**, India lifted 271 million people between 2005-06 and 2015-16, with the poorest regions, groups, and children, reducing poverty fastest. India demonstrates the clearest pro-poor pattern at the sub-national level.
- Still, despite the massive gains, 373 million Indians continue to experience acute deprivations. Additionally, 8.8% of the population lives in severe multidimensional poverty and 19.3% of the population are vulnerable to multidimensional poverty.

Unemployment

- As per the **Periodic Labour Force Survey (PLFS) of NSSO**, the unemployment rate among the urban workforce was 7.8%, while the unemployment rate for the rural workforce was 5.3% totalling the total unemployment rate at 6.1%.
- The quality and quantity of employment in India are low due to illiteracy and due to over-dependence on agriculture.
- The quality of employment is a problem as more than 80% of people work in the informal sector without any social security.
- Low job growth is due to the many factors such as, low investment, low capital utilization in industry and low agriculture growth

Agriculture Backwardness

- Around 44% of people in India have agriculture-related employment but its contribution to the Indian GDP is only 16.5% which lead to widespread poverty

- Issues in agriculture are such as: declining per capita land availability, a slow reduction in the share of employment, low labour productivity, decline in agriculture yield due to climate change, land degradation and unavailability of water and disparities in growth across regions and crops.

Issues with Social Development

Social development is one of the key concerns for inclusive growth. But it is facing some problems such as:

- Significant regional, social and gender disparities
- Low level and slow growth in public expenditure particularly in health and education
- The poor-quality delivery system
- Social indicators are much lower for OBC, SC, ST, and Muslims
- Malnutrition among the children - **India ranks 102nd in Global Hunger Index**

Regional Disparities

- Regional disparities are a major concern for India. Factors like the caste system, gap between rich and poor etc. contribute to the regional disparities which create a system where some specific groups hold more privileges over others.
- Some of the regional disparity's problems are as follow:
 - In terms of literacy rate, **Kerala** is the most literate state with 93.1% literacy, on the other hand, literacy rate of **Bihar** is only 63.82%
 - As per recent estimates (2024–25), Goa has a per capita income of around ₹5.5–6 lakh, while Bihar has around ₹60,000–₹65,000. This means Bihar's per capita income is roughly 1/8th to 1/9th of Goa's.

Measuring Inclusive Growth

Inclusive Development Index (IDI)

- In the Inclusive Development Index (IDI) compiled by the World Economic Forum (WEF), India ranked 62nd out of 74 emerging countries and was among the least inclusive countries in Group of 20 (G-20) countries.
- The IDI is based on the idea that most people base their country's growth not on GDP but by their own standard of living.
- It gives a measure of inequality based on three parameters:
 - Growth and development
 - Inclusion
 - Inter-generational equity and sustainability.
- India also did not make it to the top 10 most inclusive emerging and developing economies, where its neighbours Nepal, China and Sri Lanka made a mark.
- India performed its best in terms of "intergenerational equity and sustainability", ranking 44th, for which credit can be attributed to its demographic dividend.

Social Progress Index (SPI)

It is an aggregate index of social and environmental indicators which includes the following:

- Basic human need
- Foundation of well being
- Opportunity

Measures to Achieve Inclusive Growth in India

Inclusive growth means economic progress that benefits all sections of society, especially the poor, women, and marginalized groups. In India, despite high growth rates, inequality, unemployment, and regional disparities remain key challenges. Therefore, inclusive growth focuses on ensuring equal access to opportunities such as employment, education, healthcare, and financial services.

Employment and livelihood generation: The government promotes employment through schemes like **MGNREGA**, which guarantees **100 days** of wage employment in rural areas, and **PMEGP**, which supports micro-enterprises. Similarly, Pradhan Mantri Mudra Yojana provides collateral-free loans to small businesses, while **DDU-GKY** and **DAY-NULM** focus on skill development and self-employment for rural and urban poor.

Financial inclusion and social security: Financial inclusion is strengthened through Pradhan Mantri Jan Dhan Yojana, which has enabled millions to access banking and direct benefit transfers. In healthcare, **Ayushman Bharat** provides insurance coverage to vulnerable families, while National Rural Health Mission improves rural healthcare infrastructure.

Human development and infrastructure: Education and sanitation are addressed through Sarva Shiksha Abhiyan and **Swachh Bharat Mission**, improving literacy and public health. Infrastructure initiatives like Bharat Nirman enhance rural connectivity and basic services, which are essential for reducing poverty.

Policy and institutional support: Policy frameworks led by **NITI Aayog** emphasize technology-driven, sustainable, and inclusive development. Global insights from World Economic Forum highlight investment in human capital, better labour systems, and focus on labour-intensive sectors as key to inclusion.

Inclusive growth in India requires a multi-dimensional approach combining welfare schemes, economic reforms, and institutional support. Sustained focus on employment, human development, and equitable access will ensure that growth becomes both inclusive and sustainable.

Conclusion

Indian government along with the state governments and local governments should continue to focus on eradicating poverty and achieving sustainable development to improve the lives of India's people.

Through innovative partnerships with an international organization, civil societies, and private companies, inclusive and equitable growth can be targeted.

Inclusive growth will help in the empowerment of vulnerable and marginalized populations, improve livelihoods, and augment skill-building for women.

