



# BPSC-SAMPORNA

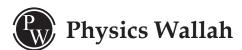
**Comprehensive Booklet for Prelims+Mains** 

# BIHAR SPECIAL

A Detailed Coverage of Bihar Civil Services Exam Syllabus

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### **PREFACE**

A highly skilled professional team of PW ONLY IAS works arduously to ensure that the students receive the best content for the BPSC exams.

A plethora of BPSC Study Material is available in the market but PW ONLY IAS professionals are continuously working to provide supreme quality study material for our BPSC students.

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The main objective of the study material is to provide short, crisp, concise, and high-quality content to our students.

#### **BOOK FEATURES**

- Holistic discussion of topics, strictly as per exam syllabus
- One-stop solution for subject-wise coverage
- Diagrams, Flowcharts and Timelines for quick understanding and revision
- Integrated Preparation of Prelims and Mains stages of this exam

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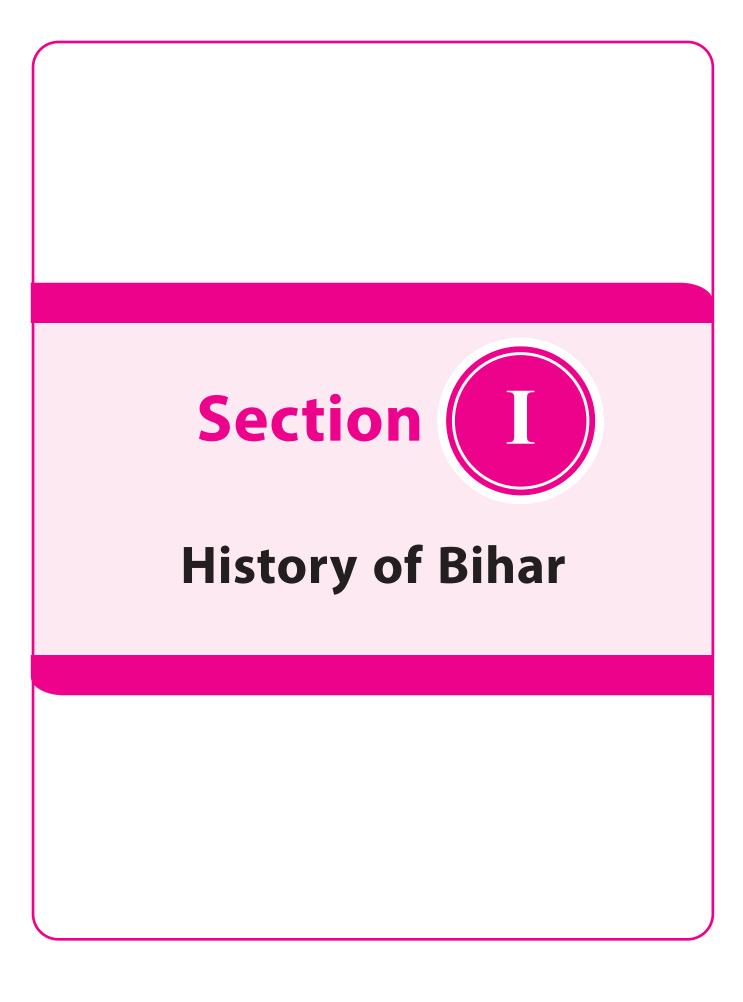


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#### **State Symbols of Bihar**

Index	Symbol	Image
State animal	Gaur (Indian Bison)	
State bird	House Sparrow	
State tree	Peepal (Bodhi Tree)	
State flower	Kachnar (Orchid Tree)	
State fish	Walking Catfish (Clarias batrachus)	
State fruit	Mango	
State emblem	Bihar's state emblem depicts the Bodhi Tree with Prayer Beads flanked by two swastikas. The base of the tree is brick with, Urdu for "Bihar," inscribed on it.	



1

## **Ancient History of Bihar**

The word 'Bihar' originated from the word 'Viharas' which means resting-houses of Buddhist monks during the ancient period. The Muslim invaders of the 12th century called it - 'Bihar'.

## 1.1 SOURCES OF ANCIENT HISTORY OF BIHAR

 The ancient history of Bihar has been developed with the help of archaeological evidence, literary sources and accounts of foreign travellers.

#### 1.1.1 Archaeological Evidences

- The archaeological remains of the Mauryan period includes ruins of the eighty pillared hall located at Kumhrar (Patna).
- Polished pillars of Ashoka were discovered at Vaishali, Lauriya Areraj, Lauriya Nandangarh and Rampurva.
- Remains of monumental buildings of the Kushana period were found at Chirand.
- Terracotta human figurines were found at Buxar and Patna.
- Excavations at Nalanda and Vikramshila show Buddhist architecture of Buddhist Shrines, Stupas and Viharas of Gupta and Pala period.
- Nalanda, Saran, Munger and Vaishali are important archaeological sites for the pre-historic phase in Bihar.

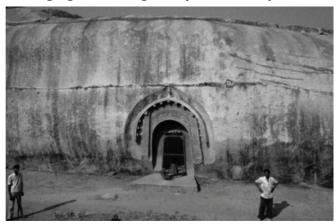


Ashokan Pillar at Vaishali

Archaeological evidence of Bihar also includes inscriptions, coins, etc.

#### **Inscriptions**

- An inscription is a piece of writing that is carved, painted, or inscribed on a hard surface, such as stone, metal, or wood. Inscriptions can be found on a variety of objects, including monuments, buildings, coins, and jewelry.
- The earliest deciphered inscriptions belong to the time of Asoka.
- Inscriptions on pillars are found in Lauriya Areraj, Lauriya Nandangarh and Rampurva.
- They were written in Brahmi script and Prakrit language and belong to Emperor Asoka's period.



The Barabar cave inscription near Gaya.

- Inscription on the Nagarjuni hills of Mauryan King Dasaratha tells us about the patronage of Ajivikas of that period.
- Copper plate inscriptions from Gaya and Nalanda and seals found in Vaishali and Nalanda belong to the Gupta period.
- Inscriptions of Bodhgaya are associated with Sri Lankan Monk Mahamana II.
- The land charters written on copper plates inform us about the social, economic and administrative conditions in the Pala reign in Bihar.
  - Copper plate inscriptions found in Nalanda belong to King Dharmapala.
  - Nalanda and Munger copper plate inscriptions belong to King Devapala.
  - Bhagalpur copper plate inscriptions belong to Narayanapala.
  - Bhangarh copper plate belongs to Vigrahapala.

- Some inscriptions belonging to Pratiharas and Gahadavalas were also found.
- The Gahadavala plate of Maner describes the revenue system of Patna during the first half of the 12th century AD.
- Other important inscriptions are Panchobha copper plate inscriptions of Samudra Gupta in Bhagalpur, Janibigha inscriptions in Gaya, Deopara inscriptions etc.

#### **Coins**

- Coins are a fascinating and important part of human history. They have been used as a form of currency for centuries, and they continue to be used in many countries around the world today. Punch-marked silver coins were found in Golakpur in Patna and Purnea.
- Coins found at Buxar and Chirand belong to the Kushan empire.
- Coins of the Gupta period were found in Hajipur.
   The Gupta gold coins, known as Dinars, are the most exceptional instances of Numismatics and artistic perfection.
- The face of the coins generally portrayed the governing king and carried legends, while the reverse depicted the figure of a goddess.





#### 1.1.2 Literary Sources

 Literary sources are an important part of our understanding of the past. They can provide us with information about the people, cultures, and events that shaped history. Literary sources include Vedic literature, Puranas, Epics, Buddhist literature, Jain literature, Non-religious and Foreign literature.

#### **Vedic Literature**

- In Rigveda, the region of Bihar was called Kikata and the people were called Vratyas.
- The earliest reference of Bihar is found in Atharvaveda and Panchvimsha Brahman.
- Atharvaveda refers to Magadha people along with Angas, Gandharis and Mujavants.
- Aryans started moving towards the Eastern part of India in the later Vedic period (1000-600 BCE).
- The Satapatha Brahmana mentions the arrival and spread of Aryans in North-Bihar.

 Satapatha Brahmana mentions a well established Aryan civilisation besides the Ganga in Bihar which was known as Kingdom of Videha.

#### **Puranas**

- Reference of Bihar is found in Vishnu Purana, Vayu Purana, Matsya Purana.
  - o Vishnu Purana -Mauryan dynasty.
  - Vayu Purana -Gupta dynasty
  - Matsya Purana -Shunga dynasty.
- Varaha Purana mentions 'Kikat' as inauspicious place and Gaya, Punpun and Rajgir as auspicious places.

#### **Epics or Mahakavyas**

 We know about Videha (King Janaka) from the Ramayana and Anga (Karna) from the Mahabharata.

#### **Buddhist Literature**

- Anguttara Nikaya, Digha Nikaya, Vinaya pitaka, Divyavadana are the most important literary sources of the ancient history of Bihar.
- The Anguttara Nikaya mentions sixteen Mahajanapadas and kingdoms and republics of North India.
- Most of the Buddhist literature was written in Pali language.
- Vinaya Pitaka mentions the history of the monarchy of Magadha and Republic of Vaishali.
- The chronology of pre-Mauryan kings of Magadha is mentioned in 'Dipavamsa' and 'Mahavamsa'.
- Divyavadan-history of Shunga dynasty.
- Ashokavadana-life history of Asoka.
- Aryamanjusrimulakalpa political history of Bihar under the Guptas.

#### **Jain Literature**

- In Jain literature, Theravali and Bhagwati Sutra are major sources of history of ancient Bihar.
- Theravili is the part of 'Kalpa Sutra' which gives us the names of the places where Mahavir spent his time.
- Kalpa Sutra and Uttara Dhyan Sutra-about Pushyamitra Shunga.
- Bhagwati Sutra- about the Licchavi of Vaishali.
- Kalpa Sutra and Parishist Parwan- about Chandragupta Maurya.

#### **Non-religious Literary Sources**

 Non-religious literary sources describing about Bihar include the Arthashastra about Mauryan administration in Patliputra, Mudrarakshasa about conflicts in Mauryan period, Malavikagnimitram, Kathasaritsagara, Gargi Samhita, Manusmriti, Si-yu-ki,



Hiuen Tsang

#### **Foreign Accounts**

- Megasthenes visited India during the reign of Chandra Gupta Maurya Megasthenes' Indica described the Mauryan administration of Patliputra in detail.
- Fa-Hien visited India during 399 to 412 AD in the reign of Chandragupta II and has described the Magadha empire.
- Hiuen Tsang described in his book Si-yu-ki (records of the western countries) about Nalanda University. He stayed there for about 5 years.
- I-Tsing travelled in India between 671 to 695 BCE during later Gupta rule. He stayed at Nalanda for 11 vears.

#### PRE-HISTORY OF BIHAR

- Pre-historic period is divided into three parts i.e. Palaeolithic, Mesolithic and Neolithic.
  - There is no evidence found related to the Paleolithic age in Bihar.
  - The earliest proof of human activity in Bihar is Mesolithic habitation remains found in Munger.
  - Mesolithic Age (12000 BC 6000 BC) evidence has been discovered from Munger, Hazaribagh, Ranchi, Singhbhum and Santhal Pargana.
  - Tools, hand axes, and cleavers of early and old stone age have been found at Paisra in Munger.

- Rock paintings are discovered in the hills of Nawada, Kaimur and Jamui.
- The rock paintings depict the pre-historic lifestyle and natural environment of the time.
- These highlight the daily life of the early human beings in Bihar which include hunting, running, dancing, walking and also the sun, the moon, stars, animals, plants, trees and rivers that describe their love for nature.



Kaimur Rock Paintings

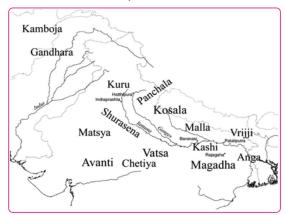
- Neolithic Age around (2500-1345 BC) artifacts have been discovered from Chirand (Saran) and Chechar (Vaishali).
  - Chirand Neolithic bone tools.
  - Chechar in Vaishali, Taradih, Senuwar and Maner -Black and red ware, ochre (yellow) painted pottery and spotted vessels
- A number of Chalcolithic Age (2000 BC 700 BC) artifacts have been discovered in the middle Ganga plains of Bihar.
  - Chirand (Saran), Maner (Patna), Onup and Champa (Bhagalpur), Chechar-Kutubpur (Vaishali), Sonpur (Saran) and Taradih (Gaya).
  - The black and red wares, copper wares are found in the sites of this period.

#### **AGE OF VEDAS IN BIHAR**

- According to Vedic literature and Valmiki Ramayana an ancient kingdom called Videha was ruled by Janaka and Mithila was its capital.
- In the later Vedic period (1,000-600 BC), Aryan started moving towards Eastern India.
- Ancient Brahmana texts mention the names of kings of Bihar.
- Satapatha Brahmana mentions their arrival and spread.
- During the later Vedic period, the Janaka dynasty was replaced by small independent territories who formed republics called Janapadas. Some Janapads combined to form Mahajanapadas.

## 1.4 AGE OF MAHAJANPADAS: 6TH CENTURY BC BIHAR

- By 500 BC, sixteen monarchies and republics known as the Mahajanapadas were formed. These were stretched across the Indo-Gangetic plains from modern-day Afghanistan to Bengal and Maharashtra.
- These Mahajanapadas were Kosi, Kosala, Anga, Magadha, Vajji (Vriji), Malla, Chedi, Vatsa (Vamsa), Kuru, Panchala, Matsya, Surasena, Assaka, Avanti, Gandhara and Kamboja.



 Out of sixteen Mahajanapadas, three (Anga, Vajji and Magadha) were in Bihar.

#### 1.4.1 Anga

- First mentioned in Atharvaveda. This kingdom comprised Khagaria, Bhagalpur and Munger of present time. It was situated in the North-East of Magadha.
- Champa was the capital of this kingdom which corresponds to Bhagalpur of present day Bihar.
- Earlier name of Champa Malini, was established by Maha Govind.
- Hiuen Tsang has referred to it as Chenpo.
- According to Mahabharata, Anga, one of the six sons of King Bali established the kingdom. It was the kingdom of Karna.
- Anguttara Nikaya mentions Anga as the 16th Mahajanapada. It is also mentioned in Jain literary text.
- The first king of Anga was Titikshu.
- Bimbisara killed Brahmadatta, last king of Anga Kingdom and merged Anga into Magadha.

#### 1.4.2 Vajji/Vriji

- The Vajji comprised eight confederated clans
- Capital of Vajji was located at Vaishali.
- Vajji kingdom was spread over present day Champaran, Saran, Muzaffarpur, Sitamarhi and Darbhanga districts.
- Out of eight clans, the Vaishali, the Videhas and the Jnatrikas were the most important.

#### Vaishali (Licchavi)

- Vaishali was an independent clan.
- It was situated on the Northern banks of the Ganga, spread over present day Bihar and some regions of Nepal.
- The city Vaishali was named after King Vishal during the Mahabharata era.
- It was an important centre of Buddhism and the headquarters of the Vajji republic.
- o Lord Mahavira was born at Kundagram in Vaishali.
- Panini used the term Vrij for Vajji.
- Vaishali is considered to be the world's first republic.
- Kautilya in his Arthashastra mentions about the tribal confederation of Vaishali.
- The Buddhist text, Mahaparinibbana Sutta mentions people of Vaishali as Kshatriyas, while Manusmriti has placed them in the category of Vratya Kshatriyas.
- Lord Mahavir's mother Trishala was sister of King Chetaka.
- Chetaka daughter Chellana was married to king Bimbisara of Haryanka Dynasty.
- Vaishali was conquered by Ajatashatru.

#### Videha (Mithila)

- Located in the Northern side of Ganga, presently located in the Northern Bihar and Eastern Terai region of Nepal.
- Videha is mentioned in both the Ramayana and the Mahabharata.
- First mentioned in Yajurveda.
- This kingdom was started by Ikshvaku's son Nimi Videh.
- Mithijanak Videh, the next king, had established Mithila.
- Hindu Goddess Sita was the princess of Videha.
   She was daughter of Raja Janaka of Videha.
- The capital of Videha kingdom was Janakpur (now part of Nepal).

#### **Jnatrikas**

 Mahavira Jain was a Jnatrika and his father was the head of Jnatrika clan and his mother was a Licchavi princess.

#### 1.4.3 Magadha

- First mentioned in Atharvaveda.
- It was a strong republic in the Buddha period which later on became a strong kingdom.



- Its area extended from Ganga in the North to Vindhayas in the South and Champa in the East to river Sone in the West.
- Earlier capital of Magadha was Girivraja or Rajgir,
   Later on, the capital shifted to Patliputra.
- Brihadratha founded the famous Brihadratha dynasty in Magadha.
- Two of India's greatest empires, the Mauryan empire and Gupta empire, originated in Magadha.

#### 1.5 RELIGION IN ANCIENT BIHAR

 Ancient Bihar was the site where two important religious sects. i.e. Buddhism and Jainism emerged and flourished.

#### 1.5.1 Buddhism

- Gautam Buddha was born in 563 BC in Lumbini (now in Nepal) in the Sakya Kshatriya clan.
- He left his home at the age of 29 in search of truth. This is known as **Mahabhinishkramana**.
- At the age of 35, he reached Uruvela on the bank of Niranjana river and meditated there.

- He attained enlightenment in 528 BC while meditating under a Peepal tree (Bodhi tree) in Bodh Gaya and he became the Buddha.
- After attaining enlightenment, Buddha delivered his first sermon at Sarnath. This is known as Dharmachakra Pravartana.



- He delivered his last sermon in Vaishali.
- Buddha's 'Mahaparinirvana' took place in Kushinagar.

#### **Buddhist Councils**

Council	Year	Place	Headed by	Patron	Outcome
1 <sup>st</sup>	483 BC	Saptapa rani Cave, Rajgriha	Mahakassapa	Ajatasatru (Harayanka Dy)	Sutta P and Vinaya P was compiled by Anandaand Upali resp.
2 <sup>nd</sup>	383 BC	Chullavanga, Vaishali	Sabbakami	Kalashoka (Shishunaga Dy)	Vaishali monks wanted some change in rites. Division between Sthaviravad insand Mahasangikas.
3 <sup>rd</sup>	250 BC	Pataliputra	Mogaliputta Tissa	Ashoka	Compilation Abhdhanam P. Missionaries were decided to send abroad
4 <sup>th</sup>	78 AD	Kashmir	Vasumitra	Kanishka	Compilaion of Mahavibha Shastra. Div into MahaYand HinaY

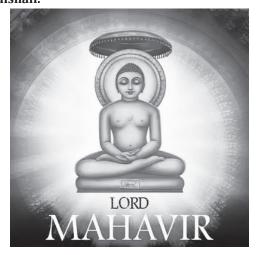
#### **Tripitaka**

- The Buddhist texts compiled after five hundred years of the death of the Buddha are known as the 'Tripitakas'. These are:
  - Vinaya Pitaka-related to the rules and regulations of monastic life.
  - Sutta Pitaka collection of Sermons of Buddha.
  - Abhidhamma Pitaka philosophical interpretation of Buddhist doctrine.

#### 1.5.2 Jainism

Jain history had 24 Tirthankars. **Rishabhdeva** was the first Tirthankar and **Parshvanatha** was the 23rd Tirthankar, while **Mahavira** was the 24th and the last one.

Mahavira was born in 540 BC in **Kundalgram near Vaishali**.



- He left home at an age of 30 years and attained Kaivalya at the age of 42. He was called 'Nirgranthas'.
- Through Kaivalya, he conquered misery and happiness and came to be known as Jina or Mahavira.
- He gave his first sermon in Vipul Giri (Rajgir). His first disciple was Jamali.
  - According to Jainism, The three gems or ratna to attain Moksha are right faith, right conduct and right knowledge.
  - Mahavira attained Nirvana in 468 BC in Pavapuri near Rajgriha (Rajgir).
- In Jainism, two councils have been conducted.
- First council was held at Pataliputra by Sthulabhadra in the beginning of the 3rd century BC, Where Jainism was divided into two sects, Svetambaras and Digambaras.
- Second council was held at Vallabhi in the 5th century AD under the leadership of Devardhi Gani Kshmasramana which resulted in the final compilation of 12 Angas and 12 Upangas.

#### 1.6 THE EARLY KINGDOMS

 Magadha emerged as the first strongest empire of ancient India. It had its capital at Rajgriha which was later shifted to Patliputra or modern day Patna.

#### 1.6.1 Brihadratha Dynasty

- This dynasty was founded in the middle of 6th Century BC. Brihadrath was the earliest known king of Magadha as per the Rigveda.
- He was the founder of Brihadratha dynasty, the earliest ruling dynasty of Magadha.
- According to Mahabharata and Puranas, Brihadrath was the eldest son of Vasu, the Kuru king of Chedi.
- Vasu founded Vasumati or Girivraja.
- Jarasandha was the most important ruler of this dynasty. He was the son of Brihadratha. He defeated rulers of several contemporary states, e.g. Kashi, Malwa, Agra, Banga, Kalinga etc.
- According to Mahabharatha, Jarasandha was killed by Bhima. Girivraja (Rajgir) was the capital of Jarasandha. He was succeeded by Sahadev. Ripunjaya was the last ruler of this dynasty.
- Puranas mentions Pradotya dynasty as the succesor of Brihadratha Dynasty in Magadha

#### 1.6.2 Haryanka Dynasty

 Bimbisara (544 - 492 BC) founded the Haryanka dynasty and established his capital at Rajgir (Girivraja). He was a contemporary of Buddha.

- According to the Buddhist text, 'the Mahavamsa' Bimbisara was appointed as the king by his father named Bhatiya at the age of 15.
- Bimbisara is referred to as Shrenik in Jain texts.
- His policy of marriage alliance for strengthening his empire was very successful. His first wife Kosala Devi was a Kosala princess, sister of Prasenjit.
- Kashi was gifted to him as dowry.
- His second wife Chellana was a Licchavi princess and third wife Kshema was a princess of Madra clan of Punjab.
- He had conquered Anga.
- Bimbisara sent royal physician Jivaka to Ujjain, to treat Chanda Pradyota the king of Avanti.
- Bimbisara was also the first ruler in history to form permanent forces/army.
- Ajatashatru (492-460 BC) imprisoned and killed his father, Bimbisara to become the next ruler. He expanded his territory by defeating Kashi, Kosala and Vaishali.
  - His reign saw Buddhism and Jainism flourish as Mahatma Buddha (487 BC) attained 'Mahaparinirvana' at Kushinagar and Lord Mahavira (468 BC) attained Nirvana or Muksha in Pavapuri.
  - First Buddhist council was held in the Saptaparni caves at Rajagriha shortly after Buddha's death.
  - He was killed by his own son Udayin (460-440 BC).
- Udayin succeeded Ajatashatru.
  - He founded the city of Patliputra in 455 BC asurrounded by rivers Ganga and Sone and made it his capital.
  - His successors were weak rulers like Anuruddha, Munda and Nagadasaka.
  - A civil revolt led to the emergence of the Shishunaga dynasty in Magadha.

#### 1.6.3 Shishunaga Dynasty

- The Shishunaga dynasty (412-394 BC) was founded by Shishunaga.
- He had two capitals, one at Rajgir and another at Vaishali.
- Shishunaga ended the hundred year old rivalry between Magadha and Avanti.
- Shishunaga died in 394 BC and was succeeded by his son Kalasoka.
- The **second Buddhist Council** (383 BC) was organised under Kalasoka in Vaishali.
- Kalasoka shifted his capital to Patliputra after the second Buddhist Council.



According to Mahavamsa, ten sons of kalasoka ruled Magadha after him and the last ruler was Nandivardhan (Mahanandin).

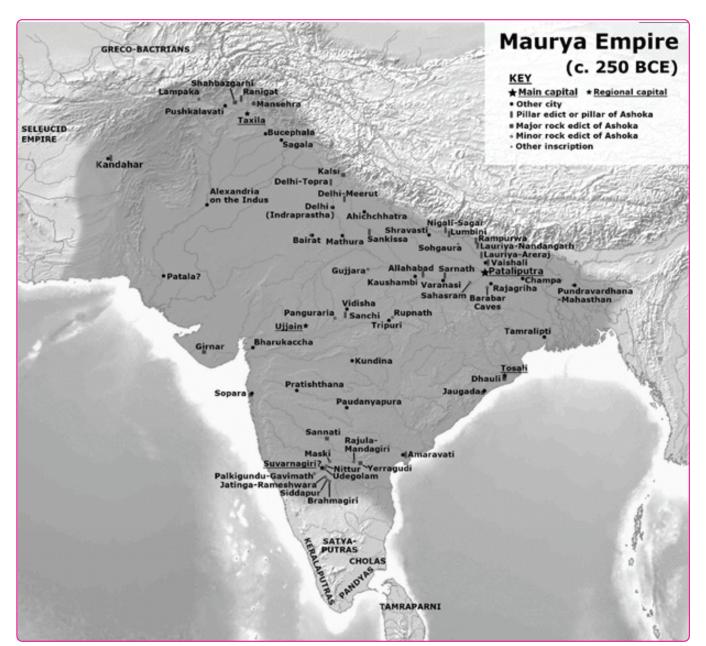
#### 1.6.4 Nanda Dynasty

- Mahapadmananda established the Nanda dynasty (344-321 BC) after killing the last Shishunaga ruler Mahanandin (Nandivardhan) and assumed the title Ekarat.
- Mahapadmananda has been described in the Puranas as Mahapadma or Mahapadma Pati.
- Maha Bodhi Vamsa mentions him as Ugrasena. The Maha Bodhi Vamsa also lists down nine Nanda kings

- namely Mahapadma Nanda (Ugrasen), Panduka, Pandugati, Bhutapala, Rashtrapala, Govishanaka, Dashasiddhaka, Kaivarta and Dhana Nanda.
- Dhana Nanda was the last ruler of the Nanda dynasty and was a contemporary of Alexander.
- Greeks referred to Dhana Nanda as Agrammes or Xandremes.

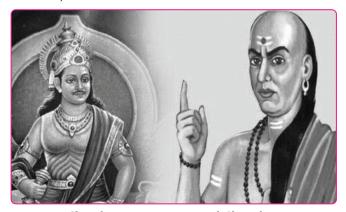
#### THE MAURYAN EMPIRE

The Mauryan empire was geographically the first extensive, powerful and a political military empire in ancient India. The empire had its capital at Pataliputra.



#### 1.7.1 Chandragupta Maurya

 The Mauryan dynasty was founded by Chandragupta Maurya (321-298 BC) with the help of his mentor Chanakya or Kautilya, by dethroning the last Nanda ruler, Dhana Nanda in 321 BC.



Chandragupta Maurya and Chanakya

- Chandra Gupta's empire stretched from the Himalayas in the north to the Deccan Plateau in the south, and from the Indus River in the west to the Bay of Bengal in the east. It was one of the largest empires in the ancient world, and it had a profound impact on the development of Indian culture and society. According to Matsya Purana and Mudrarakshasa, the mother of Chandragupta Maurya was Mura, a Shudra woman in the court of Nandas.
- In Mudrarakshasa, he has been referred as 'Vrishala'.
- As per Buddhist tradition, he belonged to the Moriya Kshatriya clan.
- He fought with Seleucus Nicator (Alexander's General) in 305 BC. Seleucus sent Megasthenes as Ambassador to the Mauryan court.
  - Megasthenes in his book, Indica has described Mauryan urban administration.
  - According to Megasthenes the empire wielded a military of 6 lakh infantry, 30,000 cavalry and 9,000 elephants.
  - Mauryan administration in Patliputra was under a council of 30 members divided into 6 committees of 5 members each.
  - Patliputra has been referred to as 'Palibothra'.
- Acharya Chanakya was the political advisor of Chandragupta Maurya who guided him. He is the writer of "Arthashastra".
- He also promoted trade and commerce, and he built a strong military. According to Jain sources (Parishishta Parvan) Chandragupta embraced Jainism towards the end of his life and stepped down from the throne for his son Bindusara.
- He went to Shravanabelagola with the Jain monks and starved himself to death.

#### 1.7.2 Bindusara

- Bindusara was a successful military leader who expanded the Mauryan Empire to its greatest extent.
   He conquered the Kalinga kingdom in the east, and he also extended the empire's borders into the Deccan Plateau in the south.
- Different names of Bindusara- Amitrochates (Amitraghata) or Allitrochades by Greek writers, Mudrasar in Vayu Purana and Singhsen or Bindupala in various Jain literature. The Jain text Rajvalli-Katha called him Seemseri.
- Syrian King Antiochus sent Deimachus as his Ambassador in the court of Bindusara.
- Bindusara was also a patron of the arts and sciences.
   He built a number of palaces and temples, and he also supported the work of scholars and artists. Ptolemy II Philadelphus of Egypt had sent Dionysius to the court of Bindusara.
- He supported the Ajivikas.

#### 1.7.3 Asoka

 Asoka, the great (273-232 BC) succeeded the throne from his father Bindusara in 273 BC.



1st century BCE/CE relief from Sanchi, showing Ashoka on his chariot, visiting the Nagas at Ramagrama.

- According to Dipavamsa and Mahavamsa, he had killed 99 of his brothers, sparing only one, named Vitashoka or Tissa, to become Mauryan king.
- Asoka's empire extended in the South to the Cholas and Pandyas and in the North to Kashmir and Nepal in the North-East.
- Ashoka fought the Kalinga war in 261 BC.
- It is mentioned in his major rock edict XIII.

- The Hathigumpha inscription found in Odisha mentioned about this devastating war that changed the mind of Asoka.
- Here are some of the key reasons why Ashoka is called the Great:
- He was a skilled military leader who expanded the Mauryan Empire to its greatest extent.
- He was a devout Buddhist who promoted nonviolence and compassion.
- He was a wise and just ruler who built hospitals and schools.
- After the Kalinga war, Asoka embraced Buddhism under the influence of Buddhist monk Upagupta and began to be known as Dhammasoka.
- Asoka is also mentioned as Devanampriya and Priyadarshee in many inscriptions.
- He is mentioned as King of Magadha in Bhabru inscription.
- Asoka convened the third Buddhist Council in 250 BC at Patliputra with Moggaliputta Tissa as the President.
- With this, Buddhist ideals spread in Sri Lanka, South-East Asia, West Asia and Mediterranean Europe.
- After Asoka's death, the Mauryan empire began to decline.
- The Arthashastra, the edicts of Asoka and Ashokavardhana are primary sources of written records of the Mauryan times.
- Asoka had built 84,000 stupas. He had built many stone pillars and inscriptions.
- Three pillar inscriptions of Asoka are situated in Bihar i.e. Lauriya Areraj, in East Champaran district and Lauriya Nandangarh and Rampurwa pillar inscriptions in West Champaran district.

#### 1.7.4 Mauryan Administration

- The Mauryans were a highly organized and efficient empire, and their administration was one of the most sophisticated in the ancient world.
- The Mauryan administration was centralized, with the emperor at the top of the hierarchy. The emperor was assisted by a council of ministers, who were responsible for different aspects of the government. The ministers were appointed by the emperor, and they could be dismissed at his discretion.
- The Mauryan administration was divided into a number of departments, each of which was responsible for a different aspect of government. These departments included the treasury, the army, the navy, the postal

- service, and the judiciary. Each department was headed by a high-ranking official who was appointed by the emperor.
- The government had a system of spies and informants who kept the emperor informed about what was happening in the empire. The government also had a system of roads and messengers that allowed it to communicate quickly with different parts of the empire.

## Here are some of the key features of the Mauryan administration:

- The empire was divided into four provinces each ruled by a Governor.
- Chanakya propounded the Saptanga Theory according to which the kingdom was divided into 7 elements which were Svamin (king), Amatya (ministers), Janapada (people), Durg (fort), Kosa (treasury), Bala (army) and Mitra (ally).
- 18 Tirthas or Mahamatyas were appointed such as ministers, head priest, commander-in-chief and crown prince who were paid in silver coins.
- Military organisation was under the control of Senapati under whom there were several officials of different wings doing their duties.
- There were two kinds of courts, Dharmasthiyas (Civil courts) and Kantaka Shodhana (Criminal courts).
- Rajjukas were the officers who were responsible for the land measurement and fixing the boundaries and they were the people who controlled the districts.
- Gopas were the officers incharge of villages and village Sarpanch was known as Gramani.
- The Mauryan economy was managed by 27 superintendents called Adhyakshas.
- The currency consisted of silver coins (Panas), copper coins (Mashaka) and gold coins (Niskha).
- Guilds/Srenis organised different types of work such as jewellery, wood work, metal work and hired labour.
- Megasthenes refers to the presence of seven castes in the Mauryan society i.e. philosophers, farmers, soldiers, herdsmen, artisans, magistrates and councillors.
- The Viceroys of Tosali and Ujjaini were called as Kumaras as per Kalinga rock edicts and Viceroy of Suvarnagiri were known as Aryaputra.
- The Mauryan administration was a significant achievement in the history of India. It was a highly sophisticated and efficient system of government that

helped to create a vast and powerful empire. The Mauryan administration also had a lasting impact on the development of the Indian government.

#### 1.7.5 Decline of the Mauryas

- After the death of Asoka, the empire was divided into two parts i.e Western and Eastern parts.
  - Western part was ruled by Asoka's son Kunala and the Eastern part by Dasaratha, Asoka's grandson.
- Due to the Bactrian invasion, the Western part of the empire collapsed, but the Eastern part remained intact under Samprati, Asoka's another grandson who was a patron of Jainism.
- Brihadratha was the last ruler of the Mauryan empire. Who was assassinated by Pushyamitra Shunga.

#### 1.8 POST-MAURYAN DYNASTIES IN BIHAR

#### 1.8.1 Shunga Dynasty

- The Shunga dynasty (184-72 BC) was founded by Pushyamitra Sunga, a general who assassinated the last Maurya emperor, Brihadratha.
- Pushyamitra ruled over Magadha, Kosala, Sakala, Malwa and Berar.
- He was a staunch follower of Brahmanism.
- Divyavadana and Taranath depict Pushyamitra as an enemy of the Buddhists, but there is enough evidence to prove that Pusyamitra patronised Buddhist art.
- Buddhist monuments at Bharhut and Sanchi were renovated during his period.
- Two Ashwamedha Yajna were held in his reign which are supported by Ayodhya inscriptions of Dhandev.
- Patanjali, the great Sanskrit scholar and author of Mahabhashya was the main priest of these Yajna.
- Buddhist records such as the Ashoka Vardhana mentions that the assassination of Brihadratha and the rise of the Shunga empire led to a wave of persecution of Buddhists and a resurgence of Hinduism.
- Brahmanical social ideals and institutions saw an increase and Buddhism gradually declined.
- After the death of Pushyamitra in 148 BC, his son Agnimitra ascended the throne. He was the hero of Kalidasa's drama Malavikagnimitram.
- According to the Puranas, Devbhuti was the 10th and last ruler of the Shunga dynasty.
- Despite the political turmoil, the Sunga dynasty was also a time of cultural and intellectual achievement.
   The Sunga dynasty saw the rise of Buddhism, which became the dominant religion in India. The Sunga dynasty also saw the development of new forms of art and architecture, such as the stupa and the pillar.

#### 1.8.2 Kanva Dynasty

- The Kanva dynasty was a short-lived dynasty that ruled over the northern Indian subcontinent from 73 to 26 BCE. It was founded by Vasudeva Kanva, a Brahman scholar who assassinated the last Sunga emperor, Devabhuti. The Kanva dynasty was a time of relative peace and stability, and it saw the development of new forms of art and architecture.
- The Kanvas were a Brahman family from Magadha, and they were opposed to the Sunga dynasty's policy of religious persecution. Vasudeva Kanva restored Hinduism to its former position of prominence, and he also promoted the arts and sciences.
- Susharman was the last ruler of this dynasty.

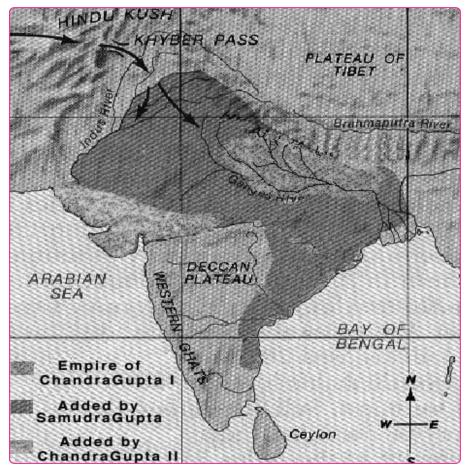
#### 1.8.3 Kushana Dynasty

- The Kushan Empire was a large empire that ruled over much of Central Asia and northern India from the 1st to the 3rd centuries CE. It was founded by Kujula Kadphises. Remains of the Kushan era have been discovered from the Magadha region as well. They started their campaign into this region in around the 1st century AD.
- There is evidence of Kushana ruler Kanishka (78-125AD) attacking Patliputra, as it was the capital of Magadha.
- He took along with him the famous Buddhist monk Asvaghosa.
- After the decline of the Kushan empire, this region was ruled by Licchavis.
- Many coins of Kushana dynasty are found from Chirand, Buxar, Bodh Gaya, Vaishali and Kumrahar.

#### 1.9 THE GOLDEN AGE: GUPTAS

- Guptas succeeded in bringing major parts of India under a unified administration.
- The difference between Gupta empire and Mauryan empire's administration was that in the Mauryan administration, power was centralised but in the Gupta administration, power was more decentralised.
- The Gupta empire was divided into provinces and the provinces were further divided into districts. Villages were the smallest units.
- **Srigupta** was the first king of the Gupta empire. He established the empire in 275 AD. Probably he ruled over a small portion of North Bengal and South Bihar.
- **Ghatotkacha** succeeded his father Srigupta. These two kings together ruled around the region of Magadha.
- They were subordinate to the later Kushanas.





## Gupta Period is Considered the Golden Age of India

- Political stability: The Gupta Empire was a powerful and well-organized empire, and it enjoyed a long period of peace and stability. This allowed for the development of art, literature, and science.
- Economic prosperity: The Gupta Empire was a wealthy empire, and there was a great deal of trade and commerce. This led to a rise in the standard of living for many people.
- Religious tolerance: The Guptas were tolerant
  of other religions, and they allowed people of all
  faiths to practice their religion freely. This led to a
  flowering of religious thought and practice.
- Cultural achievements: The Gupta period saw a flowering of art, literature, and science. This period produced some of the greatest works of Indian art and literature, and it also saw the development of important scientific advances.

#### 1.9.1 Chandragupta I

 Chandragupta I was the son of Ghatotkacha. He was the first independent ruler of the Gupta empire.

- He was the first king with the title of Maharajadhiraj and started the Gupta era in 319-320 AD.
- Chandragupta I was married to a Licchavi princess Kumardevi.
- He issued gold coins to commemorate this event.
- Chandra Gupta I was a skilled military leader and a wise and just ruler. He extended his dominion along the Ganga valley as far as Prayag and Awadh land.

#### 1.9.2 Samudragupta

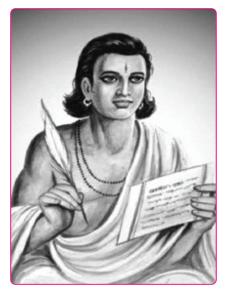


- He succeeded Chandragupta I.
- Prayag inscription, written by Harisena mentions Samudragupta. It was written in Brahmi script and Sanskrit language.
- Samudragupta was given the title of Napoleon of India for his conquest by Vincent Arthur Smith.

- The Mathura stone inscription of Chandragupta II describes Samudragupta as an 'exterminator of all kings'.
- He led a series of successful campaigns that extended the Gupta Empire from the Himalayas in the north to the Deccan Plateau in the south. He also conquered the Kushan Empire. Samudragupta called himself Lichchavi-dauhitra.
- During his period, Ceylon ruler Meghavarman was given permission to build a monastery at Bodh Gaya for Sri Lankan Buddhist pilgrims.
- He was also a great patron of art and adopted the title of 'Kaviraja'. Sanskrit was his court language.
- Harisena and Vasubandhu adorned his court.
- On some gold coins, he is shown playing Veena, which shows Samudragupta was also interested in music.
- He was a firm believer in Hinduism and is known to have worshiped Lord Vishnu.
- He attacked the kingdoms of Padmavati, Malwa, the Yaudheyas, the Arjunayanas, the Maduras and the Abhiras and merged them in his kingdom.
- Samudra Gupta's military campaigns made him one of the most powerful rulers in the world.

#### 1.9.3 Chandragupta II 'Vikramaditya'

- Chandragupta II defeated and killed his brother, Ramagupta to get the kingdom.
- He married his widow Dhruvadevi.
- He established friendly relations and matrimonial alliances for extending his empire.
- He married Kubernaga, a Naga princess of central India and daughter from her, Prabhavati Gupta was married to Vakataka King Rudrasena II.
- Chandra Gupta II is best known for his military campaigns. He led a series of successful campaigns that extended the Gupta Empire from the Himalayas in the north to the Deccan Plateau in the south. He also conquered the Shaka Empire, which had been a major power in the region. He conquered Mathura from Kushanas, Gujarat from Shakas and established friendly relations with Kadamba rulers.
- He is known for promoting literature.
- Patliputra and Ujjaini emerged as learning centres during his reign.
- Nine ratnas in his court were poet Kalidasa, Vetalbhatta, Varahmihira, physician Dhanvantari, Varruchi, Shanku, Amarsimha, Kshapanaka and Ghatakarpara.



Mahakayi Kalidasa

- Fa-Hien, the Chinese traveller, visited India during the reign of Chandragupta II to study Buddhism and stayed at Patliputra.
- He was the first among the Gupta Kings to issue the gold coins. He was called 'Vikramaditya' and took the title of Simhavikrama.
- He made Ujjain the second capital of his empire.

#### 1.9.4 Kumaragupta I

- Chandragupta II was succeeded by Kumargupta I (415-455 AD) also known as 'Mahendraditya'.
- He introduced a new type of gold coin.
- First Huna attack took place during his time and he was very old at that time.



- Kumaragupta I is best known for his architectural achievements. He built a number of important temples and monuments, including the Vishnu Temple at Deogarh and the Buddhist caves at Ajanta. He also promoted the development of Sanskrit literature and art. He established Nalanda University.
  - Nalanda University was a centre of learning from 427 to 1197 AD.

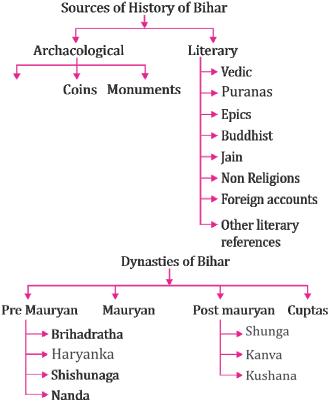
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- Famous traveller, Hiuen Tsang studied at this university.
- The university was later destroyed by an army of the Mamluk dynasty under Bakhtiyar Khalji in 1197 AD.

#### 1.9.5 Skandagupta

- According to Bhitari inscriptions Skandagupta defeated 'Pushyamitras', who were tribes and probably ruled an area located near the bank of Narmada river.
- He defended the Gupta Empire from a series of invasions, including the Huns in 455 AD.
- An inscription at Junagarh tells that his Governor got restoration work done on a dam in Sudarshana lake originally constructed by Chandra Gupta Maurya.
- Skandagupta died in 467 CE, and he was succeeded by his son, Purugupta, who ruled for a short time. The Gupta Empire collapsed after Purugupta's death.
- Vishnugupta was the last ruler of the Gupta dynasty.
- The Gupta Empire began to disintegrate and smaller kingdoms emerged in Magadha like the Maukharis.
- The Guptas were a powerful and wealthy empire, and they ruled over much of the Indian subcontinent.
   They were patrons of the arts and sciences, and they commissioned a number of works of art and architecture.
- The Gupta period saw the rise of a number of great artists and scholars, including Kalidasa, the

- greatest Sanskrit poet, and Aryabhata, the first Indian mathematician to use the decimal system. The Guptas also built a number of impressive monuments, including the Great Stupa at Sanchi and the Buddhist caves at Ajanta.
- The Gupta period was a time of peace and prosperity.
   The empire was well-governed, and there was a great deal of trade and commerce. The Guptas also promoted religious tolerance, and they allowed people of all faiths to practice their religion freely.





2

## **Medieval History of Bihar**

- The early part of mediaeval history in Bihar saw the rise of the Pala, Sena and Karnata dynasties, which enriched the social and cultural aspects of Bihar.
- In the later part, Bihar lost its importance as the political and cultural centre of India in the medieval period.
- The Medieval history of Bihar consists of foreign invasions, battles and establishment of Muslim rule.
- Bihar remained a part of Delhi Sultanate.
- Slave, Khilji, Tughlaq, Sur and Noohani dynasties established their rule in Bihar.
- In 1526, Babur established the rule of Mughals and thus Bihar became a part of Mughal Empire.

## 2.1 SOURCES OF MEDIEVAL HISTORY IN BIHAR

#### 2.1.1 Archaeological Sources

#### **Coins**

- Some coins of Alauddin Khilji were found at Jayanagar in Lakhisarai district.
- Two copper coins bearing the name of Bajirao Shinde confirm the strong presence of Maratha in this region.
- Arabic inscription of Muhammad bin Tughlaq 1326
   AD found on the wall of Jama Mosque in Darbhanga, mentions that Darbhanga became a mint town too with the title of 'Iqlim Tughluq Pur or Tirhut'.
- Akbar constructed Taksals in Patna, Azimabad and Rajmahal where coins were made after 1580 AD.

#### Inscriptions

Inscriptions of medieval Bihar can be classified into two categories i.e. Arabic & Persian and Non-Persian.

- Arabic and Persian inscriptions are found on the walls of mosques, tombs, imambaras, etc.
- These inscriptions are mostly found in Patna, Bihar Sharif, Sasaram and Rajmahal.
- An inscription of Sher Shah found at his tomb dated 1545 AD
- Bedibun inscription of Muhammad-ibn-Yussaf

- Non-Persian inscriptions give information about the small kingdoms which emerged after the fall of Pala dynasty.
  - Sanokhar inscription of Ballal Sena,
  - Maner copper plate inscription of Gahadavalas,
  - Simraon pillar inscriptions
  - Andhrathadi inscriptions and
  - Pratap Malla inscriptions of Karnatas.

#### **Monuments**

- Monuments give us information about the social, religious, economic conditions of the state under the particular ruler.
- According to the Archaeological Survey of India (ASI), there are 70 Monuments of National Importance (MNIs) in Bihar. These monuments are protected by the ASI and are considered to be of national importance due to their historical, archaeological, or architectural significance.
- Some of the most important MNIs in Bihar include:
- The Mahabodhi Temple Complex: This temple complex is located in Bodh Gaya and is one of the most important pilgrimage sites in Buddhism. It is said that the Buddha attained enlightenment under the Bodhi tree at this site.
- The Nalanda Mahavihara: This ancient university was one of the most important centers of learning in the world. It was founded in the 5th century CE and attracted students from all over Asia.
- The Vaishali Museum: This museum is located in Vaishali, which was an important city in the ancient kingdom of Magadha. The museum houses a collection of artifacts from the Mauryan and Gupta periods.
- The Sher Shah Suri Fort: This fort was built by Sher Shah Suri in the 16th century CE. It is located in Sasaram and is one of the best-preserved forts in India.
- The Vikramshila University: This ancient university
  was founded in the 8th century CE and was one of
  the most important centers of learning in the world.
  It attracted students from all over Asia.

Medieval Monuments in Bihar				
Site	Place			
District Queen's Palace, Tomb of Ibrahim Bayu	Bihar Sharif Nalanda			
Tomb of Shah Makhadun, Daulat Maneri and Ibrahim Khan	Maner Patna			
Tomb of Hasan Shah Suri	Sasaram Rohtas			
Tomb of Sher Shah Suri	Sasaram Rohtas			
Rohtasgarh Fort	Rohtas			
Tomb of Bakhtiyar Khan	Malik Sarai Kaimur			
Three Rock Inscription	Sasaram Rohtas			

#### 2.1.2 Literary Sources

- These sources include works of literature, such as poems, plays, and histories, that were written during the medieval period. They provide information about the culture, religion, and social life of Bihar during this time.
- The literary sources that mentions about medieval history of Bihar are Tabaqat-i-Nasiri by Minhaj-us-Siraj, Tuzuk-i-Baburi by Babur written in Turkish language, Akbar Nama by Abul Fazl, Tarikh-i-Shershahi by Abbas Sarvani, Tarikh-i-Firoz Shahi by Ziauddin Barani, Riyaz-us-Salatin by Gulam Hussain Salim, etc.
- Some important works in local languages are Kirtilata, Kritpataka of Vidhyapati, Varnaratnakar of Jyotirishwar, Rajnitiratnakar of Chandreshwar Vachaspati, etc.
- Sufi literature- Tajkira, Maktubat and Malkujat

#### Foreigner's Account

- The traveller's account of Mullah Takiya, Abdul Latif, Mohammad Sadiq Wahbahani, Basatin-ul-Uns, etc.
- The accounts of European travellers include Peter Mundi, John Travernier, Mannuchi Bishop, Ralph Fitch,

#### 2.2 EARLY MEDIEVAL PERIOD IN BIHAR

- Pala dynasty emerged as a strong dynasty from mid 7th century to early part of 11th century.
- After the Pala dynasty, Sena and Karnata dynasties also emerged.

#### 2.2.1 Pala Dynasty

- Gopala (AD 750-770) was the first ruler and the founder of Pala dynasty.
- The Palas were a Buddhist dynasty, and they were patrons of the arts and sciences. They built a number

- of important temples and monasteries, including the Somapura Mahavihara in Paharpur, Bangladesh.
- The Palas were followers of the Mahayana and Tantric schools of Buddhism.

#### 2.2.1.1 Gopala

- Gopal ascended the throne as the first King of the Pala dynasty to avoid the situation of 'matsya-nyaya'.
- The Khalimpur copper plate inscription, 750 AD, suggests that the people of this region chose him the king. It was one of the first democratic elections in South Asia since the time of Mahajanapadas.
- He consolidated his position by extending his control over all of Bengal as well as parts of Bihar.
- In Odantapuri (now Bihar Sharif), a Buddhist Monastery and a University was established by Gopala.

#### 2.2.1.2 Dharampala



Dharmapala

- After Gopala, his son Dharampala (AD 770-810) succeeded to the throne in 770 AD.
- The empire reached its peak under Dharampala and Devapala.
- Dharampala extended the empire in the Northern parts of the Indian subcontinent.
- After capturing Kannauj, he gained the title of Uttarapatha Swami and organised a grand Darbar in Kannauj.
- Dharampala was a Buddhist. He established Vikramshila University.
- He also gave 200 villages for the maintenance of Nalanda University.

#### **2.2.1.3** Devapala

- Devapala (AD 810-850), successor of Dharampala, extended the empire to South Asia and beyond.
- He made Munger as his capital.

- According to the Pala copper plate inscription, Devapala conquered the Utkalas and the Pragjyotisha (Assam).
- The inscriptions of Devapala have been found in Ghorawan, Hilsa, Nalanda and Munger.
- Balaputradeva, ruler of Suvarnabhumi, founded a Buddhist monastery at Nalanda during his time.
- The Pala kings also patronised Hinduism.
- They gave donations for construction of temples and for educational purposes like setting gurukuls.
- The Pala kings had close trade relations with South-East Asia and China.

#### 2.2.1.4 Mahipala I

- In 988 AD, Mahipala succeeded to the throne.
- He was also known as the second founder of the Pala dynasty.
- Bihar and Bengal were invaded by the South Indian Emperor Rajendra Chola I of the Chola dynasty in the 11th century during the reign of Mahipala I.
- In 1023 AD, Mahipala fought with Rajendra Chola of Chola Dynasty in which he was defeated.
- Mahipala I died in the same year along with which the Pala dynasty came to an end.
- The Pala dynasty declined in the 12th century CE, and it was eventually overthrown by the Sena dynasty. However, the Palas left a lasting legacy on Indian history.

#### 2.2.2 Sena Dynasty

- The Sena dynasty was a Hindu dynasty that ruled over much of the eastern Indian subcontinent from the 10th to the 12th centuries CE.
- Sena Dynasty was founded by Sumantsena in the mid-11th century. He was succeeded by Vijayasena.
- After Vijayasena, his son Ballalsena became the king.
- The Sena dynasty reached its peak during the reign of Ballalasena I (1119-1160 CE).
- He was a great scholar, wrote Danasagar and Advutsagar.
- He started a social movement named 'Kulinism' by which the nobility of birth and purity of blood were carefully protected.
- The Sena dynasty was weakened due to internal rebellions and invasion of Bakhtiyar Khalji.
- Lakshamansena was the last important ruler of this dynasty.
- Lakshamansena fled from his capital and took refuge in East Bengal's Vikrampur.
- The Sena dynasty declined in the 12th century CE, and it was eventually overthrown by the Muslim Delhi Sultanate.

 Personalities like Jayadev, the author of Gita Govinda; the linguist Halayudha, Dhoyi, the author of Payanadutam adorned his court.

#### 2.2.3 Karnata Dynasty

- The Karnata or Karnat dynasty was a dynasty that ruled over the Mithila region of Bihar from the 11th to the 13th centuries CE. The Karnatas were a branch of the Chalukya dynasty, and they were originally from the Deccan Plateau. They were invited to Mithila by the Pala king, Mahipala II, to help him fight against the rising power of the Sena dynasty.
- Nanyadeva (1097-1135 CE): Nanyadeva was the founder of the Karnata dynasty. He was a skilled military leader, and he was able to defeat the Senas and establish his own dynasty in Mithila.
- He was a great patron of music. He analysed different ragas and wrote a treatise on music.
- Simraon in Champaran was the capital of Karnata dynasty.
- Later Kamladityya Sthan (Kamlathan) became their capital which is now known as Andhrathadi in Madhubani district.
- Other rulers of this dynasty were Ganga Singh Deva, Narsingh Dev and Harisimhadeva.
- Ganga Singh Deva was an able administrator and the son of Nanyadeva.
- Narsingh Deva had the possession of Tirhut and Darbhanga areas.
- Harisimhadeva was the last ruler of Karnata dynasty.
- He was a great patron of art and literature.
- In his court Jyotirishwar, the author of 'Varna Ratnakar' was the royal priest.
- The period of Karnata rulers is also known as the Golden period of Mithila.
- Panji Vyavastha and Panji Prabandha were established by Harisimhadeva.
- Ghiyasuddin Tughlaq attacked Mithila, Harisimhadeva fled to Nepal.
- Karnata Dynasty was taken over by Oiniwar dynasty.
- Oiniwar dynasty ruled North Bihar (Mithila) between 1353 to 1526 AD.
- They were patrons of the arts and sciences.
- They built a number of important temples and monasteries.
- They promoted the spread of Hinduism throughout the region.

#### 2.3 SPREAD OF ISLAMIC RULE IN BIHAR

- Bihar was attacked by Muhammad Ghori who destroyed a lot of Buddhist monasteries including Nalanda University and killed many innocent people.
- Turkish invasions led to the rule of Delhi sultanate and Bihar was either included under rulers ruling from Delhi or made into a separate province.



#### Bakhtiyar Khilji



- He was one of the Generals of Qutb-al-Din Aibak.
- He destroyed monasteries fortified by the Sena armies, during which many of the Viharas and the famous universities of Nalanda and Vikramshila were destroyed.
- He also destroyed Odantpuri city university.
- He was the first muslim conqueror of Bihar.
- Bakhtiyar Khilji founded the city of Bakhtiyarpur in 1198 AD.
- Bakhtiyar Khilji also invaded Mithila's Karnata King Narsingh Deva's territory.
- Bengal and Assam region was also invaded by him.
- He died there and his mausoleum is in Bihar Sharif.
- Sadruddin Hasan Nizami wrote about Khilji's invasion in 1192-1228 AD in 'Taj-ul-Maasir'.

#### 2.4 SLAVE DYNASTY IN BIHAR

- After Ali Mardan, Hasmuddin Iwaz Khilji established independent rule in Lakhnauti. He was able to get taxes from Tirhut rulers.
- Iltutmish, the slave of Qutb-ud-din-Aibak invaded Bihar Sharif and Barh and later on moved to Lakhnauti.
- The Iwaz army fought near Rajmahal hills but had to surrender.
- Iltutmish made Malik Allauddin Jani as his representative (Subedar) but Iwaz later on forced him to flee.
- Iltutmish's son Nasiruddin Mahmud in return attacked
   Iwaz and killed him.
- He included Bihar, Awadh and Lakhnauti in his fold and ruled it till 1229 AD.
- After Nasiruddin's death, Malik Ikhtiyar ud-din-Balka (Balkh Khilji) had revolted, so Iltutmish after defeating Balkh separated Bihar from Bengal.
- Iltutmish appointed Saifuddin Aibak as the Governor of Bihar and later Tughan Khan became the Governor of Bihar.
- After Iltutmish's death in 1236 AD, the control of Delhi loosened on Bihar.
- Balban defeated and killed Tughril Khan, the Lakhnauti ruler and made Bughra Khan as its ruler.

- Maner, Bihar Sharif, Bhojpur, Gaya, Patna, Munger, Bhagalpur, Santhal Pargana, Nalanda, Lakhisarai and Vikramshila were under slave dynasty.
- In Tirhut area, Karnata rulers were independent although they gave taxes to Delhi.

#### 2.5 BIHAR DURING KHILJI DYNASTY

- In 1296 AD, Alauddin Khilji demanded half of the crops on land after measurement as revenue.
- Sheikh Mohammad Ismail was sent to Darbhanga by Alauddin Khilji but Raja Sakra Singh defeated him.
- In 1301 AD, Shamsuddin Firozshah declared himself ruler of Bengal and declared his son Firozshah as Governor of Bihar between 1309 to 1321.
- Some coins of Khilji dynasty have been found from Bhojpur and Lakhisarai.

#### 2.6 BIHAR AND TUGHLAQ DYNASTY

- Ghiyasuddin Tughlaq invaded Bengal and Bihar in 1324 AD.
- Lakhnauti king Nasiruddin had surrendered while Sonargaon King Ghiyasuddin Bahadur had revolted against the Sultan's army. Ghiyasuddin Tughlaq defeated him.
- He also defeated Mithila King Harisimhadeva (Karnata dynasty).
- Tughlaq coins have been found from Tirhut.
- Darbhanga was called Tughlaqpur at the time of Muhammad bin Tughlaq.
- A fort and Jama Masjid was also built at that time here.
   However, revolt had also started even at the time of Muhammad bin Tughlaq.
- Firozshah Tughlaq's Persian inscription has been found from Bihar Sharif which was the capital of Bihar at that time.
- From Patna and Gaya, some inscriptions and coins have been found.
- The tomb of Malik Ibrahim Baya (Malik Baya) is located in Bihar Sharif (on Pir Pahari hill).
- Sufi Literature Malfuzat (compilation of statements)
  written by Sufi Saint Sharfuddin Yahya Maneri and
  Manaquibul-Asfiya written by Hazrat Makhdoom Shah
  Firdaus gave information about the rule of Tughlaq
  dynasty in Bihar.

#### 2.7 CHERO DYNASTY

 The Chero dynasty was a tribal dynasty that ruled over parts of Bihar, Jharkhand, and Uttar Pradesh from the 12th to the 19th centuries CE. The Cheros were a Munda tribe, and they were originally from the Chota



- Nagpur plateau. They were invited to Bihar by the Pala king, Mahipala II, to help him fight against the rising power of the Sena dynasty.
- They established their powerful state in Bhojpur, Shahabad, Saran, Champaran, Muzaffarpur and Palamu districts.
- They ruled for 300 years.
- Jagdishpur fair started at this time by Fulchand.
- Between 1587 to 1607 AD, Kukumchand Jharap was the head of Cheros of Bhojpur.
- Ujjaini and Chero had fought an important battle in 1611 AD, which was won by Ujjainis.
- Medini Rai was the most famous ruler of Chero dynasty.
- Medini Rai's territory extended to Gaya, Dawoodnagar and Arwal, Ramgarh.
- Medini Rai died at the end of 1634 AD.
- He was succeeded by his son Raja Pratap Rai.
- During his rule three Mughal invasions took place.
- The Chero dynasty came to an end in the 19th century CE, when it was overthrown by the British East India Company.

#### 2.8 BHOJPUR'S UJJAINI DYNASTY

- The Ujjaini is a Rajput clan that inhabits the state of Bihar.
- After settling in Bihar they were known as Ujjainiya.
- The Ujjainiya dynasty emerged in the Bhojpur region of Bihar in the 13th century. This dynasty was founded by Bhojraj, who was a talented warrior and efficient ruler.
- Bhojpur was established by Devraj, son of Bhojraj after killing Sahasbal of Chero.
- Devraj was called Santan Singh in Bhojpur.
- Several battles were fought between Ujjainiyas and Cheros.
- The most famous ruler of the Ujjainiya dynasty was Pratapdev. He also got many temples and mosques built in Bhojpur area.
- The Ujjainiya ruler 'Gajpat' made an alliance with Sher Shah Suri and defeated the Bengal Sultanate together.
- Ujjainiyas were powerful in Buxar, Jagdishpur and Dumraon.

#### 2.9 NOOHANI DYNASTY OF BIHAR

- Noohani Dynasty emerged as a result of political changes at the time of Sikandar Lodhi.
- As Sikandar Lodhi rose to power, the Governor of Jaunpur fled to Bihar.
- Zamindars of Tirhut and Saran were against central rule. All this led Sikandar Lodhi to invade Bihar.

- Sikandar Lodi defeated Hussain Shah Sharqi and appointed Dariya Khan Noohani as an administrator of Bihar, who remained an administrator of Bihar till his death in 1523.
- His son Bahar Khan Noohani became the administrator after his father's death.
- Bahar Khan Noohani succeeded to the throne in 1523 AD.
- He declared himself independent and took the title of Sultan Mohammad.
- Ibrahim Lodhi invaded him. Initially, the Delhi army won but later on it got defeated.
- This defeat led to the extension of the Mohammad empire from Bihar to Kannaui.
- Sultan Mohammad, after being defeated by Babur in the Battle of Ghaghra held in 1529, had accepted Babur's authority.
- After the death of Sultan Mohammad, his son Jalal Khan succeeded to the throne. Sher Shah Suri was appointed as his advisor and protector.
- The Noohani dynasty came to an end in 1532 AD when Mughal Emperor Humayun defeated Mohammad Shah Noohani in the Battle of Ghaghar.
- After the fall of Noohani rulers, Sher Shah emerged as the powerful Afghan ruler.

#### **Sher Shah Suri**

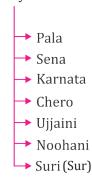


Sher Shah

- Sher Shah Suri was an Afghan and his real name was Farid Khan.
- Afghan ruler Sultan Muhammad gave him the title Sher Khan.
- He established the Suri Empire with its capital in Sasaram, Bihar.
- In 1534, Sher Shah and Mahmud Shah fought in the Battle of Surajgarh which was won by Sher Shah.
- In 1539, Humayun and Sher Shah fought in the Battle of Chausa.
- He again defeated Humayun at Kannauj in 1540 and forced him to move out of India.

- He took the title of Sher Shah Sultan-e-Adil after this victory.
- Sher Shah made Patna as the capital of Bihar province in 1541 AD.
- Sher Shah introduced silver coins.
- Many land and revenue reforms and extension of Grand Trunk Road from Chittagong to Kabul.
- Sher Shah was on the throne for only five years (1540-1545).
- He expanded his empire which included Punjab, Malwa, Sind, Multan and Bundelkhand.
- His empire expanded throughout the whole of North India except Assam, Nepal, Kashmir and Gujarat.
- On 13th May, 1545, Sher Shah was killed during the siege of Kalinjar fort. The tomb of Sher Shah is situated in Sasaram.
  - After the downfall of the Sur dynasty, the region of Bihar was ruled by Taj Khan Karrani.
  - He made Bihar Sharif as his capital.
  - Sulaiman Karrani (1565-1572) and Dawood Khan Karrani were important rulers of this dynasty.
  - Sulaiman Karrani accepted the suzerainty of the Mughal emperor Akbar but his son Daud revolted against Akbar. Akbar came to Hajipur and captured the fort of Hajipur, he defeated Daud in the battle of Rajmahal in 1576 AD after which Mughal rule was firmly established in Bihar.

Medieval Dynasties of Bihar



#### 2.10 MUGHAL RULE IN BIHAR

- The Mughals annexed Bihar and turned it into one of their Subas with its seat at Patna.
- The struggle to annex Bihar by the Mughals started with the battle of Ghaghar in 1527 AD between Babur and Sultan Mohammad.
- The Noohani Dynasty came to an end in 1532 AD when Mughal emperor Humayun defeated Afghans in Doha Sarai. He attacked the Chunar Fort in 1531 AD.

- The Mughals also made Bihar a major center of trade and commerce. The Grand Trunk Road, which connected Delhi to Kolkata, passed through Bihar, and the region became a major stopover for merchants and travelers.
- Bihar's economy also benefited from the Mughals' agricultural reforms. The Mughals built a number of canals and dams, which helped to irrigate the land and increase agricultural productivity. They also introduced new crops to the region, such as sugarcane and indigo.

#### 2.10.1 Akbar and Bihar

- In 1574, the Mughals seized Patna from Daud Khan, who was the son of Sulaiman Khan, an Afghan chief.
- After the Battle of Tukaroi in 1575, Daud Khan was captured and executed.
- Akbar made Bihar a separate subah of his empire in 1576.
- Munim Khan was made Governor of Bihar.
- On 17th March, 1587, Raja Man Singh was appointed Subedar of Bihar.
- He defeated Bhojpur, Giddhaur and Kharagpur and made Rohtas as his capital.
- He renovated the fortification in Rohtasgarh Fort in Sasaram.
- In 1577 AD, Akbar made Mahesh Thakur as the administrator of Mithila.
- Mahesh Thakur made Rajnagar of Madhubani as his capital.
- Asif Khan was the last Governor of Bihar during the reign of Akbar.

#### 2.10.2 Jahangir and Bihar

- Jahangir replaced Asif Khan with Lala Beg, known as Beg Bahadur as the Governor of Bihar.
- In 1621, Jahangir declared his son Parvez as the Governor of Bihar.
- He was the first Mughal Prince to become Governor of Bihar.
- Shahzada Khurram(Shah Jahan) revolted against Jahangir and captured Patna, Rohtas, etc from Parvez.
- But later Shah Jahan was defeated and driven out of Bihar.
- Baz Bahadur (Jahangir Quli Khan) was made the Subedar of Bihar.
- He took immediate action and the rebels were completely defeated.

 Mirza Rustam Safri was the last Governor of Bihar during Jahangir's reign.

#### 2.10.3 Shah Jahan and Bihar

- Khan-i-Alam was appointed as the Governor of Bihar during the reign of Shah Jahan.
- He was replaced by Mirza Safi also known as Saif Khan.
- Saif Khan built Shahi Idgah in Patna.
- He was succeeded by Abdullah Khan in 1632 AD who suppressed a revolt of the Ujjainia chief Raja Pratap.
- The next Governor of Bihar was Shaista Khan (1639 AD-1643 AD).
- In 1651 AD, Jafar Khan was appointed as Governor.
- He built Bagh-i-Jafar Khan at Patna and Dundi Bazar Mosque.
- Jafar Khan was succeeded by Zulfiqar Khan and then Alivardi Khan.

#### 2.10.4 Aurangzeb and Bihar

- The first Governor during the reign of Aurangzeb was Daud Khan Quraishi.
- Daud Khan founded the city of Daudnagar in the Gaya district.
- He defeated the Cheros of Palamu and extended the empire to Chota Nagpur.
- Daud Khan was succeeded by Jan Nisar Khan also known as Lashkar Khan.
- He was succeeded by Ibrahim Khan.
- His reign witnessed a severe famine in Patna.
- Aurangzeb had made his grandson Prince Azim who was known as Azimushan as Subedar of Bihar in 1702 AD.
- He rebuilt Patna and called it Azimabad in 1704 AD.

#### 2.10.5 Later Mughals and Bihar

- Bahadur Shah I (Shah Alam I) made Prince Azimushan as the administrator of Bihar and Farrukhsiyar as the Nawab of Bengal.
- After Azimushan, Mughal control weakened in Bihar.
- Farrukhsiyar was the first Mughal who was crowned in Patna in 1713.
- He became the first Mughal ruler to be sworn in Patna.
- Muhammad Shah appointed Fakr-ud-daula as Governor of Bihar. He was the last Mughal Governor of Bihar and was dismissed in 1733 by the Nawab of Bengal.
- During the period of Subedar of Bihar, Fakra-ud-daula 'Court of Justice' was built at Patna.

 The Mughal period was a golden age for Bihar. The region experienced a period of economic prosperity and cultural development, and it became a major center of trade and commerce. The Mughals also built a number of important buildings in Bihar, which still stand today.

#### 2.11 BIHAR AND NAWABS OF BENGAL

- By 1733, the Nawabs of Bengal had established their control in Bihar.
- Alivardi Khan was appointed as Naib Nazim or Deputy Nawab.
- He continued till the year 1756. This period saw many invasions of the Afghans as the Mughal rule weakened.
- Alivardi Khan suppressed the revolts and invasions in the battle of Patna and Ranisarai.
- After the death of Alivardi Khan, Sirajuddaulah became the Nawab of Bihar and Bengal.
- The Nawabs of Bengal allowed trade to flourish in this region.
- Some of the greatest melas of the Indian sub-continent, viz. Sonepur Mela, which is the biggest cattle fair in India, was allowed to continue and even flourish, inviting traders from far and near.
- The mid seventeenth century saw the arrival of the Marathas with Peshwa Balaji Baji Rao's invasion in 1743 AD in Munger and Bhagalpur.

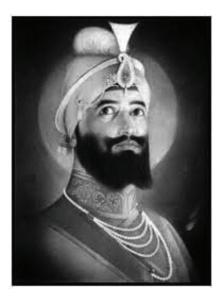
Battle of Buxar involving Nawab of Bengal was the major event that changed the course of Indian History and established British rule in India.

#### 2.12 RELIGION IN MEDIEVAL BIHAR

#### 2.12.1 Sikhism in Bihar

- Sikhism spread to Bihar in the later part of the Medieval period.
- Guru Nanak Dev visited Patna in 1509, stayed at Bhagat Jaitmal's house near Gaighat, Patna in 1509 AD and later Guru Tegh Bahadur along with his family came in 1666 AD.
- The 10th and the last Guru of Sikhism, Guru Gobind Singh was born at Patna Sahib, Patna in 1666 AD.
- He was a spiritual leader, a poet and a warrior. He prepared the Sikh warrior called Khalsa to fight against the Mughal army.
- He is also credited for finalising the Kartarpur Pothi into the Guru Granth Sahib.
- Takht Sri Harmandir Sahib, also known as Patna Sahib is one of the Five Takhts of Sikhism.





Guru Gobind Singh

#### 2.12.2 Sufism in Bihar

- Sufism in Bihar belonged to the Wajudia School.
- Bihar Sharif and Saran were the notable centres of activity of Chishti Sufism.
- One of the greatest Sufis of the Shuttasia order was Abul Faiz Qazin Ola of Bania Basarh near Vaishali.
- Imam Taj Fakeeh, Chisti, Kadri, Suharvardi, Firdausi, Nakshbandi were different sects of Sufism popular in Bihar.
- Makhdoom Sharfuddin Ahmed Yahja Maneri was the most prominent Sufi Saint who was born at Maner village in Patna in July, 1264 AD.

- At the age of 12, he left Maner to gain knowledge in Arabic, Persian logic, philosophy and religion.
- He was given the title of Firdausi by Sheikh Najeebuddin Firdausi.
- He wrote Maktubat-i-Sadi, Maktubati-Bist-o-Hasht and Fawaed-i-Rukni.
- His tomb lies at Badi Dargah in Bihar Sharif, Nalanda.

## 2.13 ECONOMIC, RELIGIOUS AND SOCIAL CONDITION OF BIHAR DURING MEDIEVAL PERIOD

#### 2.13.1 Economic Condition

- Cultivation of rice, cotton, wheat, pulses, tobacco and opium were major sources of livelihood.
- This period saw the rise of silk, sugar, leather and cloth industry in small scales.

#### 2.13.2 Religious Condition

- Hinduism was the main religion. Vishnupad temple in Gaya was an important religious place. It was built in 1783 AD by Ahilya Bai Holkar.
- Shaivites, a sect of Hindu religion, gained greater popularity.
- Mithilas were worshippers of Shakti (power).

#### 2.13.3 Social Condition

- The condition of common people, compared to the nobility and the middle class was miserable.
- One of the demoralising institutions of the society was slavery and it was in existence those times.





3

## **Modern History of Bihar**

Battle of Buxar changed the course of Indian History and brought Britishers as the administrators in India.

During the Mughal period Bihar had emerged as an important trading centre which attracted all the major European countries to have arrived on Indian Land.

#### 3.1 EUROPEANS IN BIHAR

#### 3.1.1 Portuguese in Bihar

- Portuguese were the first Europeans to enter Bihar in the 17<sup>th</sup> century.
- They established their factory at Hooghly in Bengal but frequently visited Patna for trade through water channels and roads.
- The main commodities purchased by Portuguese in Bihar were carpets, ambertees, khass and thin cloths.
- They brought spices and China clay with them and used them for trade in exchange for cotton textiles.

#### 3.1.2 Dutch in Bihar

- The Dutch company in 1632 established their factory in the Northern part of the present Patna college.
- The Dutch were interested in cotton textiles, saltpetre, opium and foodgrains.
- In 1662, Mughal emperor Aurangzeb granted trade rights to the Dutch to trade in Bihar, Bengal and Odisha.
- In 1665, a Dutch traveller Tavernier came to Patna and later travelled to Chhapra.
- There was a dispute among the French, British and Dutch companies over the trade rights of saltpetre.
- In November 1759, the Britishers defeated the Dutch in the Battle of Bedara.
- On 10th July, 1781, British commanding officer Major Hardy captured the warehouse of Dutch in Patna.
- British East India company also captured the Dutch factories of Chhapra and Singhia.
- In 1784, warehouse of Patna was returned back to the Dutch.

#### 3.1.3 French in Bihar

- French East India Company was established in 1664 by Frencois Martin.
- They were constantly in struggle with Dutch companies as both wanted saltpetre.
- In 1734, they established a trading centre and warehouse at Patna.
- The Britishers and the French had tension regarding trade due to which in 1757 British captured Chandannagar.
- After the Battle of Plassey, the East India Company expelled the General of Bihar at that time from Patna and captured all the warehouses of the French.

#### 3.1.4 Danish in Bihar

- The Danish East India Company refers to two separate companies first operated between 1616 to 1650 and the second company existed between 1670 to 1729.
- The Danish Asiatic company was established in 1730.
- This company revived Danish trade to India and Bihar.
- They built a factory in 1774 at Nepali Kothi (Patna), to process saltpetre.
- Denmark finally sold its remaining settlements of India in 1845.

#### 3.1.5 East India Company in Bihar

- The East India Company established their factory in 1620 at Alamganj in Patna for the trade of saltpetre. The factory however was closed in 1621.
- In 1651, the Company established a factory in Gulzar Bagh.
- Saltpetre was produced in Bihar mainly in the neighbourhood of Patna, where it was available in abundance.
- The Britishers emerged stronger than any European power in Bihar.
- They started controlling the regions of Bihar that were popular for production of opium.
- Patna was important for trading of calico cloth.
- In 1680, Subedar of Bihar Shaista Khan charged 3.5% tax on the trade of British companies.

- Azimushan was appointed the Governor of Bihar in 1697. Azimushan gave permission to the English East India Company for trade in Bihar, after which the English Factory was re-established in 1703.
- In 1713, during the rule of Farrukhsiyar, the Patna factory was closed but in 1717, it again invited Britishers to trade in Bihar and Bengal. In 1718, the Patna factory was reopened.
- In 1733, Alivardi Khan was assigned as the Naib Nazim of Bihar.
- In 1740, Alivardi Khan killed Sarfaraz Khan and took control of Bengal and Bihar.
- He got the confirmation from the Emperor Mohammad Shah by paying a huge amount. In 1750, Patna Factory was closed due to the pressure of Nawab Alivardi Khan.

#### 3.2 THE BATTLE OF PLASSEY

- The battle was the culmination of a long period of conflict between the British and the Nawab of Bengal. The British had been granted trading privileges in Bengal by the Mughal emperor, but they had gradually begun to expand their influence in the region. The Nawab of Bengal was concerned about the growing British power, and he sought to expel them from the region.
- Siraj-ud-Daula was the Nawab of Bengal after the death of Alivardi Khan in 1756. Soon after his accession to the throne, he came into conflict with the English East India Company.
- Robert Clive entered into a conspiracy with Mir Jafar, the Commander-in-Chief of Siraj-ud-Daula and defeated the Nawab in the Battle of Plassey in 1757.
- After the Battle of Plassey, Mir Jafar was appointed as the Governor of Bengal by Lord Clive.
- Mir Jafar had been promised a large sum of money by the British if he would defect to their side, and he ultimately agreed to do so.
- In 1756, the English had established many factories in Bihar in Patna and established their sole tradership rights for saltpetre in 1758.
- In 1760, the Britishers replaced Mir Jafar and appointed Mir Qasim as the Nawab of Bengal.
- Mir Qasim shifted his capital from Murshidabad (in Bengal) to Munger (in Bihar). Soon differences emerged between the Britishers and the Nawab.
- On 2nd September, 1763, in the Battle of Udawala, the Britishers defeated Mir Qasim.
- The Britishers captured the Marufganj and Colonelganj areas in Patna.

#### 3.3 THE BATTLE OF BUXAR

 The Battle of Buxar was fought on 22nd October, 1764, between British East India Company led by Hector

- Munro and the combined army of Mughals under Shah Alam II, Mir Qasim (Nawab of Bengal) and Shuja-ud-Daula, (the Nawab of Awadh).
- Indians were defeated.
- The British were led by Hector Munro, while the combined Indian forces were led by Mir Qasim. The British were outnumbered, but they were better armed and disciplined.
- The battle was fought over two days. On the first day, the British were able to defeat the Indian forces led by Mir Qasim. On the second day, the British defeated the forces led by Shuja-ud-Daula and Shah Alam II.
- The battle also had a profound impact on the Mughal Empire, which was eventually overthrown by the British.
- The British East India Company under Lord Clive signed two separate Treaties of Allahabad with the Mughal ruler Shah Alam II on 12th August, 1765 and with Shuja-ud-Daula, the Nawab of Awadh on 16th August, 1765.
- The Company was accorded rights of Bengal and Bihar.
- They got the right to administer the collection and management of revenues of the province of Bengal and parts of Awadh, currently comprising a large part of Uttar Pradesh.
- The East India Company created the post of Deputy Governor to administer Bihar.
- Robert Clive appointed Shitab Rai as Naib (Deputy)
   Deewan of Bihar.
- The general administration of Bihar was left in charge of the council.
- In 1770, a 'Revenue Council of Patna' was constituted, it was later replaced by a position named 'Revenue Chief of Bihar' in 1781.
- In 1783, when famine struck Bihar, Warren Hastings, the then Governor General of Bengal, ordered the construction of a dome-shaped massive granary of Golghar in Patna.



It was designed by John Garstin. Its construction was completed on 28th July, 1786 to cope up with famines.

#### 3.4 REVOLT OF 1857

#### 3.4.1 Spread of rebellion in Bihar

- The Revolt of 1857 in Bihar started on June 12, 1857
  as a military revolt from Rohini village in Deoghar
  district. There the rebel soldiers killed Major Norman
  Leslie of the 30th Regiment and another British officer.
  The three guilty soldiers were executed and thus the
  rebellion failed in its initial stages.
- In Patna City, the arrest of most of the revolutionaries including Waris Ali failed to break the spirits of other revolutionaries including Pir Ali and on July 3, under the leadership of Pir Ali, two hundred armed revolutionaries took control of the area up to the Chowk, sounding the bugle of revolution.
- Initially the rebels also got success and Major Loyal was killed. But Commissioner Taylor succeeded in suppressing the rebellion harshly.
- They were falsely accused of collaborating with the Bahá'u'lláhs, taking Muhammad Hussain, Ahmadullah and Baijul Haq prisoner. 16 rebels including Pir Ali were executed and with this the rebellion came to an end.
- On July 25, three platoons of the Danapur Regiment, excited by the news of Pir Ali's death sentence, took up arms against the British, declaring independence. But the rebel soldiers were aware of their limits, so they chose Kunwar Singh, the Zamindar of Jagdishpur as their leader who was able to provide leadership to the rebels.
- The rebellion reached North Bihar from Central Bihar.
   On the same day Major Holmes and other officers were murdered by disgruntled rebel soldiers in Muzaffarpur in northern Bihar.

#### 3.4.1.1 Spread in North and Central Bihar

- On 25 July soldiers of three regiments mutinied in Danapur Cantt and accepted the leadership of Kunwar Singh, Zamindar of Jagdishpur. There was a change in the nature of the rebellion and the feudal-military elements mixed with each other.
- On July 30, the government declared martial law in the Patna division. Meanwhile, the rebels reached Gaya and freed 400 prisoners and also attacked the pro-English Tikari Raj.
- In August a rebellion broke out in Bhagalpur as well.
- The rebellion started in Palamu under the leadership of Viplav Shahi and Pitamber Shahi. The rebel soldiers tried to fuel the rebellion in collaboration with the rebel zamindar of Rohtas-Sasaram region. But, all these rebellions were soon suppressed.
- In central Bihar, Kunwar Singh was providing leadership to the rebellion, while in South Bihar, Thakur Vishwanath Sahdev and Pandey Ganpatrai.

- Revolt started in Chotanagpur region by soldiers of Hazaribagh and Ramgarh. It took place on 30 July 1857 under the leadership of Sadho Singh and Ranchi became its main center. The rebels could not get public support due to the pro-British attitude of most of the landlords. As a result, the rebellion was easily suppressed under the leadership of Captain Middleton.
- In Singhbhum, the Kols revolted under the leadership of Raja Arjun Singh and the rebels were successful in defeating the British army in January 1858. Ultimately, Captain Dalton, with the help of Lieutenant Graham, succeeded in suppressing the rebellion.
- The rebellion of 1857 in Bihar was not limited to any particular area, rather it made its presence felt in almost the whole of Bihar. But, with the exception of the rebellion led by Kunwar Singh, the rebels were not able to resist the colonial authority for long. He was soon suppressed. Nevertheless, its importance lies in the fact that it was the first such rebellion in Indian history in which the people of a large part of India showed unity to fight against a common enemy.

#### 3.4.2 Role of Kunwar Singh



Kunwar Singh

In the context of Bihar, the discussion of the Revolt of 1857 can neither begin nor end without **Kunwar Singh.** This ' old man of eighty years ' became the symbol of the Revolt of 1857 in Bihar . That's why if Kunwar Singh can be compared to anyone, it is ' John of Arc ' and ' Rani Lakshmibai', like whom Kunwar Singh also turned into legends while alive. The feeling of patriotism was filled with codification in them and they were equipped with amazing fighting skills. He had no match in courage, bravery and power. He

certainly came from the landlord family of Jagdishpur, but he did not have the landlord's mentality, that's why he not only provided leadership to the rebels of 1857 in Bihar, but also provided leadership to the soldiers and landlords in Bihar, behaving differently from his class reaction to the rebellion of 1857. He also tried to establish contact with the insurgents at the national level while leading a coalition made up of the traditional support of the insurgents.

#### 3.4.2.1 Activities of Kunwar Singh

- Formation of independent government in Arrah: Taking a lesson from the insidious treatment meted out to Mohammad Hussain and Maulvi Ahmadullah by Patna Commissioner William Taylor, Kunwar Singh declined Taylor's invitation. On July 25, 1857, when soldiers of three regiments of Danapur revolted and entered Shahabad, they tried to challenge the colonial authority with the help of four thousand soldiers. Soon the number of soldiers increased to 10,000 and with their help, Kunwar Singh captured the city of Ara and captured the government treasury. Also, announcing the formation of an independent government there, he himself led that government. This rebellion is unique in that the rebels avoided killing Europeans while maintaining discipline.
- Harassing the British through Virk Kal: The rebels under the leadership of Kunwar Singh laid siege to the fort, to break it, the British sent an army under the leadership of Captain Dunwar on 29-30 July. Crossing the Son river, this army entered the forest regions of Arrah, but Kunwar Singh defeated the army led by Dunbar through his Virk-war art. Wood-arts is another name for guerilla warfare. In this, on seeing the enemy, the army retreats and disappears, and as soon as an opportunity is available, the enemy is attacked taking advantage of his carelessness. It is believed that both Kunwar Singh and Tatya Tope had mastered this strategy during that period. Under this strategy, he surrounded the fort and hid the soldiers in the forest and as soon as he got intelligence about the entry of English soldiers under the leadership of Dunwar into the forest, the Indian soldiers hiding in the forest attacked them. As a result, the English army supported by the Sikhs and led by Captain Dunwar had to face a severe defeat. Only 50 English soldiers could somehow save their lives. As a result, Major Vicente Ayer's army, which was marching towards Allahabad, had to attack Ara. The cannons made a big difference in this battle. As a result, Kunwar Singh's position began to weaken and Jagdishpur, along with Arrah, came under the control of the British, despite resorting to guerilla warfare. Seeing the increased power of the enemy, Kunwar Singh left Jagdishpur with the rebel soldiers one night and on 14 August
- Ayer captured the fort. But, this success of Major Ayer could neither limit the enthusiasm of the rebels, nor could Kunwar Singh come into the hands of Major Ayer despite all the efforts. Kunwar Singh now started troubling the British by raiding. Setting up his permanent camp in the forests of West Bihar on the banks of the Son river, Kunwar Singh defeated the British through guerilla attacks. Thanks to the effective intelligence system, this situation remained for six months and during this time he also tried to make the military organization as strong as possible. Kunwar Singh's younger brother Amar Singh continued the struggle against the government for a long time by barricade in the hills of Kaimur, while Kunwar Singh himself reached Rohtas from Sasaram and provided leadership to the rebel soldiers of Ramgarh battalion and reached Banda via Mirzapur and Rewa. Karl Marx has also praised Amar Singh and his war-method in 'Das Kapital'.
- Kunwar Singh's move towards Eastern Awadh Pradesh: As soon as Kunwar Singh received intelligence about the loosening hold of the British army in eastern Awadh, he planned to attack Azamgarh, Banaras and Allahabad to avenge Arrah and Jagdishpur. In Banda itself, he tried to establish contact with Tatya Tope. Then reached Kanpur via Lucknow and along with Nana Saheb participated in the Kanpur rebellion against the British. After the capture of Kanpur on November 29, 1857, Kunwar Singh moved towards Azamgarh. In March 1858, with the help of the revolutionaries of Betwa, he defeated Captain Mildon's army and chased it to Kosilla. Now he turned to Azamgarh and defeated the British in Azamgarh with the help of Ali Karim and his 300 soldiers.
- Return from Azamgarh to Jagdishpur: Leaving Anuj Amar Singh to besiege Azamgarh, the revolutionaries under the leadership of Kunwar Singh attacked Varanasi. Outside Banaras, he had to face the British army armed with cannons under the leadership of Lord Markar. The revolutionaries of Lucknow also sided with Kunwar Singh at this time. But, the British had become alert by now. He had realized what cost he might have to pay for not stopping Kunwar Singh. According to the instructions of Lord Canning, the pressure of English soldiers started increasing on Kunwar Singh. Lai Kake from Allahabad and Lugard from Lucknow proceeded towards Azamgarh to besiege Kunwar Singh. Kunwar Singh once again had to revert to hand-to-hand combat rather than handto-hand combat. Actually Kunwar Singh wanted to move towards Jagdishpur by entangling the English army at different places under the strategy. He also got success in this strategy when Markar moved towards Azamgarh and General Lugard towards Tanu river to

free Azamgarh. The British were under the illusion that Kunwar Singh would use all his might to win Azamgarh. But Kunwar Singh left a small detachment at the bridge over the Tanu river, which engaged Lugard for a long time, and he himself advanced towards Ghazipur . By the time Lugard found out, it was too late. Nevertheless, based on the information of spies, the English army under the leadership of Lugard followed them, but Lugard and the English army had to face a crushing defeat at the hands of Kunwar Singh, who was already prepared for this situation. Very soon it was understood by the British that Kunwar Singh was trying to cross the Ganges to reach Jagdishpur.

- Followed by Douglas: In place of Markar and Lugard, who were beaten in the battle with Kunwar Singh, Douglas was now entrusted with the responsibility of dealing with Kunwar Singh. Advancing towards Ghazipur, Kunwar Singh spread a rumor that he would cross the Ganges with his army near Ballia to confuse the pursuing Douglas and his army. Here Douglas was waiting for Kunwar Singh and his army in Ballia and on the other side Kunwar Singh's army was crossing the river with the help of local villagers seven miles away from Ballia. Douglas reached there following them. Douglas once again attacked them on 20 April 1858, but had to be defeated. Though Kunwar Singh succeeded in crossing the river Ganges, he was badly injured. To prevent the poison from spreading in the body, he had to amputate his hand. On returning to Jagdishpur on 22 April 1858, he had to fight with the British army under the leadership of Captain Le Grand in an injured state. How badly the British army was defeated in this struggle can only be gauged from the fact that "out of 300 soldiers, only 20-30 soldiers could return alive to Ara . " Kunwar Singh died a day later.
- leadership to the rebellion of 1857, Kunwar Singh not only tried to bind the scattered soldiers in the thread of unity, but also organized resistance to the colonial power, he tried to expand the rebellion of Bihar beyond the regional scope. The success of Kunwar Singh's leadership lies in the fact that despite being defeated many times by the British, he never allowed the British to reach him. Despite all the efforts, the British failed to catch him and in this sequence he had to face defeat several times at the hands of Kunwar Singh.
- Perhaps for the first time in history, a 75- year-old Kunwar Singh defied British imperialism with youthful vigor, sword in his old hand, and fought 15 fierce battles in just nine months between July, 1857- April, 1858. Among the rebel leaders of 1857, there was no

leader greater than Kunwar Singh, who had the ability to master the art of warfare. Not only this, he was the first Indian warrior after Shivaji who was adept at guerrilla warfare. Despite the meager means, meager organization, meager military-arts and lack of money, the way in which he freed the sixes of the well-to-do British while keeping himself safe, is commendable. Undoubtedly, Kunwar Singh has been leading among the heroes of the freedom struggle in Bihar.

## Kunwar Singh in popular culture post Independence

To honour his contribution to India's freedom movement, the Republic of India issued a commemorative stamp on 23 April 1966. The Government of Bihar established the Veer Kunwar Singh University, Arrah in 1992.

In 2017, the Veer Kunwar Singh Setu, also known as the Arrah–Chhapra Bridge, was inaugurated to connect north and south Bihar. In 2018, to celebrate the 160th anniversary of Kunwar Singh's death, the government of Bihar relocated a statue of him to Hardinge Park. The park was also officially renamed as 'Veer Kunwar Singh Azadi'.

#### 3.4.3 Outcomes of Revolt in Bihar

- The revolt of 1857 was crushed by the Britishers. However, they introduced some reforms into their administration.
- One such reform was Bengal Tenancy Act, 1885 which defined the rights to tenants in Bihar and Bengal due to widespread discontent against zamindars.

#### 3.5 CONGRESS AND BIHAR

- Congress was formed on 28th December, 1885 by AO Hume. It emerged as a strong association to fight against British rule.
- The 28th session of Congress held in 1912 took place in Bankipur (Patna) under the chairmanship of RN Mudholkar.
- The 38th session in 1922 was held in Gaya under the chairmanship of Chittaranjan Das. Chittaranjan Das resigned from his presidency of Indian National Congress at Gaya Session on the ground of council entry.

Congress sessions in Bihar				
Year	Place	President		
1912	Bankipore (Patna)	RN Mudholkar		
1922	Gaya	CR Das		

 In the year 1916, 32st Congress Session held in Lucknow in which the Patna University Bill was passed and two other proposals in favour of Indigo planters of Champaran were forwarded by Rajkumar Shukla of Bihar.

#### 3.6 EARLY NATIONALISM IN BIHAR

- The early nationalism and political activities in Bihar can be traced from the establishment of the Boys Association(1899) and the Saraswati Academy (1901) at Darbhanga.
- Afak Khan was the chairman, Suryadev Narayan Sharma was the founder and Kamleshwari Charan Sinha was its secretary.
- This Association was the centre of political activities in this region and remained active till 1920.

## 3.7 PROTESTS AGAINST THE PARTITION OF BENGAL

- On 16th October, 1905, Rakhi Bandhan Divas was celebrated at Darbhanga which encouraged the youths.
- Youths were inspired by the ideas of the Swadeshi Movement.
- Surendra Nath Banerjee came to Munger in 1906
- The Bihari Students Conference was established in 1906
- In 1908, at Sonepur fair was held under the presidentship of Nawab Sarfraz Hussain Khan at which Bihar Provincial Congress Committee (BPCC) was formed.
- The first session of the committee met at Patna in 1908 under the presidentship of Sayed Hasan Imam.
- In the first meeting of Bihar Provincial Congress Committee (BPCC), six delegates were selected for the annual session of Congress held at Madras in December, 1908.
- Hasan Imam, Basanti Chandra, Deep Narain Singh, Syed Najmul Hoda, Parmeshwarlal and Sachchidananda Sinha.
- Newspapers like 'Indian Mirror' and Bengalee praised the communal harmony prevalent in Bihar at that time.

#### 3.8 BIHAR AND HOME RULE MOVEMENT

- The All India Home Rule League was formed in April, 1916.
- Two Home Rule Movements were started under the leadership of Bal Gangadhar Tilak and another under Annie Besant.
- A Home Rule League was established at Bankipur (Patna) with Mazhar-ul-Haque as President, on 16th December, 1916.
- Sarfaraz Hussain Khan and Purnendu Narain Sinha were Vice-Presidents and Chandravanshi Sahay and Baijnath Narain Singh became Secretaries.

 The Home Rule League Movement was started by Janakdhari Prasad in Muzaffarpur, and Bajrang Sahay and Tarini Prasad Singh in Saran.

# 3.9 BIHAR AND CHAMPARAN SATYAGRAHA 1917

- Mahatma Gandhi's first Satyagraha in India.
- It was the first Civil Disobedience Movement.
- Against the European planters in Bihar.
- The European planters had been forcing the peasants to grow indigo on 3/20 of the total land called Tinkathia system.
- European planters demanded high rents and illegal dues from the peasants so that they could maximize their profits before the peasants could shift to other crops.
- This led to worsening the conditions of the peasants.
- There was a massive increase in poverty and starvation as farmers could not grow good crops.

# 3.9.1 Role of Rajkumar Shukla in Champaran Satyagraha

- The issue of Champaran was discussed at the Lucknow session of Indian National Congress in 1916,.
- Rajkumar Shukla of Murli Bhitiharwa village invited Gandhiji to look into the problems of indigo planters.
- After this session, Rajkumar Shukla urged Gandhiji to visit Champaran and witness the miseries of indigo planters.

#### 3.9.2 Gandhiji in Champaran

- Gandhiji arrived in Champaran on 10th April, 1917 and stayed at the house of Sant Raut in Amolwa village.
- Gandhiji established the first ever basic school at Barharwa Lakhan Sen village on 13th November, 1917.
- On 11th April, 1917, Gandhiji met with the Minister of Bihar Planters Association in Muzaffarpur for assistance to farmers.
- On 15th April, 1917, as the movement gathered pace, several leaders like Rajendra Prasad, Anugrah Narayan Singh, Mazhar-ul-Haque, Mahadeo Desai, Narhari Parikh and JB Kriplani joined Gandhiji.
- The participation of peasantry and non-violence ideology gave strength to the movement.
- Batak Mian, a cook in a British household saved Gandhi's life in Champaran by refusing to give him poison mixed milk, which was a conspiracy to kill him.



#### 3.9.3 Outcomes of the Movement

- On 10th June, 1917, Lieutenant Governor Adbert Gate constituted the Champaran Agrarian Committee to look into the matter.
- On 4th March, 1918, Tinkathia system was abolished, rents were reduced and peasants were compensated as recommended by the committee.
- The Champaran Agrarian Act was passed by the committee on 1st May, 1918.

#### 3.10 BIHAR AND KHILAFAT MOVEMENT

- The Khilafat Movement of 1919 was against the adverse terms imposed on the Ottoman Empire (in Turkey) by the Britishers after Turkey's defeat in the First World War.
- The movement was started by the Ali brothers in India.
- Reasons for the Khilafat Movement:
- The abolition of the Caliphate: The abolition of the Caliphate was a major blow to Muslims around the world. The Caliphate was the religious and political leader of the Muslim world, and it had been in existence for over 1,000 years. Its abolition was seen as a betrayal of the Muslim world by the British government.
- The British government's support for the Turkish government: The British government had supported the Turkish government during World War I. The

Turkish government was seen as an enemy of the Muslim world, and its support by the British government was seen as a betrayal of the Muslim world.

- The rise of Hindu nationalism: The rise of Hindu nationalism in India also contributed to the Khilafat Movement. Hindu nationalists were opposed to the Caliphate, and they saw it as a threat to Hindu interests. This led to increased tensions between Muslims and Hindus, and it helped to fuel the Khilafat Movement.
- Maulana Sajjad inaugurated a Khilafat Committee at Gaya.
- On 16th February, 1919 in a meeting in Patna, presided by Hasan Imam, it was decided to create public opinion in favour of appropriate treatment of the Caliph by the Allied powers.
- On 19th March 1920 Muslims of Bihar called for a state wide Hartal.
- In April 1920, Maulana Shaukat Ali visited Patna
- Patna, Darbhanga, Gaya, Bihar Sharif, Chhapra, Munger, Bhagalpur were major centers of the movement.
- On 19th October, 1919, Khilafat Diwas was celebrated in the whole country.
- A mass meeting was held on 30th November, 1919 at Anjuman Islamia Hall in Patna under the presidentship of Maulana Shah Rashidul Haque to support this movement.
- The Khilafat meetings were also held in Sasaram, Champaran, Fatuha, Muzaffarpur, Kako and Sitamarhi.

- The prominent supporters from Bihar in Khilafat Movement were Rajendra Prasad, Muhammad Safi, Maulana Narul Hassan, etc.
- 19th March, 1920 was fixed for Second Khilafat Day and it was observed as a day of 'National Mourning'.

#### 3.10.1 Rowlatt Agitation

- The members of the Bihar Satyagraha Sabha organised meetings against the Rowlatt Bill at Town Hall in Patna in February, 1919.
- Meetings were also held in Muzaffarpur, Mansurganj, Munger, Chhapra and Gaya in protest of the Rowlatt Bill.
- Processions were carried out, Hartal and demonstrations were also staged.

#### 3.11 NON-COOPERATION MOVEMENTS

- The Bihar Congress in their provincial meet in August 1920, under the Presidentship of Rajendra Prasad stressed on Non-cooperation. In this meeting, the noncooperation resolution was introduced by Dharnidhar Prasad and Shah Mohammad Zubair.
- On 15th August, 1920 a Hijrat Committee was formed.
- Annoyed with the policies of the government, some muslims thought of migrating from India.
- The Non-Cooperation Movement was launched in response to a number of factors, including:
- The Jallianwala Bagh massacre: The Jallianwala Bagh massacre was a horrific event in which British troops opened fire on a peaceful gathering of unarmed Indians in Amritsar, killing hundreds of people. The massacre outraged the Indian people and led to a wave of anti-British sentiment.
- The Montagu-Chelmsford Reforms: The Montagu-Chelmsford Reforms were a set of reforms that were introduced by the British government in 1919. The reforms gave Indians a greater role in government, but they were seen as too limited by many Indian leaders.

### The Non-Cooperation Movement had a number of different goals, including:

- To achieve Swaraj: Swaraj is a Hindi word that means "self-rule." The Non-Cooperation Movement sought to achieve Swaraj for India, or to end British rule in India.
- To promote Hindu-Muslim unity: The Non-Cooperation Movement also sought to promote Hindu-Muslim unity. Gandhi argued that the Hindus and Muslims of India had a common enemy in the British, and that they should unite to fight for their common goals.

- To boycott British goods: The Non-Cooperation Movement called for a boycott of British goods. This was an attempt to economically weaken the British and to force them to leave India.
- To withdraw from government institutions: The Non-Cooperation Movement also called for Indians to withdraw from government institutions, such as the courts and the police. This was an attempt to disrupt the British administration and to make it more difficult for the British to govern India.

### 3.11.1 Events during Non-cooperation Movement in Bihar

- Boycott of auctions for settlement of ferries and pounds in Munger and Bhagalpur.
- Strike at Government Press in Patna.
- National college as an alternate arrangement was established with Rajendra Prasad as Principal at Patna-Gaya road.
- Gandhiji visited Bihar in December, 1920
- 'Tilak Memorial Committee' was formed.
- The 'search-light' on the death of Tilak published an article 'Bihar is Mourning'.
- Police strike in March-April, 1921 which spread to Patna, Purnia, Munger and Champaran.
- Gandhiji inaugurated Bihar National College on 5th January, 1921 and Bihar Vidyapeeth on 6th February, 1921.
- Mazhar-ul-Haq on 30th September, 1921 started 'The Motherland' newspaper to propagate Hindu-Muslim Unity and Gandhian ideology.
- On 22nd December, 1921, the British Prince visited Bihar, which was opposed by the Congress.
- Mahendra Prasad, Dr. Rajendra Prasad's brother returned the title of 'Rai Sahab' at the time of Noncooperation Movement.

#### 3.12 SWARAJIST MOVEMENT

- INC Session in December, 1922 was held in Gaya, presided over by Chittaranjan Das.
- This session saw two factions in Congress i.e. one advocating the entry of Legislative Council and other opposing it and were keen to follow Gandhian path.
- The 'Pro-changers' were led by CR Das, Motilal Nehru and Ajmal Khan.
- The 'No-Changers' were led by Vallabhbhai Patel, C Rajagopalachari and MA Ansari.
- Motilal Nehru, Chittaranjan Das had formed Swaraj Dal in 1923.
- In February 1923, a branch of Swaraj Dal was formed in Bihar under the leadership of Sri Krishna Singh.

#### 3.13 SIMON COMMISSION

- The Simon Commission, named after its Chairman John Simon, came to India in 1928.
- The All Party Meeting was held under the leadership of Anugrah Narayan Sinha that took the decision to boycott Simon Commission.
- On 12th December, 1928, the Commission reached Patna and on 24th December, it reached Ranchi. It was boycotted in both places.

# 3.14 BIHAR AND CIVIL DISOBEDIENCE MOVEMENT

- Dr Rajendra Prasad prepared the outline of Salt Satyagraha and 6th April, 1930, was chosen as the date of Salt Satyagraha in Bihar.
- Pandit Jawaharlal Nehru travelled throughout Bihar from 31st March to 3rd April, 1930.
- The movement began from Champaran and Saran districts and later spread to Patna, Bettiah, Hajipur, Darbhanga, etc.
- In Patna, Salt Satyagraha was inaugurated on 16th April, 1930.
- As a part of the programme, emphasis on Khadi, against intoxicating drinks, refusal to pay chaukidari tax, etc were carried throughout Bihar.
- The movement saw large participation of women and every section of society.
- Swadeshi Committee was set-up in Patna in 1930 for organising such events under the leadership of Ali Imam.
- Sachchidananda Sinha, Hasan Imam and Sir Ali Imam were prominent leaders of this movement from Bihar.
- Bihpur Satyagraha was carried at the same time.
- Rai Bahadur Dwarkanath had resigned from Bihar Legislative Council in protest of lathi charge on Rajendra Prasad and Professor Abdul Bari.
- As a protest to these, prisoners of Chhapra jail also striked.
- Peasants refused to pay chaukidari tax.
- The CDM was a major success. It helped to mobilize
  the Indian people on a large scale, and it forced the
  British government to make concessions. However,
  the movement also faced some challenges, including
  violence and divisions within the Indian National
  Congress. The movement ultimately ended in 1934.

#### 3.15 INDIVIDUAL CIVIL DISOBEDIENCE

 Gandhiji decided to launch the Individual Civil Disobedience Movement where only chosen individuals will do Satyagraha.

- On 27th November, 1940, Shri Krishna Singh became the first individual Satyagrahi from Bihar who was followed by Anugraha Narayan Sinha.
- Gauri Shankar Singh did Satyagraha from Gaya and Shyam Narayan Singh from Silao.

### 3.16 PEASANTS AND NATIONAL MOVEMENT

- After the Champaran Satyagraha in 1917, Bihar became an important centre for peasant movements. These activities had addressed the problems of sharecroppers such as abolition of customary non-rent payments, regulation of eviction and fixation of fair rent. The main centre of the movements was north Bihar. In North and Central Bihar, a peasant movement was an important side effect of the independence movement.
- While the Congress refused to lead the peasantry in its struggle against the landlords there was no dearth of issues confronting the peasants of Bihar: Begar (forced labour), Abwab (illegal exactions), conversion of produce rent into cash rent, disputes over diara land, right to forest produce, grazing land, Bakasht land (land originally belonging to the raiyats, but 'resumed' by the landlords in lieu of rent arrears) and so on and so forth. There were also certain social issues, e.g., the Bhumihars and the Yadavas, together with some other 'lower' castes, were fighting for being accorded a higher social status. Gradually the Bakasht land issue overwhelmed all other issues to emerge as the focal point of agrarian disputes—while landlords were supposed to cultivate such lands themselves, in actual practice they had been engaging others, often the original owners themselves, as unrecognized sharecroppers.
- The cumulative effect of all these issues was to create a very fertile ground for peasant struggles. And it was on this ground that the Kisan Sabha first sprang up in the western part of Patna district in 1927.

#### 3.16.1 Kisan Sabha in Bihar

- Swami Vidyanand started the Kisan Sabha in Madhubani.
- Similar movements also started in Munger, Shahabad, Patna, Saran, Muzaffarpur etc by the farmers.
- A Kisan Sabha was organised by Jagannath Pathak at Hilsa on 27th October, 1920 under the presidentship of Shah Ghafoor.
- The Kisan Sabha was formed in Munger in 1922-23 by Shri Krishna Singh and Shah Mohammad Zubair.
- In 1929, Swami Sahajanand Saraswati formed the Bihar Provincial Kisan Sabha (BPKS) to mobilise



- peasant grievances against the zamindari attacks on their occupancy rights.
- In 1936, All India Kisan Sabha was formed at Lucknow.
- Under Rajendra Prasad, a committee was set-up to study the condition of farmers.



- Peasant movements in Bihar were led by Swami Sahajanand Saraswati and his followers Pandit Yamuna Karjee, Rahul Sankrityayan and others.
- Pandit Yamuna Karjee along with Rahul Sankrityayan and other Hindi literates started publishing a Hindi weekly Hunkar from Bihar in 1940.
- Hunkar later became the mouthpiece of the Peasant Movement and the Agrarian Movement in Bihar.

#### 3.17 LABOUR MOVEMENTS

- In 1937-38 many strikes were organised in all the factories running in Bihar in Rohtas Industry (Dalmianagar), Gaya Cotton Mills, Tatanagar Foundry Company, Japla Cement Works, etc.
- Bihar Trade Union was formed and the first session took place on 10th June, 1944 at Giridih.
- Labour conferences were held by many organizations in Patna under the leadership of CPI.

## 3.18 REVOLUTIONARY ACTIVITIES IN BIHAR

- Khudiram, along with Prafulla Chaki, in 1908, attempted to assassinate a British judge, Magistrate Douglas Kingsford, by throwing bombs on the carriage, in Muzaffarpur.
- Sachindra Nath Sanyal established the Anushilan Samiti in Patna in 1913.
- Bankim Chandra Mitra formed the Hindu Boys Association. He was arrested in Benaras Conspiracy Case.
- Patna Yuvak Sangha was formed in 1927 by Manindra Narayan Roy.
- Bihari Yuvak Sangha was formed in 1928 in Motihari.

- Patliputra Yuvak Sangh was formed in 1929 by Rambriksh Benipuri and Ambika Kant Singh.
- 'Yuvak', a monthly magazine, was started from Patna.
- A branch of Anushilan Committee was established in Patna.

#### 3.19 BIHAR SOCIALIST PARTY

- In 1931, Ganga Sharan Sinha, Rambriksh Benipuri and Ramanand Mishra formed Bihar Socialist Party.
- In 1934, Jayaprakash Narayan convened a meeting in Anjuman Islamia Hall in Patna and formally inaugurated Bihar Congress Socialist Party.
- Acharya Narendra Dev became President of the party and Jayaprakash Narayan was made General Secretary.
- This party closely coordinated with Congress for welfare and organisation of peasants and workers.
- They also participated in the Quit India Movement in 1942.

#### 3.20 QUIT INDIA MOVEMENT

- Bihar Congress Committee, under the leadership of Dr Rajendra Prasad, prepared the outline of the Quit India Movement on 31st July, 1942.
- On 8th August, 1942 Indian National Congress approved the proposal of Quit-India Movement.
- Congress was banned on 9th August, 1942 and newspapers were also banned.
- Strikes were carried out and the national flag was unfurled on most of the buildings.

On 11th August, 1942, students unfurled the national flag on Patna Legislative Assembly. Collector WG Archer gave the order of open fire due to which 7 students were killed.



There was a complete strike in Patna on 12th August, 1942.

- Several meetings were held and it was decided to shut communication lines and stop government work.
- Jayaprakash Narayan along with Ram Manohar Lohia and Aruna Asaf Ali took charge of the ongoing turmoil when all the senior leaders were arrested.
- In 1943, Azad Dasta was organised under the leadership of Jayaprakash Narayan.

#### 3.20.1 The Azad Dasta

 The Azad Dasta was a revolutionary organization which was founded by Jayaprakash Narayan during the Ouit India Movement of 1942.



- A separate independent council of the organisation was set up in the Madhubani district of Bihar under the leadership of Suraj Narayan Singh.
- The main aim of the organization was to paralyze government machinery and military training, and camps were set up to prepare the men to partake in revolutionary activities.
- The members of the Dasta undertook an oath which constituted of a vow to continue fighting the British until India was freed, unflinching loyalty to the Dasta along with observance of military discipline and an agreement to accept any punishment including death in the face of violation of rules of the organisation.
- The Dasta primarily preferred to recruit students, school teachers, political workers and those who had deserted the British army or police.
- The Azad Dastas were set up in different parts of Bihar and its members were successful in terrorizing the British government with their revolutionary activities.

#### 3.21 ELECTIONS IN BIHAR AND ATTAINMENT OF INDEPENDENCE

- In 1937, Elections were held in 152 election zones in Bihar.
- Congress contested on 107 seats and won 98 seats.
- In the Legislative Council election, 8 candidates were the winners.
- Thus, Congress got a majority in both Houses.
- Shri Krishna Singh had refused to form a government despite being in majority.
- Mohammad Yunus (leader of Independent Party) formed a government.
- Thus, Mohammad Yunus was the first Prime Minister of Bihar.
- On 20th July, 1937, Sri Krishna Singh formed the Congress Cabinet.
- Sri Ramdayalu Singh and Professor Abdul Bari were Speaker and Deputy Speaker of Legislative Council respectively.
- Bihar Tenancy Amendment Act was brought which removed the problems of Kashtkari bandobast.
- On 12th April, 1946, the Government lifted the ban on the Congress Socialist Party.
- The Constituent Assembly first met on 9th December, 1946 under the presidency of Sachchidananda Sinha.
- India became independent on 15th August, 1947and Jairamdas Daulatram was appointed as Governor of Bihar.

#### 3.22 FREEDOM FIGHTERS FROM BIHAR

	No.	Name	Details	Movement
_		Anugrah Narayan Sinha	One of the leading makers of modern Bihar, and for many years Bihar got his leadership.	<ul><li>Champaran Satyagraha movement</li><li>Civil Disobedience Movement</li></ul>
	2 Jayaprakash Narayan		Jayaprakash Narayan's concept of 'Total Revolution' is one of his most important contributions to modern Indian political thought. Chhapra-Delhi-Chhapra Weekly Express was renamed as 'Loknayak Express' in hi honour. He was posthumously awarded the Bharat Ratna.	

3	The chief organizer of the fight against the Kunwar Singh British in Bihar. He is popularly known as Veer Kunwar Singh.		• Revolt of 1857
4	Rajendra Prasad	He was referred to as Desh Ratna or the Jewel of the country.  He was the first President of the Republic of India and also was the first President to have been in the office twice.  He was a key leader from Bihar during the Salt Satyagraha of 1930 and the Quit India Movement of 1942.  He became president of Indian National Congress during the Bombay Session of 1934.  He served as minister of food and agriculture in the central Government after the 1946 elections.  He was President of Constituent Assembly in 1946 and also became elected president of Constituent Assembly in 1950.	<ul> <li>Salt Satyagraha of 1931</li> <li>Quit India movement of 1942</li> <li>Champaran satyagraha</li> <li>Non-cooperation Movement.</li> </ul>
5	Benipuri was a close associate of Socialist Party.  Benipuri was a close associate of Socialist Party.		Non Cooperation Movement
6	Yamuna Karjee	Pandit Yamuna Karjee, a peasant leader, then took the initiative to organize a provincial Kisan Sabha	<ul><li>Kisan sabha Movement and Peasant movement</li><li>Non - Cooperation Movement</li></ul>
7	Prabhavati Devi	Prabhavati Devi was the wife of JP Narayan. She was captured in Lucknow in 1932 during the call of a blacklist of unfamiliar merchandise. She laid out Mahila Charkha Samiti at Patna to include abandoned and deserted ladies in the charkha or the turning wheel development on the Gandhian model.	<ul> <li>Civil disobedience movement</li> <li>Quit India Movement</li> </ul>
8	Vindhyavasini Devi	Vindhyavasini Devi committed herself to social work in the wake of meeting with Gandhi Ji in 1919. Vindhyavasini Devi, alongside different ladies was captured during salt unsettling in 1930. She was shipped off Muzaffarpur prison in 1932 and the public authority pronounced the Kanya Swayam Sevika Dal as unlawful.	Salt Satyagraha
9	Tara Rani Srivastava	She used to sort out ladies in and around her town and went with her significant other, on challenge pilgrim rule. She joined the Quit India Movement of Gandhi Ji in 1942, controlled dissents, and intended to raise the Indian banner on the top of the Siwan Railway Station. She continued despite her husband's death in the lathi charge in the same procession.	• Quit India movement

10.	Tarkeshwari Sinha	She Brought into the world on December 26, 1926 in Bihar, Sinha was not reserved for the continuous opportunity battle in the country. An understudy of Bankipore College in Patna, she joined the 1942 Quit India Movement at the youthful age of 16. Sinha was among the individuals who got Mahatma Gandhi in Nalanda.	
11	Ram Pyari Devi	She took part in Salt Satyagraha. She was imprisoned for one year. She was well known to the point that she crushed Kisan pioneer Sahajanand Saraswati to turn into an individual from the All India Congress Committee and stayed a part till 1939.	Peasant Movement
12	Jagjivan Ram	He was a leader of Dalit Community and founding member of the All India Depressed Classes League.He was youngest minister in Jawaharlal Nehru's interim government and became the youngest cabinet of India as Labour Minister.He was also a member of Constituent Assembly where he ensured that social justice was enshrined in the constitution. He was defense minister during the Indo-Pak war of 1971.	Dalit Movement
13	Swami Sahajanand Saraswati	He was an intellectual, prolific writer, social reformer and revolutionary. He formed the All India Kisan Sabha and established Ashram at Bihta near Patna.	
14	Shri Krishna Singh	He was the first Chief Minister of Bihar. He is Known as Shri Babu and Bihar Kesari. Along with the nationalist Dr. Rajendra Prasad, Dr. Anurag Narayan Singh and Shri Babu are regarded among the Architectures of Modern Bihar. He led the Dalit entry into Baidyanath Dham temple, Deoghar. He was first Chief Minister to abolish Zamindari System.	<ul> <li>Civil Disobedience movement</li> <li>Quit India Movement</li> </ul>
15	Basawon Singh	He was a founding member of the Congress Socialist Party in Bihar along with Yogendra Shukla. He was an activist in the Indian Independence Movement and campaigner for the rights of the underprivileged, industrial labourers and agricultural workers.	
16	Bidhan Chandra Roy	He was an active member of Brahma Samaj. He constituted a trust for his properties at Patna for social service and made eminent nationalist Ganga Sharan Singh (Sinha) the trustee.He was awarded Bharat Ratna on 4th February, 1961. Roy was also Mahatma Gandhi's personal doctor and friend.	Civil Disobedience Movement

### 3.23 WOMEN FREEDOM FIGHTERS FROM BIHAR

- Sarla Devi, Prabhavati Devi, Rajvanshi Devi, Radhika Devi participated in the women's movement organised by Kasturba Gandhi in 1919.
- CC Das and Urmila Das organised Charkha Samiti in Patna.
- Sarla Devi encouraged school children to abolish English school.
- During the Civil Disobedience Movement, Shailbala Roy motivated thousands of women in Bihar to prepare salt.
- In Patna, women made a mass funeral of foreign clothes.
- Ram Swarup Devi was jailed in 1931 in Bhagalpur Central Jail to arouse movements during the Civil Disobedience Movement.
- Chandravati Devi raised her voice against Chowkidari tax
- Kusum Kumari Devi organised people in Arrah to raise their voice against the capital punishment given to Bhagat Singh on 23rd March, 1931.
- Priyamvada Devi, Jagat Rani Devi, Janki Devi and Mahadevi Kejriwal participated in individual Satyagraha called by Mahatma Gandhi in 1940.

- Bhagwati Devi (sister of Dr Rajendra Prasad) organised the Charkha Samiti in 1942 during the Quit India Movement.
- Radhika Devi and Sunita Devi in Vaishali, used to be dressed as male and spread awareness among the people in far off places.
- During the Quit India movement many women from Bihar were shot dead. Prominent names among them were Sudha Sharma, Dhaturi Devi, etc. They were shot dead in Munger.
- Saraswati Devi became the president of HazariBagh District Congress Committee during the Civil Disobedience Movement. She was arrested along with Sadhana Devi for her role in the movement.

Major Events from Modern History

- → Battle of plassey
- → Battle of Buxar
- → Revolt of 1867 in Jadichpor & Patna
- Tribal outbreaks
- Protests against partition of bengal
- → Congress led National movements
- Champaran Satyagraha
- → Peasent and Labour Movements
- → Revolutionaries and their activitions





4

### **Tribal Revolts of Bihar**

Tribal revolts during the period of British rule were mostly localised, sporadic and unorganised. Tribals were against British annexation of tribal land or their transfer to outsiders or for their forest rights.

 Ho, Munda, Kol, Bhumij, Santhal, Tana Bhagat were some of the important tribal revolts of Bihar.

The tribal people were affected when Britishers banned their entry to many forest areas. Forests were the main source of living for tribal people. They lived in the forest and collected forest produce. Therefore the tribal people in many areas revolted against the Britishers.

#### 4.1 NONIA REVOLT

- The Nonia Revolt emerged in 1700-1800 in places where saltpetre was manufactured, namely in Hajipur, Tirhut, Saran and Purnea.
- Saltpetre was produced by a caste known as Nonia in Bihar.
- Saltpetre was mainly used in the production of explosives.
- East India Company exploited this group due to which these people organised themselves into rebellion groups.

#### 4.2 SANYASI MOVEMENT

- It started in Bengal and in present-day Bangladesh in 1762 and continued till 1774.
- It was started by Sanyasis (Hindu Saints) and Muslim Fakirs
- They united against British rule to establish their own authority.
- They took possession of English factory at Dhaka.
- Saran, Purnea and Tirhut regions of Bihar were the minor centres of this revolt.

#### 4.3 TAMAR REVOLT

- The tribal groups Oraon, Munda, Ho and Kol groups joined together against the alien British Government.
- The revolt was started in 1789 by the Oraon tribe, later other tribal groups also joined the revolt.

- The main cause of this revolt was the ban on the agricultural system of tribes, which affected the socioeconomic condition of these people.
- This revolt was led by Bhola Nath Sahay of Tamar region. This movement was suppressed by the Britishers in 1832 and the Tamar region was annexed by them.

#### 4.4 CHERO REVOLT

- The Company placed Churaman as the King of Chero who took heavy taxes from the people.
- Churaman exploited the peasants, tribal people and poor villagers due to which there was anger and unrest in the state.
- This led to the starting of the revolt under the leadership of Sardar Bhushan Singh in 1800.
- It was soon suppressed by the Britishers.

#### 4.5 HO AND MUNDA UPRISING

- The Ho and Munda tribes of Chota Nagpur revolted against the Company's forces in 1820-22, then again in 1831 and continued till 1837.
- They rose against British rulers, local moneylenders and Zamindars under Raja Parhat.
- They were against the occupation of Singhbhum by the British.

#### 4.6 WAHABI MOVEMENT

- The Wahabi Movement was an Islamic revivalist movement which tried to purify Islam by eliminating all the un-Islamic practices.
- It was founded by Syed Ahmad of Raebareli in 1829.
- This movement aimed at the establishment of Dar-ul-Islam in India.
- When Syed Ahmad first came to Patna, he appointed Muhammad Hussain as his representative.
- In 1821, he appointed Muhammad Hussain, Vilayat Ali, Farhat Hussain and Inayat Ali as Khalifa.
- This movement was inspired by the teachings of Abdul Wahab of Saudi Arabia and Shah Waliullah of Delhi.
- It was suppressed in 1870 by Britishers though continued sporadically till 1890s.

- Haji Shariyatullah was the main leader of Wahabi Movement and Patna remained its main centre from 1828 to 1868.
- The movement came to an end in Patna in 1863 when Britishers imprisoned many of its leaders thereby ending the funds to carry on this movement.

#### 4.7 KOL UPRISING

- Kol uprising was led by Budhu Bhagat at Chota Nagpur against expansion of British rule on their lands and transfer of their lands to outsiders like Sikh and Muslim farmers in 1831-32.
- The movement largely covered Ranchi, Singhbhum, Hazaribagh, Palamu and Western parts of Manbhum.
- After the large-scale military operations, this revolt was suppressed.
- As a result of this revolt, a new province called South East Frontier Agency was formed.

#### 4.8 BHUMIJ REVOLT

- The Bhumij Revolt was led by Ganga Narayan in Singhbhum and Birbhum in 1832-33.
- The reason for the uprising was increase in the land revenue by the Britishers, the exploitation of tribals by King Veerbhum, Munsifs, Inspector and Zamindars.
- It started on 26th April, 1832 when Diwan of Veerbhum was murdered.
- Ganga Narayan Singh provided able leadership but he was killed in a battle on 7th February, 1833, by Thakur Chetan Singh.

#### 4.9 SANTHAL UPRISING

• It was led by Sidhu and Kanhu in 1855-56 against the atrocities of Zamindars and moneylenders.





Leaders of Santhal Revolt

- The Santhals of Rajmahal hill had revolted against the oppression by revenue officials, police, moneylenders, landlords, etc.
- The Santhals had declared the end of Company's rule and asserted the mselves independent in 1854.

#### 4.9.1 Causes of Santhal Revolt

- Zamindari System: The British East India Company introduced the Permanent Settlement System in 1793, which granted permanent and hereditary rights to zamindars (tax-collecting middlemen) in return for a fixed revenue paid to the government. Due to this the landlords exploited the farmers. Many Santhals fell prey to money-lending methods where they were charged exorbitant interest rates on loans. When they were unable to repay these loans, they often lost their land and were forced into bonded labor.
- **Loss of land ownership:** Santhals were repeatedly aggressively evicted from their land by landlords and moneylenders with the help of the British police.
- Socio-political reasons: With the advent of the British, the traditional Manjhi system and the Paraha Panchayat system of the Santhals had been destroyed. Both these systems were highly influenced by the British rules and regulations.
- **Immediate Cause:** In the month of June, 1855, a number of Santhal people were arrested and brutally beaten by the local police for a minor incident of theft. This incident fueled the Santhal rebellion.
- Disruption of traditional systems: The implementation of the zamindari system and the advent of moneylenders disrupted the traditional systems and political structures that had existed for generations among the Santhals.
- Religious Reasons: The Charter Act of 1813 allowed Christian missionaries to propagate Christianity in India. The Christian missionary also threatened the traditional beliefs and code of conduct of the Santhals.
- In 1856, the situation could only be brought under control after extensive military operation. Sidhu died in 1855, while Kanhu was arrested in 1866.
- As a result of this movement, Santhal Pargana was created by the British and Ashley Aiden became its first District Collector.

#### 4.10 LOTAH UPRISING

- It started against the decision of the British Government to withdraw brass vessels (Lotahs) and introduce earthen vessels in jails in 1856.
- The prisoners of Arrah and Muzaffarpur jails started this movement.
- This hit the religious sentiments of the prisoners as brass was attached to religious sensibilities.
- A large crowd of people from town gathered and attacked the prisons.
- As a result, the British Government withdrew its order and again brass vessels were allowed to be used.

**ONLYIAS** Tribal Revolts of Bihar

#### 4.11 SARDARI MOVEMENT

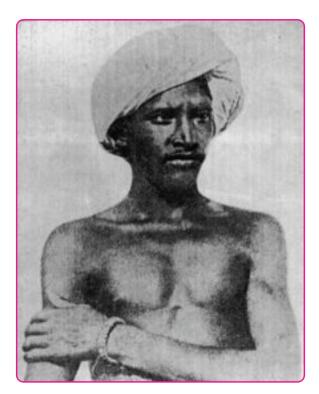
- An agrarian movement started in 1858.
- The Christian tribal peasants began this movement against the oppressive landlords to end the Begari system in agriculture.
- This movement aimed at land reforms in the agricultural practices.

#### 4.12 MUNDA REVOLT

 Forest Regulation Act in 1865 empowered the British Government to declare any land covered with trees or brushwood as Government Forest and to make rules to manage it under the terms of their own choice. The Act made no provision regarding the rights of tribal users.

#### 4.12.1 Causes of Munda revolt

- Economic Reasons: The Khuntkatti system in the Munda tribe was a system of common land holding, in which each member of the Munda tribe had a share/common right over all the land area of the tribe. The British government converted this common holding system into individual holding with a view to increase the revenue collection. Because of this change, the tribal community found itself trapped in a vicious cycle of debt, with moneylenders and the British administration taking over their land.
- Religious Reasons: The Charter Act of 1813 allowed Christian missionaries to propagate their agenda in India. The Christian missionaries mainly targeted the tribal groups including the Munda tribe and tried to convert the traditional beliefs and beliefs.
- Political reasons: The traditional system of collective decision-making (such as panchayats) on civil and criminal matters of the Munda community as well as the police powers of the tribal community were taken over by the British government.
- A more comprehensive Indian Forest Act was passed in 1878, which imposed several restrictions on Adivasi's rights over forest land and produce in the protected and reserved forests.
- The Act radically changed the nature of the traditional common property of the Adivasi communities and made it state property.
- Mundas under Birsa Munda raised against British rules and their local agents, mainly moneylenders.
- The Munda Movement under the leadership of Birsa Munda was a religious movement or rebellion (Ulgulan) with an agrarian and political content.



Birsa Munda

- The movement aimed at establishing Munda rule in the land by killing Thikadars, Jagirdars, Rajas and Hakims.
- Birsa gathered a large force of 6000 Mundas that was suppressed heavily by British forces.
- Birsa was captured on 3rd February, 1900 and sent to jail where he died on 9th June, 1900 due to cholera.
- As a result of this movement, new land rights were made.
- For the first time, the Mundari Khunt Katti system was implemented under the Tenancy Act.
- On 11th November, 1908, Chota Nagpur Tenancy Act was passed.

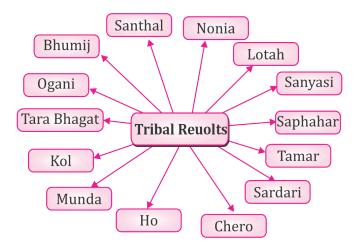
#### 4.13 SAPHA HAR MOVEMENT

- Also called the Kherwar Movement.
- Started by Bhagirath Manjhi in 1868.
- It was led by Santhals and popularised the concept of one God.
- Bhagirath declared himself as King of Santhals and demanded a separate Santhal state.
- It aimed at social reforms like stopping the sacrifice of 'evil bongas'.

#### **4.14 TANA BHAGAT MOVEMENT**

• In 1914, the Oraon tribe started the Tana Bhagat Movement.

- The Tana Bhagat Movement is a religious movement considered an extension of the Birsa Movement.
- Jatra Bhagat was the main leader of this movement.
- Other leaders included Balram Bhagat, Bhikhu Bhagat, Shibu Bhagat, etc.
- Tana Bhagat Movement is characterised by a large scale incorporation of Hindu practices into its ideology.
- The tribal leaders of the movement fought against the foreign exploiters, the landlords and contractors.
- This movement also opposed the taxes imposed by Britishers.
- Non-violence was accepted as the weapon in this movement.







5

# Development of Western Education in Bihar

In Ancient times, the education system in Bihar was based on Vedas, shastras, philosophy, but lacked the scientific advances taking place in other parts of the world.Nalanda University and Vikramshila University etc, have been famous places for education.

- In medieval times, Patna, Bhagalpur, Biharsharif have been important centers of education. Bihar has been famous for advanced study of Persian & Sanskrit, Institutions for Dialect languages have been established in various cities.
- In Modern India, the East India Company took no interest in the promotion of education. But a humble beginning was made through the charter Act of 1813. One lakh rupees annually for the purpose of promoting knowledge of science was allocated and the medium of teaching would be English.
- The tradition of learning which had its origin from ancient times was lost during the medieval period, saw a revival during the later part of the British rule In pre-British era, the Sanskrit and Persian was the popular languages and there was 4 type of educational institutes:
  - Pathshalas and Maktabs for elementary education.
  - Chatuspathi and Madrasas for higher education.
- There were about 1 lakh primary schools in about 15 lakhs villages in Bihar and Bengal in the early 1820s.
   The western education started to spread in Bihar from the 1820s-30s.

### 5.1 THE GROWTH OF WESTERN EDUCATION IN BIHAR

- With the effort of Raja Ram Mohan Roy Calcutta college in 1817 was established in Bengal.
- Following the orientalist anglicist controversy, a radical change was introduced in 1835 with the introduction of Macaulay's minutes on education. It favored English education and directly impacted the content, methodology and medium of the Indian education system.

**Macaulay's minutes** advocated the **downward filtration** theory i.e. The British planned to educate a small section of upper and middle dasses, thus creating a class Indian in blood and colour but English in tastes, in opinions, in morals and in intellect who would act as interpreters between the government and masses and would enrich the vernaculars by which knowledge of Western sciences and literature would reach the masses.

- The government soon made English as the medium of instruction in its schools and colleges and opened a few English schools and colleges instead of a large number of elementary schools, thus neglecting mass education.
- The first modern-western educational school was established in 1835 in Patna. In the same year, another Western school was opened in Purnea. And in the next year a number of District Schools were started in Biharsharif, Bhagalpur, Ara, Chhapra etc.
- In 1844, It became compulsory for applicants for government employment to possess knowledge in English, this made the English medium school more popular.
- Wood's dispatch (1854) on an educational system is Considered the "Magna Carta of English Education in India and this document was the first comprehensive plan for the spread of education in India. The ideals and methods of Wood's Despatch dominated the field for five decades which saw rapid westernization of the education system in India, with educational institutions run by European headmasters and principals.
- The departments of education were set up in all provinces.
- The 1st university in India was Calcutta university (1857).
- Patna college was established on 9th January, 1863, affiliated to Calcutta university.
- In 1863, Zila school at Deoghar, Motihari and Chaibasa were opened.
- In 1882, the Government appointed W.W. Hunter commission to review the education system in India. In 1902, Raleigh Commission was set up to go into conditions and prospects of universities in India and to suggest measures for improvement in their constitution and working. The commission precluded reporting on primary or secondary education. Based on its recommendations, the Indian Universities Act was passed in 1904.

- Through this act the Government got greater control over universities in the name of quality and efficiency, but actually sought to restrict education and to discipline the educated towards loyalty to the Government.
- In 1913, under pressure of nationalist leaders, the government passed a resolution on education policy. Though it refused to take up the responsibility of compulsory education, it accepted the policy of removal of illiteracy and urged provincial governments to take early steps to provide free elementary education to the poorer and more backward sections.
- Saddler University Commission (1917-19) reviewed the entire field from school education to university education. It opined that for the improvement of university education, improvement of secondary education was a necessary precondition. Female education, applied scientific and technological education, teachers training including those for professional and vocational colleges should be extended. It also recommended setting up professional colleges and award degrees and diplomas in science and technology.
- In 1917 Patna university was established. Also the Post graduated department of humanities started in Patna university. Based on Saddler committee recommendations, in 1919 Physics and Chemistry department was opened in Patna college. This department was transferred to Patna Science College when it was established in 1927.
- Hartog Committee (1929) recommended that only deserving students should go in for high school and intermediate stage, while average students should be diverted to vocational courses after 8th standard. For improvements in standards of university education, admissions should be restricted.
- The Sergeant Plan of Education (1944) was a bold and comprehensive scheme, but it proposed no methodology for implementation. Its objective was to create within 40 years, the same level of educational attainment as prevailed in England.
- In 1863, Patna college was established. In 1886, a survey training school was established. It was transformed into the Bihar school of engineering in 1900. It was further renamed as Bihar college of engineering in 1932 and In 2004, it became NIT-Patna.
- The Saddler Education Commission recommended that the school education should be of 12 years instead of 10 years earlier. Student's should be admitted in colleges only after completing intermediate (12th) instead of matriculation. The commission suggested reducing the rigidity of government regulation over

- the working of universities. One of the most important recommendations of the commission was to make universities more centralised, unitary residential and autonomous. And hence decrease the number of affiliate colleges.
- In 1902, an agricultural research center and experiment farm was established at Pusa with the help and grant of Henry Phillips. Its aim was to improve yield by inventing new techniques of farming. In 1925, Prince of Wales Medical College (Now PMCH) was established. In 1926, an Indian school of mines was established in Dhanbad. In the same year, the government school of Ayurveda was established at Patna. It was granted the status of College in 1947. In 1930,Patna veterinary college was established to improve breed etc.
- Muslim education in Bihar progressed, developed and spread on the lines of Aligarh Movement, which was started by Sir Saiyyad Khan who preached Muslim masses to get Western Education along with traditional religious teachings. Through the efforts of Imdad Ali Khan in 1872 Bihar science society in Muzaffarpur was established. Second branch started in Patna in 1873. In 1886, Mohammadan educational society of Patna established Mohammedan Anglo Arabic school in Patna City. Shamsul Ulema Mohammed Hassan played the most important role in the spread of modern western education among Muslims in Bihar.

#### 5.2 WOMEN EDUCATION IN BIHAR

- The first girl's school St Joseph School was established in Patna for female education in 1847.
   Two more girl schools were founded in Patna in 1867.
- Combined governments of Bihar and Odisha formed a committee in 1914 to examine the issue of female education. It Suggested to extend the girl schools of Bankipore and Cuttack upto intermediate standards. It also decided to set up one women's college in each commissary. In 1940, Patna women college (first college exclusively for women) was opened.
- As per reports, the percentage of girls attending school in Bihar and Odisha in mid 1920s was only 0.7%. Hartong committee report of 1919 on female education found out that only 1.16 lakh girls attend school out of 25 lakhs. It also reported that higher education among females was very low.
- There was an almost total neglect of women's education because the Government did not want to arouse the wrath of orthodox sections, and it had no immediate utility for colonial rule.

### 5.3 SCIENTIFIC AND TECHNICAL EDUCATION IN BIHAR

- A significant step in terms of scientific and technical education was taken in the form of Agricultural University at Pusa; it was the first fully functional Agricultural University in Bihar as well as in India.
- For the first time, degree Courses in Physics and Chemistry were started in Patna College in 1919.
   Later in 1928, Patna Science college was established, which was exclusively for science courses.
- In 1863, Patna college was established. In 1886, a survey training school was established. It was transformed into the Bihar school of engineering in 1900. It was further renamed as Bihar college of engineering in 1932 and In 2004, it became NIT-Patna.
- In 1925, Prince of Wales Medical College (Now PMCH) was established. In 1926, an Indian school of mines was established in Dhanbad. In the same year, the government school of Ayurveda was established at Patna. It was granted the status of College in 1947. In 1930, Patna veterinary college was established to improve breed etc.
- After Independence many other engineering Colleges were established some of the most prominent ones are NIT(Patna) IIT(Patna) and many other public and private Engineering institutions. NMCH, AIIMS Patna, DMCH are some of the medical colleges in Bihar.

#### 5.4 ISSUES WITH EDUCATION IN BIHAR

- Despite all efforts, schools during the British period remained limited to cities and towns. Which led the rural population of Bihar out of the ambit of modern western education and especially English education.
- The education policies of the British government and social taboos in the early 20th century affected the girl's education significantly and especially the girls belonging to rural areas, because the absence of schools in rural areas and society did not allow girls to go to cities to get education.
- This situation still prevails after more than 70 years of independence and did not change much. According to Census Report-2011 only 51.5% women in the state are literate, which is lowest in India.
- British Period Universities were limited to big cities and towns only, which created an educated few over mass illiteracy and uneducated people.
- Despite an increase in the number of colleges and universities in the state, higher in the state is performing very poorly due to many issues such as no regular classes, mis-management of colleges/ universities, late exams, mass cheating and fraud in the examination process.
- In terms of scientific, medical and technical education the situation was also not too good during the preindependence era, when only few colleges and institutions were present in comparison to other parts of the country.
- Large number of students from Bihar, even today, migrate to other states for getting medical, engineering and other professional education, because of the absence of good quality institutions in the state.



### **Art and Crafts of Bihar**

The creative beauties of visual arts have been preserved in various forms like in stones, wooden structures, grassclothes, lacquer and metal-wares.

#### 6.1 ART IN MAURYAN PERIOD

- Kumhrar in Patna and Rajgir, Barabar hills near Gaya have evidence of Mauryan period architecture.
- Sculpture and Rock arts were at their peak.
- Burnt bricks and stones were used for external construction and interiors of palaces
- were built of wood.
- The walls and pillars were decorated with designs of flowers, creepers, mountains and figures of animals, birds and human beings.
- The chief characteristic of this period was single stone use for the pillars and round
- shape at the top.
- Single stone pillars are the typical feature of Asokan time
- Lauriya Nandangarh, Lauriya Areraj, Rampurva and Basarh have evidence of Ashokan
- single stone pillars.
- The pillars were either carved in red sandstone, white sandstone or fine grained hard sandstone having small but dark coloured spots.
- These pillars have an average height of 40ft.
- Usually the top portion of the pillars were carved with animal figures.
- The monolith on the top of the pillar represents the capital or janpad of the Mauryan empire which was either bell shaped or lotus shaped.

Megasthenes mentioned that the palace of Chandragupta Maurya had a line of pillars. It was also known as a wooden palace because the interiors were made entirely of wood. It was excavated from Kumhrar that had a large hall with 80 pillars.

 The national emblem of India is taken from the Sarnath Lion Capital of Asoka. The wheel Ashoka Chakra from its base was placed into the center of the national flag. The sculpture is carved out of a single rock of polished sandstone that sits on top of a pillar.



Lion Pillar at Sarnath

 A similar sculpture of the Mauryan period is found at Vaishali. It consists of a single lion and is called Single Lion Capital.



• Stupas were dome shaped monuments that enshrined sacred relics and were made of brick and mortar. All the stupas had similar shapes.



Sanchi Stupa

#### Sculpture

- Sculpture in Mauryan period consisted of very detailed statues, human like and forms and a bright polish with a mirror like finish.
- Yaksha and Yakshini statues are examples of the finest sculpture from Patna.





Sculpture During Mauryan Period

- The Didarganj Yakshini statue depicts the contemporary women fashion style. The education statue depicts a well built muscular woman that represents beauty and fertility.
- The Yakshni statue holds a chunni in one hand and her entire body is covered with ornaments.
- The statue shows the folded garments very distinctively worn by the women.
- Some of these sculptures were made from bronze, an advanced technique at that time. e.g. the Sultanganj Buddha Statue, estimated to be 1500 years old, is about seven feet tall and made of 500 kg of bronze, making it the largest statue of that period.

#### **Cave Architecture**

- The caves were cut into large halls known as Chaitya halls.
- Group of four caves at Barabar near Jehanabad shows the cave architecture prevalent in this period.



Lomas Rishi Cave, Barabar Hills, Gaya, Bihar

- Caves such as Sudama or Nyagrodha and Karma Chaupar bear the inscription of Asoka.
- Lomas Rishi cave is another prominent work of this period.
- The interiors of all the caves are polished like glass.

#### 6.1.1 Mauryan Art and Buddhism

Art during the Mauryan period was greatly influenced by Buddhism. Ashoka's patronage of Buddhist religion greatly influenced the art and architectural style of Mauryans. The themes of Buddhism like Four noble truths and Wheel of Law ,insistence of Morality and Purity are greatly incorporated in Art forms like capitals, Flowers in Stone Sculpture.

#### Example-

- Sarnath Monolithic pillar was erected using Sandstone which has Four lions sitting back to back supported by Abacus which has Four Wheels of Law, Down below bell shaped structure which has Lotus encompassing DharmaChakra. This Lotus indicates "Purity " one should lead whereas "DharmaChakra" indicates upholding righteousness over evil which is the basic principle of buddhism. Currently it is the Indian national emblem.
- 2. Stupas which are places enshrining relics of "Lord Bhuddha" containing a Semi circular or circular Dome surrounded by Railings which contain "beautiful ornamentation of Jataka stories" are influenced buddhism.
- 3. Stone Sculpture of Human figurines of Yaksha (Lord of Fertility) and Yakshas (Lord of Prosperity) with elegance and gratefulness also attributed to the Mauryan Empire . various capitals using animals like Humped Bull(Ramnagar) and other places bear significance to values associated with Buddhism.

During the Mauryan period Buddha was always represented as Symbols rather than Human form such as "Empty throne", "Bodhisattva" candidate for attaining enlightenment, animals & Plants venerating Buddha, taming mad elephants also depicted in Sculpture. "Dhamma", the ideal to be followed during the Ashokan empire has been propagated through Pillars and Rocks which also promoted art of erecting monolithic large stone towers, was also influenced by tenants of Buddhism.

Buddhist art reached its prime under Asoka Maurya who built a large number of Viharas, Chaityas and Stupas. The Viharas served as residence for the monks and were adorned with sculptures which depict the life of the Buddha. The Viharas were constructed near the Chaityas which were essentially Buddhist temples which were built in Kanheri, Karle, Bhaja etc, both in the Hinayana and the Mahayana Forms.

The most important influence of Buddhist art of this age is the Stupa. It usually contained a relic of the Buddha placed in a casket, sometimes made of crystal. The inner face was made up of unburnt bricks, while the outer face of the stupa was made up of burnt bricks, which was then covered by a layer of plaster. There was also a path for ceremonial circumambulation.

The most famous stupas were built in Sanchi and Nalanda(destroyed).

In addition to these, religious cave paintings in Udayagiri, Karle, Ajanta and Ellora started to take shape from these times. These paintings generally depict the life of the Buddha and the Jatakas.

#### 6.2 ART DURING THE PALAS

- The early medieval period saw the development of art and architecture during the reign of Pala dynasty.
- Statues made up of stone, copper and a mixture of eight different metals became popular.
- This period was marked by the building of many temples, stupas, viharas and chaityas.

#### **Monasteries, Stupas and Temples**

- Dharampala and Devpala of Pala dynasty built the Buddha Viharas in Odantapuri, Nalanda and Vikramshila.
- There were a number of temples built during this period that include Vishnupad temple at Gaya, cave temples at Kukrihar and Kahalgaon.
- Pala dynasty architectures show the presence of both Buddhism and Hinduism in that era.
- This period also had tantric art influence.
- Vikramshila Mahavihar shows archaeological remains of this period.
- Stupas at Nalanda had more than one terraces and were crowned by many umbrellas.
- The curvilinear Shikhara of Shiva temple at Konch in Gaya is a wonderful architecture of that period.

#### Sculpture

- Apart from stone and brass, the statues were also made of Astha Dhatu.
- Buddha's images were produced in various attitudes and mudras.
- Events related to Buddha's life were also carved out.



Sculpture of Pala Period

- Rajgriha, Vaishali, Nalanda, Biharsharif, Bodh Gaya, Patna, are main centers from where metal and stone sculptures of Pala period have been discovered.
- Brahmanical sculptures such as Uma-Maheshwara, Shiva, Vaishnava images produced in the twelfth century are also found.
- Bronze figures of Bodhisattva (Avalokitesvara, Manju shri, Maitreya, Vajrapani and Brahminical images also found from these places).
- Dhiman and Bitpal, as being the founder of Schools of Cast Metal Images, Sculptures and Paintings.
- The Pala sculptures also present examples of artistic beauty carved out of stone sculptures. This style of sculpture as popularized by the Pala dynasty came to be known as Poorvi style of sculpture.

### 6.2.1 Pala period was last great phase of Buddhism

- Various monasteries, such as Nalanda and Vikramsila were great centres of Buddhist learning, and art and numerous manuscripts were illustrated here with Buddhist themes and images of Vajrayana Buddhist deities on palm leaves.
- Pala's patronised Buddhism as their state religion, temples during their period have roofs like Buddhist stupa called Bangla roofs.
- They rejuvenated the Buddhist places destroyed by the Shashanka of Gaunda and facilitated internationalisation of Buddhism (king Saylendra of Java).
- Further, Pala dynasty also happens to be the last major ruling dynasty in India under which Buddhism received state support.

#### 6.3 PATNA KALAM PAINTING

- Mughal rule in India has influenced the social, cultural, political and economic lifestyle of the Indian people but the area which was most influenced was art, architecture and culture.
- Combining the Persian style with the Indian traditional style, they introduced a new way of painting.

- During the rule of Aurangzeb, Hindu artisans of Mughal paintings faced prosecution because of his anti-Hindu policy and distaste in art and painting.
- Their main subjects were bazaar scenes, local rulers, local festivals and ceremonies.
- Later Patna Art School was founded by Shri Radha Mohan.
- These paintings are exhibited in Patna museum and Khuda Baksh Library.
- Most of the paintings are of miniature category and made on paper.



Patna Kalam Painting

- Subject of these paintings- Daily labourers, fishsellers, basket makers.
- Patnia Ekka- oldest painting style.
- Shivlala's 'Muslim Wedding', Gopal Lal's 'Holi', Mahadev Lal's 'Rani Gandhati' are the famous creations of this style.
- The Patna Kalam paintings are made on glass, mica and ivory sheets.
- Brushes used in these paintings were made of hairs of animals like camels, deer, squirrels, etc and feathers of birds like pigeon, eagle, etc.
- These pictures were painted directly with the brush, (without being drawn in pencil first). This technique was known as Kajli seahi. The Patna School tradition developed an individualistic style and technique, very different from the usual Mughal School (due to the the Persian influence) and the less formal Rajput School.

- Colours are extracted from indigenous plants, barks, flowers and metals.
- Paintings are characterized by light coloured sketches and life-like representations.
- No landscape, foreground or background.
- Development in the shading of solid forms.
- 'Kajli Seahi'- Paintings are painted straightway with brush without using pencil to outline the contours of the picture.

#### 6.3.1 Decline of Patna Kalam

- In the last decade of the 19th century, after the death of Shiva Lal and Shiva Dayal Lal, their studios too ceased to exist. One of the main reasons for the collapse was the advent of photography. The new technology fascinated everyone and reproductions of 'Indian life' became quicker and were surely more reliable.
- Ishwari Prasad too, moved to Calcutta in 1904 as a Professor of Fine Arts and Indian Painting at the School of Art. With his death in the early years of India's Independence, the Patna Kalam ceased to exist.
- The Patna painters didn't conform to Mughal or European styles as they recorded the everyday life of common folk in their works. Across generations, these painters continued to celebrate the cultural fabric of 19th century Patna that would have otherwise remained unknown and only imaginary.

### 6.3.2 Renowned Painters of Patna Kalam Paintings

- Sevak Ram was the first painter to be recognised for his art.
- Hulas Ram, Mahadev Lal, Madholal, Yamuna Prasad, Shiva Dayal were renowned painters from the Patna Kalam School of Art.
- Ishwari Prasad is considered the last renowned painter of this style.
- Shiya Dayal Lal's career and type of work in Patna were similar to those of his cousin Shiva Lal. However, he was less of a business man and his clients were mainly Indian. He also painted miniature portraits on ivory and had a large clientele.

#### 6.4 MADHUBANI PAINTINGS

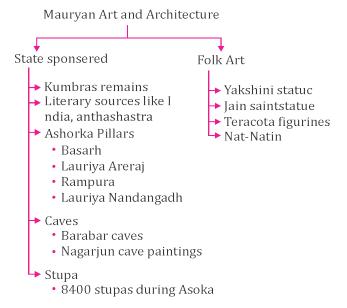
This is the most famous painting of Bihar. It is basically
practiced in Mithila region of Bihar, particularly by
women. It has been done since the time of Ramayana
Originally, the painting was done on freshly plastered
mud wall of huts, but now it is also done on cloth,
hand-made paper and canvas.

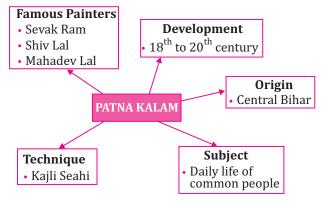


Madhubani painting depicting Ram-Sita vivah

- The themes of Madhubani painting are nature and Hindu religious figures and are generally associated with Hindu deities, natural objects like Sun, Moon and religious plants like tulsi.
- The empty spaces on the painting are filled up with motifs of flowers, animals, birds and geometric designs.
- Its main feature is paintings filled with vivid and contrasted colours. The linear Madhubani paintings do not require colour as only the outlines are drawn.
- This style of painting originated at the time of the Ramayana, when King Janak commissioned artists to do paintings at the time of his daughter Sita's marriage to Lord Ram.
- These paintings are made with brush, colours and paper. The brush is made of cotton tied to a very thin bamboo stick. In these paintings mainly yellow, green, red, black, blue, orange, etc colours are used. Yellow colour is used to make land, red is used for fire, black is used for wind, blue is used for sky, etc.

 The artists prepare the colours with natural products like turmeric for yellow colour, root for black, indigo for blue, apple tree leaves for green, palash flowers for red and orange colours.







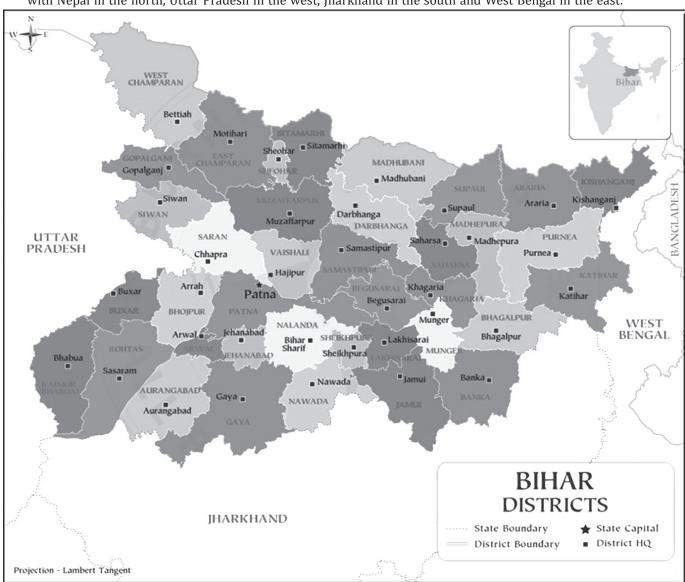


**Geography of Bihar** 

### **Bihar: Physical Geography**

#### 7.1 INTRODUCTION

Bihar is located in the eastern region of India. It is a land-locked state having boundaries with three Indian states
i.e. Uttar Pradesh, Jharkhand and West Bengal, share an international boundary with Nepal. Bihar shares its border
with Nepal in the north, Uttar Pradesh in the west, Jharkhand in the south and West Bengal in the east.



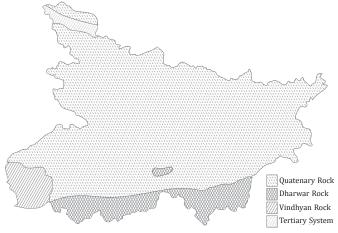
- Longitudinal extent 83º19' E to 88°7' E
- Latitudinal extent 24°20' N to 27°3' N
- Distance from east to west 483 km
- Distance from north to south 345 km
- Length Nepal border 726 km

- 7 Districts that border Nepal in the west to east direction - West Champaran, East Champaran, Sitamarhi, Madhubani, Supaul, Araria, and Kishanganj.
- 8 Districts that border UP in north to south direction
   West Champaran, Gopalganj, Siwan, Saran, Bhojpur, Buxar, Kaimur, and Rohtas.

- 8 Districts that border Jharkhand in the west to east direction - Rohtas, Aurangabad, Gaya, Nawada, Jamui, Banka, Bhagalpur, and Katihar.
- 3 Districts that border WB in the north to south direction Kishanganj, Purnia, and Katihar.
- Ganga, Ghaghara and Gandak form boundaries with UP in some parts.
- Son river forms a boundary with Jharkhand in Rohtas district.

#### 7.2 GEOLOGICAL STRUCTURE OF BIHAR

formations. The North-Western hills were formed in the tertiary period. The river deposition from the Himalayas created the Bihar plain which is the youngest. This plain was formed by the filling up of a vast trough by the heavy loads carried by swiftly flowing rivers down the Southern slopes of the newly uplifted Himalayas. The formation of Bihar is the contribution of the rocks from Precambrian period to Quaternary rocks of Pleistocene period. The northern part of Bihar is related to the Quaternary rock period. North Champaran of Bihar is related to the tertiary rock period and Rohtas and Aurangabad of Bihar are related to the Vindhyan rock period.



The rocks found in Bihar on the basis of structure can be classified into four types

#### 7.2.1 The Dharwar Rocks

- The Dharwar rock system is a group of metamorphic sedimentary rocks that were formed between 2.5 billion and 1.8 billion years ago. They are the oldest metamorphic rocks in India. These rocks are of Precambrian age.
- Archaean sediments, quartzite, phyllite, gneiss, schist and slate are rocks of Dharwar group.
- The Dharwar rocks are characterized by their high levels of metamorphism, which means that they have been subjected to intense heat and pressure. This

- has resulted in the rocks being transformed into a variety of different types, including gneiss, schist, and quartzite. They are a major source of iron ore, manganese, copper, lead, and zinc.
- These rocks are found in the South-Eastern part of Bihar i.e. Munger, Jamui, Nawada, Gaya, Nalanda and Nawada districts.
- Dharwar rocks are dominated by mica-schists.
- They are part of Chota Nagpur plateau.
- These rocks are almost equivalent in age with Archaean rocks.

#### 7.2.2 The Vindhyan Rock

- Also formed in the Precambrian period. They are rich in limestone and pyrites, which are used in the cement industry.
- Vindhyan rocks are a group of sedimentary rocks. They are named after the Vindhyan Mountains, which are a range of mountains that run through central India. The Vindhyan rocks are thought to have been formed between 1.2 and 1.6 billion years ago. They are a major source of coal, iron ore, and other minerals. Alluvial deposits are found in the Son river valley.
- This rock group is divided into two parts- Lower Vindhyan group and Upper Vindhyan group.
- Vindhyan rocks are made up of sandstone, shale, limestone, and coal. These rocks have been used in the construction of monuments like Maner Dargah, Sasaram, Agra, Delhi, Jaipur, Sarnath, Sanchi and other Buddhist Stupas.
- Evidence of volcanic structure has been found in the Nabinagar of Aurangabad district.
- Vindhyan rocks are horizontally bedded sedimentary rocks like sandstone, quartzite, limestone, dolomite and shale.
- The Kaimur series represents this system. These rocks are important for building purposes.
- These rocks form a dividing line between Ganga plain and the Deccan.

#### 7.2.3 The Tertiary Rocks

- The Tertiary rock system is a group of sedimentary rocks that were formed between 66 million and 2.6 million years ago. The Himalayas were formed in the tertiary period.
- The Tertiary rocks in India are divided into two main groups: the Paleogene and the Neogene. The Paleogene rocks are the older and are made up of sandstone, shale, limestone, and coal. The Neogene rocks are the younger and are made up of sandstone, shale, limestone, and conglomerate. The tertiary rocks are found in the Himalayan Terai region of Bihar and Shiwalik rocks.
- These tertiary rocks are found in the Ramnagar Doon and Someshwar hills which lie in the West Champaran district.



- Sandstone, boulder clay and conglomerate are some examples of these rocks.
- These rocks have deposits of petroleum and natural gas as these were formed by sediments of Tethys sea.

#### 7.2.4 The Quaternary Rocks

- The Quaternary rocks are the youngest rock system in India. They were formed between 2.6 million years ago and the present day. The Quaternary rocks are divided into two main groups: the Pleistocene and the Holocene.
- The Pleistocene rocks are the older and are made up of a variety of different rock types, including glacial deposits, loess, and alluvium. The glacial deposits were formed during the Ice Age, when glaciers covered much of the northern hemisphere. The loess is a type of wind-blown sediment that was deposited during the Pleistocene. The alluvium is a type of sediment that was deposited by rivers and streams.
- The Holocene rocks are the younger and are made up of a variety of different rock types, including peat, marine deposits, and lake deposits. The peat is a type of organic sediment that was formed in wetlands. The marine deposits were formed during periods of sea

- level rise. The lake deposits were formed in lakes that have since dried up.
- These were formed in the Pleistocene and recent periods.
- The Quaternary rocks are made of sandstones, alluvium, conglomerate, coarse gravels, etc.
- The Bihar plain, a gentle sloping vast plain, has been formed by the deposition of sediments brought by rivers of this period.
- These rocks are found as sedimentary rocks in the Ganga plain region.
- The depth of alluvium in this plain is about 6000 m. The highest depth of alluvium is found in the surrounding parts of Patna district.

#### Alluvium is of two types:

Bhangar is the older alluvium which consists of coarse grain, sands and calcium carbonate. It lies at relatively higher places and is therefore free from floods.

Khadar is the newer alluvium i.e. Khadar consists of sand, silt and clay. It lies in the lower parts and is frequently flooded.

#### 7.3 PHYSIOGRAPHIC DIVISION OF BIHAR

On the basis of physical and structural conditions, Bihar can be divided into three major physiographic units.



#### 7.3.1 Shiwalik Range

• The Shiwalik range is a sub-Himalayan range that runs through the states of Uttarakhand, Uttar Pradesh, Haryana, Himachal Pradesh, Punjab, and Bihar. In Bihar, the Shiwalik range is located in the north-western part of the state,

in the districts of West Champaran, Gopalganj, and Siwan. The highest point in the Shiwalik range in Bihar is the Someshwar Hills, which are 880 meters above sea level. Its average height is about 80-250 m. This region is subdivided into three parts based on local variation. These are as follows:

Physiographic Division of Bihar				
Region	Location	Elevation	Dominant features	
Southern Plateau Region	South Bihar	150-500 meters	Hard rocks, conical hills, batholith	
Bihar Plain	Central Bihar	50-150 meters	Alluvial soil, fertile plains	
Shivalik Region	North Bihar	50-200 meters	Low hills, foothills, forests, wildlife sanctuaries	

#### **Ramnagar Doon**

- It is located on the banks of the Gandak River, about 40 km from the district headquarters of Bettiah.
- This broken hilly range lies on the Southern side of the Someshwar hills.
- This Southern range is 32 km long and 6-8 km wide. Highest peak of this range is near Santpur (242 m).
- Harha river valley lies in the North-East of Ramnagar Doon.
- Ramnagar Doon is a range of many smaller hills which is spread over 214 sq km area. It can be seen in the form of the Southern range.

#### **Someshwar Range**

- The Someshwar Range is made up of sedimentary rocks, such as sandstone, shale, and limestone. The climate in the Someshwar Range is humid subtropical, with hot summers and cool winters.
- The Someshwar Range is home to a variety of plants and animals. The forests in the Someshwar Range are dominated by sal trees, but there are also other trees, such as teak, bamboo, and acacia. The forests are home to a variety of animals, such as elephants, tigers, leopards, and deer.
- This range was formed in the Tertiary period. These hills are located in the North Gangetic plain and surround the North-Western part of Bihar.
- It is 70 km long and covers an area of 84 sq km. Its average height is more than 450 m.
- It is in the Northern range which spreads from the point where Triveni canal begins and ends near Bhikhna Thori pass.
- Highest peak of the state, Someshwar hill (880 m) is situated in this range.

- Many passes are seen in this region namely Someshwar, Bhikhna Thori and Marwat passes formed by Turipani, Kudi and Harha rivers, respectively.
- This range forms the international boundary between India and Nepal.

#### **Harha Valley**

- This valley lies between Someshwar and Ramnagar ranges.
- It is 21 km long and 152 m in height. It spreads over an area of 214 sq km. The maximum height of this valley is about 240 m.
- The Shiwalik range is home to a variety of plants and animals. The forests in the Shiwalik range are dominated by sal trees, but there are also other trees, such as teak, bamboo, and acacia. The forests are home to a variety of animals, such as elephants, tigers, leopards, and deer.
- The Shiwalik range is an important source of water for the people of Bihar. The rivers that originate in the Shiwalik range, such as the Gandak, the Kosi, and the Mahananda, provide water for irrigation and drinking. The Shiwalik range is also a popular tourist destination, with many hill stations and national parks.

#### 7.3.2 The Bihar (Indo-Gangetic) Plain

- The Bihar Plain is located in the central part of Bihar and is made up of alluvial soil deposited by the Ganges and its tributaries. This region is very fertile and is home to most of Bihar's population. The highest point in this region is the Bhabua Hills, which are 238 meters above sea level.
- This plain is spread between Northern mountains and Southern plateau region (from Nepal to Chota Nagpur plateau).
- It is formed by the Ganga and its tributaries and comprises about 96.7% of the total area of the state. It is bounded by a 150 m contour line in the North as well as in the South.
- Bihar plain spreads over an area of 90,650 sq km. It is partly the bed of Tethys Sea over which rivers from Himalaya and Chota Nagpur plateau have filled their depositions.
- Its topography in the North is smooth while in the South outliers of Gaya, Rajgir and Kharagpur hills are found.
- Its slope is from West to East. It is wider in the Western part than the East. The average slope is 5-6 cm per km. Its average height is between 75 m to 120 m and average depth is 1000 m to 1500 m.
- The Ganga river bifurcates this plain into two parts i.e. the Northern Bihar plains and the Southern Bihar plains.

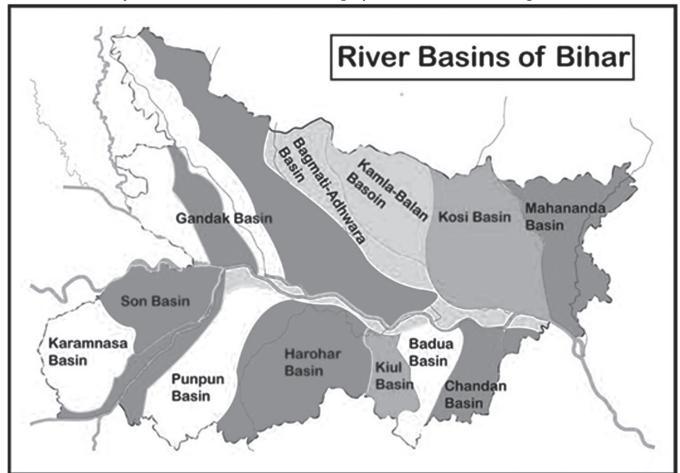
### 7.3.2.1 The Northern Bihar Plain/North Gangetic Plain

- It is located north of river Ganga. It has an area of about 56,980 sq km.
- It covers the area of Tirhut, Saran, Purnea, Darbhanga and Kosi divisions and extends from Ghaghara-Gandak doab in the West to Mahananda valley in the East.
- This plain is formed by alluvial deposits by the rivers like Gandak, Ghaghara, Burhi Gandak, Bagmati, Kamla balan. Kosi and Mahananda.
- The North-Western part of this plain that lies in East and West Champaran district is known as Terai area with high elevation. The soil of this region is rocky and porous with higher percolation level resulting in higher water level. The Terai region has sal forests and tall reedy grass.
- The slope of this plain is from North to South and from North-West to South-East.

- This region is a flood prone area.
- The Northern part of this plain is comparatively higher. It is a place of alluvial fans which have been formed by the sediments of Gandak, Burhi Gandak, Kosi and Mahananda rivers.
- Some of these rivers are infamous for changing their courses. Kosi is known as 'The Sorrow of Bihar'.
- Important feature of this region is Chuars (oxbow lakes or abandoned channels of the rivers). These are found in Begusarai, Samastipur, Saharsa and Katihar districts.
- This Northern Bihar plain is divided into Doabs (land lying between two converging rivers). Ghaghara-Gandak Doab, Gandak-Kosi Doab, and Kosi-Mahananda Doab are doabs in Bihar.
- Diara (a land created by deposition of sand and alluvial soils over the decades) is also an important feature in this plain.

#### **Division of Northern Bihar Plain**

The North Bihar plain is divided on the basis of drainage system and on the basis of regional variations.



#### **Mahananda Plain**

- It is located in the Easternmost part of North Bihar.
   West Bengal lies to the East, the Ganga river in the South and Kosi river in the West.
- The Mahananda river played a great role in forming this plain, especially the upper surface having marshy land, levees, older alluvium, etc.
- Kosi and Mahananda rivers carry heavy loads of sand and gravel (kankar) and deposits on their beds and flood plains.
- The slope of this plain is from North to South.
- It covers about one-tenth of the North Bihar plain.
- The plains are home to a variety of plants, including rice, wheat, and jute. The area is also home to a variety of animals, including tigers, elephants, and deer.

#### **Kosi Plain**

- This plain is surrounded by the Nepal border in the North, Mahananda plain in the East, Ganga river in the South and Kamla river in the West.
- It covers Supaul, Saharsa, Madhubani, Darbhanga and Madhepura districts of Bihar. The slope of this plain is from North to South. It covers approximately onesixth area of the North Bihar plains.
- The Kosi river is known to change its course and has also shifted from East to West. Thus, this plain has also shifted Westward. Due to its shifting nature, it always gets affected by floods in the state.
- The plains are home to a variety of plants, including rice, wheat, sugarcane, and jute. The area is also home to a variety of animals, including tigers, elephants, rhinoceroses, and deer.
- The plains are a popular destination for tourists and locals alike. The area is home to a variety of historical and cultural sites, including the ruins of the ancient city of Mithila. The plains are also home to a variety of recreational activities, including hiking, camping, and fishing.

#### Kamala Plain

- The plain is located in the central part of the North Bihar plain. This plain is surrounded by the Indo-Nepal border in the North, Kosi plain in the East, Ganga river in the South and Bagmati plain in the West. The slope of this plain is from North-West to South-East.
- Kamala river is also known to change its course. Due to this action of the river, a large.
- The Kamala plains are a major agricultural region, and are home to a variety of crops, including rice, wheat, sugarcane. number of chaurs have been formed in this region.

#### **Bagmati Plain**

- The plain is located between Gandak plain in the West and Kamala plain in the East. The plain covers Sitamarhi, East Champaran, Muzaffarpur, Samastipur and Sheohar districts of Bihar. This region also has a number of Chaurs.
- Important tributaries of Bagmati river in this region are Lal Bakaiya, Lakhandei and Adhwara.
- This plain has a number of marshy lands which have been formed by abandoned river courses, meanders and unequal deposition of sand and loam.
- The plain has a very gentle slope which goes from North-West to South-East.
- The Bagmati plains are a major agricultural region, and are home to a variety of crops, including rice, wheat, sugarcane, and vegetables.
- The Bagmati plains are also home to a number of religious and cultural sites, including Pashupatinath Temple, Boudhanath Stupa, and Swayambhunath Stupa.

#### **Gandak Plain**

- The plain lies between Ghaghra plain and the Bagmati plain. The Gandak river enters in the North-Bihar plain near Valmiki Nagar in West Champaran and meets the Ganga river near Hajipur.
- In the North, the plain has a slope from North to South and in the South, it has a slope to South-Eastwards.
- Due to the shifting course of rivers, the plain has a vast low lying tract which appears like long semi-circular Chaurs.
- The Gandak plain is a fertile plain and wheat, paddy, sugarcane, maize, and other crops are cultivated here.
   This plain is an important agricultural area and the population here is also very high.

#### **Ghaghra Plain**

- This is the Western most part of the North Bihar plain.
   It covers Siwan, Gopalganj and Saran districts of Bihar.
- It is a part of the 'Ghaghra-Gandak Doab'. It is also known as 'Saran plain'.
- Important features of this plain are Diara land within the river, Chaur or vast low-lying areas and higher levees.
- During the rainy season, the vast expanses of lowland, along the river channels, are flooded but are visible later during the dry season. Manjhi, Ekma, Giaspur and Barauli are known for their important Chaurs in this plain.
- Wheat, paddy, sugarcane, maize, and other crops are cultivated here.
- Ghaghra plains is also an important cultural area.
   There are many famous religious places in this ground.



#### **Distribution on the Basis of Regional Variation**

• On the basis of regional variation, the North Gangetic plain can be divided into four divisions, such as:

#### **Bhabar Region**

- The Bhabhar region is characterized by its coarse alluvium, which is made up of pebbles, gravel, and sand. This alluvium is very porous, which means that water easily seeps through it. As a result, there are few surface streams in the Bhabhar region.
- Bhabar is a region South of the lower Himalayas and Shivalik hills.
- This is located in the Northern part of Bihar in the form of a narrow belt of about 10 km wide from West to East. This region has a deposition of sand and gravel.
- This region is extended in 7 districts (East Champaran, West Champaran, Sitamarhi, Supaul, Madhubani, Kishanganj and Araria).
- The Bhabhar region is also home to a number of important wildlife species, including the tiger, leopard, and elephant.

#### **Bangar Region**

- Bangar plains are typically older than Bhabhar plains and are made up of finer-grained alluvium. This makes Bangar plains more fertile than Bhabhar plains and more suitable for agriculture.
- Bangar plains are also typically less prone to flooding than Bhabhar plains. This is because the alluvium in Bangar plains is more consolidated and less porous, which means that water does not seep through it as easily.
- This region has deposits of old alluvial soil. This region is free from frequent floods. It is located in the North-Western part of Bihar.
- Number of important crops, including wheat, rice, and sugarcane are grown here.

#### **Khadar Region**

- It is a type of plain which is deposited on the banks of rivers. It is formed from the soil and silt deposited by the flood waters of the rivers. Khadar is generally less elevated than the Bangar plains and the soil is also less fertile.
- This region has deposits of newer alluvium. Newer alluvium is deposited every year through the sediments and silt brought by the flood water.
- This region is extended in the North and North-Eastern plain from Gandak in the West to Kosi in the East.
- Khadar plains often get flooded, so farming is difficult in them. However, some crops can be grown in the Khadar plains, such as paddy, sorghum and millet.

#### Chaur

- Chaur is a type of ground found on the banks of rivers and in flood plains. It is made of clay and silt deposited by the water of the rivers.
- Chaurs are low-lying regions and oxbow-lakes which are formed by rivers and excessive rain in the North Gangetic plains.
- The importance of the Chaur plains is from the fact that they protect the banks of the rivers from erosion. The chaur plains stop the water of the rivers and prevent them from flowing, which prevents the cutting of the banks of the rivers. The chaur plains are also important for people living on the banks of rivers, as they provide protection from floods.
- Important Chaurs are Lakhani Chaur (West Champaran), Sundarpur Chaur (East Champaran), Tetariya Chaur (West Champaran), Madhopur Man, Saraiya Man, etc.

#### 7.3.2.2 South Bihar Plain/South Gangetic Plain

- It is smaller in area than the North Bihar plain. It lies from South of Ganga river to the North of Chota Nagpur plateau.
- Raj Mahal hill and Kaimur plateau demarcate its boundary in the North-East and North-West, respectively. It is triangular in shape with a wider West and narrower East part.
- Many hills are located in the South Bihar plain such as the hills of Gaya (266 m), Rajgir (466 m), Barabar, Giriak, Sheikhpura, Jamalpur and Kharagpur (510 m) hills, etc.
- These hills are located in Jehanabad, Nalanda and Munger districts of Bihar. These hills are the outliers of Chota Nagpur plateau and termed as residual hills.
- This plain has been built of the alluvium brought by Karmanasa, Son, Punpun, Paimur, Phalgu, Kiul, Harohar, Man river and their feeders from the Southern hilly areas.
- The South Bihar plain is higher in the South and slopes towards the Ganga, but its slope is not as gradual as that of the North Bihar plains.
- The South Bihar plain is stable and not prone to floods except in limited areas.

The South Bihar plain is divided into the following divisions:

#### **Chandan Plain**

This plain forms the Eastern most part of the South Bihar plain. This covers Banka and Bhagalpur districts of Bihar.



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- This plain has been formed by Chandan river which originates from the Digaria hills, a part of Rajmahal hills and its tributaries.
- This plain is surrounded by the Ganga river in the North, Godda in the East, Deoghar in the South and Jamui in the West.
- The Northern part of this plain is homogeneous and has fertile soils while its Southern part is relatively undulating.
- The plain covers about one-tenth of the South Bihar plain and it slopes from South to North.
- The areas of Mandar hill in Banka, Katoria, Belhar and Bhitia have rough terrain while Rajaun, Amarpur and Shambhuganj, etc are homogeneous in nature having loamy soils.
- The Chandan Plains are a fertile region and are home to a number of important crops, including rice, wheat, and sugarcane, maize, and pulses. The region is also a major producer of milk and dairy products.

#### **Kiul Plain**

- This plain is located West of Chandan plain, East of Mokama Tal region and North of Chakai plateau.
- The plain covers areas of Jhajha, Sikandra, Lakshmipur, Patsanda and Majhwa development blocks.
- The Southern part of this plain is rolling in nature which covers areas of the development blocks of Chakai, Simultala, Godai, Bishunpur, etc.
- The Northern part of this plain has fertile soil while in the Southern part lies coarse soils.
- The slope of this plain is from South to North.
- The Kiul Plain is facing a number of challenges, including climate change, deforestation, and soil erosion. Climate change is causing the region to become drier, which is making it more difficult to grow crops. Deforestation is also a major problem in the Kiul Plain, as it is leading to soil erosion and the loss of biodiversity. Soil erosion is a major problem in the Kiul Plain, as it is causing the loss of fertile topsoil.

#### **Tal Region**

- This is a saucer shaped low lying area which gets filled with water during monsoon season and looks like a large lake.
- It lies South of the higher levee of Ganga river, west of Kiul plain and east of Central South Bihar plain. It is 25 km wide and located from Patna to Mokama.
- Mokama Tal extends from Fatuha to Lakhisarai. It is also known as Sickness of Bihar.
- Around 1,06,200 hectare land of this region is low lying which gets filled by rainwater during monsoon.

- This plain has been built by fine quality alluvium brought by rivers from the Southern hills.
- The rivers Punpun, Paimar and Phalgu do join the Ganga river straightly due to higher Southern levee of Ganga river.
- At some distance, some rivers form distributaries and become extinct in the Tal region. For example, the Phalgu river which is extinct here and its sand makes the land infertile.
- The Tal region is a fertile area and is used for agriculture. The main crops grown in the Tal region are rice, wheat, and sugarcane. The Tal region is also home to a number of important wildlife species, including the swamp deer, the blackbuck, and the rhesus monkey.
- The Tal region is prone to flooding during the monsoon season. In fact, the name "Tal" comes from the Hindi word for "lake".

#### **Central South Bihar Plain**

- It is a triangular shaped plain and it is also known as Magadh plain. It is surrounded by the Ganga river in the North, Tal region in the East, the Southern hilly terrain in the South and Son river in the West.
- It has an area of about 1,230 sq km and covers districts of Gaya, Jehanabad, Aurangabad, Patna, Nalanda and Nawada.
- This plain has been formed by the Ganga river, its main tributaries like, Punpun, Son and distributaries of Phalgu river.
- The slope of this plain is from South-West to North-East.
- The main crops grown in the plain are rice, wheat, sugarcane, maize, and pulses. The region is also a major producer of milk and dairy products.
- The Central South Bihar Plain is home to a number of important historical and cultural sites, including the Rajgir hills, the Nalanda University ruins, and the Mahabodhi Temple at Bodh Gaya.

#### The Shahabad Plain

- This is an extensive low lying plains. It is located in the Western most part of the South Bihar plain.
- It is surrounded by Ganga river in the North, Son river in the East, Kaimur plateau in the South and Karmanasa river in the West.
- It covers Bhojpur, Buxar and some parts of Kaimur districts. It has been formed by the Ganga river and its tributaries, Karamnasa and Son. The plain is divided into two subdivisions:
  - The first part lies between the Ganga river and the main line of Eastern railway. The low lying land



- along the Ganga river is a flood prone region which has fertile soil.
- The second large tract of land lies South of the railways to the foot of the Kaimur plateau. It comprises an area of about 5.7 thousand sq km. It is also a flat alluvial plain.
- The soil in the Shahabad Plains is a mixture of sand, silt, and clay, which is ideal for agriculture. The region receives an average of about 1,200 millimeters of rainfall per year, which is sufficient for crop growth.
- The Shahabad Plains are home to a number of important crops, including rice, wheat, sugarcane, maize, and pulses.

#### 7.3.3 The Southern Narrow Plateau

- The Southern Plateau Region is located in the south of Bihar and is made up of hard rocks like gneiss, schist, and granite. This region has many conical hills which are made up of batholim like Pretshil, Ramshila, and Jethian hill. The highest point in this region is the Rajgir Hills, which are 466 meters above sea level.
- The hilly and plateau region lies in the extreme South of the South Bihar plain. It is the frontier of Chota Nagpur plateau.
- It is a narrow belt which extends from Kaimur district in the West to Banka districts in the East.
- It is an undulating tract of land which is full of hills.
- This region consists of hard rocks like gneiss, schist and granite.
- It is the extended part of the Peninsular plateau of India.
- As it is part of the Peninsular plateau, it is formed by hard and ancient rocks.

### The Southern Hilly Region is divided into the following regions:

#### Kaimur/Rohtas Plateau

- It has an area of about 1200 sq km which covers most areas of Kaimur district.
- It is 80 km wide. Its average height ranges from 300 m to 450 m. It is an undulating table land.
- It extends along the Southern boundary of Kaimur district in the South to Shahabad plain in the North.
- **Rohtasgarh** is the highest point of this region with an elevation of 495 m above sea level.
- The region consists mostly of Vindhyan rocks.
- The region has several deep gorges formed by the hill streams. It is the oldest physiographic region of Bihar.
- The Kaimur Plateau is a largely forested region. The forests are home to a variety of wildlife, including tigers, leopards, sloth bears, and elephants.

#### **Gaya Hilly Region**

- This broken undulating part lies in the Southern part of the Gaya, Aurangabad and Nawada districts.
- This region merges with long ranges of hills and a wide belt of brush wood jungle to its south.
- This part is highly barren and is not fit for much cultivation. Gidhour hills lie across the Southern boundary of Gaya and Nawada and are composed of Dharwars. They are highly metamorphosed and have mica.
- These are isolated hills in the form of outcrops of Chota Nagpur plateau surrounded by alluvial plains.
- A 'king of hills' lies in Gaya town as Ramshila hills (214 m) to the North, Katari hills (136 m) to the West, Brahamyani hill (238 m) to the South and Pretshila hill (262 m) to the North-West.
- Maher hill (482 m) is the highest point of this region.
- Barabar and Nagarjuna hills are located on the border of Gaya and Jehanabad.
- The Gaya hilly region is a diverse region, with a variety
  of different habitats. The region is home to a number
  of different types of forests, including sal forests,
  bamboo forests, and deciduous forests. The region
  is also home to a variety of wildlife, including tigers,
  leopards, elephants, and monkeys.

#### **Nawada Hilly Region**

- This hilly region is located from Ganga river in the North to the Southern part of the Nawada district.
- Spurs are found in this region in the form of hills and ranges which extend from Chota Nagpur plateau and are separated by smaller valleys.
- Important hills of this region are Sringirikhi (555 m), Durvasarshi hill (661 m) and Mahabar hill (549 m).
- Mohana and Kakolat waterfalls are also located in this region.
- The region is a source of water, timber, and other natural resources. The region is also home to a number of natural attractions, including the Chandan River, which flows through the region, and the Devgarh Wildlife Sanctuary, which is home to a variety of wildlife, including tigers, leopards, and elephants.

#### **Rajgir Hilly Region**

- This hilly region lies amidst the fertile alluvial plain of the Central South Bihar plain. It is located in Nalanda and Gaya districts. It is the extended part of Gaya hills.
- These hilly ranges extend from Bodh Gaya and terminate near Giriak and enclose the valley which was once the ancient town of Rajgriha.
- Important hills of this region are Vaibhavgiri hills (380 m, highest peak), Bipulgiri hill (320 m), Ratnagiri hill (313 m), Udayagiri hill (231 m), Saonagiri hill (222 m) and Bihar Sharif of Pir Pahari hill (108 m).
- Shanti stupa is located East of Bipulgiri peak.



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- The Northern portion of this region is green while its Southern portion is comparatively barren because of the rain shadow part of the hills.
- These hills are mainly composed of quartzite and slate.
- The region is also home to a number of natural attractions, including the Son River, which flows through the region, and the Rajgir lake, which is a popular spot for boating and fishing. The region is also a major tourist destination.

#### **Munger Hilly Region**

- This hilly region (Jamui and Munger) is located in the Southern part of Bihar.
- It has a number of low ranges and isolated peaks. Kharagpur hills form the most extensive range which extends from Jamalpur to Jamui railway station. These hills consist of a number of steep irregular ridges.

- Gidheshwar hills form a block of hills which lie to the South West of this region. These hills are in Nawada district
- Satpahari hill (542 m) lies on the extreme West part of this region.
- Chakai plateau is located close to the Southern border which is surrounded by hills and largely covered with jungles.
- This plateau is separated by Batia hill range from the undulating tract to the North which extends from Barwe, North of Simultala to the Hazaribagh plateau and Nawada border.
- Bhimbandh Wildlife Sanctuary, which is home to a variety of wildlife, including tigers, leopards, and elephants is located here.

#### 7.4 IMPORTANT MOUNTAIN PEAKS/HILLS OF BIHAR

Peaks/Hills	Elevation (in meters)	Peaks/Hills	Elevation (in meters)
Someshwar Hill	880	Durvasarhi Hill	661
Satpahari Hill	542	Kharagpur Hill	510
Maher Hill	482	Rajgir Hill	466
Rohtasgarh Hill	447	Loharawa Pahar	334
Baibhargiri Hill	343	Tatanagiri Peak	313
Bipulgiri Peak	320	Harha Pahar	300
Barabar Hill	307	Pretshila Hill	262
Dwar pahar	275	Brahmayoni Hill	238
Udayagiri Hill	231		
Ramshila Hill	214		
Bihar Sharif/ Pirpahari Hill	108		





8

### Climate and Soil of Bihar

Bihar has a subtropical humid climate with four distinct seasons:

**Winter** (November to February) is the coldest season in Bihar, with average temperatures ranging from 10 to 25 degrees Celsius. The nights are usually cold, with temperatures dropping below 10 degrees Celsius.

**Summer** (March to June) is the hottest season in Bihar, with average temperatures ranging from 25 to 45 degrees Celsius. The days are usually hot and humid, with temperatures often reaching 40 degrees Celsius or more.

**Monsoon** (July to September) is the wettest season in Bihar, with average rainfall ranging from 1,000 to 1,500 millimeters. The monsoon brings heavy rains, which can sometimes lead to flooding.

**Post-monsoon** (October to November) is the transition period between the monsoon and winter seasons. The weather is usually pleasant during this time, with average temperatures ranging from 20 to 30 degrees Celsius.

The climate is influenced by its proximity to the Himalayas, distance from sea and upper air circulation.

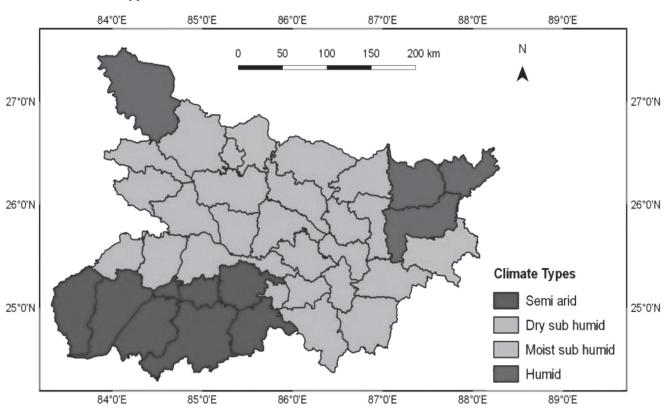
The climate of Bihar is influenced by its location in the Indo-Gangetic Plain. The plain is a large, flat area that is surrounded by mountains on two sides. This makes Bihar a landlocked state, which means that it is not influenced by the sea breezes.

The climate of Bihar is also influenced by the monsoon winds. The monsoon winds blow from the southwest during the summer, bringing heavy rains to the region. The monsoon winds also bring warm, humid air, which can make the summers in Bihar very hot and uncomfortable.

#### 8.1 CLIMATE OF BIHAR

Bihar is located in the sub-tropical region of temperate zone. Sub-tropical region is extended between 23½° to 40° North and South latitudes. Bihar enjoys a continental monsoon and humid sup-tropical type of climate.

The main geographical factors that affect the climate of Bihar are as follows:



- Physical factors: proximity to Tropic of Cancer, near Bay of Bengal, South-West monsoon, Himalayan mountains and changes in the upper air circulation.
- Bihar is located near the Tropic of Cancer giving it a warm climate. During summers the temperature in Bihar sometimes exceeds more than 45°C.
- Its Northern part is cooler as compared to Southern part due to proximity to the Himalayas.
- Bihar also adjoins the Ganga Delta and Assam which are a source region of Norwesters. Norwesters bring rain in the pre-monsoon season.
- Eastern part of Bihar experiences a humid climate due to closeness to the sea while the Western part is relatively drier due to continental effect. Eastern part receives 200 cm average rainfall while Western part receives 100 cm average rainfall.
- The low pressure belt which develops over Rajasthan and nearby areas later gets extended to Bay of Bengal through Bihar and Odisha. This leads to the arrival of monsoon rains over Bihar in the summer season. Tropical cyclones originating in Northern Bay of Bengal also has great impact on its climate.
- After the rainy season the moisture in the air remains for longer period, thus, its climate can be called as 'modified monsoon climate'.
- According to Koppen, the climate of Bihar is monsoon type with dry winters (Cwg), whereas it is subtropical humid type according to Trewartha and Thornthwaite.

#### 8.2 SEASONS IN BIHAR

- The seasons in Bihar can be broadly classified into four types:
  - 1. Hot weather season March to May
  - 2. South-West monsoon June to September
  - 3. Retreating South-West monsoon October to November
  - 4. Cold weather season December to February

#### 8.2.1 Summer Season

- The hot weather begins in March, Temperature increases and pressure decreases continuously. It continues till May. In April, humidity is lowest.
- Average temperature during this season ranges between 29°C in the East and North-East to 32°C in the West.
- The temperature in the East declines due to Norwester shower impact. It originates over Bihar and moves Eastwards.
- Norwester brings rainfall in Bihar and is accompanied by lightning, thunderstorm and hailstorm. However, it is extremely helpful for pre-Kharif crops like jute,

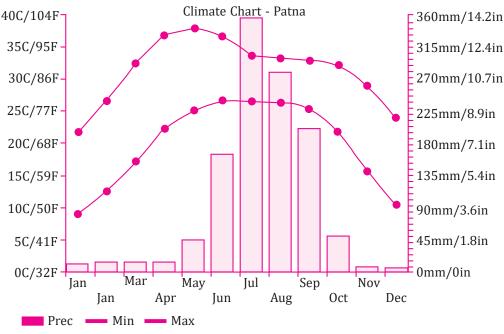
- paddy and a number of fruits like mango and litchi. Such rainfall is known as 'Mango Showers' or 'Kal Vaisakhi'.
- Gaya is the hottest district in May with temperature reaching 45°C while average temperature of May is 32°C. May is the hottest month in Bihar.
- The hot scorching 'loo' winds blow in the plains during late April and May having an average velocity of 8-16 km per hour. Loo are local winds which affect human comfort especially in Gaya, Jehanabad, Aurangabad, Nawada, Nalanda and Saran districts.
- During this season hailstorms occurs due to vertical rise of the ground air so high that the moisture reaches above the freezing level of the atmosphere and precipitation comes down in the form of hails.
- During this season, the Western part of Bihar receives about 127 mm average rainfall while the eastern part especially North-Eastern part receives about 254 mm average rainfall.
- This summer rainfall is important for jute and Autumn harvest crops like paddy, ragi and so on.
- The Southern part of Bihar receives comparatively lesser rainfall than Northern Bihar.