LESSON-4: BIHAR ECONOMY

Topics covered under this Lesson

1. Structural Issues

- 1.1 Economic Backwardness of Bihar
- 1.2 Migration from Bihar

2. Growth Areas

- 2.1 Tourism in Bihar
- 2.2 Demographic Dividend in Bihar

3. Government Initiatives

- 3.1 Bihar Saat Nishchay-3

1. Structural Issues

1.1 Economic backwardness of Bihar

1. Introduction: Understanding the Economic Backwardness of Bihar

The economic backwardness of Bihar is reflected clearly in key development indicators. Bihar's per capita income remains among **the lowest in India**, significantly below the national average. A large share of its workforce is still dependent on agriculture, while the contribution of manufacturing to the state economy remains limited.

According to recent economic surveys, poverty levels and unemployment rates have historically been higher than many other Indian states. Despite improvements in road connectivity, electricity supply and school enrolment, structural challenges continue to slow income growth. These realities make the economic backwardness of Bihar an important issue for policy and governance debate.

2. Historical Reasons Behind the Economic Backwardness

Colonial Economic Policies and Neglect

During British rule, Bihar was largely treated as a supplier of raw materials such as indigo, opium and agricultural produce. Industrial investment was concentrated in port cities like Bombay and Calcutta. The Permanent Settlement of **1793** strengthened **zamindari (landlord) control**, reducing incentives for agricultural improvement. As a result, Bihar entered independence in 1947 with a weak industrial base and limited infrastructure, laying the foundation for the economic backwardness of Bihar.

Zamindari System and Agrarian Stagnation

The **zamindari system** created unequal land ownership patterns. Large landlords controlled vast areas, while peasants had little security or incentive to invest in land improvement. Even after the abolition of zamindari in the **1950s**, fragmented landholdings continued. According to agricultural census trends, a majority of farmers in Bihar today fall under small and marginal categories, reflecting a long history of structural agrarian inequality that contributed to persistent low productivity.

Freight Equalisation Policy of 1952

The **Freight Equalisation Policy** introduced in **1952** aimed to ensure uniform pricing of minerals and raw materials across India. While intended to promote balanced development, it reduced the natural advantage of mineral-rich eastern states. Industries were no longer compelled to locate near raw material sources. This policy indirectly discouraged industrial concentration in eastern India, affecting Bihar's industrial prospects and reinforcing the economic backwardness of Bihar during the early decades after independence.

Bifurcation and Loss of Mineral Resources (2000)

In **2000**, **Jharkhand** was carved out of Bihar. Most mineral-rich districts, including coal and iron ore reserves, became part of the new state. Bihar retained largely agrarian regions with limited heavy industries. Before bifurcation, the undivided state had major industrial assets linked to mining. After separation, Bihar's industrial share reduced significantly, narrowing

its revenue base and slowing industrial expansion, which further deepened the economic backwardness of Bihar.

3. Structural Causes: Agriculture, Industry and Infrastructure

Agricultural Dependence and Low Productivity

Around **45–50 percent** of Bihar's workforce is engaged in **agriculture**, yet the sector contributes a much smaller share to the Gross State Domestic Product. According to agricultural census trends, more than **85 percent of farmers are small and marginal**, owning less than two hectares of land. Irrigation coverage, though improving, remains uneven, and North Bihar faces annual floods affecting lakhs of hectares. Low mechanisation and fragmented holdings continue to sustain the economic backwardness of Bihar.

Limited Industrial Base

Manufacturing contributes a relatively small share to Bihar's Gross State Domestic Product compared to industrialised states where it forms a much larger component. After the 2000 bifurcation, most mineral-based industries remained in Jharkhand. Bihar's per capita income remains among the lowest in India, reflecting limited industrial value addition. The state has fewer large industrial clusters, and MSMEs dominate the sector, restricting large-scale employment generation and reinforcing the economic backwardness of Bihar.

Infrastructure Deficit

Infrastructure indicators highlight persistent gaps. Although road density per 1,000 sq km has improved, per capita road availability remains lower compared to more developed states. Freight movement and logistics networks are still evolving. While near-universal village electrification has been achieved, industrial-quality power supply and urban infrastructure require strengthening. Limited **warehousing, cold storage capacity and industrial corridors increase transaction costs**, making infrastructure constraints a structural driver of the economic backwardness of Bihar.

4. Social Factors

Social indicators strongly influence the economic backwardness of Bihar. The state has historically recorded lower **literacy rates** compared to the national average, though improvements have occurred in recent years. Female literacy, while rising, still lags behind male literacy, affecting workforce participation.

Bihar also has one of the highest population densities in India, increasing pressure on land and public services. **High dependency ratios** mean a larger share of non-working population depends on limited earners. Health indicators such as malnutrition and maternal health challenges further reduce productivity, thereby reinforcing the economic backwardness of Bihar through social constraints.

5. Governance Issues

Weak governance has played a significant role in shaping the economic backwardness of Bihar. Historically, Bihar's **per capita income has remained far below the national average** — for example, in 2022-23 it was around ₹59,637 compared with India's nearly ₹1,96,983, reflecting slower economic development and investment outcomes.