#### 8.2.2 South-West Monsoon

- This season starts in June and lasts till September. The time of onset of these rain bearing winds is from 7<sup>th</sup> June in Eastern Bihar to 15<sup>th</sup> June in Western Bihar.
- A low pressure center develops over the Ganga plain while a high pressure center develops over the Northern Bay of Bengal Sea.
- This pressure difference causes rain bearing winds to blow towards the Indian plain. These are known as South-West Monsoon winds.
- The burst of monsoon in Bihar is accompanied with the sudden arrival of intense cyclonic storms with thunderstorm, lightning and torrential rain.
- These winds cause heavy rainfall in Eastern and Northern Bihar. These winds first strike in the North-East Bihar i.e. in Kishangani district.
- As a number of cyclones visit the transitional belt of Bihar which lies between wet West Bengal and dry Uttar Pradesh, the rainfall decreases from East to West direction.
- The rainfall overall shows spatial and temporal variation.
- The North-East parts of Bihar register about 190 cm rainfall whereas the Western parts of the state receive only 100 cm rainfall.
- The region located to the North-East of Burhi Gandak plain receives over 125 cm rainfall. During this season, July and August receive maximum rain.
- The South Bihar region, including Gaya, Nawada, Aurangabad, Kaimur and Rohtas districts, records generally less rainfall.



• 'Hathiya' Nakshatra has great importance during monsoon season in Bihar. Rainfall occurs in this Nakshatra greatly affects the Rabi crops. It is also associated with the rainfall of October.



#### 8.2.3 Retreating South-West Monsoon

- In the first week of October, South-West monsoon winds begin to retreat. It is a transitional period from summer to winter and also known as 'Sharad ritu'.
- In this month, the seasonal low pressure disappears and the North-Westerly winds begin to blow over the plains from the high pressure in the North-West India towards the low depression which develops over the Bay of Bengal.
- The more striking feature of this season is the arrival of tropical cyclones which develop in the Bay of Bengal.
- In the period of Hathiya Nakshatra (September -October), the frequency of these tropical cyclones is maximum in Bihar state. These cyclones are considered beneficial for the paddy crop in the state.
- Sometimes, the state gets incessant rain causing floods.
- Large parts of the state receive 2.5cm to 10cm rainfall which generally occurs in the month of October. November month remains almost dry.
- During this season, Jet streams become South cold waves of the Himalayas. Westerlies and Northern winds start to blow over the plain region. These bring down the temperature and create dry conditions.

#### **Distribution of Rainfall in Bihar**

The average annual rainfall in Bihar is 120 cm. This rainy period remains from June to October which gives 85% to 90% rainfall to the state. The West-central region receives a normal rainfall of about 100 cm which increases to 200 cm towards the sub-montane region in the North, especially Purnia and Kishanganj districts. **Kishanganj** receives more than 200 cm rainfall, which is highest in the state.

#### 8.2.4 The Winter Season

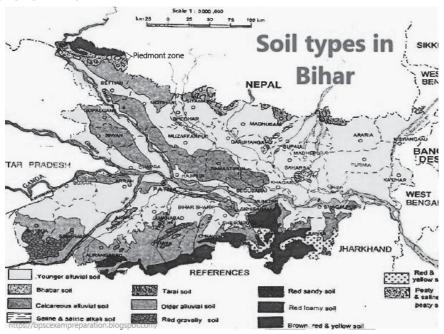
- This season prevails from December to February. It is characterized by low temperature, light northerly winds, clear skies and low humidity.
- The average temperature of Bihar in this season is 16°C. January is the coldest month when temperature goes down to 4°C. Gaya records the lowest temperature and is the coldest place of Bihar.
- Bihar plain experiences cold waves due to pressure differences in North-Western India and South-Eastern India. Temperate cyclonic disturbances originating in the Mediterranean sea region cause rainfall of about 10 to 20 mm over this region, which is beneficial for Rabi crops.
- February records higher rainfall than January. During this season plains record higher temperatures than plateau region.
- In the North-West Bihar, the adjoining areas of the Shiwalik region have the possibility of frosting which adversely affects the potato crop.
- The climate of Bihar is also a major factor in the state's culture. The hot summers and cold winters have influenced the way that people in Bihar dress and the way that they live their lives. For example, people in Bihar often wear loose-fitting clothing during the summer to stay cool. They also often eat light meals during the summer, as heavy meals can make them feel uncomfortable.
- The climate of Bihar is a complex and ever-changing system. It is influenced by a variety of factors, including the location of the state, the monsoon winds, and the topography of the land.

#### 8.3 SOILS OF BIHAR

Soil is formed from breaking down of parent rocks or physical and chemical changes occurring in parent rocks. The soils of Bihar are also affected by the state's climate. The monsoon rains help to leach nutrients from the soils, so they need to be supplemented with fertilizers. The hot summers can also make the soils dry and hard, so they need to be irrigated during the dry season. Variation in relief, precipitation, vegetation and parent rocks have resulted in various types of soil in Bihar. In Bihar, Alluvial soil is extensively found. This soil has

- been formed by sediments deposited by rivers in the North and South plains of Ganga river.
- Classification of Soils on the Basis of Landforms and Moisture
- The Agricultural Research Institute of Bihar has divided the soil of Bihar into three categories on the basis of characteristics such as parent rocks, landforms, moisture, physical and chemical properties:
  - 1. Soils of Northern Plains
  - 2. Soils of Southern Plains
  - 3. Soils of Southern Plateau

#### 8.3.1 Soil of Northern Plain



 Alluvial soil is found all over this region except the hilly areas of West Champaran in Shiwalik range. The mountainous areas of Shiwalik range have forest or mountain soil. The soil here is the result of deposition of sediments brought by Ghaghra, Gandak, Burhi Gandak, Mahananda, Kosi rivers.

#### North plain soils can be classified into four types:

- (i) Piedmont Swamp Soil
- (ii) Terai Soil
- (iii) Alluvium Soil
- (iv) Domat Soil

#### (i) Piedmont Swamp Soil

- This soil is found in North-Western part of West Champaran district to Someshwar hills (Kishanganj) in the East. This soil is shallow to deep and has rocks and pebbles.
- This soil is mostly clayey, rich in organic matter. This supports paddy, maize and barley crops.

- Marshy land has been developed in this soil at some places due to excessive rain and moisture. It is light brown or yellow in color and acidic in nature due to the predominance of forests.
- The soil is prone to waterlogging, which can make it difficult for crops to breathe.

#### (ii) Terai Soil

- This type of soil is found in the Northern part in a narrow belt along the border of Nepal to the South of Someshwar range.
- The districts which have this soil are West Champaran, East Champaran, Sitamarhi, Madhubani, Supaul, Araria and Kishanganj.
- This soil is heavy in texture in the Western part while the soil of the South-East region has light texture due to the influence of the Kosi and Mahananda rivers.
- This soil is grey to yellow in colour which is not well drained and neutral to moderately acidic in reaction.
   It is rich in lime and has small gravels.

- It has a medium order of fertility. The lowland Terai soil is more fertile compared to upland Terai soil.
- In the lowland Bhadai and Aghani crops like rice, sugarcane, jute, maize, vegetables and oilseeds are grown while the uplands remain mostly barren with growth of mainly millet, marua, kulthi, sweet potato, arhar, etc.
- Terai soil is a good soil for growing crops, and it is often used to grow rice, sugarcane, and vegetables.
   The soil is also a good source of water, and it is often used for irrigation.
- However, Terai soil is also prone to waterlogging, which can make it difficult for crops to breathe. The soil is also susceptible to erosion, and it is important to take steps to protect the soil from erosion.

#### (iii) Alluvium Soil

- This soil lies South of the Terai Soil belt. This is a broad belt which tapers towards North-West and broadens in the South-East.
- It is found in the districts of Purnea, Araria, Katihar, Madhepura, Saharsa, Samastipur, Darbhanga, Madhubani, Muzaffarpur, Supual, Begusarai and Khagaria.
- This soil is thicker towards North and thinner towards South and has medium productivity.
- Important crops grown in this soil are jute, paddy, wheat, maize, pulses like gram, masur, khesari and oilseeds like mustard, etc.
- This soil has sand, loam and clay in different proportions.
- Alluvium soils are typically very fertile because they contain a high amount of organic matter. Organic matter is important for soil fertility because it provides nutrients for plants and helps to improve the soil's structure.
- Alluvium soils are also well-drained because they are typically composed of loose sediments that allow water to percolate through the soil easily. Good drainage is important for plant growth because it prevents waterlogging, which can kill plants.
- The soil is deficient in phosphorus and nitrogen due to which it resembles brown and white in colour.
- The soil is further divided into two types:

#### (A) Old Alluvium or Bhangar Soil

- Bhangar soil is a type of soil found in the Indo-Gangetic plains of India. It is a dark, clayey soil that is rich in organic matter. Bhangar soil is formed by the deposition of sediments from the Ganges and other rivers.
- Bhangar soil is a good soil for growing crops.
- This is an older Alluvial soil which is found in Western parts of Ghaghara-Gandak Doab and Burhi Gandak.
- It varies in texture and chemical composition. It is mostly loamy with a high clay factor.

- Kankar or carbonaceous compounds are abundant in this soil.
- Its drainage is poor due to high clay concentration.
- The difficulty in its tillage makes it suitable for paddy cultivation. It is rich in lime and potash which makes it suitable for sugarcane cultivation.
- This soil is under the process of denudation.
- The sub-soil has an impervious clay layer.
- Bhangar has two varieties of soils:
  - Bhat Soil
- The Central-Western North Bihar plains in the lower Gandak valley have Bhat or calcareous soil.
  - Balsundari Soil
- It is found from the Southern part of Purnea to Saharsa, Darbhanga, Muzaffarpur, Siwan, Saran and Gopalganj district. It is rich in lime which is suitable for fruits like mango, banana and litchi, and crops like paddy, sugarcane, wheat, maize, tobacco, etc.

#### (B) New Alluvium or Khadar Soil

- These are found in lowlands and in the vicinity of rivers where fresh deposits renew it periodically.
- It is sandy in the upper reaches while silty in the lower section. The soil is less calcareous and carbonatic than Bhangar soil and has less kankar concentration.
- Khadar soil is the soil formed on the banks of rivers. This soil is formed from the soil and mineral substances flowing in the water of the rivers. Khadar soil is very fertile and many types of crops can be grown on it. Some of the characteristics of Khadar soil are as follows:
- This soil is very smooth.
- This soil is very fertile.
- This soil absorbs a lot of water.
- This soil is very moist.
- Surface of Khadar soil is leveled due to periodic deposition of silt. Khadar soil is suitable for crops like wheat, paddy, etc.
- Due to having better drainage except in river beds, it has low percentage of humus and nitrogen and little lime, thus is more suitable for many crops.
- It is dark brown in colour. It is extended in Ganga valley and lower valleys of Gandak, Burhi Gandak, Kosi and Mahananda rivers.
- It is mainly found in flood prone regions and is extensively found in Purnia and Saharsa districts. Jute is also grown in this soil in the North-Eastern parts of Bihar due to having higher rainfall.

#### (iv) Domat Soil

 The name "domat" comes from the Hindi word "domat," which means "to mix." Domat soil is formed when sand, silt, and clay are mixed together by water. The proportions of sand, silt, and clay in domat soil can vary, but it is typically a mixture of 40% sand, 40% silt, and 20% clay.

- It is found in a broad belt in the South-western portion of the North-Bihar plain in the districts of Siwan, Gopalganj, Vaishali, Saran, Muzaffarpur, Samastipur, etc.
- From East to West this soil is different in texture, colour, physical and chemical properties.
- The Eastern region is dominated by young calcareous alluvial soils while Western part especially Siwan and Saran districts have young calcareous alluvial soil with saline and alkali soil.
- The Eastern domat soil is white to olive grey in colour but appears dark grey in the vast low lying area of this region which are known as 'Chaurs'.
- Important crops which are grown in this soil are maize, paddy, wheat, sugarcane, tobacco, etc. Mango and litchi are also grown here especially in Muzaffarpur and Vaishali districts and Banana is majorly grown in Vaishali district.

#### 8.3.2 Soils of Southern Plain

- The soil of the Southern plain is found between the North Ganga plain and Southern plateau. This is formed by alluvium deposited by Son, Punpun, Phalgu rivers and their tributaries.
- The soil of this plain is divided into four types:
  - (i) Karail-Kewal Soil
  - (ii) Tal Soil
  - (iii) Balthar Soil
  - (iv) Kagari Soil

#### (i) Karail-Kewal Soil

- This is heavy clay soil and characterized by wet paddy lands or dhanhar, spread in the South of Tal soil region over North Rohtas, North Gaya, Aurangabad, Patna, Jehanabad, Munger, Bhagalpur, Bhojpur and Buxar.
- Karail is an alkaline soil and Kewal is clay and heavy clay loamy soil.
- This soil is acidic to alkaline in nature with deep brown to yellow and light yellow in colour.
- This is highly balanced with high water absorption capacity and high fertility in nature. It is well suited for both rice and rabi crops such as wheat, linseed, bajra, pulses and gram.

#### (ii) Tal Soil

- This soil is spread from Buxar to Banka district. This
  is situated in the backwater belt of the Ganga. The
  area remains underwater for months during the rainy
  season due to accumulation of rain water and poor
  drainage.
- Its width varies from 8 to 10 km. The Tal soil varies in colour from light grey to dark grey and in texture and from medium to heavy soil.
- This is neutral to slightly alkaline in reaction having pH between 7 to 8. Due to accumulation of water for a considerable period of time, kharif or monsoon crops cannot be grown in this soil.

 Rabi or spring crops like wheat, khesari, gram, peas, masoor, lentils, etc are harvested in this soil after water dries up and their yield is quite high.

#### (iii) Balthar Soil

- It is developed between Chota Nagpur plateau and South Ganga plain's transitional zone.
- It is found in Kaimur plateau to Rajmahal hills in a narrow belt ranging from 5 to 15 km.
- Balthar soil is not a good soil for growing crops.
   The soil is low in nutrients, and it is also prone to waterlogging. However, some crops can be grown in Balthar soil, such as millet, pulses, and oilseeds.
- To improve the productivity of Balthar soil, it is important to add organic matter and nutrients to the soil.
- It is acidic in nature and is dominated by sand and gravel. This is red and yellow in colour due to the presence of iron contents.
- Maize, jowar, bajra, gram are chief crops grown in this soil.

#### (iv) Kagari Soil

- It is a dark, clayey soil that is rich in organic matter and nutrients. Kagari soil is formed from the deposition of sediments from the tributaries of Ganges River.
- This soil is found in the South banks of Ganga river and on the banks of Son, Kiul, Punpun and Phalgu rivers in the form of thick embankments.
- It is rich in lime and brown in colour.
- It is suitable for maize, barley, chilly and mustard crops.

#### 8.3.3 Soils of Southern Plateau

Residual soils which are found in the narrow Southern plateau region and are red and yellow in colour.

 The soils of Southern plateau are divided into two types:

#### (i) Red and Yellow Soils

- These soils have been formed from disintegration of igneous and metamorphic rocks.
- Due to the presence of iron in the rocks, their colour is red.
- They are less fertile and thus suitable for coarse crops and pulses.
- It is a sandy soil that is low in organic matter and nutrients. However, it is well-drained and can be used to grow a variety of crops, such as cotton, millet, and sorghum.
- This soil is found in the South-Eastern Bihar such as Banka, Nawada, Gaya, Aurangabad, Jamui and Munger.

#### (ii) Red Sandy Soil of Kaimur Hills

- This soil is found in the Kaimur range in the West to Rajmahal Hills in the East and the Northern margin areas of Northern Chota Nagpur plateau.
- It is yellowish red in colour and is acidic in nature.
- Higher percentage of sand results in lesser fertility of this soil thus, it is suitable only for bajra, jowar, etc crops.





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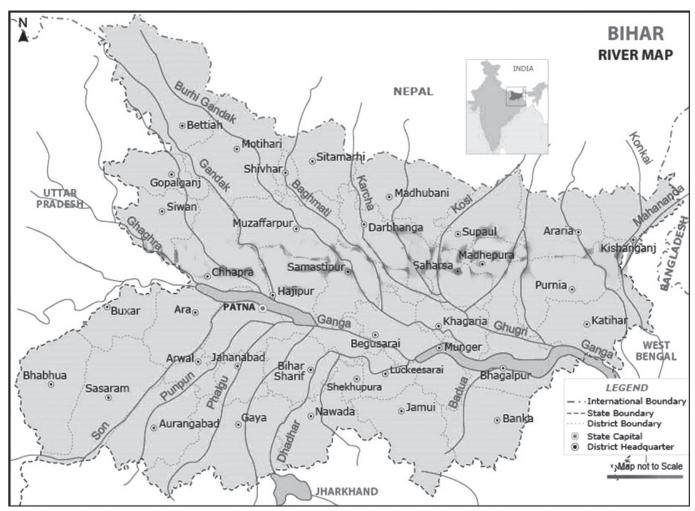
### **Rivers and Drainage System**

Bihar has trellis and dendritic drainage patterns due to its physical topography. The dendritic drainage pattern in Bihar is beneficial for agriculture. The branching network of rivers provides a good distribution of water for irrigation. The rivers also provide a transportation network for goods and people. A number of rivers flow through alluvial deposits where the slope is very small, forming wide flood plains. The major rivers in Bihar are the Ganga, Ghaghra, Gandak, Kosi, Sone, Punpun etc. The catchment area of these rivers is large. Rivers are the primary source of fresh water for drinking, cooking, bathing, and sanitation. These rivers make the water available for irrigation purpose and also help in generating the hydro-electric power for the state. Rivers are home to a variety of fish and other aquatic animals that are

important food sources. Apart from this, they provide a medium for water transport, provide fishes for fishery industry and enrich the natural resources of the state in many other ways. Bihar also has an inexhaustible source of ground water which is in use for drinking purposes, irrigation and industries.

#### 9.1 MAJOR RIVERS IN BIHAR

- On the basis of the origin of their drainage patterns, the river system of Bihar is divided into two categories:
  - 1. Himalayan Rivers
  - 2. Peninsular rivers



#### 9.1.1 Himalayan Rivers

• These rivers originate from the Himalayas which are located in the North of the state. These rivers flow through the Northern plain regions which are formed by the Ganges and its tributaries, and finally drains in the Bay of Bengal which is located in the South-East direction. These Himalayan rivers are Ganga, Ghaghara, Gandak, Burhi Gandak, Kosi, Kamla Balan, Bagmati and Mahananda rivers. These rivers are perennial rivers. In their floodplains, these rivers deposit fertile alluvium, form meanders and frequently change their courses.

The major rivers originating from Himalayas are given below:

#### 9.1.1.1 Ganga

- It originates from Gangotri glacier.
- This is the main river of Bihar which enters into the state near Chausa in Buxar and forms the boundary between Bhojpur and Saran districts.
- Ganga river divides Bihar into two parts and enters into Jharkhand and West Bengal.
- The total length of Ganga in Bihar is 445 km. It has 15,165 sq km drainage area in the state.
- The slope of this river is very gentle.
- This river is navigable all over the state, thus it provides a good source for trade and transport. The river in Bihar is part of natinal waterway 1.
- North Bank tributaries of Ganga are Ghaghara, Gandak, Bagmati, Kamala Balan, Burhi Gandak, Kosi and Mahananda rivers.
- South bank tributaries of the river are Karmanasa, Son, Punpun, Harohar, Kiul, Phalgu and Chandan rivers.
- River Ganga has the largest catchment area in Bihar.
- It is very difficult to cross Ganga and thus government has built the following bridges across Ganga to connect North and South Bihar.
  - 1. Mahatma Gandhi Setu (Road only)
  - 2. Rajendra Setu (Road and Rail)
  - 3. Jayprakash Setu (Road and Rail)
  - 4. Vikramshila Setu (Road)
  - 5. Sri Krishna Setu (Road and Rail)
  - 6. Bakhtiyarpur-Tajpur Bridge (Road)
  - 7. Aguwani Ghat Bridge (Road)

#### 9.1.1.2 Ghaghara/Saryu

- It originates from Mapchachungo glacier in Tibetan Plateau near lake Mansarovar in Nepal. It is also known as 'Saryu river'.
- It enters into Bihar state near Guthani of Siwan district and joins the river Ganga at Revelganj, Saran district.

- It is highly sacred for Hindus and Buddhists.
- Ayodhya in Uttar Pradesh is situated on the banks of this river. (It is called Saryu in Ayodhya)
- The total length of this river in Bihar is 83 km.
- This river is also known as Karnali in the mountainous region.
- It is the second largest tributary of Ganga after the Yamuna river.
- Important tributaries of Ghaghara river are Chhoti Gandak, Khauna, Jharhi, Daha, Tel and Sondi rivers.

#### 9.1.1.3 Gandak

- It is the important river of North-Western Bihar.
   Originates from Mustang glacier of Annapurna mountain (Nepal) which is located near Mansarovar and Kutang.
- It is known as Kali Gandaki in Nepal. It flows into different streams in Nepal. Then, the river enters the Indian Territory near Triveni town in Nepal.
- Thereafter, the river flows in a Southerly direction and forms a boundary between Uttar Pradesh and Bihar and enters into Bihar from Valmiki Nagar near Someshwar range.
- It flows through the West Champaran, East Champaran, Muzaffarpur, Gopalganj, Siwan, Saran and Vaishali districts of Bihar and Khushinagar and Deoria district of Uttar Pradesh before joining Ganga downstream of Hajipur near Harihar Kshetra, Sonpur.
- The total length of Gandak in Bihar is 260 km.
- Important tributaries of Gandak are Rohua, Manaur, Bhabsa, Gangri or Gogri, Mahi, Dabra.
- Valmikinagar Barrage is situated on Gandak river.
- It is also known as Triveni, Narayani, Kali Gandaki. The Triveni canal gets water from Gandak river.
- The river Gandak is also noted for changing course and creating flood havoc during the rainy season.

#### 9.1.1.4 Burhi Gandak

- It originates from Someshwar hills and flows parallel to river Gandak. It forms meanders in its course. It is known as Sikrahana in its upper reaches.
- It flows through the districts of West Champaran, East Champaran, Muzaffarpur, Samastipur, Khagaria and Begusarai.
- The Burhi Gandak flows at the old course of the Gandak river, which was once shifted Westward from its present course, thus, it is known by this name.
- It meets the Ganga near Khagaria. The total length of this river in Bihar is 320 km.



- Its important tributaries are Harha, Kapan, Mason, Banaganga, Pandai, Maniyari, Karha, Kohaura, Urai, Telabe, Prasad and Tiur.
- There are several chaurs, marshy lands and water bodies along the course of this river.

#### 9.1.1.5 Kosi

- It originates from Mount Gosainthan which is located to the North-East of Kathmandu, capital of Nepal.
- The total length of this river in Bihar is 260 km. The catchment area of this river is 86,900 sq km.
- Kosi is known to have shifted its course about 112 Km to the west in the last 250 years.
- It brings heavy silt and sediments with it after emerging from Himalayas and deposits this heavy load on its mouth, due to which it changes its course frequently. Because of this nature of Kosi, the plain region of Northern Bihar is mostly affected by frequent floods. Thus, it is known as 'Sorrow of Bihar'.
- It is known as Saptakoshi in Nepal for its seven upper tributaries. Its important tributaries are Sun Kosi, Arun Kosi, Bagmati, Kamla Balan, Tamur Kosi, Fariani Dhar, Dhemana Dhar, Bhuthi Balan, etc.

#### 9.1.1.6 Bagmati

- It originates from the Mahabharat range of Nepal Himalayas and enters into Bihar plains from Rasulpur village of Sitamarhi district.
- Kathmandu and Pashupati temples are located on the banks of this river.
- Its total length is 394 km. It is the second longest river in Bihar state.
- The flood is mainly due to heavy rain in the hilly catchment in Nepal which often synchronises with heavy rains in the plains lower down in India.
- It is a dangerous river due to its changing course and it badly affects districts through which it passes.

 Lalbakia, Lakhendei, Chankhala, Jamune, Sipri Dhar, Choti Bagmati, Kola, Bhurengi and Adhwara are its important tributaries.

#### 9.1.1.7 Kamla Balan

- It originates from the Mahabharat range of hills in Nepal near Sindhuli Gadhi.
- 'Jiwachh Kamla' was the old name of this river. It is the second holiest river, after Ganga, in Mithila. In Mithila, it is also known as 'Kamla Mai'.
- It enters Indian Territory in the district of Madhubani in Bihar, 3.5 km upstream of Jainagar town.
- This basin is bounded by the Adhwara group of rivers (a part of the Bagmati basin) on the west, the Kosi basin on the east making it the flood prone region of Bihar.
- A barrage known as Kamla barrage has been constructed by the State Government near Jainagar.
- The total length of the river Kamala is 328 km of which 208 km is in Nepal and the remaining 120 km is in Bihar.
- Its main tributaries are Dhauri, Soni, Balan and Trisula.

#### 9.1.1.8 Mahananda

- It originates from Mahaldiran hill in Darjeeling district of West Bengal. It is famous for changing its course.
- It is the Easternmost river of North Bihar plains.
- The total length of Mahananda river is 376 km.
- The Mahananda spills in almost its entire reach in Bihar. The basin experiences floods almost every year.
- It enters Bihar in Kishanganj district.
- It meets the Ganga river near Manihari in Katihar district and enters West Bengal .

Rivers	Total length (in km)	Length in bihar (in km)	Entry place in bihar	Place of Confluence with Ganga	Origin	Districts drained in Bihar
Ganga	2510	445	Chausa, Buxar	n/a	Gangotri Glacier	Buxar, Bhojpur, Saran, Patna, Vaishali, Samastipur, Begusarai, Munger, Khagaria, Katihar, Bhagalpur and Lakhisarai.
Ghaghra	1080	83	Guthni, Siwan	Revelganj, Chapra	Mapchachungo glaciers	Gopalganj, Siwan and Chhapra
Gandak	814	260	Valmiki Nagar	Sonpurt	Mustang glacier in Tibe	West Champaran, East Champaran, Siwan, Gopalganj, Saran, Muzaffarpur, Vaishali



Burhi Gandak	320	320	West Champaran	Khagaria	Someshwar Hills	West Champaran, East Champaran, Muzaffarpur, Samastipur and Begusarai.
Kosi	720	260	Bhim Nagar, Supaul	Kursela, Katihar	Mount Gosainthan	Madhubani, Darbhanga, Saharsa, Supaul, Madhepura, Araria, Purnea, Katihar, Bhagalpur, Khagaria
Bagmati	586	394	Rasulpur village of Sitamarhi district.	Meets Kamla at Jagmohra, Samastipur	Mahabharat range of Nepal	Darbhanga, Sitamarhi, Sheohar, Muzaffarpur, Samastipur and Khagaria.
Kamla Balan	328	120	Jainagar, Madhubani district	Joins Koshi in Khagaria District	Mahabharat range of Hills	Madhubani, darbhanga, samastipur, khagaria, saharsa
Mahananda	360		Kishanganj	Joins Ganga in west Bengal	Darjeeling District	Kishanganj, Purnia, Katihar
Son	784	202	Rohtas district	Maner	Amarkantak Hill	Rohtas, Bhojpur, Aurangabad and Patna districts.
Punpun	200		Aurangabad district	Fatuha, Patna	Chottanagpur plateau	Patna, Jahanabad, Arwal, Gaya, Aurangabad.
Phalgu	225 approx	135	gaya	Near Mor in Patna	hills of Gaya district	Gaya, Biharsharif, patna
Karmanasa	192	76 km (forms Common border between Bihar and UP)	It forms UPBihar Boundary in south west Bihar.	Near Chausa	Kaimur Range near Sarodag	Kaimur, Buxar
Ajay	288		Jamui	Meets with Bhagirathi in West Bengal	Batpad, Jamui	Jamui
Chandan	118	118	Banka	Bhagalpur	Digaria hills, Banka	Banka, Bhagalpur
Kiul	111	111(runs parallel to Bihar Jharkhand Boundary for few kms)	Satpahari hill, Jamui district	Surajgarha, Lakhisarai	Tisri Hill Range, giridih	Jamul, Lakhisaral

#### 9.1.2 Peninsular Rivers

- It includes those rivers which originate from the Peninsular Plateau and flow towards the North direction and finally meet with the Ganga river.
- Important Peninsular Plateau rivers are Son, Punpun, Phalgu, Karmanasa, Sakri, Ajay, Chandan and Kiul rivers.

#### 9.1.2.1 Son

- It originates from the Maikal range of Amarkantak hills in Madhya Pradesh near the source region of Narmada. In ancient times, it was also known as 'Sonbhadra' and 'Hiranyawah'.
- It is the longest South tributary of Ganga in Bihar.
- It flows through Rift valley.



- It enters Bihar in Rohtas district and also flows through Madhya Pradesh, Uttar Pradesh and Jharkhand states before entering into Bihar.
- It finally meets the Ganga river near Danapur in Patna.
- It divides the Kaimur hills and North Koel river valley which is located in South.
- Arrah, Dehri and Sonbhadra are the major cities situated at the bank of Son river.
- The Son river in Bihar is 202 km.
- Its main tributaries are Rihand, North Koel, Gopad and Kanhar.

#### 9.1.2.2 Punpun

- It originates from Chauraha hill in Palamu district in Jharkhand and meets the Ganga near Fatuha in Patna..
- The catchment covers the districts of Patna, Arwal, Jahanabad, Gaya, Aurangabad.
- It is 200 km long. It is mostly rainfed and seasonal and carries little water in the dry season. However, during rains, the Punpun often causes heavy floods damaging East of Patna city.

#### 9.1.2.3 Phalgu

- It originates from the Northern part of Chota Nagpur plateau in the form of many streams. Its main stream is known as 'Niranjana' (Lilajan) which meets with the Mohana stream near Bodhgaya and forms Phalgu river.
- At Bodhgaya on the banks of Niranjana river, Gautama Buddha attained enlightenment. Vishnupad Mandir is located on the bank of the Phalgu River.
- At the banks of Phalgu river in Gaya, people offer 'Pind
   Daan' for the souls of their ancestors. According to the
   Ramayana, the Phalgu lost its water due to the curse
   of Goddess Sita.
- It is a holy river for Hindus and Buddhists.
- It divides into two streams near Barabar hill in Jehanabad district and further form various distributaries.

#### 9.1.2.4 Karmanasa

- It originates near Sarodag on the Kaimur range of hills and meets river Ganga near Chausa in Buxar district forming the Uttar Pradesh-Bihar border. It is a tributary of the Ganga.
- The Total geographical area of the basin is 5127 sq km.
   Its tributaries are the Durgavati, the Chandraprabha, the Karunuti, the Nadi and the Khajuri.
- It is considered a cursed and unholy river.

#### 9.1.2.5 Sakri

- It originates from the Hazaribagh plateau.
- It enters Bihar near Govindpur in Nawada district. It flows through Gaya, Nawada, Patna and Munger and finally meets with Ganga river along with Kiul river.
- It forms the lifeline of central south Bihar. Its water is used for irrigation in Gaya and Patna districts.

#### 9.1.2.6 Ajay

- It originates from Batpad place of Jamui district.
- It flows in the East and South direction and enters Jharkhand then West Bengal and finally meets the Bhagirathi river.
- This river is also known as 'Ajyabati' or 'Ajmati'.

#### 9.1.2.7 Chandan

- Chandan River has been identified as probably being the river Champa on whose banks was located the ancient city of Champa.
- The important tributaries of Chandan are Orhni, Kuldar and Chatri.
- Its total catchment area is 4093 Sq Km and Catchment in Bihar is 2371 Sq.Km as per GIS.
- The length of the main river Chandan in Bihar is 118 Km.

#### 9.1.2.8 Kiul

- It originates from Hazaribagh plateau and enters Bihar in Jamui district through a narrow gorge near the Satpahari hill.
- Its total length in Bihar is 111 km.
- Its important tributaries are Harohar, Anjan, Barnar and Ulan.
- The Kiul and the Harohar rivers flow almost on the ridges in their lower reaches. It meets the Ganges in Surajgarha village in Lakhisarai.

#### 9.2 IMPORTANT WATERFALLS OF BIHAR

- **Kakolat Waterfall:** It is located in the South-East of Kakolat hills, about 35 km from Nawada near Govindpuri division. The total height of this fall is 47 m (160 ft) but its main height is 24m (80 ft). There is a natural pond at the base of the fall. During Chaitra Sankranti a fair is held here. The fall is formed by the seven streams which originate from the Koderma plateau.
- Karkat Waterfall: The Kaimur hills in Kaimur district are famous for the Karkat waterfall. It is a 150-foot tall waterfall that cascades into a deep pool. Karkat waterfall has facilities for boating, swimming and fishing. The Kaimur Wildlife Sanctuary is situated near this waterfall.

- **Telhar Waterfall:** It is located in Kaimur district. Its height is 262 ft. It falls into a deep pool. It is believed that the pool is very deep with strong undercurrents thus, swimming in the pool is prohibited. This waterfall also has a dam that's called Karamchat Dam located near it
- **Dhua Kund Waterfall:** This fall is located on Kao river in Tarachandi near Sasaram (Rohtas). Its height is 30 m. It is a pair of two waterfalls. The water of these falls is used as a source of hydro-electricity with a capacity to generate 50-100 MW of electricity. It is a part of Manjhar Kund waterfall.
- Manjhar Kund Waterfall: It is located in Kaimur hills near Sasaram (Rohtas). It is located on Karmanasa river. A famous Raksha Bandhan fair is held here.
- Durgawati Waterfall: It is located near Chanpapar village in Rohtas district. Its height is 91m (298 ft). It is located on Durgawati river. It is also known as 'Khadarkoh waterfall'.
- **Devdari Waterfall:** It is located on Karmanasa river in Rohtas district. Its height is 190 ft.

#### 9.3 LAKES IN BIHAR

- The rivers of North Bihar have formed many natural lakes during changing their river courses.
- These are also known as 'Man, Tal or Chaur' in local language.
- Such lakes are used as fishing grounds, home ground for migratory birds and their water is also used for irrigation.
- Important Oxbow lakes of Bihar are Saraia Man (Betia), Soneburg Man (Harsidhi), Kharagpur lake (Kharagpur), Siuri Man (Jogapatti) Moti lake (Motihari) and Pithra Man (Pithra).

#### **Kanwar Lake**

- The lake is located in Manjhaul village in Begusarai district in Bihar. It is Asia's largest freshwater oxbow
- It is extended over a 16 sq km area. It was formed by the meandering of Burhi Gandak river.
- It is Bihar's first Ramsar site (2020).
- During winter season migratory birds of Siberia visit here.
- Due to its aquatic flora, this lake has been declared as a 'Reserved Area.'
- It has around 110 types of bird species thus, a Bird Breeding Station has also been set up here.
- Due to Sedimentation and eutrophication its area has shrunk, and its water level has also gone down due to excessive plant growth.

#### Simri Lake

- The lake is located 25 km from Saharsa in Simri division.
- It is a combination of many lakes like, Jamunia, Sarria,
   Kumini and Gobara lakes.
- Its shape is like a horse-shoe.
- Kanwar lake is situated on the South-West and Kusheshwar Asthan lake is situated on the North-West of this lake.

#### **Gogabil Lake**

- This lake is located in Manihari sub-division of Katihar district. It is also known as 'Ghogha Chap' or 'Ghogha lake'.
- It spreads over an area about 5 sq km. It receives water from monsoon rains as well as the Mahananda river.
- It serves as a sanctuary for birds, plants, and aquatic and terrestrial animals.
- It is visited by around 300 migratory birds that come here during winter and monsoon season from Siberian region and Caspian Sea.

#### **Kusheshwar Asthan Lake**

- This lake is located in the sub-division of Kusheshwar Sthan in Darbhanga district.
- It spreads over an area about 100 sq km.
- The water of lakes Kamla, Kareh, etc., also comes in this lake.
- It is famous for its varied bio-diversity and it is also a religious place.
- It is also a major center of fisheries and trade. In 1972, it was declared a bird sanctuary of Bihar.

#### Jagatpur Lake

 This lake is located in Bhagalpur district. It is spread over an area of about 400 hectares. Many bird species have been preserved around this lake with the help of local people and the State Government.

#### **Udaipur Lake**

 It is also known as Saraiya Man. It is a famous tourist place of West Champaran district. Many migratory birds visit this lake.

#### **Muchilinda Lake**

- It is located 3 km South of Mahabodhi temple near Mucharim village in Gaya district.
- Buddha had meditated at this lake.
- At the centre of the lake, the statue of Lord Buddha is present in meditating posture.



#### **Anupam Lake**

- Anupam lake is situated in Kaimur Wildlife Sanctuary.
   Near this lake, Karkat and Telhar waterfalls are situated
- Anupam lake has rich flora and fauna reserves.
- Lakes are an important part of our ecosystem. With growing population coupled with pollution, lakes are facing some major threats:

#### **Challenges**

- Pollution: Lakes are often polluted by agricultural runoff, industrial wastewater, and sewage. This pollution can kill fish and other aquatic life, and it can also make the water unsafe for swimming and drinking.
- Deforestation: The deforestation of the surrounding areas can lead to soil erosion and siltation, which can clog lakes and make them shallower. This can reduce the amount of water in the lake and make it more susceptible to pollution.
- Overfishing: Overfishing can deplete fish populations and make it difficult for lakes to recover.
- Climate change: Climate change can lead to changes in rainfall patterns, which can affect the amount of water in lakes. Climate change can also lead to an increase in the frequency and intensity of storms, which can cause flooding and damage to lakes.

#### **Solutions**

- Reduce pollution: There are a number of ways to reduce pollution in lakes, including:
- Enforcement of environmental laws: The government can enforce environmental laws to prevent pollution from entering lakes.
- Construction of wastewater treatment plants:
   Wastewater treatment plants can remove pollutants from wastewater before it is discharged into lakes.

- Reforestation: Reforestation can help to prevent soil erosion and siltation, which can clog lakes and make them shallower.
- Manage fish populations: Fish populations can be managed by setting limits on the number of fish that can be caught each year. This can help to prevent overfishing and allow fish populations to recover.
- Adapt to climate change: Lakes can be adapted to climate change by taking steps to reduce their vulnerability to flooding and other extreme weather events. These steps could include building levees, planting trees, and creating buffer zones around lakes.

#### 9.4 WETLANDS OF BIHAR

- Wetlands are important ecosystems that provide a variety of benefits, including:
- **Habitat for wildlife:** Wetlands provide a home for a variety of birds, fish, and other animals.
- **Water purification:** Wetlands help to purify water by filtering out pollutants.
- **Flood control:** Wetlands can help to control floods by absorbing excess water.
- Recreational opportunities: Wetlands provide opportunities for fishing, boating, and bird watching.
- Wetlands are important for the environment and for people. It is important to protect wetlands and to ensure that they are managed sustainably.
- According to the National Wetland Conservation Programme (NWCP), India has about 115 wetlands. Out of which Bihar has 3 wetlands-Kanwar or Kobar (Begusarai), Kusheshwar Sthan (Darbhanga), and Baraila (Vaishali). Kanwar Jheel of Begusarai is the first Ramsar site from the state.









10

### **Biogeography of Bihar**

#### 10.1 NATURAL VEGETATION OF BIHAR

Bihar has Tropical Monsoon or Dry Deciduous Forests. In Bihar, forest areas are majorly located in the Terai belt of the Himalayas and the Southern Plateau region. The state receives about 85% to 90% rainfall within 3 to 4 months and the rest of the months of the year remain almost dry. This has a huge impact on the natural vegetation of the state. The vegetation of Kaimur hills region and Shiwalik range in Bihar is greatly affected by their high elevation. Bihar is a forest deficient State and natural forests are found in limited areas. Sal (Shorea robusta) forests

are found in the West Champaran district in the Terai region in the north and in Kaimur, Rohtas,

Aurangabad, Gaya, Jamui, Munger and Banka districts in southern Bihar. The West Champaran district

has moist deciduous Sal forest while South Bihar has dry deciduous Sal Forests. Most of the natural forests are notified as Protected Forests.

#### 10.1.1 Forests in Bihar

As per India State of Forest Report, 2021, the Recorded (total) Forest area of the state is 7380.8 sq km which is 7.84% of the state's total geographical area. This percentage is very low in terms of environmental management, because as per National Forest Policy, 1988, each state of India must cover its 33.33% geographical area under forests.

#### **Forest Cover in Bihar**

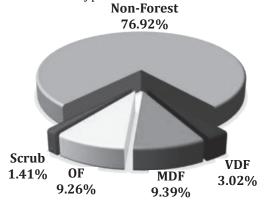
According to India State of Forest Report, 2021, the total forest cover of Bihar is 7380.8 sq km, which is 7.84% of the state's geographical area. Out of this, Very Dense Forest is 333 sq km, Moderately Dense Forest is 3,286 sq km and Open Forests is 3762 sq km.



 As per the India State of Forest Report, 2021, Kaimur district (Bhabua) has the largest forest cover while Sheikhpura district has the least forest cover in Bihar.

#### 10.1.2 Classification of Bihar Forest

On the basis of climate and rainfall, forests in Bihar are classified into two types.



#### **Moist Deciduous Forests**

• These forests are found in Terai belt and Someshwar and Doon hill ranges. Here, rainfall is more than 120 cm therefore, dense forests are found. Sal is the most abundant tree here. These forests shed their leaves in the summer season. Semal, Champa, Ashok, Ken, Mango, Jamun, Karanj are other varieties found here. Sal mixed moist deciduous forests are distributed mainly in West Champaran and partly in the valleys of Kaimur, Rohtas, Aurangabad, Gaya, Nalanda, Nawada, Jamui, Saharsa, Purnea, Banka and Munger.

These forests are classified into two parts:

#### i. Someshwar and Doon Range Forests

- These forests receive more than 160 cm rainfall.
- These forests are found in West Champaran.
- As these forests are located at great height thus, Savannah type of forests or small trees with grasslands are also found here.
- Sal, Khair and Shisham are important tree species here
- Someshwar series of Bihar consists of shrubs, grass and reeds and younger than Parasnath, Rajmahal and Kharagpur mountain series.

#### ii. Terai Region Forests

- These forests are found in the North-West and North-East Highlands and swampy lands of Terai regions of Shiwalik Himalayas. Swampy grounds are found in these forests.
- Terai forests are found in a narrow belt in the districts of Saharsa, Purnea, Araria and Kishanganj.
- Bamboo, giant reed (Narkat), semal, bushes and grasses are important tree species here.
- In Terai region forests, sal trees are found only in the Northern most marginal areas.
- Canebrakes are predominantly found in West Champaran district of Bihar.

#### **Dry Deciduous Forests**

- These are the most abundant forests in Bihar. Dry deciduous forests are found in both the plains and the peninsular region in the Southern districts.
- They are found in the regions with less than 120 cm rainfall. These forests have smaller trees.
- These forests are found mainly in East-central parts and Western parts of Southern plateau region in Bihar which are located in hills.
- Amaltas, shisham, mahua, khair, palash, amla, harr and bahera, sawai and kush are main tree species here. Sal mixed dry deciduous forests occupy a major proportion under natural vegetation cover and predominantly found in Kaimur, Rohtas, Aurangabad, Gaya, Nalanda, Nawada, Jamui, Banka, Sheikhpura and Munger districts.
- The dry deciduous forests are found in both the plains and the peninsular region in the Southern districts of Bihar.

### 10.1.3 Forest Development Schemes in Bihar

The improvement of the quality of forests is high in the priority and regeneration activities are carried out regularly. The other thrust area is to increase tree cover in the State and for this purpose, tree plantations and agro forestry are carried out. The State Government has included Forest Department in "Krishi Road Map" and a separate "Hariyali Mission Directorate" has been established to manage these programs. The SFD is also concentrating on massive soil and moisture conservation works in the forest areas which are successful in retaining the soil and moisture and supporting the biodiversity.

Har Parisar, Hara Parisar: This scheme was launched in 2015 by the environment, forest and climate change department of Bihar. The aim of this scheme is to increase plantation in campuses of the state like, schools, colleges, religious institutions, offices, government and non-government organizations, etc. It also aims to increase the beautification of urban cities and purify the environment.

**Bihar Van Mahotsav:** This is a tree planting festival that is celebrated every year in the month of July. The festival is organized by the Bihar government to raise awareness about the importance of forests and to encourage people to plant trees.

**Jal Jeevan Hariyali:** This is a scheme that was launched by the Bihar government in 2017 to increase the green cover in the state. The scheme aims to plant 2 crore trees in the state over a period of five years.

**Social Forestry:** This is a scheme that was launched by the Bihar government in 1976 to promote the plantation of trees on community land. The scheme has been successful in planting millions of trees in the state.

Joint Forest Management (JFM): This is a scheme

that was launched by the Bihar government in 1990 to involve local communities in the management of forests. The scheme has been successful in increasing the participation of local communities in forest management and in improving the condition of forests in the state.

**Micro Plan for Forest Development:** This is a scheme that was launched by the Bihar government in 2002 to promote the development of forests in micro watersheds. The scheme has been successful in improving the condition of forests in micro watersheds in the state.

Mukhya Mantri Niji Paudhshala Yojana: This scheme was launched in 2013 by the state government. The aim of this scheme is to plant more poplar trees and increase forestry. Under this scheme, farmers and entrepreneurs have to set up nurseries and grow plants of high quality which will help to achieve the aim of forestry. Under this scheme, semul, amaltas, mahua, Indian rosewood, shisham, bamboo, etc will be grown.

Chief Minister Urban Forestry Scheme: This scheme was launched in the year 2013-14. The aim of this scheme is to change the traditional urban forestry into 'Green Belt'. Patna, Gaya, Bhagalpur, Darbhanga, Rajgir and Muzaffarpur districts have been covered under this scheme.

Chief Minister Student Plantation Scheme: This scheme was launched on the 60th Independence Day of India (15th August), in 2006 by the then Chief Minister of Bihar, Nitish Kumar. This scheme was launched to promote the Environmental Conservation Programmes at school level. This scheme includes all the students of Class-6 which are enrolled in the government and nongovernment schools in the state.

#### **Hariyali Mission**

- It is a part of the agroforestry scheme. It aims to increase the forest cover of Bihar from the present forest cover i.e. 10.15% to 15%.
- The objectives of this mission are to increase the income of farmers, provide livelihood to the families of Below Poverty Line (BPL), supply raw materials and to develop industrialisation in the state. Under this mission, afforestation has been done along the banks of rivers and along the canals, roads and on the lands which are not in use for agriculture.
- It also established ecological balance. Through this mission, the state government is planning to develop the concepts related to forestry research such as identification of high quality trees and programmes related to climate change and so on. The research is being done by the state government with the assistance of Indian Council of Forestry Research and Education, over the plant species of Agro- forestry such as poplar, Indian rosewood, Chinaberry Eucalyptus, etc.

### 10.2 NATIONAL PARKS AND WILDLIFE SANCTUARIES OF BIHAR

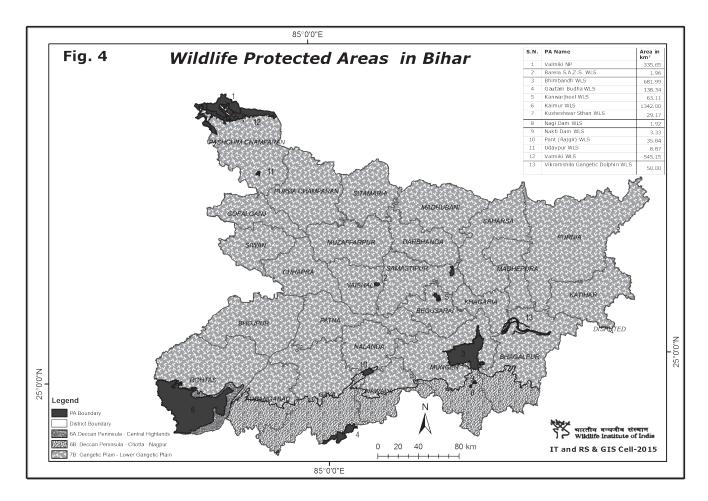
Bihar has diverse flora and fauna but these diversities are disappearing rapidly due to malpractices. To prevent those activities and to protect the wildlife and vegetation, the State Government has set-up national parks and wildlife sanctuaries.

Bihar has only 1 National Park and 12 Wildlife Sanctuaries in the state which together constitute about 3.43% of the total geographical area of the state.

S/No	Protected area	Year of creation	Area in sq km
1	Barela Jheel Salim Ali Bird Sanctuary	1997	1.96
2	Bhimbandh	1976	681.99
3	Gautam Budha	1976	138.34
4	Kaimur	1982	1342.00
5	Kawar Jheel	1989	63.11
6	Kusheshwar Asthan Bird Sanctuary	1994	29.17
7	Nagi Dam	1987	1.92
8	Nakti Dam	1987	3.33
9	Pant (Rajgir)	1978	35.84
10	Udaipur	1978	8.87
11	Valmiki	1978	545.15
12	Vikramshila Gangetic Dolphin	1990	60 km long

#### 10.2.1 Valmiki National Park

- It is located in West Champaran district. It is extended over an area of about 335.65 sq km. It was established in 1989.
- Important flora of this park comprises Bhabar sal forests, dry Shiwalik sal forests, moist mixed deciduous, open land vegetation and so on.
- Important fauna in this national park comprises
   Bengal Tigers, Indian rhinoceros, black bear, Indian sloth bear, Indian leopard, wild dog, boar and so on.
- The park also has many reptiles and about 241 bird species like Kalij pheasant, three-toed quail, paradise flycatcher, grey shrike and so on.
- This national park was included under Project Tiger in 1991. It is the only Tiger Reserve in Bihar.



#### 10.2.2 Valmiki Tiger Reserve

- This Tiger Reserve is located in the West Champaran district. This is the only tiger reserve in Bihar which comprises the Valmiki National Park and Valmiki Wildlife Sanctuary. It has various flora and fauna besides tigers. Important flora comprises freshwater swamps, canebrakes, Eastern wet alluvial grasslands, dry Shiwalik sal forests, khair-sissoo forests and so on.
- Other fauna includes black bear, Indian Sloth bear, Indian rhinoceros, buffalo, bour antelopes, barking deer, spotted deer, sambar, blue bull and so on. The Bihar Government is developing India's biggest grassland of over 800 acres in this reserve. As of 2018, there are around 40 tigers in this tiger reserve which were only 8 in 2010 and 28 in 2014.

#### 10.2.3 Wildlife Sanctuaries in Bihar

#### **Bhimbandh Wildlife Sanctuary**

- This Wildlife Sanctuary was established in 1976 in Munger district.
- It covers an area of 681.99 sq km. It is situated South of the Ganges river, at the Northern edge of Chota Nagpur Plateau and West of Santhal Pargana.

- There are two major biomes present in Bhimbandh i.e. grassland and forest.
- Important flora comprises sal forests, bamboo forests, grasslands and so on.
- Important fauna comprises tigers, panthers, wild boars, sloth bear, sambar deer, chitals, four-horned antelope and nilgais.
- The sanctuary is more famous for its bird life rather than the land animals such as peafowl, grey partridge, quail, Malabar hornbill, falcon, kite and so on.
- There are a number of places of tourist interest near the sanctuary like Bhimbandh, Rishi Kund, Rameshwar Kund, Kharagpur lake, etc.

#### **Gautam Buddha Wildlife Sanctuary**

- It is located in Gaya district of Bihar. It was established in 1976 and covers an area of 138.34 sq km.
- Before becoming a wildlife sanctuary, the area was a private hunting reserve. The refuge covers portions of the lower Gangetic plains, moist deciduous forests and Chota Nagpur dry deciduous forest ecoregions.
- Important fauna comprises tigers, leopards, sambars, sloth bears, wolves, spotter deer, nilgai, chinkaras and so on.

#### Pant (Rajgir) Wildlife Sanctuary

- It was established in the year 1978 in Nalanda district.
   It covers an area of 35.84 sq km. It is located in the Rajgir hill, in the South Gangetic plain.
- Important fauna includes Chital or spotted deer, blue bull, striped hyena, Indian crested porcupine, Asian palm civet, jungle cats and so on.
- It also has bird species like painted spurfowl, Eurasian thick-knee, patridge, black and grey quails, hornbill, parrot, dove, myna, etc.
- In addition to the sanctuary, there is a Venu Vana constructed by the Forest Department with cheetals, nilgais and sambhars.

#### **Udaypur Wildlife Sanctuary**

- It was established in the year 1978 in the district of West Champaran. It covers an area of 8.87 sq km.
- It is located on an Oxbow lake in the floodplain of the Gandaki river.
- Important flora includes swamp forest, dry riverine forest, khair-sissoo forests and so on.
- Important fauna includes spotted deer, barking deer, wild boar, nilgai, civet, wolf, jungle cat, porcupine.
- It is also a home to migratory and resident water birds during the winter months.

#### **Kaimur Wildlife Sanctuary**

- It is located in Kaimur district of Bihar. It was established in 1982.
- It is the largest sanctuary in the state and occupies an area of about 1342 sq km.
- In the valley portions there are several waterfalls of which the finest are Karkat waterfall and Telhar waterfall. There are several lakes as well whereas the famous lake is Anupam lake.
- Important fauna includes Bengal tigers, Indian leopards, Indian boars, sloth bears, sambar deers, chitals, four-horned antelope and nilgais.

#### **Vikramshila Gangetic Dolphin Sanctuary**

- It is located in Bhagalpur district. It covers an area of 50 sq km of the Ganges river from Sultanganj to Kahalgaon.
- Established in 1990, It is the first protected area for the endangered Gangetic dolphins in Bihar.
- The Gangetic dolphins have been declared as the National Aquatic Animal of India.
- The sanctuary has around 240 to 480 endangered Gangetic dolphins.

#### 10.2.4 Important Bird Sanctuaries in Bihar

Important bird sanctuaries of Bihar are as follows:

#### **Nagi Dam Bird Sanctuary**

• It was established in the year 1987, in Jamui district. It covers an area about 1.92 sq km.

- Important bird species are red-crested pochard, pintail ducks, coots and so on.
- During the winter season, migratory birds visit here.

#### **Nakti Dam Bird Sanctuary**

- It was declared as a bird sanctuary in the year 1987. It is located in Jamui district and covers an area of 3.33 sq km.
- Important bird species are red crested pochard, common pochard, pintail ducks, pond heron, egrets, swamp partridges and so on.

#### **Kanwar Jheel Bird Sanctuary**

- It was established in 1987 in Begusarai district in Bihar. It covers an area of 67.5 sq km.
- It is the largest bird sanctuary in Bihar.
- It is one of the great wetlands in the world. It is a home of many migratory birds which migrate from Mongolia and Russia (Siberian region).
- Important bird species are oriental white-backed vulture, long-billed vulture (critically endangered species), greater adjutant, greater spotted eagle, lesser kestrel, Sarus crane (Vulnerable species), Indian darter, painted stork, and black-bellied tern (Threatened species), etc.

#### **Gogabil Bird Sanctuary**

- Gogabil is an oxbow lake, which was formed through the meandering of the Kankar river. As it has a global, national and regional significance, thus, the State Government declared this wetland as a bird sanctuary in the year 1990.
- It covers an area of 0.88 sq km and is located in Katihar district. It is the smallest bird sanctuary in Bihar.
- During monsoon and winter seasons nearly 300 migratory birds come to the lake.
- Important bird species are Eurasian coot, pintail, common teal, grey teal, gadwall, shoveler, red crested pochard, white eyed pochard, tufted duck, marsh harrier, coot, red-crested pochard and so on.
- Gogabil has been declared as the state's first 'Community Reserve' on 2nd August, 2019.

#### **Kusheshwar Asthan Bird Sanctuary**

- It was established in the year 1994 in the district of Darbhanga.
- It covers an area of 29.17 sq km.
- The sanctuary consists of 14 villages which came under Kusheshwar Asthan block in Darbhanga which remain waterlogged most of the time.
- The sanctuary is also known as the winter capital of at least 15 endangered migratory birds which migrate from Mongolia and Siberia.





- Siberian birds migrate to this sanctuary in the month of October.
- Important bird species are Dalmatian Pelican, Indian darter, bar-headed goose, Siberian crane etc.

### Baraila Jheel Salim Ali-Jubba Sahni Bird Sanctuary

- Baraila Jheel was declared as Salim Ali-Jubba Sahni Bird Sanctuary in the year 1997.
- It covers an area of 1.96 sq km and is located in Vaishali district.
- The lake is a natural home for some 59 species of migratory birds and about 106 species of resident birds like teal, cormorants, eagle, white breasted kingfisher, pied egret, spoonbill, pelican, coot, grebes, green parrot, gull, lalsar and many others.
- Important flora includes oak, bhatel locally known as 'Ejara' (favorite tree of the birds), red-cotton trees, etc.

#### **Buxar Bird Sanctuary**

- This bird sanctuary is located in Buxar district of Bihar. It covers an area of 25 sq km.
- In the month of October, lalsar bird species of Kashmir migrate to this sanctuary and return back in March.

#### Sanjay Gandhi Biological Park

- This park was established as a Botanical Garden in the year 1969 and was opened to the public as a zoo in the year 1973. It covers an area of 152.95 acres. It is located in Patna district and is a home to over 110 animal species. The park has the world's second largest and Asia's largest Rhino Breeding Centre and a snake house. The State Government has developed this park as the state's First Plastic Prohibition Area.
- Sanjay Gandhi Biological Park was declared as protected forest by the State Government in March, 1983. The park has varied flora like 300 species of trees, herbs, shrubs, medicinal plants, and so on. Important fauna are tiger, leopard, clouded leopard, hippopotamus, crocodile, elephant, Himalayan black beam jackal, black bucks, spotted deer, etc.

### 10.3 ECO-SENSITIVE ZONES (ESZ) IN BIHAR

Ministry of environment and climate change, Government of India has declared the following places as ecosensitive zones in Bihar.

- 1. Baraila Jheel Salim Ali Bird Wildlife Sanctuary
- 2. Bhimbandh Wildlife Sanctuary
- 3. Gautam Buddha Wildlife Sanctuary
- 4. Kaimur Wildlife Sanctuary
- 5. Kanwar (Kabar) Jheel Bird Sanctuary
- 6. Kusheshwarasthan Bird Sanctuary
- 7. Nagi Dam Bird Sanctuary
- 8. Nakti Dam Bird Sanctuary
- 9. Pant (Rajgir) Wildlife Sanctuary
- 10. Udaypur Wildlife Sanctuary
- 11. Valmiki Wildlife Sanctuary
- 12. Vikramshila Gangetic Dolphin Wildlife Sanctuary
- 13. Valmiki National Park

### 10.4 EFFORTS BY STATE GOVERNMENT FOR THE PROTECTION OF WILDLIFE

The Bihar government has taken a number of steps to protect wildlife in the state. These include:

Establishing national parks and wildlife sanctuaries: Bihar has a number of national parks and wildlife sanctuaries, including the Valmiki Tiger Reserve, the Sanjay Gandhi Biological Park, and the Betla National Park. These protected areas provide a safe haven for wildlife and help to conserve biodiversity.

Prohibiting hunting: Hunting of wild animals is prohibited in Bihar. This helps to protect endangered species and ensure that wildlife populations remain healthy.

Enforcing wildlife laws: The Bihar government enforces wildlife laws to protect wildlife from poaching and other illegal activities.

Educating the public about wildlife conservation: The Bihar government is working to educate the public about the importance of wildlife conservation. This includes school programs, public awareness campaigns, and outreach to local communities.

- First nature Safari (zoo safari) at Rajgir in Nalanda district.
- Barela Jheel Salim Ali Bird Shelter and Kusheshwarasthan Bird Shelter are being developed by the Wildlife Institute of India, Dehradun.
- The State Government has assigned to develop a highest management plan for Pant Shelter, Rajgir to the Energy and Resource Institute.
- Wildlife Adoption Scheme is implemented under which any person, family, establishment or institute will willingly adopt any wild animal in the zoo as per its interest and will bear the expenditure on its diet and maintenance for a certain period.





# 11

### **Mineral Resources**

"Important minerals found in Bihar are pyrite, limestone, China clay, gold, decorative stones, uranium, feldspar, quartz and so on. The energy sector of the state is also growing very fast which comprises both thermal and hydro-power".

#### 11.1 MINERALS OF BIHAR

- Major area of Bihar is situated on the Gangetic Plains and the larger part of the state depends on the agricultural
  economy. Before bifurcation, Bihar state was one of the leading producers of minerals. However, after bifurcation,
  limited deposits of minerals remained in the state and most of the parts of rich mineral deposits went to Jharkhand.
- Bihar is the only state in India where pyrite is extensively produced. Archean rocks are found in the South and South-Eastern parts of the state. Metallic minerals are mainly found in these rocks where bauxite and gold are prevalent.
- Archean rocks are found in the districts of Jamui, Nawada, Munger, Banka, Bhagalpur and Gaya. The Vindhyan rock
  group is found in the South-Western parts of Bihar which has non-metallic minerals. These minerals are pyrite,
  mica, china clay, quartz, slate and so on. Vindhyan rocks are found in the districts of Nawada, Jamui, Rohtas and
  Aurangabad.



#### 11.1.1 Major Minerals in Bihar

Minerals are the basis of industrialisation and development of a state. *The major minerals of the state of Bihar are discussed below:* 

#### Iron-ore

- Its deposits are found in the district of Gaya, Bhagalpur and Jamui.
- Magnetite is found in Gaya and Jamui, whereas haematite is found in Bhagalpur district.
- Iron ore is the primary ingredient in steelmaking, which is a process of melting and refining iron ore to produce steel.
- Iron ore can also be used to make cast iron. Wrought iron is a type of iron that is made by heating iron ore and then hammering it into shape.
- The state has estimated reserves of 2.7 billion tonnes of iron ore, which is about 10% of India's total reserves.

#### **Bauxite**

- It is an important ore used for making Aluminium.
- It is found in Kharagpur hills of Munger district. It is estimated that there are 1.5 million tonnes deposits of high quality bauxite in this region.
- Bauxite is the main source of alumina, which is a white, powdery substance that is used to make aluminum.
   Bauxite can also be used to make abrasives, which are materials that are used to grind and polish other materials. Bauxite can also be used to make ceramics.
- In 2020-21, Bihar produced 1.3 million tonnes of bauxite, which was about 6% of India's total bauxite production.

#### Manganese

- Manganese is a metal supplement which is found in the form of natural ash in the sedimentary rocks of Dharwar period. It is not found as a free element in nature.
- The state has estimated reserves of 100 million tonnes of manganese ore. In 2020-21, Bihar produced 1.5 million tonnes of manganese ore, which was 10% of India's total production. The state's manganese ore is exported to countries such as China, Japan, and South Korea.
- Manganese is used in making iron and steel and it is used as basic raw material for manufacturing its alloy.
   It is also used in making bleaching powder, insecticide, paints and batteries.
- Its deposits are found in Patna, Gaya and Munger districts of Bihar.

#### Gold

- It is a precious mineral which is used for making ornaments and as international currency.
- The deposits of gold are found in the districts of Gaya, Nalanda and Jamui.
- As per the Geological Survey of India (GSI), Bihar has about 57% Gold deposits of the country.
- In 2019, the GSI announced that it had discovered a new gold deposit in the Jamui district of Bihar. The new deposit is estimated to contain about 300 tonnes of gold ore, which is worth about \$1 billion.
- The Geological Survey of India (GSI) has confirmed that there are deposits of gold in the Kabutra and Nakia hill regions of Rajgir and Karmatia, Rani hill, Badmaria, Marhi hill in Sono block in Jamui district.

#### Galena

- It is an ore of lead.
- It is used in nuclear energy, paint and other chemicalbased industries.
- Galena is used in the manufacture of some types of transistors and diodes.
- It is mainly found in Abrakha region of Banka district.
- The galena deposits in Bihar are typically found in association with other sulfide minerals, such as sphalerite, chalcopyrite, and pyrite.

#### Coal

- It is found in the districts of Bhagalpur and Munger which are located adjacent to Rajmahal hills region.
- As per Geological Survey of India (GSI), there are 160 million tonnes of coal deposits in Bihar state.
- Coal is the most used fuel for electricity generation in the world. It is used to heat the iron ore in a blast furnace. Coal is used in the production of cement. It also serves as fuel for domestic households, especially in rural households.

#### Limestone

- It is made of either calcium carbonate or double constituents of calcium and magnesium.
- The good quality limestone is found in Rohtas hills, Kaimur plateau and Munger.
- The largest limestone deposits of the state are found in the regions of Rohtas district like in Rohtasgarh, Ramdihra, Banjari and Dehri-on-Son.
- Good quality limestones are used in the cement industry while lower quality are found in iron, sugar and building construction.
- The state is estimated to have 1.2 billion tonnes of limestone reserves.

#### Mica

- It is a bad conductor of heat and electricity. It is mainly used in the industries related to heat and manufacturing electricity resistance products.
- Mica is used in the rubber industry, paint industry and electronic industry.
- Mica belt is extended over 3400 sq km area with a width of 30 m in Bihar. It extends from the Eastern part of Nawada to Jharkhand state.
- Bihar is one of the leading producers of mica in India, with estimated reserves of 11.5 million tonnes.
- This belt is located in Chakai, Batia and Charka Pathar in Jamui district and Nawada district of Bihar.
- The world's high quality ruby mica is found in Bihar and Jharkhand.
- Other important areas where mica is found are Munger, Bhagalpur and Gaya districts.

#### **Lead and Zinc**

- These minerals are found in Banka and Rohtas districts.
- Lead is used in the iron and steel industry and it is a bad conductor of electricity.

#### **Beryllium**

- It is found in the igneous rocks in the district of Gaya.
- It is mainly used as a moderator in nuclear reactors for atomic power generation, in the spring industry, in making fluorescent lamps, carburettors of ships, cyclotrons, etc.

#### **Asbestos**

- It is a fibrous mineral which is composed of magnesium, silica and water.
- It is mainly found in Munger district in Bihar.
- Bihar has estimated reserves of 1.5 million tonnes Asbestos.
- It is a great resistant to fire and electricity thus, it is used in the products of fire proofs and electricity proof. It is used in airplanes and railway coaches.
- Fire-proof suits which are used by fire-fighters are made from asbestos.

#### **Pyrite**

- It is a sulphide of iron. It is less used in iron making and more used in making sulphuric acid. The high proportion of sulphur makes it injurious for making iron.
- Sulphuric acid is used in many industries such as fertiliser, chemicals, rayon, petroleum, steel, etc.

- Elemental sulphur is useful for manufacturing explosives, matches, insecticides, fungicides and for vulcanising rubber.
- The main deposits are found in the Sone valley at Amjhor in Rohtas district in Bihar. Here, it has deposits with 47% sulphur.
- In Amjhor, there is an iron pyrite industry.
- The Central Government has set up Pyrite Phosphate and Chemicals Limited in Amjhor as a public enterprise.
- Pyrite is also found in the upper Vindhyan rocks group and Kurari, Manda and Kariria.
- Iron-pyrite is found in the 109 sq km area of Amjhor in Rohtas district.
- As per the report of Indian Bureau of Mines, 2017, Bihar has about 95% pyrite resources of India.

#### Saltpetre

- It is found in the form of sodium nitrate and potassium nitrate.
- It is mainly used in fertilizers, tree stump removal, rock propellants, fireworks, glass and to soften steel.
- Its main producers are Saraiya Pahari (Gopalganj) and Manjhi (Saran).
- It has estimated reserves of 1.5 million tonnes.
- Other important producers are Muzaffarpur, East Champaran, Saran, Darbhanga, Bhojpur, Gaya and Munger districts.

#### **Feldspar**

- It is found along with quartz in pegmatite rocks. It has applications in ceramic, glass and refractory industries.
   Feldspar is found in Gaya, Jamui and Munger districts.
- It is also used in the form of moon stone and sun stone.

#### **Ouartzite**

- It is a hard non-foliated metamorphic rock. It is a converted form of sandstone.
- It is mainly used as building construction material and to make heat resistance in the industrial sector.
- Its large deposits are found in Kharagpur hills of Munger district and hill ranges of Chakai area of Jamui district. Other important areas are Jamalpur, Lakhisarai and Nalanda.

#### **Fire Clay**

- It is found in the sedimentary rocks below the coal deposits. It is a refractory clay in which potash and soda are found in less quantity.
- It is mainly used in the blast furnaces, chimneys for melting of minerals in factories and for construction



- of boilers. Fire bricks are made from fire clay in the factories.
- Fire clay is mainly found in the districts of Purnea, Munger and Bhagalpur.

#### **China Clay (Kaolinite)**

- China clay or Kaolinite is formed by the erosion of feldspar in granite rocks.
- It is mainly used in ceramics, blast furnaces, fertilizers, textile industry, paper, paints, medicines, beauty products, and cement industries.
- Its deposits are found in the districts of Bhagalpur, Munger, Banka and Vaishali.

#### Uranium

- It is found in igneous rocks as a radioactive element.
   It is found as compounds of pegmatite, pitchblende and uranium.
- It is found in the mica mines of Akbari hills of Gaya district and pegmatite pores of Nawada districts.
- Its large deposit is also found in the boundary fault of Magadha division.

#### Quartz

- It is mainly used in cement industry, refractory, ironsteel industry (in furnaces), electronic industry and power industry.
- It is found in Jamui, Gaya and Nawada districts.

#### Monazite

 It is a compound of thorium, uranium, cerium and tantalum elements. It is mainly found in the pegmatite rocks in the districts of Gaya and Munger. Monazite is the primary source of rare-earth element.
 Monazite is used in the production of luminescent materials.

#### Slate

- Slate stone is used in decorative items and for industrial purposes.
- It is estimated that about 2.53 million tonnes deposits of black and coloured slate stones are found in Kharagpur hill region in Munger district.
- Other important areas are Dharhara and Kajra of Jamalpur town in Munger district.

#### Sand Stone

- It is mainly used as decorative building materials and in the glass industry.
- It is mainly found in Kaimur hills, which have high silica content.

#### Steatite

- It is mainly used in beauty products and the paint industry.
- It is mainly found in Shankarpur region of Jamui district in Bihar.

#### Granite

- It is a type of crystalline intrusive igneous that is granular and phaneritic in texture. Its important components are quartz and feldspar.
- It is mainly found (as black and coloured decorative granite) in Bhagalpur, Nawada, Banka and Munger districts.





12

### **Tribes of Bihar**

According to the Ministry of tribal affairs, there are 33 tribal groups residing in Bihar.

As per the Census of 2011, the districts of Bihar having maximum population of Scheduled Tribes population are West Champaran (2.50 lakh), Katihar (1.80 lakh), Purnea (1.39 lakh), Banka (90,432) and Siwan (87,000).

#### **Major Tribes of Bihar**

#### 12.1 SANTHAL

- Santhal is the major tribe of Jharkhand which is also found in Purnea, Bhagalpur, Saharsa, Munger and other districts of Bihar.
- Santhal people mainly belong to the Proto-Australoid and Dravidian.
- The Santhals mostly speak Santhali.
- Raghunath Murmu created the Ol Chiki script for the Santali language.
- These tribal people also speak Hindi, Oriya and Bengali language in their daily life.
- Santhal people are mainly engaged in hunting, fishing, collection of forest produce and cultivation for their livelihood.
- In the Santhal community, family is considered the smallest unit of social organisation.
- Nuclear family system is followed.
- When the son is married he has to settle in the other house.
- Death of old age people is considered a good sign which brings the occasion of transformation of body and soul of a person. The dead body can be cremated and buried.
- Santhal people offer prayer in two places namely, 'Jaher' and 'Gosade'.
- They follow the belief of 'Sarana'.
- Sarana is the indigenous religion of tribal people.
- It represents the worship of nature.
- Santhal people consider the Sun as omnipotent, creator and father of all and 'Earth' as their mother who brings everything they worship the Sun God as 'Singhbonga' or 'Singabonga'.
- They believe in an ancestral God.
- They also believe in many Gods and Goddesses like Marang-buru, Jaher-era, and so on.

- These people give respect to the ghosts and spirits such as Kalsing, Lakchera, Bendarang and so on.
- Animal sacrifice to appease Gods is a common practice village priests are known as 'Naiki' and 'Ujha'.
- One of the most important and distinctive symbol that characterizes this community is the bow and arrow.
- The Santhals use it extensively.
- Apart from using it for hunting, they use it during various rituals, festivals and celebrations.
- Sohrai is the biggest festival among Santhals.

#### **12.2 ORAON**

- Oraon tribal group is mainly found in the districts of Rohtas, Buxar, Darbhanga, Kaimur, (Bhabua), West Champaran and Bhagalpur.
- Most of the tribal people of Oraon have migrated from the Chota Nagpur region of Jharkhand.
- Oraon people mainly speak 'Kurukh' language related to Dravidian families.
- They mainly belong to the Proto-Australoid and Dravidian racial families/groups.
- Traditionally, Oraons depended on the forest and forms for their ritual and economic livelihood, but in recent times, a few of them have become mainly settled agriculturalists.
- They are attached to nature.
- They make household items from forest products like mats, wooden stools, baskets, cups, plates, cushions, rope, mortar, pestle and oil presses.
- They also make hunting tools from forest products like bows and arrows, slings, swords, spears, fishing traps.
- Their fishing nets are made from twine, umbrellas from landle and ribs of bamboo which are covered by gungu leaves and their hooded waterproof coats are also made from the gungu leaves.
- The social life of the Oraon tribal group represents a mixed structure of different religious groups and entities such as Naturalism, Hinduism, Christianity and so on
- This community is attached to the Sama religion.

- Since ancient times, these people have not worshiped nature.
- Their religious system is mainly influenced by Manda and Kharia religious systems.
- They consider the Sun as 'Biri Belas' means a symbol of God's glorious power and brightness and not a God, but they have given place to same environmental features in their religion like sacred grove, a mountain, a hill, a river, a well, a tank, light fire, direction and a stone and so on which are considered the residence of spirits and focal of ritual worship.
- Family is considered the smallest unit in the society of Oraon tribes.
- Marriage is a very important form of their custom and tradition, which is closely linked with the environment.
- Before marriage a custom is followed in which men go to the forest and fetch firewood and women bring sal leaves for preparing cup-plates, marriage mat and marriage baskets of various sizes.
- Oraon people are very fond of music and dance.
- Karma, Jadur, Dassai and Kagha Parva are very famous dance forms in this tribal group.
- People also meet at socio-religious gatherings and festivals such as Jatras, Sarhul, Phaggu, Karam and so on.
- Sarhul is a spring festival which is enjoyed by people of Oraon when sal trees are in full blossom.
- During this occasion, the tribal people perform the symbolic marriage of the sky with the Earth in order to ensure the fertility of the mother Earth.

#### **12.3 THARU**

- This tribe is mainly found in the Terai region of the district of West Champaran.
- This is the largest and oldest ethnic group of the Terai region.
- Tharu people belong to the Mongoloid racial group.
- Tharu people speak different languages like variants of Urdu and Awadhi, Bhojpuri and Maithili.
- They are engaged in agriculture and animal husbandry for their livelihood.
- Wheat, Maize, Barley, Rice, etc are important crops while ducks, goats, chickens, pigs, etc are important for their livelihood.
- Fishing is also a part of their livelihood.
- Colorful paintings are done by Tharu women on the walls and verandahs of their houses.
- These paintings are dedicated to Goddess Lakshmi.

- Tharu people follow Hinduism and also have Islamic, animist and Buddhist beliefs.
- Each village of the Tharu tribal group has their own duty, known as 'Bhuinyar'.
- There is a different form of marriage in this tribe.
- When two women give birth to opposite sex babies, then their babies get married when they grow up.

#### **12.4 GOND**

- Gond tribal group resides in the districts of West Champaran, Saran, Siwan and Rohtas in Bihar.
- They generally speak Mundari language along with the local language.
- They are mainly farmers.
- Some of them are landowners and some are landless laborers.
- Art is an important part of their life which includes pottery, basket making, body tattooing and floor painting.
- They also paint the walls of their house with red and black paints.
- 'Persa Pen' is the Most distinctive feature of Gond religion.
- Their supreme God is known as Baradeo, Bhagavan.
- Each Gond clan has its own Persa Pen who is believed to protect all clan members.
- There is a cross-cousin marriage system (e.g. marrying one's mother's brother's daughter).
- There is a system in which a widow is allowed to remarry to the father of the deceased husband.
- There is also a system of bride price. After the wedding, the new couple lives with the Groom's family until they move to their new house.

#### **12.5 CHERO**

- The Chero tribe is also known as 'Cheru' and 'Cheruwas'.
- Although it is a major tribal group of Jharkhand, some Chero people also reside in the districts of Rohtas, Bhojpur and Gaya.
- People of this tribe call themselves Kshatriya and Rajputs of Chauhan Clan.
- They also call themselves 'Chandravanshi'.
- They mainly practice agriculture. Animal husbandry is also a part of their livelihood. Some of them are also laborers.
- The religious beliefs of this tribal group are similar to Hinduism.
- These people also worship several tribal deities like 'Shayari Maa', 'Ganwar Bhabhani' and 'Dulha Deo'.

- This tribe is divided into two subgroups Barahazari and Terahazari.
- Marriage between these two groups are strictly prohibited, thus, take place within a group.

#### 12.6 KORA

- Kora tribe is found in Jharkhand and Bihar.
- The people of Kora tribe reside in the districts of Munger, Jamui and Katihar in Bihar.
- The people of this tribe speak Mundari, Sadani and Hindi languages.
- Their settlements are located on the hilltops and in the plain regions.
- Their economic life is associated with agriculture, forest produce and labor.
- These people practice religious customs and practices of Hinduism.
- They also believe in the idea of spirit of the dead, animistic belief and worshiping traditional deities of hills, Earth, etc.
- These people celebrate various festivals like Sarhul Parab and Bonga Buru in the month of Chaitra and Karan in the month of Bhadra.

#### 12.7 KHARWAR

- Kharwar tribe resides in the districts of Rohtas and Kaimur in Bihar.
- According to their tradition, their ancestors used to worship 'Khair' (a type of grass), thus, people who worshiped this 'Khair' came to be known as 'Kharwars'.
- These people have a belief that their ancestors once ruled the Rohtas district.
- Important rulers among the Kharwar rulers were Uday Dhawal, Vikram Dhawal, Dev Vijay, Sahas Dhawal, Uday Chand and so on.
- These people practice agriculture, some of them are engaged in livestock rearing, fishing, collecting forest produce, hunting and trapping.
- They practice many art forms like basketry, tattoo making, wall art and so on.
- These people have a mixture of both the Hindu and tribal cult.
- They worship the deities such as Goddess Lakshmi, Durga, Bhagwati, Hanumana and Dihwar Bonga.
- They celebrate many important festivals like Sarhul, Diwali, Durga Puja, Mawakhani, Jitia, Ram Navami, Sohrai, Phagh and so on.
- In this tribe, consanguineous forms of marriage are allowed and bride price is also prevalent among them.

#### **12.8 KORWA**

 It is one of the Scheduled Tribes of India which has very few population.

- Korwa tribal people reside in the districts of Rohtas, Bhojpur, Purnea, Munger and Katihar in Bihar.
- Korwa people mainly belong to the Proto-Australoid racial group.
- They have a nuclear family system where marriages take place within a caste.
- A type of alcohol made from rice known as 'Illi' or Handiyaa' is used as a traditional drink by this tribal community.
- The important musical instruments of this tribe are 'Paijan', 'Yandar' 'Darkhar' and so on.
- The economic life of this tribe is based on hunting, shifting cultivation and forest produce.
- It is a socially backward tribal group where lack of health care services and the education system is found.
- The government is trying to link this group with the mainstream of development.
- About one third of them are Muslims and the rest follow Hinduism.
- Their main tribal deity is 'Dulha Deo'.
- They also worship 'Khuri Rani', a Goddess who requires animal sacrifices.
- Worship of ancestors is also a common practice.

#### 12.9 SAURIA PAHARIA

- Sauria Paharia tribal people live in the mountainous and forest areas of many districts of Bihar.
- It is part of Paharia tribes.
- These people speak 'Malto' languages which are of Dravidian language group.
- Shifting cultivation is their important economic activity.
- Their settlements are located on the hilltops and inside the forest area.
- They also practice fishing during the summer season.
- These people follow animism and Hinduism.
- Witchcraft and evil spirits are their common belief.
- To appease spirits, they sacrifice fowls and animals.
- Ghagra Puja and Bandana are important festivals of these people.

#### **12.10 CHIK BARAIK**

- This tribe is mainly found in the rural areas of Bihar and Jharkhand.
- Chik Baraik people mainly belong to the Proto-Australoid racial group.
- These people speak Mundari, Sadhni and Hindi languages.
- This is an artisan tribe which engaged in weaving and bird trapping for their livelihood.



- This tribe mainly follows hinduism.
- Their supreme deity is Singbonga.
- They also worship 'Devi Mai'.
- These people also believe in other deities like Gram Deo, Dhiwar Deo, Pitar Deo, Mag Deo, Bagh Deo, Burheia Deo.
- Important festivals of this tribal group are Sarhul, Sohrai, Karma, Nawakhami, Durga Devi Puja, Phagu, Ramnayami and so on.

#### 12.11 HO

- Ho tribal people are found in Bihar, Jharkhand, Odisha and West Bengal.
- These people belong to Austro-Ascatic ethnic group.
- They mainly speak Ho and Munda languages.
- Their economy is based on hunting and primitive shifting cultivation, mining works and so on.
- In this tribal community, people marry outside the paternal clan but marrying one's cousin on the maternal side is also a common practice of marriage.
- Bride price and dowry system are common practices of marriage in this tribe.
- These people worship spirits and also practice witchcraft.
- These people celebrate both traditional as well as adopted festivals.
- Their important traditional festivals are Magh, Baha Parab, Rajasala or Raja Parab, Hero Parab,
- Jamnawa Parab, Kakwontanri and Kalam Parab, Shorai and so on.
- The adopted festivals are Durga puja, Biswakarma puja, Ganesh puja, Rath yatra and so on.

#### **12.12 BINJHIA**

- It is the most advanced tribe among all tribal groups which is evident from their homes which are built using tiles, wood, bamboo and spacious and nicely designed.
- These people live mostly near forest and hilly areas.
- These people mainly practice farming for their livelihood.
- These people follow Hinduism and their supreme deity is Bindya Basini which is represented by a stone in the shape of a woman.
- They also worship their ancestors.
- These people celebrate many festivals like Sohrai, Karma, Sarhul, Kartik Purnima, Jittia, Dussehra, Diwali and so on.

- As this is the most advanced tribe, the age of marriage is between 18 to 25 years of both bride and groom as per the Indian law.
- They do not permit inter-tribal marriage thus, marriage with the same clan is permissible. Monogamy is prevalent and widow remarriage is also permissible.
- Bride price is also observed in this tribal community.

#### **12.13 TRIBAL ISSUES IN BIHAR**

- Out of total population, 1.28% Scheduled Tribe (ST) of total population in Bihar. Tribal issues in Bihar, like in many other states of India, revolve around the concerns and challenges faced by the tribal or Adivasi communities residing in the region. In 2023-24, a total amount of Rs-1,574.49 crore has been provisioned under the Special Component Plan for the Scheduled Tribes, which is more than the budgeted amount.
- The livelihood of the tribes lies in the forest. But there is not much forest left in Bihar. Most of the tribal population is engaged in agricultural activities. Majority of them work as agricultural laborers in other areas as they do not have enough land for agriculture. Some tribes do not even have land to build houses. Some tribes have very small land sizes. Tribes in Bihar do not have the right to sell land to non-tribals and they are not even aware of the prices of their land. For this reason, some rich tribal people buy the land of poor tribal people cheaply. Poverty is prevalent in tribal communities. people often get involved in Naxalism.

#### Here are some key tribal issues in Bihar:

- Land Rights: Land alienation is a significant issue for tribal communities in Bihar. Many Adivasis have faced displacement from their ancestral lands due to industrial projects, infrastructure development, and urbanization. The lack of proper land titles and weak implementation of protective laws often leaves them vulnerable to land grabbing and exploitation.
- Forest Rights: Forest-dependent tribal communities in Bihar face challenges in asserting their rights over forest resources and lands they have traditionally inhabited and used for sustenance. The implementation of the Forest Rights Act (2006) has been slow, leading to conflicts over forest lands and resources.
- Livelihood and Economic Opportunities: Adivasi
  communities in Bihar often face limited livelihood
  opportunities and economic disparities. They typically
  engage in traditional occupations like agriculture,
  forest-based activities, and artisanal work. However,
  the lack of infrastructure, access to markets, and
  skill development programs hinder their economic
  progress.

- Education and Healthcare: Tribal communities in Bihar often struggle with inadequate access to quality education and healthcare services. Remote locations, lack of schools, and educational infrastructure contribute to low literacy rates among Adivasi populations. Similarly, limited healthcare facilities and difficulties in accessing healthcare exacerbate their health challenges.
- Social Marginalization: Tribal communities in Bihar face social marginalization and discrimination, resulting in their exclusion from decision-making processes and mainstream development programs. Their cultural heritage, language, and identity often face challenges due to assimilation pressures and inadequate representation in governance structures.
- Political Representation: Ensuring adequate political representation for tribal communities remains a significant concern. Despite reserved seats for Scheduled Tribes in the legislative assemblies and Parliament, the effective participation of Adivasis in political processes and decision-making remains a challenge.
- Socio-economic Development: Overall, there is a need for comprehensive development initiatives targeted specifically towards tribal communities in Bihar. This includes investments in infrastructure, education, healthcare, skill development, and sustainable livelihood opportunities to uplift their socio-economic conditions.

Efforts are being made by the government, civil society organizations, and grassroots movements to address these issues and uplift the tribal communities in Bihar. Advocacy for land and forest rights, awareness campaigns, capacity building, and inclusive policies are essential for promoting the welfare and empowerment of the tribal populations in the state.

# 12.14 GOVERNMENT INITIATIVES FOR THE DEVELOPMENT OF SCHEDULED TRIBES

In Bihar, several initiatives have been undertaken to address the concerns and uplift the tribal communities, also known as Adivasis. Here are some notable tribal initiatives in Bihar:

Van Bandhu Kalyan Yojana: The Van Bandhu Kalyan Yojana is a comprehensive tribal development program launched by the Government of Bihar. It aims to improve the socio-economic conditions of tribal communities by focusing on areas such as education, health, livelihood, and infrastructure development. The

- program includes initiatives like the establishment of Eklavya Model Residential Schools, skill development training, healthcare facilities, and the provision of basic amenities in tribal areas.
- Pahal Scheme: The Pahal Scheme, initiated by the Bihar State Tribal Development Department, focuses on providing educational opportunities for tribal students. It includes measures such as scholarship programs, coaching facilities, and hostels to promote access to quality education for tribal children and enhance their educational outcomes.
- Implementation of Forest Rights Act: The Forest Rights Act (2006) recognizes the rights of forest-dwelling communities, including tribals, over forest resources and land. The Bihar government has been working on implementing the Act, ensuring the recognition and protection of the land and resource rights of tribal communities. This initiative aims to address issues of land alienation and provide legal security to tribal populations.
- Self-Help Groups (SHGs) and Livelihood Programs: The government, along with NGOs and development agencies, has been promoting the formation of Self-Help Groups (SHGs) among tribal communities in Bihar. These SHGs provide support and training to tribal women for income-generation activities, such as handicrafts, small-scale farming, and microenterprises. Livelihood programs aim to enhance the economic opportunities of tribal communities and reduce their dependence on traditional occupations.
- Tribal Cultural Conservation: Efforts are being made to preserve and promote the cultural heritage of tribal communities in Bihar. Cultural festivals, exhibitions, and documentation of tribal art forms, languages, and traditions are undertaken to ensure the preservation of their unique cultural identities.
- Reservation in Education and Employment:
   The reservation policy in educational institutions and government jobs provides opportunities for tribal communities to access quality education and secure employment. Reserved seats in educational institutions and government jobs are allocated for Scheduled Tribes (ST), ensuring representation and equal opportunities.
- Community Empowerment and Participation:
   Various grassroots organizations and NGOs work towards empowering tribal communities by building their capacities, promoting community participation, and strengthening local governance structures. These initiatives focus on enhancing the leadership skills of tribal individuals, promoting self-governance, and fostering participatory decision-making processes.

These initiatives aim to address the socio-economic disparities faced by tribal communities in Bihar, promote their overall development, preserve their cultural heritage, and provide them with opportunities for education, livelihood, and empowerment. However, it is essential to continue monitoring the implementation of these initiatives and ensure their effectiveness in creating positive change for tribal populations in Bihar.

#### **Other Important Initiatives**

- 1. To open and construct hostels for Scheduled Tribe students .
- 2. Providing scholarship and book grants to scheduled tribes
- 3. Assistance to educational institutions and committees working for the welfare of Scheduled Tribes.
- 4. Providing loans to the members of Scheduled Tribes for development
- 5. Special schemes for the upliftment of Scheduled Tribes
- 6. Integrated Tribal Development Programme
- 7. Home-building schemes for Scheduled Tribes
- 8. Chief Minister Scheduled Tribes Civil Services Incentive Scheme
- 9. Chief Minister Scheduled Tribe Grants Scheme
- 10. Food Supply Scheme
- 11. Providing Scholarship and Book Grants to Scheduled Tribe Students
- 12. Providing Scholarship to Student belonging to Scheduled Castes
- 13. Grants for Scheduled Castes students for books and sub-resources
- 14. Providing loans for the development of Scheduled Castes members.
- 15. Opening and managing hostels for Scheduled Castes.
- 16. Removal of the Civil Disabilities of Scheduled Castes and the administration of Bihar Harijan (Civil Abolition Ablation) Act, Bihar Harijan (Removal of Delays Act) and other Acts related to Scheduled Castes.
- 17. Formation of cooperative societies of Scheduled Castes, voluntary organizations, NGOs etc.
- 18. Grant-in-aid to educational and cultural institutions working for the benefit of Scheduled Castes.
- 19. Implementation of schemes for the upliftment of scheduled castes.
- 20. Specific Home-Building scheme for Scheduled Castes.

- 21. Monitoring and coordination of Special Component Plan with all departments.
- 22. Bihar State Scheduled Caste Cooperative Development Corporation's administrative control.

#### **Special Central Assistance for Scheduled Tribes:**

Under this scheme, the Central Government provides funds for the development of people belonging to Scheduled Tribes under Below Poverty Line (BPL).

### Chief Minister Scheduled Caste and Scheduled Tribe Civil Service Promotion Scheme

- The main objective of the scheme is to provide financial support to such meritorious students of Scheduled Castes and Scheduled Tribes for further preparation, who pass the preliminary examination of Civil Services Competitive Examination organized by Bihar Public Service Commission, Patna and Union Public Service Commission, New Delhi.
- One-time 50,000/- rupees for further preparation to the candidates of Scheduled Castes and Scheduled Tribes who pass the preliminary examination of the Combined Competitive Examination organized by the Bihar Public Service Commission, Patna and One-time benefit of Rs.1,00,000/- (one lakh rupees) to the candidates belonging to Scheduled Castes and Scheduled Tribes who pass the preliminary examination of the Civil Services Competitive Examination organized by the Union Public Service Commission, New Delhi.

### Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989

- The Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989, Rules-1995 and Revised Rules 2016 are applicable in entire Bihar by the Central Government to provide protection to members of Scheduled Castes and Scheduled Tribes from atrocities.
- It is a centrally sponsored scheme, the expenditure of which is borne by the Central and State Governments in the ratio of 50 : 50.
- Regular meetings of the State Level Vigilance and Monitoring Committee are being convened under the chairmanship of the Honorable Chief Minister.

## The following steps have been taken by the State Government to increase the rate of conviction in the cases registered under the Act-1989:

(1) Instructions have been given by the Principal Secretary, Home Department to all the District Superintendents of Police for speedy execution of the cases registered under this Act. Along with this, the Director General of Police has also given instructions to all the District Superintendents of Police for speedy execution of the cases registered under this Act.

- (2) Special police stations for Scheduled Castes and Scheduled Tribes have been set up in all the 40 police districts of the state.
- (3) Courts of Additional District and Sessions Judge are working as special courts in all the districts of the state for execution of registered cases. The Honorable High Court has approved the establishment of Exclusive Special Courts in Patna, Gaya, Muzaffarpur, Begusarai, and Bhagalpur for speedy execution of pending cases under Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989.
- (4) The works of the Special Public Prosecutors appointed under the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act-1989 are periodically reviewed by the concerned District Magistrate and Director General, Prosecution.
- Special Public Prosecutors have also been appointed at the level of Hon'ble High Court, Patna by the Law Department to strongly represent the Government in cases registered under this Act.
- Victims of atrocities / dependents of victims are being given the benefit of pension schemes.
- Affected victims have been given government employment under this act in the state.
- Apart from this, traveling allowance/daily allowance is being paid to the victim/ dependent of the victim during the hearing of the cases.

- For the purpose of spreading awareness among the general public, advertisements are published in daily newspapers from time to time and hoardings have been installed at specific places.
- Along with this, the work of spreading awareness is also done through films and leaflets.
- Training/workshop is organized to sensitize police officers
- Toll free number- "Sahayata" 18003456345 to help the victims of atrocities.

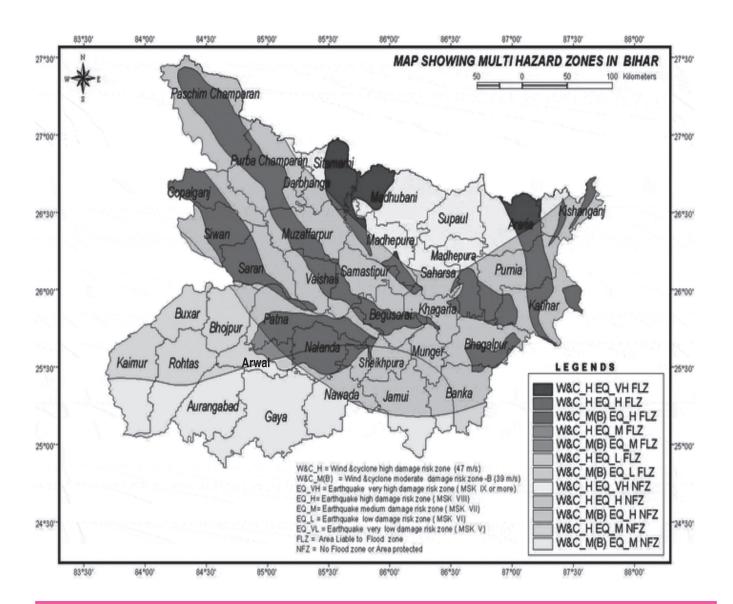
### **Chief Minister Scheduled Caste and Scheduled Tribe Hostel Grant Scheme**

- At present, the students of Scheduled Castes and Scheduled Tribes studying in hostels are given the facility of cot, mattress, sheet, table-chair for reading, cooking utensils and kitchen, etc.
- Hostel grant is being given to increase the facilities being given to the students and to make the students of the weaker sections of the society aware of higher education and to increase the rate of higher education and to meet the hostel requirements of the students.
- The benefit of hostels is granted to the students studying in scheduled caste and scheduled tribe hostels at the rate of 1000/- (one thousand rupees) per month per student.





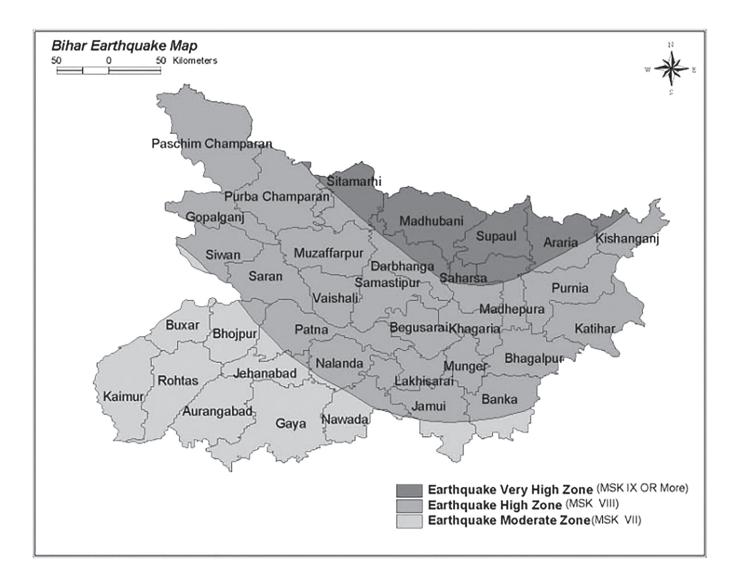
### **Major Disasters of Bihar**



#### 13.1 EARTHQUAKE

Bihar is located in the high seismic zone that falls on the boundary of the tectonic plate joining the Himalayan tectonic plate near the Bihar-Nepal border and has six subsurface fault lines moving towards the Gangetic plains in four directions. Of the 38 districts of Bihar, 8 districts fall in seismic zone V of which 2 districts (Madhubani and Supaul) fall entirely in seismic zone V while 24 districts fall in seismic zone IV and 6 districts in seismic zone IV & III. According to the recent report of the National Center for Seismology (NCS), a 4.3 magnitude earthquake occurred in Bihar's Araria. The earthquake occurred near Purnia at a shallow depth of 10 km from the epicenter.

Major earthquakes: the worst was the 1934 earthquake in which more than 10,000 people lost their lives, followed by 1988 earthquake and earthquake of Sikkim in September 2011 and earthquakes of 2015 with epicenter in Nepal.



The new and growing urban centers in the state where building codes and control mechanisms are not enforced, earthquake remains a major threat to cities. This could result in loss of social infrastructures such as schools and hospitals that are not built to be earthquake resistant and also could lead to severe damage and loss of lives as well.

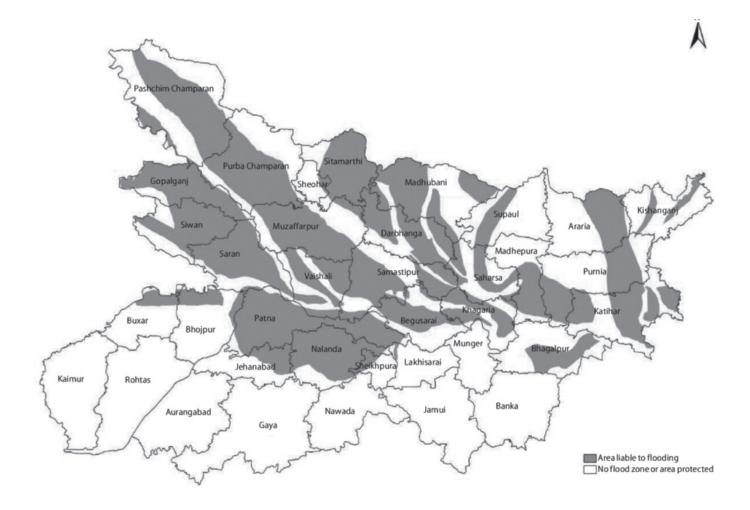
#### 13.2 FLOOD

Bihar's topography is marked by a number of perennial and non-perennial rivers of which, those originating from Nepal are known to carry high sediment loads that are then deposited on the plains of Bihar. A majority of the rainfall in this region is concentrated in the 3 months of monsoon during which the flow of rivers increases up to 50 times causing floods in Bihar.

According to the Bihar Government's Flood Management Information Systems Cell, floods of Bihar can be divided into 4 categories namely

- Class 1: Flash Floods Floods occurring due to rainfall in Nepal, lead time is short (8 hours), receding of flood waters is fast;
- Class II: River Floods lead time 24 hours, receding of flood waters is 1 week;
- Class III: Drainage congestion in river confluence lead time more than 24 hours, lasting full monsoon season; receding of water takes 3 months;
- Class IV: Permanent water logged area.

73.63% of the geographical area of North Bihar is considered to be prone to floods. Out of 38 districts, 28 districts get flooded (of which 15 districts are worst affected) causing huge loss of property, lives, farmlands and infrastructure. During the 2008 Kosi floods, over 350,000 acres of paddy, 18,000 acres of maize and 240,000 acres of other crops were adversely affected, impacting close to 500,000 farmers.



According to Bihar Disaster Management Authority (BSDMA) about 73.63% of the total geographical area of North Bihar is flood affected. Almost every year North Bihar witnesses floods which damages life, infrastructure as well as crops.

#### 13.2.1 Flood Prone Areas in Bihar

#### **North Bihar**

About 16.5% of the total flood prone areas of India is in Bihar and that too mainly in North Bihar. Some of the most frequent flood affected districts of North Bihar are Darbhanga, Madhubani, Supaul, Saharsa, Madhepura, Khagaria, Muzaffarpur, Gopalganj etc.

#### **South Bihar**

Although South Bihar has non perennial rivers which are flooded with water only in the rainy season and those generally do not cause flooding but near the Southern Bank of Ganga river, south Bihar also witnesses floods every 2-3 years. Some of the worst flood affected districts of Bihar are Bhojpur, Patna and Nalanda.

#### 13.2.2 Causes of Floods in Bihar

The major cause behind flooding in Bihar are rivers coming from Nepal. During Monsoon season, Nepal receives very heavy rainfall which results in an increase in water level of these rivers, which generally become overloaded and hence in the basin(in North Bihar) floods occur.

One of the main culprits is the Koshi Barrage on Koshi in Nepal, which has to be opened during overload of water in the river, which brings floods in Supaul and other districts of its basin.

The rivers which cause the greatest damage are Koshi, Bagmati, Gandak, Burhi Gandak, Kamla, Balan,etc.

#### Other minor causes are:

- Weak embankments which get broken down by water lead to dangerous floods in the region.
- Already overloaded Ganga river gets even more loaded with water which slows down the speed of rivers in North Bihar, which leads to spread of water in the basin region.

 Another cause is that these rivers bring alluvium with itself which due to embankment do not dispersed which results in decrease in depth of river hence water carrying capacity of rivers get reduced and flood occurs.

#### 13.2.3 IMPACT

#### **Direct Damages**

- Damage to life of humans and animals.
- Damage to crops and trees.
- Damage to infrastructure like houses, Primary Health Centres, Railway and other transportation and communication facilities and communication lives.
- Foods also damage electricity lines.

#### **Indirect Damages**

- Loss of employment of Daily wage workers, artisans and small shop owners.
- Damage to clean drinking water.
- Floods generally followed by epidemic due to various communicable and non-communicable diseases like Malaria, Typhoid, Dengue etc.
- Floods also erode fertile soil and make them lateritic and infertile.

#### 13.2.4 Possible Solutions of Flood Problems

#### **Building Embankment**

The first flood Policy of Bihar, 1954 proposed to increase the length of embankment along the flood causing rivers, which was only 160 Km at that time. Hence the embankment was increased to 3465 Km but at the same time flood prone area was also increased from 25 lakh hectares to 68.9 lakh hectares by 2004.

 However experts are not in favour of embankment as a permanent solution of flood problem in Bihar because at many instances these embankments get broken due to overload and cause even more disastrous floods in the region.

#### **Cleaning the River Floor**

Cleaning the floor of rivers every year before rainy seasons so that the carrying capacity of rivers can be increased.

#### **Building Dams**

An Expert Committee formed in 1974 to suggest control measures on flood control had recommended a large dam in Barah Region of Nepal, which is the only permanent solution to the problem.

 It will not only control floods but will also provide Water for irrigation and electricity to both Bihar and Nepal.

#### **Building Link Canals in north Bihar**

To control floods this is also an effective solution which has multiple benefits such as for irrigations and increases ground water level hence increases the availability of water for human activities.

 Bihar can make many linking Canals connecting Gandak, Bagmati, Burhi Gandak, Koshi, Mahananda and other rivers at various points especially in upper parts.

#### **Decreasing load of Ganga River**

By building canals on Ganga in South Bihar and Uttar Pradesh we can increase the carrying capacity of Ganga by removing the excess water and hence the velocity of flow of rivers in North Bihar will be increased, which will reduce the possibilities of flood.

 Although the possibility of digging canals in South Bihar is quite difficult because south Bihar is elevated.
 Hence digging a canal out of Ganga towards south is difficult but it can be made possible by building Lift Irrigation Canal like Kaleshwaram Lift Irrigation Project in Telangana. Which will increase irrigation prospects in Drought Prone South Bihar.

#### 13.3 DROUGHT

According to Bihar State Disaster Management Authority (BSDMA), in the absence of inadequate rainfall in most parts of Bihar, it faces drought including North Bihar which is prone to floods. But the most vulnerable part of Bihar is South and South-West Bihar. Which faces drought after every 2-3 years.

According to BSDMA the districts which are worse affected by drought are Munger, Nawada, Gaya, Aurangabad, Rohtas and Bhojpur.

#### 13.3.1 Causes of Drought in Bihar

#### **Dependence on Monsoon Rainfall**

 Bihar is heavily dependent on Rainfall for cultivation of crops. Bihar receives on average 108 cm rainfall every year and about 85% of it happens during Monsoon. But this rainfall is not constant every year.



- Monsoon rainfall in Bihar (especially South Bihar) is highly inconsistent.
- In some years it is much higher than the average while in some years it is much lower than the average rainfall, and after every 2-3 year drought-like situations arise.

#### **Lack of Proper Irrigation Facilities**

According to the data of Irrigation Department of Bihar Government, only about less than 50% of farm lands are irrigated out of which 63% comes from tube wells, 31% comes from proper irrigation projects (canals) and rest 4% comes from other sources. Hence more than 50% of farm lands are dependent on rainfall, which makes farming vulnerable here. Further large number of tube wells are degrading the Ground water level. Which is another aspect of drought in Bihar.

#### **Decreased Number of Ponds**

The number of Tanks and ponds have decreased tremendously, which are important for such regions as it makes water available for almost the whole year as well as those help in increasing the ground water level also. Practice of outdated irrigation systems in which a very large amount of water gets wasted is also a major cause of drought in Bihar.

#### **Decline in Forest Area**

According to the data of India State of Forest Report (IFSR) 2019, Bihar has only 7.76% forest area out of its total geographical area, which is very less than the recommended level of 33% for India. Since trees are effective in reducing the speed of wind and causing rainfall, hence this is a serious concern for the State.

#### 13.3.2 IMPACT

#### **Failure of Crops**

Due to drought crops get damaged and hence farmers suffer heavily and some of them even go into destitution and face the danger of hunger and malnutrition.

#### Unemployment

Since more than 80% of the population of Bihar are engaged in Agriculture and allied sectors. Hence, drought results in loss of employment of not only farmers but also many others who are somehow involved directly or indirectly in agriculture and allied activities.

#### **Out Migration**

Unemployment and destitution leads to large scale migration of people from Bihar to mega cities and even to farmlands of Punjab & Haryana in search of livelihood.

#### **Decline in State's Economy**

Agriculture contributes only about 19.3% of the state's total GDP and further decline in face of drought. It also causes a ripple effect and causes the decline of the contribution of other sectors in the GDP also. Hence, in turn the economy of the state shrinks with the drought.

#### **Environmental Degradation**

- Since drought brings decline in Groundwater level, this results in drying of trees and hence the forest/ tree cover in the state decreases, which is already very less (7.76% of the total geographical area).
- And decline in forest cover results in various environmental hazards like rise in average temperature, rise in Carbon Dioxide etc. And in turn result in many environmental and health hazards.

#### 13.3.3 Possible Solutions of the Drought **Problems**

#### **Building Dams**

- Since in South and South-West Bihar, most of the rivers are non-perennial (which flow only during rainy season) and some of them also cause minor flooding during the period of Monsoon. Hence, the excess water of these rivers during monsoon can be trapped by building dams and irrigation canals on these rivers. Dams are one of the best solutions to the problem of drought in South and South-West parts of Bihar.
- Besides controlling floods and increasing irrigation intensity, dams have many other benefits like cheap electricity, enhanced groundwater level and all year water availability in these non-perennial rivers.

#### **Lift Irrigation Canals**

Although South Bihar is sloping upwards from the Banks of the Ganga in North to Chotanagpur plateau region of Bihar in South, with an average gradient of 6 cm per km. But canals are possible to be built using techniques such as Lift Irrigation or an underground water tunnel system. Government can build lift irrigation canals from the Ganga to South and South-West Bihar. Such a project is already under construction in Telangana, where the Kaleshwaram Lift Irrigation Project is being built by the Government of Telangana on Godavari. Hence why not in Bihar?

#### **Interlinking of River**

- Although rivers in South Bihar are seasonal, linking
  of these rivers will reduce the wastage of water in
  Ganga during Monsoon as well as these can reduce the
  overload of water in Ganga during Monsoon, which
  can control floods in North Bihar at some level.
- It will also increase the ground water level in South Bihar. Hence interlinking also increases the groundwater level in South Bihar. Hence interlinking of rivers is also a good solution to drought as well as flood.

#### **Promote Pond/Tank Culture**

• Promoting ancient pond/tank culture at village/ community/individual level, which was in use from ancient times should be encouraged. In recent times, the number of ponds has decreased significantly, while some villages do not have a single pond. Ponds will also give an alternative livelihood for vulnerable farmers as it can be used for fishing (pisciculture).

#### **Promote Rainwater Harvesting**

 Instead of exploiting groundwater, people can harvest the rainwater and it can be used for agriculture as well as for domestic purposes.

#### **Other Solutions**

- Early warning and monitoring on the basis of long, medium and short term forecasts.
- Rejuvenate the traditional Rainwater system via rivers, Nalas, Tanks and ponds before the start of Monsoon season.
- Seek alternative farming or dry farming and encourage farmers to cultivate less water consuming crops such as pulses, oilseeds, maize and potato.
- Livestock, animal husbandry, fishing and poultry farming should be promoted to reduce stress on fragile arid ecosystems.
- Ensure timely availability of credit and crop insurance to farmers to face drought like situations easily.
- Government should promote appropriate land use planning, so that cropping can be done according to soil for this purpose soil mapping should be done.

#### **13.4 HEAT WAVES**

A heat wave is a prolonged period of abnormally hot weather with an overall warming of the Earth's climate.

Heat waves are expected to become more frequent, longer, and more intense in places where they already occur. Increased frequency and severity of heat waves can lead to illness and death, particularly among elder ones, the young, and other vulnerable groups. Loo is the local wind that causes heat waves in Bihar.

#### 13.5 HIGH SPEED WIND/CYCLONE

Cyclone is a region of low atmospheric pressure surrounded by high atmospheric pressure resulting in swirling atmospheric disturbance accompanied by powerful winds blowing in anticlockwise direction in the Northern Hemisphere and in the clockwise direction in the Southern Hemisphere. They occur mainly in the tropical and temperate regions of the world Cyclones are called various names in different parts of the world. Cyclones in India are moderate in nature.

Some of the general characteristics of a cyclone are:

- Strong winds
- Exceptional rain
- Storm surge

Cyclones are generally accompanied by strong winds which cause a lot of destruction. In some cases it is accompanied by heavy downpour and also the rise in the sea which intrades inland thereby flooding. Bihar experiences cyclone related disturbances from Bay of bengal.

#### 13.6 OTHER HAZARDS

Apart from the above hazards, the state is also prone to Lightning, cold waves and other human-induced hazards like fire, epidemics, road / boat accidents, stampedes etc. Incidences of fire are mainly local in nature but have a severe impact on villages. Since a majority of Kutcha houses have thatched roofs and wooden structures, in the summer months when winds are high, fires from the traditional stoves spread to damage entire villages.

### 13.7 THE DISASTER MANAGEMENT ACT. 2005

The Disaster Management Act 2005 has defined "disaster" and "disaster management" in detail as well as in design. It has also specified the disaster management institutions that are required to be set up. The Act also describes in detail the roles and responsibilities of key Government Officials/Stakeholders.

"Disaster" means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to and destruction of, property or damage to or degradation of environment and is of such a nature or magnitude as to be beyond the coping capacity of the recovery.



#### 13.8 DISASTER MANAGEMENT IN BIHAR

Disaster management has emerged as a subject of high priority for the State, going beyond the historical focus on relief and rehabilitation after any event. Following the enactment of DM Act 2005, the concept of Disaster Management in Bihar, therefore, has undergone paradigm shift towards prevention, reduction or mitigation, preparedness, quick response, rescue and relief and reconstruction to reduce the negative impact of disasters. The goals of Disaster Management in Bihar are People's safety and security giving utmost importance to protect human life against disaster, Development of life saving system, Improvement of multi layers response combining multiple measures, Improvement of people resilience to disaster- Self Help-improving in idea that everyone should protect life by oneself. Mutual Help-providing people in the community to protect themselves.

#### 13.9 INSTITUTIONAL FRAMEWORK

#### 13.9.1 State Disaster Management Plan (SDMP)

The section 23(1) of the Disaster Management Act, 2005 provides for the formulation of a plan for disaster management implementing measures which Management Plan. Government of Bihar, in compliance with the provisions of the Act, has prevented the danger or threat by developing its State Disaster Management Plan which has been approved by the State Cabinet in the year 2014. The State Disaster Management Plan is in two parts: Disaster Risk Management & Disaster Crisis Management. Disaster Risk Management part consists of sections on the preparedness to deal with any perspective and on Prevention, Mitigation and Preparedness.

The Disaster Crisis Management part consists of sections on Response & Relief. 'Built Back Better' dealing with reconstruction and resettlement, Roles and Responsibilities of Govt. Depts, and other stakeholders and Pre-requisites for the Implementation of the plan.

#### 13.9.2 Department of Disaster Management

Prior to 1977-78, The Department of Disaster Management in Bihar was primarily a section of the Revenue and Land Reform Department called "Relief and Rehabilitation". But it was separated from its mother department in 1979 and in 2004 it was named "Disaster Management Department". It is now recognized as the nodal department responsible for preparedness response, relief and rescue works in all types of disasters.

#### 13.9.3 Bihar State Disaster Management **Authority (BSDMA)**

BSDMA was constituted in 2007 as per the DM Act of 2005 and is headed by the Chief Minister as the Chairperson with one of the members nominated as the Vice-Chairperson.

In line with the DM Act and BSDMA'S Constitution, BSDMA will take up the roles, responsibilities and facilitate the processes for implementation of this roadmap especially pertaining to disaster and climate change induced risk analyses, formulation of disaster management plans, capacity enhancement, and strengthening public awareness and communication of disaster and climate change induced risks.

#### 13.9.4 Initiatives of BSDMA Towards **Making Disaster Resilient Bihar**

Though the state is a multi-hazard prone state, it has also been moving towards greater disaster resilience. Bihar State Disaster Management Authority (BSDMA), together with the Disaster Management Department of Government of Bihar, has been taking various initiatives towards awareness generation and capacity building of various stakeholders and also the affected population. Emphasis of BSDMA has been towards structural and nonstructural strengthening of the system to reduce disaster risks and mitigate their impacts.

Safety Weeks (Road Safety, Earthquake Safety, Fire Safety and Flood Safety), training of stakeholders, safe school programmes, safe construction guidelines, Free Earthquake Safety Clinic & Centre, wide circulation of IEC materials etc. are some of the important initiatives of the Authority.

#### 13.9.5 District Disaster Management **Authorities (DOMA)**

Headed by the District Magistrate as the Chairperson and comprising district w heads of the lies departments, the DOMA W mandated to play a central role in disaster management at the district level. The Roadmap envisages that the District Magistrates and DOMAS will play an integral role in disaster risk reduction and the implementation of this roadmap as per the DM Act and will take up the roles and responsibilities especially that of providing operational direction, targeting and prioritization, undertaking risk analyses, formulation of district disaster management plans, facilitating implementation processes, establishing partnerships, periodic monitoring and review of the roadmap implementation over and above the specific actions envisaged in this roadmap.

### 13.9.6 NDRF (National Disaster Response Force)

The 9 battalion of NDRF (National Disaster Response Force) is established at Bihta, Patna. Govt. of Bihar has provided 75 acres of land for the establishment of NDRF battalion The NDRF battalion consists of specialized teams trained to respond in various types of natural, man made and non natural disasters.

#### 13.9.7 SDRF (State Disaster Response Force)

For effective and prompt response during any event, a battalion of SDRE has been raised on the pattern of NDRF SDRE is a new Force, controlled/ governed by the Department of Disaster Management, constituted on the pattern of NDRF. 25 acres of land has been acquired at Bihta (Patna) for SDRF headquarters.

### 13.9.8 The Bihar State Institute of Disaster Management (BSIDM)

It has been incorporated in the system to develop requisite understanding of hazards, gather information and knowledge, identify and apply technologies and promote hazard specific research and development in the state. BSIDM shall develop and maintain close linkages with the multilateral agencies and corporate bodies both for getting associated with international bodies through them and for getting support at the time of incidents.

The main objectives of BSIDM shall be -

- Hazard mapping and vulnerability studies.
- Strengthening of information technology for Natural Disaster Management.
- Monitoring and impact assessment of natural hazards.
- Human Resources Development mainly by imparting training.
- Early Warning System.

### 13.10 RECENT INITIATIVES IN DISASTER MANAGEMENT IN BIHAR

 There is provision for Agriculture Input Subsidy, House Damage Subsidy, and Subsidy for cattle loss, in addition to Gratuitous Relief and cash dole for those who were affected by natural disasters.

- There is provision for funds to be given as compensation to acquire the land for the rehabilitation of families displaced due to erosion caused by rivers.
- The state government has organized training and awareness programmes to enhance the capacity of government officials and communities for disaster management. These include training of divers for search and rescue during floods, training of volunteers, training for quick medical response, and training for motor boat driving. In addition, engineers, contractors, architects and masons are being trained to make Earthquake Resistant Buildings.
- The state government has formulated Bihar Scheme for Assistance to Farmers in Farm Distress, 2015' to provide assistance to farmers and take measures to prevent farm distress. Under this scheme, there is a provision of an ex gratia payment of Rs. 4.00 lakh to be deposited in the name of the next-of-kin of the farmer who has died. This creates a fund with a Nationalized Bank which provides monthly interest to the account holder as a financial relief.
- The state government has provided 40 Fibre Reinforced Plastic Boats and 310 inflatable motor boats to 28 flood-prone districts.
- The State Disaster Response Force has been equipped with modern equipment like inflatable motor boats, life jackets, deep diving suits and latest equipment for search and rescue during floods.
- In collaboration with All India Institute of Medical Sciences (AIIMS), Patna, two phases of training for Quick Medical Response Teams have been completed.

### 13.11 DISASTER RISK REDUCTION ROAD MAP 2015-2030

- Bihar is the first state in the country to establish the parameters in disaster response.
- For efficient disaster management, the state government has prepared a 15 year Disaster Risk Reduction (DRR) Road Map 2015-2030, following the Sendai FrameWork Agreement.
- Bihar is the first among all the Indian states to complete the exercise.
- The state government has also signed a MoU with Asian Disaster Preparedness Centre (ADPC) at Bangkok for efficient disaster management.





# **Climate Change**

Climate change is a significant global challenge that has wide-ranging impacts on various regions, including Bihar. Here are some of the key aspects of climate change in Bihar:

- Increasing Temperatures: Bihar, like many other parts of India, has experienced a rise in temperatures over the years. Heatwaves and prolonged hot spells have become more frequent, leading to health risks, increased energy demand, and agricultural challenges.
- Erratic Monsoon Patterns: Bihar heavily depends on the monsoon season for agriculture, as a significant portion of the state's population is engaged in farming. Climate change has brought about changes in monsoon patterns, leading to increased variability in rainfall distribution and intensity. This can result in droughts, floods, and crop losses.
- Changes in Precipitation Patterns: Climate change has also impacted precipitation patterns in Bihar. Some regions may experience increased rainfall, leading to a higher risk of flooding, while others may face reduced rainfall, contributing to water scarcity and drought conditions. These changes have implications for agriculture, water resources, and overall livelihoods.

- Sea-Level Rise: Although Bihar is an inland state, it
  is located in the Ganges-Brahmaputra-Meghna river
  basin, which is vulnerable to sea-level rise. The rise
  in sea levels can lead to increased salinity intrusion
  in coastal areas, affecting agriculture, water resources,
  and ecosystems.
- Impact on Agriculture: Bihar's economy heavily relies on agriculture, which is vulnerable to the impacts of climate change. Erratic rainfall, temperature fluctuations, and extreme weather events pose challenges to crop production, productivity, and food security. Adaptation measures, such as improved irrigation infrastructure and the promotion of climateresilient farming practices, are crucial to mitigate these challenges.
- Water Management: Climate change affects water availability and quality in Bihar. Changes in precipitation patterns and increased evaporation rates impact surface water and groundwater resources. Proper water management practices, including rainwater harvesting, watershed management, and efficient irrigation techniques, are essential for sustainable water use.



 Ecosystems and Biodiversity: Climate change impacts ecosystems and biodiversity in Bihar. Changes in temperature, rainfall, and habitat conditions affect the distribution and behavior of species, potentially leading to shifts in ecosystems and loss of biodiversity. Conservation efforts and restoration of degraded habitats are necessary to protect ecosystems and the services they provide.

Climate change is a complex issue, and there is no easy solution. However, there are a number of things that can be done to mitigate the effects of climate change in Bihar. These include:

- Reducing greenhouse gas emissions: Bihar can reduce its greenhouse gas emissions by switching to renewable energy sources, such as solar and wind power.
- Adapting to the effects of climate change: Bihar can adapt to the effects of climate change by building sea walls to protect coastal areas from flooding, and by developing drought-resistant crops.
- Providing financial assistance to those affected by climate change: Bihar can provide financial assistance to those who have been affected by climate change, such as those who have lost their homes in floods or droughts.

Climate change is a serious threat to Bihar, but it is not insurmountable. By taking action now, Bihar can reduce the effects of climate change and build a more sustainable future.

Here are some of the **specific initiatives** that the government of Bihar has taken to address climate change:

- **The Bihar Green Drive:** The Green Drive was launched in 2016. It is an initiative to plant 200 million saplings in Bihar over the next five years.
- **The Bihar Solar Policy:** The Bihar Solar Policy was launched in 2017. It aims to promote the use of solar energy in the state.

# 14.1 SCHEMES RELATED TO CLIMATE CHANGE

# 14.1.1 Bihar State Action Plan on Climate Change (SAPCC)

As elsewhere, Bihar is sensitive to climate change and climate-induced issues. Being an agrarian state, the majority of its population is vulnerable to climate change. Hence, initiatives for formulating the State Action Plan on Climate Change (SAPCC) were taken as early as 2011. The State government had finally formulated SAPCC in 2015, wherein the SAPCC and the development priorities were

aligned to the imperatives of the National Action Plan on Climate Change. A range of measures have already been adopted in the state which is part of the state's climaterelated agenda, as elaborated under the SAPCC.

Climate policy and action have evolved since the formulation of SAPCC Paris Agreement was agreed upon in 2015 to limit global mean temperature within 2 degree celsius and working towards limiting it to 1.5 degree celsius. India has formulated its Nationally Determined Contributions (NDC) goals post 2020. In this context, the Union Ministry of Environment, Forest and Climate Change has advised the states to revise and strengthen the SAPCC Therefore, the revision of SAPCC of Bihar for 2020-2030 is currently in progress by incorporating the inputs from various stakeholder departments, expert groups and institutions. The Action Plan will serve as a primary policy document for the state to address existing climate risks and vulnerabilities, as well as enhance climate resilience through collective actions.

# 14.1.2 Climate Change Learning Lab at Patna Zoo, Patna:

The Department of Environment, Forest and Climate Change, in partnership with the 'Strategic Partnership for the Implementation of the Paris Agreement' (SPIPA) project has set up a 'Climate Change Learning Lab' at Patna Zoo. The SPIPA project is being implemented by the delegation of the European Union (EU) to India, in close collaboration with GIZ, India. The funding is from the EU Partnership Instrument and German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection. The Union Ministry of Environment, Forest, and Climate Change (MoEF&CC) is the nodal ministry for this project. As part of the project, similar 'Climate Change Learning Labs' are being established in Haryana, Gujarat and Kerala as well.

The Climate Change Laboratory Lab at Patna Zoo in Bihar is the first out of the four labs inaugurated on July 17, 2022. The main objective of the Lab is to provide climate change-related information (including their impacts and mitigation) to relevant stakeholders in an interactive manner through a dedicated physical learning space. The Lab intends to reach out to students from both schools and colleges, government officials from different departments, people's representatives, vulnerable communities, NGOs, media and interested citizens. This will strengthen the learning process and the involvement of different stakeholders in climate action.

#### 14.1.3 Wetland Conservation and Develop-ment in Bihar

Bihar is located at the centre of the Gangetic Plain. The state is traversed through several rivers, many of them originating in Nepal. These rivers in the past have changed their courses several times, leaving natural depressions that are later fed by water from rainfall and river overflows. They often form oxbow lakes, riverine wetlands, cut-off meanders, manns and chaurs. Besides these natural wetlands, there are several man-made reservoirs / wetlands that are ecologically significant. As per the National Wetland Atlas (NWA) 2011, there are 4416 wetlands in Bihar, with an area of more than 2.25 hectares. In addition to that, about 17,582 smaller wetlands (with an area of less than 2.25 hectares) also exist in Bihar.

The State Wetland Authority was constituted on January 31, 2020. The Bihar State Wetland Authority is undertaking various activities for conservation and sustainable management of wetlands in the state, identifying wetlands of international importance (RAMSAR site) and cooperating with other local, national and international organizations for sustainable management of wetlands.

These actions are taken following the Wetlands (Conservation and Management) Rules, 2017. The Bihar State Wetland Authority has selected 133 wetlands for conservation and development in the first phase. Out of the 133 wetlands, brief documents and health cards have been prepared for 28 wetlands, as per the Wetland Conservation and Management Rules, 2017. A survey of 36 additional wetlands has been completed and their documentation is currently under progress.



### **District Profile of Bihar**

Bihar is divided into 9 divisions and has a total of 38 districts. Each district of Bihar is split into sub-divisions, which are again divided into blocks.

Division	Headquarters	Districts
Patna	Patna	Buxar, Bhojpur, Kaimur, Nalanda, Patna, Rohtas
Magadh	Gaya	Arwal, Aurangabad, Gaya, Jehanabad, Nawada
Tirhut	Muzaffarpur	E. Champaran, Muzaffarpur, Sitamarhi, Sheohar, Vaishali, W. Champaran
Saran	Chhapra	Gopalganj, Saran, Siwan
Bhagalpur	Bhagalpur	Bhagalpur, Banka
Munger	Munger	Begusarai, Jamui, Khagaria, Lakhisarai, Munger, Sheikhpura
Purnea	Purnea	Araria, Katihar, Kishanganj, Purnea
Darbhanga	Darbhanga	Darbhanga, Madhubani, Samastipur
Kosi	Saharsa	Madhepura, Saharsa, Supaul

#### 15.1 DISTRICTS IN PATNA DIVISION

#### **Buxar**

- Buxar was carved out of Bhojpur district on 11th March, 1991. During the ancient period, it was known as 'Siddhashram', 'Vedgarbhapuri', 'Karoshi', 'Tapovan', 'Chaitrath', 'Vyaghrasana' and later Buxar.
- The district of Buxar is surrounded by Uttar Pradesh in the West and North, Bhojpur district in the East, Rohtas district in the South and Kaimur district in the South-West.
- The district has the confluence of rivers Karmanasa and Ganges.
- The district of Buxar has many important industries like textile, cotton yarn, lantern industries, carpet industry, rice and oil mills.
- Important crops are paddy, wheat, maize and sugarcane.
  - Area 1703 sq. km
  - Headquarters -Buxar
  - Population 17,06,352
  - Density 1002 Persons /sq km
  - Literacy Rate 70.14%
  - Sex Ratio 922 females / 1000 males

- The famous Battle of Chausa (1539 AD) and Battle of Buxar (1764 AD) were fought in this district.
- Some famous tourist places are Chausa garh, Chausa Battlefield, Mir Qasim Fort, Naulakha temple, Vishwamitra muni ashram, Bihari ji temple, Katkauli Ka Maidan etc.

#### **Bhojpur**

- Bhojpur was a part of Shahabad district which was carved out in the year 1972 as a separate district.
- Bhojpur district is surrounded by Uttar Pradesh state and Saran district in the North, Patna district in the East, Arwal and Rohtas districts in the South and Buxar district in the West.
- The Ganga and Son are important rivers of this district.
- Bhojpur is famous for many industries like leather industry, textile industry, rice and oil mills, tobacco industry, jaggery making, etc.
- Some famous tourist places are Veer Kunwar Singh fort, Shahi Masjid, Aranya Devi temple, Chaturbhuj Narayan temple, Jain Parswanath mandir.
  - Area 2395 sq. km
  - Headquarters -Arrah
  - Population 27,28,407
  - Density 1139 Persons /sq km
  - Literacy Rate 70.47%
  - Sex Ratio 907 females / 1000 males

#### Kaimur (Bhabua)

- Kaimur district was carved out from Rohtas district in the year 1991.
- Kaimur district is surrounded by Uttar Pradesh state in the North and West, Buxar district in the North-East and Rohtas district in the East and South.
- Karmanasha, Durgawati and Son are the important rivers of this district.
- Kaimur has many important rice mills and oil mills.
- Important crops are paddy, maize, wheat and sugarcane.
- Some famous tourist places are Temple of Mata Mundeshwari (Bhagwanpur), Harsu Brahm Temple (Chainpur), Baidyanath temple, Mother Chherwari Dham, Peer Baba Mazar, Chandeshwari Dham, Kuleshwari Dham, Bakhtiar Khan's Rouza, Telhar Kund / Waterfall.
  - Area 3362 sq. km
  - Headquarters Bhabua
  - Population 16,26,384
  - Density 488 Persons /sq km
  - Literacy Rate 69.34%
  - Sex Ratio 920 females / 1000 males

#### Nalanda

- Nalanda district came into existence after it was carved out from erstwhile Patna district in the year 1972.
- Nalanda district is surrounded by Patna in the North, Sheikhpura and Lakhisarai district in the East, Nawada and Gaya in the South and Jehanabad and Patna district in the West.
- Phalgu, Mohana, Jirayan and Kumbhari are important rivers of this district.
- Important industries in Nalanda district are Handloom weaving, cigarette, tobacco, leather, armament.
- Important crops are paddy, potato and onion.
- Some famous tourist places are Pandu Pokhar, Pawapuri Jal mandir, Rajgir, Bargaon, Jagdishpur, Ghora Katora, Pawapuri, Nalanda University, Bhagnavshesh, Maniyar Math, Japani mandir.
  - Area 2367 sq. km
  - Headquarters Bihar Sharif
  - Population 2877,653
  - Density 1222 Persons /sq km
  - Literacy Rate 64.43%
  - Sex Ratio 922 females / 1000 males

#### **Patna**

- Patna was founded by Uddayin, king of the Magadh Empire in 490 BCE.
- Its ancient names were Pataligram, Kusumpur, Pataliputra and Azimabad. The present district of Patna was created in 1793 as a judicial district.
- The district of Patna is surrounded by Saran, Vaishali, and Samastipur districts in the North, Begusarai and Lakhisarai districts in the East, Nalanda, Jehanabad and Arwal districts in the South and Bhojpur district in the West. Ganga, Son and Punpun are important rivers of this district.
- Important industries of Patna district are sugar industry, fire works, biscuit manufacturing, flour mills, light bulb, shoes, welding works, wagon factory glass industry, cycle manufacturing etc. Important crops are paddy, potato, onion, and vegetables.
- Some famous tourist places are Gol Ghar, Sanjay Gandhi Botanical Garden, Gandhi Museum, Kumhrar, Mahavir temple, Patna Museum, Padri ki Haveli, Srikrishna Science Centre, Sher Shah Suri Masjid.
  - Area 3202 sq. km
  - Headquarters Patna
  - Population 58,38,465 (most populous district)
  - Density 1823 Persons /sq km
  - Literacy Rate 70.68%
  - Sex Ratio 897 females / 1000 males

#### **Rohtas**

- Rohtas district was carved out from erstwhile Shahabad district in 1972.
- Rohtas district is surrounded by Buxar and Bhojpur districts in the North, Arwal and Aurangabad districts in the East, Jharkhand state in the South and Kaimur and Uttar Pradesh in the West.
- Son and Kali are important rivers of this district.
- Important industries of Rohtas district are cement factory, vegetable oil mill, paper factory, sugar industry.
- Important crops are paddy and wheat. Some famous tourist places are Sher Shah Suri tomb, Rohtasgarh fort, Indrapuri Dam (Dehri), Hills of Kaimur, Dhuwa Kund, Maa Tara Chandi temple, Pilot Baba temple, Gupta Dham, Manjhar kund.
  - Area 3851 sq. km
  - Headquarters Sasaram
  - Population 29,59,918
  - Density 763 Persons /sq km
  - Literacy Rate 73.37%
  - Sex Ratio 918 females / 1000 males

#### 15.2 DISTRICTS IN MAGADH DIVISION

#### **Arwal**

- Arwal district was carved out from the erstwhile Jehanabad district in August, 2001.
- Arwal district is surrounded by Bhojpur and Patna districts in the North, Jehanabad district in the East, Gaya and Aurangabad districts in the South and Rohtas and Bhojpur in the West.
- Son is the important river of Arwal district.
- Important industries in Arwal district are agro based, wooden based furniture, metal based, repairing and servicing industries.
- Important crops are paddy wheat, maize, and gram.
- Some famous tourist places are Fakharpur temple, Gautam Budh temple, Madhusrava Ashram, Makhdum Shah ki Mazar.
  - Area 638 sq. km
  - Headquarters Arwal
  - Population 700843
  - Density 1098 Persons /sq km
  - Literacy Rate 67.43%
  - Sex Ratio 928 females / 1000 males

#### **Aurangabad**

- Aurangabad district came into existence on 26th January, 1973, after carving out from erstwhile Gaya district.
- Aurangabad district is surrounded by Arwal district in the North, Gaya district in the East, Jharkhand state in the South and Rohtas district in the West.
- Sone, punpun, auranga, batane, morhar and adi are important rivers of this district.
- Important industries in Aurangabad district are Carpet and Blanket weaving, engineering units.
- Important crops are paddy, wheat, masoor, and gram.
- Some famous tourist places are Deo kund, Deo temple, Umega temple, Sun temple, Amjhar Sharif, Jhunjhunwa hills, Shamsher Khan tomb.
  - Area 3305 sq. km
  - Headquarters Aurangabad
  - Population 25,40,073
  - Density 768 Persons /sq km
  - Literacy Rate 70.32%
  - Sex Ratio 926 females / 1000 males

#### Gava

• Gaya came into existence as an independent district in the year 1865.

- Gaya district is surrounded by Arwal, Jehanabad and Nalanda districts in the North, Nawada district in the East, Jharkhand in the South and Aurangabad district in the West.
- Phalgu is the important river of this district.
- Important industries in Gaya district are sugar, cotton textile, tobacco, leather, lac industries and oil mills.
- Important crops are paddy, wheat, sugarcane and corn.
- Some famous tourist places are Bodhgaya, Bodhi tree, Archaeological Museum, Thai Monastery, Sujata garh /village, Baba Koteshwarnath temple, Mahabodhi temple, Pretshila hill, Ramshila hill, Tekari fort.
  - Area 4976 sq. km
  - Headquarters Gaya
  - Population 43,91,418
  - Density 883 Persons /sq km
  - Literacy Rate 63.67%
  - Sex Ratio 937 females / 1000 males

#### **Jehanabad**

- Jehanabad came into existence on 1st August, 1986, after carving out from Gaya district.
- Jehanabad district is surrounded by Patna district in the North, Nalanda district in the East, Gaya district in the South, and Arwal district in the West.
- Phalgu, Dardha and Yammunarya are the important rivers of the district.
- Important industries of Jehanabad district are agro based, wooden based, mineral based, metal based, electrical machinery, chemical based industries and engineering units.
- Important crops are paddy, wheat and masoor.
- Some famous Tourist Places are Hazrat Bibi Kamal Ka Makbara, Barabar Caves, Baba Siddhanath temple, Sapt Guha, Nagarjuna Museum, Mira Bigha, Lomesh Rishi cave, Gopi cave, Vishva Jhopadi, Ghejan, Nagarjuna cave, Sudama cave.
  - Area 931 sq. km
  - Headquarters Jehanabad
  - Population 11,25,313
  - Density 1209 Persons /sq km
  - Literacy Rate 66.80%
  - Sex Ratio 922 females / 1000 males

#### Nawada

- Nawada district came into existence in the year 1976 after carving out from erstwhile Gaya district.
- Nawada district is surrounded by Nalanda and Sheikhpura in the North, Jamui district is in the East, Jharkhand state in the South and Gaya district in the West.

- Sakri, Khuri, Panchana, Bhusri and Tilaiya are important rivers. Important industries of Nawada district are bidi, sugar, handloom (silk).
- Important crops are paddy, wheat, oilseeds, pulses.
- Some famous tourist places are Kakolat Waterfall, Surya Mandir Handiya, Sokhodewra Ashram (Kawakol) Shri Gunawan Ji Tirth, Budhauli Monastery, Indrasal cave, Apasgarh, Parvati hill.
  - Area 2494 sq. km
  - Headquarters Nawada
  - Population 22,19,146
  - Density 890 Persons /sq km
  - Literacy Rate 59.76%
  - Sex Ratio 939 females / 1000 males

#### 15.3 DISTRICT IN TIRHUT DIVISION

#### **East Champaran**

- Champaran district came into existence in the year 1866. On 1st December, 1901, Champaran district was split into two districts, namely, East Champaran and West Champaran.
- East Champaran district is surrounded by Nepal in the North, Sitamarhi, and Sheohar districts in the East, Muzaffarpur, Saran and Gopalganj districts in the South and West Champaran district in the West.
- Gandak, Burhi Gandak, Baghmati and Lalbakia are important rivers of this district.
- Important industries of East Champaran are sugar mills, button industry, metal based, chemical based, agro based industries.
- Important crops are paddy, sugarcane, jute, lentils.
- Some famous tourist places are Motihari Ashram, Ashokan Pillar (Areraj), Someshwar Shiv Mandir, Gandhi Museum (Motihari), Kesaria Budh Stupa (Kesaria), Moti Jheel, NREGA park.
  - Area 3968 sq. km
  - Headquarters Motihari
  - Population 55,99,371
  - Density 1285 Persons /sq km
  - Literacy Rate 55.79%
  - Sex Ratio 902 females / 1000 males

#### Muzaffarpur

- Muzaffarpur district was created in the year 1875 by splitting up the earlier district of Tirhut for the reason of administrative convenience.
- It is surrounded by East Champaran, and Sitamarhi districts in the North, Darbhanga and Samastipur districts in the East, Vaishali district in the South and Saran district in the West.

- Gandak, Burhi Gandak, Bagmati and Lakhandayee are important rivers in this district.
- Muzaffarpur district has some important industries like sugar mills, thermal power station, wagon factory, pharmaceuticals, gas cylinder factory.
- Muzaffarpur is famously known as the 'Land of Lichi'.
- Important crops of the district are paddy, maize, wheat, lentils, mango, lichi.
- Some famous tourist places are Kolhua, Garibsthan Mandir, Ramna Kali temple, Kamal Shah Mazar.
  - Area 3172 sq. km
  - Headquarters Muzaffarpur
  - Population 48,01,062
  - Density 1514 Persons /sq km
  - Literacy Rate 63.43%
  - Sex Ratio 900 females / 1000 males

#### Sitamarhi

- Sitamarhi district came into existence on 11th December 1972 after carving out from erstwhile Muzaffarpur district.
- Sitamarhi district is surrounded by Nepal in the North, Madhubani district in the East, Muzaffarpur and Darbhanga districts in the South and Sheohar and East Champaran districts in the West.
- Bagmati is an important river of this district.
- Important industries of Sitamarhi are sugar factory (Riga), rice and oil mills, distillery plant.
- Important crops are paddy, wheat, maize, lentils, oilseeds, sugarcane, tobacco.
- Some famous tourist places are Haleshwar Sthan, Punaura Dham, Baba Nageshwar Nath Mandir, Gahraul Sharif, Sitakund, Janki Mandir, Bagahi Dham, Sun temple.
  - Area 2185 sq. km
  - Headquarters Sitamarhi
  - Population 34,23,574
  - Density 1492 Persons /sq km
  - Literacy Rate 52.05%
  - Sex Ratio 899 females / 1000 males

#### Sheohar

- Sheohar came into existence on 6th October, 1994 by the Government of Bihar after carving out from Sitamarhi district. The district has only one subdivision viz. Sheohar and five C.D. Blocks viz., Sheohar, Piprahi, Purnahiya, Dumri Katsari and Tariyani Chowk. Sheohar is the only town in the district. There are altogether 53 panchayats comprising 203 villages in the district.
- Sheohar district is surrounded by three districts i.e. from north and east Sitamarhi, from west East Champaran and from south Muzaffarpur.

- The river Bagmati is the main river flowing through the district of Sheohar.
- Paddy ,Wheat , Maize and Lentils are the main agricultural crops raised by farmers in the district.
   Agro based industry has good opportunities in the district.
- Some famous Tourist Places Dekuli Shiv Mandir Baba Bhawaneshwar Nath Temple is the oldest center of the people's faith in the district. This temple has religious and historical significance. It is said that this temple was constructed during Dwapara period. This temple was constructed by carving the same stone.
  - Area 4976 sq. km
  - Headquarters Sheohar
  - Population 656,246
  - Density 1880 Persons /sq km
  - Literacy Rate 53.78 %
  - Sex Ratio 893 females / 1000 males
  - Area 349 sq. km

#### Vaishali

- Vaishali district came into existence on 12th October, 1972, after carving out from the erstwhile Muzaffarpur district.
- Vaishali district is surrounded by Muzaffarpur district in the North, Samastipur district in the East, Patna district in the South and Saran district in the West.
- Ganga and Gandak are important rivers in the state.
- Important industries of Vaishali district are sugar mills, gul and zarda manufacturing centers.
- Important crops are banana, wheat, paddy, maize and lentils.
- Some famous tourist places are Ashoka Pillar, Capital
  of Vaishali dynasty (near Lalganj), Sacred place for
  Buddhist, Buddha Stupa at Ramchaura, Nepal temple,
  Shanti Stupa.
  - Area 2036 sq. km
  - Headquarters Hajipur
  - Population 34,95,021
  - Density 1717 Persons /sq km
  - Literacy Rate 66.60%
  - Sex Ratio 895 females / 1000 males

#### **West Champaran**

- On 1st December, 1901, Champaran district was split into two districts, namely, West Champaran and East Champaran.
- West Champaran district is surrounded by Nepal in the North, East Champaran district in the East, Gopalganj district in the South, and Uttar Pradesh state in the West.

- Gandak, Burhi Gandak and Bagmati are important rivers of this district.
- Important industries in West Champaran district are paper industry, leather and sugar industries.
- Important crops are paddy, sugarcane, wheat, maize and barley.
- Some famous tourist places are Bhainsa Lotan, Gandhi Ashram (Bilharzia), Valmikinagar, Ramnagar Panch Mandir, Hazarimal Dharamshala, Ashoka Pillar (Lohiyagarh), Birthplace of British novelist, George Orwell (Motihari).
  - Area 5228 kq. km (Largest Area)
  - Headquarters Betia
  - Population 39,35,042
  - Density 753 Persons /sq km
  - Literacy Rate 55.70%
  - Sex Ratio 909 females / 1000 males

#### 15.4 DISTRICTS IN SARAN DIVISION

#### Gopalganj

- The district of Gopalganj came into existence in the year 1973 after coming out from the old Saran district of Bihar.
- Gopalganj district is surrounded by West Champaran in the North, East Champaran and Saran districts in the East, Siwan district in South and Uttar Pradesh state in the West.
- Gandak is the important river in the district.
- Important industries in Gopalganj are sugar factories, and vegetable oil mills.
- Important crops are paddy, wheat and maize.
- Some famous tourist places are Shri Pitambara Peeth (Maa Bagalamukhi), Gopalmandir, Lakri Dargah, Thawe temple.
  - Area 2033 sq. km
  - Headquarters Gopalgani
  - Population 25,62,012
  - Density Ratio 1280 Persons /sq km
  - Literacy Rate 65.47%
  - Sex Ratio 1021 females / 1000 males

#### Saran

- Saran district was separated from Champaran district in 1866 and became an independent district.
- Saran district is surrounded by Gopalganj and East Champaran in the North, Vaishali and Muzaffarpur districts in the East, Patna and Bhojpur districts in the South and Siwan and Uttar Pradesh in the West.



- Ganga, Ghaghra and Gandak are important rivers in Saran.
- Important industries of Saran district are sugar factories, rice mills, chocolate factory brass craft.
- Important crops are paddy, wheat, and sugarcane.
- Some famous tourist places are Sonpur fair, Dhorh Ashram, Harihar Pilgrim site, Amba asthan temple (Aami), Gautam Rishi Sthan.
  - Area 2641 sq. km
  - Headquarters Chapra
  - Population 39,51,862
  - Density 1496 Persons /sq km
  - Literacy Rate 65.96%
  - Sex Ratio 954 females / 1000 males

#### Siwan

- Siwan came into existence in 1972.
- Siwan district is surrounded by Gopalganj in the North, Saran in the East, and Uttar Pradesh in the South and West.
- Daha and Jharhi are important rivers of Siwan district.
- Important industries in Siwan district are sugar mills, brass craft and handicraft. Important crops are paddy, wheat and sugarcane.
- Some famous tourist places are Ziradei (Birthplace of India's first President Dr Rajendra Prasad), Sohagra Dham, Mahendra Nath temple.
  - Area 2219 sq. km
  - Headquarters Siwan
  - Population 33,30,464
  - Density 1501 Persons /sq km
  - Literacy Rate 69.45%
  - Sex Ratio 968 females / 1000 males

#### 15.5 DISTRICTS IN BHAGALPUR DIVISION

#### Bhagalpur

- Bhagalpur district is surrounded by Madhepura, Purnia and Katihar districts in the North, West Bengal in the East, Banka district in the South and Munger and Khagaria districts in the West.
- Ganga and Chandan are important rivers in the district.
- Important industries of Bhagalpur district are tussar silk, thermal power plant (at Kahalgaon), sugar industry, liquor industry, cotton textile industry.
- Important crops are paddy, maize, and lentils.
- Some famous tourist places are Mandar hill, Ruins of Vikramshila University, Azbeginath temple in Sultanganj, Ancient Champanagari, Jai Prakash

Botanical Garden, Stone temple (Kahalgaon), Central Jail, Patalipuri Tilka Manjhi, Maharshi Mehi Ashram, Kuppaghat.

- Area 2570 sq. km
- Headquarters Bhagalpur
- Population 30,37,766
- Density 1182 Persons /sq km
- Literacy Rate 63.14%
- Sex Ratio 880 females / 1000 males

#### Banka

- Banka district came into existence on 21st February, 1991, after carving out from erstwhile Bhagalpur district.
- Banka district is surrounded by Bhagalpur in the North, West Bengal in the East, Jharkhand in the South and Jamui and Munger district in the South.
- Chandan, Belharni, Barua, Chir and Orhami are important rivers of Banka district.
- Important industries of Banka district are sugar mills, oil mills, textile industry.
- Important crops are wheat, paddy and sugarcane. Some famous tourist places are Mandar Parvat, Chandan Dam, Kozidrak, Teeth Gour Math, Lakshadeepa temple.
  - Area 3019.34 sq. km
  - Headquarters Banka
  - Population 20,34,763
  - Density 674 Persons /sq km
  - Literacy Rate 58.17%
  - Sex Ratio 907 females / 1000 males

#### 15.6 DISTRICTS IN MUNGER DIVISION

#### Begusarai

- Begusarai district came into existence in the year
   1972 after carving out from erstwhile Munger district.
- Begusarai district is surrounded by Samastipur in the North, Khagaria and Munger districts in the East, Samastipur and Patna in the West and Lakhisarai and Munger districts in the South.
- Ganga, Kamla, Bagmati and Burhi Gandak are important rivers in the district.
- Important industries in Begusarai district are fertilizer factories, thermal power stations, petro chemicals, oil refineries.
- Important crops are wheat, maize, and chili pepper.
- Some famous tourist places are Jaimangla Garh, Naulakha temple, Kabar Jheel, Simaria Ghat.

- Area 1918 sq. km
- Headquarters Begusarai
- Population 29,70,541
- Density 1549 Persons /sq km
- Literacy Rate 63.87%
- Sex Ratio 895 females / 1000 males

#### Jamui

- Jamui district was carved out from erstwhile Munger district on 21st February, 1991.
- Jamui district is surrounded by Munger and Lakhisarai districts in the North, Banka in the East, Jharkhand in the South and Nawada and Sheikhpura districts in the West.
- Ulai, Ajay, Kiul, Badna, Mohane, Horohar are its important rivers.
- Important industries in Jamui district are metal based.
- Important crops are paddy, wheat, lentils, gram and barley.
- Some famous tourist places are Giddheswar temple, Jain Mandir Lachhuar, Kali Mandir Malaypur, Simultala hill station, Bhim Bandh, Gidhaur.
  - Area 3,123 sq. km
  - Headquarters Jamui
  - Population 17,60,405
  - Density 568 Persons /sq km
  - Literacy Rate 59.79%
  - Sex Ratio 922 females / 1000 males

#### Khagaria

- Khagaria came into existence as a separate district on 10th May, 1981, after carving out from erstwhile district Munger.
- Khagaria district is surrounded by Saharsa and Darbhanga districts in the North, Madhepura and Bhagalpur in the East, Munger and Bhagalpur in the South and Begusarai and Samastipur districts in the West.
- Ganga, Bagmati and Kosi are the main rivers flowing in this district.
- Important Industries of Khagaria district are jute industry, garments and embroidery, metal based industries.
- Important crops are paddy, wheat, maize, jute.
- Some famous tourist places are Badla Ghat, Katyayani Asthan, Azgaivinath Mahadev.

- Area 1486 sq. km
- Headquarters Khagaria
- Population 16,66,886
- Density 1122 Persons /sq km
- Literacy Rate 57.92%
- Sex Ratio 886 females / 1000 males

#### Lakhisarai

- The district was carved out from Munger district on 3rd July, 1994.
- Lakhisarai district is surrounded by Begusarai and Patna districts in the North, Munger district in the East, Jamui district in the South, and Patna, Nalanda and Sheikhpura districts in the West.
- Ganga, Mohane, Harohar, Kiul are its important rivers of this district.
- Important industries of Lakhisarai are fertilizers, pesticide factories, mineral based industries, sindur factories, textile industry and tobacco industry.
- Important crops are paddy, wheat, lentils, maize, gram.
- Some famous tourist places are Ashok Dham temple, Rishi hill.
  - Area 1228 sq. km
  - Headquarters Lakhisarai
  - Population 10,00,912
  - Density 815 Persons /sq km
  - Literacy Rate 62.42%
  - Sex Ratio 902 females / 1000 males

#### Munaer

- Munger district came into existence in 1832 AD.
- Munger district is surrounded by Begusarai and Khagaria districts in North, Bhagalpur in the East, Banka and Jamui districts in the South and Lakhisarai and Begusarai districts in the West.
- Ganga, Mohane, Harohar and Kiul are important rivers in this district.
- Important industries in Munger district are gun factory, rail engine, tobacco, liquor, cigarette, slate, stone crushing industries and handloom industry.
- Important crops are paddy, wheat, and lentils.
- Some famous tourist places are Goyanka Shivalaya (Mirchi Talab), Mir Kasim Tunnel, Manpatthar (Sita Charan), Kastaharni Ghat, Chandi Sthan, Pir Shah Nafah Shrine, Sita Kund, Rameshwar Kund, Bhimbandh Wildlife Sanctuary, International yoga university.

- Area 1419 sq. km
- Headquarters Munger
- Population 13,67,765
- Density 964 Persons /sq km
- Literacy Rate 70.46%
- Sex Ratio 876 females / 1000 males

#### Sheikhpura

- Sheikhpura district was carved out from the erstwhile district of Munger on 31st July, 1994.
- Sheikhpura district is surrounded by Nalanda in the North and West, Lakhisarai in the East and Jamui and Nawada districts in the South.
- Ganga, Mohane, Harohar, Tati, Kachchi Rijown, Somi and Kiul are the important rivers of this district.
- Important industries of Sheikhpura are cigarette, gun, liquor, cotton textile industries. Important crops are paddy, wheat, gram, lentils, potato.
- Some famous tourist places are Arghanti Pakhar, Girihinda Pahar, Samas, Sheikhpura hill, Shri Vishnu Dham (Barbigha).
  - Area 689 sq. km
  - Headquarters Sheikhpura
  - Population 6,36,342 (least populous district)
  - Density 924 Persons /sq km
  - Literacy Rate 53.40%
  - Sex Ratio 930 females / 1000 males

#### 15.7 DISTRICTS IN PURNEA DIVISION

#### **Araria**

- Araria district was carved out from erstwhile Purnea district in January, 1990.
- Araria district is surrounded by Nepal in the North, Kishanganj district in East, Purnea district in the South and Madhepura and Supaul districts in the West.
- Koshi, Suwara, Kali and Koli are important rivers.
- Important industries are jute mills.
- Important crops are paddy, maize, jute.
- Some famous tourist places are Raniganj, Vriksh Vatika, Kusiargaon Biodiversity Park.
  - Area 2830 sq. km
  - Headquarters Araria
  - Population 28,11,569
  - Density 993 Persons /sq km
  - Literacy Rate 53.53%
  - Sex Ratio 921 females / 1000 males

#### **Katihar**

- Katihar district was carved out from erstwhile Purnea district in the year 1973.
- Katihar district is surrounded by Purnea district in the North and West, West Bengal in the East and Jharkhand and Bhagalpur district in the South.
- Mahananda, Ganga and Kamla are important rivers of this district. Important industries of Katihar are jute & paper mills. Important crops are paddy, jute and tea.
- Some famous tourist places are Gogabil Lake, Gorakhnath temple, Guru Teg Bahadur Gurdwara, Peer Mazar, Gauri Shankar temple, Satsang mandir, Gandhi Ghar Kursela, Nawabganj fort.
  - Area 3057 sq. km
  - Headquarters Katihar
  - Population 30,71,029
  - Density 1005 Persons /sq km
  - Literacy Rate 52.24%
  - Sex Ratio 919 females / 1000 males

#### Kishanganj

- Kishanganj district was carved out from erstwhile Purnea district on 14th January, 1990.
- Kishangani district is surrounded by Nepal in the North, West Bengal in East, Purnea in the South and Araria in the West.
- Mahananda is the main river of this district. Important industries of Kishanganj district are jute mills.
- Important crops are paddy, maize, jute. Some famous tourist places are Pamisaal, Odraghat.
  - Area 1884 sq. km
  - Headquarters Kishangani
  - Population 16,90,400
  - Density 897 Persons /sq km
  - Literacy Rate 55.46%
  - Sex Ratio 950 females / 1000 males

#### Purnea

- The district of Purnea was formed in the year 1770 by the East India company.
- Purnea district is surrounded by Araria and Kishangani districts in the North, West Bengal in the East, Katihar and Bhagalpur districts in the South and Madhepura in the West.
- Kosi, Mahanandra, Parena, Sawara, Kali, Koli are important rivers of this district.
- Important industries are jute mills. Important crops are jute, paddy, wheat, maize, and banana.

- Some famous tourist places are Rani Sati mandir, Puran Devi mandir, Pir Baba mandir, Narsingh Avtar Kothi, Qila of Jalalgarh, Kajha Kothi, Kali Mandir, Dhimeshwar temple in Banmankhi (Mahadev).
  - Area 3229 sq. km
  - Headquarters Purnea
  - Population 32,64,619
  - Density 1011 Persons /sq km
  - Literacy Rate 51.08%
  - Sex ratio 921 females / 1000 males

#### 15.8 DISTRICTS IN DARBHANGA DIVISION

#### **Darbhanga**

- Darbhanga district came into existence in the year 1875 AD under British rule.
- Darbhanga district is surrounded by Madhubani district in the North, Saharsa in the East, Khagaria and Samastipur in the South, and Muzaffarpur in the West.
- Kamla, Balan and Bagmati are important rivers in this district.
- Important industries of Darbhanga district are paper mill, sugar factories, handloom, jute and cigarette industries.
- Important crops are paddy, foxnut (Makhana).
- Famous tourist places are Ahilya Asthan, Brahmpur, Kusheshwar-Asthan Bird Sanctuary area, Sati Asthan, Darbhanga Maharaj fort, Doordarshan telecasting station, Ahiyari Akashwani.
  - Area 2279 sq. km
  - Headquarters Darbhanga
  - Population 39,37,385
  - Density 1728 Persons /sq km
  - Literacy Rate 56.56%
  - Sex Ratio 911 females / 1000 males

#### Madhubani

- Madhubani district was carved out from the erstwhile Darbhanga district in the year 1972.
- Madhubani district is surrounded by Nepal in the North, Supaul in the East, Saharsa and Darbhanga in the South and Sitamarhi is in the West.
- Kamla-Balan is an important river of this district.
- Important industries of Madhubani district are sugar industry, pisciculture, handloom, Madhubani painting.
- Important crops are paddy.

- Some famous tourist places are Ugana Mahadev, Kapileshwar Sthan, Uchaitha (Bhagwati temple), Bhawanipur.
  - Area 3501 sq. km
  - Headquarters Madhubani
  - Population 44,87,397
  - Density 1282 Persons /sq km
  - Literacy Rate 58.62%
  - Sex Ratio 926 females / 1000 males

#### Samastipur

- Samastipur district was carved out from the erstwhile district of Darbhanga in 1972.
- Samastipur district is surrounded by Darbhanga and Muzaffarpur in the North, Khagaria and Darbhanga in the East. Begusarai and Patna in the South and Vaishali and Muzaffarpur in the West.
- Burhi Gandak, Kamla, Baya, Bagmati and Balan are important rivers in this district.
- Important industries of Samastipur district are sugar factories, jute mills, handloom industry, etc.
- Important crops are paddy, maize, chili and tobacco.
- Some famous tourist places are Kabir Monastery, Vidyapatidham, Baba's Mazar, Udyanacharya Dih, Panda village, Rajendra Central Agriculture University, Khudeshwarsthan, Narhan Estate, Kariyan village, etc.
  - Area 2904 sq. km
  - Headquarters Samastipur
  - Population 42,61,566
  - Density 1467 Persons /sq km
  - Literacy Rate 61.86%
  - Sex Ratio 911 females / 1000 males

#### 15.9 DISTRICTS IN KOSI DIVISION

#### Madhepura

- Madhepura district came into existence on 9th May, 1981, after carving out from Saharsa district.
- Madhepura district is surrounded by Supaul and Araria districts in the North, Purnia district in the East, Bhagalpur district in the South and Khagaria and Saharsa districts in the West.
- Kosi is the main river of this district.
- Important industries in Madhepura district are Jute mills, Rice mills and Electric Locomotive factories.
- Important crops are paddy and jute.
- Famous tourist places are Singheshwar temple (Lord Shiva), Dakini Sthan, Mayanagar temple



- Area 1788 sq. km
- Headquarters Madhepura
- Population 20,01,762
- Density 1120 Persons /sq km
- Literacy Rate 52.25%
- Sex Ratio 911 females / 1000 males

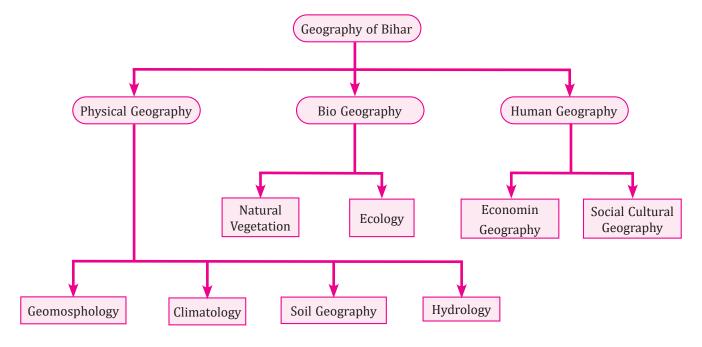
#### Saharsa

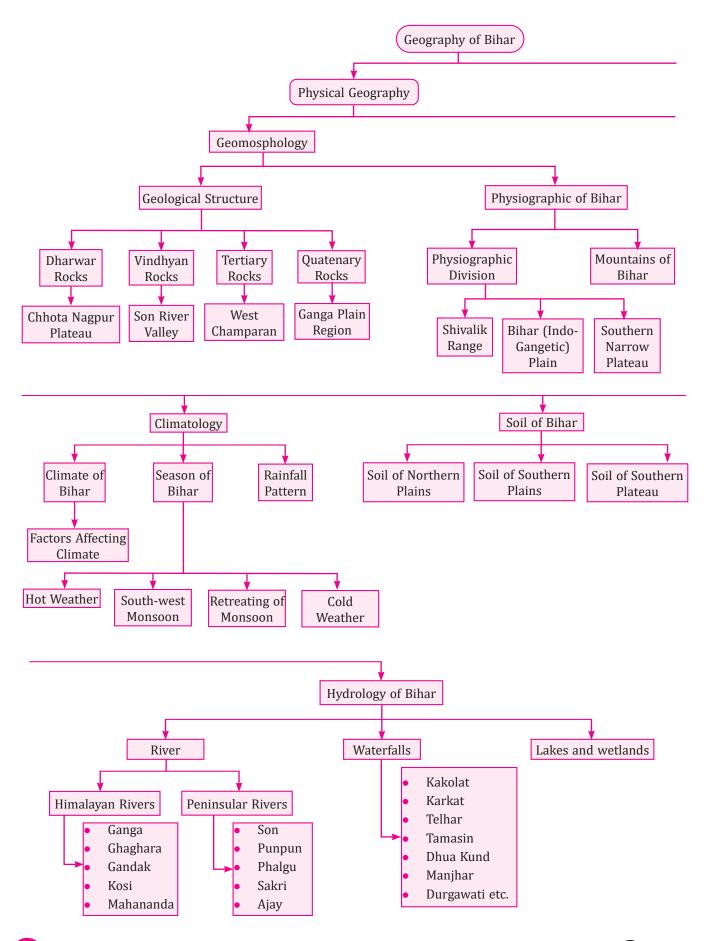
- Saharsa came into existence as a district on 1st April, 1954.
- Saharsa district is surrounded by Madhubani and Supaul districts in the North, Madhepura district in the East, Khagaria district in the South, and Darbhanga district in the West.
- Koshi and Kamala are the important rivers in this district.
- Important industries of Saharsa district are jute factories, cigarette, soap manufacturing industries, etc.
- Important crops are paddy, wheat, maize, jute, etc.
- Some famous tourist places are Mandan Bharti
   Dham (Mahishi), Shri Ugratarasthan (Mahishi),
   Kandaha Surya Mandir, Sant Karu Khirhari temple,
   Chandikasthan (Biratpur), Sorbazar, Sone Rain forest
   (Harsiddhi), Banagaon.

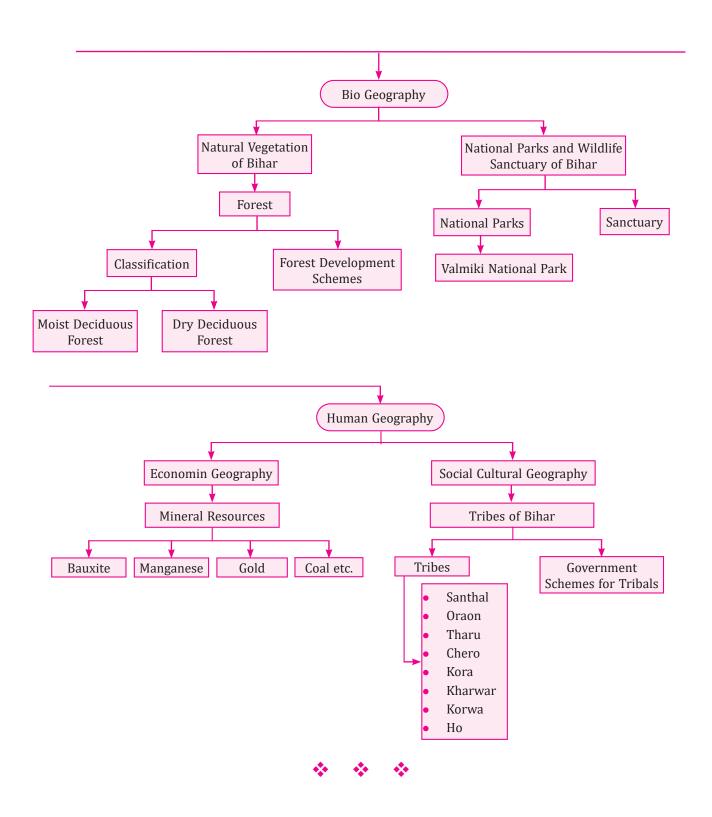
- Area 1687 sq. km
- Headquarters Saharsa
- Population 19,00,661
- Density 1127 Persons /sq km
- Literacy Rate 53.20%
- Sex Ratio 906 females / 1000 males

#### Supaul

- Supaul district came into existence on 14th March, 1991, after carving out from Saharsa district.
- Supaul district is surrounded by Nepal in the North, Araria district in the East, Madhepura and Saharsa districts in the South and Madhubani district in the West.
- Kosi is the important river of this district.
- Important industries of Supaul district are rice mills, agro based industries, mineral based industries, jute industry.
- Important crops are wheat, maize, paddy, banana.
- Some famous tourist places are Kosi Barrage, Vishnupad temple, Tileshwar temple, Tintolia (Kali temple), Kapileshwar temple, Hanuman mandir.
  - Area 2410 sq. km
  - Headquarters Supaul
  - Population 22,29,076
  - Density 919 Persons /sq km
  - Literacy Rate 59.65%
  - Sex Ratio 929 females / 1000 males









# Polity and Governance of Bihar

# **Administrative Set-up of Bihar**

- The Chief Minister and its Cabinet is the central governing authority of the state.
- The State Legislature occupies and central position in the political system of the state.
- The head of bureaucracy of state is the Chief Secretary.
- The three organs of the state administration are: Bihar Legislature, Executive and Judiciary.

#### **16.1 BIHAR LEGISLATURE**

- The State of Bihar has a bicameral system of government i.e. it has two houses, Bihar Legislative Council (Vidhan Parishad) and Bihar Legislative Assembly (Vidhan Sabha).
- Article 152-237 of the Indian constitution deals with administration of the state.
- State legislature introduces bills, which becomes law only when they get the approval of either the Governor of the state or the President of India.
- The Constitution of India in Schedule 7 provides 61 items in the State List.
- State legislature also passes the annual budget and financial bill.
- Article 168 to 212 of the Constitution of India lays down provisions for legislatures, their formation, members, election, business, dissolution and powers, etc.

#### 16.1.1 Legislative Council

- Article 169 of the Constitution provides for the establishment of a Legislative Council. It is also known as Vidhan Parishad.
- Legislative council is indirectly elected.
- The members are elected by means of single transferable vote through proportional representation.
- Out of total members, five-sixth are elected and onesixth members are nominated by the Governor.
- One-third of its members retire every second year like Rajyasabha at centre.
- It is upper house and permanent as it is not subject to dissolution like the Rajyasabha at centre.
- The presiding officers of Vidhan Parishad are known as Chairman and Deputy Chairman.
- Bihar Legislative Council (Bihar Vidhan Parishad) was formed in 1911 when a new province of Bihar was

- created by separating it from Bengal on 25th August, 1911
- It has 75 members (63 elected and 12 nominated).

#### 1. Composition of Bihar Legislative Council

- The members of the Legislative Council are selected by the following procedures:
  - One-third of its members are elected by electorates of members consisting of local bodies.
  - One-third of its members are elected by the members of the State Legislature Assembly.
  - One-twelfth of its members are elected amongst the registered graduates of 3 years standing and residing in the state.
  - One-twelfth members of the Council are elected by the teachers of secondary school standing for 3 years.
  - One-sixth members (remaining members) are appointed by the governors from persons having special achievement in literature, art, social work, science, etc.

#### 2. Qualification of Members of Bihar Legislative Council

- The qualifications of Legislative council members as per Article 173 of the Indian constitution are as under:
  - should not less than 30 years of age
  - should be a citizen of India.
- must not hold any other office of profit
- should not be a member of the Legislature of Union or of any other state.
- should not be a proclaimed criminal.

#### **16.1.2 Legislative Assembly**

- The Legislative Assembly is directly elected on the basis of adult suffrage elected i.e. general elections.
- The duration of the Legislative Assembly is 5 years.
- However, it can be dissolved sooner than 5 years by the Governor.
- The Legislative Assembly like loksabha at centre is not a permanent house and is also known as Lower House in those states that have bicameral legislatures.
- There are total of 243 seats in Bihar Vidhan Sabha at present.

- The Chairman is also called the Speaker and Deputy Chairman is known as Deputy Speaker.
- At present the Bihar Legislative Assembly is located at the state capital, Patna.
- It has three sessions i.e. Budget, Monsoon and Winter session.

# 1. Functions and Powers of Bihar Legislative Assembly

The functions and the powers of Legislative Assembly are as follows:

- To make laws related to the working of the executives.
- To prepare an interim budget for the state.
- Money bills can be introduced in the Legislative Assembly only.
- Laws related to State List and Concurrent List are framed by the Legislative Assembly.

# 2. Qualification of Members of Bihar Legislative Assembly

According to Article 173, of the Indian constitution qualification for membership of State Legislative Assembly are

- Should be a citizen of India.
- Should not be less than 25 years of age.
- Should possess other qualifications prescribed in that behalf by or under any law made by Parliament.

#### 3. Speaker of Legislative Assembly

- Article 178 of the Indian Constitution mentions state assembly to have a Speaker and a deputy speaker.
- Speaker is appointed for each Legislative Assembly by the elected members of the Assembly.
- The role of the Speaker is to chair the and in his / her absence,the Deputy Speaker oversees the proceedings of the house.
- The Speaker can be removed from their position by passing a no confidence motion.
- Ram Dayalu Singh was the first Speaker or Chairman of Bihar Legislative Assembly.

#### **Protem Speaker**

 A Protem Speaker is a presiding officer in the State Legislative Assembly who carries out the functions of the speaker till the time, a Speaker or Deputy Speaker are not elected.





## **Bihar Executive**

- Article 153 to 167 of Indian Constitution mentions the Governor, Chief Minister and Council of Ministers as part of the Executive in state.
- The head of State of Bihar is the Governor, appointed by the President of India on the advice of the Central Government.
- The Chief Minister is the head of government and is vested with most of the executive powers.

#### 17.1 GOVERNOR

- The Governor is a nominal head and representative of the President of India in the State.
- Article 153 to 161 of the Constitution lays down the provisions related to appointment, tenure, election and powers of Governor of a state.
- He works as an agent of Centre in the State.
- Article 158 of the Indian constitution mentions that if a member of a Legislature is appointed as Governor, he ceases to be a member immediately upon such an appointment.
- The first Governor of Bihar after independence of India was Jairamdas Daulatram. Sir James David Sifton was the first governor of Bihar before Independence.

#### 17.1.1 Qualifications of Governor

- To be qualified as a Governor, a person:
  - Should be a citizen of India.
  - Should be over 35 years of age.
  - Must not hold another office of profit.
  - Should not be a member of the Legislature of Union or of any state.

#### 17.1.2 Tenure and Removal of Governor

- The normal term of a Governor's office is five years, however he may be terminated earlier by:
  - Dismissed by the President under Article 156(1)
  - Resignation under Article 156(2).

#### 17.1.3 Powers of the Governor

 The Governor appoints Chief Minister and on his advice the State Council of Ministers, Advocate General of the State, the Chairman and members of

- the State Public Service Commission, District Court Judges, etc.
- Without his prior recommendation, the Money Bill can not be introduced in the Assembly.
- A bill passed by the state legislature can only become a law if it is approved by the Governor.
- article 356 of the Indian Constitution empowers the governor to invite the President to make a proclamation if he thinks that the present state government is not able to carry out administration as per provisions of the Constitution.

# 17.1.4 Recent Initiatives of Governor of Bihar

The Governor of Bihar, has taken a number of important initiatives in recent months. These include:

- Launching the "Bihar Skill Development Mission" in January 2023. This initiative aims to train 10 million people in various skills over the next five years.
- Appointing a Special Task Force to investigate the irregularities in the Public Distribution System (PDS) in Bihar. The Task Force has been asked to submit its report within three months.
- Directing the state government to take steps to improve the law and order situation in Bihar. The Governor has expressed concern over the rising crime rate in the state.
- Calling for a review of the state's education system.
   The Governor has said that the education system in Bihar needs to be made more effective.
- Launching the "Bihar Green Drive" in March 2023.
   This initiative aims to plant 200 million saplings in Bihar over the next five years.
- These are just a few of the important initiatives that the Governor of Bihar has taken in recent months. These initiatives are aimed at improving the lives of the people of Bihar and making the state a better place to live.
- In addition to these initiatives, the Governor has also been active in other areas, such as:
- Promoting social harmony and communal amity. The Governor has urged the people of Bihar to live in peace and harmony, irrespective of their caste, religion, or creed.

- Encouraging the development of sports and culture.
   The Governor has said that sports and culture are important for the overall development of the state.
- Providing relief to the victims of natural disasters. The Governor has visited the areas affected by floods and other natural disasters and has assured the victims of the government's support.

The Governor of Bihar is a constitutional head, but he has played an active role in the development of the state. His initiatives have helped to improve the lives of the people of Bihar and have made the state a better place to live.

# Governor of Bihar

- **Shri Rajendra Vishwanath Arlekar** took oath as 41 th Governor of Bihar on 17-02-2023.
- He replaced Phagu Chauhan.
- Arlekar was previously the governor of Himachal Pradesh.

#### 17.2 PRESIDENT'S RULE IN BIHAR

The President's rule is imposed during the time of emergency, when the state Legislature dissolves before time or there is

loss of majority in the State Legislative Assembly and when a coalition government breaks down. It is imposed by the Governor of the state after consulting it with the President.

#### The President's rule in Bihar was imposed 8 times.

1.	29th June, 1968 to 26th February, 1969 242 Days
2.	4th July, 1969 to 16th February, 1970 227 Days
3.	9th January, 1972 to 19th March, 1972 70 Days
4.	30th April, 1977 to 24th June, 1977 55 Days
5.	17th February, 1980 to 8th June, 1980 112 Days
6.	28th March, 1995 to 5th April, 1995 8 Days
7.	12th February, 1999 to 9th March, 1999 25 Days
8.	7th March, 2005 to 24th November, 2005 262 Days

#### 17.3 CHIEF MINISTER

- The Chief Minister of Bihar is the chief executive of the Indian state of Bihar.
- The Governor appoints the Chief Minister,
- Term of office for the Chief Minister is 5 years. There
  is no limit on the number of terms one can become
  the chief minister.
- The oath is administered by the Governor.

#### 17.3.1 Powers of the Chief Minister

- All major decisions in the state are taken by the Chief Ministers with the support of the Council of Ministers.
- The Chief Minister is vested with the power to dismiss any Cabinet member or Council of Ministers, based on the performance of the minister within the administrative capacities of the state.

#### **Chief Ministers of Bihar**

No	Name	Term of	office
1	Shri Krishna Singh	26 January 1950	31 January 1961
2	Deep Narayan Singh	1 February 1961	18 February 1961
3	Binodanand Jha	18 February 1961	2 October 1963
4	Krishna Ballabh Sahay	2 October 1963	5 March 1967
5	Mahamaya Prasad Sinha	5 March 1967	28 January 1968
6	Satish Prasad Singh	28 January 1968	1 February 1968
7	B. P. Mandal	1 February 1968	22 March 1968
8	Bhola Paswan Shastri	22 March 1968	29 June 1968
-	President's rule	29 June 1968	26 February 1969
9	Harihar Singh	26 February 1969	22 June 1969
(8)	Bhola Paswan Shastri	22 June 1969	4 July 1969
-	President's rule	6 July 1969	16 February 1970
10	Daroga Prasad Rai	16 February 1970	22 December 1970

No	Name	Term of	office
11	Karpoori Thakur	22 December 1970	2 June 1971
(8)	Bhola Paswan Shastri	2 June 1971	9 January 1972
_	President's rule	9 January 1972	19 March 1972
12	Kedar Pandey	19 March 1972	2 July 1973
13	Abdul Ghafoor	2 July 1973	11 April 1975
14	Jagannath Mishra	11 April 1975	30 April 1977
_	President's rule	30 April 1977	24 June 1977
(11)	Karpoori Thakur	24 June 1977	21 April 1979
15	Ram Sundar Das	21 April 1979	17 February 1980
_	President's rule	17 February 1980	8 June 1980
(14)	Jagannath Mishra	8 June 1980	14 August 1983
16	Chandrashekhar Singh	14 August 1983	12 March 1985
17	Bindeshwari Dubey	12 March 1985	14 February 1988
18	Bhagwat Jha Azad	14 February 1988	11 March 1989
19	Satyendra Narayan Sinha	11 March 1989	6 December 1989
(14)	Jagannath Mishra	6 December 1989	10 March 1990
20	Lalu Prasad Yadav	10 March 1990	28 March 1995
_	President's rule	28 March 1995	4 April 1995
(20)	Lalu Prasad Yadav	4 April 1995	25 July 1997
21	Rabri Devi	25 July 1997	11 February 1999
_	President's rule	11 February 1999	9 March 1999
(21)	Rabri Devi	9 March 1999	3 March 2000
22	Nitish Kumar	3 March 2000	11 March 2000
(21)	Rabri Devi	11 March 2000	6 March 2005
_	President's rule	7 March 2005	24 November 2005
(22)	Nitish Kumar	24 November 2005	26 November 2010
		26 November 2010	20 May 2014
23	Jitan Ram Manjhi	20 May 2014	22 February 2015
(22)	Nitish Kumar	22 February 2015	20 November 2015
		20 November 2015	16 November 2020
		16 November 2020	Incumbent

#### 17.4 COUNCIL OF MINISTERS

- Article 163 of the Indian constitution mentions that there shall be a Council of Ministers with the Chief Minister as the head to aid and advise the Governor in the exercise of his functions.
- Article 164 provides that the Council of Ministers shall hold office during the pleasure of the Governor.
- Council of Ministers shall be collectively responsible to the Legislative Assembly of the state.
- Before a Minister enters upon his office, the Governor shall administer to him the oaths of the office and of

- secrecy according to the forms set out for the purpose in the Third Schedule.
- A Minister who for a period of six consecutive months is not a member of the Legislature of the state, shall at the expiration of that period cease to be a Minister.
- 91st Constitutional Amendment 2003 of Article 164 provides that the total members of the Council of Ministers should not be more than 15% of the members of the State Legislature and not less than 12.





# Constitutional Important and Non Constitutional Bodies

#### **18.1 BIHAR PUBLIC SERVICE COMMISSION**

- The Bihar Public Service Commission (BPSC) is created by the Constitution of India (Article 318).
- It consists of a Chairman and other members who are appointed by the state Governor.
- BPSC came into existence on 1st April, 1949 under the Government of India Act 1935.
- Its headquarters was in Ranchi, but now it is shifted to Patna after separation of Jharkhand..
- The tenure of the Chairman and members of BPSC is six years or until the attainment of the age of 62 years, whichever is earlier.

# 18.1.1 Functions of Bihar State Public Service Commission



- The Bihar Public Service Commission (BPSC) is a constitutional body responsible for conducting recruitment exams and selecting suitable candidates for various government positions in the state of Bihar. The functions of the Bihar Public Service Commission include:
- **Recruitment:** The primary function of the BPSC is to conduct examinations and select candidates for various government posts in Bihar. These include civil services, administrative services, police services, engineering services, judicial services, and other state government positions. The BPSC publishes recruitment notifications, conducts examinations, and recommends qualified candidates for appointment.

- Advising the State Government: The BPSC advises
  the state government on matters related to
  recruitment, promotions, and disciplinary actions
  concerning government employees. The commission
  may provide recommendations on policy matters and
  guidelines to improve the efficiency and effectiveness
  of the state's public administration.
- Adjudicating Disputes: The BPSC may also serve as an appellate authority in matters related to recruitment and promotions. Candidates who have grievances or disputes regarding the selection process or the application of rules and regulations can approach the commission for redressal.
- Other Functions: The BPSC may perform other functions assigned to it by the state government or as per the provisions of the Bihar Public Service Commission Act. This may include conducting special recruitment drives, providing recommendations for policy changes, and organizing training programs for government officials.
- The Bihar Public Service Commission plays a crucial role in ensuring a fair and transparent recruitment process for government positions in Bihar. By conducting examinations, interviews, and providing recommendations, the commission helps in selecting qualified candidates who can contribute to the efficient functioning of the state administration.

#### **18.2 BIHAR STATE ELECTION COMMISSION**

- The Bihar State Election Commission is a statutory body entrusted with the duty and responsibility of holding elections in Panchayat elections Article 243 T.
- The head of the commission is Chief Election Officer who is appointed by the Governor of Bihar.
- The office of the Election Commission functions under the overall supervision of Election Commission of India.
- The commission prepares a voter list and undertakes all activities related to conducting, controlling and direction of all elections at the grass root level.
- The office of the Election Commission of Bihar is situated in Patna.

#### **18.3 BIHAR HUMAN RIGHTS COMMISSION**

- The Protection of Human Rights Act 1993, provides for establishment of State Human Rights Commissions.
- The Human Rights Commission was established in Bihar on 3rd January, 2000 and was formally constituted on 26th June, 2008.
- A Chairperson and two other members are appointed by the Governor.
- The Commission may intervene in any proceeding involving any allegation or violation of human rights pending before a court.
- It can also enquire on its own initiative or on a petition presented to it in complaint of violation of human rights or negligence in the prevention of such violations by a public servant.
- It also encourages the work of non-governmental organizations for the promotion of human rights.

## The BHRC can inquire into any matter relating to human rights, including:

- Custodial deaths and injuries;
- Extra-judicial killings;
- Torture and other cruel, inhuman, or degrading treatment or punishment;
- Arbitrary arrests and detentions;
- Denial of access to justice;
- Discrimination on the basis of caste, religion, gender, or other grounds;
- Trafficking in human beings;
- Child labour;
- Forced labor;
- Environmental degradation.

The BHRC can take suo motu cognizance of any matter relating to human rights if it comes to its notice through any source, including the media, the public, or its own officers.

- The BHRC can recommend measures for the protection of human rights. Such measures may include:
- Legislation;
- Administrative reforms;
- Public awareness campaigns;
- Training of law enforcement personnel.

The BHRC can award compensation to the victims of human rights violations. The amount of compensation is determined by the BHRC on a case-by-case basis.

- The BHRC can take preventive measures to protect human rights. Such measures may include:
- Monitoring the activities of law enforcement personnel;
- Interacting with the public;
- Issuing advisories to the government.

# The BHRC spreads awareness about human rights through various means, including:

- Public lectures;
- Seminars;
- Workshops;
- Publications.

The BHRC has made significant contributions to the protection of human rights in Bihar. It has helped to secure the release of innocent people from jail, awarded compensation to the victims of human rights violations, and taken preventive measures to protect human rights. The BHRC is a valuable institution that plays an important role in ensuring the protection of human rights in Bihar.

**Reports and Recommendations:** The BHRC submits annual and special reports to the state government, highlighting the human rights situation in Bihar and recommending measures for the protection and promotion of human rights. These reports may include suggestions for legislative and policy reforms.

# **18.4 THE BIHAR STATE COMMISSION** FOR WOMEN

- The Bihar State Commission for Women has been constituted as an independent government department. It is headquartered at Patna.
- The Bihar State Commission for Women was formed to investigate specific problems relating to women and apart from studying women related issues from the state.
- The members of the commission are elected for a period of three years.
- The Chairperson and other members are women and are appointed by the Governor.





# **Bihar Judiciary**

The High Court located in Patna is the highest judicial body of Bihar.

#### **19.1 HIGH COURT**



- Article 214 to 231 of the Indian Constitution provides provisions for the establishment of a High Court in each state.
- Under Article 231, some powers have been given to the Parliament for creation of a common High Court for two or more states.
- The High Court is headed by a Chief Justice and other judges.
- According to Article 217, the Chief Justice of a High Court is appointed by the President with the consent of the Governor.

#### They hold office till the age of 62 years.

- The Judges of the High Court is/are appointed by the President in consultation with the Chief Justice of India and the Governor of the concerned state.
- The other judges of a state are appointed in consultation with the Chief Judge of the High Court.

# 19.1.1 Jurisdiction and Powers of the High Court

#### **Original Jurisdiction**

- The High Court hears disputes in the first instance and not by appeal.
- It also hears cases transferred from subordinate courts.
- It hears disputes over matters of will, marriage, divorce, company laws and contempt of court.
- It also hears revenue matters.

#### **Writ Jurisdiction**

 The High Court has the power to issue writs, prohibition and quo warranto for enforcement of Fundamental Rights.

#### **Appellate Jurisdiction**

- The High Court has Appellate Jurisdiction in both civil and criminal cases.
- There can be a first or second appeal in civil matters.
- In criminal matters, if the sentence passed in 7 or more years of imprisonment then criminal appellate can be applied.

#### **Power of Superintendence**

- Under Article 227,the High Court has the power of superintendence over all courts and tribunals that come under it.
- It also controls the subordinate courts and prescribes forms in which records are to be kept.

# Some of the key functions of the high courts in India:

- Interpreting the Constitution: The high courts are responsible for interpreting the Constitution of India and ensuring that it is upheld. This includes deciding on the constitutionality of laws and government actions.
- Protecting fundamental rights: The high courts play a role in protecting the fundamental rights of citizens. This includes hearing cases involving violations of the right to life, liberty, equality, and freedom of speech.
- Overseeing the lower courts: The high courts have appellate jurisdiction over decisions made by lower courts, such as district courts and sessions courts. This means that they can hear appeals from decisions made by these courts.
- **Issuing writs:** The high courts have the power to issue writs, which are orders that can be used to protect the rights of citizens. Some common types of writs include habeas corpus, which orders the release of a person who is being illegally detained, and mandamus, which orders a government official to perform their duties.

#### **Transfer of Cases**

 Under Article 228,the High Court can withdraw a case lying with subordinate courts and determine the case itself, if it involves any substantial question of law.

#### **19.2 SUBORDINATE COURTS**

Subordinate Courts in Bihar included District Courts, Lok Adalats and Lokavuktas.

#### 19.2.1 District Courts

- The Constitution of High Court and District Court is formed as per Article 233 to 237 of the Indian Constitution.
- The District Court administers justice at district level.
- These courts come under the administrative control of the High Court of the concerned State.
- The decision of the District Court is subject to the Appellate Jurisdiction of the High Court.
- The highest court in each district is that of the District and Session Judge Court.
- The District Court is presided over by a District Judge who is appointed by the Governor in consultation with the Chief Justice of the High Court of the concerned state.
- Other appointments to the judicial service are also made by the Governor in consultation with the State Public Service Commission and the High Court.
- The District Courts are of two types i.e. civil and criminal courts.
- They function under the superintendence and control of the High Court of the concerned state.
- All the 38 districts have District or Subordinate Courts.
- The oldest District Court in Bihar is in Muzaffarpur.

#### 19.2.2 Gram Kachahari or Village Court in Bihar

- The state of Bihar is the only State to set up Gram Kachahari or village court under Section 990 of Bihar Panchayati Raj Act 2006.
- The Gram Kachahari consists of five members including all the Panches and Sarpanch.
- One of them is elected as the judge of the proceedings.
- The Gram Kachahari has the right to hear cases related to the loss of movable property of less than ten thousand as per section 120 of the Civil Right Act.
- It is an initiative of the State Government to settle petty disputes without the loss of time or money.
- The police department gives necessary assistance for the proper functioning of the Gram Kachahari.
- The Gram Kachahari functions under the Panchayati Raj Institutions in rural Bihar.

- They are formed for a period of five years from the date appointed.
- Sarpanch is elected leader of Gram Kachahari, Up-Sarpanch is Vice Chairperson and Panches are the elected members of it.

#### 19.2.3 Lok Adalats

- Lok Adalats are formed under the Legal Services Authority Act, 1987.
- They are organized at the central, state and district levels.
- Lok Adalats are set-up to provide speedy and economic justice and are especially beneficial for the poor classes of the society.
- They deal with civil cases,matrimonial disputes, property/land dealings and disputes, etc. The
- State and District bodies provide the authority and jurisdiction of Lok Adalats.

#### 19.2.3.1 Lok Adalats in Bihar

- Lok Adalats in Bihar are statutory bodies set up under the Legal Services Authorities Act, 1987. They are intended to provide an alternative dispute resolution mechanism for resolving civil cases in a speedy and inexpensive manner.
- Lok Adalats in Bihar are presided over by a sitting or retired judge of the Patna High Court, along with two other members, one of whom is a lawyer and the other is a social worker. The Lok Adalats have the power to settle any civil case that is pending in a court of law or that is likely to be filed in a court of law.
- The Lok Adalats in Bihar have been very successful in resolving civil cases. In the financial year 2021-22, the Lok Adalats in Bihar settled a total of 14,072 cases. This is a significant number, and it shows that the Lok Adalats are a valuable resource for resolving civil disputes in Bihar.
- The Lok Adalats in Bihar are open to all citizens.