Per capita development expenditure in Bihar has also been lower than many states historically, limiting investments in health, education and infrastructure that are essential for growth. Studies point to low human capital and weak institutions as major constraints on development outcomes.

Administrative inefficiencies and delays in programme implementation reduced investor confidence and slowed project completion for many years. While governance quality has improved recently, the long-standing impact of earlier administrative challenges continues to influence Bihar's economic performance.

6. Regional Imbalance Within Bihar

Regional imbalance is another factor behind the economic backwardness of Bihar. North Bihar, located close to Nepal, is highly flood-prone. Every year, floods affect around 15–20 districts and damage lakhs of hectares of agricultural land. In contrast, South Bihar faces relatively lower flood intensity but experiences water scarcity and drought-like conditions in some districts.

District-level income variations are also visible. Urban districts like **Patna** show higher per capita income and better infrastructure compared to many rural districts. Uneven industrial concentration and infrastructure availability across regions create internal disparities, slowing balanced economic development within the state.

7. Link with Migration and Demographic Dividend

Migration from Bihar is large and long-standing, reflecting limited local employment opportunities. As per the 2011 Census, over **2.7 crore people from Bihar were recorded as migrants**, one of the highest figures among Indian states. A majority of labourers from rural Bihar undertake long-distance migration to states like Delhi, Punjab and Haryana for work, with internal migration being far more common than movement within the state or abroad.

This migration trend is a key part of the **economic backwardness of Bihar** because it shows local jobs are insufficient to absorb the working-age population. At the same time, Bihar is demographically young. Around **58–60% of its population was under 25 years of age** according to the 2011 Census, giving it one of the youngest age structures in India. This large young population can become a demographic dividend — meaning a potential boost to economic growth if enough jobs and skills are created — but without quality education and local employment, the state risks missing this opportunity.

8. Current Reforms

Infrastructure expansion and capital investment

Bihar has raised capital outlay in recent budgets as part of an infrastructure push — the state's budget documents show a proposed capital outlay of **₹29,416 crore for 2024–25**, after a rise in revised estimates in 2023–24, signalling sustained asset-creation spending. Road works are extensive: the Rural Works Department reports **~68,591 km of rural roads built so far**, including **~45,832 km under PMGSY**, improving village connectivity and market access. Major Ganga-crossing projects and bridge works have reduced travel times between North and South Bihar, aiding regional integration.

Power sector improvements

Household and village electrification has progressed markedly under national schemes. The Centre reports that all inhabited un-electrified census villages were electrified by April 2018 and that **millions of households** were electrified under DDUGJY and Saubhagya; DDUGJY alone electrified **18,374 villages** nationwide with **~2,906 villages in Bihar** as part of that drive. Recent state measures (including free-units welfare announcements covering **~1.67 crore households**) show active policy use to stabilise domestic power access — a key input for small industry and farm electrification. Still, industrial-grade supply needs further strengthening.

Industrial promotion policies and ease of doing business

Bihar has updated sectoral policies (textiles, leather, food processing, ethanol) to attract investment, offering capital subsidies, tax incentives and single-window clearances under the state's Industrial Investment Promotion framework. The state has also engaged in BRAP reforms: in 2020 Bihar featured in national Ease of Doing Business rankings (BRAP) and continues to pursue administrative reforms to improve investor confidence. Policy documents and sectoral PDFs set targets for cluster development and MSME promotion to expand manufacturing and jobs.

Agricultural diversification and value-addition

State statistics show strong output in cereals and rising maize and horticulture figures (for 2024–25, rice ~99.3 lakh MT, wheat ~78.3 lakh MT, maize ~66.0 lakh MT), signalling scope for value chains. The government and universities are promoting high-value crops — for example, organized efforts to boost **makhana (fox-nut)** productivity in Mithila with new high-yield varieties and GI branding to raise farmer incomes. Pushes for food-processing units aim to retain value within the state rather than exporting raw produce.

Skill development and employment initiatives

Bihar has scaled skill efforts through the Bihar Skill Development Mission and recent MoUs linking traditional arts and local industry to markets; mega job fairs have produced employment offers (including international placements) and the state is integrating digital skilling into training curricula. These programs are explicitly linked to state industrial promotion and aim to place trainees in food processing, construction trades, healthcare assistance and IT-enabled services — a direct attempt to convert the state's young labour force into employable human capital.

9. Conclusion

The economic backwardness of Bihar is the outcome of historical neglect, structural weaknesses and social constraints, but it is not irreversible. Data shows that while per capita income remains among the lowest in India, recent increases in capital expenditure, near-universal electrification and expansion of rural roads indicate gradual structural correction. The state's young population offers a demographic opportunity, provided education and skill systems align with industrial growth.

Sustained reforms in infrastructure, governance, agricultural diversification and private investment are essential for long-term transformation. If policy continuity, institutional

efficiency and employment generation move together, Bihar can shift from a cycle of migration-driven survival to productivity-led growth and inclusive development.

BPSC PATHSHALA

LESSON-5: AGRICULTURE & ALLIED SECTOR

Topics covered under this Lesson

1. Agriculture in India

- 1.1 Agriculture Reforms in India
- 1.2 Green Revolution
- 1.3 Second Green Revolution
- 1.4 Agricultural Subsidy
- 1.5 Contract Farming
- 1.6 Organic Farming

2. Food Processing & Schemes

- 2.1 Food Processing Industry in India
- 2.2 Pradhan Mantri Krishi Sampada Yojana
- 2.3 Mega Food Park Scheme

3. Agriculture in Bihar

- 3.1 Agriculture in Bihar
- 3.2 Horticulture in Bihar

4. Allied Activities

- 4.1 Fishing in Bihar

1. Agriculture in India

1.1 Agriculture reform in India

1. Introduction: Agriculture and the Indian Economy

Agriculture plays a crucial role in the Indian economy and supports the livelihood of millions of people. Even today, a large section of India's rural population depends on farming and allied activities for income. Because of this, **agriculture reform in India** is essential for improving farmer income, strengthening rural development and ensuring national food security.

According to the **Economic Survey of India**, agriculture contributes around **15–18% of India's GDP**, while nearly **45% of the workforce** depends on this sector. This imbalance shows that a large number of people rely on agriculture but the income generated from the sector remains relatively low. Therefore, effective **agriculture reform in India** is necessary to increase productivity, improve market access and make farming more profitable.

Agriculture also provides raw materials to many industries and plays a key role in India's economic stability. Strengthening the sector through proper reforms can help ensure sustainable agricultural growth and better livelihood for farmers.

2. Meaning of Agricultural Reforms

Agricultural reforms refer to policy changes and institutional improvements made by the government to improve the efficiency, productivity and profitability of the farming sector. In simple terms, **agriculture reform in India** aims to modernize farming practices, improve market systems and increase farmers' income.

Traditionally, Indian agriculture has been characterized by **small land holdings, dependence on monsoon, limited technology and regulated agricultural markets**. Because of these structural limitations, farmers often face problems such as low productivity, unstable prices and limited access to markets. Agricultural reforms attempt to address these issues by introducing better policies, infrastructure and technology.

The main objective of **agriculture reform in India** is to create a farming system where farmers get **fair prices for their produce, better access to markets, modern technology and financial support**. These reforms also aim to encourage private investment, strengthen supply chains and reduce inefficiencies in agricultural marketing.

In recent decades, reforms have focused on areas such as **agricultural marketing, crop insurance, irrigation development, digital agriculture and farmer income support**. Together, these measures are intended to make Indian agriculture more **competitive, sustainable and resilient** to economic and climate challenges.

3. Need for Agricultural Reforms in India

Agriculture in India supports a large population, but the sector faces several structural challenges. These problems reduce farmer income and limit agricultural productivity. Because of this, **agriculture reform in India** has become necessary to make farming more profitable, efficient and sustainable.

Several economic and environmental factors have increased the urgency for reforms. Improving market access, strengthening infrastructure and promoting modern technology are essential steps for transforming Indian agriculture. Major reasons highlighting the need for **agriculture reform in India** include:

- **Low farmer income** – Many farmers earn very limited income due to small landholdings, low productivity and unstable market prices.
- **Small and fragmented land holdings** – According to agricultural census data, nearly **86% of farmers are small and marginal farmers**, owning less than 2 hectares of land. This reduces economies of scale in farming.
- **Dependence on monsoon rainfall** – Nearly **50% of India's agricultural land is still rain-fed**, making farming highly vulnerable to droughts and irregular rainfall.
- **Inefficient agricultural markets** – Farmers often depend on intermediaries in local markets (mandis), which reduces their share in the final price of agricultural produce.
- **Rising cost of cultivation** – Increasing prices of fertilizers, seeds, pesticides and diesel have raised the cost of farming, affecting profitability.

These structural issues show that improving productivity, strengthening market systems and supporting farmers financially are essential components of **agriculture reform in India**.

4. Major Problems in Indian Agriculture

Despite significant progress in food production, Indian agriculture still faces several structural and economic challenges. These problems reduce farm productivity and limit farmer income. Addressing these issues is one of the main objectives of **agriculture reform in India**. The major problems in Indian agriculture include:

- **Dominance of small and marginal farmers** – Around **86% of farmers** in India own less than 2 hectares of land. Small land size makes it difficult to use modern machinery and advanced farming techniques.
- **Inadequate irrigation facilities** – Although irrigation coverage has improved, a large portion of agricultural land is still dependent on rainfall. This makes farming highly vulnerable to droughts and climate variability.
- **Price instability for agricultural products** – Farmers often face sudden price fluctuations in the market. Sometimes the price of crops falls below the cost of production, causing financial losses.
- **Poor storage and cold chain infrastructure** – Lack of warehouses and cold storage facilities leads to significant **post-harvest losses**, especially for fruits and vegetables.
- **Limited access to institutional credit** – Many small farmers still depend on informal moneylenders due to difficulties in accessing bank loans.
- **Low adoption of modern technology** – In many rural areas, farmers have limited access to improved seeds, mechanization and scientific farming practices.

These problems highlight why structural improvements and policy interventions are necessary for successful **agriculture reform in India**.

5. Agricultural Reforms After 1991 Economic Liberalization

The year **1991** marked an important turning point in the Indian economy. With the introduction of **economic liberalization**, the government began reducing excessive regulations and encouraging market-oriented policies. These changes also influenced the

direction of **agriculture reform in India**, although reforms in agriculture progressed more gradually compared to industry and services.