#### 19.2.3.2 Role of Lok-Adalat in Bihar

Lok Adalats in Bihar play a vital role in providing access to justice to the people of the state. They are free and voluntary alternative dispute resolution mechanisms that help to resolve disputes quickly and cheaply. Lok Adalats are presided over by a panel of judges, lawyers, and other professionals who are trained in mediation and conciliation.

The following are some of the **roles of Lok Adalats** in Bihar:

- To provide access to justice to the poor and marginalized sections of society.
- To reduce the backlog of cases in the courts.
- To promote alternative dispute resolution mechanisms.



- To educate the public about their legal rights.
- To promote peace and harmony in society.
- Lok Adalats have been very successful in resolving disputes in Bihar. In the last financial year, Lok Adalats in Bihar disposed of over 1.5 million cases. This is a significant achievement, as it has helped to reduce the backlog of cases in the courts and has provided access to justice to the people of the state.Lok Adalats are an important part of the justice system in India. They are a valuable tool for resolving disputes quickly, cheaply, and fairly. Lok Adalats have made a significant contribution to the administration of justice in Bihar.
- Bihar Lok Adalat formed under Legal Services
   Authorities Act, 1987 and to implement the
   provisions of Constitution which had been drafted
   to help every citizen to get justice irrespective of
   their economic or other limitations. The primary
   value laid down as per Indian Constitutional
   philosophy is individual dignity which forms the
   basis of human rights and demands on a holistic
   basis of civil, political, economical, social, and
   cultural rights.

# 19.3 BIHARRIGHTTOPUBLICGRIEVANCE REDRESSAL ACT

- With an aim of redressing the grievances/complaints and providing relief/benefit sought by the common public in a time bound manner, the Bihar Right to Public Grievance Redressal Act has been implemented in the State with effect from June 5, 2016.
- This Act provides a legal right to all the applicants for:
- Receipt of all grievances and applications for relief/ benefit
- Hearing of their grievances, opportunity of redressal, and getting the information about the decision taken on the grievance, within 60 working days.

#### **19.4 LOKAYUKTA**

- The Lokayukta represents the interests of the general public by addressing the maladministration and political corruption.
- In case of states, the Lokayukta is appointed by the State Legislature which consists of the Chief Minister, Speaker,Opposition Leader and Chief Justice of the High Court.
- Lokayukta cannot be dismissed or transferred.
- It can be removed by passing an impeachment motion.

#### 19.4.1 Lokayukta in Bihar

- Bihar Lokayukta Act, 2011 was passed by the Bihar Legislative Assembly in 2011. The Act establishes the office of the Lokayukta, who is an independent anticorruption ombudsman. The Lokayukta is responsible for investigating allegations of corruption against public officials, and for taking appropriate action against those who are found to be corrupt.
- The Lokayukta is appointed by the Governor of Bihar, on the recommendation of the Chief Minister of Bihar. The Lokayukta must be a person of high moral character and integrity, and must have at least 10 years of experience in the field of law or administration.
- The Lokayukta has the power to investigate any allegation of corruption against a public official. The Lokayukta can also issue summons to witnesses, and can compel them to testify. The Lokayukta can also order the production of documents, and can seize any property that is believed to be the proceeds of corruption.
- If the Lokayukta finds that a public official has been guilty of corruption, the Lokayukta can recommend that the official be dismissed from office, or that the official be prosecuted in a court of law. The Lokayukta can also recommend that the official be fined, or that the official be ordered to pay restitution to the government.
- The Lokayukta is an important anti-corruption institution, and the Bihar Lokayukta Act, 2011 is a significant step towards combating corruption in Bihar. The Lokayukta has the power to investigate allegations of corruption against public officials, and to take appropriate action against those who are found to be corrupt. This will help to ensure that public officials are held accountable for their actions, and that corruption is reduced in Bihar.

#### 19.5 ADVOCATE GENERAL

- The Advocate General of a State is a legal officer who is a Chief Representative of a region or a state.
- The Advocate General advises the State government on legal matters.
- The post of Advocate General is statutory in nature and created as per the Article 165 of the Indian Constitution.
- The Governor of a State appoints the Advocate General of that state.
- The proposal for appointment is moved at the level of Joint Secretary in the Department of Legal Affairs.
- The Advocate General is assisted by the Additional Advocate General.



#### 19.6 BIHAR POLICE ADMINISTRATION

- The Bihar Police Department is the law and order and law enforcement agency for the state headquartered in Patna.
- Bihar Police comes under direct control of the Department of Home Affairs, Government of Bihar.
- The Bihar Police is headed by a Director General of Police.
- The state is divided into four zones (Patna,Muzaffarpur,Darbhanga and Bhagalpur), each commanded by an Additional Director General of Police (ADGP) or an Inspector-General.
- Each zone is divided into two to three ranges, each commanded by a Deputy Inspector-General of Police (DIGP).
- Each district is under a superintendent of Police.



## **Local Self Government in Bihar**

In Bihar, the Panchayati Raj System was established in 1947.

For understanding of Panchayati Raj in India, two important committees, Balwant Rai Mehta Committee in 1957 and the Ashok Mehta Committee in 1978, were constituted.

The 73rd and 74th Constitutional Amendments are the milestone in the process of establishing democratic decentralized administration through local bodies and taking administration to the common people to ensure economic and social justice.

- For the sake of administrative convenience Bihar is divided into 9 divisions, 38 districts, 101 subdivisions, 534 blocks and panchayats.
- Each block is divided into various Gram Panchayats.

# 20.1 PANCHAYATI RAJ SYSTEM (RURAL SELF GOVERNMENT)

- This system is adopted in the rural areas of the Indian states.
- The Panchayati Raj system in India dates back to ancient times.
- It has unique features which give local self-governance at the grass root level.
- It was formalised in 1992 by the 73rd Amendment to the Indian Constitution.
- This amendment act added the 11th Schedule to the Constitution of India.
- The act provides for three-tier Panchayati Raj in each state, at village, intermediate and district levels.
- A state not having a population more than 20 lakh may not constitute Panchayat at intermediate level.
- The Panchayati Raj Act provides for reservation of seats for SCs/STs in every Panchayat in proportion to their population to the total population.
- To become eligible to be elected in Panchayat, one must be 21 years and qualified to be a member of Legislature.

#### 20.1.1 Panchayati Raj System in Bihar

- The Bihar government enacted Bihar Panchayat Samiti and Zila Parishad Act in 1961.
- It came into force from 2nd October, 1963.
- According to these two acts, the entire state of Bihar was divided into three tier Panchayati Raj System beginning from the lowest level i.e.Gram Panchayat.
- The second tier is the Panchayat Samiti that works at block level and it is followed by Zila Parishad at district level.
- State Election Commission undertakes elections of Gram Panchayats.

# 20.1.2 Salient Features of Panchayati Raj in Bihar

- The 73rd constitutional amendment, Bihar Panchayati Raj Act, 2006 was enacted to strengthen the three-tier panchayat system in the state.
- There is reservation of seats for Scheduled Castes (16%) and Scheduled Tribes (1%) in every Panchayat.
- The Bihar government has given 50% reservation to women in the local Panchayats. It is the first Indian state to do so.
- Around 20% reservation is given to extremely Backward Classes.
- The duration of a Panchayat is for 5 years and there has to be four meetings of Gram Sabha within one year.
- The Governor of state is required to constitute a Finance Commission every 5 years to revive the financial position of the Panchayats.

#### 20.1.3 Three Tier Structure of Panchayati Raj System

- The Panchayati Raj system has a three tier or levels of governance i.e. Zila Parishad, Panchayat Samiti and Gram Panchayat.
- The Chairpersons of the Gram Panchayat, Panchayat Samiti and Zila Parishad are called Mukhiya, Pramukh and Adhyaksha, respectively.

#### 1. Zila Parishad

- This is the highest level of the three tier structure.
- The Chairman of all the Panchayat Samitis under the district are the ex-officio members of the Zila Parishad.
- The Members of Parliament and the members of State Legislative Assembly representing a part or whole of the district whose constituencies lie within the district are also the members of Zila Parishad.
- As per Bihar Panchayat Election Rules 2006, in the first meeting the President, Vice President and elected members take oath in front of District Magistrate.
- The meeting of the Parishad is necessary to be called at least once in three months.
- The meetings can take place in district headquarters or any other place within the district.

#### **Composition**

- A Zila Parishad or District Council is formed with a population of 50000 (approx), out of which there has to be one representative elected.
- There are 38 Zila Parishads or District Councils in Bihar.
- Members of the Zila Parishad are elected from the district on the basis of adult franchise for a term of 5 years.
- Each Zila Panchayat is headed by a President and Vice-President, who are elected by and from among the elected members.
- Each Zila Panchayat has a Chief Executive Officer (CEO).

#### **Functions**

- Management of agricultural activities, land improvement, soil conservation.
- Management of minor irrigation projects, developing ground water resources and watershed development programmes.
- Provision of rural electrification, district roads, housing, health and education.
- Developing and regulating markets for horticultural, agricultural and dairy products.
- Undertaking poverty alleviation programmes, social reform activities, etc.

#### 2. Panchayat Samiti

- This is the second level of the Panchayati Raj Institution.
- A Panchayat Samiti is constituted for each block.
- The members of Panchayat Samiti are elected at the level of Panchayats.
- The term of one Panchayat samiti is for five years.

 The meeting of the Samiti is necessary to be called for at least once in two months.

#### Composition

A Panchayat Samiti is formed with a population of 5000 (approx), out of which there has to be one representative elected.

Every Panchayat Samiti consists of:

- Members, who are elected by the voters in the block.
- Each block is divided into voting constituencies, usually between 10-25 and each constituency elects a member.
- All members of the State Legislative Assembly returned from the constituencies which wholly or partly fall within the block and one-fifth of the Gram Panchayat.
- Sarpanchs in the territorial area of the block on a rotational basis for a period of one year.
- The Sarpanchs are selected by drawing lots.
- Each Panchayat Samiti is headed by a President and Vice President, who are elected by and from the elected members.
- Each Panchayat Samiti also has a Chief Executive Officer.

#### **Functions**

- Consideration of annual plans of all Gram Panchayats within the samiti.
- Preparation of annual budget and its submission to Zila Parishad.
- Continuation of all programmes and projects entrusted to it by the Zila Parishad.

#### 3. Gram Panchayat

- This is the third or lowest level of the three tier system.
- Gram Panchayats are the smallest units of elected local-self governance, found at the village level.
- The Gram Sabha is a general body of electors, whereas the Gram Panchayat is an executive elected body.
- The executive has to perform its duties as per directions given by the Gram Sabha.

#### Composition

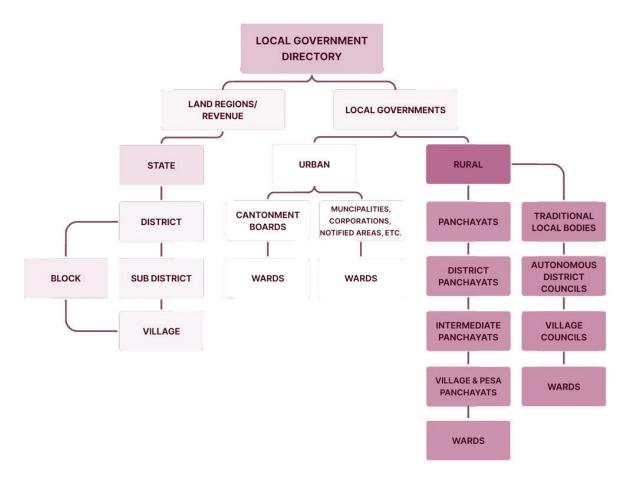
- Gram Panchayat shall be constituted in rural areas with a population of 7000 or more.
- One member has to be elected from each Panchayat consisting of 500 people.
- Each Gram Panchayat area is divided into not less than 10 and not more than 20 wards and each ward elects one ward member and one Panch.
- The Gram Panchayat consists of the elected ward members and a Mukhiya, who is the head of the Gram Panchayat.



- An up-Mukhiya is also elected, who acts as the Deputy Mukhiya.
- Each Gram Panchayat also has a Secretary, who may serve one or more Gram Panchayats. Panch, Sarpanch and up-Sarpanch (Deputy Sarpanch) are elected by electors of Gram Panchayat having judicial power in Panchayati Raj.

#### **Functions:**

- Provision of drinking water, housing, electrification, etc.
- Maintenance of essential statistics of villages.
- Preparation of annual plans, annual budget in the Panchayat area.
- Construction and maintenance of cattle sheds, ponds, public parks, playground, garbage bins, dharamshalas and similar institutions.
- Regulation and management of markets, fairs and festivals.
- In pursuance of the provisions made in the 73rd Constitution (Amendment) Act, 1992, the **Bihar Panchayat Raj Act, 2006** has been enacted, which provides for establishment of Gram Panchayat at village level, Panchayat Samiti at Block level and Zila Parishad at District level.
- At present, 8058 Gram Panchayats, 533 Panchayat Samitis and 38 Zila Parishads are functional in the State.
- Gram Panchayats are divided into wards, which are approximately 1.15 lakhs in number. In addition to establishment of three-tier Panchayats, a Gram Kachahari has also been established at each Gram Panchayat for dispensation of justice at the doorsteps of rural populace, which has got the authority to bring about amicable settlement of certain criminal and certain civil disputes between the rival parties, and in case of failure to do so, to impose a fine upto rupees one thousand to the party found guilty after deciding on the matter through prescribed procedures.
- Apart from providing reservation to members of Scheduled Castes, Scheduled Tribes and Backward Classes in seats of members and chairpersons of three-tier Panchayats and Gram Kachahari, **fifty percent** horizontal reservation has been provided to women belonging to both reserved and general categories.
- To usher in decentralization at the grassroots level, along with provision of Gram Sabha at the Gram Panchayat level, Ward Sabha has been created at each Ward level under the chairmanship of the Ward Member.
- The Ward Sabha, through the Ward Implementation and Management Committee, implements several
  important schemes of public importance assigned to the Ward by the Gram Panchayat.
- **Vigilance committees** have also been formed at each ward level to keep close watch on qualitative implementation of schemes and render appropriate counsel to the ward/Panchayat.
- Panchayats at the different levels have been entrusted with the responsibility of carrying out important functions and duties with regard to 29 subjects described in the **Eleventh Schedule of the Constitution**.
- In addition to appropriate devolution of funds received from the Central and State Governments for development purposes, the Panchayati Raj Department keeps a close watch on regular maintenance of accounts of Panchayats and audit thereof as well as due disposal of audit objections.
- The Deputy Development Commissioner/District Panchayat Raj Officer at the district level and the Block Panchayat Raj Officer/Junior Engineer/Executive Assistant/Panchayat Secretary and employees of different departments working at the panchayat level render necessary assistance and guide to the Panchayats subject to directions of the department.
- The Government of Bihar, as part of its vision of decentralization, is committed to endow the Panchayats with such powers and authority as may be necessary to enable them to function as vibrant units of local self government and be converted into empowered, inclusive, transparent and accountable entities.



#### 20.1.4 Challenges

- The Bihar government faces several challenges related to Panchayats, which can impact the effective functioning and empowerment of local selfgovernance. Some of these challenges include:
- Capacity Building: Building the capacity of Panchayat members and officials is a significant challenge. Many Panchayat members lack adequate knowledge and skills to effectively carry out their responsibilities. Training programs and capacity-building initiatives are required to enhance their understanding of governance processes, financial management, and project implementation.
- **Financial Constraints:** Panchayats heavily rely on financial support from the state government for their functioning and development activities. However, limited financial resources and delays in the release of funds can hamper the effective functioning of Panchayats. Adequate and timely financial allocations need to be ensured to strengthen their financial autonomy and enable them to implement development projects.
- Administrative Support: Panchayats require administrative support from various government departments to effectively carry out their responsibilities. However, bureaucratic delays, lack

- of coordination, and insufficient administrative assistance can hinder the smooth functioning of Panchayats. Streamlining administrative processes and ensuring adequate support from government departments are essential for the efficient functioning of Panchayats.
- Political Interference: Panchayats are vulnerable to political interference, which can undermine their autonomy and decision-making powers. Political pressure and influence on Panchayat members can compromise their ability to work in the best interests of the local community. Safeguarding the independence and autonomy of Panchayats from undue political interference is crucial for their effective functioning.
- Awareness and Participation: Low levels of awareness and participation among the local community pose a challenge to the effective functioning of Panchayats. Limited community involvement and participation in Panchayat meetings, decision-making processes, and development activities can hinder their success. Efforts to enhance awareness and encourage active citizen engagement are essential to ensure the success of Panchayat initiatives.
- Gender Inclusivity: Ensuring gender inclusivity and meaningful participation of women in Panchayats remains a challenge. Despite reservations for women

in Panchayat positions, they may face barriers such as social discrimination, lack of support, and limited opportunities for leadership. Promoting gender equality and addressing barriers to women's participation are crucial for effective and inclusive Panchayat governance.

Accountability and Transparency: Ensuring
accountability and transparency in the functioning
of Panchayats is a challenge. It is essential to
establish mechanisms for monitoring and oversight,
as well as promoting transparency in financial
transactions, decision-making processes, and
project implementation. Strengthening systems for
accountability and transparency is necessary to build
public trust and confidence in Panchayat governance.

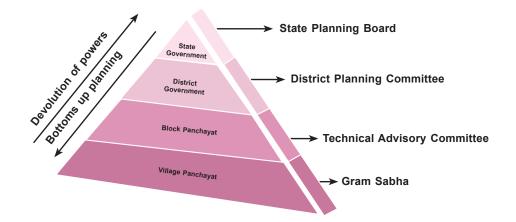
Addressing these challenges requires the commitment and concerted efforts of the Bihar government, Panchayat members, civil society organizations, and the local community. By overcoming these challenges, Panchayats can play a more effective role in local governance, grassroots development, and participatory decision-making.

# 20.1.5 Schemes by Bihar Government with respect to Panchayat

The Government of Bihar has implemented several schemes and initiatives to strengthen the Panchayati Raj system and promote grassroots governance in the state. These schemes aim to empower the Panchayati Raj institutions, enhance their capacity, and improve local self-governance. Here are some key schemes related to Panchayats in Bihar:

- Mukhyamantri Nishchay Swayam Sahayata Bhatta Yojana: This scheme provides a monthly allowance to the elected representatives of Panchayati Raj institutions, including Mukhiyas, Panchayat Samiti members, and Zila Parishad members. The allowance aims to support their participation in governance activities and meet their personal expenses.
- Nal Jal Yojana: This scheme focuses on providing piped water supply to every household in rural Bihar. Under this scheme, Panchayats play a crucial role in

- implementing and monitoring water supply projects in their respective areas. The aim is to ensure access to safe drinking water and improve sanitation facilities at the village level.
- Mukhyamantri Gram Parivahan Yojana: This scheme aims to improve rural connectivity by providing financial assistance for the purchase of vehicles by Panchayats. The vehicles are used for transportation of people, goods, and services, thereby facilitating economic activities and enhancing mobility in rural areas.
- Gram Panchayat Development Plan (GPDP): The GPDP is a participatory planning process where Gram Panchayats prepare and implement their own development plans. Under this scheme, Panchayats identify their specific development needs, allocate resources, and implement projects for the overall development of their villages. The GPDP encourages bottom-up planning and citizen participation in decision-making.
- Mahadalit Vikas Mission: The Mahadalit Vikas Mission focuses on the socio-economic development of marginalized and disadvantaged communities in Bihar. Panchayats play a crucial role in the implementation of programs and schemes targeting Mahadalits. This includes initiatives related to education, health, livelihood, housing, and social empowerment.
- Gram Swaraj Abhiyan: This campaign aims to promote social harmony, transparency, and accountability in Gram Panchayats. It focuses on enhancing citizen participation, promoting good governance practices, and implementing various rural development schemes effectively. The campaign encourages the active involvement of Panchayats in bringing about positive changes at the grassroots level.
- Integrated Watershed Management Program: This
  program focuses on sustainable management of water
  resources and improving agricultural productivity in
  rural areas. Panchayats are involved in the planning,
  implementation, and monitoring of watershed



development projects. The aim is to promote water conservation, soil health, and rural livelihoods through community participation.

These are some of the key schemes related to Panchayats in Bihar. The state government continues to implement various initiatives to strengthen the Panchayati Raj system, empower local self-governance, and promote inclusive and sustainable development at the grassroots level.

#### What is Fire Hydrant?

- Fire Hydrant /Filling Station is such a system of water supply scheme that in case of any emergency or contingency, water can be stored quickly in the fire fighting vehicle / tanker.
- It is combined with Check Valve / Gate Valve by connecting 80mm x 80mmx50mm size Gl Tee in Delivery Main (Distribution Pipe) and placing 50mm GI Pipe at proper height.

#### **20.2 URBAN LOCAL SELF GOVERNMENT**

- The urban local bodies in Bihar have been operating in the state since 1920.
- The PatnaMunicipal Corporation was formed after the Patna Municipal Act 1951.
- The Municipalities in Bihar were notified as Municipal Council/Nagar Parishad and Notified Area Committees as Nagar Panchayats and reconstituted after the 1951 Act on the basis of population and level of urbanisation.
- The 74th Constitutional Amendment Act made it mandatory for state governments to give clear and well defined functions, responsibilities to Urban Local Bodies
- The Bihar Legislature enacted the Bihar Municipal Act 2007 replacing all previous acts of the formation and working of the urban local bodies in Bihar.
- As per the act, the Bihar Government is required to prepare municipal accounting manuals to look after the income and expenditure of the urban local bodies.
- The Bihar State Government has given fifty percent reservation to women, twenty percent reservation to backward classes and some percentage of seats to SC and ST in urban local bodies.
- Apart from Municipal Corporations, Municipal Councils and Nagar Panchayats, there are township and cantonment boards to look after the urban and semi-urban areas in Bihar.

# 20.2.1 Three Tier Structure of Urban Local Bodies

#### 1. Municipal Corporation in Bihar

- Bihar has 13 Municipal Corporations.
- The Corporation receives its funds by way of taxes, rents and government grants.

- The Corporations have divided the city into wards.
- There are 45-75 wards in each of the big cities like Patna, Muzaffarpur, Gaya, etc.

#### 2. Municipal Council

- The Municipal Councils (Nagar Parishad) operating in Bihar take care of small cities, towns and semi urban areas
- Usually these places have a population ranging from 40000-200000.
- These towns/small cities are distributed into wards ranging from 25 to 45.
- The Municipal Council is headed by Chairman and other members.

#### 3. Nagar Panchayats

- Nagar Panchayats in Bihar operate in those areas that are undergoing a transition from rural to urban areas.
- These areas usually have a population from 12000-40000 people.
- They are distributed into wards ranging from 10 to 25.
- The Nagar Panchayat is headed by Chairman and ten other members, all of them are elected by general elections in their respective wards.

#### 20.2.2 Members of Urban Local Bodies

- The Mayor (also called Chairman) is the head of the urban local body and presides over the meetings of the corporations and is also responsible for general governance of the body.
- Mayor is elected through general elections.
- The Chief Executive Officer (CEO) is a full time principal executive officer of the Corporation/Nagar Panchayat.
- The CEO is appointed by the State Government.
- His functions include general supervision, organise board meetings, get budget estimates, monitoring and implementation of schemes.

# 20.2.3 Reservation of Seats in Urban Local Bodies

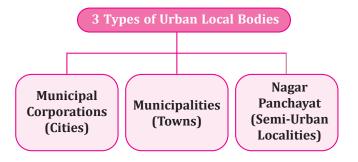
- There is a provision for the reservation of seats in the municipalities for the SCs, STs and the women.
- The Act provides reservation of not less than one-third of the total number of seats for women including the number of seats reserved for SC and ST for women.
- Act 243 provides provisions to the state to declare reservation of seats according to their conditions in the state.

#### 20.2.4 Functionaries of Urban Local Bodies

 According to Article 243,Twelfth Schedule of the Constitution, there are 18 functional items included in the municipalities like urban planning, regulation of land, planning for economic and social development, building of roads and bridges, etc.

The Urban Development & Housing Department is the **nodal Department** for ensuring appropriate and planned growth of cities and towns with adequate infrastructure, amenities and services provided to the citizens of Bihar through the Urban Local Bodies and parastatal agencies. The Department has been instrumental in carrying out various concrete measures for efficient management & delivery of civic services like provision of affordable housing, safe drinking water, sanitation including solid waste management, storm water drainage, sewerage, roads, public transport; and creation of livelihood opportunities by accelerating economic growth of cities/towns and building capacity of the urban poor. The Housing and Urban Development Department is headed by the Minister, The Principal Secretary, UDHD is the administrative head of the Department.

- According to the 2011 census, the rate of urbanization in Bihar is only 11.3 % compared to the national average of 31.2 %. The State accounts for 8.6 % of India's total population, but it has only 3.1 % of the country's total urban population.
- Total Urban population resides in Urban Local Bodies.
   At present there are total 142 Urban Local Bodies in bihar which comprises of,
  - Nagar Nigam 12
  - Nagar Parishad 49
  - Nagar Panchayat 81
- 44% of the urban population of Bihar resides in the Nagar Nigams (towns with more than 2 lakh population), 32% resides in Nagar Parishads (towns with population between 40,000 and 2,00,000) and 24% resides in Nagar Panchayats (towns with population between 12,000 and 40,000).



#### **Objective:**

To achieve a coherent, homogeneous, comprehensive, faster and sustainable growth in Bihar by ensuring planned and all-inclusive development of cities/towns into livable, economically vibrant and productive, sustainable and efficient entities with provision of adequate and durable public infrastructure and amenities including affordable housing and livelihood opportunities for all sections of society and bringing out efficiency in the service delivery mechanisms, community participation and accountability of Urban Local Bodies and parastatal agencies towards citizens, in convergent manner.

#### 20.2.5 Challenges

Urban local governments in Bihar face several challenges in fulfilling their roles and responsibilities effectively. Some of the key challenges are:

- Infrastructure Deficit: Urban areas in Bihar often suffer from inadequate infrastructure, including water supply, sanitation, roads, and public transportation. The urban local governments struggle to address the growing infrastructure demands of a rapidly urbanizing population.
- Limited Financial Resources: Urban local bodies in Bihar often face financial constraints, which limit their ability to provide essential services and undertake infrastructure development projects. They heavily rely on grants from the state government, and their own revenue generation sources are often insufficient to meet the urban population's needs.
- Weak Governance Structures: Weak governance structures and lack of administrative capacity pose challenges for urban local governments in Bihar. This can result in inefficiencies, delays in decision-making, and difficulties in implementing urban development plans and projects.
- Inadequate Revenue Generation: Urban local bodies in Bihar struggle with revenue generation due to factors such as low property tax collection, limited sources of revenue, and a large informal economy. This limits their ability to fund urban development projects and provide quality services.
- Slum Rehabilitation and Housing: Bihar faces challenges in slum rehabilitation and affordable housing for the urban poor. Rapid urbanization and migration to urban areas have led to the growth of slums, and providing adequate housing and basic services to slum dwellers remains a significant challenge for urban local governments.
- Solid Waste Management: Effective solid waste management is a persistent challenge in Bihar's urban areas. Limited waste management infrastructure, inadequate waste segregation practices, and

- inadequate waste disposal facilities contribute to environmental pollution and health hazards.
- Capacity Building and Human Resources: Urban local bodies in Bihar often face challenges related to human resource capacity. Insufficient trained staff, lack of technical expertise, and limited opportunities for capacity building hinder effective governance and service delivery.
- Coordination with State Agencies: Coordination and collaboration between urban local bodies and state agencies can be a challenge in Bihar. Effective coordination is essential for urban planning, infrastructure development, and implementation of various schemes and programs.
- Addressing these challenges requires concerted efforts from the urban local bodies, state government, and other stakeholders. Strengthening financial resources, improving governance structures, enhancing revenue generation, investing in infrastructure, promoting sustainable urban planning, and capacity building are crucial for improving the functioning and effectiveness of urban local governments in Bihar.

#### 20.2.6 Initiatives

- Drinking Water Supply: The State Government has embarked on an ambitious plan to provide piped drinking water supply to all households through AMRUT mission, State Plan and Mukhya Mantri Har Ghar Nal ka Jal Nischay Yojana.
- Roads and Drains: waterlogging is one of the major problems in urban areas in Bihar, the State Government and ULBs are collaborating in constructing extensive drainage systems in the urban areas. While large outfall drains and multi-ward drains are being sanctioned by the State Government under AMRUT or the State Plan, the smaller drains are being taken up by the ULBs under the "Mukhya Mantri Shahari Pakki NaliGali Nischay Yojana" (funded through State Funds as well as State Finance Commission funds).
- Sewerage: Under the "Namami Gange" Scheme of the Central Government, towns located along the river Ganga have been targeted for cleaning and rejuvenation of the river.
- Sanitation: The construction of toilets was commenced under the "Sauchalaya Nirman Ghar

- ka Samman Nischay" of the State Government and the Swachh Bharat Mission project of the Central Government . The State Government is giving funds at the rate of Rs 1200 per household per year to all ULBs as Swachhata Anudan for assisting them in the provision of sanitation and solid waste management activities
- Housing and shelter: "Housing for All" Mission for urban areas will be implemented during 2015-2022 and this Mission will provide central assistance to implementing agencies through States and UTs for providing houses to all eligible families/beneficiaries by 2022. Mission will be implemented as a Centrally Sponsored Scheme (Central share-75%, State Share-25%) except for the component of credit linked subsidy which will be implemented as a Central Sector Scheme. The State has also notified its Affordable Housing and Slum Rehabilitation and Redevelopment Policy in 2017 under which minimum 35% EWS units shall be sold to eligible beneficiaries in order to avail the benefits of Housing for all scheme.
- Civic Amenities: The State Government intends taking up park development in all ULBs. An Inter State Bus Terminus is being developed in Patna and 38 bus stands have been constructed in various cities. The State Government has signed an Umbrella MoU in February 2018 with Energy Efficiency Services Ltd (EESL), a JV of four PSUs of the Ministry of Power, GoI for replacement of all inefficient street lights with LED lights.
- Hriday: The city of Gaya in Bihar has been taken up under the National Heritage City Development and Augmentation Yojana (HRIDAY) scheme, which aims to preserve and revitalize soul of the heritage city to reflect the city's unique character by encouraging aesthetically appealing, accessible, informative & secured environment by developing core heritage infrastructure projects.
- National Urban Livelihood Mission: Under the Employment through Skill Training and Placement (EST&P), skill training is being provided to BPL youth with focus on placements. The State has notified the Street Vending Rules and in several cities vending zones are under construction.



21

### **Elections and Politics**

## 21.1 ELECTIONS IN BIHAR : PRE AND POST-SHESHAN ERA

The pre and post-Sheshan eras refer to the periods before and after the electoral reforms introduced by the Election Commission of India under the leadership of T.N. Seshan, who served as the Chief Election Commissioner from 1990 to 1996. These reforms aimed to enhance the integrity, transparency, and fairness of elections in India, including Bihar. Here's a comparison of the pre and post-Sheshan eras in the context of elections in Bihar:

#### 21.1.1 Pre-Sheshan Era (Before 1990)

- Electoral Malpractices: Bihar, like many other states in India, witnessed widespread electoral malpractices, including booth capturing, rigging, violence, and misuse of money and muscle power. These malpractices undermined the credibility and fairness of elections.
- Weak Election Administration: The election administration in Bihar faced several challenges, including political interference, lack of adequate resources, and inefficiencies in conducting elections. This led to delays, irregularities, and difficulties in ensuring a free and fair electoral process.
- Influence of Money and Muscle Power: Elections in Bihar were often influenced by the use of money and muscle power. Candidates with strong financial resources or political connections had an advantage, which undermined the level playing field for all contestants.

### 21.1.2 Post-Sheshan Era (After 1990)

- Electoral Reforms: Under T.N. Seshan's leadership, the Election Commission of India, introduced significant reforms to strengthen the electoral process.
   These reforms included strict implementation of the Model Code of Conduct, voter education campaigns, deployment of central forces for free and fair polling, and measures to curb electoral malpractices.
- Voter Registration and Identification: The introduction of photo voter identity cards (EPIC) and the implementation of a comprehensive voter registration system helped ensure accurate voter

lists and facilitated identification of voters during elections, reducing the scope for impersonation and bogus voting.

- Decentralization of Election Administration:
   The Election Commission implemented measures to decentralize the election administration process, including the appointment of election officers and staff from outside the state to minimize local biases and ensure impartiality.
- Enhanced Vigilance and Monitoring: The Election Commission increased vigilance and monitoring mechanisms to prevent malpractices, such as booth capturing, rigging, and voter intimidation. Strict enforcement of the law and deployment of central forces helped maintain law and order during elections.
- Voter Awareness and Participation: The Election Commission conducted voter awareness campaigns to educate citizens about their rights and the importance of voting. Efforts were made to encourage voter participation and increase voter turnout in Bihar.

The following are some of the key changes that took place in the electoral process in Bihar during the Sheshan era:

- The ECI was given more powers to ensure free and fair elections. This included the power to derecognise political parties, cancel elections, and order re-polls.
- A number of reforms were introduced to make the electoral process more transparent and accountable.
   This included the use of EVMs, photo voter ID cards, and a VVPAT system.
- The ECI took a number of steps to educate voters about their rights and responsibilities. This included voter awareness campaigns and the setting up of helplines.

The post-Sheshan era in Bihar witnessed significant improvements in the electoral process. Electoral malpractices were curbed to a great extent, and elections became more transparent, fair, and participatory. However, it is important to note that challenges still exist, such as the influence of money and criminalization of politics. Continuous efforts are required to strengthen the electoral process and ensure a level playing field for all candidates in Bihar's elections.

#### 21.2 CASTE BASED POLITICS IN BIHAR

The strength of the total electorate in Bihar was 3,49,30,842 in 1977 which rose to 3,97,13,485 in 1980, 4,33,31,010 in 1984 and nearly 5.40 crore in the 1989 parliamentary elections when the voting age was reduced to 18. Though the electorate may be classified on the basis of caste, religion, class etc, caste considerations are of prime importance. After 1977 when the Janata government introduced caste based reser- vations in Bihar three basic caste groups emerged - forward castes, backward castes and scheduled castes and scheduled tribes.

In 2018 and 2019, the Bihar Legislative Assembly passed two unanimous resolutions, in favor of a caste census. In June 2022, an all-party meeting in Bihar, chaired by Chief Minister Nitish Kumar, gave its go-ahead on consensus.

Caste-based politics has historically played a significant role in Bihar's political landscape. The state has a complex social structure with a diverse range of caste groups, each with its own set of interests, aspirations, and power dynamics. Here are some key aspects of caste-based politics in Bihar:

- Caste as a Political Identity: Caste has become a crucial factor in shaping political identities and alliances in Bihar. Political parties often align themselves with specific caste groups or caste-based alliances to secure electoral support. Caste-based mobilization aims to consolidate the support of particular castes or caste blocs by addressing their specific concerns and promoting their interests.
- Caste-Based Vote Bank: Caste-based politics in Bihar revolves around the concept of a vote bank, wherein political parties attempt to secure the support of specific castes or caste combinations. Parties rely on caste-based calculations to target particular communities with promises of representation, social justice, and development. Caste-based voting patterns have influenced electoral outcomes and political power dynamics in the state.
- Social Justice and Reservation: Caste-based politics in Bihar is closely linked to the demand for social justice and reservation policies. Many caste groups, particularly those historically disadvantaged, seek representation and affirmative action in government institutions, education, and employment. Political parties often use these issues to mobilize support among marginalized castes.
- Caste-Based Alliances: Political alliances in Bihar often take a caste-based form, with parties aligning

themselves with caste-based organizations or leaders to gain electoral advantage. These alliances are formed based on the calculation of caste demographics and the potential to consolidate support among specific castes. Caste-based alliances can significantly influence the electoral outcomes and government formation in the state.

- Caste Violence and Conflicts: Caste-based politics in Bihar has also been marred by incidents of caste violence and conflicts. Inter-caste rivalries, disputes over resources, and attempts to assert dominance can lead to caste-based violence and social tensions. Addressing and managing these conflicts remains a challenge for the state government.
- Empowerment and Representation: Caste-based politics in Bihar has contributed to the empowerment and political representation of historically marginalized castes. Many political leaders from marginalized castes have emerged and occupied prominent positions in the government and political parties. This has led to increased social and political empowerment for these communities.

It is important to note that while caste-based politics has played a significant role in Bihar, there have been efforts to move beyond identity-based politics and focus on issues of governance, development, and inclusive growth. As the state progresses, there is a growing recognition of the need to address the aspirations and concerns of all communities, irrespective of caste, and promote a more inclusive and equitable society.

Caste has been a major factor in Bihar politics for centuries. In the pre-independence era, the upper castes, such as Brahmins, Bhumihars, and Rajputs, dominated the political landscape. However, after independence, the lower castes, such as Yadavs, Kurmis, and Koeris, began to assert themselves politically. This led to a rise in castebased parties, such as the Janata Dal and the Rashtriya Janata Dal.

In recent years, caste has become even more important in Bihar politics. This is due in part to the Mandal Commission report, which recommended that 27% of government jobs and educational seats be reserved for backward castes. The report was implemented in 1990, and it had a major impact on Bihar politics.

The rise of caste-based politics has had a number of negative consequences for Bihar. It has led to increased social and political polarization, and it has made it difficult to address issues that affect all Biharis, regardless of caste.

Here are some of the **key players** in caste-based politics in Bihar:

Lalu Prasad Yadav: Yadav leader who founded the Janata Dal and the Rashtriya Janata Dal. He is known

for his populist rhetoric and his focus on social justice.

- Nitish Kumar: Kurmi leader who has served as Chief Minister of Bihar on three occasions. He is known for his development-oriented policies and his secular approach to politics.
- Rashtriya Janata Dal: A regional party that is primarily supported by Yadavs and other backward castes. The party has been in power in Bihar for a total of 15 years.
- Janata Dal (United): A regional party that is primarily supported by Kurmis and other backward castes. The party has been in power in Bihar for a total of 10 years.

Caste-based politics is a complex and ever-evolving phenomenon. It is a product of Bihar's unique history and social structure. It is also a reflection of the larger political and social landscape in India.

# 21.3 ROLE OF REGIONAL PARTIES IN BIHAR

There are several reasons for the dominance of regional parties in Bihar. First, the state has a very diverse population, with a large number of castes and communities. This makes it difficult for any one party to build a pan-Bihar base. Second, the state has a long history of social and economic backwardness. This has led to a high level of alienation from the national political parties, which are seen as being out of touch with the needs of the people.

As a result of these factors, regional parties have been able to build strong support bases among particular castes and communities. They have also been able to articulate the concerns of these groups more effectively than the national parties. This has helped them to win elections and to form governments.

The dominance of regional parties has had both positive and negative consequences for Bihar. On the one hand, it has led to a greater focus on the state's specific needs. Regional parties have been more responsive to the demands of the people than the national parties. This has helped to improve the quality of life for many people in Bihar.

On the other hand, the dominance of regional parties has also led to political instability. There have been frequent changes in government, and this has made it difficult to implement long-term policies. Additionally, the rivalry between regional parties has sometimes led to violence and corruption.

Overall, the role of regional parties in Bihar has been mixed. They have been able to improve the lives of many people, but they have also contributed to political instability. The future of regional parties in Bihar is uncertain, but they are likely to continue to play a major role in the state's politics. In the context of Bihar, regional parties have played a significant role in shaping the state's political landscape. Here are some specific roles and functions of regional parties in Bihar:

- Representation of Regional Identity: Regional
  parties in Bihar, such as the Janata Dal (United) (JDU)
  and the Rashtriya Janata Dal (RJD), have emerged as
  the voices of Bihari identity and aspirations. They
  advocate for the concerns and interests of the people
  of Bihar and strive to address the unique challenges
  faced by the state.
- Social Justice and Empowerment: Regional parties in Bihar have historically focused on issues related to social justice, empowerment, and the upliftment of marginalized communities. They have championed the cause of backward classes, Dalits, and other marginalized sections of society, seeking to address their socio-economic needs and ensure equitable development.
- Coalition Politics: Bihar has witnessed coalition politics, with regional parties playing a pivotal role in forging alliances. These parties have often formed alliances with national parties to gain a broader political base and maximize their influence in the state. The JDU-RJD alliance in the past and the JDU-BJP alliance in recent years are examples of such coalitions.
- State Development and Governance: Regional parties in Bihar have focused on issues of state development, infrastructure, and governance. They have advocated for better healthcare, education, and job opportunities, and have pushed for development projects and initiatives that benefit the people of Bihar.
- Grassroots Politics: Regional parties in Bihar have a strong grassroots presence and have mobilized support at the local level. They have built extensive networks and cadres, connecting with people at the grassroots and addressing their concerns directly. This has allowed them to establish a strong political base in the state.

Overall, regional parties in Bihar play a crucial role in representing the aspirations of the people, advocating for regional concerns, and influencing the state's political dynamics through their presence and alliances.

#### Factors related to the rise of regional parties in India. Some of them are as follows:

- Cultural and ethnic pluralism of Indian society.
- Economic disparities and regional imbalances in development.
- Desire of certain sections is to maintain a separate identity due to historical factors.
- Self-interest of the deposed Maharajas and dispossessed Zamindars.
- Failure of national politics to merge with the regional aspirations.
- Reorganization of states on the basis of language.
- Charismatic personality of the regional leaders.
- Factional fights within the larger parties.
- Centralizing the tendencies of the congress party.
- Absence of strong opposition party at the central level.
- Role of caste and religion in the political process.
- Alienation and discontent among the tribal groups.

#### 21.4 MAJOR REGIONAL PARTIES IN BIHAR

- Rashtriya Janata Dal (RJD)
- Janata Dal (United) (JDU)
- Samata Party
- Hindustani Awam Morcha
- Rashtriya Lok Janata Dal
- Jan Adhikar Party
- Vikassheel Insaan Party
- Lok Janshakti Party (Ram Vilas)
- Rashtriya Lok Janshakti Party





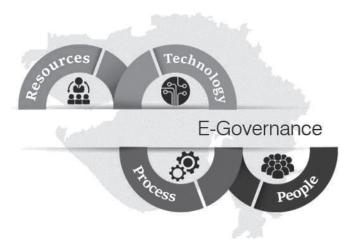
### Governance

#### 22.1 E-GOVERNANCE

E-governance is the use of information and communication technologies (ICT) to improve the efficiency, transparency, and accountability of government services. It can be used to provide citizens with access to government information and services, to improve the delivery of government services, and to make the government more accountable to citizens.

E-governance can have a number of benefits, including:

- Increased efficiency: E-governance can help to reduce the time and cost of government services.
   For example, citizens can now apply for passports, driver's licenses, and other government documents online, which saves them time and money.
- Increased transparency: E-governance can help to make government more transparent by making government information and services more accessible to citizens. For example, citizens can now access government budgets, contracts, and other records online.
- Increased accountability: E-governance can help to make the government more accountable by making it easier for citizens to track government spending and to hold government officials accountable for their actions. For example, citizens can now use online tools to track government spending and to file complaints about government officials.



### 22.1.1 Initiatives by Bihar Government in the field of E-Governance

The Bihar government has implemented a number of e-governance initiatives in recent years. These initiatives aim to improve the efficiency, transparency, and accountability of government services. Some of the key e-governance initiatives in Bihar include:

- Bihar State Wide Area Network (BSWAN):
   BSWAN is a high-speed optical fiber network that connects all government offices in Bihar. BSWAN enables government departments to exchange data and information electronically, which improves the efficiency of government services.
- e-District Bihar: e-District Bihar is a web-based platform that provides citizens with access to a wide range of government services, such as birth and death registration, land records, and driving licenses. e-District Bihar has made it easier for citizens to access government services and has reduced the time and cost of obtaining these services.
- Bihar State Data Centre (BSDC): BSDC is a data center that hosts the state government's e-governance applications. BSDC provides a secure and reliable environment for storing and processing government data.
- Common Service Centres (CSCs): CSCs are rural kiosks that provide citizens with access to a range of government services, including e-governance services. CSCs have been instrumental in bridging the digital divide in Bihar and have made it easier for citizens in rural areas to access government services.

The Bihar government has also implemented a number of other e-governance initiatives, such as the development of a state-wide e-procurement system and the creation of a state-wide e-health record system. These initiatives are helping to transform the way that government services are delivered in Bihar.

The Bihar government's e-governance initiatives have been successful in improving the efficiency, transparency, and accountability of government services. These initiatives have also made it easier for citizens to access government services. The Bihar government is committed to continuing to implement e-governance initiatives and to making Bihar a digitally empowered state.



- Bihar Ranks 11 in Governance in the SKOCH State of Governance 2021 from 17th position in the previous year, making a significant jump of six positions in the overall ranking.
- The Good Governance Index 2021 was released by the Union Home and Cooperation Minister, in which Bihar has got 6th rank in Group 'B'.
  - Bihar has increased its score by 5 percent as compared to the previous index (2019). Last time its score was 4.40, which has now increased to 4.624.
  - Bihar has basically improved in public infrastructure and utilities, social welfare and development sector and judicial and public security sector.

# 22.2 PROBLEM OF CENTRE-STATE RELATIONS WITH RESPECT TO BIHAR

The Centre-State relations in the context of Bihar have been marked by several challenges and issues. Some of the key problems include:

- **Financial Disparities:** Bihar faces significant financial challenges, with lower per capita income and limited resources compared to other states. The state relies heavily on central grants and funds for its development programs. However, there have been concerns about the adequacy and timely release of funds from the central government, hindering the state's development initiatives.
- Infrastructure Development: Bihar requires substantial investment in infrastructure development, including roads, railways, power supply, and irrigation facilities. However, inadequate central support and coordination in infrastructure projects have hampered the state's efforts to improve its physical infrastructure. Limited connectivity and inadequate power supply continue to be major challenges.
- Backwardness and Regional Disparities: Bihar faces significant socio-economic backwardness and regional disparities within the state. The central government plays a crucial role in addressing these disparities through various developmental schemes and initiatives. However, there have been concerns about the effectiveness and equitable implementation of these programs, leading to the persistence of regional imbalances.
- Agricultural Sector Support: Agriculture is a vital sector for Bihar's economy, employing a significant portion of the population. The state requires robust central support in terms of agricultural infrastructure, irrigation facilities, and technology dissemination. However, there have been criticisms about the

- inadequate focus and support from the central government for the agricultural sector in Bihar.
- Law and Order: Bihar has faced challenges related to law and order in the past. Effective maintenance of law and order is a shared responsibility between the central and state governments. Cooperation and coordination between the central agencies and state police forces are crucial to tackling criminal activities and maintaining a peaceful environment. Ensuring a smooth Centre-State relationship in matters of law and order is essential for effective governance.
- Employment and Skill Development: Bihar faces significant challenges in generating employment opportunities and enhancing the skills of its workforce. The central government's support in promoting skill development programs, attracting investments, and creating a conducive business environment is crucial. However, there have been concerns about the effectiveness of central initiatives in addressing the state's employment needs.

Addressing these challenges requires a collaborative approach between the central government and the state government of Bihar. Regular consultations, effective coordination mechanisms, and a shared commitment to the development of the state are essential to improve Centre-State relations and address the specific needs and concerns of Bihar.

These problems have had a negative impact on the development of Bihar. The State has been unable to achieve its full potential, and it has lagged behind other states in terms of development.

There are a number of things that can be done to improve Centre-State relations in Bihar. These include:

- Building trust and cooperation: The Centre and the State government need to build trust and cooperation.
   This can be done through regular dialogue and consultation, and by respecting each other's views.
- Increased resource allocation: The Centre needs to increase resource allocation to Bihar. This will help the State government to implement its development plans.
- Improved implementation of centrally-sponsored schemes: The Centre needs to improve the implementation of centrally-sponsored schemes in Bihar. This can be done by providing more training and support to the State government.
- Addressing security challenges: The Centre needs to do more to address the security challenges in Bihar. This can be done by increasing the deployment of security forces, and by working with the State government to develop a comprehensive security plan.

By addressing these problems, the Centre and the State government can improve Centre-State relations in Bihar. This will help the State to achieve its full potential and to develop into a prosperous and vibrant state.

According to the Finance minister of the State ,"Centrally Sponsored Schemes forces states to reprioritise their spending and puts poor states at a disadvantage. It has been witnessed that large spending by the Centre on many schemes ultimately results in squeezing the Union government's allocation." This will certainly empower states like Bihar to ensure greater flexibility in the implementation of select schemes and improve the delivery.

The Bihar government had projected 9.84 per cent growth during the 2021-22 fiscal. However, the actual growth of the state's economy was 15.04 per cent, the highest in the last decade. But Bihar is among the poorest states in the country. Hence it deserves special financial assistance from the Centre.

#### **Mind Maps of Polity**

#### **Local Self Government Rural Self Gout Urban Self Government** 73rd Constitutional 74th Constitutional Amendment 1992 Amendment Schedule **HRIDAY** 11 Schedule 12 Schedule Nal-Jal Yojna National Urban Bihar Municipal Act 2007 Age: 21 years Gram Swaraj *Initiatives* Livelihood Election : State Election 50% Reservation to Women Yojna Mission Commision 3 tier system Mukhya Mantri Housing for All Bihar Panchayat Samiti Nischay Swayam 1. Municipal corporation Namami Gange & Zila Parishad Act (96) Sahayata Batta (12)Har Ghar Nal ka Yojna Three tier system: 2. Municipal Council (49) Jal Nischay Yojna 1. Zila parishad 3. Nagar Panchayat (81) 2. Panchayat Samiti 3. Gram Panchayat





**Economy of Bihar** 

23

### Bihar: Economy at a Glance

- One of the fastest growing economies of India, Bihar is largely service driven. Agriculture and Industry sectors also constitute a significant share of the economy.
- The GDP of this state at current market prices (2022-23) was ₹745310 crores which makes it \$94 billion. It is ranked 14th among Indian States and UTs. GDP growth rate of Bihar is at 10.98% (2022-23). The expected GSDP 2023-24 is 858928.0 crores as per Budget reports.
- The most important contributor to the growth of Bihar economy has been the tertiary sector and the resulting growth process has also changed the structural composition of Bihar economy- the share of tertiary sector is increasing, that of the secondary sector is nearly the same, and share of primary sector is decreasing.
- This indeed implies faster growth of the urban economy, which is the location of secondary and tertiary sectors. Unfortunately, this phenomenon has not been accompanied by movement of people from rural to urban areas, putting a stress on the rural economy.

To supplement the gains from the economic growth, the state government has also initiated a number of welfare measures to improve the standard of living of the people. The main development focus of the state government is now around Seven resolves. (SAAT NISCHAY)

- 1. Welfare of the youth
- 2. Women empowerment
- 3. Supply of electricity to all households
- 4. Clean drinking water
- 5. Road connectivity
- 6. Toilet facility
- 7. Higher technical education

#### 23.1 DEMOGRAPHY OF BIHAR

Bihar ranks  $3^{rd}$  among states and UTs in India in terms of population.

**Demography:** The basic economic scenario of a region is influenced by its demographic profile. According to census 2011, Bihar had approximately 104 million population which accounts for 8.6% of India's total population.

- As per the Census 2011, the population of Bihar is 104,099,452.
- The population of Bihar is **8.6%** of the total population of India.
- The rural population of Bihar constitutes **88.71%** of the total population of Bihar.
- The urban population of Bihar constitutes 11.29% of the total population of Bihar.
- The population density of Bihar is 1,106 per square km
- The sex ratio in Bihar is **918**.
- Bihar is the most densely populated state of India as per census 2011.
- The level of urbanization in Bihar is 11.3%.

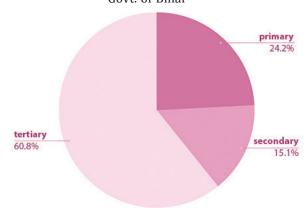
Demographic indicators	Demographic profile of Bihar (2011)
Population	104 099 452
Male population	54 278157
Female population	49 821295
Sex ratio	918/1000
Child sex ratio	935/1000
Density of population	1106/ sq. km
Urbanization	11.3 %
Decadal Growth	25.1 %
Number of districts	38
Number of CD blocks	534
Number of towns	199
Number of villages	39073
Literacy rate	61.8%
Male literacy rate	71.2%
Female literacy rate	51.5%

Demographic indicators	Demographic profile of Bihar (2011)		
muicators	Maximum	Minimum	
Highest Population	Patna	Sheikhpura	
Literacy rate	Rohtas	Purnia	
Population density	Sheohar	Kaimur	
Sex Ratio	Gopalganj	Munger	
SC population	Gaya	Sheohar	
ST population	West Champaran	Sheohar	
Urban Population	Patna	Sheohar	
Urbanization	Patna	Samastipur	
Rural Population	East Champaran	Sheikhpura	
Per capita Income	Patna	Sheohar	

#### 23.2 STATE DOMESTIC PRODUCT

- The estimates of State domestic product are prepared separately for both Gross State Domestic Product (GSDP) and Net State Domestic Product (NSDP) at current and constant prices.
- Gross State Value Addition by Economic Activity at Constant (2011-12) Prices and Current prices (Rs. in Crore).

#### Source: Directorate of Economics and statistics. Govt. of Bihar



Sector wise Composition of Three Sectors of Economy in 2020-21 in Bihar

#### 23.3 AGRICULTURE IN BIHAR

Agriculture is the mainstay of Bihar economy. After the bifurcation of Bihar. Bihar was devoid of substantial mineral resources or sizable industrial sector. Agricultural development thus assumes importance. The base of Agriculture in Bihar is its rich alluvium with abundant irrigation resources in terms of river water and groundwater. Paddy, Wheat, Maize are the major cereal crops of Bihar. Pulses, oilseeds, fiber crops, sugar cane, fruits, vegetables are other major crops grown in Bihar. The agriculture sector employs almost 80% of the state's population, which is over the national average of 58%. In India, Bihar is the eighthlargest producer of fruits and the fourth-largest producer of vegetables.

#### Agriculture is the vital source of wealth in Bihar.

- 76% of the population is engaged in agricultural pursuits.
- Bihar has a total geographical area of about 93.60 lakh hectare, out of which only 56.03 lakh hectare is the net cultivated area and gross cultivated area being 79.46 lakh hectare.
- About 33.51 lakh hectare net area and 43.86 lakh hectare gross area receive irrigation from different sources.
- Bihar has notified forest area of 6,764.14 sq km, which is 7.1 percent of its geographical area.
- Based on soil characterization, rainfall, temperature and terrain, four main agro-climatic zones in Bihar have been identified. These are:
  - Zone-I- North Alluvial Plain,
  - Zone-II- North East Alluvial Plain,
  - Zone-III A- South East Alluvial Plain and
  - Zone-III B- South West Alluvial Plain.

The growth of agriculture and related sectors is crucial for the overall growth of Bihar economy, because of its substantial forward and backward linkages.

- The agriculture and allied sectors grew at a rate of about 5 percent during the last five years (2017-18 to 2021-22).
- Overall, the sector accounted for a share of 20 percent in Gross State Value Added (GSVA) during the same period.
- The contribution of sub-sectors to GSVA were crop sector (11.1 percent), livestock (6.6 percent) and fisheries and aquaculture (1.8 percent) in 2021-22.

- In 2020-21, the Net Sown Area in Bihar was 50.5 lakh hectares, while the cropping intensity was 1.44.
- As of 2021-22, the total cereal production stood at 181.0 lakh tonnes.
- As per the estimates of the Department of Sugarcane, the total sugarcane production stood at 119.77 lakh tonnes in 2021-22, with a yield of 49.70 tonnes per hectare.
- As of 2021-22, nearly 17,534 acres of land parcel is under certification.
- In 2021-22, the total expenditure for irrigation development was Rs. 2670.49 crore.
- As of March 2022, about 37.22 lakh hectare of irrigation potential has been created under the major and medium irrigation projects under the Department of Water Resources. The construction of a barrage on the Kamla river, with an estimated cost of Rs. 405.66 crore, is under progress, and is scheduled to be completed by March 2023.
- The present CCA(Culturable Command Area) is 28384 hectares, and with the completion of this Barrage, an additional 1175 hectares of irrigation potential will be created which will lead to a final CCA of 29,559 hectares.

The agriculture sector can be described in detail in terms of crops and irrigation.

#### 23.3.1 Crops in Bihar

Bihar has been divided into four primary agro-climatic zones based on soil characteristics, rainfall, temperature, and topography. Foodgrains like rice, paddy, wheat, jute, maize and oil seeds are the primary crops. The state grows a variety of vegetables, including cauliflower, cabbage, tomatoes, radishes, carrots and beets. Some of the noncereal crops farmed include sugarcane, potatoes and barley. Gopalganj and Madhepura have the highest net sown area. Modern agricultural techniques and contract farming methods are being accepted by farmers, which is a positive development for the agriculture sector.

In Bihar, there are three distinct crop seasons: **Kharif, Rabi and Zaid**.

#### Kharif Crops:

- Kharif season begins in the third week of May and ends at the end of October.
- It is also called Badhai and Aghani crops.
- Important crops include maize, paddy and jute.

#### Rabi Crops:

- Rabi crops are sown in October-November and harvested in March-April.
- Important crops include Wheat, Gram, Rapeseed and Mustard.

#### Zaid Crops:

- Zaid season is used to produce mainly fruits.
- Crops of this season are produced between Rabi and Kharif crop seasons.
- Important crops include Muskmelon, Watermelon, Gourd etc.
- Litchi of Muzaffarpur is famous all over India.
- o Bihar is known for its Litchi and Mango production.

Some of the most grown crops in the state of Bihar are:

#### Wheat

 The Bagmati Plains and Ganga Diara are the most significant regions for wheat production.

- Sandy soil with the ability to hold moisture is best suited.
- Maximum productivity regions- Jahanabad, Patna and Gaya.
- Maximum production areas Rohtas, Kaimur and Siwan.
- Maximum area under wheat cultivation- Rohtas, East Champaran and Aurangabad.

#### • Rice:

- Bihar's primary crop is rice.
- There are two types of rice crops: Aus (Summer Crop) and Aman (Winter Crop).
- Maximum productivity regions- Arwal, Rohtas and Sheikhpura.
- Maximum production areas Rohtas, Aurangabad and West Champaran
- Maximum area under rice cultivation- Madhubani, Aurangabad and Rohtas.

#### Jute:

- Jute production in Bihar is second only to West Bengal in the country.
- It requires alluvial soil with a large amount of rainfall
- Major district for jute production Kishanganj and Purnea

#### • Maize:

- For maize production, light clay soil, such as Bal Sundari soil is ideal.
- Maximum productivity areas- Katihar
- Maximum production areas- Katihar, Madhepura and Khagaria
- Maximum area under maize cultivation- Khagaria

#### • Pulses:

Major pulses grown in the state are: arhar, gram, urad, masoor, moong and khesari.



ONLYIAS Bihar: Economy at a Glance

- Maximum productivity region- Kaimur.
- Maximum production areas- Patna, Aurangabad and Nalanda
- Maximum area under pulses cultivation- Patna, Aurangabad and Muzaffarpur.

**Organic and sustainable agriculture** is a priority for the State Government. Therefore, under the Jaivik Corridor Scheme (2022-25), another 20,000 acres have been taken for organic farming where infrastructural support is being provided to farmers in terms of Common Facility Centre (CFC) and insulated/reefer van as logistic support, Smart Jaivik Mandi, street vending, priority in space allotment to the FPOs in the mandis, development of organic value chains, etc.

### Leading Districts for Production of Vegetables, Fruits, Flowers & Sugarcane

S.No.	Crop	Top District	
1.	Potato	Nalanda, Patna, Vaishali	
2.	Onion	Nalanda, Katihar, Muzaffarpur	
3.	Cauliflower	Vaishali, Muzaffarpur, Nalanda	
4.	Mango	Darbhanga, Samastipur, Muzaffarpur	
5.	Guava	Nalanda, Rohtas, Bhojpur	
6.	Litchi	Muzaffarpur	
7.	Banana	Muzaffarpur, Vaishali, Samastipur	
8.	Rose	Vaishali, Patna, Muzaffarpur	
9.	Marigold	Patna, Muzaffarpur, Vaishali	
10.	Sugarcane	West Champaran, East Champaran, Gopalganj	

Source: Economic Survey Of Bihar

### 23.3.2 Importance of Agriculture

Agriculture holds immense importance in the state of Bihar, both economically and socially. Here are several key reasons why agriculture is crucial in Bihar:

- **Economic Backbone:** Agriculture is the backbone of Bihar's economy, employing a significant portion of the population. The majority of the state's workforce is engaged in agricultural activities, directly or indirectly. It contributes to the state's GDP and provides livelihood opportunities to millions of people.
- Food Security: Bihar is one of the most populous states in India, and agriculture plays a vital role in ensuring food security for its population. The state's fertile land, coupled with its diverse agro-climatic conditions, allows for the cultivation of a wide range of crops. The production of staple food crops such as

- rice, wheat, maize, and pulses helps meet the dietary needs of the people.
- Rural Development: Agriculture is predominantly
  practiced in rural areas of Bihar, and the development
  of the agriculture sector contributes to overall rural
  development. It generates income and employment
  opportunities, reduces poverty, and improves the
  standard of living in rural communities. It also helps
  in bridging the urban-rural divide and reducing
  migration to cities.
- Export Potential: Bihar has significant potential for agricultural exports. The state produces a surplus of several agricultural commodities, including fruits, vegetables, oilseeds, and spices. Expanding the agricultural export market not only contributes to the state's economy but also enhances farmers' income and creates opportunities for agro-processing industries.
- Socio Economic Impact: Agriculture plays a crucial role in reducing income inequality and promoting inclusive growth. Small and marginal farmers constitute a significant portion of the agricultural workforce in Bihar. By supporting and strengthening the agricultural sector, the state can uplift the socioeconomic conditions of these farmers and improve their access to resources, credit, and technology.
- Climate Resilience: Bihar is prone to natural disasters like floods and droughts. The agricultural sector plays a critical role in building resilience to such climatic challenges. Implementing climate-smart agricultural practices, promoting crop diversification, and improving water management techniques are essential for sustainable agriculture and mitigating the impact of climate change.
- Employment Generation: Agriculture provides employment opportunities not only to farmers but also to a large number of farm laborers, rural artisans, and agro-industries. The sector has the potential to create additional jobs through allied activities such as dairy farming, poultry, fishery, horticulture, and agroprocessing.

Given these factors, agriculture occupies a central position in Bihar's economy, rural development, food security, and employment generation. The government and various stakeholders are focused on implementing policies and initiatives to enhance agricultural productivity, income, and sustainability in the state.

#### **Facts**

- There are 7 districts in Bihar that have net sown area higher than around 70%. These districts are valuable agrarian tracts of Bihar such as Buxar (86.8%), Nalanda (77.1%), Madhepura (74.4%), Bhojpur (72.4%), Siwan (73%), Muzaffarpur (72%) and Gopalganj (71.2%).
- There are ten districts in Bihar which have net sown area less than 50% of their total geographical area. These are Patna (49.9%), Nawada (47.2%), Araria (44.7%), Jehanabad (44.6%), Kaimur (42.6%), Banka (37.5%), Gaya (37.4%), Lakhisarai (34.4%), Munger (32.4%) and Jamui (27.4%) districts.
- The Land Reforms Act came into existence in 1950 in Bihar and Bihar Land Reforms (Fixation of Ceiling and Acquisition of Surplus Land) Act in 1961.
- Agricultural growth in the state is enhanced by the institutional infrastructure of Rajendra Agricultural University, Pusa (Samastipur) and its network of Krishi Vigyan Kendra, ICAR eastern zone complex at Patna, National Research Centres for Litchi, Makhana and Pan. Small Farmers Agri-business Consortium (SFAC) and Agricultural Technology Management Agency (ATMA) are other institutions supporting Agricultural growth in the State.

# 23.3.3 Challenges faced by Bihar in Agriculture

Bihar faces several challenges in the agriculture sector. These challenges can impact productivity, sustainability, and the overall development of the sector. Here are some key challenges faced by Bihar in terms of agriculture:

- Subsistence Farming: Bihar has a significant number of small and marginal farmers who practice subsistence farming. Limited access to resources, modern technology, and credit constraints their ability to adopt advanced agricultural practices. This hampers productivity and prevents the transition to commercial farming.
- Land Fragmentation: Land fragmentation is a significant issue in Bihar, with small landholdings being prevalent. Fragmented land parcels make it challenging to implement mechanization and modern farming techniques effectively. Consolidation of landholdings and land reforms are required to address this issue and improve productivity.
- Irrigation Infrastructure: Inadequate irrigation facilities are a major challenge in Bihar. The state heavily relies on rainfall, which is often erratic, leading to frequent droughts and crop failures. Enhancing irrigation infrastructure, promoting water

- conservation techniques, and implementing efficient irrigation systems are crucial to mitigate water scarcity issues.
- Soil Health and Fertility: Bihar faces challenges related to declining soil health and fertility. Excessive use of chemical fertilizers, improper land management practices, and soil erosion contribute to soil degradation. Promoting organic farming, encouraging sustainable agricultural practices, and implementing soil conservation measures are essential to restore soil health and ensure long-term productivity.
- Post-Harvest Losses: Bihar faces significant postharvest losses due to inadequate storage and transportation infrastructure. Lack of proper storage facilities, cold chains, and poor market linkages lead to spoilage and wastage of agricultural produce. Addressing these infrastructure gaps can help reduce post-harvest losses and improve farmers' income.
- Market Access and Price Volatility: Farmers in Bihar often face challenges in accessing markets and obtaining fair prices for their produce. Limited market information, lack of organized marketing channels, and dominance of intermediaries affect farmers' bargaining power. Strengthening market infrastructure, promoting farmer producer organizations, and establishing direct linkages with markets are crucial for ensuring better price realization for farmers.
- Climate Change and Natural Disasters: Bihar is prone to climate-related risks, including floods, droughts, and extreme weather events. These events can cause significant damage to crops, infrastructure, and livelihoods. Implementing climate-resilient agriculture practices, improving disaster management strategies, and promoting crop diversification are vital to enhance the sector's resilience.

Addressing these challenges requires a multi-faceted approach involving policy interventions, investments in infrastructure, access to finance and technology, capacity-building initiatives, and research and development support. By addressing these challenges, Bihar can unlock the potential of its agriculture sector, enhance farmer livelihoods, and contribute to sustainable economic growth.

#### 23.3.4 Initiatives by Bihar Government

The Bihar government has implemented several initiatives to promote agriculture and address the challenges faced by the sector. These initiatives aim to enhance productivity, improve farmers' income, provide access to modern technology and resources, and promote sustainable agricultural practices. Here are some key initiatives of the Bihar government in terms of agriculture:

 Bihar Agriculture Roadmap: The government has launched the Bihar Agriculture Roadmap, which focuses on increasing agricultural productivity, promoting crop diversification, improving irrigation facilities, and enhancing farmers' income. It aims to achieve sustainable agricultural growth through the adoption of advanced technologies, capacity-building programs, and infrastructure development.

- Schemes for Small and Marginal Farmers: The Bihar government has introduced various schemes targeting small and marginal farmers. The Bihar Kisan Credit Card scheme provides affordable credit to farmers for agricultural and allied activities. The Mukhyamantri Kisan Aaye Badhotri Protsahan Yojana aims to supplement farmers' income through cash incentives for increasing production and productivity.
- National Agriculture Development scheme:
   The main objective of this scheme is the all-round development of agriculture. It has three components increase in production, development of infrastructure and assets and flexi fund.
- Promotion of Organic Farming: To address concerns related to soil health and environmental sustainability, the government promotes organic farming practices. The Bihar Organic Farming Policy aims to increase organic farming acreage and promote organic certification. It provides incentives, training, and support for farmers adopting organic farming methods.
- Krishi Input Subsidy: The government provides subsidies on agricultural inputs like seeds, fertilizers, and machinery to support farmers. Schemes like the Bihar State Seed Subsidy Scheme and the Bihar State Fertilizer Subsidy Scheme aim to make quality inputs accessible and affordable for farmers.
- Diyara Development scheme- Under this scheme, distribution of hybrid seeds of gourds such as (Kadda, Nanua, Bitter gourd), Melon and Ladyfinger at 50% maximum of Rs. 50% of the cost of P.B.C. pipe boring (up to 100 feet, for 4-inch diameter pipe) maximum grant of Rs.7,500 (seven thousand five hundred) is admissible to the farmers.
- Agriculture Infrastructure Development: The Bihar government has initiated various infrastructure development projects to improve the agricultural ecosystem. The Bihar Agriculture Road Project focuses on enhancing rural connectivity, providing access to markets, and developing post-harvest management infrastructure. It includes the construction of rural roads, market yards, storage facilities, and cold chains.
- Farmer Producer Organizations (FPOs): The government promotes the formation and strengthening of Farmer Producer Organizations (FPOs). FPOs help farmers in collective marketing, accessing credit, adopting advanced technologies, and improving bargaining power. The Bihar Agricultural Growth

- and Reform Initiative supports the formation and capacity-building of FPOs.
- Agri-Entrepreneurship Development: The Bihar government encourages the youth to take up agriculture as a viable career option. It promotes agri-entrepreneurship by providing training, skill development programs, and financial support for setting up agribusiness enterprises. The Bihar Startup Policy also extends support to agri-startups through incubation centers, funding, and mentorship.
- Climate Change Adaptation: Recognizing the impact
  of climate change on agriculture, the government
  focuses on climate-resilient agriculture practices.
  Initiatives include promoting crop diversification,
  water conservation measures, organic farming, and
  introducing climate-resilient crop varieties. The Bihar
  State Action Plan on Climate Change outlines strategies
  for climate change adaptation and mitigation in
  agriculture.

These initiatives demonstrate the Bihar government's commitment to transforming the agricultural sector and improving the lives of farmers. By providing support, resources, and promoting sustainable practices, these initiatives aim to enhance agricultural productivity, income, and resilience in the state.

Multiple missions are proposed to be launched: (i) Bihar Millet Mission, (ii) Bihar Pulses and Oilseeds Development Mission, and (iii) Crop Diversification Mission. Fourth Agriculture Roadmap will be implemented with special focus on pulses and oilseeds. Infrastructure of state agricultural market yards will be modernized.

#### 23.4 IRRIGATION IN BIHAR

Bihar has a very high potential for irrigation. Bihar receives a fair amount of rainfall. However, the distribution of irrigation systems and rainfall across different areas is uneven. Canals account for 37% of irrigation in Bihar while tube wells and wells & ponds account for 30% each. The South Bihar region accounts for almost 3/4 of the Canal Irrigated Area.

The following canals are used to irrigate several regions of Bihar:

#### **Kosi Canal:**

- Two canals taken out from Hanuman Nagar reservoir.
- Eastern Kosi Canal irrigates Purnia, Madhepura and Saharsa
- Western Kosi Canal irrigates Darbhanga district.



#### **Sone Canal:**

- Eastern Sone Canal taken out from Barun irrigates Patna, Jahanabad, Aurangabad and Gaya.
- Western Sone Canal has been taken out from Tishri irrigating Ara, Buxar and Rohtas.

#### **Kamla Canal:**

- It is taken out from the Kamla River in Darbhanga.
- It irrigates mainly the Madhubani district.

#### **Triveni Canal:**

- It is taken out from Gandak river at Triveni.
- It irrigates the West Champaran district.

#### **Gandak Canal:**

- Two Canals taken out from the dam at Valmiki Nagar.
- Saran Canal irrigates Saran, Gopalganj and Siwan.
- Tirhut Canal irrigates Muzaffarpur, Vaishali and East Champaran.

Bihar is richly endowed with rainfall, healthy soil, and readily available groundwater, but the state failed to exploit its great agricultural potential, which contributed to rural poverty, poor nutrition, and labour migration within the state. Agriculture in Bihar is prone to natural calamities, especially floods in north Bihar and drought in south Bihar. Utilising suitable crop technology and providing crop insurance to all farmers can reduce the risk of natural disasters on Agriculture in Bihar.

- Districts having more than 70% irrigated land are Arwal, Jamui, Bhojpur, Buxar, Rohtas, Siwan and Gopalganj.
- Districts having between 50% to 70% irrigated land are Gaya, Patna, Banka, Kaimur, Munger, Begusarai, Sheohar and Lakhisarai.
- Districts having less than 50% irrigated land are Araria, Saharsa, Supaul, Katihar, Purnea, Kishanganj, Madhubani, Samastipur, Darbhanga, Sitamarhi, Nawada and Khagaria.

#### 23.4.1 Challenges related to Irrigation in **Bihar**

Canals account for 37% of irrigation in Bihar while tube wells and wells & ponds account for 30% each.Budget Estimates for Irrigation and Flood control department was Rs.5,047 crores but in Actuals ,Rs 4712 crores was allocated.

Bihar faces several challenges related to irrigation, which impact agricultural productivity, water resource management, and rural livelihoods. Some of the key challenges in irrigation faced by Bihar include:

Inadequate Irrigation Infrastructure: Bihar has a significant agricultural sector, but the availability of

- irrigation infrastructure is limited. Many parts of the state still rely on rainfall for agricultural water needs, leading to dependency on monsoons and vulnerability to droughts. The lack of irrigation infrastructure, including canals, dams, and tube wells, hampers the efficient and widespread distribution of water for agricultural purposes.
- Uneven Distribution of Water Resources: Bihar's water resources are not evenly distributed across the state. Some regions have abundant water resources, while others face water scarcity. This uneven distribution poses challenges in ensuring equitable access to irrigation water, particularly in water-stressed areas. The need to manage and distribute water resources efficiently and fairly is crucial for sustainable agricultural development.
- **Aging Irrigation Systems:** Many of Bihar's irrigation systems, such as canals and embankments, are old and in need of maintenance and repair. These aging systems suffer from issues like leakages, siltation, and inadequate capacity to meet growing water demands. Upgrading and modernizing irrigation infrastructure are essential to ensure efficient water distribution and reduce water losses.
- Groundwater Depletion: Over-extraction groundwater for irrigation purposes is a significant challenge in Bihar. The extensive use of groundwater through tube wells and borewells has led to declining water tables in several areas, resulting in groundwater depletion. Proper management and regulation of groundwater usage, along with promoting waterefficient irrigation techniques, are necessary to address this challenge.
- Floods and Waterlogging: Bihar is prone to frequent floods and waterlogging, especially during the monsoon season. While excess water can be damaging, proper water management during flood events is crucial to recharge groundwater and prevent soil erosion. The challenge lies in implementing effective flood control measures, including proper embankments, drainage systems, and floodplain management, to mitigate the adverse impacts of floods on irrigation systems and agricultural productivity.
- Farmer Awareness and Adoption: Promoting the adoption of efficient irrigation practices and technologies among farmers is crucial. However, there is a need to raise awareness among farmers about the benefits of water-saving techniques such as drip irrigation, sprinkler irrigation, and precision farming. Providing training, demonstrations, and financial support to farmers for adopting these practices can help address the challenge of inefficient irrigation methods.
- Integrated Water Resource **Management:** Effective management of water resources requires

integrated planning and coordination among multiple stakeholders, including government departments, farmers, water user associations, and local communities. Enhancing coordination and collaboration among these stakeholders is essential to address the challenges related to irrigation in Bihar and ensure sustainable water resource management.

Addressing these challenges requires comprehensive planning, investments in irrigation infrastructure, effective water resource management strategies, and farmer capacity-building initiatives. The Bihar government, in collaboration with relevant stakeholders, needs to prioritize and implement measures to enhance irrigation facilities, promote water-efficient practices, and ensure equitable access to irrigation water across the state.

#### 23.4.2 Initiatives by Bihar Government

#### **Interlinking of Rivers**

The Government of Bihar has proposed a number of river linking projects in the state. These projects aim to improve the irrigation potential of the state and to reduce the impact of floods and droughts.

Some of the major river linking projects proposed in Bihar include:

- Kosi-Mechi Link Project: This project will link the Kosi and Mechi rivers. The project will irrigate an area of about 2.14 lakh hectares and will also generate about 400 MW of hydroelectric power.
- Burhi Gandak-Noon-Via-Ganga Link Scheme: It is expected that this scheme will irrigate around 1.26 lakh hectares of land of Samastipur, Begusarai and Khagaria. It will also minimize the risk of floods in these districts by Burhi Gandak.
- Sakri-Nata River Interlinking Scheme: The CentralWater Commission has approved to link Sakri river with Nata river. Under this Scheme, Sakri river water will transfer to Nata river through Baksoti Barrage Canal. This scheme will irrigate around 68,000 hectares of lands of Nawada,Nalanda and Sheikhpura districts.

Here are some of the specific initiatives that have been taken by the government of Bihar to improve irrigation in the state:

- Bihar Saur Kranti Sinchai yojana (Solar Energy Irrigation Scheme): This scheme aims to provide solar-powered irrigation pumps to farmers in Bihar. The scheme has been very successful and has helped to improve the irrigation capacity of many farmers in the state.
- Mukhyamantri Krishi Sinchai Yojana (Chief Minister Agriculture Irrigation Scheme): This scheme aims to provide financial assistance to farmers for the construction of irrigation wells and for the repair of existing irrigation wells. The scheme

- has been very successful and has helped to improve the irrigation capacity of many farmers in the state.
- Bihar State Watershed Development Programme (BSWDP): This programme aims to improve the water conservation and management practices in the state. The programme has been very successful and has helped to improve the water availability for irrigation in many parts of the state.

These are just a few of the many initiatives that have been taken by the government of Bihar to improve irrigation in the state. These initiatives have helped to improve the irrigation capacity of the state and have helped to increase agricultural production.

#### Irrigation water to every farm

- The Water Resources Department has irrigated 45,194 hectares of land by implementing 156 schemes in the year 2022-23. A provision of Rs 200.00 crore has been made in the year 2023-24.
- For the year 2021-22, 56 schemes of Ahar-Pain have been completed by the Small Water Resources Department. Work on 13 check dams has been started and 9 have been completed. The work of **54 Uddhav irrigation schemes** has been started and 15 have been completed. The total irrigated area restored so far is 18,602 ha. For the year 2022-23, 186 Ahar pines, 11 check dams and 50 Uvah irrigation schemes have been approved. A provision of **Rs 340.00 crore has been made in the year 2023-24**.

#### 23.5 INDUSTRIES IN BIHAR

In 2021-22, the manufacturing sector is estimated to contribute 15% to Bihar's economy (at current prices). Bihar state has a large base of cost-effective industrial labour, making it an ideal destination for a wide range of industries. The state enjoys a unique location-specific advantage because of its proximity to the vast markets of eastern and northern India, access to ports such as Kolkata and Haldia and to raw material sources and mineral reserves from the neighbouring states.

#### Industries of Bihar can be divided into

- **A. Agro based industries:** Major agricultural products based industries include Food processing Industries, Sugar Industries, Dairy Industry, Tea.
- **B.** Non Agro based industries: This includes Handloom Industry, Powerloom Industry, Silk Industry, Khadi and village Industries, Leather Industry, Forest based Industry, Oil Refinery, etc.



#### A. Industries of Bihar and their Location

Industry	Location
Sugar	Motihari, Bihta, Gaya Narkatiyaganj, Gopalganj, Hathwa, Motipur, Saran, Bhojpur, Siwan, Darbhanga, Muzaffarpur, Dalmianagar, Meerganj
Cotton textile	Gaya, Phulwari Sharif, Dumraon, Mokama, patna, Barauni, Dalminangar
Cement	Banjari, Dalmianagar
Paper	Samastipur, Darbhanga, Patna, Barauni, Dalminanagar
Plywood	Hajipur
Jute	Katihar, Samastipur, Champaran, Darbhanga, Saharsa, Purnia
Match Industry	Katihar
Blanket	Gaya, Purnia, Aurangabad, Motihari
Handicraft	Madhubani, Bhagalpur, Bihar Sharif, Gaya, Patna, Munger
Utensils	Siwan, Bihta

#### **B. Major Industrial Towns of Bihar**

Town	Industries	Town	Industries
Mokama	Shoe, Wagon of Goods Train	Digha	Leather
Bihta	Sugar	Patna	Cracker, Cycle,Vermillion
Bhagalpur	Silk, Handicraft	Hathua	Vanaspati
Kanti	Thermal Power	Narayanpur	Medicine
Riga	Sugar	Bagaha	Paper
Mehsi	Button	Darbhanga	Paper
Lohat	Sugar	Munger	Gun, Cigarette
Biharsharif	Tobacco	Dumraon	Cotton Textile, Lantern
Samastipur	Paper Mill, Sugar	Katihar	Jute
Jamalpur	Rail Engine Repair	Gaya	Sugar, Lac, Leather, Cotton Textile
Chapra	Rail Wheel Factory	Obra	Carpet, Woollen Cloth

#### **Industries**

- Bihar recorded the third highest growth rate of 10.98% at constant price (2011-12) in its gross state domestic product (GSDP) during the 2021-22 FY among all the states in the country.
- The net domestic product in Bihar is Rs 32004 crore, of which the share of the industrial sector is a mere Rs 1020 crore. Industry thus accounts for only 3.2% of the state's domestic product in contrast to the national average of 20.1%, making Bihar one of the least industrialized states in the country.
- Between 2018-19 and 2019-20, the number of factories in Bihar has increased by only 0.3 percent, but the working capital has increased by 51 percent.
- The net value added has registered an increase of 1.2 percent in 2019-20 over the 2018-19 level, while the same at the all-India level has declined by 4.8 percent.
- In Bihar, the total sugar production was 45.6 lakh quintals, with a recovery rate of 9.6 percent. The distillery capacity to produce ethanol increased to 470 kilo liters per day (KLPD) in 2021-22, compared to 395 KLPD in 2020-21.

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- In case of electricity generation, eight sugar mills together produced 88.5 MW of electricity in 2021-22.
- The production of milk, ghee, lassi, paneer, dahi, and ice cream have registered a significant increase in sales.
- Under the Bihar Industrial Investment Promotion Policy 2016, The State government has received proposals for investment worth Rs 60.86 thousand crore in the last six years. Currently, 398 units are working in Bihar and the total amount invested in these working units is Rs 3.39 thousand crore.
- To encourage the establishment of production units, the State government has released a sum of Rs 532.46 crore as grants under the Bihar Industrial Investment Promotion Policy 2016 during the last six years.
- The highest amount of investment has taken place in food processing (Rs 1395.65 crore), which accounted for 41 percent of the total investment in the state.
- In 2021-22, the state could attract 97 projects of different sizes, compared to 71 projects in 2020-21.
- In 2021-22, 45 micro enterprises were established, which was more than double the number of micro enterprises set up in 2020-21.
- The amount of investment in micro enterprises has registered an increase of 135 percent.
- The employment in micro enterprises has increased by 107 percent.
- The number of large enterprises also increased from 3 in 2020-21 to 11 in 2021-22. The amount of investment in those enterprises has increased by 131 percent.
- The employment in large enterprises has increased by 187 percent.
- The State government has spent Rs 4.01 crore to encourage the start-ups.

#### 23.5.1 Industrial Development in Bihar

Bihar has made significant progress in industrial development in recent years. The state has a number of strengths that make it an attractive destination for investment, including:

- A large pool of skilled and unskilled labor: Bihar
  has a large and growing population, which provides
  a large pool of potential workers. The state also has a
  strong tradition of craftsmanship and manufacturing,
  which means that there is a pool of skilled workers
  available.
- Abundant natural resources: Bihar has a number of natural resources, including coal, iron ore, and limestone. These resources can be used to support a variety of industries, including manufacturing, mining, and energy.
- A strategic location: Bihar is located in the heart of India, which gives it easy access to major markets. The state is also close to ports in Kolkata and Haldia, which makes it easy to export goods.
- A business-friendly environment: The government of Bihar has made a number of reforms to improve the business environment in the state. These reforms have included reducing taxes, simplifying regulations, and providing more support to small businesses.

As a result of these factors, Bihar has seen a significant increase in industrial investment in recent years. The state has attracted investment from a number of multinational companies, including Samsung, LG, and Tata. This investment has helped to create jobs and boost the state's economy.

Bihar has potential to develop religious, heritage, health, entertainment, waterfront and cultural **tourism**. On tourism, the expenditure has increased to Rs 146.90 crore in 2021-22, compared to Rs 70.20 crore in 2020-21. Apart from that, the Department of Environment, Forests and Climate Change has undertaken different schemes and programmes to promote eco-tourism in the state.

Bihar still faces some **challenges in its industrial development**, including:

- Inadequate infrastructure: Bihar's infrastructure is not as developed as some other states in India. This can make it difficult for businesses to operate in the state.
- Lack of skilled labor: Bihar still has a shortage of skilled workers. This can make it difficult for businesses to find the workers they need to operate efficiently.
- **Political instability:** Bihar has a history of political instability. This can make it difficult for the government to implement reforms and to attract investment.

Despite these challenges, Bihar has the potential to become a major industrial hub in India. The state has a number of strengths that make it an attractive destination for investment. If the government of Bihar can address the challenges it faces, Bihar can achieve its full potential in industrial development.

Here are some specific steps that the government of Bihar could take to further industrial development in the state:

 Invest in infrastructure: The government could invest in building roads, bridges, railways, and airports. It could also invest in improving the power supply and water supply. This would make it easier for businesses to operate in the state and for goods to be transported to and from Bihar.

- Improve the education system: The government could improve the quality of education in Bihar by increasing spending on education, improving teacher training, and providing more textbooks and other learning materials. This would help to reduce illiteracy and improve the skills of the workforce.
- **Crack down on crime:** The government could crack down on crime by increasing the number of police officers, improving the training of police officers, and providing better equipment to the police. This would make Bihar a safer place to do business and live.
- Create a more business-friendly environment:
  The government could create a more businessfriendly environment by reducing taxes, simplifying
  regulations, and providing more support to small
  businesses. This would make Bihar more attractive
  to investors and would help to create jobs.

If the government of Bihar takes these steps, it can help to further industrial development in the state and improve the lives of its people.

### 23.5.2 Ranking of Industrial Development in Bihar

On December 13, 2022, Principal Secretary of Bihar Industries Department Sandeep Poundrik informed that the state industries department has released the ranking of industrial development for the first time, in which districts have been ranked on the basis of implementation of industrial schemes.

- According to the ranking of industrial development in the state, Siwan (73.5 points) is in first place and Patna (68 points) is in second place.
- Other than this, Munger, Sheikhpura, Saharsa, Kishanganj, Buxar, Begusarai, Nalanda and Kaimur districts have also been kept in the first 10 districts for the implementation of the schemes. The last five districts include Banka, Supaul, Gaya, Madhepura and Katihar.
- The district-wise ranking has been prepared based on the efforts made by the districts in the implementation of Mukhyamantri Udyami Yojana, Bihar Startup, dialogue with banks and entrepreneurs, MSME scheme, PMFM e-Yojana, PMEGP scheme etc

## 23.5.3 Comparison of Industrial Developments of Bihar with India

Industrial development in Bihar, as compared to the overall industrial development in India, shows some significant

differences and variations. Here is a comparison between industrial development in Bihar and India as a whole:

- Industrial Base: India has a diverse and wellestablished industrial base, comprising various sectors such as manufacturing, services, textiles, pharmaceuticals, automobiles, information technology, and more. The country has seen significant growth in industries over the years, with several large-scale industrial clusters and manufacturing hubs spread across different states. On the other hand, Bihar's industrial base is relatively limited and concentrated in a few sectors such as agriculture, agro-based industries, food processing, and smallscale manufacturing.
- Industrial Contribution: Industries play a significant role in the Indian economy, contributing to GDP growth, employment generation, and exports. The industrial sector in India accounts for a significant share of the country's GDP and employment. In contrast, the contribution of industries to Bihar's economy is relatively lower compared to other states in India. Bihar's economy is predominantly agrarian, with agriculture and allied activities being the primary sources of income for a large section of the population.
- Industrial Infrastructure: Industrial development in India has been supported by a well-developed infrastructure network, including transportation systems, power supply, industrial estates, and special economic zones (SEZs). India has made considerable investments in industrial infrastructure to facilitate the growth of industries. However, Bihar faces challenges in terms of inadequate industrial infrastructure, including road connectivity, power supply, and availability of industrial parks. This lack of infrastructure hampers the growth of industries in the state.
- various policies and initiatives to attract both domestic and foreign investments in industries. The government has introduced reforms to improve ease of doing business, provide financial incentives, and create a favorable business environment. As a result, several states have witnessed significant industrial growth. While the Bihar government has also taken steps to promote industrial development, such as the Bihar Industrial Investment Promotion Policy, the state still faces challenges in attracting substantial investments compared to other more industrialized states.
- Employment Opportunities: India's industrial sector has been a major source of employment, providing

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opportunities to millions of people across the country. The presence of large-scale industries, small and medium enterprises (SMEs), and the services sector creates a wide range of employment options. In Bihar, however, the industrial sector's contribution to employment generation is relatively limited, primarily due to the state's agriculture-centric economy and the relatively low presence of large-scale industries.

• Growth Potential: India's industrial development has been driven by a combination of factors such as market size, skilled workforce, technological advancements, and policy support. The country has the potential to further expand its industrial base and attract investments in emerging sectors. In the case of Bihar, while the state has untapped potential in sectors such as food processing, agro-based industries, textiles, and tourism, it requires focused efforts to develop and capitalize on these opportunities.

It's important to note that Bihar has been making efforts to promote industrial development and attract investments through initiatives like the Bihar Industrial Investment Promotion Policy, establishment of industrial parks, and skill development programs. However, the state's industrial development still lags behind other more industrialized states in India. Addressing challenges related to infrastructure, skill development, investment promotion, and policy reforms can help accelerate industrial growth in Bihar and bridge the gap with the overall industrial development in India.



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### Infrastructure in Bihar

#### 24.1 ROAD TRANSPORT SECTOR IN BIHAR

Roadways are the most common means of transport used by people. Road transportation is crucial in driving the state's economic growth and social integration. It includes National Highways, State Highways, District Roads and Rural Roads. It provides door to door connectivity.

# 24.1.1 Important Facts About Road Transportation in Bihar

- The total length of National Highways in Bihar is **5358 km**, based on the records of 2019.
- The longest National Highway in Bihar is NH-27 of which 487 km is in Bihar.
- The total length of the state highways is 4,006 km.
- National Highway 27: It is a part of NHAI's NS-EW Corridor and is India's second-longest National Highway (after NH 44).
- East-West Corridor:It links Silchar with Porbandar. It passes through 10 districts of Bihar: Kishanganj, Katihar, Purnia, Araria, Supaul, Madhepura, Darbhang, Muzaffarpur, East Champaran, Gopalganj.
- Golden Quadrilateral:It passes through 4 districts in Bihar.Kaimur, Rohtas, Aurangabad, Gaya.
- Major Road Bridges are listed below: a) Vikramshila Setu on Ganga river in Bhagalpur. b) Mahatma Gandhi Setu on Ganga river in Patna.
- Major Rail-Road Bridges of Bihar are listed below: Nehru Setu on Sone river in Dehri-i-Koh. Rajendra Setu on Ganga river in Mokama. Ganga Rail-Road Bridge on Ganga river connecting Patna and Sonepur. Abdul Bari Bridge on Sone river connecting Koilwar and Bhojpur.
- Major National Highways of Bihar are listed below:
  - NH-19 Chhapra to Patna
  - NH-57 Muzaffarpur to Purnia
  - NH-82 Gaya to Mokama
  - NH-85 Chhapra to Gopalganj
  - NH-98 Patna to Rajhara
- Bihar has around 200 km of roads per lakh population.
   Adequate and proper roadways are imperative for the development of the population. In terms of road density with 210 km of roads per 100 square km,

Bihar is far ahead of all other states in India, other than Kerala and West Bengal.

#### 24.1.2 Challenges

The road transport sector in Bihar is facing several challenges. These **challenges** include:

- Poor road conditions: Many roads in Bihar are in poor condition. This can make it difficult and dangerous to travel by road.
- Traffic congestion: Traffic congestion is a major problem in many cities in Bihar. This can make it difficult and time-consuming to travel by road.
- Accidents: There are many accidents on the roads in Bihar. This is due to several factors, including poor road conditions, traffic congestion, and driver negligence.

#### 24.1.3 Way Forward

The Bihar government is taking several **steps to address the road transport sector's challenges**. These steps include:

- Improving road conditions: The government is investing in improving the condition of roads in the state. This includes repairing damaged roads and constructing new roads.
- Reducing traffic congestion: The government is reducing traffic congestion in major cities. This includes building new roads and flyovers and improving public transportation.
- Preventing accidents: The government is working to prevent road accidents. This includes educating drivers about road safety and enforcing traffic laws.

**Road Sector:** Departments of Road construction and Rural works are involved in this sector. For the year 2023-24 the proposed expenditure is estimated at Rs. 17,487.78 crore. For the year 2023-24 the total amount includes Rs 4,500.00 crore for (OPRMC) maintenance of roads.

#### 24.2 RAILWAYS TRANSPORT IN BIHAR

Most of the cities in Bihar have a railway junction that facilitates railway travel across the state. In Bihar, the East India Company built its first railways in 1860–1862.

#### There are three rail lines in Bihar:

- (i) North-Eastern Railway North Bihar: North Eastern Railway runs a number of passenger trains for the economically weaker sections because it serves a broad area that stretches from the western part of Uttar Pradesh to eastern Uttar Pradesh and an area that includes western Bihar.
- (ii) East Central Railway South Bihar: The headquarters of the East Central Railway is located in Hajipur in the Vaishali district of Bihar. It consists of the divisions of Pt. Deen Dayal Upadhyaya, Sonpur, Samastipur, Danapur, and Dhanbad. Due to the enormous amount of coal being loaded in the coal-bearing Dhanbad division of Jharkhand state and the highly populated area of Bihar, ECR is exceptional in that both goods loading and passenger traffic assume major importance.
- (iii) North-East Frontier Railway North-East Bihar: It is in charge of running and expanding the rail network in all of the Northeastern states as well as some areas in eastern Bihar and northern West Bengal.

#### 24.3 AIRWAYS TRANSPORT IN BIHAR

Air transportation plays a vital role in facilitating the growth of business and economy of the state. In Bihar, there are two international airports:

- (a) Gaya International Airport
- (b) Jay Prakash Narayan International Airport, Patna

Darbhanga airport(Domestic) was made open to the public under the UDAN scheme.