Earlier, the agricultural sector was largely controlled through **regulated markets, government procurement systems and restrictions on private trade**. After 1991, policymakers started focusing on improving market efficiency, increasing private sector participation and strengthening agricultural infrastructure. Key developments in **agriculture reform in India** after economic liberalization include:

- **Market-oriented agricultural policies** – Efforts were made to improve agricultural marketing systems and reduce unnecessary restrictions on the movement and sale of agricultural products.
- **Encouragement of private sector participation** – Private investment in areas such as food processing, storage, cold chains and agricultural supply chains was promoted.
- **Diversification of agriculture** – Farmers were encouraged to shift from only food grains to high-value crops such as fruits, vegetables, flowers and dairy products.
- **Focus on export-oriented agriculture** – Policies were introduced to promote the export of agricultural products like rice, spices, tea, coffee and marine products.
- **Improvement in agricultural infrastructure** – The government started investing more in rural roads, irrigation, storage facilities and agricultural research.

These policy changes aimed to integrate Indian agriculture with modern markets and improve the overall efficiency of the sector. However, many structural challenges still remain, which is why further **agriculture reform in India** continues to be an important policy priority.

6. Key Government Initiatives for Agricultural Reform in India

Over the years, the Government of India has introduced several schemes and policy initiatives to improve farmer income, strengthen agricultural markets and promote sustainable farming practices. These initiatives are an important part of **agriculture reform in India** as they aim to address structural problems such as low productivity, market inefficiencies and financial risks faced by farmers. Below are some major government schemes that contribute to **agriculture reform in India**.

6.1 PM-KISAN (Pradhan Mantri Kisan Samman Nidhi)

This scheme was launched in **2019** to provide **direct income support to farmers**.

- Under the scheme, eligible farmers receive **₹6,000 per year**, transferred directly to their bank accounts in three instalments.
- The scheme covers **small and marginal farmers across the country**.
- It helps farmers meet expenses related to seeds, fertilizers and other agricultural inputs.
- By providing income support, the scheme aims to reduce financial stress among farmers.

PM-KISAN has become one of the largest farmer support programmes and plays a key role in **agriculture reform in India** by strengthening rural purchasing power.

6.2 PMFBY (Pradhan Mantri Fasal Bima Yojana)

Agriculture is highly dependent on weather conditions. To protect farmers from crop losses, the government launched **Pradhan Mantri Fasal Bima Yojana (PMFBY)** in **2016**.

- Provides **crop insurance coverage** against drought, floods, pests and natural disasters.
- Farmers pay very **low premium rates** (around 2% for Kharif crops and 1.5% for Rabi crops).
- The remaining premium amount is subsidized by the government.
- Ensures financial security for farmers in case of crop failure.

Crop insurance is considered an important pillar of **agriculture reform in India** because it reduces risk and encourages farmers to invest in better farming practices.

6.3 e-NAM (National Agriculture Market)

The **National Agriculture Market (e-NAM)** is a digital platform launched in **2016** to improve agricultural marketing.

- It connects **mandis (agricultural markets)** across different states through an online trading platform.
- Farmers can get **better price discovery** by selling their produce to buyers across markets.
- Reduces the role of middlemen in agricultural trade.
- Promotes transparency in the agricultural marketing system.

By integrating agricultural markets across India, e-NAM supports the long-term goals of **agriculture reform in India**.

6.4 Soil Health Card Scheme

The **Soil Health Card Scheme** was launched in **2015** to improve soil productivity.

- Farmers receive **soil health cards** that provide information about soil nutrient status.
- The card suggests the **appropriate use of fertilizers and nutrients**.
- Helps reduce excessive use of chemical fertilizers.
- Promotes **scientific and sustainable farming practices**.

Healthy soil improves agricultural productivity, making this scheme an important component of **agriculture reform in India**.

6.5 Pradhan Mantri Krishi Sinchai Yojana (PMKSY)

Water availability is a major challenge in Indian agriculture. To improve irrigation facilities, the government launched **PMKSY** in **2015**.

- The scheme aims to expand irrigation coverage with the slogan **“Har Khet Ko Pani” (water to every field)**.
- Promotes **efficient water use through micro-irrigation techniques** such as drip and sprinkler systems.
- Supports watershed development and water conservation.

- Helps reduce dependence on monsoon rainfall.

Improving irrigation infrastructure is essential for successful **agriculture reform in India**.

6.6 Formation and Promotion of Farmer Producer Organizations (FPOs)

The government has promoted the formation of **Farmer Producer Organizations (FPOs)** to strengthen farmers collectively.

- FPOs are **farmer-owned organizations** that work like cooperatives.
- They help farmers collectively purchase inputs such as seeds and fertilizers at lower cost.
- Farmers can also sell their produce together to get **better market prices**.
- The government plans to create **10,000 FPOs across India**.

FPOs improve farmers' bargaining power and market access, which is a key element of **agriculture reform in India**.

6.7 Kisan Credit Card (KCC)

The **Kisan Credit Card scheme** was introduced to provide easy access to **institutional credit for farmers**.