#### 24.4 WATERWAYS IN BIHAR

Waterways are the cheapest means of transport.Bihar Steamer Service is accessible in **Bhagalpur at Barari Ghat**.Bihar is traversed by the **National Waterway No.**1, which runs from Allahabad to Haldia.Seven rivers in Bihar- the Ganga, Gandak, Ghagra, Kosi, Karamnasa, Sone and Punpun- are among the 111 streams that India has designated as national waterways. The recently established **National Waterways – 37** (Gandak River) and – 58 (Kosi River) are mostly in Bihar, with only a small section of the Gandak waterway planned in Uttar Pradesh. **Ara Canal** is also used for navigation purposes. The **Kosi and Gandak** rivers would be developed as **international Indo-Nepal waterways** to offer Nepal with sea connection, according to a recent joint declaration by the governments of India and Nepal.

**MV Ganga Vilas** is the first-ever cruise vessel made in India.It is the largest river cruise. It enters Bihar from Buxar and halts at Chhapra, Patna, Simaria, Bhagalpur in Bihar.

**Other means of communication:** Bihar has witnessed a substantial increase in teledensity over a period of time. As of 2020, teledensity in Bihar was 53. There were 9084 post offices in Bihar as of March 2020. Bihar has 5.8% of total post offices in India. Bihar has won 'DIGITAL INDIA AWARD-2020' for its advancement in Information in Communication technology.

### 24.5 IMPORTANCE OF INFRASTRUCTURE IN THE DEVELOPMENT OF BIHAR

Infrastructure plays a crucial role in the development of Bihar. It acts as a catalyst for economic growth, enhances connectivity, improves living standards, and attracts investments. Here are some key points highlighting the importance of infrastructure in the development of Bihar:

- Economic Growth: Infrastructure development directly contributes to economic growth by providing a solid foundation for industries, businesses, and trade. Well-developed infrastructure, including transportation networks, power supply, and industrial estates, attracts investments, encourages entrepreneurship, and boosts industrial and agricultural productivity. It facilitates the movement of goods, reduces transaction costs, and enhances market accessibility.
- Connectivity: Efficient transportation infrastructure, including roads, railways, and air connectivity, is essential for connecting regions, promoting trade, and enabling the movement of people and goods. Improved connectivity in Bihar helps bridge the urban-rural divide, facilitates access to markets and services, and fosters regional integration. It enables farmers to transport their produce to markets more efficiently, enhances access to education and healthcare, and improves overall quality of life.
- Agriculture and Rural Development: Bihar being an agrarian state, infrastructure development plays a vital role in boosting agriculture and rural development. Irrigation infrastructure, including canals, dams, and water management systems, supports agricultural productivity and reduces dependence on monsoons. Additionally, rural electrification and access to modern technology, such as farm machinery and equipment, help improve farm practices, enhance efficiency, and increase agricultural output.
- Education and Healthcare: Infrastructure development is crucial for providing quality education and healthcare services. Building schools, colleges, and vocational training centers improves access to



- education and enhances the learning environment. Similarly, developing healthcare facilities, hospitals, and primary health centers ensures better access to healthcare services and improves health outcomes. Accessible and well-equipped educational and healthcare infrastructure fosters human capital development and promotes a skilled and healthy workforce.
- **Urban Development:** Infrastructure development is essential for urban areas in Bihar to support rapid urbanization and address the challenges associated with urban growth. Construction of roads, bridges, water supply systems, sewage treatment plants, and solid waste management facilities is vital for sustainable urban development. It improves urban livability, attracts investments, and promotes employment opportunities in urban areas.
- Tourism and Cultural Heritage: Bihar is rich in historical, cultural, and religious heritage, including sites like Bodh Gaya, Nalanda, and Rajgir. Developing tourism infrastructure, such as hotels, transportation networks, and visitor centers, helps promote tourism, generate employment, and boost the economy. Preservation and conservation of cultural and heritage sites also require infrastructure development to ensure their sustainability and accessibility to visitors.
- Disaster Resilience: Bihar is prone to natural disasters like floods and earthquakes. Investing in infrastructure that strengthens disaster resilience, including early warning systems, flood control measures, and disaster management infrastructure, helps reduce the impact of disasters and enhances the state's ability to recover quickly.

Overall, infrastructure development in Bihar is vital for unlocking the state's economic potential, improving quality of life, reducing regional disparities, and attracting investments. It lays the foundation for sustainable development and contributes to the overall socio-economic growth of the state.

#### **24.6 CHALLENGES**

Bihar faces several challenges related to infrastructure development. These challenges can hinder economic growth, impede connectivity, and affect the overall development of the state. Here are some key challenges related to infrastructure in Bihar:

Transportation Network: Bihar's transportation network, particularly road infrastructure, faces several challenges. Inadequate road connectivity, poor road conditions, and a limited number of highways hinder smooth movement of goods and people. Limited access to quality transportation infrastructure impacts trade, connectivity, and economic development.

- Power Supply: Bihar struggles with power shortages and inadequate electricity infrastructure. Frequent power outages, low electrification rates in rural areas, and insufficient transmission and distribution infrastructure affect industrial productivity, agricultural operations, and overall development. Addressing the power supply deficit and upgrading the electricity infrastructure are crucial for sustained economic growth.
- Water and Sanitation: Access to safe drinking water and sanitation facilities remains a challenge in many parts of Bihar. Limited access to clean water sources, inadequate water supply infrastructure, and poor sanitation facilities affect public health, hygiene, and quality of life. Developing water supply systems, promoting safe sanitation practices, and improving wastewater management are important focus areas.
- Urban Infrastructure: Rapid urbanization in Bihar poses significant challenges in terms of urban infrastructure. Urban areas face issues related to inadequate housing, limited urban planning, insufficient waste management systems, and inadequate water supply and sewage infrastructure. Developing sustainable urban infrastructure that accommodates the needs of the growing urban population is crucial for managing urbanization effectively.
- Education and Healthcare Infrastructure: Bihar
  faces challenges in providing quality education and
  healthcare infrastructure, particularly in rural areas.
  Inadequate schools, limited access to higher education
  institutions, lack of well-equipped healthcare facilities,
  and shortage of doctors and medical staff hinder
  the development of human capital and healthcare
  services. Investment in educational institutions and
  healthcare facilities is needed to bridge these gaps
- Flood Management: Bihar is prone to annual floods, primarily caused by rivers originating in the Himalayas and the state's flat topography. Floods lead to significant damage to infrastructure, including roads, bridges, and buildings. Developing robust flood management infrastructure, including embankments, flood control channels, and early warning systems, is critical for mitigating flood-related risks and protecting lives and properties.
- Industrial Infrastructure: Bihar has the potential to attract investments and promote industrial growth. However, the state faces challenges related to insufficient industrial infrastructure, including industrial parks, warehousing facilities, and reliable connectivity. Developing industrial infrastructure, promoting investment-friendly policies, and providing necessary support services are vital for attracting industries and boosting economic development.

Addressing these infrastructure challenges requires a concerted effort from the government, private sector, and various stakeholders. Investments in infrastructure development, policy reforms, and effective implementation strategies are necessary to overcome these challenges and foster sustainable development in Bihar.

#### 24.7 INITIATIVES

The Bihar government has implemented various initiatives to address infrastructure challenges and promote development across sectors. These initiatives aim to improve transportation networks, power supply, water and sanitation, urban infrastructure, and other key areas. Here are some notable initiatives related to infrastructure by the Bihar government:

- **Bihar Startup Policy 2022:** The objective of Bihar Startup Policy 2022 is to provide employment and develop entrepreneurship among the youth. Women entrepreneurs will get seed funding of Rs 10.50 lakh with an increase of 5 percent instead of Rs 10 lakh. SC, ST and physically challenged will get seed funding of Rs 11.50 lakh with an increase of 15 per cent.
- Bihar Industrial Investment Promotion Policy (Textiles and Leather), 2022: On May 2022, the Bihar Industrial Investment Promotion Policy (Textiles and Leather), 2022 was implemented by the state cabinet. Through this policy, Bihar will be established as a hub in the field of textile and leather industry. The state government will give a grant of up to Rs 10 crore to entrepreneurs and investors willing to invest in the textile and leather industry. The government will also provide salary assistance of Rs 3,000 to 5,000 per month to the workers working in these industries.
- Road Infrastructure Development: The Bihar government has undertaken several projects to improve road connectivity and enhance transportation networks. The Bihar State Highways Development Project focuses on the construction and upgradation of state highways and major district roads. The Pradhan Mantri Gram Sadak Yojana (PMGSY) is being implemented to connect rural areas through all-weather roads, improving rural connectivity.
- Plug and Play: Recently, the Bihar government has taken an initiative of 'Plug and Play' to promote industries in the state, under which 'plug and play' pre-fabricated sheds will be constructed in five districts, where entrepreneurs will be able to start factories only by installing equipment.

The State government is presently implementing the Mukhyamantri Mahila Udyami Yojana, Mukhyamantri yuva Udyami Yojana, Mukhyamantri Scheduled Castes/ Scheduled Tribes/EBC Udyami Yojana to encourage entrepreneurship or self-employment among different disadvantaged sections of the population.

- Power Sector Reforms: The government has introduced initiatives to improve the power sector in Bihar. The Bihar State Power Holding Company Limited (BSPHCL) has been established to ensure efficient power generation, transmission, and distribution. The Har Ghar Bijli Yojana (Electrification for All) aims to provide electricity connections to all households, particularly in rural areas.
- Urban Infrastructure Development: The Bihar government is focusing on developing urban infrastructure to address the challenges associated with urbanization. The Bihar Urban Infrastructure Development Corporation (BUIDCO) has been established to plan, develop, and implement urban infrastructure projects. Initiatives include the construction of affordable housing, improvement of water supply and sanitation systems, and development of smart cities.
- Water Supply and Sanitation: The government is working on improving water supply and sanitation infrastructure in Bihar. Initiatives such as the Har Ghar Nal Ka Jal scheme aim to provide piped water supply to every household. The Swachh Bharat Mission (Clean India Mission) focuses on promoting sanitation, solid waste management, and open defecation-free communities.
- Industrial Infrastructure Development: The Bihar Industrial Area Development Authority (BIADA) promotes industrial infrastructure development in the state. It develops industrial parks, plots, and provides necessary infrastructure facilities to attract investments and promote industrial growth. Initiatives like the Bihar Industrial Investment Promotion Policy aim to create a conducive environment for industries and promote job creation.
- Digital Infrastructure: The government is focused on improving digital infrastructure in Bihar. The Bihar State Wide Area Network (SWAN) project aims to provide connectivity to government offices, enabling efficient delivery of e-governance services. The Common Service Centres (CSCs) initiative promotes the establishment of digital service delivery outlets at the village level.
- Education and Healthcare Infrastructure: The Bihar government is working towards improving education and healthcare infrastructure. Initiatives include the construction of schools, colleges, and healthcare facilities in rural and remote areas. The Bihar Skill Development Mission aims to enhance the skill sets of the youth and promote employability.

These initiatives reflect the Bihar government's commitment to infrastructure development and creating an enabling environment for overall socio-economic growth. By investing in infrastructure, the government aims to improve connectivity, attract investments, provide essential services, and enhance the quality of life for the people of Bihar.

#### Aguwani-Sultanganj bridge in Bhagalpur Accident

#### **About Bridge:**

The 3.1 kilometer-long, Aguwani-Sultanganj Ganga bridge was being built by SP Singla Constructions Private Limited at a cost of Rs 1,710 crore. The bridge will connect Aguani in Khagaria district with Sultanganj in Bhagalpur. Construction for the same began in 2014 and was expected to be completed in 2023.

The **collapse of an under-construction bridge in Bihar** has not only raised concerns over the quality of construction but also caused stirrings in political circles.

The **reason for the collapse** of the bridge in Bihar is still under investigation, but there are a number of possible factors that could have contributed to the accident.

- **Substandard materials:** Some reports have suggested that the bridge may have been built using substandard materials. This could have led to the bridge being weaker than it should have been, and more susceptible to collapse.
- **Poor construction:** The bridge may have been poorly constructed, with mistakes made in the design or execution of the work. This could have also made the bridge more likely to collapse.
- **Weather conditions:** The bridge collapsed during a period of heavy rain. It is possible that the rain may have weakened the bridge's foundations, or made the ground more unstable, leading to the collapse.
- Other factors: It is also possible that other factors, such as human error or a natural disaster, may have contributed to the collapse.
- In addition to the reasons mentioned above, there have also been allegations of corruption and mismanagement surrounding the construction of the bridge. These allegations have raised questions about the quality of the bridge's construction and the safety of other bridges in Bihar.

The government of Bihar should take the following steps regarding the bridge collapse:

- 1. **Investigate the cause of the collapse:** The government should launch a full investigation into the cause of the collapse, including examining the construction materials, the quality of the workmanship, and the weather conditions at the time of the collapse.
- **2. Hold those responsible accountable:** If the investigation finds that the collapse was caused by negligence or corruption, the government should hold those responsible accountable. This may include filing criminal charges, imposing fines, or revoking licenses.
- **3. Take steps to prevent future collapses:** The government should take steps to prevent future bridge collapses, such as strengthening existing bridges, improving inspection procedures, and increasing training for construction workers.
- **4. Provide assistance to those affected by the collapse:** The government should provide assistance to those who were injured or displaced by the collapse, such as providing medical care, financial assistance, and temporary housing.

The government of Bihar has a responsibility to ensure the safety of its citizens. The bridge collapse is a serious incident that has caused loss of life and property. The government must take swift and decisive action to investigate the cause of the collapse, hold those responsible accountable, and take steps to prevent future collapses.

In addition to the above, the government should also consider the following:

- Reviewing the safety standards for bridges: The government should review the safety standards for bridges to
  ensure that they are up to date and that they take into account the latest construction techniques and materials.
- **Providing more funding for bridge maintenance:** The government should provide more funding for bridge maintenance to ensure that bridges are kept in good condition and that any potential problems are identified and addressed before they lead to a collapse.
- **Educating the public about bridge safety:** The government should educate the public about bridge safety, including the importance of reporting any potential problems to the authorities.





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### **Energy in Bihar**

Bihar has adopted a long-term approach for the energy sector to fulfill its vision to provide "Har Ghar Bijli" as outlined in 7 Nischay. The vision roadmap agrees a low carbon pathway to sustain economic growth. The vision focuses on increasing the number of state-owned power generation plants, with increased share of renewable energy, separate feeder for agricultural purposes, Demand-side management by improving the overall efficiency in distribution System and strengthening the distribution companies. This is tuned with the vision of SDG i.e. "Ensure access to affordable, reliable, sustainable and modern energy for all".

#### **Energy Capacity in Bihar**

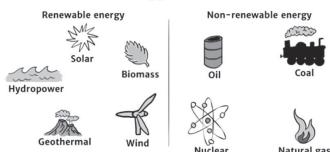
Bihar State Electricity Board was established in 1958 as a statutory corporation under the **Electricity (Supply) Act, 1948**. At the end of fiscal year 2022, the installed power capacity across Bihar in India was around 7,323 megawatts. There are new projects under construction which will take total electricity generation capacity in Bihar to more than almost 12000 MW.

- Energy Department, Bihar, is a State Government Department, assigned to carry out all the activities of Power Sector, enforced upon the relevant Acts and Rules of Electricity, Power & Energy, coordinate among all the power utilities and stakeholders operating in the state and advice the State Government on all matters relating to Power, Electricity & Energy. The Department also implements various Power Projects sanctioned and sponsored by the State and Central Governments. Under the domain of this department, following are independently functioning body in the names of:
- 1. Bihar State Power (Holding) Company Limited: Under the plan activities, the BSP(H)CL prepares schemes on electricity generation, transmission & distribution. The state government provides funds for implementation of the scheme from its plan allocation and also obtains central allocation/funding from the Govt. of India. Its subsidiaries company are
  - a. North Bihar Power Distribution Company Limited
  - b. South Bihar Power Distribution Company Limited

- c. Bihar State Power Generation Company Limited
- d. Bihar State Power Transmission Company Limited
- 2. Bihar State Hydroelectric Power Corporation Limited: BHPC has been established to harness the hydroelectric potential in the State. The BHPC conducts a survey for this purpose and prepares the schemes on hydroelectric power generation. The State Govt. provides funds from its plan allocation and also facilitates funding, from the Central Government and Govt. of India Financial institutions.
- 3. Bihar Renewable Energy Development Agency: BREDA has been established to promote development of schemes on non- conventional energy sources. It has been nominated as nodal agency to carry out the remote village electrification programme. The State Govt. provides plan funds to BREDA for expenditure on subsidies for the schemes and also for the expenditures on establishment.
- 4. Electrical Inspectorate: The Electrical Inspectorate Office is responsible for observation & enforcement of the provisions of The Indian Electricity Act, 2003 and Indian Electricity Rules, 1956.

There are two major categories of energy: Renewable and Non-renewable.

### Renewable and Non-Renewable Energy Sources



1. **Non-Renewable Energy Resources** are available in limited supplies, usually because they take a long time to replenish. The advantage of these non-renewable resources is that power plants that use them can produce more power on demand.

The Non-Renewable energy resources are:

- Coal
- Nuclear
- o Oil
- Natural gas
- 2. **Renewable resources** replenish themselves.

Major renewable energy resources are:

- Solar
- Wind
- Water/Hydro Power
- Biomass, or organic material from plants and animals
- Geothermal

### 25.1 MAJOR CONCERNS WITH RENEWABLE ENERGY

Availability of Power: One of the biggest concerns in the field of renewable energy is power generation depending on natural resources that are uncontrollable by humans. For example, solar-powered electricity is generated only when sunshine is available and turns off at night or when it's cloudy. Wind energy also depends on the availability of wind: if the wind speed is very low, the turbine will not turn, resulting in zero power flow to the grid. And too much wind can damage the generator, and therefore, a delicate balance needs to be maintained to keep a consistent generation of energy.

The uncertainty in energy production in renewable energy technologies is making integration more complex.

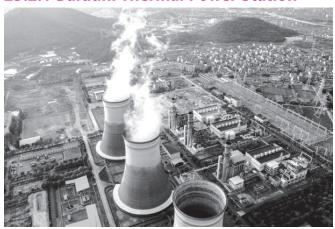
- Power Quality Issues: Consistently high power quality is needed to ensure stability and high efficiency of the network. The quality of the power supply allows the system to work well with high reliability and lower costs. On the other hand, poor power quality can have major adverse effects on the power grid and industrial processes. It can lead to high costs and equipment failure. Power quality problems include frequency disorder, voltage/current harmonics, low power factor, voltage variation, and transmission line transits.
- **Resource Location:** Most renewable energy plants that share their energy with the grid require large space areas. In most cases, renewable energy sources are dictated by location, which can be off-putting to users. Most of the renewable energy sources are not available in different regions. Also, the distance between the renewable energy source and the grid is a major aspect of cost and efficiency.

Renewable energy sources depend on the weather, climate and geographical location, meaning that one

- type of energy generation is not appropriate for the region.
- Information Barrier: There is a lack of information and awareness about the benefits and needs of renewable energy. Investment and capital allowances have been made available to implement renewable energies.
- Cost Issue: The high initial installation cost is one of the major hurdles in developing renewable energy. Storage systems of the generated energy are expensive and represent a real challenge regarding megawatt production.

#### **25.2 THERMAL POWER PLANTS IN BIHAR**

#### 25.2.1 Barauni Thermal Power Station



- The Barauni Thermal Station was established with the technical help of Yugoslavia and Poland, while the USA helped finance the project. The foundation stone of the Barauni station was laid by Dr. Krishna Singh, Chief Minister of Bihar on January 26, 1960.
- The current installed capacity of this power plant is 470 MW and in future the plant will have a total capacity of 720 MW with projects of 250 MW under construction.
- Unit III and II, supplied by a Yugoslavian company on a turnkey basis, was commissioned in 1963 while Unit I was commissioned by the end of 1966. All the three units were of 15 MW. The total capital investment was Rs. 6.7 crore.
- Two more units (Unit IV and V) of 50MW each were commissioned in 1969 and 1971 respectively.
- Unit VI was commissioned in 1983 and Unit VII in 1985. After operation of about 26 years, both units are under R&M and COD of Unit VII is expected soon.
- There is another ongoing plan for a new capacity addition of 500 MW (2x250 MW) to this plant. In March 2013, the Central Government was assured to provide coal linkage to Barauni Thermal Power Plant.

#### 25.2.2 Buxar thermal power plant



- Buxar Thermal Power Plant is a coal-based thermal power plant located at Chausa village in Buxar district, Bihar, India. It was conceptualized in 2013 when SJVN signed an MoU with Bihar State Power Holding Company Limited (BSPHCL) and Bihar Infrastructure Company (BPIC).
- This is an upcoming power plant with a planned capacity of 1320 MW. Larsen & Toubro Limited holds the contract for the construction, at an estimated cost of Rs 7,490 crores.

#### 25.2.3 Barh Super Thermal Power Plant

- The Barh super thermal power project (STPP) is a 3.3GW supercritical coal-fired power station being developed by India's state-owned National Thermal Power Corporation (NTPC) in Barh, Bihar, India.
- The mega power project is being developed in two stages, with stage one comprising three units for a total installed capacity of 1,980MW and stage two involving two units for a total capacity of 1,320MW.
- The coal required for stage one operation of the project will be procured from the Central Coal Fields, a subsidiary of India's state-owned Coal India Limited (CIL).
- The Barh super thermal power plant will house a total of five coal-fired power generating units of 660MW capacity each. Stage one includes the construction of units 1, 2, and 3, while the units 4 and 5 were built under stage two.

## 25.2.4 Kahalgaon Super Thermal Power Station

- Kahalgaon Super Thermal Power Station Is situated in the Kahalgaon town in the Bhagalpur district of Bihar, India.
- This thermal power plant is one among the coal based power plants under the control of NTPC.
- The coal for the power plant is obtained from the Rajmahal coalfield of ECL.

- The Source of water for the Kahalgaon plant is Ganga River.
- Kahalgaon Super Thermal Power Plant was commissioned in 1992. It has an approved capacity of 2340 Megawatt including 840 Megawatt for Stage 1 and 1500 Megawatt for Stage 2.
- The installed capacity of this super thermal power plant is 2340 Megawatt. The status of this thermal plant is operational. The source of coal for the production of power is from Rajmahal Coal Fields.
- The primary fuel used is Coal.

#### 25.2.5 Kanti Thermal Power Station

- NTPC Kanti also known as George Fernandes
   Thermal Power Plant Station[1] is located in Kanti,
   Muzaffarpur, Bihar.
- The current installed capacity of this power plant is 610 MW.
- Units 1 & 2 of 110 MW, originally commissioned in 1985–86, and were renovated by Bharat Heavy Electricals who supplied equipment to these two units initially .Units 3 & 4 are of 195 MW each.
- The plant is also known as George Fernandes Thermal Power Plant Station.

# 25.2.6 Nabinagar Super Thermal Power Project

- Nabinagar Super Thermal Power Project is a coalbased thermal power plant located at Sivanpur village in Nabinagar taluk in Aurangabad district, Bihar. It was conceptualized in 1989.
- Nabinagar Power Generation Company Pvt. Ltd. (NPGCL) is a joint venture between NTPC and Bihar State Power Generation Company Limited located in Aurangabad district with capacity of 1980 MW (3X660 MW, Stage I) and Proposed 3×800 MW for Stage II.
- PPA was signed for 3X660MW (Stage I) with erstwhile BSEB on 22.01.2010 and for 2X660MW (Stage II) with erstwhile BSEB on 15.01.2011
- Water Approval has been obtained for 125 Cusec Water by CWC on 11.08.2010 from Sone River (Indrapuri barrage)
- Coal Requirement Details: Coal linkage from North Karanpura Coalfield, CCL Stage – I – 11.25 MillionMT/ Annum and Stage – II – 10.333 MillionMT/ Annum



- Upcoming Thermal Projects in Bihar:
- JAS Infrastructure Capital Pvt. Ltd (2 x 640 MW), Siriya, Banka district, Bihar
- Nalanda Power (2000 MW), Pipranait South, Bhagalpur District, Bihar
- Kanti Bijlee Utpadan Nigam (2×250 MW), Stage II
   Kanti, Muzaffarpur district, Bihar
- Bihar State Electricity Board (2×250 MW), Barauni, Begusarai district, Bihar
- Piranpaiti Bijlee (2×660 MW), Piranpaiti, Bhagalpur district, Bihar
- Lakhisarai Bijlee (2×660 MW), Kajra, Lakhisarai district, Bihar
- Buxar Bijlee (1320 MW), Chausa, Buxar District, Bihar
- NTPC (2×660 MW), Barh STPS, Patna District, Bihar

## 25.3 BIHAR GOVERNMENT AND ENERGY DEVELOPMENT

Apart from thermal generation, the BSPGCL is also engaged in generation of renewable energy in the form of solar power. This would enable the state to meet the Renewable Purchase Obligation (RPO) and will help reduce carbon emission. Following projects have been undertaken for generation of solar power:

**24x7 Hybrid Green Power:** To promote the objectives of Jal-Jeevan-Hariyali Mission in the state, it was decided to select a few towns of the state and make them as GREEN Towns in respect of power. In other words, the power supplied to the said towns will be wholly through renewable energy sources and on round-the-clock basis. For this, Rajgir, Bodh Gaya and some parts of Patna towns were selected. An agreement has been executed with Solar Energy Corporation of India (SECI) for supply of 210 MW GREEN Power to these identified towns. As per terms of the agreement, solar power will be supplied during the day time and, for the period sunset to next sunrise, the power will be supplied from the Pump Storage Plant run by Solar Power. The project is expected to be completed by December 2023,

### 25.4 BIHAR RENEWABLE ENERGY DEVELOPMENT AGENCY (BREDA)

With increasing concern for climate change due to the emission of greenhouse gases into the atmosphere, use of clean energy seems to be one of the viable solutions to mankind to preserve the environment for future generations. Thus, to promote the use of renewable energy, the State government has created an agency called Bihar Renewable Energy Development Agency (BREDA). The State government provides funds to BREDA for expenditure on subsidies for the schemes and also for the expenditure

on its establishments. BREDA is currently executing the following schemes: Grid-Connected Rooftop Solar Power Plant, Floating Solar Power Plant, Ground-Mounted Solar Power Plant, Off-Grid Hybrid Rooftop Solar Power Plant and Solar Street Lights. These schemes will promote and disseminate renewable energy technology across Bihar to increase the share of renewable energy mix and reduction in carbon emission. This will contribute to global efforts towards reduction in greenhouse gas emission and a clean environment.

The details of the schemes that are being implemented by BREDA are presented below:

# 25.4.1 Grid-Connected Rooftop (GCRT) Solar Power Plant at Government Buildings

Under Mukhyamantri Navin evam Navikamiya Saur Adhisthapan Yojana and Jal- Jeevan-Hariyali Mission', Grid-Connected Rooftop Solar Power Plants are being installed by BREDA. These power plants have a capacity up to 500 KWp. These plants will save electricity bills of the various State government offices and promote use of renewable energy in the state. The State government buildings covered by the scheme are Samvad Bhawan, CM House, Patna High Court, Bihar Museum, Buddha Smriti Park, Planetarium, IGIMS, AN. Sinha Institute of Social Studies, various ITIs, Panchayat Sarkar Bhawan, Government High Schools, etc. Between 2018-19 and 2021-22, a total of 2156 Solar Power Plants have been installed, having a total capacity of 19 28 MW The total cost was Rs. 98.07 crore.

# 25.4.2 Grid-Connected Rooftop Solar Power Plants at Private Residential Buildings

 Under "Mukhyamantri Navin evam Navikarniya Saur Adhisthapan Yojana, Grid-Connected Rooftop Solar Power Plants have also been installed at private residential buildings by BREDA In 2019-20, a total of 113 Solar Power Plants have been installed at private residential buildings, which together have 583 KWp capacity of power. For this, the cost was Rs. 3.08 crore

#### **25.4.3 Floating Solar Power Plant:**

• Floating Solar Power Plant is an emerging technology in the field of Solar Energy. In this technology, land requirement is minimum and it is a major advantage. In addition, with the presence of floating solar panels, the evaporation rate from water bodies is reduced, thus helping in water conservation. With the water body beneath. The solar modules are able to maintain their ambient temperature, and thereby improve their efficiency. Keeping these considerations in mind and scarcity of land in Bihar, the State government has

taken an initiative for installation of Floating Solar Power Plant in Supaul and Darbhanga districts. For the Floating Solar Power Plant at Rajapoker (Supaul), the total capacity is 525 KWp and the cost is Rs. 3.00 crore. This has been installed in the current financial year. For the Floating Solar Power Plant at Naku No. 1 (Darbhanga), the capacity is 1600 KWp and it was installed in 2021-22 at the cost of Rs 8.55 crore.

#### 25.4.4 Solar Water Pumps

Solar Water Pump is an application of photovoltaic technology that uses solar power to run irrigation pumpsets, replacing erratic grid supply or pollution. causing diesel machines. Under Mukhya Mantri Navin Evam Navikarniya Saur Pump Yojana, 2771 Solar Water Pumps were installed at a cost of Rs. 77.16 crore.

#### 25.4.5 Solar Street Lights

Solar street lights are installed for outdoor light sources that are powered by PV (photovoltaic) panels. These panels are mounted on the pole. The PV panels have a rechargeable battery, providing power to the fluorescent or LED lamp during the entire night.

- (a) Under 'Shyama Prasad Mukherji Rurban Mission', 1050 Solar Street Light Systems (SSLS) have been installed, out of a planned 1825 systems at various locations in four districts (Gaya, Rohtas, Kaimur and Saharsa). For this, the total expenditure is Rs. 1.66 crore
- (b) Under 'Mukhyamantri Gramin Solar Street Light Yojana (MGSSLY), installation of Solar Street Lights is being done by the Panchayati Raj Department, with technical support from BREDA. In every ward, 10 Solar Street Lights are to be installed, totalling to 12 lakh Solar Street Lights at identified existing poles. This scheme is 100 percent funded by the State government. Presently, 880 Solar Street Lights have been installed in five Panchayats on a pilot basis. A central monitoring system will be established at the headquarters of all the districts for all Solar Street Lights, An Expression of Interest has been invited from manufacturers of different components of Solar Street Lights to set up their manufacturing units in Bihar of Solar Street Lights to set up their manufacturing units in Bihar

### 25.4.6 Solar Plant on Vacant Land in Hydel Projects

The BSHPC (Bihar state hydroelectric power corporation) has decided to install solar plants on the rooftops of

buildings of power houses, vacant lands, power channels and tailrace channels for generation of 10 MW of solar power.

#### **25.5 KOSHI HYDEL POWER STATION**

- The Koshi Hydel Power Station (KHPS) is a hydroelectric power station located in Supaul district, Bihar, India.
- The station has an installed capacity of 20 MW and was commissioned in 1976. The station is owned and operated by the Bihar State Electricity Board (BSEB).
- The KHPS is a run-of-the-river power station, which means that it generates electricity only when there is water flowing in the Koshi River.
- The station has two generating units, each with a capacity of 10 MW. The station uses Kaplan turbines to generate electricity.
- The KHPS is an important source of electricity for Bihar. The station supplies electricity to the state's capital, Patna, as well as to other parts of the state. The station also helps to reduce the state's reliance on fossil fuels.

In addition to the KHPS, there are a number of other hydroelectric power stations located in Bihar. These stations include:

- Dagmara Multipurpose Hydroelectric Project: This
  is a 130 MW hydroelectric power project located in
  Supaul district. The project is under construction and
  is expected to be completed in 2024.
- Middle Bhotekoshi Hydroelectric Project: This
  is a 102 MW hydroelectric power project located in
  Sindhupalchowk district, Nepal. The project is under
  construction and is expected to be completed in 2025.
- **Upper Bhotekoshi Hydroelectric Project:** This is a 44 MW hydroelectric power project located in Sindhupalchowk district, Nepal. The project was completed in 2001.

Solar Power Project at Kajra (Lakhisarai) and Pirpainti (Bhagalpur): Kajra in the Lakhisarai district and Pirpainti in the Bhagalpur district were earlier identified for construction of thermal power plants. Later, it was decided to go for a solar power plant of 400-450 MW capacity in place of a thermal power plant at these locations. For this project, suitable land has already been identified and acquired at Kajra. The land has also been identified at Pirpainti, and the process of acquisition is ongoing. M/S Gujarat Energy Research & Management Institute (GERMI), Ahmedabad have been appointed as consultants.

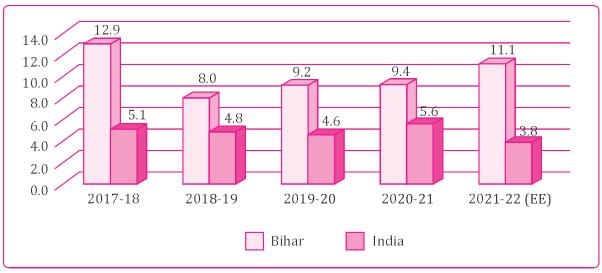




### **Development of Bihar**

#### **26.1 RURAL DEVELOPMENT OF BIHAR**

 Rural development plays a vital role in the economic development of not just Bihar but of India as well. So rural development refers to a plan for uplifting the rural population both economically and socially. According to the 2011 census, 89% of the population of Bihar lives in rural areas and therefore the development of rural areas is more important for the overall social and economic development of the state. During the last five years the state government has spent an average of 10.1% of its total expenditure on rural development which is more than double the share of 4.8% at All India.



Percentage of rural development expenditure in bihar and india

 Programs like Bihar rural livelihood project (BRLP) (JEEVIKA), Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Indira Awas Yojana, Public Distribution System(PDS) etc., are important schemes for rural development in Bihar.

#### 26.1.1 Jeevika

- BIHAR Rural Livelihoods Promotions society popularly known as JEEVIKA is a registered society under the aegis of rural development department. This society has completed 15 years of its functions and it has considerably changed the face of economy and society and rural Bihar.
- By September 2022, 10.35 lakh women SHGs have been formed under JEEVIKA of which 2.4 Lac are linked with banks for credit. For integrated rural development JEEVIKA works at the grassroots level and its impact is clearly visible in terms of higher income generation and inclusion of rural poor in the development process.

- In the alternate banking intervention 4571 bank sakhis were selected as behaviour change agents similarly Pashu sakhi model and fishery intervention have achieved remarkable progress in terms of both coverage and production.
- Under JEEVIKA, Didi Ki rasoi is a community run canteen model. It has emerged as a successful enterprise model to provide quality food to patients at hospitals, officials at banks, school students, etc.
- Apart from livelihood and training interventions, JEEVIKA is also involved in many other social and environmental activities to promote the marginalized people in rural areas.
- A)Renewable energy: JEEVIKA- Women initiative for renewable energy and solution private limited (J-WiRES)
  - (B) Harit jeevika harit Bihar campaign
  - (C) promotion of Didi Ki nursery
  - (D) inclusion of persons with disability

Progress In	Particulars/Indicators September 2022		
Alternate Banking			
Number of Bank Sakhis selected as BC agents	4571		
Volume of the transaction (Rs. lakhs)	788144		
Commission earned by BC agents (Rs. lakhs)	1934.19		
Pashu Sakhi M	lodel		
Number of Pashu Sakhi developed	3094		
Number of inseminations done by inducted bucks	93010		
Number of azolla pit developed (inc. green fodder)	21032		
Number of machan/shed constructed	20508		
Number of feeders installed	93898		
Number of castrations done	341376		
Total quantity of dana mishran produced (in kg)	240441		
Number of deworming doses provided	1381033		
Number of vaccination doses given	687576		
Fishery interve	ention		
Number of District covered	26		
Number of Blocks covered	138		
Number of ponds allotted	280		
Number of operational ponds	65		
Bee-Kkeeping inte	rvention		
Districts	22		
Producer Groups	299		
Households linked	7693		
Cumulative production (in MT)	2418.7		
Cumulative sales realization (Rs. crore)	42.74		
Grameen Bazaar intervention			
Number of Grameen Bazaar established	125		
Outreach to Kirana Stores	7093		
Avg. annual tumover per Grameen Bazaar (Rs. lakh)	50		
Avg. annual tumover per Kirana Store (Rs. lakh)	6.3		
Source : JEEVIKA, GoB			

Physical and Financial Progress of Different Components under Jeevika

# 26.1.2 Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)

• The main goal of Mahatma Gandhi national rural employment guarantee act, 2005 is to enhance livelihood security by providing guaranteed employment in rural areas. This act provides a legal guarantee of 100 days of wage employment in a financial year to an adult member of rural areas who is willing to do manual or unskilled work. This is a centrally sponsored scheme, Implemented by the state government.

Categories	2017-18	2018-19	2019-20	2020-21	2021-22
Water Conservation and	6664	S511	5219	20951	36890
Water Harvesting	(6.1)	(3.0)	(1.1)	(2.1)	(2.9)
Droiight Proofing	7496	7700	4182	6007	6372
Dronghe i roomig	(6.9)	(4.2)	(0.9)	(0.6)	(0.5)
Micro Iirigation works	9705	7778	7266	4416	21175
	(8.9)	(4.2)	(1.6)	(1.5)	(1.6)
Works on Individual Land	21283	103971	403358	875084	1157153
World on marvidua Bana	(19.5)	(56.2)	(87.0)	(88.6)	(89.3)
Renovation of Traditional Water	1838	1669	1594	1912	2482
Bodies	(1.7)	(0.9)	(0.3)	(0.2)	(0.2)
Land Developinent	16736	16169	15551	20309	16551
	(15.3)	8.7)	(3.4)	(2.1)	(1.3)
Flood Control and Protection	1365	1287	1259	2110	4477
Trook done or und Trocection	(1.3)	(0.7)	(0.3)	(0.2)	(0.4)
Rural Connectivity	33021	31899	20202	36416	41202
Rurai Connectivity	(30.3)	(17.2)	(4.4)	(3.7)	(3.2)
Any Other Acuvity	1571	1434	655	1089	389
	(1.4)	(0.8)	(0.1)	0.1)	(NEG)
	_	25 240	4338	2914	
Rural Infrastructure	(NEG.)	(NEG.)	(0.4)	(0.5)	
Bharat Nirman Rajeev Gandhi	198	108	82	83	22
Sewa Kendra	(0.18)	(0.06)	(NEG.)	(NEG.)	(NEG.)
	4				
Coastal Areas					
	(NEG.)	_	_		
Fisheries	11	5	7	4	3
	(NEG.)	(NEG.)	(NEG.)	(NEG.)	(NEG.)
ElayiCronnd	21	26 27	35	21	
Blayforonna	(NEG.)	(NEG.)	(NEG.)	(NEG.)	(NEG.)
December 11 AAA 1	28	76	159	9	5
Rural Drinking Water	(NEG)	(IE)	(DEG)	(EG)	(EG)
D. 16	9232	7407	4037	4785	3682
Rural Sanitation	(8.5)	(4.0)	(0.9)	(0.5)	(0.3)
	109173	185052	463838	987568	1296338
Total	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Department of Rural Development, GOB

Category-wise completed work under mgnergs (2017-18 to 2021-22)





#### SATAT JEEVIKOPARJAN YOJANA

## Social Security and Livelihoods Promotion to Ultrapoor through Ultra-poor

- Graduation Programme The State government formally launched this scheme on August 5, 2018. The project mainly focuses on the development of sustainable livelihood options for ultra-poor households, traditionally engaged in production and selling of country liquor/toddy and ultra-poor from SC/ST and other communities. This was sought to be done through diversification of livelihoods, capacity building and improved access to finance. The scheme initially targeted to cover 1,00.000 ultra-poor households through the 'Ultra-Poor Graduation Approach'. The State government later extended 'Satat Jeevikoparjan Yojana' for next three years.
- A total of 1,47,277 households have so far been endorsed. The project focuses on training the endorsed households in confidence building and enterprise development. After this, the Livelihood Investment Fund, amounting to Rs. 60,000 to I lakh, is provided to the targeted households in 3-4 tranches for asset creation. The livelihood gap assistance fund is also provided as a consumption support fund to each endorsed household to fulfil the consumption needs of the households till the alternate livelihood selected by them starts earning profit.
- The livelihood cluster approach helps to achieve its objectives through 'cluster livelihood' as an alternate source of income, along with existing livelihood options. JEEVIKA team has been using its experience to support the development of group-based livelihood clusters, and to offer new business opportunities for ultrapoor households. Livelihood Cluster has been developed around the production of bamboos products, stitching, bangle making, dairy, soft toys, etc. Around 766 ultra-poor households are working in cluster approach for improving their income.

# 26.1.3 Indira awas yojana/pradhan mantri awas yojana- gramin

• It is a central government initiative which was earlier known as Indira awas yojna. This is meant to boost the 'housing for all' scheme. The objective of this scheme is to provide affordable housing with all basic amenities to rural people. The central and state governments share the cost of this scheme at a 60:40 ratio in plain areas with an assistance of maximum 1.2 lakh for each housing unit.

Year		2017-18	2018-19	2019-20	2020-21	2021-22
Annual Physical Targe	et (lakh)	5.4	NA	12.9	2.5	10.3
	PMAY-G	0.3	5.8	3.8	9.4	5.1
House C ompleted (lakh)	IAY	2.8	1.3	0.6	1.1	1.1
	Total	3.1	7.1	4.3	10.5	6.1
	PMAY-G	324304.1	560295.6	813045.4	981371.3	579448.5
Total Expenditure (Rs. lakh)	IAY	65208.9	26501.9	8237.6	4606.5	4249.2
	Total	389512.9	586797.5	821282.9	985977.8	583697.7
Share of SC/ST (percentage)	PMAY-G	40.4	20.6	4.9	2.4	21.2
	IAY	45.2	45.7	48.3	46.3	46.4
	Total	41.2	21.8	5.4	2.6	21.4

Source: Department of Rural Development. GOB

PERFORMANCE OF IAY/PMAY-G SCHEME (2017-18 to 2021-22)

# 26.1.4 Public distribution system(PDS)

- The public distribution system is a joint responsibility of the central and state governments. This scheme was developed as a system of distributing basic food grains to combat malnutrition among poor people.
- Currently, wheat, rice, pulses are being distributed through the PDS. The food corporation of India

ensures the availability of adequate food grains to the state government. To combat the problem of malnutrition in the country, the central government has decided to supply fortified rice in place of normal rice in the public distribution system, the integrated child development scheme and mid-day meal scheme.

Voor	Total allotment				Total lifting (%)		
Year	Wheat	Rice	Total	Wheat	Rice	Total	
2017-18	2187.7	3281.6	5469.3	2135.2	3205.1	5340.3	97.6
2018-19	2088.1	3132.1	5220.2	2059.4	3104.3	5163.7	98.9
2019-20	2091.3	3141.3	5232.6	2089.8	3134.1	5223.9	99.8
2020-21	2165.8	3248.1	5413.9	2065.9	3106.6	5172.5	95.5
2021-22	2208.2	3266.7	5474.9	2159.4	3187.7	5347.1	97.7

**Note:** PHH = Priority Household, AAY = Antyodaya Anna Yojana **Source:** Department of Food and Consumer Protection, GoB

## 26.1.5 Panchayati Raj institutions

 The Bihar panchayati Raj act, 2006 has been implemented by the state government, embodying the spirit of the 73rd amendment of the Indian constitution. It has been enacted to strengthen the three tier panchayati Raj institution and to increase the participation of common people in local self governance. The potential participants includescheduled castes, scheduled tribes, extremely backward castes and marginalized sections of society including women. A provision has been made for 50% of reservation of women at all three levels of PRIs. Presently 38 zilla parishads, 533 panchayat samitis, 8058 gram panchayats and 8058 gram kachahari are functioning in the state.

#### **OVERVIEW OF PANCHAYATI RAJ INSTITUTIONS IN BIHAR (2022-23)**

Item	Nos.	Item	Nos.
Zila Parishad	38	Gram Panchayat Secretary ((al/GP)	8058
Panchayat Samiti	533	Nyaya Mitra (@1/GK)	8058
Gram Panchayat	8058	Gram Kachahari Secretary (@1/GK)	8058
Gram Panchayat Members	109528	Zila Panchayati Raj Officers	38
Panchayat Samiti Members	11094	Block Panchayati Raj Officers	716
Zila Parishad Members	1160	Gram Kachahari Members	109528

Source: Department of Panchayati Raj, GoB

#### Awards for Panchayati Raj Institutions in Bihar from Central Government

The Ministry of Panchayati Raj. Government of India, has given the National Panchayat Award, 2021 to the following Gram Panchayats I Panchayat Samitis / Zilla Parishads for their appreciable work:

(a) Deen Dayal Upadhyay Panchayat Sashaktikaran Purashkar (DDUPSP (2021)

Zila Parishad: Nalanda

Panchayat Samiti: (1) Akodhigola (Rohtas), (2) Gaya sadar (Gaya) (3) Imamganj (Gaya), (4) Kutumba (Aurangabad District).

**Gram Panchayat:** (1) Sabait Gram Panchayat (Nalanda). (2) Asraha Gram Panchayat (Darbhanga), (3) Mohanpur Gram Panchayat (Samastipur), (4) Aurawan Gram Panchayat (Gaya)

- (b) Nanaji Deshmukh Rashtriya Gaurav Gram Sabha Purashkar (2021)
  - Bagadhi Gram Panchayat (Sitamadhi)
- (c) Bal 11 itaishi Gram Panchayat Purashkar (2021) Kosiyawan Gram Panchayat (Nalanda)
- (d) Gram Panchayat Vikash Yojana (2021)

- Two components of SAAT NISCHAY are being implemented by PRI's- mukhyamantri gramin gali nalli pakkikara hellon nischay yojna and monkey mantri gramin peyjal nischay yojana.
- Mukhyamantri gramin solar street light yojana has been launched for every panchayat.

#### Lolliya Swachh Bihar Abhiyan

Under 'Saat Nishchay-2', the State government has taken a resolution of 'Swachh Gaon-Samridh Gaon'. To achieve this goal, the state cabinet has approved a specified grant to conduct the Phase 11 of the Lohiya Swachh Bihar Abhiyan in September 2021.

A provision of Rs. 7287.36 crore has been approved for the implementation of the Abhiyan for he years 2021-22 to 2024-25. Along with this, a budget provision of Rs 1511.45 crore has also been made from the 15th Union Finance Commission grants.

Under the Lohiya Swachh Bihar Abhiyan, Phase II. the target is to make all the Gram Panchayats of the state ODF-plus by the end of 2024-25, by implementing solid and liquid waste management in a phased manner. Initially, as a pilot project, the work of solid waste management was started in 36 Gram Panchayats of 12 districts of the state. Based on the positive experience of the pilot project, the work was extended to 1650 Gram Panchayats.

# 26.1.6 Problems of rural Development in Bihar

- Out of the total population of Bihar state, around 88.71 percent live in the villages of rural areas. The population growth rate in Bihar for rural population recorded for this decade (2001-2011) was 24.25%. In rural regions of Bihar state, female sex ratio per 1000 males was 921. Average literacy rate in Bihar for rural areas was 59.78 percent.
- Bihar is one of the most backward states in India, and rural development is one of the biggest challenges facing the state. The following are some of the major problems that need to be addressed in order to achieve sustainable rural development in Bihar:
- Poverty: Bihar has the highest poverty rate in India, where most of the population lives below the poverty line. This is due to a number of factors, including low agricultural productivity, high illiteracy rates, and lack of employment opportunities.
- Lack of infrastructure: Bihar has poor infrastructure in rural areas, including roads, electricity, and water supply. This makes it difficult for people to access markets, schools, and hospitals.
- Social exclusion: Dalits, tribals, and other marginalized groups face discrimination in Bihar. This limits their access to education, employment, and other opportunities.

- Environmental degradation: Bihar is facing a number of environmental problems, including deforestation, soil erosion, and water pollution. These problems are making it difficult for people to sustain their livelihoods.
- In order to achieve sustainable rural development in Bihar, it is important to address these challenges. The government needs to invest in infrastructure, education, and healthcare in rural areas. It also needs to address social exclusion and environmental degradation. With concerted effort, Bihar can overcome these challenges and achieve sustainable rural development.

#### **Budget Highlights:**

- For FY 2023-24, Rural Development expenditure is estimated at ₹25,270 crore, of which ₹17,099 crore is for Revenue and ₹8,171 crore for Capital.
- In FY 2023-24, out of the total Rural Development expenditure, ₹15,193 crore was estimated towards scheme outlay or 60 per cent of the total Rural Development expenditures.
- For the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), against the target of 25 crore person days in FY 2022-23, a total of 19.68 crore person days have been generated as on 16 January 2023. Under the Jal-Jeevan-Hariyali Abhiyan in MGNREGS, in FY 2022-23, approximately 1.47 crore plantations have been carried out. In the last 3 years, under the Abhiyan, a total of 4.20 crore plantations have been done.
- Under the Pradhan Mantri Awaas Yojna Gramin (PMAY-G), against the target of 37,35,491 houses between FY 2016-17 to FY 2021-22, a total of 36.93 lakh houses have been sanctioned and 33,74,311 houses have been constructed as on 17 January 2023.

#### 26.1.7 Initiatives

Here are some of the initiatives that have been taken by the government of Bihar to address the problems of rural development:

- Pradhan Mantri Gram Sadak Yojana: This scheme is aimed at providing all-weather roads to rural areas.
- Sarva Shiksha Abhiyan: This scheme is aimed at providing free and compulsory education to all children up to the age of 14.
- National Rural Health Mission: This scheme is aimed at providing better healthcare facilities in rural areas.
- Mahatma Gandhi National Rural Employment Guarantee Act: This scheme is aimed at providing employment to rural households.



These initiatives have helped to improve the lives of millions of people in rural Bihar. However, there is still a lot of work to be done. The government needs to continue to invest in rural development in order to achieve sustainable development.

#### Clean village - Prosperous village

- Solar street lights in all villages Under this determination, solar street lights are to be installed in each ward of the Gram Panchayat for public use in a phased manner. A provision of Rs 392.00 crore has been made in the year 2023-24.
- Solid and Liquid Waste Management Under this, arrangements will be made for solid and liquid waste management and sewage management in villages. Against the 57,028 wards of 4,250 gram panchayats targeted by the year 2022-23, work has started in 32, 145 wards of 2,428 panchayats.
- Development of animal and fish resources With the aim of increasing the income of animal and fish farmers of the state, milk production and processing, poultry farming, fish farming etc. will be promoted by using modern techniques. A provision of Rs 100.00 crore has been made for this in the year 2023-24.

#### **26.2 URBAN DEVELOPMENT OF BIHAR**

- The urban area plays a vital role in the economic development of any economy. Urban centers are the basic motors of a growing economy. This calls for a greater and more focused effort for rapid urbanization in developing states, such as Bihar. The state government it's trying to meet this challenge by implementing a number of programs for Urban Development, some of them in association with the central government. The state government has also been allocating more resources for Urban Development in recent years.
- The projected urban population of Bihar in 2022 is 20.2 million which will raise the urbanization rate in Bihar from 11.3 to 16.2%. During the last 15 years the overall economy in Bihar particularly its urban economy has grown at a higher rate. The expenditure of the state government on Urban Development was rupees 2823.9 crore in 2016-17, which increased by 77.1% in five years to reach rupees 5001.3 crore in 2020-21. Out of the seven resolves, three are indeed related to Urban Development.

#### 26.2.1 Level of Urbanization

 The projected urban population of Bihar is 20.2 million in 2022. The level of urbanisation in Bihar as projected for 2022 is 16.2%. Given below is the table showing urbanisation trends in Bihar and India:

#### URBANISATION TREND IN BIHAR AND INDIA (1961 to 2022)

Year	1961	1971	1981	1991	2001	2011	2022	
(Projection)								
Urban Population (million)								
Bihar	2.6	3.2	5.0	6.5	8.7	11.8	20.2	
India	79.0	109.1	159.5	217.2	286.1	377.1	480.9	
Level of Urbanisation (%)								
Bihar	7.4	7.7	9.6	10.1	10.4	11.3	16.2	
India	17.8	19.8	22.9	25.5	27.8	31.2	34.9	

**Source:** Census 1961 to 2011

#### **Urbanisation Rate of India and Bihar from 1961 to 2022(in %)**



# **Number of Towns and Population Share in Bihar**

Sign Class	Number	of Towns	Population (million)		
Size Class	2001	2011	2001	2011	
Class I (> 1,00.000)	19 (14.6)	26 (13.1)	4.85(55.9)	6.75 (57.5)	
Class II (50.000-99.999)	19 (14.6)	29 (14.6)	1.37(15.8)	1.88 (15.6)	
Class III (20.000-49,999)	67 (51.5)	75 (37.7)	2.1 (24.2)	2.49 (21.6)	
Class IV (10,000-19,999)	19 (14.6)	22 (11.1)	0.31 (3.6)	0.33 (2.8)	
Class V (5.000-9.999)	6 (4.6)	38 (19.1)	0.04 (0.5)	0.26 (2.2)	
Class VI (Less than 5.000)	_	9 (4.5)	_	0.03 (0.3)	
Total	130 (10(H))	199(100.0)	8.68(100.0)	11.76(100.0)	

Source: Census 2001 and 2011

Figures in bracket indicate percentage shares

# 26.2.2 Reorganization of urban local bodies

 Recently, 111 new Nagar panchayats have been set up, along with nine new Nagar parishads. In addition, 39 old Nagar panchayats have been upgraded to Nagar parishad while seven old Nagar positions have been upgraded to Nagar nigams. It is estimated that a population of around 40.40 lakh will be added because of this development.

# Establishment of New 120 Nagar Panchayats and Parishads (2022)

District	Nagar Panchayat / Nagar Parishad
Araria	Nagar Panchayat: Jokihat, Raniganj, Narpatganj
Arwal	Nagar Panchayat: Kurtha
Aurangabad	Nagar Panchayat: Dev. Baran
Banka	Nagar Panchayat: Katoria, Bausi
Begusarai	Nagar Parishad : Barauni
Bhagalpur	Nagar Panchayat : Pirpainti. 1 labibpur. Sabaura. Akbarnagar
Bhojpur	Nagar Panchayat: Grahani
Buxar	Nagar Panchayat : Chausa, Brahmpur. Etadih
Darbhanga	Nagar Panchayat : Kusheshwarsthan. Bahari. Hayaghat. Ghanshyanipur. Biraul. Bharwara. Singhwara, Kamtaul
	Nagar Parishad: Jale
Gaya	Nagar Panchayat: Dobhi. Imaniganj. Khijarsarai. Fatehpur, Wajirganj
Gopal ganj	Nagar Panchayat: Hathua
Jamui	Nagar Panchayat: Sikandra
Jchanabad	Nagar Panchayat: Kako. Ghoshi
Kaimur	Nagar Panchayat: Hata. Kudra. Ramgarh
Katihar	Nagar Panchayat : Balrainpur, Aamdabad, Kursail. Kodha. Barari
Khagaria	Nagar Panchayat: Alauli. Manasi, Parbatta. Beldaur
Kishanganj	Nagar Panchayat: PaauaKhali
Lakhisarai	Nagar Parishad : Suryagarha
Madhcpura	Nagar Panchayat: Bihariganj, Singheshwar, Alamnagar
Mauncpura	Nagar Parishad : Udakishunganj
Madhubani	Nagar Panchayat: Phulparas, Benipatti

Nagar Panchayat: Tarapur, Asarganj, Sangrampur				
Nagar Panchayat : Baruraj, Meenapur, Saraiya, Madhopur Susta.				
Sakra. Turki-Kudhani. Muraul				
Nagar Panchayat : Giriyak, Chandi, Barnaul, Asthawa, Parwalpur.				
Sarmera. Rahui, Ekangarsarai, Pawapuri, Nalanda				
Nagar Panchayat: Rajauli				
Nagar Panchayat: Punpun, Paliganj				
Nagar Parishad : Sampatchak. Bihta				
Nagar Panchayat : Rupauli, Bhawanipur. Dhaindaha. Jankinagar.				
Chanipanagar, Bayasi, Mirganj, Aamour				
Nagar Panchayat: Karakat, Dinara. Chenari. Rohtas				
Nagar Panchayat: Navhatta, Sonvarsha. Bangaon. Saurbazar				
Nagar Panchayat: Sarairanjan, Musri Gharari, Singhiya,				
Nagar Parishad : Tajpur, Shahpur Pator				
Nagar Panchayat: Manjhi, Mashrakh, Kopa				
Nagar Panchayat: Chewada, Shekhopursarai				
Nagar Panchayat : Gopalpur, llasanpur. Aandra. Guthani. Basantpur. Baraliriya				
Nagar Panchayat: Pipra. Simrahi				
Nagar Parishad : Trivcniganj				
Nagar Panchayat : Gorauli. Patepur. Jandaha				
Nagar Panchayat: Machhargawan, Lauria				

Source: Department of Urban Development and Housing. GoB

Out of the total population of Bihar, 11.29% people live in urban regions. The urban population of Bihar increased by 35.43 percent during 2001-2011 period and is expected to rise further. Sex Ratio in urban regions of Bihar was 895 females per 1000 males. Average Literacy rate in Bihar for Urban regions was 76.86 percent.

#### 26.2.3 CHALLENGES

Urban development in Bihar faces several challenges that hinder the sustainable growth and well-being of urban areas. These challenges are multi-faceted and require focused attention to address. Here are some key problems of urban development in Bihar:

- Inadequate Infrastructure: Many urban areas in Bihar suffer from inadequate infrastructure, including roads, drainage systems, water supply, and sanitation facilities. Poorly constructed roads, lack of proper stormwater management, limited access to clean water, and insufficient waste management systems contribute to deteriorating living conditions and hamper economic activities.
- Unplanned Urbanization: Rapid urbanization in Bihar has led to the unplanned growth of cities and towns. Lack of proper urban planning, inadequate land-use regulations, and encroachments contribute

- to haphazard development. Unplanned urbanization results in the proliferation of slums, overcrowding, and inadequate provision of basic services.
- Housing Shortage and Informal Settlements: Bihar
  faces a significant shortage of affordable housing,
  especially for the urban poor. The rapid influx of
  migrants and limited availability of housing options
  lead to the growth of informal settlements and slums.
  These settlements lack proper infrastructure, basic
  services, and tenure security, further exacerbating
  social and economic disparities.
- Traffic Congestion and Transportation Issues: Many urban areas in Bihar suffer from traffic congestion and inadequate public transportation systems. Insufficient road capacity, lack of proper traffic management, and inadequate public transport infrastructure contribute to congestion and trafficrelated problems. Inadequate parking facilities and non-motorized transport infrastructure further add to transportation challenges.
- Solid Waste Management: Effective solid waste management is a significant challenge in urban areas of Bihar. Inadequate waste collection systems, insufficient waste treatment and disposal facilities, and limited awareness about proper waste management practices lead to improper waste disposal, environmental pollution, and health hazards.

- Limited Employment Opportunities: Urban areas in Bihar struggle to provide sufficient employment opportunities, resulting in high unemployment rates and underemployment. The lack of diverse industries and inadequate skill development programs contribute to limited job prospects. This situation leads to migration from urban to rural areas or to other states in search of employment opportunities.
- Insufficient Basic Services: Urban areas face challenges in providing essential services such as quality education, healthcare, and access to safe drinking water. Limited availability of schools, healthcare facilities, and safe drinking water sources impact the well-being and quality of life of urban residents.
- Governance and Institutional Capacity: The
  effectiveness of urban governance and institutional
  capacity in Bihar needs improvement. Efficient urban
  governance structures, transparent decision-making
  processes, and effective coordination between
  different government agencies are necessary for
  effective urban planning and development.

Addressing these challenges requires a comprehensive approach encompassing urban planning, infrastructure development, affordable housing programs, waste management strategies, skill development initiatives, and improved governance mechanisms. By addressing these issues, Bihar can promote sustainable urban development, improve living conditions, and create vibrant and livable cities and towns for its residents.

Solid and liquid waste management is to be arranged in all the cities of Bihar through appropriate technology. For solid and liquid waste management, the project is to be implemented on the basis of cluster based units in 161 out of 261 municipal bodies and standalone based units in 100 of the state. There are 51 Material Recovery Facilities in 35 municipal bodies and 181 Waste to Compost centers in 87 municipal bodies. Under liquid waste management, the work of City Sanitation Action Plan has been started in 231 municipal bodies with less than 1 lakh population. A provision of Rs 124.00 crore has been made in the year 2023-24.

## 26.2.4 Urban Development plans

- The state government has been endeavoring to provide better living conditions in urban areas and, towards this, it is now implementing a number of programs.
- Mukhyamantri saat nischay yojana 2: Sauchalay Nirman Ghar Ka Samman, Har ghar nal ka jal, Har ghar pakki gali evam naliya
- Mukhyamantri shahri peyjal nischay yojana, Mukhyamantri shahri nali-gali pakkiKaran nischay yojana are other schemes of the government of Bihar.
- Following Urban Development programmes are jointly funded by central and state governments Namami gange program: it is an integrated conservation mission approved as a flagship program of the central government in June 2014, with a budget of rupees 20,000 crore. Solid and liquid waste management, sewerage infrastructure, riverfront development are other important urban development schemes by the central government.

#### Ganga Jal Apurti Yojana

A unique scheme called the 'Bihar Ganga Water Supply Scheme' was launched in the Nalanda district on November 27, 2022 by the Water Resources Department of the State government. This will provide surplus water of the river Ganga to some the cities of South Bihar. Under this scheme, the excess water of the river Ganga will be supplied through pipe by constructing an intake well-cum-pump house at Hathidah (Mokama). The drinking water will be made available to the cities of Rajgir, Nawada, Gaya and Bodh Gaya. The technical details of the scheme is presented below:

Construction of Intake well, Pump House and Approach Channel at Maranchi with Diaphragm Wall Technology for discharge of 19.40 cumecs (a cubic metre per second as a unit of rate).

Capacity of two Water	(1) 24 MLD (Million Liters Per Day) at Rajgir					
Treatment Plants	(2) 186.5 MLD at Gaya					
Construction of Detention Tank for storage capacity of 78500 cumecs and Pump house at Rajgir						
Capacity of three Reservoirs	(1) 9.915 MCM (Million Cubic Meters) at Rajgir (Between Ghorakatora Lake and Panchane river in Nalanda)					
	(2) 18.633 MCM at Tetar (Near hillocks in Tetar panchayat of Mohra block in Gaya)					
	(3) 0.938 MCM at Gaya (Abgilla hills of Manpur, Gaya)					
Pipeline of Length (Total 151 kms.)	(1) 2.4m dia, pipe — 91 kms. (2) 2.1 m dia, pipe — 27 kms.					

With the implementation of this Scheme, about 1.12 lakh population of the Rajgir city, about 1.21 lakh population of the Nawada city, and about 6.32 lakh population in Gaya and Bodh Gaya cities will be benefited.

(3) 1.6 m dia, pipe — 33 kms.

## **26.3 HUMAN DEVELOPMENT OF BIHAR**

Human development denotes nice holistic development of individuals through equitable access to opportunities. The social sector of any economy includes mainly such components that contribute to a standard quality of living. Bihar has been steadily progressing towards achieving a stipulated social target where quality health, education, water supply, sanitation, and welfare of the marginalized sections are given priority.

- The three main dimensions of human development are: a long and healthy life, access to knowledge, and a decent standard of living. Social infrastructure comprising education, health, water supply, etc. contributes substantially to human development which, in turn, results in social welfare.
- The parallel developments in the social sector, especially in health and education, indicate how

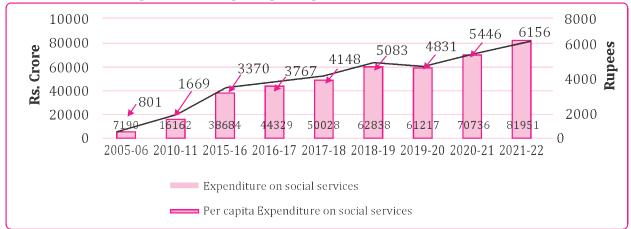
- inclusive the process of economic development is. The overall scenario of expenditure on social services during the **past 16 years** has shown a steady increase. The government's spending on social services increased significantly between 2005- 06 and 2021-22.
- The male Work Population Ratio (WPR) in rural Bihar was 68.8 percent, compared to 77.9 percent at the all-India level. In urban Bihar, the male WPR was 64.6 percent vis-à- vis 75.7 percent at the all-India level.
- The Life Expectancy at Birth (LEB) for Bihar has increased substantially from 65.8 years in 2006-10 to 69.5 years in 2016-20, registering an increase of 3.7 years over a period of ten years. For India, the LEB registered an increase of 3.9 years, between 2006-10 and 2016-20. Currently, the overall LEB of Bihar is only 0.5 year less than that of India (70.0 years).

## Trend of Social Services Health and Education Expenditure in Bihar

Year	Total Expenditure (Rs. crore)	Expenditure on Social Services (Rs. crore)	Share of Social Services in Total Expenditure (%)	Expenditure on Health (Rs. crore)	Expenditure on Education (Rs. crore)	Per Capita Expenditure on Social Services (Rs.)
2005-06	22568.46	7190.35	31.9	1015	4366	801
2010-11	50704.51	16161.50	31.9	1667	8156	1669
2015-16	112328.00	38683.87	34.4	4571	18980	3370
2016-17	126302.00	44329.12	35.1	5493	20034	3767
2017-18	136427.00	50027.81	36.7	6182	24587	4148
2018-19	154655.00	62837.53	40.6	7318	28237	5083
2019-20	146097.00	61216.56	41.9	7674	26684	4831
2020-21	165697.00	70735.62	42.7	9152	27651	5446
2021-22	193122.97	81950.52	42.4	11510	35805	6156

Source: Budget Documents. GoB

Trend of social services expenditure and per capita expenditure on social services



## 26.3.1 Demographic Outline of Bihar

As per the Census 2011, the population of Bihar is **104,099,452.** 

The population of Bihar is 8.6% of the total population of India.

The rural population of Bihar constitutes **88.71%** of the total population of Bihar.

The urban population of Bihar constitutes **11.29%** of the total population of Bihar.

The population density of Bihar is **1,106** per square km. The sex ratio in Bihar is **918**.

#### 26.3.1.1Age structure

• Age structure denotes the number of people in different age groups. A large size of population in the age group of 15 to 59 indicates a huge working population. A greater proportion of the population above 60 years represents an aging population and there's more expenditure on healthcare facilities. A high proportion of the population in the age group of zero to 14 years indicates that the region has a high birth rate. Thus changing age structures have economic implications.

## Percentage distribution of population in bihar and india by age structure (2011)

		Total			Rural			Urban		
Age-groups	Persons	Males	Females	Persons	N&tes	Females	Persons	Males	Females	
	India									
0-14 (Child)	30.8	31.2	30.3	32.8	33.3	32.3	26.2	26.6	25.8	
15-59 (Working Population)	60.3	60.2	60.3	58.0	58.0	58.1	65.3	65.3	65.3	
60 & above (Old age)	8.9	8.6	9.3	9.1	8.8	9.5	8.5	8.1	8.9	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
				Bihar						
0-14 (Child)										
15-59	40.1	40.0	40.2	40.8	40.8	40.9	34.2	33.9	34.4	
(Working Population)	52.1	52.1	52.2	51.4	51.2	51.5	58.2	58.3	58.1	
60 & above (Old age)	7.8	8.0	7.6	7.8	8.0	7.6	7.6	7.7	7.5	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

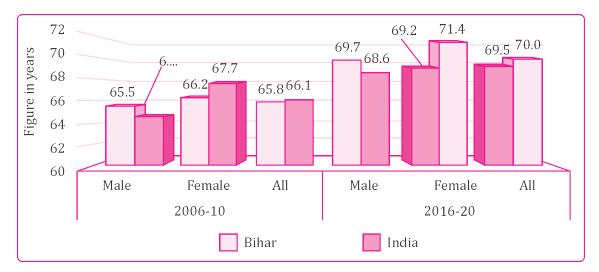
Source: Census of India, 2011

#### 26.3.2 Health Situation in Bihar

Health is defined as a state of complete physical, mental, and social well-being and not simply the absence of disease
health status is broadly judged by some specific indicators- morbidity, mortality, incidence of communicable and
non communicable diseases, risk factors like road traffic injuries and hazardous pollution, and providing universal
health coverage through the public health services.

#### 26.3.2.1 Selected health indicators in Bihar

• life expectancy at birth: average number of years a newly born baby is expected to survive under the current schedule of mortality. In the last 10 years, the life expectancy of Bihar has increased considerably by 3.5 years and 4.0 years respectively for rural and urban areas.



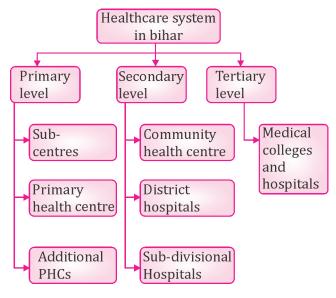
#### Life Expectancy at Birth in Bihar and India

Six other indicators of health, for which there exists comparable data are-crude birth rate, infant mortality rate, child mortality rate, under five mortality rate. neonatal mortality rate and perinatal mortality rate.

#### Health infrastructure

- Sound health infrastructure ensures availability of essential public health services. The totality of the public health infrastructure includes a skilled workforce, public health organisations, resources, integrated electronic information systems, and research. Due to a combined effect of poverty, population load and climatic factors, Bihar's population is highly susceptible to disease. To provide adequate health services to such a population, it is extremely necessary to have a strong health infrastructure system.
- Bihar follows a three-tiered public health infrastructure, based on predetermined population norms.

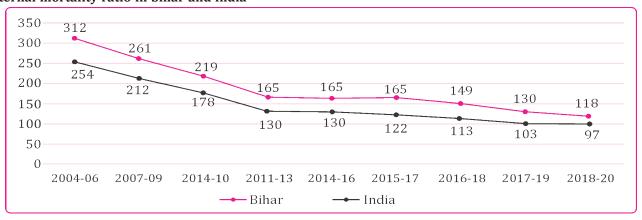
# **Health Care System in Bihar**



## **Institutional Delivery**

Maternal health is a core function of all public health services and institutional delivery is a basic component of it. institutional delivery is delivery at any medical facility, staffed by skilled delivery assistance, which ensures safety of the mother and the newborn. It considerably reduces MMR and IMR by ensuring detection and management of birth related complications. According to the latest sample registration system bulletin on MMR, the number of women dying from pregnancy related issues in Bihar has declined from 165 per live births to 118 from 2015-17 to 2018-20.

#### Maternal mortality ratio in bihar and india



#### **Prevalence of Main diseases**

Estimates of disease burden based on sound epidemiological research provide the foundation of effective public health policy. Communicable and non-communicable diseases are still persisting in Bihar and India as major health problems, in spite

of having national programs for the control of most of the diseases for almost half a century now. Thus, a disaggregated understanding of disease burden in this state is needed to run an effective healthcare system. A list of major diseases in Bihar is as mentioned below:

#### **Prevalence of Main Disease**

#### (No. of patients in thousand)

Disease	2018-19	2019-20	2020-21	2021-22	2022-23 (Upto Nov. 22)
Acute Diarrhoeal Disease (including acute gastroenteritis)	91.83(10.7)	417.41 (11.8)	21.07 (8.4)	0.18 (0.5)	1.97 (2.0)
Bacillary Dysentery	46.48 (5.4)	209.42 (5.9)	11.32 (4.5)	0.33 (1.0)	4.55 (4.7)
Viral Hepatitis	8.19 (1.0)	32 (0.9)	14.41 (5.7)	0.02 (0.0)	5.61 (5.8)
Enteric Fever	43.99 (5.1)	210.03 (5.9)	9.32 (3.7)	1.34 (3.9)	1.95 (2.0)
Malaria	3.74 (0.4)	25.87 (0.7)	2.91 (1.2)	0.44 (1.3)	1.37 (1.4)
Fever of Unknown Origin (FUO)	214.2(25.0)	895.37 (25.2)	78.06 (31)	0 (0.0)	31.78 (32.8)
Acute Respiratory Infection (ARI)/Influenza Like Illness (1LI)	319.71 (37.3)	1283.86(36.2)	64.79 (25.8)	0.52 (1.5)	34.45 (35.5)
Pneumonia	9.76 (l.l)	35.9 (1.0)	1.18 (0.5)	0 (0.0)	0.37 (0.4)
Dog-bite	104.75(12.2)	368(10.4)	41.51 (16.5)	9.81 (28.7)	12.73(13.1)
Any other State Specific Disease (Specify)	6.3 (0.7)	24.32 (0.7)	1.75 (0.7)	21.6 (63.1)	0.87 (0.9)
Unusual Syndromes NOT Captured Above (Specify clinical)	9.19 (1.1)	47.15 (1.3)	5.14(2.0)	0 (0.0)	1.39 (1.4)
Total	858.13 (100.0)	3549.33(100.0)	251.46(100)	34.23(100.0)	97.02(100.0)

Note: Figures in the parenthesis denote percent share to total

Source: State Health Society. GoB

# **Achievements of the Health Department**

In order to provide health facilities to the last person standing in the queue, the State government is strengthening the basic services and modem treatment system. Some of the steps taken regarding these are:

- To enhance medical education and research in the state, approval has been given for the Bihar Health Science University Act, 2021. For this, 32 posts have been created including that of a Vice-chairman. Very soon, the Bihar Health Science University will start functioning.
- Second AllMS of the state is being established on the campus of Darbhanga Medical College and hospital, Laheriasarai.
- A total of 11 new Medical Colleges and Hospitals will be established in the state. Of these, the MBBS course will shortly start at Purnea Medical College. Apart from this. Medical Colleges will also be established at Sitamarhi, Jhanjharpur (Madhubani), Samastipur, Siwan, Saran, Buxar, Jamui, Begusarai, Mahua (Vaishali) and Bhojpur (Ara).

- An amount of Rs. 1754.99 crore has been approved to set up one Primary Health Centre, five Sub-Health Centres, 136 Community Health Centres and 1379 health institutes in 243 Assembly areas of Bihar. Approval has been given for the same and the plan is under implementation.
- A total of 5373 candidates have been selected for contractual posts by Bihar State Health Society under NHM in 2021-22. The distribution of these 5373 posts is Staff Nurses (2444), ANM (865), Medical Officers (full-time) (102). Medical Officers (part-time) (69), Block Community Motivator (68). Block Accountant (50), Block Health Managers (39) and Community Health Officers (1537).
- In 2021-22, till January 2022, a total amount of Rs. 119.53 crore has been approved under Mukhyamantri Chikitsa Sahayata Kosh for 13,572 beneficiaries.
- A total of 194 posts of Engineers and 70 other contractual posts have been created under Bihar Medical Services and Infrastructure Corporation Limited to manage the increased burden of work. Also, 272 academic and non-academic posts have been created for different departments of the State Cancer Institute, located on the campus of Indira Gandhi Institute Of Medical Sciences (IGIMS). Lastly, 1430 seats have been created in undergraduate and post graduate diploma courses in different Government Medical and Dental Colleges.
- Under the Saat Nishchay-2 programme, the Health Department of Bihar is making an effort to provide health services to people living in remote villages of the state. To fulfil this target, the government has decided to provide therapeutic services to people through telemedicine facility. The eSanjeevani system developed by CDAC Mohali, Government of India has been selected to implement the telemedicine services. Under this system two types of modules, eSanjeevani.in and eSanjeevani OPD are used for teleconsultation. A total of 31.4 lakh medical consultations under eSanjeevani and 65687 under e Sanjeevani OPD are provided till February 10, 2023.

#### **Drinking water supply and sanitation**

Bihar is a front runner in sustainable development goal- 6 on clean water and sanitation, with a score of 91 in 2020-21, which is better than the national average. Initiatives such as Har ghar nal ka JAL and Lohia Swachh Bihar Abhiyan have ensured the supply of clean drinking water and safe sanitation for every citizen. As per the national sample survey on drinking water, sanitation, hygiene and housing

conditions (2018), About 48.2% of the households in the rural areas of Bihar and 48.6% in urban areas used piped water as the principal source of drinking water.

#### Drinking Water and Sanitation: New Interventions

- To maintain the quality of water as suggested by the Central government, the Department of P11ED has established the National Accreditation Board for Testing and Calibration Laboratories in Patna. Similar laboratories have also been established in all the district headquarters, where the quality of water is being diagnosed based on 16 parameters set by the Central government.
- Out of a plan of setting up 76 laboratories for testing water at lower level, 75 have already been established. Additionally, 9 mobile water quality testing labs arc functional, through which quality of public water source is tested regularly in remote villages of the state.
- In order to provide piped water supply in Anganwadi and health centres under the Har Ghar Nai Ka Jal scheme, a provision has been made to provide a minimum of 5 taps in primary chools, 7 taps in middle schools, 2 taps in Aanganwadi Centres and 5 taps in Primary Health Centres.
- The facility of drinking water, 28,912 toilets, 11,916 female bathrooms and 5488 handpumps were provided by the department in 5350 Quarantine Centres to maintain cleanliness, during the period of the Covid-19 pandemic.
- During the period of lockdown (April to July, 2020), under Har Ghar Nai Ka Jal scheme, 25.78 lakh households of 17,227 wards were provided with piped water supply. Also, 15,776 migrant labourers were provided employment in this sector, based on their skill.
- Solid and Liquid Waste Management activities were started in 1672 Gram Panchayats of 38 districts of the state. Capacity building of selected Sanitation Supervisors, Swachhata Karmi, and concerned block coordinators of these Gram Panchayats was done in a phased manner. Simultaneously, the orientation of the Panchayati Raj Representatives of all these Gram Panchayats was also done.

## 26.3.3 Education and youth

 Good quality education is the foundation of growth and prosperity of a nation. Accessibility, equity and quality of educational institutions is required for better educational cover. In Bihar, the thrust on

- providing primary education has yielded good results across all social categories and both genders.
- **Literacy Rate:** Classification of districts on the basis of literacy rates in 2011 by area, gender, and digital growth in Bihar is given in the below table:

## **District-wise Classification of Literacy Rates in 2011**

Area/		Decadal				
Gender	Rural	Urban	Male	Female	Combined	Change
Top Five Districts	Rohtas (72.5), Aurangabad (69.4). Bhojpur (69.2), Buxar (69.1), Siwan (68.9)	Kaimur (82.6), Munger (81.0), Patna (81.0), Samastipur (80.7). Muzaffarpur (80.2)	Rohtas (82.9), Bhojpur (81.7), Buxar (80.7), Siwan (80.2), Aurangabad (80.1)	Rohtas (63.0), Munger (62.1). Patna (62.0). Aurangabad (59.7). Siwan (58.7)	Rohtas (73.4). Patna (70.7). Bhojpur (70.5). Munger (70.5), Aurangabad (70.3)	Kishanganj (24.4). Supaul (20.3).Shcohar (18.5). Araria (18.5). E. Champaran (18.3)
Bottom Five Districts	Pumea (48.4). Katihar (49.6), Sitamarhi (50.8). Saharsa (51.1). Madhepura (51.2)	Sheohar (62.0). Sheikhpura (71.0), West Champaran (71.1). Madhubani (71.1), Kishanganj (71.2)	Madhepura (61.8). Sheohar (61.3). Sitamarhi (60.6). Katihar (59.4). Pumea (59.1)	Saharsa (41.7), Madhepura (41.7). Pumea (42.3), Sitamarhi (42.4). Kishanganj (43.9)	Pumea (51.1). Sitamarhi (52.1). Katihar (52.2). Madhepura (52.3). Saharsa (53.2)	Jehanabad i 1 1.6). Bhojpur (1 1.5), Nalanda (11.2).Munger (11.0). Patna (7.8)

Note: Figures in parentheses indicate Literacy Rate and decadal growth rate in last column

Source: Census, 201 I

#### **Expenditure on education**

• Public expenditure on education in Bihar has increased by 41.3% from rupees 24385 crore in 2017-18 to

rupees 34465 crore in 2021-22. Below table gives an idea about expenditure on education at different levels:

#### **Expenditure on education**

(Rs. crore)

Year	2017-18	2018-19	2019-20	2020-21	2021-22	
	Elementery	15638	19152	18747	6054	22201
	Elementary	(64.1)	(81.1)	(66.4)	(46.7)	(64.4)
Expenditure on Education	Secondary	4655	2216	4233	3256	5891
(Rs. crore)		(19.1)	(9.4)	(15)	(25.1)	(17.1)
	Higher	4092	2250	4711	3564	6373
		(16.8)	(9.5)	(16.7)	(27.5)	(18.5)
Total (Rs. crore)		24385	23618	28234	12959	34465
		(100.0)	(100)	(100.0)	(100.0)	(100.0)
Expenditure on Education as a	Total Budget	17.9	15.3	13.0	7.8	15.8
percentage of	Social Sector	48.7	37.9	30.6	18.5	37.9

**Note**: 1. Figures in the parenthesis represent percentage share

- Figures lor 2019-20 and 2020-21 also include expenditure on Mass Education. Research & Training. Administration and Library
- 3. For 2021-22, the share on budget and social sector is calculated on BE figures

Source: State Government Finances, GoB

New education policy 2020, pradhan mantri potions Shakti nirman (PM POSHAN), Kasturba Gandhi balika vidyalaya, rashtriya uchter shiksha abhiyan, samagra siksha abhiyan, are primary central government schemes that has helped development of education in Bihar.

#### Quantitative and Qualitative Growth of Technical **Education in Bihar**

- Total of 38 Government Engineering Colleges have been established, one in each district.
- Apart from conventional branches, several new courses like Computer Science & Engineering (Artificial Intelligence, Internet of Things, Data Science, Cyber Security, achine Teaming, 3-D animation & Graphics, Food Processing, Biomedical and Robotics, Block Chain technology. Aeronautical. Chemical & Mining Engineering. Fire Technology & Safety, etc.) as emerging areas have been started from the academic session 2022-23 at the graduation level.
- The seats at the undergraduate level in the Government Engineering Colleges have been increased from a capacity of 8774 to 10,965. Similarly, at the Post-Graduate level, the seats have been increased from 96 to 126.
- Training, in emerging areas, is being provided to faculty members as well as students of all engineering colleges in collaboration with the Institutes of National Eminence. In-house training is being provided to all faculty members of Government Engineering Colleges in collaboration with Iff and NIT Patna.
- Bihar Engineering University has been established, with which the Government as well as private Engineering colleges of the state will be affiliated from the academic session 2023-24. Provision has been made to reserve one-third of the total seats for women candidates, in all the courses and across all categories in each institution and college affiliated with the newly established Bihar Engineering University.
- Total of 46 Government Polytechnic Institutions, with at least one in each district, have been established in the state. Out of 46, academic activities have started in two new polytechnic institutions, namely Government Polytechnic, Barh, and Government Polytechnic of Textile, Bhagalpur from academic session 2022-23.
- The total scats at the Undergraduate level in State Polytechnic Institutions in 2021 -22 have increased from 11,211 to 12,321.
- In accordance with the demand of industries, the Centres of Excellence have been established in 44 Government Polytechnic institutions in collaboration with IIT Patna on Spokc-Hub Model i.e. with total 33 Government Polytechnics as spokes and 11 Government Polytechnics as hubs. In the following areas. Centres of excellence have been established:

- 1. Drone Technology, 2. 3D Printing, 3. Industrial Automation, 4. Robotics, 5. Electric Vehicles, 6. Internet of Things and Artificial Intelligence, and 7. Welding Technology.
- Provision has been made to provide internet connectivity (100Mbps), wi-fi. and smart classes in all 38 Government Engineering Colleges by the next financial year.
- Training and Placement Cell has been established at the Department and institutional level. Industry houses are being invited regularly for the placement of students.
- Attendance, through Biometrics, is in practice in all Government Engineering Colleges and Polytechnics for staff as well as students.
- Installation of a new Projection system of the latest technology (3D/2D. tine RGB Laser projection system) for Indira Gandhi Science Complex Planetarium. Patna is in progress and is likely to be functional in the next financial year. Planetarium cum Science Museum of Darbhanga has become functional from January, 2022.
- The construction work of Dr. A.P.J. Abdul Kalam Science city, Patna is in progress.
- National Mathematics Day, National Science and Children Science Congress are being
- celebrated each year.

#### **Achievements in Education Sector**

- Bihar Student Credit Card Yojana, an ambitious scheme of the State government, was started on October 02, 2016 to address the agenda of higher education under the 'Aarthik Hal, Yuvaon Ko Bal' component of the Saat Nishchay Programme. Under this scheme, a loan amount of up to Rs. 4.00 lakh is provided to students for higher education. Till March, 2022, Rs. 5210.98 crore has been approved for 2.32 lakh applications. In 2022-23, till September, an amount of Rs. 714.71 crore has been approved for 38,863 applications.
- In 2021-22, an amount of Rs. 146.44 lakh has been approved for 61.7 lakh girls from all categories under Mukhyamantri Balika Poshak Yojana. The payment to the beneficiaries is made through Direct Benefit Transfer.
- Under the Right to Education Act, there is a provision for the enrolment of 25 percent of children from disadvantaged and weaker sections in recognized private schools. In the cunent year, for 1.22 lakh children, the system of reimbursement at the rate of Rs. 11.869 per children is under process.
- Presently, out of the total target of the establishment of 21.420 primary schools, 21,286 new schools have already been established. Also, against the target of upgradation of 19, 725 schools, 19,633 elementary schools have already been upgraded to secondary schools.

- Under the National Initiative for School Heads and Teachers Holistic Advancement, there is a target of training 27,287 secondary school teachers, 1393 secondary school teachers of governmentaided schools, 11,151 teachers of higher secondary schools, and 255 of teachers of government-aided higher secondary schools. Till August, 2021, the State government has already trained 37,434 teachers.
- In 2022-23, all K.GBV schools will be upgraded to Class-12 level. There is a plan to cover all upper primary, secondary, and higher secondary schools under ICT@School and Smart Classroom in the coming four years.
- A Memorandum of Understanding (MoU) has been signed between UGC's Information and Library Network Centre, the Education Department, Government of Bihar and 15 State Universities of Bihar to establish "E-Library" to benefit students, researchers, faculty members and the entire scholarly community. Under this, facilities like library automation, checking of plagiarism, information management system to collect all the research-related materials, union catalogue of books, interactive dashboard, etc. will be available.
- The Bihar State Higher Education Council (BSHEC), Education Department, Government of Bihar has implemented several measures to enhance the National Assessment and Accreditation Council (NAAC) accreditation of higher educational institutions in the state. They have organized regular workshops for all HEIs and provided training to colleges that were yet to submit their AQAR (Annual Quality Assurance Report), 11QA (Institutional Information for Quality Assessment), and SSR (Self-Study Report) reports. As a result, colleges in Bihar arc now submitting these reports for NAAC accreditation. To streamline the accreditation process, the Education Department, Government of Bihar has also appointed a State Nodal Officer at the state level.

#### 26.4 CHILD DEVELOPMENT

- With a child population of 4.98 crore, 48 percent of the total population in Bihar lies in the age group of 0-18 years. Out of these 4.98 crore children, 4.47 crore (89.9 percent) reside in rural areas and 0.50 crore (10.1 percent) live in urban areas.
- As per gender particulars, 2.35 crore are girls and 2.62 crore are boys.
- The adolescent population of Bihar aged between 10 and 19 years increased 1.3 times, from 1.83 crore in 2001 to 2.34 crore in 2011.

- The share of adolescents in the total population also increased marginally from 22.0 percent in 2001 to 22.5 percent in 2011.
- Between 2001 and 2011, both urban and rural adolescent populations increased 1.3 times. The adolescent sex ratio is also showing an increase of 29 points, from 826 females per 1000 males in 2001 to 854 in 2011.
- There is an increase in rural and urban sex ratios by 27 points and 44 points, respectively.
- The actual expenditure on children has increased by 85.7 percent from Rs. 16,638.5 crore in 2016-17 to Rs. 30,903.05 crore in 2020-21.
- The per capita expenditure on children also increased by 82.8 percent from Rs. 3275 in 2016-17 to Rs. 5986 in 2020-21.
- The most encouraging fact is that the share of child-specific expenditure in the total budget has increased to 18.7 percent in 2020-21 from 13.2 percent in 2016-17. Equally, the share of public expenditure on children in total GSDP rose to 5.3 percent in 2020-21 from 4.0 percent in 2016-17.

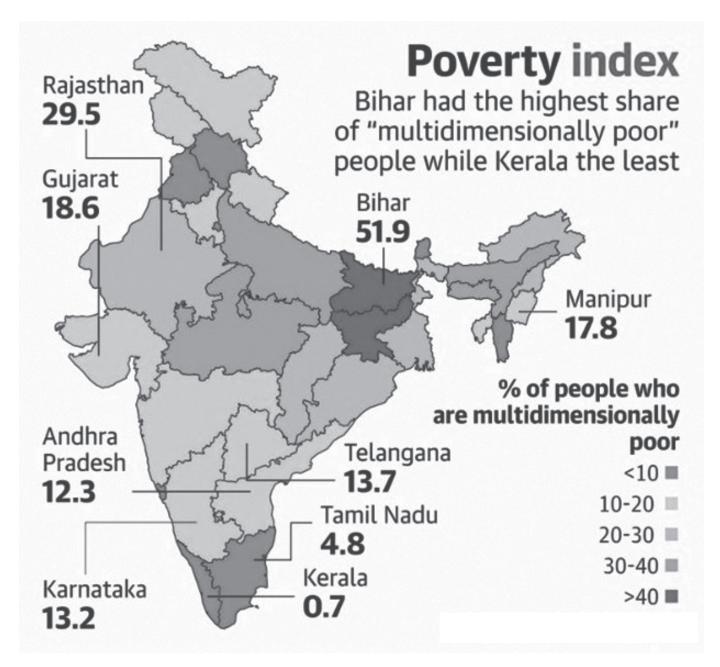
#### **ANGANWADI**

- Presently, ICDS is running through 544 project offices in 38 districts of Bihar.
- Till date, there are 1,07,894 Anganwadi Centres (AWCs) and additional AWCs, and 7115 Mini AWCs in the state.
- The budget provision for ICDS has steadily increased from Rs. 988.7 crore in 2017-18 to Rs. 1758.4 crore in 2021-22, implying an annual growth rate of 14.9 percent. The budget provision for ICDS in 2021-22 was Rs. 1758.4 crore, which was 14.6 percent higher than Rs. 1533.8 crore in 2020-21.

# 26.5 ISSUES RELATED TO POVERTY IN BIHAR

Poverty remains a significant challenge in Bihar, and several issues contribute to the prevalence of poverty in the state. However, various initiatives have been undertaken to address these issues and uplift the economically disadvantaged sections of society. Here are some key issues and initiatives related to poverty in Bihar:

• The government think tank **Niti Aayog** has released the first-ever Multidimensional Poverty Index (MPI) to measure poverty at the national, State/UT, and district levels. As per the inaugural index, **Bihar** has been adjudged as the state with the highest level of multidimensional poverty. 51.91 per cent of the state's population are multidimensionally poor.



# 26.5.1 Issues Related to Poverty in Bihar

- Low Income and Unemployment: Bihar faces high levels of poverty due to low per capita income and limited employment opportunities. The lack of diverse industries, inadequate skill development programs, and a predominantly agrarian economy contribute to high unemployment rates and lowincome levels.
- Agricultural Distress: Bihar's agrarian sector faces multiple challenges, including fragmented land holdings, limited access to credit and technology, lack of irrigation facilities, and vulnerability to natural disasters. These factors lead to low agricultural productivity and income, pushing many rural households into poverty.
- Limited Access to Basic Services: Access to basic services such as education, healthcare, clean water, and sanitation remains a challenge in many parts of Bihar. Lack of infrastructure, inadequate service delivery mechanisms, and a shortage of skilled healthcare professionals hinder the provision of quality services to the poor.
- Social Inequality and Discrimination: Social
  inequality and discrimination based on factors such as
  caste, gender, and religion exacerbate poverty in Bihar.
  Certain marginalized sections of society, including
  Dalits, tribals, and women, often face limited access to
  resources, opportunities, and social services, further
  perpetuating their poverty.

# **26.5.2 Initiatives to Address Poverty in Bihar**

- **Jeevika:** Jeevika is a poverty alleviation program implemented by the Bihar Rural Livelihoods Promotion Society (BRLPS). It focuses on promoting self-help groups, providing livelihood opportunities, skill development training, and access to credit and markets for the rural poor, particularly women.
- Bihar Rural Livelihoods Project (BRLP): BRLP aims to enhance livelihoods and reduce poverty in Bihar through a community-driven development approach. It focuses on capacity building, institutional strengthening, and creating sustainable livelihood options for the poor through improved agricultural practices, non-farm activities, and micro-enterprises.
- Mukhyamantri Nischay Swayam Sahayata Bhatta Yojana: This initiative provides financial assistance to unemployed youth in Bihar for skill development and entrepreneurship. It aims to enhance employability and income generation opportunities for young people to lift them out of poverty.
- Bihar Student Credit Card Scheme: This scheme provides education loans to students pursuing higher education. It aims to ensure access to quality education for economically disadvantaged students, thereby reducing the cycle of poverty.
- Health Infrastructure Development Initiatives:
   The Bihar government has launched several initiatives to improve healthcare services, including the establishment of new medical colleges, upgrading healthcare facilities, and providing free medical treatment to economically weaker sections through schemes like Ayushman Bharat.
- Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA): MGNREGA guarantees 100 days of wage employment per year to every rural household in Bihar. This initiative provides employment opportunities, increases rural income, and improves livelihoods for the poor.
- These initiatives, along with other poverty alleviation programs, aim to address the root causes of poverty in Bihar by promoting sustainable livelihoods, improving access to basic services, enhancing education and skill development, and reducing social inequalities. Continued efforts and effective implementation of these initiatives are crucial to uplift the economically disadvantaged sections and alleviate poverty in Bihar.

# 26.6 ISSUES RELATED TO UNEMPLOYMENT IN BIHAR

As per the Periodic Labour Force Survey (July 2021-June 2022), unemployment rate in Bihar was 6%, higher than the unemployment rate at the national level (4.1%). For the 15-29 years age group, unemployment

rate in Bihar was 20.1%, higher than the national level (12.4%).

The disease of unemployment appears to have become incurable in Bihar. Here are some statistics.

- Data from the National Career Service Portal shows that the number of unemployed youth in Bihar has tripled in the last one year.
- There are almost 14,15,914 registered unemployed in Bihar, these are the youths who have registered themselves for jobs.
- In Bihar, the number of unemployed youth is more than two and a half lakhs.