- Farmers can obtain short-term loans for agricultural activities.
- The scheme offers **low interest rates and flexible repayment options**.
- It reduces farmers' dependence on informal moneylenders.
- The scheme has also been extended to **fisheries and animal husbandry sectors**.

Access to affordable credit supports agricultural investment and contributes to **agriculture reform in India**.

6.8 PM-AASHA (Pradhan Mantri Annadata Aay Sanrakshan Abhiyan)

PM-AASHA was launched in **2018** to ensure farmers receive **remunerative prices for their crops**.

- It strengthens the **Minimum Support Price (MSP) system**.
- Includes price support schemes and price deficiency payment mechanisms.
- Aims to protect farmers from sudden price crashes in agricultural markets.

Ensuring fair prices for farmers is a crucial objective of **agriculture reform in India**.

6.9 National Mission for Sustainable Agriculture (NMSA)

Climate change has become a major challenge for agriculture. The **National Mission for Sustainable Agriculture** focuses on climate-resilient farming.

- Promotes **water conservation, soil management and sustainable farming practices**.
- Encourages use of climate-resilient crop varieties.
- Supports agroforestry and integrated farming systems.

Sustainable farming practices are increasingly becoming a central part of **agriculture reform in India**.

7. The 2020 Farm Laws and Debate on Agricultural Reform

In **2020**, the Government of India introduced three major laws aimed at accelerating **agriculture reform in India** by improving agricultural marketing and increasing private sector participation. These laws were intended to give farmers more freedom to sell their produce and attract investment in the agricultural supply chain. The three farm laws included:

- **Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020** – Allowed farmers to sell their produce **outside traditional APMC mandis**, enabling trade across states and through electronic platforms.
- **Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020** – Provided a legal framework for **contract farming**, allowing farmers to enter agreements with companies before production for assured prices.
- **Essential Commodities (Amendment) Act, 2020** – Reduced restrictions on the storage of certain agricultural commodities to encourage private investment in storage and supply chains.

However, these laws led to **large-scale farmer protests**, especially in states like Punjab and Haryana. Many farmers feared that weakening the APMC system could eventually reduce the role of **Minimum Support Price (MSP)** and increase corporate control over agriculture.

Due to widespread protests and political debate, the Government of India **repealed the three farm laws in 2021**. The episode highlighted the complexity and sensitivity involved in implementing **agriculture reform in India**.

8. Role of Technology in Agricultural Reform

Technology is playing an increasingly important role in modernizing farming and improving productivity. The use of digital tools, scientific techniques and modern equipment has become a key component of **agriculture reform in India**. Some major technological developments supporting **agriculture reform in India** include:

- **Digital agriculture platforms** – Mobile applications and digital platforms now provide farmers with information about weather, crop prices, and farming techniques.
- **Use of drones in agriculture** – Drones are being used for **crop monitoring, spraying fertilizers and pesticides**, and collecting field data.
- **Precision farming** – This method uses technology such as **GPS, sensors and satellite data** to apply water and fertilizers efficiently.
- **Improved seed varieties** – Development of **high-yield and climate-resistant crop varieties** helps improve productivity.
- **Agricultural mechanization** – Increased use of machines such as **tractors, harvesters and seed drills** reduces labour dependence and increases efficiency.

Technology-driven agriculture can improve productivity, reduce costs and make farming more resilient to climate change. Therefore, promoting technological innovation is an important pillar of **agriculture reform in India**.

9. Role of Infrastructure in Agricultural Reform

Agricultural infrastructure plays a crucial role in improving productivity, reducing post-harvest losses and strengthening market access for farmers. Better infrastructure such as **irrigation systems, rural roads, storage facilities and cold chains** helps farmers transport and store their produce efficiently. Strengthening these facilities is therefore an important part of **agriculture reform in India**.

In recent years, the government has focused on developing **warehouses, cold storage networks, food processing industries and rural connectivity** through various schemes such as the **Agriculture Infrastructure Fund (AIF)**. Improved infrastructure helps reduce wastage of agricultural produce, improves supply chains and enables farmers to receive better prices in the market.

10. Challenges in Implementing Agricultural Reforms

Although many policy measures have been introduced, implementing effective **agriculture reform in India** remains difficult due to economic, social and institutional challenges. These obstacles often slow down the impact of reforms and create resistance among stakeholders.

10.1 Small and fragmented land holdings

Most farmers in India are **small and marginal farmers**, owning very small pieces of land. When land is divided among family members over generations, the size of farms becomes even smaller. Small farms make it difficult to adopt modern machinery, irrigation systems and advanced technology, which reduces productivity.

10.2 Dependence on monsoon rainfall

A large part of Indian agriculture still depends on **seasonal rainfall**. Irregular monsoons, droughts or floods can significantly affect crop production. Climate change has further increased weather uncertainties, making it challenging to achieve stable agricultural growth.

10.3 Inefficient agricultural marketing system

In many regions, farmers still depend heavily on **local APMC mandis and middlemen** to sell their produce. Due to weak bargaining power, farmers often receive a smaller share of the final market price. Limited market access remains a major barrier in successful **agriculture reform in India**.

10.4 Lack of storage and supply chain infrastructure

India faces a shortage of **modern warehouses, cold storage facilities and food processing units**. Because of this, a significant amount of agricultural produce is lost after harvest. These **post-harvest losses** reduce farmer income and increase food wastage.