## **26.6.1 key Issues**

Unemployment continues to be a significant issue in Bihar, with several factors contributing to the high levels of joblessness. Here are some key issues related to unemployment in Bihar:

- Lack of Industrialization: Bihar faces challenges in attracting industrial investments and developing a robust industrial base. The absence of large-scale industries limits employment opportunities and hampers the creation of a diversified job market.
- Agriculture and Informal Sector Dominance:
   Bihar's economy is largely agrarian, with a significant
   portion of the population engaged in agriculture.
   However, the sector faces challenges such as low
   productivity, fragmented land holdings, and seasonal
   nature of work, leading to underemployment and
   unemployment. The informal sector, including small
   businesses and self-employment, also dominates the
   job market, often offering low-paying and unstable
   employment.
- Limited Skill Development: There is a gap between the skills possessed by the workforce and the requirements of the job market. The lack of proper skill development initiatives and vocational training programs limits the employability of individuals, particularly in emerging sectors.
- Education Disparities: Educational disparities, including low literacy rates and inadequate access to quality education, contribute to unemployment. The limited availability of educational institutions, especially at higher levels, and the quality of education provided hinder the acquisition of skills necessary for employment.
- Migration and Brain Drain: Bihar witnesses substantial outmigration of skilled and unskilled labor to other states in search of better employment opportunities. The migration of youth to urban areas or other states often results in a drain of talent and skills from Bihar, leading to a shortage of skilled workforce within the state.



- Infrastructure and Connectivity: Limited infrastructure development, including inadequate transportation facilities and connectivity, affects economic activities and job creation in Bihar. Poor infrastructure hampers the growth of industries and discourages investment, resulting in limited employment opportunities.
- Social Inequalities and Caste-based
  Discrimination: Social inequalities and caste-based
  discrimination persist in Bihar, affecting employment
  opportunities for marginalized sections of society.
  Dalits, tribals, and other socially disadvantaged
  groups often face discrimination and limited access
  to employment, exacerbating their unemployment
  rates.

Addressing these issues requires a multi-faceted approach focusing on industrial development, skill enhancement, education reforms, infrastructure improvement, and reducing social inequalities. Initiatives that promote entrepreneurship, attract investments, provide quality education and vocational training, and bridge the skills gap are crucial to tackle the unemployment challenge in Bihar. Moreover, measures to create a conducive business environment, enhance connectivity, and promote inclusive growth are essential for generating sustainable employment opportunities in the state.

#### 26.6.2 Initiatives

The State Government has launched special schemes/programs/policies to enable the youth of Bihar to become self-reliant by improving their competency through creating opportunities for education and skill development and better employability. These schemes include:

- Kushal Yuva Program.
- Bihar Unemployment Allowance Scheme: Under this scheme, the unemployed youth of the state who are unemployed despite being educated, get 1000 rupees per month by the Bihar government.
- Bihar Skill Development Mission (BSDM): BSDM is a flagship program launched by the Bihar government to enhance the employability of the state's youth. It focuses on providing skill development training and certification to improve the employability of individuals across various sectors. BSDM collaborates with industry partners to design industry-relevant training programs and facilitate placement opportunities for skilled candidates.
- Mukhyamantri Nischay Swayam Sahayata Bhatta Yojana: This scheme aims to provide financial assistance to unemployed youth in Bihar for skill development and entrepreneurship. It offers a monthly

- stipend to eligible beneficiaries during their training period and provides assistance for self-employment ventures, encouraging entrepreneurship and selfreliance among unemployed youth.
- Bihar Rural Livelihoods Promotion Society (BRLPS): BRLPS, also known as Jeevika, focuses on poverty alleviation and rural livelihoods. It provides livelihood opportunities through various programs, including self-help groups, communitybased enterprises, and skill development training. These initiatives aim to create employment opportunities and promote entrepreneurship in rural areas.
- Bihar Student Credit Card Scheme: This scheme provides education loans to students pursuing higher education. By facilitating access to affordable credit, it aims to enable students to acquire the necessary skills and qualifications for better employment prospects.
- Industrial and Infrastructure Development Initiatives: The Bihar government has initiated several measures to attract investments and promote industrial development. This includes the development of industrial parks, the establishment of mega industrial zones, and providing incentives and subsidies to industries. These initiatives aim to create employment opportunities in manufacturing, services, and other sectors.
- Start-up Policy: Bihar has introduced a start-up policy to foster innovation and entrepreneurship. The policy provides support and incentives for start-ups, including access to funding, incubation centers, mentorship, and regulatory support. This initiative aims to promote the creation of new enterprises and job opportunities in emerging sectors.
- Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA): MGNREGA guarantees 100 days of wage employment per year to every rural household in Bihar. This program provides temporary employment opportunities in rural areas, especially during lean agricultural seasons, and acts as a social safety net for the unemployed.
- Provision of free internet facilities through Wi-Fi in all Government universities and colleges in the state.

#### **26.7 SAAT NISCHAY SCHEME**

Saat Nischay Scheme was announced by the CM Bihar in 2015, to envision the goals around which the developmental works are to be done for the growth of the state. The Saat Nischay Scheme of Bihar has two parts i.e. Saat Nischay Part-1(started in 2015) and Saat Nischay Part-2(started in 2020). Both Part 1 and Part 2 contain seven resolves each:



# 26.7.1 Saat Nischay Part-1

The seven resolves under the Saat Nischay-1 Scheme is given below:

#### 1. Aarthik Hal, Yuvaon ko Bal:

The program 'Aarthik Hal, Yuvaon ko Bal' is also known as the Kushal Yuva Programme (KYP). The main motive of the program is to create employment for the youths who have dropped out from school education by imparting skill improvement courses.

In this 'Aarthik Hal, Yuvaon ko Bal' program, Youths from Bihar who are in the age group of 15 to 25 years and have cleared the secondary examination from the state of Bihar are eligible to join the skill development courses.

This program contains quality and experienced trainers who teach youths with the package of life oriented skills, thus boosting communication skills by improving the youth's language and to teach the basic level of working knowledge in computers. Student Credit Card is one such Initiative.

#### 2. Aarakshit Rozgar, Mahilaon Ko Adhikar

The program "Aarakshit Rozgar, Mahilaon Ko Adhikar" is designed to empower women in the state of Bihar. Under this program, women from Bihar enjoy 35% job reservation in the state government jobs. With this commitment, the women's education rate would increase in the entire state.

#### 3.Har Ghar Bijli, Lagatar

The state had notable growth in electricity production with respect to the state needs. In order to boost the electricity growth to the next level the program "Har Ghar Bijli, Lagatar" is introduced and with this program the state government of Bihar ensures the electricity connection to each and every household in Bihar.

#### 4. Har Ghar Nal Ka Jal

With the whooping investment of Rs. 47,700 crores, Nitish led Bihar state government introduced this program "Har Ghar Nal Ka Jal" to provide clean and secured drinking water to every resident in Bihar by connecting all households in Bihar with water pipeline connection. Under this scheme, it is targeted to remove all the hand pumps. It is roughly estimated that around 1.95 Lakh households in Bihar would be benefited under this "Har Ghar Nal Ka Jal" program.

#### 5. Ghar Tak Pakki Gali - Naaliyan

The program "Ghar Tak Pakki Gali – Naaliyan" is one among the commitments promised by the CM of Bihar which ensures the good and proper mode of road transportation across the state of Bihar by connecting its rural areas too. Under this Scheme, each and every rural village of Bihar would receive Pucca roads which are capable of handling all kinds of weather."Ghar Tak Pakki Gali – Naaliyan" is the construction of the Pucca Roads in villages of Bihar accompanied by pucca drainage networks.

#### 6. Shauchalay Nirmaan, Ghar Ka Samman

The Nitish Government in Bihar introduced the "Shauchalay Nirmaan, Ghar Ka Samman" program on 28th of September 2016 along with various schemes. Under the program "Shauchalay Nirmaan, Ghar Ka Samman" around 1.72 lakh crores toilets are planned to be built in households across the state of Bihar in order to ensure the people of Bihar enjoy a healthy and hygienic lifestyle.

#### 7. Avsar Badhe, Aage Padhein

The program "Avsar Badhe, Aage Padhein" is to develop the higher educational infrastructure in the state of Bihar in order to improve youth's higher education. Under this program, the state government of Bihar has planned to establish various educational institutions across the state. Approximately each and every district in the state of Bihar would receive Schools, Training institutes and other higher educational institutes like engineering universities, polytechnics and so on.

## 26.7.2 Saat Nischay Part-2

7 Resolves in the Saat Nischay Scheme-2 are developed keeping in mind the goal of Youth Development, Women Empowerment, Rural Development, Urban Development, Consolidation of Infrastructure, and Healthcare.

- 1. Yuva Shakti, Bihar Ki Pragati: Under this scheme, there is a provision for Student Credit Card for Higher Education, Computer training, communication skill, and behavioral training. Under this, there is also a plan of making a center of excellence in every ITI and polytechnic for enhancing the quality of training in such institutions.
- 2. Sashakt Mahila, Saksham Mahila: There is a provision of a special scheme for enhancing enterprising skills among Women. Under this scheme women would be given Interest-free loans up to 50% of the project cost or up to a maximum of Rs 5 lakh. Also, to encourage women candidates to complete their education they will be given Cash awards of Rs 25000/- for the Girls who pass class 12th and Rs 50000/- for Girls who pass Graduation.
- **3. Har Khet Tak Paani:** Under this, it has been promised that in the next five years, water will be made available for irrigation to every farm or field in the state and as a result farm productivity can be increased.
- **4. Swachh Gaon, Samridh Gaon:** Under this scheme, there is a plan to install solar street lights in all villages, solid and liquid waste management, and development of animal and fishery resources in the villages so that people can become self-reliant. Along with this, the Har Ghar Nal Ka Jal Scheme will proceed further.

- **5. Swacch Shahar, Vikasit Shahar:** This includes the construction of shelters for the Senior-Citizens, multi-story housing for the urban poor, solid and liquid waste management, electric crematoriums, and construction of Moksha Dham.
- **6. Connectivity Hogi Aur Asaan:** Under this, there is a plan to connect villages with major roads, and build bypass roads and flyovers for seamless connectivity to and fro for the people.
- 7. Sabke Liye Swasthya Suvidha: Under this scheme, there is a plan to improve health facilities from village to village and to prepare the basic system for better animal health care and management. It promises doorstep service with the help of a call centre and a mobile app. Apart from this, it can connect Primary Health Centres, Community Health Centres as well as sub-division, and district hospitals through telemedicine. Also, it is assured to improve and expand the facilities of existing hospitals.

# 26.8 PROBLEMS OF ECONOMIC DEVELOPMENT IN BIHAR

There are many factors that have contributed to the state's economic problems, including:

- Inadequate infrastructure: Bihar has a poor road network, inadequate power supply, and a lack of airports and seaports. This makes it difficult for businesses to operate in the state and for goods to be transported to and from Bihar.
- Lack of skilled labor: Bihar has a large number of unskilled laborers, but there is a shortage of skilled workers. This makes it difficult for businesses to find the workers they need to operate efficiently.
- Poor education system: Bihar has a poor education system, which means that many people in the state are illiterate or have only a basic education. This makes it difficult for people to find good jobs and to improve their standard of living.
- High crime rate: Bihar has a high crime rate, which
  makes it a risky place to do business. This has
  discouraged investment in the state.
- Political instability: Bihar has a history of political instability, which has made it difficult for the government to implement reforms and to attract investment.
- The government of Bihar has taken some steps to address these problems, but more needs to be done. The government needs to invest in infrastructure, education, and law and order. It also needs to create a more business-friendly environment. If these steps are taken, Bihar has the potential to become a more prosperous state.

## **26.9 INITIATIVES FOR DEVELOPMENT**

Here are some specific **steps** that the government of Bihar could take to address the problems of economic development in the state:

- Invest in infrastructure: The government could invest in building roads, bridges, railways, and airports. It could also invest in improving the power supply and water supply. This would make it easier for businesses to operate in the state and for goods to be transported to and from Bihar.
- Improve the education system: The government could improve the quality of education in Bihar by increasing spending on education, improving teacher training, and providing more textbooks and other learning materials. This would help to reduce illiteracy and improve the skills of the workforce.
- Crack down on crime: The government could crack down on crime by increasing the number of police officers, improving the training of police officers, and providing better equipment to the police. This would make Bihar a safer place to do business and live.
- Create a more business-friendly environment:
   The government could create a more business-friendly environment by reducing taxes, simplifying regulations, and providing more support to small businesses. This would make Bihar more attractive to investors and would help to create jobs.
- If the government of Bihar takes these steps, it can help to address the problems of economic development in the state and improve the lives of its people. The Gross State Domestic Product (GSDP) of Bihar for 2023-24 (at current prices) is projected to be Rs 8.59 lakh crore, amounting to growth of 8.9% over 2022-23 (Rs 7.89 lakh crore).

Ranking of Bihar In Different Indices					
Index	Rank				
School Education Quality Index	19th				
Health Index	20th				
Composite water management index	15th				
SDG India Index	Bottom				
India Innovation Index 2022	15th				
Export Preparedness Index 2021	20th				
Good Governance Index	6th in group 'B'				
State Ranking Index for NFSA	7th				
State Energy and climate index	15th				
Social Progress Index	35th				

Bihar's Ranking in different parameters under good governance scheme

Sectors	Bihar Ranking
1. Agriculture and Allied Sectors	6th
2. Commerce and Industry Sector	7th
3. Human Resource Development Sector 3rd	
4. Public Health Sector	3rd
5. Public Infrastructure and Utility Sectors	1st
6. Economic Governance Sector	5th
7. Social Welfare and Development	8th
8. Judicial and Public Security	7th
9. Environmental Sector	7th
10. Citizen Centric Governance	4th



27

# **Highlights of Budget 2023-24**

On 28th, February 2023 Budget 2023-24 was laid in the Bihar legislature.

# 27.1 BUDGET ESTIMATES OF 2023-24 IN BRIEF

**Total Expenditure (a + b):** Rs. 2,61,885.40 crore.

- (a) Scheme Expenditure: Rs. 1,00,029.73 crore.
- (b) Establishment & Commitment Expenditure: Rs. 1.61.855.67 crore.

#### **Committed Expenditure**

- (I) Salary (a+b+c+d): Rs 59,647.53 crore
  - (a) Establishment & Commitment Expenditure: Rs. 31,118.70 crore
  - (b) Annual Scheme: Rs 1,834.16 crore
  - (c) Grant in Aid-Salary: Rs 22,156.03 crore
  - (d) Contractual Salary: Rs 4,538.64 crore
- (II) Pension: Rs. 29,436.92 crore
- (III) Interest: Rs. 18,354.44 crore
- (IV) Repayment of Public Debt: Rs. 23,558.69 crore Total (I+II+III+IV): Rs. 1,30,997.58 crore

#### **Total Receipts**

(Revenue Receipts + Capital Receipts): Rs. 2,62,085.40 crore (1+2)

- (1) Revenue Receipts: Rs. 2,12,326.97 crore
  - (A) Revenue Receipts from Central Govt. (I+II): Rs. 1,56,115.18 crore
  - (I) State's Share of Central taxes: Rs. 1,02,737.26 crore
  - (II) Grants-in-Aid from Central Govt: Rs. 53,377,.92
  - (B) State's Own Revenue (I+II): Rs. 56,211.79 crore
  - (I) State's Own Tax Revenue: Rs. 49,700.05 crore
  - (II) State's Non-Tax Revenue: Rs. 6,511.74 crore

#### State Own Tax Revenue:

Commercial Tax: Rs. 39,550.00 crore Stamp and Registration: Rs. 6,300.00 crore

Transport: Rs. 3300.00 crore **Land Revenue:** Rs. 550.00 crore

Total: Rs. 49,700.00 crore

#### State's main Non-Tax Revenue

Receivable from Jharkhand State due for pension share's liabilities: Rs. 843.12 crore

Mines: Rs 3,300.00 crore

Interest receipts: Rs. 1,704.73 crore

Irrigation: Rs. 50.00 crore

Other Non-Taxes: Rs 613.89 crore

**Total:** Rs 6,511.74 crore

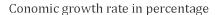
- (2) Capital Receipts (i + ii): Rs. 49,758.44 crore
  - (i) Borrowings: Rs. 49,326.53 crore
  - (ii) Recoveries of Loans: Rs. 431.91 crore
- Total Expenditure (I+II): Rs. 2,61,885.40 crore
  - (I) Revenue Expenditure: Rs. 2,07,848.00 crore In which
  - (a) Salary: Rs. 59,647.53 crore
  - (b) Grant for Non Salary: Rs. 37,412.99 crore
  - (c) Grant for Asset Creation: Rs. 21,880.08 crore
  - (d) Pension: Rs. 29,436.92 crore
  - (e) Interest Payment: Rs. 18,354.44 crore
  - (f) Scholarship: Rs. 3,711.16 crore
  - (g) Subsidy (With Resource Gap): Rs. 10,990.11 crore
  - (h) Cash & Material assistance in Disaster: Rs. 3,439.59 crore
  - (i) Repair and Maintenance: Rs. 6,633.91 crore
  - (j) Other Expenditure: Rs. 16,341.27 crore
- (II) Capital Expenditure : Rs. 54,037.40 crore
  - In which
  - (a) Capital Outlay: Rs. 29,257.31 crore
  - (b) Public Debt : Rs. 23,558.69 crore
  - (c) Loans and Advances: Rs. 1,221.40 crore
- **Revenue Surplus:** Rs. 4,478.97 crore
- (Revenue Receipts-Revenue Expenditure) (2,12,326.97 – 2,07,848.00= 4,478.97 crore)
- Revenue Surplus/GSDP: 0.52%
- Fiscal Deficit: Rs. 25,567.83 crore
- (Total Non Debt Expenditure-Total Non Debt Receipts)
- Fiscal Deficit/GSDP: 2. 98%

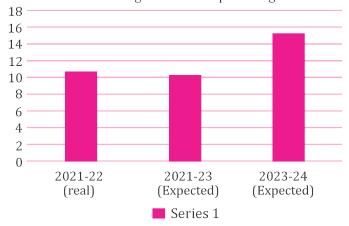
- **2. Budget expenditure** Rs. 2,61,885.40 crore has been estimated for the Year 2023-24 which is Rs. 24,194.21 crore more than Rs. 2,37,691.19 crore for the year 2022-23 budget estimate.
- **3. Establishment & Commitment Expenditure** for the Financial Year 2023-24 is estimated at Rs. 1,61,855.67 crore, which is Rs. 24,394.72 crore more than Rs. 1,37,460.94 crore for the year 2022-23 budget estimate.
- **4. Annual Scheme Outlay f**or the financial year 2023-24 is estimated at Rs. 1,00,000.00 crore, which is equal to the year 2022-23 budget estimate. Good Governance Programme, 2020-25:- Under Seven Nischay-2 of Atma Nirbhar Bihar (2020-25) Rs. 5,000.00 crore Budget Estimated in Various Departments for the Financial Year 2023-24.
- **5. Revenue Expenditure** for the financial year 2023-24 is estimated at Rs. 2,07,848.00 crore. which is Rs. 15,891.33 crore more than Rs. 1,91,956.67 crore for the year 2022-23 budget estimate.
- **6. Capital Expenditure** for the financial year 2023-24 is estimated at Rs. 54,037.40 crore. which is Rs. 8,302.88 crore more than Rs. Rs. 45,734.52 crore for the year 2022-23 budget estimate.
- **7. The Capital and Revenue expenditure** for the year 2023-24 Revenue expenditure is Rs. 2,07,848.00 crore and Capital expenditure is Rs. 54,037.40 crore respectively. The total expenditure is Rs. 2,61,885.40 crore. The percentage of Revenue and Capital expenditure in total expenditure is 79.37 and 20.63 respectively.
- **8. Development and Non-Development expenditure** for the year 2023-24 Development expenditure is Rs. 1,67,375.47 crore and Non-Development expenditure Rs. 94,509.93 crore respectively. The total expenditure is Rs. 2,61,885.40 crore. The percentage of Development expenditure and Non-Development expenditure in total expenditure is 63.91 and 36.09 respectively.
- **9. Total Revenue Receipt** has been estimated at Rs. 2,12,326.97 crore in 2023-24 which is Rs. 15,622.46 crore more than Rs. 1,96,704.51 crore for the year 2022-23 budget estimate.
- **10. State's Own Tax Revenue** is estimated at Rs. 49,700.05 crore in 2023-24 which is Rs. 8,313.05 crore more than Rs. 41,387.00 crore for the year 2022-23 budget estimate.
- **11. State's Non Tax** Revenue is estimated at Rs. 6,511.74 crore in 2023-24 which is Rs. 376.12 crore more than Rs 6,135.62 crore for the year 2022-23 budget estimate.

- **12. State's Share in Central Taxes** is estimated at Rs. 1,02,737.26 Crore in 2023-24 which is Rs. 11,556.66 crore more than Rs 91,180.60 crore for the year 2022-23 budget estimate.
- **13. Grants in Aid from Central Government** to State is estimated at Rs. 53,377.92 crore in 2023-24 which is Rs. 4,623.37 crore less than Rs. 58,001.29 crore for the year 2022-23 budget estimate.
- **14. The State has Revenue Surplus** of Rs. 4,478.97 crore during 2023-24 which is 0.52% of GSDP. GSDP estimate is Rs. 8,58,928.00 crore for the year 2023-24.
- **15. The Fiscal Deficit** has been estimated at Rs. 25,567.84 crore which is 2.98% of GSDP estimate at Rs. 8,58,928.00 crore for the year 2023-24.
- **16. The Outstanding Public Debt** is estimated at Rs. 2,76,165.43 crore in 2023-24 which is 32.15% of GSDP of Rs. 8,58,928.00 crore. Total debt including liability in public account estimate is Rs.3,24,762.35 crore in 2023-24 which is 37.81% of GSDP of Rs. 8,58,928.00 crore.

# 27.2 ECONOMIC PROFILE OF BIHAR BUDGET 2023-24

Bihar is one of the states which has consistently achieved a high economic growth rate. The financial year 2020-21 was a year of economic recession for this state due to the COVID epidemic and other reasons. But Bihar is a fast-recovering state from this economic recession, where the global economy growth rate in the financial year 2021-22 was 6.0%. In the same year, the country's economic growth rate was 8.7%, while Bihar's economic growth rate was 10.98%. Bihar's growth rate is 2.28% points higher than India's growth rate and 4.98% points higher than the global growth rate. This time has been possible as a result of the policies and better efforts of the government of Bihar. Bihar's economic growth rate is estimated to be in double digits in the financial year 2022-23 and also in the financial year 2023-24.



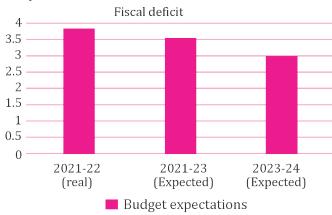


# 27.3 FISCAL ORIENTATION OF BIHAR BUDGET 2023-24

- To deal with the economic slowdown caused by the global pandemic and other reasons, the state government has achieved a high economic growth rate by adopting a comprehensive fiscal policy for the financial year 2020-21. In the previous years, the state government had provided additional amounts in public utility schemes in public interest, because of which revenue deficit was recorded. It has proved helpful in the implementation of welfare schemes in this state and in achieving a high economic growth rate. It may be noted that Bihar kept earning revenue surplus from the financial year 2004- 05.
- One of the major objectives of the budget in the year 2023-24 is financial consolidation, so the revenue of rupees 4478 crore in the financial year 2023-24 is estimated to be extraordinary. In the year 2022, the state government has made the Bihar fiscal responsibility and budget management rules 2022 by subsection (1) and (2) of section 12 of Bihar fiscal responsibility and budget management Act 2006.

#### 27.3.1 Fiscal deficit

• In the financial year 2021-22, the debt ceiling fixed by the central government was 3.78 percent. Again, the fiscal deficit for the financial year 2022-23 has been kept at 3.47% which is conditionally subject to the loan ceiling of 3.50%. For the purpose of financial estimation, the deficit to product ratio is estimated at 2.98% which is lower than 3.47% of the financial year 2023.

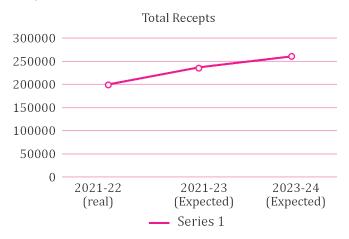


# 27.3.2 Share of interest payments to total Revenue receipts

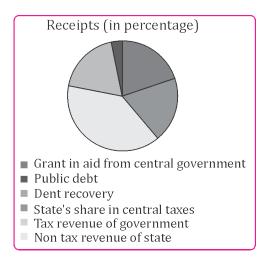
 The share of interest payments to total revenue receipt is an important indicator of sound financial health which reflects the status of debt management. Various finance commissions have recommended keeping interest payments as a proportion of revenue receipts within a prescribed limit. Under this recommendation, keeping it in the range of 10% indicates better debt management Bihar's interest payment the ratio of total revenue receipts in the financial year 2021-22 was 8.70% according to the budget estimates of the financial year 2023 this receive estimated at 8.29% and 8.64% in the financial year 2023-24.

# 27.4 TREND AND COMPOSITION OF RECEIPTS

People's expectations from the state government are rising. To meet the expectation and higher economic development, it is necessary that there should be an expected increase in the income of the state government. The total receipts in the financial year 2021-22 were rupees 199270.15 crore which is estimated to be increased to rupees 237891.94 crore in the budget estimate for the financial year 2022-23 and again 2 rupees 262085.40 crore in the financial year 2023-24. According to the budget estimates for the financial year 2023-24, an increase of rupees 24193.46 crore is expected in the total receipts of the state in comparison to the financial year 2022-23 and an increase of rupees 62815.08 crore in comparison to the actual of the financial vear 2021-22.

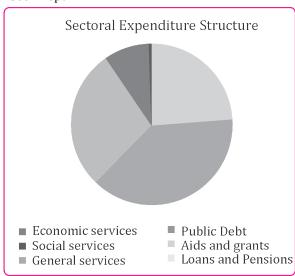


• Revenue receipts in the total income of the state government in the financial year 2023-24 are estimated to be rupees 212326.97 crore and capital receipts are estimated to be rupees 49758.44 crore. In the same year, the share of revenue receipts in the total receipt is 81.01% which was estimated at 82.69% in the financial year 2022-23.



# 27.5 TREND AND CONFIGURATION OF FISCAL PRIORITIES

The main goal of the budget 2023-24 is to achieve higher economic development. The state government has always been devoted to public welfare and development-oriented expenditure has been given top priority in the financial year 2023-24. Under the development-oriented expenditure, expenditure on socio economic sector and general sector on public work and expenditure on capital outlay are included. In the state budget 2023-24 about 63.91% of the total expenditure has been kept on developmental expenditure. The budget for the financial year 202324 has been increased to rupees 261885.40 crore as a result of an increase of 10.18 percent from the budget of rupees 237591.19 crore in the previous financial year 2022-23. In the total budget, 79.37% revenue expenditure and 20.63% capital expenditure have been kept.



• The maximum expenditure of 38.14% is attributed to social services. Provision of 24.01% expenditure of the total budget on economic services estimated. Out of the total expenditure, 28.38% expenditure is estimated on General Services while 90% of the total expenditure has been kept for the repayment of public debt. There is a total provision of rupees 5000 crore in Saat Nischay-2.

#### 27.6 PROFILE OF LOAN AVAILMENT

According to the recommendations of the 15th finance Commission, the total outstanding debt for the financial year 2023-24 is to be kept in the range of 40.4% of the gross state domestic product. In the budget 2023-24 by the state government the ratio of total outstanding debt to gross state domestic product is estimated at 37.81%. The state is moving towards the path of financial reforms that are estimated to decrease to 38.05% in the year 2022-23 and 37.81% in the year 2023-24 as compared to 38.12% in the year 2021-22. The total public debt has been estimated at rupees 49326.53 crore in the financial year 2023-24. Budgetary provisions have been made to spend the public debt on the developmental expenditure of the state. The state government will make the commitment of social justice fruitful by spending the amount of the development of every section of the society including strengthening of physical and social infrastructure.

## **27.7 OTHER PRIORITIES**

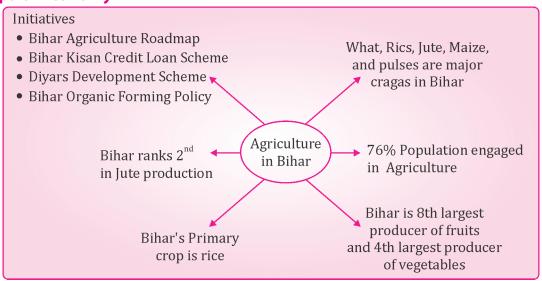
Various priorities have been set by the state government in the Bihar budget 2023-24, in which the following are the main ones:

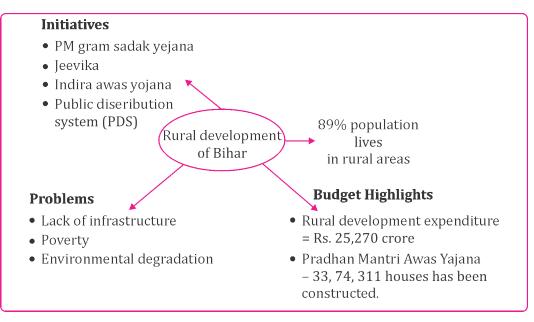
- (i) Youth and employment
- (ii) Continuous women empowerment
- (iii) Minority welfare
- (iv) Strengthening and modernization of police force
- (v) Agriculture and rural development
- (vi) green development
- (vii) infrastructure and industrial development
- (viii) Urban Development

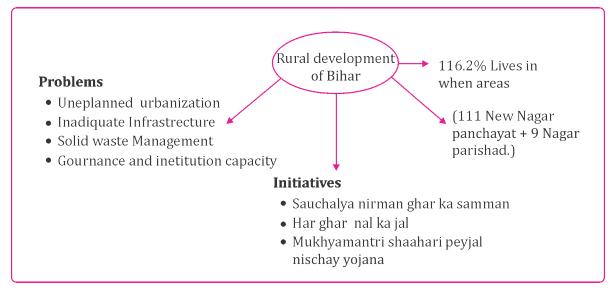


	Actual/Budget At A Glance (Rs. in Crore)						
	Particulars	2021-22 Actual	2022-23 Budget Estimate	2023-24 Budget Estimate	Change over 2021-22 Actual to 2022-23 B.E	Change over 2022-23 BE to 2023-24 BE	
1	2	3	4	5	6		
1	Revenue Receipts	158797.33	196704.51	212326.97	23.87	7.94	
2	Tax Revenue (a+b)	126207.16	132567.60	15243731	5.04	14.99	
	(a) State's share of Central Taxes	91352.62	91180.60	102737.26	-0.19	12.67	
	(b) State's Own Taxes	34854.54	41387.00	49700.05	18.74	20.09	
3	State's own Non tax Revenue	3984.34	6135.62	6511.74	53.99	6.13	
4	Grants-in-aid from Central Govt.	28605.83	58001.29	53377.92	102.76	-7.97	
5	Capital Receipts (6+7+8)	40472.82	41187.43	49758.44	1.77	20.81	
6	Recoveries of Loan & Advances	27.92	431.55	431.91	1445.66	0.08	
	Public Debt (7+8)	40444.90	40755.88	49326.53	0.77	21.03	
7	Internal Debt of State	30917.46	37845.88	47451.53	22.41	25.38	
8	Loans and Advances from Central Government	9527.44	2910.00	1875.00	-69.46	-35.57	
9	Total Receipts	199270.15	237891.94	262085.40	19.38	10.17	
10	Establishment & Commitment Expenditure	109825.45	137460.94	161855.67	25.16	17.75	
11	On Revenue Account of which	100732.94	122603.30	138012.19	21.71	12.57	
12	(a) Interest Payment	13821.93	16305.03	18354.44	17.96	12.57	
	(b) Pension	20257.58	24252.29	29436.92	19.72	21.38	
	(c) Salary	22237.55	29749.57	31118.70	33.78	4.60	
13	On Capital Account(a+b+c+d)	9092.51	14857.64	23843.48	63.41	60.48	
	(a) Internal Debt of the State	7619.64	12927.41	21487.65	69.66	66.22	
	(b) Loans And Advances from Central Government	1126.83	1742.62	2071.04	54.65	18.85	
	(c) Capital Expenditure	27.63	67.10	163.50	142.85	143.67	
	(d) Loans and Advances	318.41	120.51	121.29	-62.15	0.65	
14	Scheme Expenditure	83297.54	100230.25	100029.73	20.33	-0.20	
	(a) Annual Scheme	83149.18	100000.00	100000.00	20.27	0.00	
	(b) Central Sector Scheme	148.36	230.25	29.73	55.19	-87.09	
15	On Revenue Account	58486.77	69353.37	69835.81	18.58	0.70	
16	On Capital Account	24810.77	30876.88	30193.92	24.45	-2.21	
17	Total Expenditure! 10+14)	193122.99	237691.19	261885.40	23.08	10.18	
18	Revenue Expenditure! 11+15)	159219.71	191956.67	207848.00	20.56	8.28	
19	Capital Expenditure! 13+16)	33903.28	45734.52	54037.40	34.90	18.15	
20	Revenue Deficit (18-1)	422.38	-4747.84	-4478.97			
21	Fiscal Deficit {17-(l+6+13(a)+13(b)}	25551.27	25885.11	25567.83			
22	Primary Deficit(21-12a)	11729.34	9580.07	7213.39			
23	G.S.D.P	675448.00	745310.00	858928.00			
24	G.F.D/G.S.D.P	3.78%	3.47%	2.98%			
25	Interest PayJTotal Rev. Receipt	8.70%	8.29%	8.64%			

# **Mind Maps of Economy**







#### **Initiatives Related to Infrastrecture**

- Pradhan mantri gram sadak yojana
- Bihar state power holding company ltd has been established under. Har ghar Bijli yojana
- Har ghar jal ka nal
- Development of industrial parks.
- Bihar urban infrastructure development corporation for urban development

#### Railways

- East India company builds ict railways in Bihar (1860 - 1862)
- The Headquarter of East central railways is located or Vaishali district of Bihar
- Most of the lities in Bihar have railway junction.

#### Waterways

- National waterways 1
   (Connects Prayagras to Haldia)
- National waterways 37 (Gandak river)
- National waterway 58 (Kosi river)

# Infrastructure of Bihar

**Airports** ✓ Two International Airports

- 1. Gaya international airport
- 2. Jay Prakash Narayan International airport patna

#### Road

- Longest National Highway in Bihar-NH27
- Total length of National Highway-5358km
- Major National Highways
   -NH-19, NH-57, NH-82, NH-85.
- Major Road Bridge
- -Vikramshila setu
- -Mahatma Gandhi Setu

#### **Inifiatives** Kaushal Yuva Programe • Bihar shell development mission • Stand-up Policy MGNREGA Unemployment **Education** Healgh • Bihar has total literacy rate of **Initiatives** 69.83% Male-70.32% Female-53.37% Development of Bihar • Expenditure on education • Bihar health science -34465 crore. university Atc 1921 Initiatives AIIMS in leharisavai - New education policy 2020 Poverty • 11 New medical caguas - Poshan scheme • Bihar state health society **Initiatives** - Kasturba Gandhi Balika vidyalaya Ieevika - Aamaghra shiksha abhiyan • Bihar student credit card scheme - Avsar Both age podhe • Bihar rural livelihood project • Mukhya mantri Nischay swagam Sahayats Bhatta yojana





**Previous Year Questions** 



# BPSC Mains PYQs (60-62nd to 68th)

#### **PAPER-1**

# SEC. 1: HISTORY AND ART & CULTURE OF INDIA

#### A. Art and Culture

#### Pala art

- Discuss the features of Pala art and architecture and its relationship with Buddhism. (65th BPSC)
- **2.** Describe the salient features of pala architecture and sculpture. (47 BPSC)
- Give a description of the main features of Pala art in Bihar . (41 BPSC)
- **4.** Critically examine the salient features of Pal Art. (43 BPSC)

#### **Patna Kalam Paintings**

- Bring out the main features of patna kalam painting. (66 BPSC)
- 2. Examine the salient features of Patna Kalam Painting Style (63 BPSC)
- **3.** Bring out the salient features of the Patna Kalam Paintings (56-59 BPSC)
- **4.** Discuss the salient features of Patna Kalam & Painting style (40-52 BPSC)
- **5.** Discuss the chief characteristics of the Patna Kalam painting. (46 BPSC)

#### **Mauryan Art**

- **1.** Describe the chief characteristics of Mauryan art. (67th BPSC)
- 2. Throw light on Mauryan Art and analyze its impact in Bihar: (60-62 BPSC)
- **3.** Discuss the features of Mauryan art and architecture and its relationship with Buddhism (64th BPSC)
- **4.** Discuss the salient features of Mauryan Art. (53-55 BPSC)

- **5.** Analyze the salient features of mauryan art and architecture (47 BPSC)
- **6.** Critical examine the chief characteristics of the Mauryan Art (45 BPSC)
- 7. Identify the main features of the Mauryan Art as found from Bihar (42 BPSC)
- **8.** What are the distinctive features of Mauryan Sculpture? (40 BPSC/1995)

#### Miscellaneous

1. Write an essay on the art and paintings of Bihar. (39 BPSC/1993)

# **B. Tribal Revolts**

#### **Santhal Uprising**

- 1. Write short notes on Santhal Uprising (67th BPSC)
- **2.** What were the causes of the santhal revolt? What was its course and outcome? (66th BPSC)
- 3. Evaluate the causes and results of Revolt of Santhal (1855-56) in Bihar. (63 BPSC)
- **4.** Discuss the main causes of the Santhal Uprising. What were its consequences? (56-59 BPSC)
- **6.** Discuss the causes and results of revolt of santhals (1855-56) in Bihar (48-52 BPSC)
- "Santhal Uprising provided a model of popular armed resistance against British colonialism in India." Explain. (45 BPSC)
- **8.** The Santhal Uprising was the first fierce reaction of the tribals against British colonial rule in India. (43 BPSC)

## **Birsa Movement**

- **1.** Examine the characteristics of the Birsa movement. (66th BPSC-2021)
- **2.** "The underlying object of the Birsa Movement was internal purification and desire to remove the alien government. Explain. (53-55 BPSC)
- **3.** Birsa provided a new religious leadership to the tribal struggles against the British Explain (44 BPSC)

- **4.** Write a critique of the Birsa Movement with special reference to its nature and the lesson it left on tribal administration. (42 BPSC)
- 5. Briefly examine the tribal movements of Bihar with special reference to the Birsa movement (39 BPSC)

#### C. Revolt of 1857

- 1. What were the causes of the Revolt of 1857? What effect did it have on Bihar? (65th BPSC)
- Discuss the contribution of Bihar to the Uprising of 1857 AD. [63rd BPSC)
- **3.** Critically examine the significance of the Revolt of 1857 with special reference to Bihar. (56-59 BPSC)
- **4.** Critically examine the role of kunwar singh in the revolt of 1857. (53-55 BPSC)
- **5.** Discuss the causes of the Outbreak of the revolt of 1857 in Bihar and account for its failure. (47 BPSC)
- Evaluate the role of kunwar singh in the revolt of 1857. (43 BPSC)

# **D. Indian Freedom Struggle**

## **Champaran Satyagrah**

- 1. Write short notes on Champaran Satyagraha. [67th BPSC]
- **2.** Champaran Satyagraha was a watershed in the freedom struggle. Explain. [66th BPSC]
- **3.** Describe the causes and results of Champaran Satyagraha in Bihar (1917), (63 BPSC)
- **4.** "Champaran Satyagraha is a watershed in the freedom struggle. Elucidate (64th BPSC)
- **5.** What was the significance of Champaran Satyagraha for Peasant Uprisings? (55-59 BPSC)
- **6.** Do you agree with the view that the Champaran satyagraha was a turning point in the history of freedom struggle in India? (47 BPSC)
- The Champaran Satyagraha is an important milestone in the history of the freedom movement of India. Elucidate. (42 BPSC)
- **8.** Discuss the peasant movements of Bihar in general and the intervention of Gandhi particularly in the champaran movement. (39 BPSC)

#### **Quit India Movement**

- Write a short notes on Jayaprakash Narayan and Quit India movement. (66th BPSC)
- 2. Describe the people's participation in Bihar during the Quit India Movement of 1942 (60-62 BPSC)

- **3.** Describe the contribution of Bihar to the quit India movement of 1942. (48-52 BPSC)
- **4.** Analyze the nature and extent of quit india movement with special reference to Bihar. (44 BPSC)
- **5.** Discuss the impact of the quit India Movement on Bihar. (41 BPSC)
- **6.** What role did the Azad Dasta play in Bihar during the quit India movement? (40 BPSC)

#### **Western education**

- **1.** Trace the course of expansion of Western and technical education in Bihar between 1857-1947 (67th BPSC)
- 2. Describe the spread of Western Education in Bihar between 1858-1914, (65th BPSC)
- **3.** Discuss the development of Western education in Bihar from 1813 to 1947 (60-62 BPSC)
- **4.** Discuss the development of western education in Bihar from 1857 AD to 1947 AD.
- 5. Describe the growth of education and press in modern Bihar and also describe the role of education and press in National movement (46 BPSC)
- **6.** Give a critical account of the development of western education in Bihar during the British rule. (44 BPSC)
- 7. Critically discuss the role played by the western technical education in the economy of Bihar (39 BPSC)
- Trace the course of western education in Bihar from 1990 to 1947 with particular reference to technical education. (42 BPSC)
- **9.** Describe the development of technical education in Bihar during the period of your study. (47 BPSC)

#### Miscellaneous

- Explain the social and economic ideas of Ram Manohar Lohia and Jayaprakash Narayan. (65th BPSC)
- **2.** Write short notes on Dr. Rajendra Prasad and the National Movement. (65th BPSC)
- **3.** Write short notes on The Dalit Movement in Bihar. (65th BPSC)
- **4.** Write a note on Swami Sahajanand and the Kisan Sabha Movement (65th BPSC)
- **5.** Describe the contribution of Bihar in the individual satyagraha of 1940-41. (53-55 BPSC)
- **6.** Throw light on the separation of Bihar from Bengal and the rise of modern Bihar. (46 BPSC)



- Assess the role of different social classes of Bihar in the civil disobedience movement. (45 BPSC)
- 8. Write a critical note on peasant movements in Bihar with special reference swami sahajanand (43 BPSC)
- What were the reasons behind overseas immigration in 19th century British India? Discuss in the light of the indenture system With special reference to Bihar. (64th BPSC)
- **10.** What changes were brought about in the socioeconomic scenario of Bihar during the British rule? (45 BPSC)

# SEC. 2: CURRENT EVENTS OF NATIONAL AND INTERNATIONAL IMPORTANCE

#### 60-62 BPSC

- 1. Elucidate the Demonetisation Scheme. In your views, to what extent was it successful or unsuccessful? What were its effects on the liquor Ban Policy of the Bihar Government?
- 2. What do you understand about human rights? Throw light on the Universal Declaration of Human Rights (1948) by UNO. What were the major efforts made by the Bihar Government in fostering them in the last decade?

#### 56-59 BPSC

1. What do you understand about climate change? What reasons are attributed to climate change? What missions have been constituted under the National Action Plan on climate change formulated by the Government of India? What steps have been taken in this regard by the Bihar Government. Discuss

#### 53-55 BPSC

- 1. Discuss political change in Bihar Polity from 1991.
- **2.** Explain the worsening portion of the State Finances of Government of Bihar.

## **47 BPSC**

- 1. Examine the impact of 73rd constitutional amendment on political awakening and empowerment of women at the grass root level with special reference to Bihar.
- Write a short note on Casteism in Indian Politics with special reference to Bihar.

#### **46 BPSC**

 Give your comment on the jail Administration in Bihar in the light of socio-political situation.

#### **42 BPSC**

**1.** Write a critique of the caste politics in Bihar.

#### 41 BPSC

1. Discuss the causes of violence in rural Bihar.

#### 39 BPSC

**1.** Discuss the achievements of the Charvaha Vidhayalayas imparting education to the people in Bihar.

#### **PAPER-2**

# **SEC.1: POLITY AND GOVERNANCE**

#### **DPSP**

**1.** Discuss various Directive principles. How were these implemented in Bihar after 1950? (52-55 BPSC)

#### **Center-state relation**

1. Analyse tension areas between Centre and States in the Indian federal system. Describe the current state of relations between the Union Government and Bihar State. (56-59 BPSC)

#### **Politics**

- Caste politics has acquired a dominating and enduring mode of politics in India. Explain this phenomenon with special reference to contemporary political developments in Bihar. (67 BPSC)
- 2. The system of Indian Political Parties is not nationalistic but it is individualistic Explain this fact in the context of Bihar State. (65 BPSC)
- 3. Do you agree that Indian Politics today, primarily revolves around development politics rather than ascriptive politics? Discuss with reference to Bihar. (64 BPSC)
- **4.** Too many political parties are the bane of Indian politics. Explain this fact in the context of Bihar. (64 BPSC)
- 5. Examine the role of Caste in electoral politics of India. To what extent did caste factor play a role in the 2015 Bihar election? (56-59 BPSC)
- 6. Caste and Class play an important role in Indian politics. Explain the statement with special reference to Bihar. (BPSC 2009)
- 7. Write an essay on the politician- criminal nexus with special reference to Bihar. (BPSC 2007)
- 8. Discuss the role of language in Indian Politics, Enumerate the provisions for linguistic minorities in Bihar. (BPSC 2005)



 Write a brief and critical essay on Caste as a factor in Bihar Politics since 1977 and highlight the special reasons for the present state of affairs. (BPSC 1999)

#### **Governor and Chief minister**

- Critically examine the role of Governor in the State politics in India particularly in Bihar. Is he a mere puppet? (64 BPSC)
- **2.** Discuss the powers and actual position of the Governor in Bihar politics. (63 BPSC)
- **3.** Discuss the power and functions of the Governor and his role in Bihar. (52-55 BPSC)
- **4.** Discuss the powers of the Governor and explain his role with reference to the recent developments in Bihar. (BPSC 1997)
- 5. How is the Chief Minister of State appointed? Critically examine the powers, functions and achievements of the present Bihar Chief Minister. (BPSC 2002)

#### **Election**

- 1. What do you understand about the election campaign?
  Throw light on the important methods of election campaign in Bihar. (BPSC 2005)
- 2. Comment on Electoral process in Bihar. (BPSC 2001)

#### **Local Government**

 Analyze the functioning of the rural local governments in India since 1991 with special reference to Bihar. (BPSC 2009)

#### Miscellaneous

- **1.** What do you understand about E-governance? Discuss the position of E-governance implementation in Bihar. (65 BPSC)
- 2. How is human development measured? What are the seven commitments of the Bihar Government for achieving the human development agenda? Explain the schemes of the Government for achieving these goals. (66 BPSC)

# SEC.2: INDIAN ECONOMY AND GEOGRAPHY OF INDIA

#### **Question related with Bihar**

 How is human development measured? What are the seven commitments of Bihar Government for achieving the human development agenda? Explain the schemes of the Government for achieving these goals. (66 BPSC)

- 2. What are the main constraints in the rapid economic development of Bihar? How can these constraints be removed? (65 BPSC)
- 3. Decentralized planning through the strengthening of the Panchayat system is the focus of planning in India in recent times. While explaining this statement, suggest a blueprint for an integrated regional development plan. Also critically examine the decentralized planning scenario in India after the 73rd and 74th Amendments to the Constitution. (60-62 BPSC)
- 4. How far does the variable nature of Indian monsoon adversely affect the planning of agricultural development in India? Discuss it with a special reference to Bihar. (53-55 BPSC)
- 5. "Natural disasters are the main causes of poverty in Bihar. Do you agree with this statement? Comment your views. (47 BPSC)
- 6. Why is per hectare production of agriculture yields stagnant in Bihar? Explain their basic causes and suggest important measures to remove them.

  (46 BPSC)
- 7. Explain the role of the Multi-purpose River Projects in the development of Bihar State. (44 BPSC)
- **8.** With all the possibilities of development. Bihar is being considered as one of the backward states of India. Discuss fully. (43 BPSC)
- **9.** Examine the resource potentials, planning and development of industries in Bihar. (42 BPSC)
- **10.** Point out the salient features of Integrated Area Development Programme in Bihar. What are its achievements? (40 BPSC)
- **11.** Why is the pace of industrial development in Bihar poor in spite of rich natural resources? Discuss. (40 BPSC)

#### **Economic Planning**

- 1. What do you mean by regional development? How far has regional planning been successful in the economic development of Bihar? Discuss. (56-59 BPSC)
- **2.** How far has the Government through its various five-Year Plans been successful in removing poverty from Bihar? (48-52 BPSC)

#### **Agriculture**

**1.** Evaluate the production and productivity trends in Indian agriculture since 1991. What practical measures should be adopted to enhance agricultural production and productivity in Bihar? (65 BPSC)



- 2. Describe agricultural marketing in India and write the defects in the agricultural marketing system. What measures have been taken by the Government of Bihar to improve the system of the marketing of agricultural products? (56-59 BPSC)
- "Agricultural diversification and organic farming are the better options for food security in India". Comment critically with special reference to Bihar. (53-55 BPSC)

# SEC.3: THE ROLE AND IMPACT OF SCIENCE AND TECHNOLOGY IN THE DEVELOPMENT OF INDIA

# **Alternative Source of energy**

**1.** In order to fulfill the increasing energy demand in Bihar State, suggest the scientific initiatives that you would like to introduce. (56-59 BPSC)

# **Questions on water**

- Bihar is not utilizing her water resources rationally for meeting the domestic agricultural and industrial needs. Explain. (39 BPSC)
- 2. Floods and drought in Bihar have been the major hurdles over the years which have constantly affected its growth and prosperity. Discuss the role of science and technology in this kind of disaster management with typical examples. (66 BPSC)

#### **Miscellaneous Questions**

- 1. What is UDAY (Ujwal Discom Assurance Yojna)? Which States are partners in this Yojna? How is Bihar going to be benefitted by UDAY? (60-62 BPSC)
- 2. Uranium oxide is found in Bihar. It is destroyed by itself even if not used. Discuss the economic aspects of this mineral. (46 BPSC)

# **68<sup>TH</sup> BPSC PYQS**

#### **PAPER-1**

- **1.** Write short notes on the following:
  - (a) Birsa Munda Movement
  - (b) Patna Kalam Painting

- 2. Discuss the growth of colonial technical education in Bihar under various schemes of British rule. Critically analyze its impact.
- **3.** A. Discuss the right-based e-service delivery scenario of Bihar.
  - B. Describe the efforts made in the field of solar power generation in the State of Bihar.
  - C. Critically examine the features of self-reliance Bihar Saat Nischay-2 (2020-2025) programme of good governance.

#### **PAPER-2**

- **1.** Bihar has witnessed improvement in its political culture in last decades. Give examples.
- 2. Election Commission of India has played an important role in conducting the elections. Critically examine its role in making the elections free and fair over the decades. Compliment your answer with reference to the conduct of elections in pre-Sheshan and post-Sheshan era in Bihar. How does it contribute to the strengthening of democracy?
- 3. Discuss the level of urbanization In Bihar. Explain at least two reasons for the low level of urbanization in the State. What are the recent initiatives taken by the Bihar Government to push urbanization in the State?
- 4. On the basis of raw materials, divide Bihar into forest-based Industries, agro-based industries and mineral-based industries, Substantiate your answer with neat sketches depicting the location of those industries.
- **5.** Write a note on Technology-driven modernization of Bihar.
- 6. With the mission of providing potable water to every household on one hand and water scarcity on the face of growing population on the other, throw light on the role being played by the Indian Government for water conservation. Also discuss the scientific and technological developments which have been used by the State of Bihar in fulfilling the objectives of the Central Government.











# BPSC Prelims PYQs (60-62nd to 68th)

- 1. Who established "Swaraj Dal" in Bihar?
  - (a) Shri Krishna Singh.
  - (b) Ramlal Shah.
  - (c) Bankim Chandra Mitra.
  - (d) More than one of the above.
  - (e) None of the above.

#### **Ans.** (a)

#### **Explanation**

**Shri Krishna Singh** established a branch of **"Swaraj Dal"** in Bihar.

- In Bihar, it was formed in February, 1923.
- **Shri Narayan Prasad** was its first president and **Abdul Bari** was its secretary.
- The party participated in the assembly elections held in November, 1923 and won 8 seats in the assembly and 10 seats in the council.

#### **About Swaraj Party:**

- The Swaraj Party was established by C.R Das and Motilal Nehru in 1923.
- Both of them believed in the ideology that "Congress should be a part of Government and should enter the legislative assemblies and struggle should be continued within the government.
  - This ideology was rejected by majority of congressmen, which ultimately led to formation of Swaraj party in 1923.
  - The mandate of the party was to become a part of councils and hinder their work through agitation.
- **C.R Das** became the president of the party and Motilal Nehru became its general secretary.
  - **2.** During the Salt Satyagraha in Bihar, in addition to making salt, the people choose to oppose the government by opposing which tax?
    - (a) Haathi
    - (b) Development
    - (c) Malba
    - (d) More than one of the above
    - (e) None of the above

# **Ans.** (e)

#### **Explanation**

During the "Salt Satyagraha in Bihar", in addition to making salt, the people choose to oppose the government by "non payment of Chowkidari tax" in Bihar.

• So, "E that is None of the above" is the correct answer.

# Salt Satyagraha in Bihar:

- The salt satyagraha in Bihar was started on April 15, 1930 in Saran and Champaran districts.
- In Patna, the salt satyagraha was inaugurated on 16th April, 1930, when the volunteers proceeded to Nakhas Pind, near Mangle Tank in Patna city, which had been selected as the spot for the violation of salt laws by manufacturing salt.
- In 1930, as a response to the national call for civil disobedience, the people of Bihpur [Bhagalpur] began a Satyagraha which included the manufacture of salt and picketing of liquor and drug shops
- In the Munger district, Shri Krishna Singh the then secretary of the Provincial Congress committee and Nand Kumar Sinha led the congress activities.
- The inmates of the Chapra jail refused to use foreign clothes and went for naked hartal till swadeshi clothes were provided.
- The Congress was declared an illegal organization on June 30, 1930.
  - **3.** The elected Government of Bihar formed by Shri Krishna Singh resigned in February, 1938 for which reason?
    - (a) Participation in the Freedom Struggle of India.
    - (b) For the release of Political prisoners.
    - (c) Satyagraha against the British at the call of Gandhiji.
    - (d) More than one of the above.
    - (e) None of the above.

#### **Ans.** (*b*)

#### **Explanation**

The **elected Government of Bihar** formed by **Shri Krishna Singh** resigned in February, **1938** for the "**release of political prisoners**".

The Ministry in Bihar strong resented to a circular issued by Mr. Brett, the Chief Secretary, and he had to withdraw it.

- When the Governor refused to release the political prisoners, **the Ministry resigned**.
- However, the ministry resumed office, only after an agreement was reached on this matter in February, 1938.

#### **Elections under Government of India Act, 1935:**

- The Congress decided to contest the elections under "Government of India Act, 1935".
- The elections to the Legislative Assembly in Bihar took place **between January 22 to 27, 1937**.
  - Of the total 152 seats in the Assembly, Congress contested on 107 seats and won 98 seats.
- As a result, Congress Ministry was formed on July 20,
   1937 with Shri Krishna Singh as Premier.
  - Ram Dayalu Singh became the speaker and Abdul Bari became the deputy speaker.
  - The other ministers were **Anugraha Narayan Sinha**, **Syed Mahmud and Jaglal Choudhary**.
  - o Baldev Sahay was appointed the Advocate General.
- Finally, the **Bihar ministry** gave its resignation on **31st October, 1939**.
  - **4.** Who saved the life of Gandhiji in Bihar during Champaran Satyagraha?
    - (a) Batak Mian.
    - (b) Hamid Ansari.
    - (c) Ravindra Pathak
    - (d) More than one of the above
    - (e) None of the above

# **Ans.** (*a*)

# **Explanation**

**Batak Mian** saved the **life of Gandhiji** in Bihar during **Champaran Satyagraha**.

• He was a cook and resident of Motihari in Bihar.

According to the book Champaran ke Swatantatra Senani (Freedom Fighters of Champaran), Erwin (only one name is available), a British manager of an indigo plantation, invited Gandhi to dinner and told his cook, Batak Mian, to serve him poisoned milk.

- Batak Mian took the glass to Gandhi but revealed the plot. Dr Rajendra Prasad, later India's first president, was a witness.
  - **5.** Who led cultivators in Bihar during the Non Cooperation Movement?
    - (a) Swami Vidyanand
    - (b) Rajkumar Shukla
    - (c) Shri Krishna Singh
    - (d) More than one of the above
    - (e) None of the above

#### **Ans.** (a)

#### **Explanation**

**Swami Vidyanand** led cultivators in Bihar during the **Non-Cooperation Movement.** 

- In **1919 and 1920**, the peasant activist "Swami Vidyanand" led a protest movement which attracted extensive support among the people of region that lies north of the Ganges in Bihar.
- The protest focused on the Darbhanga Raj, Bihar's largest zamindari and one of the largest landed estates in British India.

# Non-Cooperation Movement (1920-22) in Bihar:

**Gandhiji** started the Non-Cooperation movement against the Punjab and Khilafat wrongs in 1920 and it reached its height during 1921-22. **Bihar** played an important role in this movement,

- On August 28, 1920, the Bihar Provincial Conference presided over by "Dr. Rajendra Prasad" passed a resolution supporting Mahatma Gandhi's noncooperation, which he had declared on 1st August, 1920.
- Gandhiji visited Bihar in December, 1920 and laid the foundation of a National College and Bihar Vidyapeeth.

#### **Features of Non-Cooperation Movement in Bihar:**

- Teachers and students left schools and colleges and the lawyers abstained from attending courts. Foreign goods were boycotted.
- When the **Prince of Wales** landed in Bombay on November 17, there was a hartal in whole of Bihar.
  - When the **Prince visited Patna on December 22**, there was a complete boycott.
- The **arrest of Gandhiji in March 1922** was marked by state-wide protest meetings in Bihar.
- The Civil Disobedience Enquiry Committee of the Congress visited Bihar in 1922.
- Bihar Vidyapeeth was established on February 6, 1921, which was inaugurated by Gandhiji.
  - Maulana Mazharul Haque and Braj Kishore Prasad were made its Chancellor and Vice-Chancellor respectively.
  - Rajendra Prasad was made Principal at National School, Patna.
- Mazharul Haque established "Sadaqat Ashram" near Digha in Patna which became the main center of national movement.
  - He also started a newspaper called "Motherland" from September 30, 1921.
  - **6.** In 1940, Patna Women's College was founded by which of the following societies?
    - (a) Society of Jesus
    - (b) Irish Christian Brothers
    - (c) Sisters of the Apostolic Carmel
    - (d) More than one of the above
    - (e) None of the above



#### **Ans.** (c)

# **Explanation**

**Patna Women's College** is the **first institution** of higher learning opened to cater to the educational needs of women in Bihar.

- Bishop B.J. Sullivan S.J., Bishop of Patna (Founder) and Mother M. Josephine A.C. Superior General of the Apostolic Carmel named it Patna Women's College.
- The College is run by the Catholic Religious Sisters of the Apostolic Carmel, an indigenous educational body founded in 1870.
  - 7. Who was the author of Mahatma Gandhi and Bihar, Some Reminiscences?
    - (a) J.P Narayan
    - (b) Karpoori Thakur
    - (c) Dr Rajendra Prasad.
    - (d) More than one of the above.
    - (e) None of the above.

# **Ans.** (c)

# **Explanation**

- The author of the Mahatma Gandhi and Bihar, Some Reminiscences was "Dr Rajendra Prasad".
- Additional Facts on Dr. Rajendra Prasad:
  - He was born at **Ziradei [Siwan district] in Bihar.**
  - He became the first president of the Republic of India [from 26th January, 1950 to 13th May, 1962].
  - On 11th December, 1946, he became the president of the Constituent Assembly.
  - He received the India's highest civilian honour, "Bharat Ratna" in 1962.
  - **Sobriquet:** Deshratna, Ajatshatru.
  - **8.** Which is the oldest Church in Bihar?
    - (a) Luke's Church.
    - (b) Stephen's Church.
    - (c) Padri Ki Haveli
    - (d) More than one of the above.
    - (e) None of the above.

# **Ans.** (c)

#### **Explanation**

- "Padri Ki Haveli" is the oldest Church in Patna, Bihar.
  - It is also known as the "Visitation of the blessed Virgin Mary".
  - When Roman Catholics arrived in Bihar, they built a small church in 1713 at a place now known as "Padri-ki-Haveli".
  - The current church was redesigned by a **Venetian** architect "Tirreto" in 1772.
  - 9. Who among the following made an offer to Humayun that he would surrender Bihar and pay an annual

- tribute of 10 lakh dinars if he was allowed to retain Bengal?
- (a) Sher Khan
- (b) Bairam Khan
- (c) Bahadur Shah
- (d) More than one of the above.
- (e) None of the above.

# **Ans.** (*c*)

#### **Explanation**

- Sher Khan made an offer to Humayun that he would surrender Bihar and pay an annual tribute of 10 lakh dinars if he was allowed to retain Bengal.
- Sher Khan:
  - He was the son of "Hasan Khan", the Jagirdar of Sasaram.
  - In 1527-28, **he joined Babur's service** and then returned to South Bihar as deputy governor and guardian of minor king, "Jalal Khan Lohani".
  - Battle of Surajgarh [Munger], 1534 AD: Sher Shah defeated the Bengal's army led by Mahmud Shah.
  - Significance of this battle: It is considered one of the most decisive battles in medieval Indian history and a turning point in Sher Shah's career.
  - After this battle, he took the title of "Hazrat-e-Ala" and virtually became the master of Bihar.
  - Fort of Chunar: He obtained the strategic fort of Chunar by marrying Lado Malka, the widow of Taj Khan Sarangkhani.
  - He defeated "Humayun":
    - In **Battle of Chausa in 1539** and assumed the title of "**Sher Shah**" as emperor.
    - In Battle of Bilgram/Kannauj in 1540 and annexed Kannauj.
  - He issued the coin called "Rupia" and fixed standard weights and measures all over the empire.
  - He built "Purana Quila" at Delhi.
  - He was buried in "Sasaram".
- **10.** The Vikramshila University was established by
  - (a) Dharmpala
  - (b) Devapala
  - (c) Gopala
  - (d) More than one of the above.
  - (e) None of the above.

#### **Ans.** (*a*)

- Dharmpala [son of Gopala] revived Nalanda university and founded the "Vikramshila University".
- About Pala Empire:
  - They were strong supporters of Mahayana Buddhism.



- **Gopala** founded the "Pala empire" in 750 AD.
  - He established "Odantapuri" monastery.
- **Devpala [son of Dharmpala]** extended "Pala empire" to eastern India like Assam, Odisha and Kamarupa.
- **11.** Who among the following was the first Governor of Bihar?
  - (a) Sir James David Sifton.
  - (b) Sir Hugh Dow
  - (c) Sir Maurice Garnier Hallett.
  - (d) More than one of the above.
  - (e) None of the above.

# **Ans.** (*a*)

#### **Explanation**

- **Sir James David Sifton** was the Governor of Bihar and Orissa from 7 April 1932 to 31 March 1936 and then Governor of Bihar from 1 April 1936 to 10 March 1937.
  - He was the first Governor of Bihar after division of province from Orissa.
- **12.** Which of the following States of India borders with the maximum number of districts in Bihar?
  - (a) Uttar Pradesh
  - (b) Jharkhand.
  - (c) West Bengal
  - (d) More than one of the above.
  - (e) None of the above.

# **Ans.** (*d*)

#### **Explanation**

- Both Uttar Pradesh and Jharkhand state have common border with 8 districts of Bihar.
  - The eastern tip of Katihar district touches Jharkhand and Western tip of Rohtas district touches Uttar Pradesh.

District sharing border with Uttar Pradesh:		Districts sharing border with Jharkhand:	
1.	West Champaran.	1.	Katihar.
2.	Gopalganj	2.	Bhagalpur
3.	Siwan.	3.	Banka
4.	Saran	4.	Jamui
5.	Buxar	5.	Gaya
6.	Bhojpur	6.	Nawada
7.	Kaimur	7.	Aurangabad
8.	Rohtas	8.	Rohtas.

- **13.** Phalgu, a sacred river flowing in Bihar is formed by the confluence of which of the following rivers?
  - (a) Lilajan and Son rivers.
  - (b) Son and Mohana rivers.

- (c) Mohana and Lilajan rivers.
- (d) More than one of the above.
- (e) None of the above.

# **Ans.** (*c*)

# **Explanation**

- Phalgu is formed by the confluence of Lilajan and Mohana, two large hill streams.
  - It is also known as "Niranjana river".
  - It is subject to high floods during monsoon but in other seasons of the year, it dwindles into stream wandering through a wide expanse of sand.
  - It flows past Gaya and is a **sacred river for Hindus**.
- **14.** In Bihar, tea gardens were established for the first time in which of the following places?
  - (a) Thakurgani
  - (b) Bahadurganj
  - (c) Supaul
  - (d) More than one of the above.
  - (e) None of the above.

# **Ans.** (a)

# **Explanation**

- In Bihar, tea gardens were established for the **first time in "Thakurganj"**.
  - **Thakurganj** is a town and a notified area, divided into 12 wards, in Kishanganj district in the Indian State of Bihar.
- About Kishanganj:
  - It is called "Tea city of Bihar" and part of Purnea division of Bihar.
  - The Kishanganj District came into existence on 14th January 1990. It occupies an area of 1,884 square kilometers.
  - Kishanganj district is surrounded by Araria district in the West, Purnia district in the southwest, Uttar Dinajpur district of West Bengal on the east, and Darjeeling district of West Bengal and Nepal on the north.
  - A narrow strip of West Bengal, about 20km wide separates it from Bangladesh.
- **15.** Choose the correct order of the following districts of Bihar as per the ascending decadal population growth [2001-2011]
  - (a) Siwan<Kishanganj<Madhepura.
  - (b) Madhepura<Kishanganj<Siwan
  - (c) Kishanganj<Madhepura<Siwan.
  - (d) More than one of the above.
  - (e) None of the above.

# **Ans.** (*a*)

#### **Explanation**

• As per the ascending decadal population growth [2001-11], the correct order of districts.

#### Siwan<Kishanganj<Madhepura.</li>

Districts and State	Decadal Growth Rate [2001-11]
Madhepura	30.65%
Kishanganj	30.44%
Siwan	22.25%
Bihar	25.07%

- **16.** Which food industry dominated among the agro-based industries in Bihar?
  - (a) Cereal-based industry.
  - (b) Pulses industry.
  - (c) Sugarcane industry.
  - (d) More than one of the above.
  - (e) None of the above.

# **Ans.** (a)

# **Explanation**

- The **cereal based industry** has dominated among the agro-based industries in Bihar.
- Agro-based industries comprises of:
  - Food products, Textiles, Leather Products, Beverages and Tobacco products, furniture and paper industry.
  - Major agricultural products of Bihar include cereals, pulses, oilseeds and cash crops.
- **17.** With reference to the mineral production in Bihar, consider the following statements:
  - 1. Rohtas has the highest deposit of pyrites.
  - 2. Limestone is found in Kaimur (*B*habua), Munger (Monghyr) and Rohtas districts.
  - 3. Gold deposits are found in Jamui districts.

Which of the statements given above is/are correct?

- (a) 3 only.
- (b) 1 and 2 only.
- (c) 1 and 3 only.
- (d) More than one of the above.
- (e) None of the above.

# **Ans.** (*d*)

#### **Explanation**

- Statement 1: Rohtas has the highest deposit of pyrites is correct.
  - Bihar is the principal holder of country's pyrite resources and possesses 95% of the resources.
  - The main deposits are found in the Son Valley at Amjhor Kasisyakoh and Kurriari in Rohtas district of Bihar.
- Statement 2: Good quality of limestones are found in Kaimur [Bhabua], Munger and Rohtas district. So, it's a correct statement.

- Statement 3: As per report of the Indian Bureau of Mines, Jamui district possesses around 222.88 million tonnes of gold resources.
- So, "Option D" that is "More than one of the above" is correct.
- **18.** Which of the following is the last railway station of Bihar in the train route from Bhagalpur towards Mirza Cheuki?
  - (a) Pirpainti Railway Station.
  - (b) Ammapali Railway Station
  - (c) Kahalgaon Railway Station
  - (d) More than one of the above.
  - (e) None of the above.

# **Ans.** (*b*)

# **Explanation**

- Ammapali Railway station is the last railway station of Bihar in the train route from Bhagalpur towards Mirza Cheuki.
  - It is a halt railway station on Sahibganj loop line under the Malda railway division of Eastern Railway zone
  - It is situated beside National Highway 80 at Pakaria, Ammapali in Bhagalpur district in the Indian state of Bihar
- **19.** In which type of climate region do Uttar Pradesh and Bihar fall as per Koppen's classification scheme?
  - (a) Cwg
  - (b) Aw
  - (c) Dfc
  - (d) More than one of the above.
  - (e) None of the above.

#### **Ans.** (*a*)

#### **Explanation**

- As per **Koppen's classification scheme**, the climate of **Uttar Pradesh and Bihar** fall in "**Cwg**" type climate.
  - South India falls in "Aw" type climate.
  - Koppen was a German-Russian climatologist.
- **20.** In the year 2020, Bihar gained the.... rank out of 36 states in the Ease of Doing Business awarded by Business Reforms Action Plan [BRAP]
  - (a) 23rd
  - (b) 24th
  - (c) 25th
  - (d) More than one of the above.
  - (e) None of the above.

**Ans.** (*e*)

- Bihar has bagged 26th rank out of 36 States and UTs in the ease of doing annual business ranking of states and union territories.
  - The ranking is based on business reform action plan [BRAP], 2019.
  - It was based on performance of states on 180 reform points covering 12 business regulatory areas including access to information, singlewindow system, labour and environment with the larger objective of attracting investments and east of doing business.
- **21.** Ganga Jal Aapurti Yojana was inaugurated by Chief Minister Nitish Kumar on November 28, 2022 at which place?
  - (a) Lakhisarai
  - (b) Rajgir
  - (c) Bodh Gaya
  - (d) More than one of the above.
  - (e) None of the above.

# **Ans.** (c)

#### **Explanation**

- The correct answer is option "C".
  - Sri Nitish Kumar inaugurated Ganga Jal Apurti Yojana at Rajgir on 27-11-2022 and at Bodh Gaya on 28-11-2022.

# • Har Ghar Gangajal scheme:

- The scheme envisages collecting surplus water from the Ganga river during monsoon season.
- The collected water will be treated and supplied through pipeline to water deficient areas like Rajgir, Gaya and Bodhgaya.
- The scheme will be launched as a part of Bihar's government flagship scheme, "Jal, Jeevan and Hariyali scheme.
- Project outlay of first phase: Rs 4000 crore.

#### Details of the scheme:

- It is an ambitious scheme to channelize the excess water from flooded Ganga during monsoons to water-scarce areas of Rajgir, Gaya, Bodh Gaya and Nawada.
- The scheme aims to tackle twin problems of flooding and water crisis.
- It will **ensure 135 litres of clean drinking water per person per day** throughout the year.
- As a part of the scheme, Bihar government will also be ensuring clean drinking water supply to organizations of national and international importance.
- 22. The urbanization of the State has increased very rapidly in the last ten years. According to the 2011 Census, the level of urbanization in Bihar was .... Percent, which as increased to....percent at present.

- (a) 11.3, 15.3
- (b) 12.2, 13.1
- (c) 14.4, 15.5
- (d) More than one of the above.
- (e) None of the above.

#### **Ans.** (*a*)

#### **Explanation**

- As per Census 2011, **the urbanisation rate in Bihar is 11.3**, which is very low and less than national average which is 31.2 %.
  - With redefinition of urban centre by Bihar Government, at present the urbanisation in Bihar is 15.3%.
  - Apart from redefinition, 32 old Nagar Panchayat have been upgraded to Nagar Parishad, while five old Nagar Parishad have been upgraded to Nagar Nigams.
- **23.** The first "floating solar power plant" has been built at which place in Bihar?
  - (a) Dilbarpur, Darbhanga.
  - (b) Jamalpur, Darbhanga.
  - (c) Kadirabad, Darbhanga.
  - (d) More than one of the above.
  - (e) None of the above.

#### **Ans.** (*c*)

# **Explanation**

- The **first "floating solar power plant"** has been built at **Kadirabad, Darbhanga in Bihar.** 
  - It was commissioned by Bihar Renewable Energy Development Agency [BREDA].
  - It will generate around 2 MW energy.
- What is "floating solar power plant"?
  - In floating solar power plants, solar photovoltaic system is placed directly on top of a body of water in contrast to on land or on building rooftops.
- The **world's first floating solar plant** was built in Japan in **Aichi Prefecture** in Central **Honshu**.
- **24.** According to the Economic Survey for the year 2019-20, which district has lowest per capita income?
  - (a) Sheohar
  - (b) Araria
  - (c) Sitamarhi
  - (d) More than one of the above.
  - (e) None of the above.

#### **Ans.** (*a*)

# **Explanation**

• **Sheohar** has the lowest per capita income in the year 2019-20.

Districts	Per Capita Income
Sheohar	Rs 19,600
Araria	Rs 20,600
Sitamarhi	Rs 22,100

- **25.** According to the NITI Aayog, SDG Report for the year 2020-21, how much did the State of Bihar score?
  - (a) 22 out of 100
  - (b) 35 out of 100
  - (c) 52 out of 100
  - (d) More than one of the above.
  - (e) None of the above.

#### **Ans.** (c)

# **Explanation**

- Bihar's composite score (52 out of 100) on the Sustainable Development Goals is the lowest among all states, according to NITI Aayog's SDG India Index Report 2020-21.
  - The index has been constructed using 115 indicators across 16 SDGs.
  - A high proportion (33.74 per cent) of the population in Bihar lives below the poverty line, and as high as 52.5 per cent suffers from multidimensional poverty.
  - As many as 42 per cent of children under five years are stunted, which is the highest in the country.
- **26.** Which of the following has been awarded the Geographical Indication (GI) Tag in August, 2022?
  - (a) Applique (Khatwa) work of Bihar.
  - (b) Sikki Grass Products of Bihar.
  - (c) Mithila Makhana
  - (d) More than one of the above.
  - (e) None of the above.

# **Ans.** (c)

# **Explanation**

- Mithila Makhana has been awarded the "Geographical Indication" [GI] tag in August, 2022.
  - This will help growers get a maximum price and boost the trade of the product.
- Mithila Makhana:
  - It is cultivated in the Mithila region of Bihar and Nepal, Mithila Makhana is a unique variety of aquatic fox nuts.
  - Its botanical name is Euryale Ferox Salisb and is among the widely known regional identity of Mithila.
  - India's 80 per cent Makhana or Fox Nut supply is fulfilled by Bihar.

 Mithila Makhana is good for health and a rich source of protein, fibre, calcium, magnesium, iron, and phosphorus.

#### Geographical Indication:

- GI tag is a special tag given to a specific area of products, agricultural, natural and manufactured products (handicrafts and industrial goods).
- It is given to a product of special quality and identity that originates in a specific geographical area.
- The GI tagging helps products in building a brand, generating local employment and most significantly it helps in preserving the traditional knowledge, culture and expression of the particular region (and its people).
- In India, the Geographical Indications of Goods (Registration and Protection) Act, 1999 provides protection to GI relating to goods and is governed and directed by the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).
- The **validity of the tag is 10 years** which can be renewed further.
- **27.** Which of the following has been added to the UNESCO World Heritage List in 2022?
  - (a) Astronomical Observatory at the Langat Singh College.
  - (b) Mahabodhi Temple Complex at Bodh Gaya.
  - (c) Achaelogical Site of Nalanda Mahavihara at Nalanda.
  - (d) More than one of the above.
  - (e) None of the above.

#### **Ans.** (*e*)

#### **Explanation**

- The correct answer is option "E".
  - Astronomical Observatory Langat Singh College was not included in UNESCO list.
  - It was a fake news duly clarified later.

UNESCO World Heritage Sites in Bihar:	Place where it is located	
Mahabodhi Temple [2002]	Bodh Gaya, Gaya	
Nalanda Mahavihara	Nalanda	

- **28.** The late actor Kumudal Ganguly, also known by his stage name Ashok Kumar was born in which of the following cities of Bihar?
  - (a) Munger
  - (b) Bhagalpur
  - (c) Patna
  - (d) More than one of the above.
  - (e) None of the above.

**Ans.** (*b*)

- Kumudlal Ganguly (13 October 1911 10 December 2001), better known by his stage name Ashok Kumar and also by Dadamoni, was an Indian actor who attained iconic status in Indian cinema.
  - He was a pioneering actor who introduced natural acting to Hindi cinema.
  - He is considered the first superstar of Hindi cinema in black and white era of 40s and 50s as well as the first lead actor to play an anti-hero.
  - Ashok Kumar was born to a Bengali Hindu Brahmin family in Bhagalpur, Bengal Presidency, British India (present-day Bihar, India).
- **29.** The maximum number of tax industries is in which district?
  - (a) Darbhanga
  - (b) Purnia
  - (c) Kishanganj
  - (d) More than one of the above.
  - (e) None of the above.

#### Ans. (e)

# **Explanation**

- The question was deleted by the Bihar Public Service
   Commission with following explanation:
  - Question doesn't specify such a district amongst given (following) 3 districts only or all districts in Bihar or in India. So it should be deleted.
- **30.** According to the Bihar Economic Survey [2021-22], what was the rate of growth of Gross State Domestic Product [GSDP] of Bihar in 2020-21?
  - (a) 3%
  - (b) 2%
  - (c) 2.5%
  - (d) More than one of the above.
  - (e) None of the above.

### **Ans.** (c)

# **Explanation**

- According to the Bihar Economic Survey [2021-22]:
  - In 2020-21, Gross State Domestic Product of Bihar grew by 2.5% due to lockdown caused by Covid-19.
  - However, growth rate of Bihar is better than national average as Indian economy shrank by 7.2 % in 2020-21.
  - Gross State Domestic Product [GSDP] of Bihar: At current prices, GSDP of Bihar in 2020-21 was Rs 618.63 thousand crore whereas at constant prices [2011-12], it is Rs 419.88 thousand crore.

- **31.** Which one of the following is correct for Bihar Economy?
  - (a) The growth rate is one of the lowest in India at 2.5%.
  - (b) Bihar produced mostly primary goods
  - (c) The occupation structure of the economy is stagnant from above.
  - (d) More than one of the above.
  - (e) None of the above.

# **Ans.** (*c*)

#### **Explanation**

 The occupation structure of the Bihar Economy is stagnant from above. So, "Option C" is the correct solution.

#### Employment nature:

- In 2019-20, 59.9% of male workers were self employed, mostly as own account workers or employers. Around 30.8% of male workers were casual workers, who mainly depended on irregular wage earning for their livings.
- On the other hand, in case of female workers, 22.9% out of 51.7% of self employed workers were engaged in economic activities in the capacity of helper in household enterprises.
- The proportion of female workers engaged in female casual labour was 36.3% in Bihar, 14.4% more than all India average.

# Employment generation:

- Majority of the male workers of Bihar were absorbed in agriculture, forestry and fishing [45.9%]., in construction [21%] and wholesale & retail trade, repair of motor vehicles [13.5%].
- Around 2/3rd of female workers were engaged in agriculture, forestry and fishing.
- **32.** At what percentage has Bihar registered the lowest Female Workforce Participation rate for the year 2020-22?
  - (a) 4% in rural and 6.5% in urban areas.
  - (b) 6% in rural and 8.1% in urban areas.
  - (c) 7% in rural and 9.1% in urban areas.
  - (d) More than one of the above.
  - (e) None of the above.

#### **Ans.** (*a*)

- Bihar registered the **lowest female labour force participation rate (LFPR)** at merely 4% in rural areas and 6.5% in urban areas.
- The Swadeshi and Boycott movement [1905-08] had its genesis in the anti-partition movement which was started to oppose the British decision to divided Bengal.

- One of the reasons for such a low level of Female Work Participation Rate in Bihar has been the definational complexities of their work that accentuate the problem of undercounting them in the labour force.
- The distribution of workers by status of employment suggests that 40% of female workers in Bihar were self-employed, either as own account workers (32.3%) or as helpers in household enterprises (7.7%).
- The primary sector continues to provide bulk of the employment opportunities.
- The agriculture, forestry and fishing sector absorbed 66.8% of female workers.
- **33.** According to the National Family Survey-5 released by the Union Ministry of Health and Family Welfare on Number 24, 2021, there has been a significant improvement in the sex ratio of Bihar. It has increased from ..... in 2015-16 to .... in 2020-22
  - (a) 1062, 1090
  - (b) 1040, 1070
  - (c) 1030, 1050
  - (d) More than one of the above.
  - (e) None of the above.

#### **Ans.** (*a*)

#### **Explanation**

- According to the National Family Health Survey-5
  released by the Union Ministry of Health and Family
  Welfare on November 24, 2021. there has been a
  significant improvement in the sex of Bihar.
  - It has increased from **1062 in 2015-16** [National Family Health Survey-4] to **1090 in 2020-22** [National Family Health-Survey-5].
  - While the sex ratio of urban areas of Bihar is only **982** and the sex ratio of rural areas is **1111**.
  - As per the Survey, the literacy rate among women in the age group of **15-49** is only **55%**.
  - The infant mortality in Bihar has come down to 46.8 per thousand from 48.1 in the previous survey.

# 67th BPSC Prelims [Re-Exam], 2022

- **34.** Who was the physician of Magadh ruler, "Bimbisara".
  - (a) Vijayasena
  - (b) Jivak
  - (c) Manu
  - (d) Shilabhadra
  - (e) None of the above/More than one of the above.

# **Ans.** (b)

# **Explanation**

"Jivak" was the physician of Magadh ruler "Bimbisara".

Dynasties	Associated Facts
Haryanka Dynasty [544 BC- 412 BC]	<ul> <li>Chronology: Bimbisara-Ajatashatru-Udayin.</li> <li>Bimbisara: [546-494 BC]</li> <li>Also called Shronika &amp; Seniya.</li> <li>He was the founder of Haryanka dynasty.</li> <li>He consolidated his position by matrimonial alliances.</li> <li>1st Matrimonial alliance with the ruling family of Kosala.</li> <li>He married Kosaladevi, sister of Prasenajit.</li> <li>He was given "Kasi region" as dowry.</li> <li>Kasi helped him with large revenues</li> <li>2nd Matrimonial alliance.</li> <li>He married "Chellana", a princess of Lichchavi family of Vaishali.</li> <li>3rd Matrimonial alliance.</li> <li>He married "Khema" of the royal house of "Madra" in central Punjab.</li> <li>He was contemporary of both Vardhmana Mahavira and Gautam Buddha.</li> </ul>

- Attacked his maternal uncle Prasenjit, the king of Kosala.
- · Also gained complete control over Kashi.
- Fought against Vajji confederacy and defeated them after 16 years of war.
- Made Magadha powerful by adding Kashi and Vaishali.
- He built the fort of Rajagriha and a watch fort [Jaladurga] at a village called Patali, on the banks of river Ganges.
- First Buddhist council was convened during his reign at Rajagriha.

# **Udayin:** [460-440 BC]

- He laid the foundations of the city of "Patliputra" at the confluence of the Son and the Ganges.
- He shifted his capital **from Rajagriha to Pataliputra.**
- **35.** Who was the real founder of "Turk rule" in Bihar?
  - (a) Bakhtiyar Khalji.
  - (b) Ibrahim
  - (c) Dariyan Khan Noohani
  - (d) Malik Husamuddin
  - (e) None of the above/More than one of the above.

# **Ans.** (a)

#### **Explanation**

- Bakhtiyar Khalji was the real founder of "Turk rule" in Bihar
  - He attacked on the fortified university town (Hisari-Bihar) of Bihar in 1199 AD.
  - Further, he invaded **Biharsarif and plundered** "**Odantipuri Mahavihara**".
  - The place **"Bakhtiyarpur"** in Bihar Sharif subdivision was probably named after him following the "Turkish conquest" of the town.
- The earliest description of Bakhtiyar Khilji's invasion of Bihar is in "Tabaqat-i-Nasiri" [in Persian language] written by Minhaj-i-Siraj.
- He launched an ill-fated campaign "Tibet Campaign" in 1206 AD and was assassinated upon returning to Bengal by Ali Mardan.
- **36.** Who was the first Indian Governor of Bihar?
  - (a) Dr. Shri Krishna Singh.
  - (b) Brij Kishor Prasad.
  - (c) B.P Mandal
  - (d) Satyendra Prasanna Sinha
  - (e) None of the above/More than one of the above.

#### **Ans.** (*d*)

#### **Explanation**

- Satyendra Prasanna was the Indian Governor of Bihar.
- Lord Sinha [Satyendra Prasanna Sinha] resigned from the post of Governor of Bihar-Orrisa in **1921.**

# • About Satyendra Prasanna Sinha:

- He was a prominent British Indian lawyer and statesman.
- He was the 1st Governor of Bihar and Orrisa in 1920.
- 1st Indian Advocate General of Bengal in 1905.
- First Indian to become a member of the Viceroy's Executive Council in 1909.
- The first Indian member of the British "House of Lords".
- He was elected President of the Indian National Congress in 1915 at the Bombay session of Congress.
- 37. Who were the leaders of Santhal Revolt?
  - (a) Sidhu and Kanhu
  - (b) Gaurakshni Bhagat and Keshav Chandra.
  - (c) Shambjitmaj Pal and Korra Mallaya
  - (d) Jara Bhagat and Balram Bhagat
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

- Sidhu and Kanhu were the leaders of Santhal Revolt.
  - The Santhal rebellion (also known as the Sonthal rebellion or the Santhal Hool), was a rebellion in present-day Jharkhand and West Bengal, Eastern India against both the British East India Company (BEIC) and zamindari system by the Santhal.
  - It started on June 30, 1855 and on November 10, 1855, martial law was proclaimed by the East India Company which lasted until January 3, 1856 when martial law was suspended and the rebellion was eventually suppressed by the Presidency armies.
  - The rebellion was led by the four sibling Brothers
     Sidhu Murmu, Kanhu Murmu, Chand Murmu and Bhairav Murmu.



- **38.** In which year the Chauri Revolt of Bihar took place?
  - (a) 1842
  - (b) 1798
  - (c) 1784
  - (d) 1832
  - (e) None of the above/More than one of the above.

# **Ans.** (b)

# **Explanation**

- The Chauri revolt of Bihar took place in 1798 AD.
- Some other tribal revolts of Bihar:

Tribal revolts of Bihar	Associated Facts
Bhumij revolt	It took place in Bihar under the leadership of Ganga Narayan against land revenue policy of Britishers in 1832-33.
Kol Revolt	It took place in Bihar under the leadership of Budhu Bhagat against transfer of land to outsiders in 1831-32.

- **39.** In which year was Orissa separated from Bihar?
  - (a) 1936
  - (b) 1956
  - (c) 2000
  - (d) 1912
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

#### **Explanation**

- Bihar was a part of the **Bengal Presidency** under the British **till 1912.** 
  - Bihar and Orrisa province was separated from Bengal Presidency in 1912.
  - In 1936, by the Government of India Act, 1935, Bihar and Odisha became separate provinces of British ruled-India.
  - So, Orrisa was separated from Bihar in 1936.
- **40.** In which place Khudiram Bose tried to kill Kingsford?
  - (a) Darbhanga.
  - (b) Muzaffarpur
  - (c) Gaya
  - (d) Patna
  - (e) None of the above/More than one of the above.

# **Ans.** (b)

# **Explanation**

- On 30th April, 1908, in Muzaffarpur, a bomb was thrown by Khudiram Bose and Prafulla Chaki.
  - It killed two European ladies, the wife and daughter of Mr. Pingle Kennedy.

- However, the bomb was meant for Kingsford, the district judge of Muzaffarpur, who had made himself extremely unpopular by passing heavy sentences on political workers.
- Khudiram Bose was arrested and hanged on August 11, 1908 and his associate "Praful Chaki" shot himself dead.
- **41.** During which movement, "Azad Dasta" was active in Bihar?
  - (a) Non Cooperation Movement.
  - (b) Civil Disobedience Movement.
  - (c) Quit India Movement.
  - (d) Champaran Satygraha.
  - (e) None of the above/More than one of the above.

# **Ans.** (*c*)

# **Explanation**

- The **Azad Dasta was a revolutionary organization** which was founded by Jayaprakash Narayan during the Quit India Movement of 1942.
  - Aseparate independent council of the organisation was set up in the Madhubani district of Bihar under the leadership of Suraj Narayan Singh.
- The main aim of the organization was to paralyze government machinery and military training, and camps were set up to prepare the men to partake in revolutionary activities.
  - The first training camp with Sardar Nityanand Singh as the chief instructor was set up in Nepal where the headquarters of the Madhubani Azad Dasta was located.
  - 35 men were trained here with the aim that they would establish branches of Azad Dasta in different places and train more men.
- **42.** In 1942 AD, on the occasion of which festival Jayaprakash Narayan escaped from Hazaribagh Jail?
  - (a) Holi
  - (b) Dussehra
  - (c) Deepawali
  - (d) Baisakhi
  - (e) None of the above/More than one of the above.

# **Ans.** (c)

- In 1942 AD, on the occasion of "Deepwali" Jayaprakash Narayan escaped from Hazaribagh Jail.
- After the launch of Quit India Movement on 9th August 1942, a number of freedom fighters confined in the Hazaribagh jail, felt a need to dedicate themselves to the cause of the nation.
  - On **Diwali night**, on November 9, 1942, many of them made a miraculous escape from the jail.

- They were Jai Prakash Narayan, Ramnandan Mishra, Yogendra Shukla, Suraj Narayan Singh, Gulab Sonar and Shaligram Singh.
- Large rewards were offered by the government for information about those who had escaped.
  - Rs 5000 each were offered for Jai Prakash Narayan, Yogendra Shukla and Ramanandan Mishra and Rs 2000 each for other three.
- After escaping, they entered the **boundary of the** Gaya district from where they divided themselves into two groups.
- One group consisting of **Yogendra Shukla**, Suraj Narain Singh and Gulab went to north Bihar.
- Based on secret information, Yogendra Shukla was arrested near Akaharaghat in Muzaffarpur and sent to Buxar jail.
- Other group consisting of Jai Prakash Narayan, Ramanandan Mishra and Shaligram Singh proceeded towards Banaras.
- **43.** Where was the first Buddhist Council convened?
  - (a) Rajagriha
  - (b) Amravati
  - (c) Kanganhalli
  - (d) Pataliputra
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

# **Explanation**

Buddhist Council	Associated Facts	
First Buddhist Council	<ul> <li>Year: 483 BC.</li> <li>Venue: Saptaparni Cave, Rajagriha.</li> <li>Chairman: Mahakassapa.</li> <li>Patron: Ajatashatru of Haryanka dynasty.</li> <li>Compilation of Sutta Pitaka and Vinay Pitaka by Ananda and Upali respectively.</li> </ul>	
Second Buddhist Council	<ul> <li>respectively.</li> <li>Year: 383 BC.</li> <li>Venue: Chullavanga, Vaishali.</li> <li>Chairman: Sabakami.</li> <li>Patron: Kalaashoka [Shishunaga dynasty].</li> <li>Schism into Sthavira-vadins and Mahasanghikas.</li> </ul>	

	• Year: 250 BC	
	Venue: Patliputra	
Third	Chairman: Mogaliputta Tissa.	
Buddhist	Patron: Ashoka of Mauryan dynasty.	
Coucil	Compilation of Abhdidhamma Pitaka.	
	• In this council, decision to send	
	missionaries to various parts of world	
	was taken.	
	• Year: 72 AD	
	• Venue: Kundalana Vana, Kashmir.	
Fourth	Chairman: Vasumitra	
Buddhist	Vice-Chairman: Ashvagosha.	
Council	• Patron: Kanishka of Kushana dynasty.	
	Buddhism was divided into two sects	
	namely, Hinayana and Mahayana.	

- 44. The total geographical area of Bihar state is
  - (a) 94316 square km.
  - (b) 94163 square km.
  - (c) 94526 square km.
  - (d) 94200 square km.
  - (e) None of the above/More than one of the above.

#### **Ans.** (b)

# **Explanation**

- The geographical area of Bihar state is "94,163 square kms".
  - Bihar's area is 2.86% of the India's total area and it ranks 12th in the country in terms of area.

#### **Additional Facts:**

- Latitudnal extent: Bihar lies between 24°20'10" N and 27°31'15" N.
- o Longitudnal extent: 83°19′50″E and 88°17′40″E
- North-South Extent: 345 kms.
- East-West Extent: 483 kms.
- **45.** Which river is known as "Sorrow of Bihar"?
  - (a) Ganga
  - (b) Kosi
  - (c) Son
  - (d) Ghaghra
  - (e) None of the above/More than one of the above.

# **Ans.** (b)

- Kosi river is known as the "Sorrow of Bihar" for changing courses and bringing floods to different district of Bihar.
  - It originates in the Himalayas and the upper catchment of the river system lies in Nepal and Tibet.

- It is called as "Sapt Kosi" in Nepal for its seven upper tributaries.
- It enters the Indian territory near Hanuman nagar in Nepal and joins the river Ganga near Kursela in Katihar district.
- The total length of the river in Bihar is 260 kms.
- Left Bank tributaries: Fariani Dhar and Dhar
- Right Bank tributaries: Bagmati, Kamla-Balan, Bhuti Balan and Trijuga.
- **46.** In which district of Bihar, Telhar Kund waterfall is located?
  - (a) Nawada
  - (b) Kaimur
  - (c) Rohtas
  - (d) Sasaram
  - (e) None of the above/More than one of the above.

# **Ans.** (b)

# **Explanation**

Waterfalls in Bihar	Location
Kakolat Waterfall	Nawada
Karkat Waterfall	Kaimur
Telhar Waterfall	Kaimur
Manjhar Kund and Dhua Kund	Sasaram (Rohtas)
Waterfall	

- **47.** Which is the Asia's largest and freshwater oxbow lake in Bihar?
  - (a) Kanwar Lake
  - (b) Anupam Lake
  - (c) Kusheshwar Lake
  - (d) Ghogha Lake
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

#### **Explanation**

- Kanwar lake is the Asia's largest and freshwater oxbow lake in Bihar.
  - It is situated in Manjhaul village of Begusarai district.
  - It is the **only Ramsar site** of Bihar.
  - It attracts a variety of migratory birds which come from all parts of Central Asia during winter months.