10.5 Limited access to institutional credit

Many small farmers still face difficulties in obtaining loans from banks and formal financial institutions. As a result, they depend on **informal moneylenders**, who often charge very high interest rates. This creates financial stress and increases farmer indebtedness.

10.6 Low adoption of modern technology

Although new farming technologies are available, their adoption remains uneven across regions. Many farmers lack **technical knowledge, training and financial resources** to use modern agricultural practices effectively.

10.7 Political and policy resistance

Agricultural reforms often face **political opposition and social resistance**, especially when farmers fear losing existing benefits such as **Minimum Support Price (MSP)** or government procurement systems. The protests during the **2020 farm laws** highlighted how sensitive agricultural policy changes can be.

10.8 Federal structure and role of states

Agriculture is largely a **state subject in India**, meaning that both the central and state governments have roles in policymaking. Differences in policies and priorities among states sometimes slow down the implementation of **agriculture reform in India**.

10.9 Regional disparities in agriculture

Agricultural development is uneven across India. States such as **Punjab, Haryana and western Uttar Pradesh** have advanced irrigation and high productivity, while many eastern and central states still struggle with low productivity and poor infrastructure. These regional differences make nationwide reforms more complex.

11. Way Forward for Sustainable Agricultural Reform

For long-term growth of the farming sector, **agriculture reform in India** must focus on increasing farmer income, improving productivity and ensuring sustainability. Reforms should balance market efficiency with farmer welfare so that small and marginal farmers also benefit from policy changes. Some important steps for strengthening **agriculture reform in India** include:

Crop diversification

Many farmers mainly grow **rice and wheat**, especially in irrigated regions. Encouraging farmers to shift towards **pulses, oilseeds, fruits, vegetables and horticulture crops** can improve income and reduce pressure on water resources.

Strengthening agricultural markets

Improving the efficiency of agricultural markets is essential. Expanding **e-NAM platforms, improving APMC mandis and developing private markets** can help farmers access better price opportunities.

Expanding irrigation and water management

Increasing irrigation coverage through **micro-irrigation systems such as drip and sprinkler irrigation** can improve water efficiency. Better water management is important for climate-resilient agriculture.

Promoting farmer producer organizations (FPOs)

Strengthening **Farmer Producer Organizations** can help small farmers collectively purchase inputs and sell produce. This improves their bargaining power and access to larger markets.

Encouraging agricultural research and technology

Investment in agricultural research, improved seed varieties, digital agriculture and farm mechanization can increase productivity and reduce production costs.

Promoting agro-processing and value addition

Developing the **food processing industry, cold storage and supply chains** can reduce post-harvest losses and create additional income opportunities for farmers.

Climate-resilient agriculture

Adopting climate-smart farming practices, drought-resistant crop varieties and sustainable soil management can help agriculture adapt to climate change. These measures can help create a more productive, sustainable and farmer-friendly agricultural system while strengthening the long-term impact of **agriculture reform in India**.

Conclusion

Agriculture remains a vital sector for India as it supports rural livelihoods, ensures food security and contributes to economic stability. However, structural issues such as small landholdings, market inefficiencies and climate risks continue to affect farmer income. Therefore, effective **agriculture reform in India** is necessary to modernize the sector and improve the economic condition of farmers.

A balanced reform approach that strengthens markets, promotes technology, improves infrastructure and protects farmer interests can transform Indian agriculture. If implemented carefully, **agriculture reform in India** can lead to higher productivity, sustainable farming and better livelihood opportunities for millions of farmers.

LESSON-6: INDUSTRY AND ALLIED SECTOR

Topics covered under this Lesson

1. Industrial Policy & Framework (India)

- 1.1 Make in India
- 1.2 Aatmanirbhar Bharat
- 1.3 Special Economic Zone (SEZ)
- 1.4 National Logistics Policy (NLP)

2. Core Industries

- 2.1 Iron and Steel Industry
- 2.2 Cotton Industry
- 2.3 Chemical Industry
- 2.4 Software Industry

3. Infrastructure Linkage

- 3.1 Basic Infrastructure in India
- 3.2 Transportation & Industrial Development
- 3.3 Transportation & Agricultural Development

4. Bihar Industry

- 4.1 Industries in Bihar
- 4.2 Industrial Backwardness of Bihar
- 4.3 Food Processing Industry in Bihar

1. Industrial Policy & Framework (India)

1.1 Make in India

1. Introduction: Make in India Programme

The **Make in India** programme was launched by the Government of India in **September 2014** with the objective of transforming India into a **global hub for manufacturing and investment**. The initiative is led by the **Department for Promotion of Industry and Internal Trade (DPIIT)** under the Ministry of Commerce and Industry. It invites domestic and foreign companies to **manufacture products in India**, strengthen industrial capacity, and integrate Indian industries with global value chains. The programme also focuses on improving the ease of doing business, simplifying regulations, and promoting innovation and entrepreneurship in the country.

India's manufacturing sector currently contributes around **16–17% of the country's GDP**, and the government aims to increase this share to **about 25%** in the long term. Since the launch of the initiative, India has witnessed a steady rise in **Foreign Direct Investment (FDI)** inflows, reaching a record **USD 83.6 billion in 2021–22**. The programme covers **27 key sectors**, including automobiles, electronics, defence manufacturing, pharmaceuticals, textiles, renewable energy, and infrastructure. Through these efforts, the Make in India initiative seeks to boost industrial growth, generate large-scale employment, and strengthen India's position in global manufacturing.

2. Objectives of the Make in India Initiative

Increase manufacturing growth rate

- The initiative aims to raise the **growth rate of the manufacturing sector to around 12–14% per year**.
- Higher industrial growth will help India emerge as a **major global manufacturing hub**.

Increase manufacturing share in GDP

- The programme seeks to increase the **share of manufacturing in India's GDP from about 16–17% to nearly 25%**.
- Expanding the manufacturing base is essential for achieving **long-term economic growth and industrialisation**.

Generate large-scale employment

- The initiative aims to create **around 100 million additional jobs**, particularly for India's young workforce.
- Growth of manufacturing will also generate **indirect employment in logistics, services, and supply chains**.

Attract foreign investment

- Make in India encourages **Foreign Direct Investment (FDI)** by offering liberal investment policies and simplified regulations.

- Most sectors are now open to **FDI under the automatic route**, making India an attractive destination for global investors.

Promote export-led industrial growth

- The programme focuses on strengthening **export-oriented manufacturing sectors**.
- Increased exports will improve **foreign exchange earnings and global competitiveness of Indian products**.

3. Four Pillars of Make in India

- **New Processes:** This pillar focuses on improving the **Ease of Doing Business in India** by simplifying regulations and reducing bureaucratic hurdles. The government has taken several steps to **de-license and de-regulate industries**, allowing businesses to operate with fewer restrictions throughout the life cycle of a company. Reforms such as online approvals, faster clearances, and simplified compliance procedures aim to encourage **entrepreneurship, investment, and industrial expansion**.
- **New Infrastructure:** The initiative emphasises the development of **modern industrial infrastructure** to support manufacturing growth. This includes the creation of **industrial corridors, smart cities, logistics parks, and improved transportation networks**. Strong infrastructure helps reduce production and logistics costs, improves connectivity between industrial centres and ports, and supports the expansion of manufacturing activities.
- **New Sectors:** Make in India has identified **27 priority sectors** across manufacturing, infrastructure, and services to promote industrial development. These sectors include **automobiles, electronics, defence manufacturing, pharmaceuticals, textiles, renewable energy, aviation, and information technology**. Detailed sector-specific information and investment opportunities are provided to attract both domestic and international investors.
- **New Mindset:** This pillar represents a shift in the role of the government from being a **regulator to a facilitator** of economic growth. The government aims to work as a **partner with industries** by providing policy support, investment facilitation, and a transparent regulatory environment. This change in approach is intended to build greater trust between the government and the private sector, encouraging long-term industrial investment.

4. Outcomes and Achievements of Make in India

Growth in Foreign Direct Investment (FDI)

- Since the launch of Make in India in **2014**, India has witnessed a significant increase in **Foreign Direct Investment (FDI)** inflows due to liberal investment policies and reforms.
- FDI inflows increased from **USD 45.15 billion in 2014–15** to a record **USD 83.6 billion in 2021–22**, making India one of the leading global investment destinations.

Production Linked Incentive (PLI) Scheme

- The government introduced the **Production Linked Incentive (PLI) scheme in 2020–21** to strengthen domestic manufacturing.
- The scheme covers **14 key manufacturing sectors**, including electronics, pharmaceuticals, automobiles, telecom equipment, and solar modules to boost production and exports.

Improvement in Ease of Doing Business

- Several reforms have been implemented to simplify **business regulations, licensing procedures, and taxation systems**.
- These reforms aim to create a **business-friendly environment** and attract global manufacturing companies to invest in India.

Expansion of manufacturing sectors

- Sectors such as **electronics manufacturing, mobile phone production, defence manufacturing, and renewable energy equipment** have expanded significantly under the initiative.
- India has also emerged as one of the **largest mobile phone manufacturing hubs in the world**, reflecting the impact of the Make in India programme.

5. Related Initiatives Supporting Make in India

National Single Window System (NSWS)

- The **National Single Window System** has been introduced to provide a **single digital platform for business approvals and clearances**.
- It helps investors obtain permissions from multiple central and state government departments through **one online portal**, improving the ease of doing business.

PM Gati Shakti Programme

- The **PM Gati Shakti National Master Plan**, launched in **2021**, aims to develop **integrated infrastructure and logistics networks** across the country.
- It improves connectivity between **industrial corridors, ports, highways, railways, and airports**, which supports manufacturing and industrial growth.

One District One Product (ODOP)

- The **One District One Product (ODOP)** initiative promotes **specialised products from each district of India**.
- The scheme aims to support **local industries, traditional crafts, and small-scale manufacturing** and link them with national and global markets.

Semiconductor Mission

- Recognising the importance of semiconductors in modern industries, the Government of India launched a **USD 10 billion incentive programme** to build a **semiconductor manufacturing and design ecosystem** in the country.

- The initiative aims to strengthen India's role in **electronics manufacturing and global supply chains**.

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