Lake in Bihar	Location
Anupam Lake	Kaimur
Kusheshwar Lake	Darbhanga
Ghogha Lake	Katihar

- **48.** Which district of Bihar has the largest gold reserve?
  - (a) Jamui
  - (b) Banka
  - (c) Katihar
  - (d) Munger
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

# **Explanation**

- Jamui has the largest gold reserve.
  - As per a **Geological Survey of India (GSI) survey,** around 222.88 million tonnes of gold reserve, including 37.6 tonnes of mineral-rich ore, are present in Jamui district.
  - As per the National Mineral Inventory, the total resources of primary gold ore in the country as on 1.4.2015 are estimated at 501.83 million tonnes with 654.74 tonnes of gold metal and out of this, Bihar is endowed with 222.885 million tonnes (44 per cent) of ore containing 37.6 tonnes of metal."
  - Jamui is part of Munger division of Bihar.
- **49.** Which district of Bihar is known as "Silk City"?
  - (a) Bhojpur
  - (b) Bhagalpur
  - (c) Banka
  - (d) Katihar
  - (e) None of the above/More than one of the above.

#### **Ans.** (*b*)

#### **Explanation**

- "Bhagalpur" is known as the "Silk City of Bihar".
- About Bhagalpur:
  - Bhagalpur is located in the southern region of Bihar. It is one of the oldest districts of Bihar and is situated in the Ganga basin at 141 ft above the sea level.
  - The city is spread on an area of 2569 sq. km. It Lies between 25° 07′ 25° 30′ N Latitude and between 86° 37′ 87° 30′E longitude.
  - The district is surrounded by Munger, Khagaria, Madhepura, Purnea, Katihar and Banka districts of Bihar, Godda and Sahebganj districts of Jharkhand.
  - Bhagalpur district comprises three Sub-Divisions: Bhagalpur Sadar, Kahalgaon and Naugachia.
- **50.** What is the female literacy rate of Bihar as per the "Census 2011" of India?
  - (a) 71.25%
  - (b) 50.50%
  - (*c*) 51.50%
  - (d) 61.80%
  - (e) None of the above/More than one of the above.

**Ans.** (*c*)

Important 2011 Census Data:

Demographic Term	India	Bihar
Decadal Growth rate [2001-2011]	17.7%	25.42%
Urbanization	31.2%	11.3%
Population Density	382	1106
Sex ratio	943	918
Literacy rate	74.04%	61.8%
Male Literacy rate	82.14%	71.2%
Female Literacy rate	65.46%	51.5%

- **51.** Choose the incorrect statement as per the Economic Survey of Bihar 2021-22
  - (a) The secondary sector in Bihar had grown at 4.8%.
  - (*b*) The tertiary sector in Bihar had grown at the highest rate of 8.5%.
  - (c) The primary sector in Bihar had grown at 2.8%.
  - (d) The primary sector in Bihar had grown at 2.3%.
  - (e) None of the above/More than one of the above.

# **Ans.** (*c*)

# **Explanation**

- According to Economic Survey of 2021-22, the growth rate of different sectors of economy:
  - 1. The growth rate of primary sector has been 2.3% for the period 2016-17 to 2020-21.
    - So, "Option C" is incorrect statement.
  - 2. In case of secondary sector, medium term growth rate has been 4.8%.
    - Tertiary sector has registered the highest growth rate at 8.5%.
- **52.** According to the Economic Survey of Bihar 2021-22, what is the level of urbanization in the state at present?
  - (a) 22.4%
  - (b) 15.3%
  - (c) 18.6%
  - (d) 11.6%
  - (e) None of the above/More than one of the above.

### **Ans.** (b)

# **Explanation**

- As per Census 2011, the urbanisation rate in Bihar is 11.3, which is very low and less than national average which is 31.2 %.
- With redefinition of urban centre by Bihar Government, at present the urbanisation in Bihar is 15.3%.
- Apart from redefinition, 32 old Nagar Panchayat have been upgraded to Nagar Parishad, while five old Nagar Parishad have been upgraded to Nagar Nigams.

- **53.** Choose the correct order of the following districts of Bihar as per the ascending level of urbanisation
  - (a) Nalanda<Patna<Munger.
  - (b) Patna<Munger<Nalanda
  - (c) Munger<Nalanda<Patna
  - (d) Nalanda<Munger<Patna
  - (e) None of the above/More than one of the above

#### **Ans.** (*d*)

# **Explanation**

- The correct order of the districts as per ascending level of urbanization is:
- Nalanda<Munger<Patna.

Districts	Urbanization rate
Nalanda	26.2%
Munger	28.3%
Patna	44.3%

- **54.** The fiscal deficit is expected to be......of GSDP of Bihar for the financial year 2022-23.
  - (a) 12.1%
  - (b) 3.47%
  - (c) 9.89%
  - (d) 3.18%
  - (e) None of the above/More than one of the above.

#### **Ans.** (*b*)

#### **Explanation**

- The fiscal deficit is expected to be 3.47% of GSDP of Bihar for the financial year 2022-23.
  - **Fiscal deficit** for 2022-23 is targeted at Rs 25,885 crore (3.47% of GSDP).
  - In 2021-22, as per the revised estimates, fiscal deficit is expected to be 11.31% of GSDP, significantly higher than the budget estimate of 2.97% of GSDP.

#### • What is "Fiscal Deficit"?

- The difference between total revenue and total expenditure of the government is termed as fiscal deficit.
- It is an indication of the total borrowings needed by the government. While calculating the total revenue, borrowings are not included.
- **55.** In which district of Bihar, the world's tallest (251m) Statue of Mother Sita will be constructed?
  - (a) Sitamarhi
  - (b) Bodh Gaya
  - (c) Patna
  - (d) Madhubani
  - (e) None of the above/More than one of the above.

**Ans.** (*a*)

- The world's tallest [251m] "Statue of Mother Sita" will be constructed in the "Sitamarhi" district of Bihar.
  - It will be installed at Raghopur Bakhri village under Dumra block of Sitamarhi district.
  - Goddess Sita, as per Hindu scriptures, is believed to be found in an earthen pot as an infant in the present day's Sitamarhi district while King Janaka of Videha was ploughing farmlands as a part of a Yagna.
  - Mata Sita was brought up as the adopted daughter of King Janaka.
  - O Sitamarhi derives its name from "Mata Sita".
- **56.** Choose the option which is not part of the "Saat Nischay Part-2 Scheme" of Bihar
  - (a) Strong Woman, Capable Women.
  - (b) Irrigation water to every field.
  - (c) Airways to Everyone.
  - (d) Yuva Shakti-Progress of Bihar.
  - (e) None of the above/More than one of the above.

# **Ans.** (c)

# **Explanation**

- "Airways to Everyone" is not part of the "Saat Nishchay Part-2 scheme" of the Bihar government.
- Saat Nischay [Seven Resolves] Part-2 includes the following:
  - 1. Yuva Shakti Bihar ki Pragati.
  - 2. Sashakt Mahila Saksham Mahila
  - 3. Har Khet Tak Paani.
  - 4. Swachh Gaon, Samridh Gaon
  - 5. Swachh Shahar Viksit Shahar
  - 6. Sulabh Samparkta
  - 7. Sabke lie Swasthya Suvidha.
- **57.** Choose the correct order of the Bihar State districts in descending order of per capita income.
  - (a) Sheohar>Araria>East Champaran>Kishanganj> Nawada.
  - (b) East Champaran>Sheohar>Araria>Kishanganj> Nawada.
  - (c) Araria>Nawada>East Champaran>Sheohar> Kishanganj
  - (d) Nawada>Kishanganj>East Champaran>Araria> Sheohar.
  - (e) None of the above/More than one of the above.

# **Ans.** (*d*)

#### **Explanation**

Districts	Per Capita Income
Sheohar	Rs 19,600
Araria	Rs 20,600
East Champaran	Rs 22,300
Kishanganj	Rs 23,200
Nawada	Rs 23,400

- The correct order as per descending order of "per capita income" is:
- Nawada>Kishanganj>East Champaran>Araria> Sheohar
- **58.** Who is the brand ambassador of Khadi in Bihar?
  - (a) Rajesh Tiwari
  - (b) Manoj Tiwari
  - (c) Manoj Vajpayee
  - (d) Pawan Singh
  - (e) None of the above/More than one of the above.

# **Ans.** (b)

#### **Explanation**

- At the time, when this question was asked, Manoj Tiwari was the brand ambassador of Khadi and other handicrafts of Bihar.
- In November, 2022, "Maithili Thakur", folk singer, was made the brand ambassador for khadi and handicraft of the state.
  - She belongs to Benipatti in Madhubani district in Bihar.
  - She recently received the "Ustad Bismillah Khan Yuva Puraskar for 2021".
- **59.** At which place in Bihar, North India's first bird ringing station has been recently opened?
  - (a) Saran
  - (b) East Champaran
  - (c) West Champaran
  - (d) Bhagalpur
  - (e) None of the above/More than one of the above.

# **Ans.** (*d*)

- North India's first bird ringing station was recently opened in Bhagalpur district of Bihar.
  - Objective: To observe, research and monitor migratory birds.
  - Why Bhagalpur?
    - Bhagalpur is one of the three known breeding ground for migratory words after Cambodia and Assam.
  - It is the **fourth "Bird ringing station"** of India.
    - The other three are at Chennai [Tamilnadu], Jaipur[Rajasthan] and Odisha[Bhubaneshwar].

- **60.** The "Operation Prahar" in Bihar is related to
  - (a) Literacy Campaign
  - (b) No Smoking
  - (c) Liquor Ban
  - (d) COVID-19 Vaccination.
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

#### **Explanation**

- The Bihar Police conducted "Operation Prahar" to enforce "liquor ban" in the state.
  - The operation was conducted against the individuals involved in:
    - Violation of Liquor Prohibition law.
    - · Serious Criminal incidents.
  - Vajra teams were formed at the district level to arrest the violators.
  - Anti-Liquor Task force was formed to stop illegal trade of liquor across the state.
- **61.** Hrithik Anand from Bihar has won which medal for India at the 24th Summer Deaf Badminton Olympics held in Brazil?
  - (a) Silver Medal
  - (b) Bronze Medal
  - (c) Platinum Medal
  - (d) Gold Medal
  - (e) None of the above/More than one of the above.

# **Ans.** (*d*)

#### **Explanation**

- Hrithik Anand won gold medal for India at the 24th **Summer Deaf Badminton Olympics** held in Brazil.
  - He belongs to **Hajipur in Bihar**.
  - Hajipur is the administrative headquarter of "Vaishali" district [lies in Tirhut division of Bihar].
- Tirhut [HQ is at Muzaffarpur] is one of the nine administrative divisions of Bihar, it consists of six districts namely West Champaran, East Champaran, Sheohar, Sitamarhi, Muzaffarpur and Vaishali.
- **62.** Which of the following in Bihar started "Vulture's Conservation Plan"?
  - (a) Rajgir Wildlife Sanctuary.
  - (b) Valmiki Tiger Reserve.
  - (c) Kanwar Lake Bird Sanctuary
  - (d) Kaimur Tiger Reserve.
  - (e) None of the above/More than one of the above.

# **Ans.** (*b*)

#### **Explanation**

- The Bihar government set up a **Vulture conservation** centre in the Valmiki Tiger Reserve (VRT) in West Champaran district on the pattern of Uttarakhand's Corbett National Park.
  - The aim is to save the endangered flying scavengers from extinction in the region.
  - O Vultures were spotted nesting in Madanpur, Gonauli, Harnatand and Bhikhnathori areas of the reserve.
- In VTR, the Udaypur forest area is also known for a number of winged creatures.
  - It includes jungle bush quail, red jungle fowl, Indian peafowl, cotton pygmy goose, great crested grebe, black bittern bird, little egroot, red-headed vulture, common moorhen, grey-headed lapwing, Asian cuckoo, blue-tailed beater, Indian grey hornbill, grey-capped pygmy, wood picker, yellowcrowned woodpecker and Himalayan gold black are among others.
  - o Each of them has their own significance in maintaining ecological balance.
- **63.** "Sunandini Program" is related to the
  - (a) Auxiliary Nurse Midwives
  - (b) Primary Health Centre's doctors.
  - (c) Members of Gram Panchayat
  - (d) Anganwadi workers.
  - (e) None of the above/More than one of the above

# **Ans.** (*d*)

#### **Explanation**

- "Sunandini Program" is related to "Anganwadi Workers"
  - As per National Education Policy 2020, the Bihar government launched "Sunandini program" for upgradation of educational qualification of "Anganwadi workers".
  - It is the joint effort of Social Welfare department of Bihar and Bihar Open School Education and Examination Board.

# 67<sup>th</sup> BPSC Prelims Cancelled Exam, 2022

- **64.** Which type of banks is proposed to be established for agriculture and rural development in Bihar?
  - (a) Krishi Vigyan Banks.
  - (b) Krishi Yantra Banks
  - (c) Krishi Vikas Banks
  - (d) Krishi Utthaan Banks
  - (e) None of the above/More than one of the above.

**Ans.** (b)

- Krishi Yantra Banks are proposed to be established for "Agriculture and Rural development" in Bihar.
  - 328 KVBs will be established in 13 districts of Bihar.
  - The state government will provide 80% subsidy on different "yantras" to be provided to farmers.
  - It is a part of "farm mechanization" measures of the state government.
- **65.** The value of Human Development Index of Bihar in 2019 was
  - (a) 0.641
  - (b) 0.613
  - (c) 0.596
  - (d) 0.574
  - (e) None of the above/More than one of the above.

#### **Ans.** (e)

# **Explanation**

- UNDP says Human Development Index of Bihar, which includes health, education and per capita income, is 0.536.
  - This is equal to Pakistan's HDI which also stands at 0.536".
  - Uttar Pradesh and Bihar continue to languish on the human development index (HDI) front, while others, including Haryana and Himachal, have shown an improvement in the past 27 years, says a report.
- **66.** The fiscal deficit in Bihar during 2021-22 is estimated as
  - (a) Rs 22,511 crores
  - (b) Rs 27,617 crores
  - (c) Rs 20,011 crores
  - (d) Rs 21,543 crores
  - (e) None of the above/More than one of the above

#### **Ans.** (a)

#### **Explanation**

- **Fiscal deficit** in 2021-22 is estimated to be **Rs 22,511** crore (2.97% of GSDP).
- As per revised estimates, in 2020-21, fiscal deficit is estimated to be 6.77% of GSDP, which is significantly higher than the budget estimate of 2.97% of GSDP.
- What is "Fiscal Deficit"?
  - The difference between total revenue and total expenditure of the government is termed as fiscal deficit.
  - It is an indication of the total borrowings needed by the government. While calculating the total revenue, borrowings are not included.

- **67.** Under Digital Bihar Programme which students will receive computer education and training from 2021-22 onwards?
  - (a) All students of Class V
  - (b) All students of Class VI
  - (c) All students of Class VII
  - (d) All students of Class VIII
  - (e) None of the above/More than one of the above

#### **Ans.** (b)

# **Explanation**

- Under Digital Bihar Program, all students of Class
   VI and above will receive computer education and training from 2021-22 onwards.
- The state will take steps towards implementing the National Education Policy 2020 and increasing the gross enrolment ratio in higher education to 50% by 2035.
- **68.** According to the 15th Finance Commission's recommendations, how much share will Bihar receive in divisible pool of Central taxes from 2021-26?
  - (a) 4.12%
  - (b) 4.23%
  - (c) 4.89%
  - (d) 4.06%
  - (e) None of the above/More than one of the above.

# **Ans.** (a)

- According to the 15th Finance Commission's recommendations, Bihar will receive 4.12% in divisible pool of Central taxes from 2021-26.
- The Finance Commission is a constitutional body formed by the President of India to give suggestions on centre-state financial relations.
  - The 15th Finance Commission (Chairman: Mr. N. K. Singh) was required to submit two reports.
  - The first report, consisting of recommendations for the financial year 2020-21, was tabled in Parliament in February 2020.
  - The final report with recommendations for **the 2021-26** period was tabled in Parliament on February 1, 2021.
- Recommendations of 15th Finance Commission:
  - The share of states in the central taxes for **the 2021-26 period** is recommended to be 41%, same as that for 2020-21.
  - This is less than the **42% share recommended by the 14th Finance Commission** for 2015-20 period.



- The adjustment of 1% is to provide for the newly formed union territories of Jammu and Kashmir, and Ladakh from the resources of the centre.
- 69. Who had attained enlightenment in Bodh Gaya?
  - (a) Mahavira Swami
  - (b) Gautama Buddha
  - (c) Simandhar Swami
  - (d) Parshvanath Swami
  - (e) None of the above/More than one of the above

# **Ans.** (b)

# **Explanation**

- Gautam Buddha attained enlightenment in Bodh Gaya.
- **Additional Facts:**

Birth	<ul><li>563 BC at Lumbini.</li><li>It is represented by Lotus and Bull.</li></ul>
Clan	Sakya Kshatriya
Father	<ul><li>Suddhodhana.</li><li>He was republican King of Kapilavastu.</li></ul>
Mother	<ul><li>Mahamaya</li><li>She was princess of Kollia republic.</li></ul>
Step Mother	<ul> <li>Mahaprajapati Gautami.</li> <li>After early death of his mother, Lord Buddha was brought up by Mahaprajapati Gautami</li> </ul>
Wife	<ul> <li>At age Yasodhara</li> <li>She was princess of Shakya dynasty from whom he had a son named Rahul.</li> </ul>
Teacher	<ul> <li>Alara Kalama: 1st teacher who was a Sankhya Philosopher.</li> <li>Lord Buddha learnt the techniques of meditation from him.</li> <li>Udraka Ramputra was his second teacher.</li> </ul>
Four signs that convinced Buddha for Renunciation	<ul><li>An Old Man</li><li>A Diseased Person.</li><li>A Dead body.</li></ul>

Mahabhinishkramana [Renunciation]	•	At age of 29 years, he left his home and became wandering ascetic in search of truth.  This is known as Mahabhinishkramana [Great Going Forth].  This event in Buddha's life is symbolized by Horse.  Kanthaka: Buddha's Horse.  Channa-Buddha's Charioteer.
Nirvana [Enlightenment]	•	He wandered for seven years and met with several teachers but could not get enlightenment.  At last, he sat under a bodhi tree at Bodh Gaya and did intense penance.  At age of 35 years, he attainted Nirvana.  After attaining Nirvana, he was called as the "Buddha" or the "Enlightened one".  This event in Buddha's life is symbolized by Bodhi Tree.  Sujata: The Farmer's daughter who gave Buddha rice Milk at Bodh Gaya.
Dharmachakra Pravartana [Turning of the wheel of the Law]	•	He delivered his first sermon at "Sarnath" [Dear Park] to his five disciples. This event in Buddha's life is symbolized by Wheel.
Mahaparinirvana [Death]	•	He died at the age of 80 years in 483 BC at Kushinagara [capital of Malla Mahajanapada] This event in Buddha's life is symbolized by Stupa.

- **70.** Who was the President of the First Buddhist Council?
  - (a) Vasumitra
  - (b) Mahakashyapa
  - (c) Sangharaksha
  - (d) Parshvaka
  - (e) None of the above/More than one of the above.

**Ans.** (b)



# First Buddhist Council

- **Year:** 483 BC.
- Venue: Saptaparni Cave, Rajagriha.
- Chairman: Mahakassapa.
- Patron: Ajatashatru of Haryanka dynasty.
- Compilation of Sutta Pitaka and Vinay Pitaka by Ananda and Upali respectively.
- **71.** Who is not related to the Champaran Satyagraha of 1917 AD?
  - (a) J.B Kriplani.
  - (b) Raj Kumar Shukla
  - (c) Rajendra Prasad.
  - (d) Ram Manohar Lohia
  - (e) None of the above/More than one of the above.

#### **Ans.** (*d*)

# **Explanation**

- Ram Manohar Lohia is not related to the "Champaran Satyagraha" of 1917 AD.
- The **Champaran Satyagraha of 1917** was Mahatma Gandhi's **first Satyagraha**.
  - It was the first "Civil Disobedience Movement".
    - The European planters had been forcing the peasants to grow indigo on 3/20 of the total land called "Tinkathiya system".
  - Several other leaders like Rajendra Prasad, Anugraha Narayan Singh, Mazhar-ul-Haque, Mahadeo Desai, J.B Kriplani also assisted in the passive resistance against British atrocities.
  - The satyagraha forced "British government" to appoint a committee to make enquiry into the matter of indigo planter's issue.
    - Gandhiji as a member of the committee convinced the authority about the atrocities perpetuated under the Tinkathiya system, so should be abolished and the compensation should be given to planters.
    - As a compromise with the planters, Gandhiji agreed that only 25% of the money taken should be compensated.
- **72.** Who established a branch of Anushilan Samiti in Patna in 1913 AD?
  - (a) Ramanda Sinha
  - (b) Satish Jha
  - (c) Sachindra Nath Sanyal.
  - (d) Bipin Jha
  - (e) None of the above/More than one of the above

# **Ans.** (*c*)

# **Explanation**

- Sachindranath Sanyal established a branch of "Anushilan Samiti" in Patna in 1913 AD.
  - Bankimchandra Mitra of B.N College was entrusted with the leadership of this organization.
- About Sachindranath Sanyal:
  - He was an Indian revolutionary and co-founder of the Hindustan Republican Army.
  - He mentored "Chandra Shekhar Aza, Jatindra Nath Das and Bhagat Singh,
  - In 1912, he along with Rashbehari Bose attacked the Viceroy Lord Hardinge.
- **73.** Who had formed the Bihar Socialist Party in 1931 AD?
  - (a) Phulan Chand Tiwari and Rajendra Prasad.
  - (b) Phulan Prasad Varma and Jayaprakash Narayan.
  - (c) Rajkumar Shukla and Swami Agnivesh.
  - (d) Swami Sahajananda and Swami Yogananda
  - (e) None of the above/More than one of the above.

# **Ans.** (b)

#### **Explanation**

- Ganga Sharan Sinha, Rambriksh Benipuri and Ramanand Mishra formed the "Bihar Socialist Party in 1931.
- Later in 1934, Jaiprakash Narayan convened a meeting in Anjuman Islamia Hall in Patna and formally inaugurated "Bihar Congress Socialist Party".
  - Acharya Narendra Dev became the President of the party and Jaiprakash Narayan was made general secretary.
  - The party closely coordinated with Congress for welfare and organization of peasants and workers.
- **74.** Where is Sher Shah's tomb located?
  - (a) Sasaram
  - (b) Maner
  - (c) Sitamarhi
  - (d) Pavapuri
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

- Sher Shah's tomb is located in **"Sasaram"**. **Sasaram** is the administrative headquarter of Rohtas [Known as Rice Bowl of Bihar] district.
- Addition facts on Sher Shah:
  - He is credited with the **reorganization and consolidation of North India** after the decline of the Delhi Sultanate.

Central Administration	Head [Pradhan]		
Diwan-e-Wajarat	Associated with Revenue & Finance headed by Wajir.		
Diwan-e-Arj	Secretariat headed by Dabir		
Diwane-e-Insha	Religious department headed by Sadra.		
Diwan-e-Kaji	Law department headed by Kaji.		

• He introduced the "Sarkar unit" [District] first time in history under Sikedra-e-Sikderana.

Administrative Unit	Head
Iqta [Province]	Haqim and Amin
Sarkar [District]	Shiqdar-i-Shiqdaran
Pargana [Taluka]	Shiqdar and Munsif
Gram [Village]	Muqaddam and Amil

- He introduced the principle of local responsibility for local crimes. Muqaddams were punished for failure to find culprits.
- He revived "Land revenue" on the basis of land measurement. The land revenue system was called the "Zabit" system designed by Todarmal.
- Land revenue was taken in cash on the basis of the crop price list "Rai".
- Farmers were given rights on land by the issuance of "Patta" and a qabuliyat [deed of agreements].
- Taxes like "Zaribana[Land measurement duty] and "Muhislana" [revenue collection duty] were levied on farmers
- **Silver coin:** He introduced a silver coin or Rupia of 178 grams.
- **Weights and Measures:** He fixed standard weights and measures all over the empire.
- Construction work: He built Purana Quila at Delhi and the Grand Trunk road connecting Calcutta to Peshawar.
- **75.** During Quit India Movement, who among the following escaped from the Hazaribagh Jail?
  - (a) Sachchidananda Sinha
  - (b) Jayaprakash Narayan
  - (c) Jagjivan Ram
  - (d) Rafi Ahmed Kidwai.
  - (e) None of the above/More than one of the above.

#### **Ans.** (b)

#### **Explanation**

After the launch of Quit India Movement on **9th August 1942**, a number of freedom fighters confined in the

**Hazaribagh jail,** felt a need to dedicate themselves to the cause of the nation.

- On **Diwali night**, on November 9, 1942, many of them made a miraculous escape from the jail.
- They were Jai Prakash Narayan, Ramnandan Mishra, Yogendra Shukla, Suraj Narayan Singh, Gulab Sonar and Shaligram Singh.
- Large rewards were offered by the government for information about those who had escaped.
  - Rs 5000 each were offered for Jai Prakash Narayan, Yogendra Shukla and Ramanandan Mishra and Rs 2000 each for other three.
- After escaping, they entered the boundary of the Gaya district from where they divided themselves into two groups.
  - One group consisting of Yogendra Shukla, Suraj Narain Singh and Gulab went to north Bihar.
  - Based on secret information, Yogendra Shukla was arrested near Akaharaghat in Muzaffarpur and sent to Buxar jail.
  - Other group consisting of Jai Prakash Narayan, Ramanandan Mishra and Shaligram Singh proceeded towards Banaras.
- **76.** Who was the President of Gaya session of the Indian National Congress held in 1922 AD?
  - (a) Chittaranjan Das
  - (b) Hakim Ajmal Khan
  - (c) Mahatma Gandhi
  - (d) Maulana Abul Kalam Azad
  - (e) None of the above/More than one of the above.

# **Ans.** (*a*)

#### **Explanation**

 Chittaranjan Das was the President of Gaya session of the Indian National Congress held in 1922 AD.

	•	Popularly known as "Deshbandhu".
	•	He presided over the <b>Gaya session</b> of Indian National Congress in December,
		1922.
Chittaranian	•	He presided over the
Chittaranjan		"All India Trade Union
Das		Congress" session of
		Lahore in 1923 and
		Calcutta in 1924.
	•	C.R Das and Motilal Nehru
		founded the Swaraj Party
		or the Congress-Khilafat
		Swarajya Party on <b>1st</b>
		,,,
		January, 1923.

- 77. Which district of Bihar has mica deposits?
  - (a) Rohtas
  - (b) Patna
  - (c) Gaya
  - (d) Saran
  - (e) None of the above/More than one of the above.

# **Ans.** (c)

# **Explanation**

 Mica is found in Jamui, Gaya and Nawada districts of Bihar.

#### About Mica:

- There are three varieties of Mica found in India namely Muscovite, Phlogopite and Biotite.
- Due to its insulating properties, it is used in electronics industry.
- **78.** The confluence of the rivers Son and Ganga is located in which district of Bihar?
  - (a) Buxar
  - (b) Patna
  - (c) Bhojpur
  - (d) Nalanda
  - (e) None of the above/More than one of the above.

# **Ans.** (b)

# **Explanation**

- The confluence of the rivers "Son and Ganga" is located in "Patna district" of Bihar.
- Additional Facts:
  - The river "Punpun" meets the Ganga near Fatuha in Patna.
  - The river "Karamnasa" meets river Ganga near Chausa [Buxar district].
  - The river "Saryu" joins Ganga from North-West direction in Chhapra.
- **79.** Which is the first Ramsar site in Bihar?
  - (a) Kaimur Range
  - (b) Kharagpur Lake
  - (c) Kanwar Lake
  - (d) Rajgir Hill
  - (e) None of the above/More than one of the above.

#### **Ans.** (c)

# Explanation

- Kanwar lake is the Asia's largest and freshwater oxbow lake in Bihar.
  - It is situated in Manjhaul village of Begusarai district.
  - It is the **first** and **only Ramsar site** of Bihar.
  - It attracts a variety of migratory birds which come from all parts of Central Asia during winter months.

- 80. Brahmayoni Hill is located in which district of Bihar?
  - (a) Gaya
  - (b) Rohtas
  - (c) Nalanda
  - (d) Nawada
  - (e) None of the above/More than one of the above.

#### **Ans.** (a)

#### **Explanation**

- Brahmayoni Hill is located in "Gaya district of Bihar".
- About Brahmayoni Hill:
  - It is surrounded by **small rocky hills in** the Gaya that make up the landscape of the Gaya city with **Falgu river.**
- Gava district:
  - Gaya was passed on to Britishers after the battle of Buxar in 1764. Gaya, along with other parts of the country, won freedom in the year 1947.
  - O Gaya formed a part of the district of Behar and Ramgarh till 1864. It was given the status of independent district in 1865.
  - Aurangabad and Nawada Districts were carved out of original Gaya in the year 1976
  - Subsequently, in May 1981, Magadh Division was created by the Bihar State.
  - Government with the districts of Gaya, Nawada, Aurangabad and Jehanabad. All these districts were at the level of sub-division when the Gaya district was created in 1865.
- **81.** Which agroclimatic region of Bihar has the highest number of districts?
  - (a) Northern East
  - (b) Northern West
  - (c) Southern East
  - (d) Southern West
  - (e) None of the above/More than one of the above.

# **Ans.** (b)

#### **Explanation**

- Northern West agroclimatic region of Bihar has the "highest number of districts".
  - It consists of **13 districts**.
  - The districts are West Champaran, East Champaran, Siwan, Saran, Sitarmarhi, Sheohar, Muzaffarpur, Vaishali, Madhubani, Darbhanga, Samastipur, Gopalganj and Begusarai.
- **82.** According to 2011 Census, which district of Bihar has more women than men?
  - (a) Gopalganj
  - (b) Begusarai
  - (c) Patna
  - (d) Siwan
  - (e) None of the above/More than one of the above.

**Ans.** (*a*)

- According to Census 2011:
  - Gopalganj district has a sex ratio of 1021 indicating more women than men.

# **About Gopalganj:**

- Gopalganj, which till 1875 was only a tiny hamlet, was made a subdivision of the old Saran district in the same year.
- o It became an independent district on October 2, 1973. The district headquarters are located in the town of Gopalgani.
- The Gopalgani District is located on the West -North corner of the Bihar State.
- Geographically it is located between 83.54° 85.56° latitude and 26.12° - 26.39°North longitude.
- It is bounded on East by Champaran and river Gandak, on the South by Siwan District and on the North West Deoria District of Uttar Pradesh.
- 83. In which year was the first sitting of the Bihar Legislative Council convened?
  - (a) 1911
  - (b) 1913
  - (c) 1914
  - (d) 1919
  - (e) None of the above/More than one of the above.

#### **Ans.** (*b*)

#### **Explanation**

- The first sitting of the Council was convened on 20th January, 1913 at Bankipore, in Patna.
- **About Bihar Legislative Council:** 
  - The Bihar Legislative Council has had a glorious past. Since its formation, it has covered a journey of several developmental steps till today.
  - It was during the early days of freedom struggle when a few intellectuals started a movement for separation of the State of Bihar from Bengal.
  - o On seeing the gravity of such a demand, the then Govt. of India recommended, through a letter to the Secretary of State, for the creation of a post of Lieutenant Governor for Bihar & Orissa, formation of a Legislative Council and making Patna the Capital of Bihar & Orissa.
  - o 25th August, 1911 is an important date in the parliamentary history of Bihar as on this date such a recommendation was made by the Govt. of India.

- The Council was formed under the Indian Councils Act 1861, Govt. of India Act 1909 (as amended in 1912) and a total of 43 members belonging to different categories were taken into it.
- Another change in the parliamentary system of Bihar took place in 1917 when Bihar and Orissa were jointly called as the Governor's Province and the Council was named as the Bihar & Orissa Legislative Council.
- The third and last step of parliamentary development in Bihar took place in 1936, when Bihar attained its separate statehood.
- Under the Govt. of India Act, 1919, the unicameral legislature got converted into a bicameral shape, that is, the Bihar Legislative Council and the Bihar Legislative Assembly.
- 84. Rashmi Kumari from Bihar is a/an
  - (a) International Cricketer.
  - (b) International Carrom Champion.
  - (c) Football Player
  - (d) Chess Player.
  - (e) None of the above/More than one of the above.

# **Ans.** (b)

# **Explanation**

- Rashmi Kumari is an International Carrom champion from Bihar, India, playing since 1992.
  - She is employed on a scholarship basis at Union Bank of India, UBI in Patna.

# 85. The "Digital India Award 2020" was given to the **Bihar Government for**

- (a) Establishing technical institutes in Bihar.
- (b) Bringing IT revolution in Bihar
- (c) Facilitating e-administration in Bihar
- (d) Providing services to people stranded outside Bihar during COVID-19 lockdown.
- (e) None of the above/More than one of the above.

#### **Ans.** (*d*)

- The "Digital India Award 2020" was given to the Bihar Government for "providing services to people stranded outside Bihar during COVID-19 lockdown".
- Bihar government's efforts and services rendered to the people, who were stranded outside the state and those who had returned in the state during the corona induced lockdown, were acknowledged and awarded with the "Digital India Award 2020" by President of India Ram Nath Kovind.

- **86.** How many seats are reserved for the SC candidates in the Bihar Legislative Assembly?
  - (a) 38
  - (b) 40
  - (c) 44
  - (d) 46
  - (e) None of the above/More than one of the above.

# **Ans.** (a)

# **Explanation**

- The total number of Assembly Constituencies [ACs] in the State of Bihar and the seats reserved for the Scheduled Castes and the Scheduled Tribes as determined by the Delimitation Commission under the Delimitation Act, 2002, are as under:
- State Total No. of ACs Reserved for SC Reserved for ST

State	Total No. of ACs	Reserved for SC	Reserved for ST
Bihar	243	38	02

- **87.** In which year was 50% reservation to women in Panchayat bodies provided in Bihar?
  - (a) 2005
  - (b) 2006
  - (c) 2009
  - (d) 2014
  - (e) None of the above/More than one of the above.

#### **Ans.** (b)

# **Explanation**

- In 2006, the Bihar government led by Chief Minister Nitish Kumar had just introduced 50% reservation for women in the state's rural governance bodies or its Panchayati Raj Institutions to encourage more women to join mainstream politics.
  - Bihar was the **first to reserve** half the seats for women.
- **88.** Who invited Gandhiji to come to Champaran?
  - (a) Rajkumar Shukla
  - (b) Rajendra Prasad
  - (c) Jayaprakash Narayan
  - (d) Krishna Sahay
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

#### **Explanation**

- The **Champaran Satyagraha of 1917** was Mahatma **Gandhi's first Satyagraha.** 
  - It was the first "Civil Disobedience Movement".

- Rajkumar Shukla had invited "Mahatma Gandhi" to look into indigo planter's problem.
  - The European planters had been forcing the peasants to grow indigo on 3/20 of the total land called "Tinkathiya system".
- Several other leaders like Rajendra Prasad, Anugraha Narayan Singh, Mazhar-ul-Haque, Mahadeo Desai, J.B Kriplani also assisted in the passive resistance against British atrocities.
- **89.** In which year was Bihar divided to create "Jharkhand"?
  - (a) 2000
  - (b) 2001
  - (c) 2004
  - (d) 2005
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

#### **Explanation**

- Bihar was divided **in 2000** to create **"Jharkhand"** by Bihar Reorganization Act, 2000.
- About Jharkhand:
  - It was created on 15th November, 2000 as the 28th state of India.
  - 15th November is the birth anniversary of tribal leader "Birsa Munda".
  - Its capital is **Ranchi**.
- **90.** The new ministry proposed in the Bihar Budget for the year 2021-22 focuses on
  - (a) Child Care
  - (b) Women Empowerment.
  - (c) Infrastructure Development.
  - (d) Skill and Entrepreneurship development.
  - (e) None of the above/More than one of the above.

# **Ans.** (*d*)

#### **Explanation**

- The new ministry proposed in the Bihar Budget 2021-22 focuses on "Skill and Entrepreneurship development".
- It will be responsible for co-ordination of all Skill
   Development efforts across the state, removal of
   disconnect between demand and supply of skilled
   manpower, building the vocational and technical
   training framework, skill up-gradation, building of
   new skills and innovative thinking not only for existing
   jobs but also jobs that are to be created.
- **91.** How many departments are covered under the Human Development Sub-Mission in Bihar?
  - (a) 6
  - (b) 7
  - (c) 8
  - (d) 10
  - (e) None of the above/More than one of the above.

**Ans.** (*b*)

- The Government of Bihar has constituted the Bihar Vikas Mission to ensure the implementation of 7 Nishchay in mission mode, fixation of priorities, monitoring of achievements against targets of programmes of Good Governance, implementation of Agriculture Road Map.
- For the implementation of Good Governance program in mission mode 7 Sub-Mission have been formed under Bihar Vikas Mission.
- Human Development **Sub-Mission** is one of 7 Sub-Missions. **Seven departments** are covered under Human Development Sub-Mission.
  - 1. Health Department.
  - 2. Education Department.
  - 3. Social Welfare Department.
  - 4. Scheduled Castes/ Scheduled Tribes Welfare Department.
  - 5. Backward class & Extreme Backward Class Welfare Department.
  - 6. Minority Welfare Department.
  - 7. Disaster Management Department.
- 92. From which district of Bihar was the Garib Kalyan Rojgar Abhiyan launched by the Prime Minister in 2020?
  - (a) Patna
  - (b) Banka
  - (c) Madhepura
  - (d) Khagaria
  - (e) None of the above/More than one of the above.

#### **Ans.** (*d*)

#### **Explanation**

- The Prime Minister of India launched the "Garib Kalyan Rojgar Abhiyan" from Khagaria district of Bihar.
  - The Abhiyaan was flagged off from village **Telihar**, Block Beldaur, district Khagaria, Bihar on June 20, 2020.
  - It was launched for a **period of 125 days**, with resource envelop of Rs. 50,000 crore to boost employment and livelihood opportunities for migrant workers returning to villages and similarly affected citizens in rural area.

# 66th BPSC Prelims Re-Exam, 2021

- 93. Nepal's first Transnational Petroleum Pipeline starts from which place in Bihar?
  - (a) Motihari
  - (b) Raxaul
  - (c) Jogbani
  - (d) Patna
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

#### **Explanation**

- Nepal's first Transnational Petroleum pipeline started from "Motihari" in Bihar.
  - It was jointly inaugurated by Prime Minister Shri Narendra Modi and Prime Minister of Nepal, Right Hon'ble K.P. Sharma Oli today in 2019 through video conference.
  - o It is South Asia's first cross-border petroleum products pipeline from Motihari in India to Amlekhgunj in Nepal.
  - The 69-km Motihari-Amlekhguni pipeline, having a capacity of 2 million metric ton per annum, will provide cleaner petroleum products at affordable cost to the people of Nepal.
- **94.** First Integrated Checkpost in Bihar was set up in
  - (a) 2012
  - (b) 2014
  - (c) 2018
  - (d) 2020
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

# **Explanation**

- The first Integrated Checkpost in Bihar was set up at Raxaul-Birgunj in 2018.
  - o On January 21, 2020, the second Integrated Check Post was inaugurated at Jogbani-Viratnagar.
  - Jogbani is in Araria district of Bihar.

#### **Integrated Checkpost:**

- It is basically **trade facilitation centre** at borders of India.
- It helps to boost bilateral trade and cross border movement of people.

# **Objectives of Integrated Checkpost:**

- To facilitate trade and movement of people across the border.
  - It will ensure better border management for the movement of passenger and cargo.
- 95. India's first Dolphin Observatory is being built in
  - (a) Delhi
  - (b) Mumbai
  - (c) Bihar
  - (d) Odisha.
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

- India's first "Dolphin Observatory" is being built in Bhagalpur district of "Bihar".
  - It was constructed at the "Vikramshila Gangetic Dolphin Sanctuary in Bhagalpur".
  - The observatory is being built on the Sultanganj-Aguwani Ghat bridge over the Ganga.
  - The structural design of the observatory is such that it will promote eco-tourism.
  - It will give people an incentive to visit the place and see dolphins in the sanctuary without disturbing them.
- 96. Bihar's first Ramsar site is located in
  - (a) Begusarai
  - (b) Banka
  - (c) Bhagalpur
  - (d) Bhojpur.
  - (e) None of the above/More than one of the above.

# **Ans.** (a)

#### **Explanation**

- Kanwar lake is the Asia's largest and freshwater oxbow lake in Bihar.
  - It is situated in Manjhaul village of Begusarai district.
  - It is the **first** and **only Ramsar site** of Bihar.
  - It attracts a variety of migratory birds which come from all parts of Central Asia during winter months.
- **97.** Which city of Bihar is surrounded by five hills?
  - (a) Gaya
  - (b) Patna
  - (c) Bhagalpur
  - (d) Bodh Gaya
  - (e) None of the above/More than one of the above.

#### **Ans.** (*e*)

# **Explanation**

- Rajgir city of Bihar is surrounded by five hills.
  - It is located in **Nalanda district** of Bihar.
  - It is surrounded by five hills named Ratnagiri,
     Vipulachal, Vaibhavagiri, Songiri and Udaygiri.
  - It is an important Buddhist, Hindu and Jain pilgrimage site
- **98.** The first President of India, "Rajendra Prasad" belonged to which state?
  - (a) Bihar
  - (b) Haryana
  - (c) Delhi
  - (d) Uttar Pradesh
  - (e) None of the above/More than one of the above.

# **Ans.** (*a*)

#### **Explanation**

- The first President of India, Rajendra Prasad", belonged to the state of Bihar.
  - He was born on **December 3**, **1884** in the village of Ziradei in the Saran district of Bihar. At present, it is part of Siwan district.
  - He served as the President of India from **26th January**, **1950 to 13th May**, **1962**.
  - He was elected as the President of Constituent Assembly on 11th December, 1946.
  - **Sobriquet:** Deshratna, Ajatshatru.
  - He received the India's highest civilian honor, "Bharat Ratna" in 1962.
- **99.** The 16th session of Bihari Student Conference was held at
  - (a) Hazaribagh
  - (b) Patna
  - (c) Ara
  - (d) Chhapra
  - (e) None of the above/More than one of the above

# **Ans.** (*a*)

# **Explanation**

- The 16th session of Bihari Student's conference at Hazaribagh took place in 1921.
  - The first session of Bihari Student's Conference took place in 1906 at Patna College.
  - Dr Rajendra Prasad played an instrumental role in establishing Bihari Student Conference to prepare youths for freedom struggle.
- 100. The oldest culture from Chirand of Bihar is
  - (a) Palaeolithic Culture.
  - (b) Mesolithic Culture.
  - (c) Neolithic Culture
  - (d) Chalcolithic Culture.
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

- The first "Neolithic culture" in the "Ganga valley" was found at Chirand.
  - It is located on the left bank "Ganga" in the Saran district near the confluence of "Ganga and Ghaghra".
  - The neolithic culture is dated between 2500-1500 BC.
  - They manufactured various kinds of beads from semi-precious stones like agate, jasper and carnelian.
  - They used, besides polished stone tools, a variety of antler bone tools, a **speciality of Chirand**.

• Other Neolithic Cultures and associated districts:

Neolithic Culture	Associated Districts
Chechar	Vaishali
Senuwar	Rohtas
Maner	Patna
Taradih	Bodh Gaya

- 101. Baba Thakur Das established which society in Patna?
  - (a) Servants of India Society.
  - (b) Ramkrishna Mission Society.
  - (c) Seva Samiti
  - (d) Social Service League.
  - (e) None of the above/More than one of the above.

#### **Ans.** (b)

#### **Explanation**

- "Baba Thakur Das" established the "Ramkrishna Mission Society" at Patna in 1906-07.
- About Ramkrishna Mission Society:
  - It was founded by Swami Vivekananda in 1897 with twin objectives:
    - To spread the teachings of Vedanta as embodied in the life of the Hindu saint "Ramakrishna".
    - To improve the social conditions of the Indian people.
  - The mission placed its focus on "Education", "Philanthropy", "Religious Studies", and "Spirituality".
- 102. Kunwar Singh entered Jagdishpur on
  - (a) 22nd April, 1858
  - (b) 23rd April, 1858
  - (c) 20th April, 1858
  - (d) 25th April, 1858
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

#### **Explanation**

- Kunwar Singh entered "Jagdishpur" on 22nd April, 1858.
  - He was born in November, 1782 to Raja Shahabzada Singh and Rani Pancharatan Devi in Jagdishpur of the Shahbad district [Presently Bhojpur district of Bihar].
  - He belonged to the **Ujjainiya Rajput clan.**
  - At the age of 80, he actively led the "First War of Independence" in 1857 in Bihar.
  - He died on 26th April, 1858.

- **103**. The Champaran movement was basically against
  - (a) Land revenue
  - (b) Cash crops.
  - (c) Agricultural policies of the British Government.
  - (d) Land Grants.
  - (e) None of the above/More than one of the above.

#### **Ans.** (c)

# **Explanation**

- The **Swadeshi and Boycott movement [1905-08]** had its genesis in the anti-partition movement which was started to oppose the British decision to divided Bengal.
  - The British government announced the partition of Bengal on **20th July, 1905.**
  - On 7th August, 1905, at the town hall of Calcutta, discussions led to start of Swadeshi movement.
  - On 16th October, 1905, the partition of Bengal came into force and was observed as "day of mourning" in whole Bengal.
- **104.** In 1904, the Golden League was established at Deoghar with the objective of boycotting the British and advancing the Swadeshi movement in
  - (a) Bengal
  - (b) Avadh
  - (c) Punjab
  - (d) Bihar
  - (e) None of the above/More than one of the above.

#### **Ans.** (*d*)

# **Explanation**

- The Golden League was established at "Deoghar" in Bihar with the objective of boycotting the British and advancing the Swadeshi movement.
- The Golden League Society was formed in 1904 by a group of teachers who used a gymnasium as the location.
  - Notable members included Barin Ghose, his uncle Manindra Basu, and many others.
  - All of these personalities were highly involved in revolutionary activities to oust the British from India by force.
  - By association with such members, the Golden League Society of Deoghar increasingly came to be identified as the hub for revolutionary activities in Deoghar.
- 105. All India Azad Dasta at Bakri ka Tapu was organized during the Quit India Movement by
  - (a) Ram Manohar Lohia
  - (b) Usha Mehta
  - (c) Chittu Pandey
  - (d) Jayprakash Narayan
  - (e) None of the above/More than one of the above.

**Ans.** (*d*)

- All India Azad Dasta at "Bakri Ka Tapu" was organized during the "Quit India Movement" by Jayprakash Narayan.
- The Azad Dasta was a revolutionary organization which was founded by Jayaprakash Narayan during the Ouit India Movement of 1942.
  - A separate independent council of the organisation was set up in the Madhubani district of Bihar under the leadership of Suraj Narayan Singh.
- The main aim of the organization was to paralyze government machinery and military training, and camps were set up to prepare the men to partake in revolutionary activities.
  - The first training camp with Sardar Nityanand Singh as the chief instructor was set up in Nepal where the headquarters of the Madhubani Azad Dasta was located.
  - 35 men were trained here with the aim that they would establish branches of Azad Dasta in different places and train more men.
- 106. The Bihar Herald was started in 1872 by
  - (a) Munshi Surajmal
  - (b) Rai Roshan Lal
  - (c) Baba Guru Prasad Sen
  - (d) Krishan Bhatt
  - (e) None of the above/More than one of the above.

#### **Ans.** (c)

#### **Explanation**

- The "Bihar Herald" was started in **1872 by "Baba** Guru Prasad Sen".
  - It was the **first "English** newspaper of Bihar".
- Other Newspapers:
  - In 1881, newspaper named "Indian Chronicle" was published from Patna.
  - Two more English dailies, named "The Bihari" and "Bihar Times" were published from Bihar.
    - Both these newspapers advocated for the creation of independent Bihar.
    - In 1903, Bihar Times was published from Patna as a weekly.
    - In 1906, it was combined with the daily, "Bihar News" published from Bhagalpur and given new name as "The Bihari".
    - From 1912 onwards, it was converted into daily.
    - In 1917, it was replaced by "Searchlight" under the guidance of "Sayyid Haider Hussain".

- **107**. Who was the first Governor of Bihar after Independence?
  - (a) Jagannath Mishra
  - (b) Lalit Narayan Mishra
  - (c) Jairamdas Daulatram.
  - (d) Jaiprakash Narayan
  - (e) None of the above/More than one of the above.

# **Ans.** (*c*)

# **Explanation**

- Jairamdas Daulatram was the first "Governor of Bihar" after Independence.
  - The British government announced the partition of Bengal on **20th July, 1905.**
  - On 7th August, 1905, at the town hall of Calcutta, discussions led to start of Swadeshi movement.
  - On 16th October, 1905, the partition of Bengal came into force and was observed as "day of mourning" in whole Bengal.
- **108.** How many districts of Bihar had less than 10 lakhs population in 2011?
  - (a) 2
  - (b) 3
  - (c) 4
  - (d)5
  - (e) None of the above/More than one of the above.

#### **Ans.** (*b*)

#### **Explanation**

- Three districts of Bihar had less than 10 lakhs population as per Census 2011.
- The three districts are:

Districts	Population
Arwal	700843
Sheikhpura	636342
Sheohar	656246

- **109**. Which one of the following cereals has the highest per hectare yield in Bihar?
  - (a) Rice
  - (b) Wheat
  - (c) Maize
  - (d) Barley
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

# **Explanation**

• **Maize** has the highest per hectare yield in Bihar. It is evident from the given below table for different years as per Economic Survey 2022-23.

 It is pre-dominantly grown in Katihar, Khagaria and Purnea districts of Bihar.

Crops	2019-20	2010-21	2021-22	CAGR (%)
Total Cereals	2703	2961	3012	5.6
Total Paddy	2245	2447	2496	5.5
Autumn Paddy	1639	1555	1696	1.7
Aghani Paddy	2351	2599	2620	5.6
Summer Paddy	2133	2307	2682	12.1
Wheat	2595	2985	3078	8.9
Total Maize	5193	5229	5236	0.4
Kharif Maize	2078	1163	1352	- 19.3
Rabi Maize	7565	7472	7180	-2.6
Summer Maize	4806	5762	5512	7.1
Total Course Cereals	5098	5129	5148	0.5
Barley	1369	1903	1779	14.0
Jowar	1067	1067	1067	0.0
Bajra	1134	1134	1140	0.3
Ragi	796	934	978	10.8
Small Millets	755	753	755	0.0
Total Pulses	731	843	891	10.4

- **110**. Leading fish producer districts of Bihar are
  - (a) Madhubani and East Champaran
  - (b) Madhubani and Darbhanga
  - (c) East Champaran and Darbhanga
  - (d) East Champaran and Muzaffarpur.
  - (e) None of the above/More than one of the above.

#### **Ans.** (b)

#### **Explanation**

- The leading fish producer districts of Bihar are Madhubani and Darbhanga.
  - Madhubani, Darbhanga and East Champaran together accounting for 29.8% of the total fish production in the state.
- As per Economic Survey 2022-23, the share of fisheries and aquaculture in the agricultural GSDP of **Bihar was about 8.4% in 2019-20.**

- **111.** The top ranking pulses in terms of acreage in Bihar are
  - (a) Masoor and Gram
  - (b) Moong and Gram
  - (c) Moong and Masoor
  - (d) Masoor and Khesari
  - (e) None of the above/More than one of the above.

# **Ans.** (c)

#### **Explanation**

- The top ranking pulses in terms of acreage in Bihar are "Moong and Masoor".
- As per Economic Survey 2022-23:
  - o In 2021-22, the **leading districts** for pulse production are **Patna [0.58 lakh tonnes]**, followed by Aurangabad [0.30 lakh tonnes] and Nalanda [0.21 lakh tonnes].
  - The highest productivity was recording in **Jehanabad [1306 kgs per hectare]** followed by Vaishali and Bhojpur districts.
- **112.** The leading sugarcane productivity district of Bihar is
  - (a) West Champaran.
  - (b) Sitamarhi
  - (c) Gopalgani
  - (d) East Champaran
  - (e) None of the above/More than one of the above.

# **Ans.** (a)

#### **Explanation**

- The leading sugarcane producing district of Bihar is **West Champaran.**
- As per Economic Survey 2022-23:
  - Among the major sugarcane producing districts, West Champaran tops the list with contribution of over 56.98%.
  - The other major sugarcane producers are East Champaran, Gopalganj and Muzaffarpur.
- **113**. The largest canal irrigated area in Bihar lies in the district of
  - (a) West Champaran
  - (b) Aurangabad
  - (c) Rohtas
  - (d) Bhojpur
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

- The largest canal irrigated area in Bihar lies in the district of Rohtas.
- As per Economic Survey 2022-23:
  - Overall the Gross Irrigated area in Bihar has marginally increased from 53.41 lakh hectares in 2016-17 to 54.96 lakh hectares in 2021-22.

- Among the different sources, tubewells/wells are the major sources irrigating 63.4% of the Gross irrigated area, followed by canal water [30.9%]. Tank irrigation constitutes only 2% of the Gross irrigated area.
- The Gross Irrigated area was the highest in Rohtas [4.15 lakh hectares] and the lowest in Sheohar.
  - Rohtas district had the highest share in area under canal irrigation [3.07 lakh hectares] followed by West Champaran and Aurangabad.
- **114.** Name the districts of Bihar which has the lowest rural female literacy rate in 2001 and 2011 respectively?
  - (a) Kishanganj and Madhepura
  - (b) Supaul and Saharsha.
  - (c) Supaul and Madhepura.
  - (d) Kishanganj and Saharsa.
  - (e) None of the above/More than one of the above.

# **Ans.** (*d*)

# **Explanation**

- Kishanganj and Saharsa districts of Bihar had the lowest rural female literacy rate in 2001 and 2011 respectively.
- Important 2011 Census Data:

Demographic Term	India	Bihar
Decadal Growth rate [2001-2011]	17.7%	25.42%
Urbanization	31.2%	11.3%
Population Density	382	1106
Sex ratio	943	918
Literacy rate	74.04%	61.8%
Male Literacy rate	82.14%	71.2%
Female Literacy rate	65.46%	51.5%

- **115**. What is the share of Bihar in the divisible pool of Central taxes on the recommendation of the 15th Finance Commission?
  - (a) 10.06%
  - (b) 11.02%
  - (c) 13.02%
  - (d) 15.03%
  - (e) None of the above/More than one of the above.

# **Ans.** (a)

#### **Explanation**

 The share of Bihar in the divisible pool of Central taxes on the recommendation of the 15th Finance Commission is 10.06%.

State	14th FC 2015-20	15th FC 2020-21	15th FC 2021-26
Andhra Pradesh	4.305	4.111	4.047
Arunachal Pradesh	1.370	1.760	1.757
Assam	3.311	3.131	3.128
Bihar	9.665	10.061	10.058

- **116.** What was the growth rate of Bihar economy at constant prices in the year 2018-19?
  - (a) 13.53%
  - (b) 11.53%
  - (c) 12.53%
  - (d) 10.53%
  - (e) None of the above/More than one of the above.

# **Ans.** (*d*)

# **Explanation**

- According to the new series of data on Gross State
  Domestic Product (GSDP), the growth rate of Bihar's
  economy in 2018-19 was 10.53 percent (at constant
  prices) and 15.01 percent (at current prices), which is
  higher than the growth rate for the Indian economy.
- The **GSDP** of **Bihar** at current prices was **Rs 5,57,490** crore at current prices and **Rs** 3,94,350 crore at constant (2011-12) prices in 2018-19.
- As per Economic Survey 2022-23:
  - The Bihar economy posted a strong recovery in 2021-22.
  - According to quick estimates, Gross State Domestic Product [GSDP] at constant prices recorded a robust growth of 10.98% compared to (-) 3.2% in 2020-21.
- The national growth rates was 8.68% in 2021-22.
- **117**. What was the power capacity availability in the Bihar State in the year 2019?
  - (a) 4767 MW
  - (b) 4867 MW
  - (c) 5767 MW
  - (d) 5867 MW
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

- The power capacity availability in the Bihar state in the year **2019 was 4767 MW**.
  - Out of this, 82 percent is from coal-based thermal power, 11 percent from hydropower, and the balance 7 percent from renewable energy sources.

- In terms of ownership, the central sector has the largest share of 86 percent, followed by the private sector/IPPs (13 percent) and state sector (1 percent).
- **118**. For what food grain production, Bihar got the Krishi Karman Award, 2017-18?
  - 1. Maize
  - 2. Rice
  - 3. Wheat
  - 4. Pulses.
  - 5. None of the above/More than one of the above.

#### **Ans.** (*c*)

#### **Explanation**

- Bihar got the **Krishi Karman Award 2017-18** for the production of "**Wheat**".
- For 2016-17, it was given for production of "Maize".
- About Krishi Karman Award:
  - Krishi Karman awards were instituted in the year 2010-11 to reward the best performing States in foodgrains and individual crops of Rice, Wheat, Pulses and Coarse Cereals.
  - Krishi Karman awards are given to Best performer
     States for raising country's food grain production.
  - Krishi Karman Awards comprises of three awards for total food grain production and four awards for production of rice, wheat, coarse cereals and pulses - the crops that constitute the food grain.

# 66th BPSC Prelims Exam, 2022

- **119**. Ram Vilas Paswan started his political career from which political party?
  - (a) Janta Party
  - (b) Bharatiya Lok Dal
  - (c) Samyukta Socialist Party
  - (d) Praja Socialist Party
  - (e) None of the above/More than one of the above.

#### **Ans.** (c)

#### **Explanation**

- Ram Vilas Paswan was an Indian politician from Bihar.
  - He was also the president of the Lok Janshakti Party, nine-times Lok Sabha member and twotime Rajya Sabha MP.
  - He started his political career as member of Samyukta Socialist Party and was elected to the Bihar Legislative Assembly in 1969.
  - Later, Paswan joined Lok Dal upon its formation in 1974, and became its general secretary.
  - He opposed the emergency, and was arrested during this period.

- He first entered the Lok Sabha in 1977, as a Janata Party member from Hajipur constituency, and was elected again in 1980, 1989, 1991 (from Rosera), 1996, 1998, 1999, 2004 and 2014.
- On 16th October, 1905, the partition of Bengal came into force and was observed as "day of mourning" in whole Bengal.
- **120.** When did the Election Commission of India issue a press note for the General Election to the Legislative Assembly of Bihar, 2020?
  - (a) 23rd September, 2020
  - (b) 24th September, 2020
  - (c) 25th September, 2020
  - (d) 26th September, 2020
  - (e) None of the above/More than one of the above.

# **Ans.** (*c*)

#### **Explanation**

- The Election Commission of India issued a press note for the General Election to the Legislative Assembly of Bihar on 25th September, 2020.
- About Election Commission of India:
  - The Election Commission of India is an autonomous constitutional authority responsible for administering Union and State election processes in India.
  - The body administers elections to the Lok Sabha, Rajya Sabha, State Legislative Assemblies in India, and the offices of the President and Vice President in the country.
- **121.** In which state, "Ghar Tak Fibre Scheme" has been launched on 21st September, 2020 through a video conference?
  - (a) Uttar Pradesh
  - (b) Madhya Pradesh
  - (c) Bihar
  - (d) Karnataka
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

- The Prime Minister of India launched the "Ghar Tak Fibre Scheme" in Bihar on 21st September, 2020 through a video conference.
  - 'Ghar Tak Fibre' scheme will connect all 45,945 villages of Bihar through optical fibre internet service.
  - The fibre internet services programme is a "prestigious project" which will enable a "digital revolution" to reach the state's remotest corner

- 122. Who spearheaded the 1857 revolt in Bihar?
  - (a) Nana Saheb
  - (b) Tatya Tope
  - (c) Kunwar Singh
  - (d) Maulavi Ahmadullah.
  - (e) None of the above/More than one of the above.

# **Ans.** (c)

#### **Explanation**

- Kunwar Singh spearheaded the "1857 revolt" in Bihar.
- Additional Facts on Kunwar Singh:
  - Kunwar Singh was born in November, 1782 to Raja Shahabzada Singh and Rani Pancharatan Devi in Jagdishpur of the Shahbad district [Presently Bhojpur district of Bihar].
  - He belonged to the Ujjainiya Rajput clan.
  - At the age of 80, he actively led the "First War of Independence" in 1857 in Bihar.
  - He died on 26th April, 1858.
- **123**. Who drew Gandhiji's attention to the plight of Indigo peasants in Champaran?
  - (a) Rajendra Prasad
  - (b) Anugraha Narayan Sinha
  - (c) Acharya Kripalani
  - (d) Raj Kumar Shukla
  - (e) None of the above/More than one of the above.

#### Ans. (d)

#### **Explanation**

- Raj Kumar Shukla drew Gandhiji's attention to the plight of "Indigo Peasants" in Champaran.
- The Champaran Satyagraha of 1917 was Mahatma Gandhi's first Satyagraha.
  - It was the first "Civil Disobedience Movement".
    - The European planters had been forcing the peasants to grow indigo on 3/20 of the total land called "Tinkathiya system".
  - Several other leaders like Rajendra Prasad, Anugraha Narayan Singh, Mazhar-ul-Haque, Mahadeo Desai, J.B Kriplani also assisted in the passive resistance against British atrocities.
  - The satyagraha forced "British government" to appoint a committee to make enquiry into the matter of indigo planter's issue.
    - Gandhiji as a member of the committee convinced the authority about the atrocities perpetuated under the Tinkathiya system,

- so should be abolished and the compensation should be given to planters.
- As a compromise with the planters, Gandhiji agreed that only 25% of the money taken should be compensated.
- **124.** Which was the first capital of ancient Mahajanapada "Magadh"?
  - (a) Pataliputra
  - (b) Vaishali
  - (c) Champa
  - (d) Anga
  - (e) None of the above/More than one of the above.

# **Ans.** (e)

# **Explanation**

Magadha	Giriviraj/ Rajagriha - [Bimbisara]	Present location
<ul> <li>It is also mentioned in Atharvaveda.</li> <li>Earlier, it was separated from Anga by the Champa river.</li> </ul>	<ul><li>Patliputra [Udayin]</li><li>Vaishali- Shishunaga</li><li>Patliputra- Kalashoka</li></ul>	Patna, Gaya and Nalanda districts of Bihar

- **125.** Swami Sahajananda was related to which of the following?
  - (a) Tribal Movement in Bihar.
  - (b) Labour Movement in Bihar
  - (c) Peasant Movement in Bihar
  - (d) Caste Movement in Bihar.
  - (e) None of the above/More than one of the above.

#### **Ans.** (c)

- Swami Sahajananda was related to "Peasant movement" in Bihar.
- About Swami Sahajanand Saraswati:
  - He was born in Ghazipur district of Uttar Pradesh on 22nd February, 1889.
  - In 1929, he formed the "Bihar Provincial Kisan Sabha" to mobilise peasant grievances against the Zamindari attacks on their occupancy rights.
  - In 1936, All India Kisan Sabha was formed at Lucknow.
  - Swami Sahajanand Saraswati was the President and N.G Ranga as secretary of the All India Kisan Sabha.
  - The name of the journal published by **Swami Sahajanand Saraswati** was "**Hunkar**".

- **126.** Which company established its factory in 1632 at Patna, Bihar?
  - (a) British East India Company
  - (b) Dutch East India Company
  - (c) Portuguese East India Company.
  - (d) French East India Company
  - (e) None of the above/More than one of the above.

#### **Ans.** (b)

# **Explanation**

- Dutch East Indian company established its factory at Patna in "1632".
- European Companies in Bihar:
  - Bihar was an **important centre** since 17th century for the trade of salt peter. It was also famous for cotton textile, indigo etc.
  - "Portuguese" were the first "European Company" to enter Bihar.
    - They established their factory at "Hooghly" in Bengal, but frequently visited Patna for trade through water channels and roads,
  - The English East Company established a factory at Alamganj in Patna in 1620 for the trade of saltpeter.
    - However, the factory was closed in 1621 itself.
       It was only in 1651 that the company revived its trade in the region.
    - At present, the Brtish Company factory at Gulzar Bagh has been turned into government printing press.
- 127. When was Bihar established?
  - (a) 1911
  - (b) 1912
  - (c) 1913
  - (d) 1914
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

#### **Explanation**

- Bihar was a part of the Bengal Presidency under the British till 1912.
  - Bihar and Orrisa province was separated from Bengal Presidency in 1912.
  - So, Bihar was established in 1912.
- Bihar Day marks the formation of Bihar state from the Bengal presidency.
  - It was formed on **March 22, 1912**, when the British government partitioned the Bengal Province.
  - The theme of "Bihar Diwas 2023" is "Yuva Shakti-Bihar ki Pragati" [Progress of Bihar with Youth Power".

- **128**. In Tinkathia system in Bihar, how much land was to be reserved for indigo cultivation?
  - (a) 01/20
  - (b) 01/03
  - (c) 03/20
  - (d) 03/25
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

#### **Explanation**

- The **Champaran Satyagraha of 1917** was Mahatma Gandhi's first Satyagraha.
  - It was the first "Civil Disobedience Movement".
  - Rajkumar Shukla had invited "Mahatma Gandhi" to look into indigo planter's problem.
    - The European planters had been forcing the peasants to grow indigo on 3/20 of the total land called "Tinkathiya system".
  - Several other leaders like Rajendra Prasad, Anugraha Narayan Singh, Mazhar-ul-Haque, Mahadeo Desai, J.B Kriplani also assisted in the passive resistance against British atrocities.
- 129. Who was the first Chief Minister of Bihar?
  - (a) Shri Krishna Singh
  - (b) Satya Pal Malik
  - (c) Nitish Kumar
  - (d) Rabri Devi
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

#### **Explanation**

- Shri Krishna Singh was the first Chief Minister of Bihar.
- Additional Facts:
  - o Popularly known as "Shri Babu" and "Bihar Kesari".
  - "Freedom and Beyond" is the "Letters of Exchange" between J.L Nehru and Shri Krishna Singh.
  - During Individual Satyagraha of 1940 in Bihar, he was declared as 1st Satyagrahi while Anugraha Narayan Sinha was declared as second.
  - He was member of "Constituent Assembly" which formed the "Constitution".
- **130**. Where was the first Congress session in Bihar held?
  - (a) Patna
  - (b) Gaya
  - (c) Muzaffarpur
  - (d) Darbhanga
  - (e) None of the above/More than one of the above.

**Ans.** (*a*)

- The first Congress session in Bihar was held at Bankipur in Patna, Bihar.
- Annual Indian National Congress sessions in Bihar:

Session	Year	Place	President of the session
27th session	1912	Bankipur,	R.N. Mudholkar
37th Session	1922	Gaya	C.R. Das
53rd Session	1940	Ramgarh	Maulana Abul Kalam Azad

- 131. Which title was given to Jayaprakash Narayan?
  - (a) Praja Hitechhu
  - (b) Lok Nayak
  - (c) Lokmanya
  - (d) Rashtra Navak.
  - (e) None of the above/More than one of the above.

# **Ans.** (b)

# **Explanation**

- Jai Prakash Narayan is popularly called as "Loknayak [People's leader]" or J.P.
- Additional facts on Jai Prakash Narayan:
  - In 1934, Bihar Congress Social Party was formed. He was the **general secretary of this party.**
  - During Quit India Movement, he formed "Azad Dasta".
  - After Independence, he is known for "total revolution" against the Prime Minister, Indira Gandhi.
  - Awards: In 1965, he was awarded "Magsaysay Award" and in 1999, posthumously awarded "Bharat Ratna".
  - His biography "JayaPrakash" was written by his friend "Rambriksh Benipuri".
  - In 1929, he formed the "Bihar Provincial Kisan Sabha" to mobilise peasant grievances against the Zamindari attacks on their occupancy rights.
- **132.** Which of the following was Gandhiji's first Satyagraha Movement in Indian in which he used Civil Disobedience?
  - (a) Champaran
  - (b) Kheda
  - (c) Ahmedabad
  - (d) Rowlatt Satyagraha
  - (e) None of the above/More than one of the above.

#### **Ans.** (a)

#### **Explanation:**

• The **Champaran Satyagraha of 1917** was Mahatma Gandhi's first Satyagraha.

- It was the first "Civil Disobedience Movement".
- Rajkumar Shukla had invited "Mahatma Gandhi" to look into indigo planter's problem.
  - The European planters had been forcing the peasants to grow indigo on 3/20 of the total land called "Tinkathiya system".
- Several other leaders like Rajendra Prasad, Anugraha Narayan Singh, Mazhar-ul-Haque, Mahadeo Desai, J.B Kriplani also assisted in the passive resistance against British atrocities.
- The satyagraha forced "British government" to appoint a committee to make enquiry into the matter of indigo planter's issue.
  - Gandhiji as a member of the committee convinced the authority about the atrocities perpetuated under the Tinkathiya system, so should be abolished and the compensation should be given to planters.
  - As a compromise with the planters, Gandhiji agreed that only 25% of the money taken should be compensated.
- **133.** Among the following pairs of mineral and district, which one is correctly matched?

(a) Limestone: Kaimur

(b) Mica: Gaya

(c) Quartzite: Madhubani

(d) Lead Zinc: Gaya

(e) None of the above/More than one of the above.

#### **Ans.** (*a*)

# **Explanation**

Minerals	Districts where it is found
Limestone	Kaimur, Munger and Rohtas.
Mica	Nawada, Jamui and Gaya
Quartzite	Lakhisarai, Munger and Nalanda,
Lead Zinc	Banka and Rohtas
Monazite	Gaya and Munger
Uranium	Gaya
China Clay	Bhagalpur and Munger

- **134.** Which one of the following pairs of Industry and place is not correctly matched?
  - (a) Oil-Refinery: Barauni
  - (b) Cement: Banjari
  - (c) Fertilizer: Bhaurahi
  - (d) Bharat Wagon and Engineering Plant: Bhagalpur.
  - (e) None of the above/More than one of the above.

**Ans.** (*d*)

- Bharat Wagon and Engineering Corporation
   Limited is located at "Mokama"
- It deals with manufacturing of rail wagon and other engineering products.
- Major Industries and their locations in Bihar:

Industry	Location	
Barauni Refinery	It is located in Barauni in Begusarai district. It was established in 1964 with the help of erstwhile USSR.	
Bihar State Scooters Limited	Fatuha, Patna	
Leather Industry	Mokama, Begusarai, Gaya and Muzaffarpur	
Gun Factory, Cigarette Factory	Munger	
Rail Engine Repair	Jamalpur	
Paper Industry	Samastipur, Darbhanga.	
Plywood Industry	Hajipur	
Jute Industry	Katihar	
Match Stick Industry	Katihar	
Utensils	Siwan, Bihar	
Lac industry	Gaya, Purnea	

- **135.** Piedmont Swamp Soil is found only in which one of the following districts of Bihar?
  - (a) Madhubani
  - (b) Bhagalpur
  - (c) West Champaran
  - (d) Sitamarhi
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

#### **Explanation:**

- **Piedmont Swamp Soil** is found only in "**West Champaran district**" of Bihar.
  - It is formed in north-western parts of West Champaran.
  - It is a region of Bhabar plains, Rocks and pebbles are predominant in the soil.
  - Due to the predominance of forests, the soil is brownish and acidic in nature.
  - It is suitable for rice cultivation.

#### Important Soils of Bihar:

Types of Soil	District	Crop	Physical and Chemical properties.
Balthar	Kaimur	Jowar, Bajra, Arhar	Sandy, Calcareous, Yellow
Tal	Patna, Munger	Pulses, Wheat, Oilseeds	Heavy Soil
Terai	Champaran, Kishanganj	Sugarcane, Rice and Jute	Sandy and Calcerous, Brown and Light yellow
Bhangar	Patna, Gaya, Rohtas	Jute, Arhar and Sugarcane	Acidic, rich in lime
Khadar	Muzaffarpur, Purnea, Saharsa, Darbhanga and Bhagalpur	Wheat, Gram, Rice and Maize	Dark brown, fertile
Bal Sundari	Saharsa, East and West Champaran.	Maize, Sugarcane, Tobacco, Wheat	Lime, Alkaline.

**136.** In which one of the following pairs of administrative divisions of Bihar, Ganga river does not flow?

(a) Darbhanga: Munger(b) Purnea: Bhagalpur(c) Tirhut: Saran(d) Kosi: Magadh

(e) None of the above/More than one of the above.

# **Ans.** (*d*)

#### **Explanation**

- The river Ganga does not flow through the **Kosi** [Saharsa, Madhepura, Supaul districts] and **Magadh** [Aurangabad, Gaya, Nawada, Arwal and Jehanabad districts] division.
  - The number of districts situated **on the bank of Ganga river in Bihar is 12**.
    - The districts are Buxar, Bhojpur, Saran, Patna, Vaishali, Samastipur, Begusarai, Munger, Khagaria, Katihar, Bhagalpur and Lakhisarai.
- **137**. Among the following pairs of tribe and district, which one is not correctly matched?

(a) Santhal: Banka

(b) Munda: Jamui

(c) Oraon: Supaul

(d) Kharwar: Bhagalpur

(e) None of the above/More than one of the above.

**Ans.** (b)



- Munda tribe is not found in Jamui, it is found in Katihar district of Bihar.
- **Percentage** of Scheduled Tribes [STs] population in Bihar as per Census 2011: 1.28%.
- Sex ratio of STs in Bihar [Census 2011]: 958
- Districts with the highest ST population: West Champaran>Katihar>Purnea.
- **Sheohar** has the least tribal population.
- **Santhal** is the most populous tribe in Bihar.

Tribes	Districts	
Oraon	Purnea, Katihar, Supaul, Rohtas, Darbhanga, Kaimur, West Champaran, Buxar and Bhagalpur.	
Kharwar	Bhagalpur, Purnea, Rohtas, Kaimur	
Gond	Siwan, Bhojpur, Kaimur, Saran, West Champaran and Rohtas.	
Munda	Katihar	
Chero	Rohtas, Bhojpur, Gaya	
Tharu	West Champaran.	

- **138**. Which one of the following districts is having the only National Park of Bihar?
  - (a) Nalanda
  - (b) Bhagalpur
  - (c) West Champaran
  - (d) East Champaran
  - (e) None of the above/More than one of the above.

# **Ans.** (c)

#### **Explanation**

- The only National Park of Bihar, "Valmiki National Park" is located in West Champaran district.
- List of National Park and Wildlife Sanctuaries in Bihar:

Name	District	
Valmiki National Park	West Champaran	

	,
Valmiki Vanya Prani Sanctuary	West Champaran
Udaypur Vanya Prani Sanctuary	West Champaran
Pant Vanya Prani Sanctuary	Nalanda
Kaimur Sanctuary	Rohtas
Gautam Buddha Bird Sanctuary	Gaya
Nagi-Nakti Dam Bird Sanctuary	Jamui
Vikramshila Gangetic Dolphin Sanctuary	Bhagalpur
Kanwar Jheel Bird Sanctuary	Begusarai
Baraila Jheel Salim Ali Jubba Sahni Bird Sanctuary	Vaishali
Kusheshwar Sthan Bird Sanctuary	Darbhanga

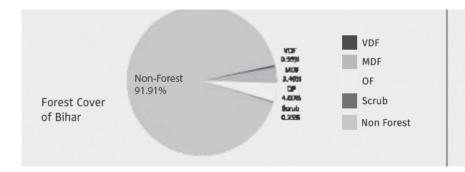
- **139**. What is the percentage of all types of forest area to the total geographical area of Bihar state?
  - (a) 7.27%
  - (b) 6.87%
  - (c) 3.21%
  - (d) 12.77%
  - (e) None of the above/More than one of the above.

# **Ans.** (e)

## **Explanation**

- As per Indian State of Forest Report, 2019:
  - Based on the interpretation of IRS Resourcesat-2 LISS III satellite data of the period Oct 2017 to Dec 2018, the Forest Cover in the State is 7,305.99 sq km which is 7.76 % of the State's geographical area.
  - In terms of forest canopy density classes, the State has 333.13 sq km under Very Dense Forest (VDF), 3,280.32 sq km under Moderately Dense Forest (MDF) and 3,692.54 sq km under Open Forest (OF).
  - Forest Cover in the State has increased by 6.99 sq km as compared to the previous assessment reported in ISFR 2017.

# As per latest Indian State of Forest Report, 2021



Forest Cover of Bihar		(in sq km	
Class	Area	% of GA	
VDF	333.42	0.35	
MDF	3,285.83	3.49	
OF	3,761.54	4.00	
Total	7,380.79	7.84	
Scrub	235.89	0.25	

- **140.** Bihar Government had introduced the Comprehensive Financial Management System on 1st April, 2019. This system
  - (a) Will make all financial activities in the state online and paperless.
  - (b) Will solve the problem of NPA of banks.
  - (c) Will ensure effective implementation of state projects
  - (*d*) Will manage state government finances including local bodies.
  - (e) None of the above/More than one of the above.

### **Ans.** (*e*)

### **Explanation**

- The Bihar Government had introduced the "Comprehensive Financial Management System on 1st April, 2019 with following objectives:
  - Making financial activities of the state online and paperless.
  - Ensuring effective implementation of state projects through financial mechanism.
  - Management of State government finances.
- So, "Option E", that is "more than one of the above" is the correct solution.
- **141**. The Government of India conferred the Krishi Karman award to Bihar state on 2nd January, 2020. This award was given for
  - (a) Production and Productivity of wheat and maize.
  - (b) Food Grain production
  - (c) Production of rice
  - (d) Production of oilseeds.
  - (e) None of the above/More than one of the above.

### **Ans.** (*a*)

#### **Explanation**

- Bihar received the Krishi Karman award on 2nd January, 2020 for "production and productivity of wheat and maize".
- About Krishi Karman Award:
  - Krishi Karman awards were instituted in the year 2010-11 to reward the best performing States in foodgrains and individual crops of Rice, Wheat, Pulses and Coarse Cereals.
  - Krishi Karman awards are given to Best performer
     States for raising country's food grain production.
  - Krishi Karman Awards comprises of three awards for total food grain production and four awards for production of rice, wheat, coarse cereals and pulses - the crops that constitute the food grain.

- **142.** Bihar Government launched a new scheme, "Satat Jivikoparjan Yojana" in August, 2018. The objective of this scheme is
  - (a) To provide unemployment allowance to youth.
  - (b) To provide employment in rural areas through local hodies.
  - (c) To provide sustainable income generating assets to extremely poor households.
  - (d) To provide free training for skill upgradation of youth
  - (e) None of the above/More than one of the above.

### **Ans.** (e)

#### **Explanation**

- The "Satat Jivikoparjan Yojana" was launched by Bihar government on 5th August, 2018 with following objectives:
  - To empower ultra-poor households with 24 months of livelihoods and mentoring support through dedicated community cadres and Master Resource persons.
  - To support people traditionally engaged in production, transportation and selling of toddy, ultra-poor from SC/ST communities.
  - Ultimately, it focuses on increasing employment in rural areas.
- The Bihar Rural Livelihood Promotion Society [JEEVika], the State Rural Livelihood Mission has been designated as the nodal agency to implement the scheme.
- So, "Option E", that is more than one of the above is the correct statement.
- **143**. Which of the following is not included in Seven Resolves (Saat Nischay) of Bihar Government?
  - (a) Women Empowerment.
  - (b) Clean Drinking Water
  - (c) Supply of electricity to all households.
  - (d) Child Welfare
  - (e) None of the above/More than one of the above.

#### **Ans.** (*d*)

- Child Welfare is not included in Seven Resolves [Saat Nischay] of Bihar Government. The seven resolves are given as below:
  - 1. Arthik Hal, Yuvaon Ka Bal
  - 2. Arakshit Rozgar Mahila ka Adhikar [Women Empowerment]
  - 3. Har Ghar Bijli lagatar [Supply of electricity to all households].
  - 4. Har Ghar Nal Ka Jal [Clean Drinking Water]
  - 5. Ghar tak Pakki Gali-Naliyan
  - 6. Shauchalay Nirman Ghar ka Samman
  - 7. Awsar Badhe, Aage Padhe



- **144.** The per capita Net State Domestic Product at constant price for Bihar is less than the country. In the year 2018-19, it was
  - (a) 75 per cent of the national average.
  - (b) 60 percent of the national average.
  - (c) 50 percent of the national average
  - (d) 33 percent of the national average.
  - (e) None of the above/More than one of the above.

#### **Ans.** (*d*)

#### **Explanation**

- The per capita income for Bihar has increased from Rs. 21,750 in 2011-12 to Rs 30,617 in 2018-19.
  - However, Bihar has the lowest per capita income among the states in India and it was at only 33.1 percent of the national average (Rs. 92,565) in 2018-19.
- As per Economic Survey 2022-23:
  - In 2021-22, the per capita NSDP in the state was Rs 30,779 after increasing 9.4% from Rs 28,127 in 2020-21. It is 33.7% of country's per capita NSDP.

# 65th BPSC Prelims Exam, 2019

- 145. Who led the 1857 revolt in Bihar?
  - (a) Babu Amar Singh
  - (b) Hare Krishna Singh
  - (c) Kunwar Singh
  - (d) Raja Shahzada Singh
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

#### **Explanation**

- Babu Kunwar Singh was the leader of revolutionaries in Bihar during the revolt of 1857.
- Kunwar Singh was born in November, 1782 to Raja Shahabzada Singh and Rani Pancharatan Devi in Jagdishpur of the Shahbad district [Presently Bhojpur district of Bihar].
  - He belonged to the Ujjainiya Rajput clan.
  - At the age of 80, he actively led the "First War of Independence" in 1857 in Bihar.
  - He died on 26th April, 1858.
- **146.** Who led the cultivators of Bihar during the Non-Cooperation Movement?
  - (a) Swami Vidyanand
  - (b) Raj Kumar Shukla
  - (c) Shri Krishna Singh
  - (d) J.B Sen
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

#### **Explanation**

- Swami Vidyanand led cultivators in Bihar during the Non-Cooperation Movement.
  - In 1919 and 1920, the peasant activist "Swami Vidyanand" led a protest movement which attracted extensive support among the people of region that lies north of the Ganges in Bihar.
  - The protest focused on the Darbhanga Raj, Bihar's largest zamindari and one of the largest landed estates in British India.
- 147. Who is considered as the Creator of Modern Bihar?
  - (a) Sachchidananda Sinha
  - (b) Kumar Kalika Prasad Sinha
  - (c) Sir Ganesh Singh
  - (d) Acharya Narendra Dev
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

# **Explanation**

- Sachchidananda Sinha is considered as the "Creator of Modern Bihar".
- About Sachchidananda Sinha:
  - He was an Indian lawyer, parliamentarian and journalist.
  - He was elected as the first president [9th December, 1946] of the Indian Constitution Assembly as per Cabinet Mission plan.
  - He began a movement for a separate province of Bihar with a small group of others. His efforts led to creation of Bihar and Orrisa province in 1912.
  - He served as the "Vice-Chancellor" of Patna University and held the post from 1936 to 1944.
  - He built the "Sinha Library" in 1924 in memory of his wife "Radhika".
  - He was the publisher of the Indian Nation and editor of Hindustan review.
- **148**. Who formed Bihar Provincial Kisan Sabha?
  - (a) Swami Sahajanand Saraswati
  - (b) Ram Sundar Singh
  - (c) Ganga Saran Sinha
  - (d) Ramanand Mishra
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

Organization	Year	Associated Facts
Kisan Sabha at Munger	1922-23	It was organized by Mohammad Zubair and Shri Krishna Singh.
Bihar Provincial Kisan Sabha	1929	It was formed by Swami Sahajanand Saraswati.

Bihar Kisan Sabha	1933	It aimed to readdress the existing grievances of peasants.
All India Kisan Sabha	1936	It was formed at Lucknow. Swami Sahajananda was its President and N.G Ranga was secretary.

- **149**. Dutch East India Company established its factory at Patna in which year?
  - (a) 1601
  - (b) 1632
  - (c) 1774
  - (d) 1651
  - (e) None of the above/More than one of the above.

### **Explanation**

- Dutch East Indian company established its factory at Patna in "1632".
- European Companies in Bihar:
  - Bihar was an important centre since 17th century for the trade of salt peter. It was also famous for cotton textile, indigo etc.
  - "Portuguese" were the first "European Company" to enter Bihar.
    - They established their factory at "Hooghly" in Bengal, but frequently visited Patna for trade through water channels and roads,
  - The English East Company established a factory at Alamganj in Patna in 1620 for the trade of saltpeter.
    - However, the factory was closed in 1621 itself.
       It was only in 1651 that the company revived its trade in the region.
    - At present, the Brtish Company factory at Gulzar Bagh has been turned into government printing press.
- In 1774-75, the Danes started a factory in Patna at Nepali Kothi.
- **150**. Who established Swaraj Dal in Bihar?
  - (a) Shri Krishna Singh
  - (b) Ramlal Shah
  - (c) Bankim Chandra Mitra
  - (d) Sachindra Nath Sanyal
  - (e) None of the above/More than one of the above.

#### **Ans.** (a)

#### **Explanation**

- Shri Krishna Singh established a branch of "Swaraj Dal" in Bihar.
  - In Bihar, it was formed in February, 1923.

- Shri Narayan Prasad was its first president and Abdul Bari was its secretary.
- The party participated in the assembly elections held in November, 1923 and won 8 seats in the assembly and 10 seats in the council.

#### • About Swaraj Party:

- The Swaraj Party was established by C.R Das and Motilal Nehru in 1923.
- Both of them believed in the ideology that "Congress should be a part of Government and should enter the legislative assemblies and struggle should be continued within the government.
  - This ideology was rejected by majority of congressmen, which ultimately led to formation of Swaraj party in 1923.
  - The mandate of the party was to become a part of councils and hinder their work through agitation.
- C.R Das became the president of the party and Motilal Nehru became its general secretary.
- **151**. Who led the Salt Satyagraha in Bhagalpur?
  - (a) Shri Krishna Singh
  - (b) Mahadev Lal Sarraf
  - (c) Kumar Mishra
  - (d) Satyanarayan
  - (e) None of the above/More than one of the above.

#### **Ans.** (*b*)

- Mahadev Lal Sarraf led the "Salt Satyagraha" in Bhagalpur. He was deeply influenced by the thoughts and ideals of Mahatma Gandhi.
- Salt Satyagraha in Bihar:
  - The salt satyagraha in Bihar was started on **April 15. 1930** in **Saran** and **Champaran districts**.
  - In Patna, the salt satyagraha was inaugurated on 16<sup>th</sup> April, 1930, when the volunteers proceeded to Nakhas Pind, near Mangle Tank in Patna city, which had been selected as the spot for the violation of salt laws by manufacturing salt.
  - In 1930, as a response to the national call for civil disobedience, the people of Bihpur [Bhagalpur] began a Satyagraha which included the manufacture of salt and picketing of liquor and drug shops
  - In the Munger district, Shri Krishna Singh the then secretary of the Provincial Congress committee and Nand Kumar Sinha led the congress activities.
  - The **inmates of the Chapra jail** refused to use **foreign clothes** and went for naked hartal till swadeshi clothes were provided.



- The Congress was declared illegal organization on June 30, 1930.
- 152. Who led the "Ambari Satyagraha" in 1939 in Bihar?
  - (a) Rahul Sankrityayan.
  - (b) Yadunandan Sharma
  - (c) Swami Sahajanand
  - (d) Swami Yoganand
  - (e) None of the above/More than one of the above.

## **Ans.** (a)

### **Explanation**

- Rahul Sankrityayan led the "Ambari Satyagraha" in 1939 in Bihar.
  - He was implicated in a false case and sentenced to six months prison during this satyagraha.
- About Rahul Sankrityayan:
  - His original name was "Kedar Nath Pandey". He was both a polymath as well as a polyglot.
  - He is known as the "Father of Hindi Travel Literature".
  - Later on, he became a Buddhist monk [Buddha Bhikkhu] and eventually took up "Marxist Socialism".
  - The Government of India awarded him the "Civilian honour of the Padma Bhushan" in 1963.
- **153.** Who was the Editor of Searchlight newspaper in Bihar?
  - (a) Abdul Bari
  - (b) Lambodar Mukherjee
  - (c) Murli Mohan Prasad
  - (d) Ramananda Chatterjee
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

#### **Explanation**

- Murli Mohan Prasad was the "editor" of "Searchlight" newspaper in Bihar.
  - He was a well known journalist from Bihar.
  - The publication of "Searchlight" began in 1918 as bi-weekly newspaper.
  - From 1930 onwards, it became a daily newspaper.
  - The first editor of "Searchlight" was Syed Haider Hussain and the second was Maheshwar Prasad.
- The Swadeshi and Boycott movement [1905-08]
  had its genesis in the anti-partition movement which
  was started to oppose the British decision to divided
  Bengal.
  - The British government announced the partition of Bengal on **20th July, 1905.**
  - On 7th August, 1905, at the town hall of Calcutta, discussions led to start of Swadeshi movement.

- On 16th October, 1905, the partition of Bengal came into force and was observed as "day of mourning" in whole Bengal.
- **154**. Who formed the Bihar Socialist Party in 1934?
  - (a) Phulan Prasad Varma
  - (b) Swami Yoganand
  - (c) Narhari Parikh
  - (d) Dadabhai Naoroji
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

### **Explanation**

- Ganga Sharan Sinha, Phulan Prasad Verma, Rambriksh Benipuri and Ramanand Mishra formed the "Bihar Socialist Party in 1931.
- Later in 1934, Jaiprakash Narayan convened a meeting in Anjuman Islamia Hall in Patna and formally inaugurated "Bihar Congress Socialist Party".
  - Acharya Narendra Dev became the President of the party and Jaiprakash Narayan was made general secretary.
  - The party closely coordinated with Congress for welfare and organization of peasants and workers.
- **155.** Yousuf Shah Chak, the last Muslim ruler of Kashmir valley, who was exiled to Bihar by the emperor Akbar was buried in
  - (a) Pataliputra
  - (b) Rajgir
  - (c) Munger
  - (d) Nalanda
  - (e) None of the above/More than one of the above.

#### **Ans.** (*d*)

# **Explanation**

- Yousuf Shah Chak, the last Muslim ruler of Kashmir valley was buried in Nalanda district of Bihar.
- He was the last sovereign ruler of Kashmir valley. He ruled Kashmir from 1579 to 1586 AD.
- He was exiled to Bihar by Mughal Emperor Akbar.
- He settled with his family and relatives in Biswak village of Nalanda, later called as Kashmiri Chak.
- When he died in Odisha, his body was brought to Bihar and buried along tombs of his wife and other relatives in Nalanda.
- **156**. Which one of the following districts does not have Dharwar Geological formations?
  - (a) Munger
  - (b) Rohtas
  - (c) Jamui
  - (d) Nawada
  - (e) None of the above/More than one of the above.

**Ans.** (*b*)

- Rohtas district does not have "Dharwar Geological formations".
  - o In Bihar, Munger, Jamui and Nawada district are part of "Dharwar Geological formations".
  - Dharwar region is dominated by mica-sheets.

### Vindhayan Rocks:

- o It is found in south-western part of Bihar in between Kaimur district and Son Valley district in Rohtas district.
- 157. The number of districts situated on the bank of Ganga river in Bihar state is
  - (a) 21
  - (b) 17
  - (c) 12
  - (d) 6
  - (e) None of the above/More than one of the above.

### **Ans.** (c)

### **Explanation**

- The number of districts situated on the bank of Ganga river in Bihar is 12.
  - The districts are Buxar, Bhojpur, Saran, Patna, Vaishali, Samastipur, Begusarai, Munger, Khagaria, Katihar, Bhagalpur and Lakhisarai.
- **158.** Which one of the following wildlife sanctuaries is situated in Munger district of Bihar?
  - (a) Valmiki
  - (b) Rajgir
  - (c) Bhimbandh
  - (d) Gautam Budhha
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

#### **Explanation**

- Bhimbandh Wildlife Sanctuary is situated in Munger district of Bihar.
- List of National Park and Wildlife Sanctuaries in Bihar:

Name	District
Valmiki National Park	West Champaran
Valmiki Vanya Prani Sanctuary	West Champaran
Udaypur Vanya Prani Sanctuary	West Champaran
Pant Vanya Prani Sanctuary	Nalanda
Kaimur Sanctuary	Rohtas
Gautam Buddha Bird Sanctuary	Gaya

Nagi-Nakti Dam Bird Sanctuary	Jamui
Vikramshila Gangetic Dolphin Sanctuary	Bhagalpur
Kanwar Jheel Bird Sanctuary	Begusarai
Baraila Jheel Salim Ali Jubba Sahni Bird Sanctuary	Vaishali
Kusheshwar Sthan Bird Sanctuary	Darbhanga

- **159**. The district of Bihar which has recorded the highest sex ratio as per the 2011 census is?
  - (a) Siwan
- (b) Gopalganj
- (c) Saran
- (d) Kishangani
- (e) None of the above/More than one of the above.

### **Ans.** (*b*)

### **Explanation**

- **According to Census 2011:** 
  - Gopalganj district has a sex ratio of 1021 indicating more women than men.

### **About Gopalganj:**

- Gopalgani, which till 1875 was only a tiny hamlet, was made a subdivision of the old Saran district in the same year.
- It became an independent district on October 2. 1973. The district headquarters are located in the town of Gopalganj.
- The Gopalgani District is located on the West -North corner of the Bihar State.
- Geographically it is located between 83.54° 85.56° latitude and 26.12° - 26.39°North longitude.
- It is bounded on East by Champaran and river Gandak, on the South by Siwan District and on the North West Deoria District of Uttar Pradesh.
- **160**. Among the following districts, which one has larger area under dense deciduous forest cover?
  - (a) Paschim Champaran
  - (b) Gaya
  - (c) Kaimur
  - (d) Nawada
  - (e) None of the above/More than one of the above

#### **Ans.** (*a*)

#### **Explanation**

- Out of the given districts, Paschim Champaran [West Champaran] has larger area under dense deciduous forest cover.
- 161. The district of Bihar which has a longer length of river Ganga is?
  - (a) Bhagalpur
- (b) Katihar
- (c) Patna
- (d) Begusarai
- (e) None of the above/More than one of the above.

**Ans.** (*c*)

- The length of Ganga river in Bihar is 445 kms.
  - 12 districts of Bihar are situated on the banks of river Ganga.
  - The district of Bihar which has a longer length [99kms] of river Ganga is "Patna".
- 162. Which district of Bihar has recorded the highest density of population (per sq.km) as per the 2011 census?
  - (a) Sheohar
  - (b) Vaishali
  - (c) Patna
  - (d) Darbhanga
  - (e) None of the above/More than one of the above.

### **Ans.** (*a*)

### **Explanation**

- Sheohar district [part of Tirhut division] has recorded the highest population density of 1880 persons per sq.km.
- Top five districts in terms of Population density: She ohar>Patna>Darbhanga>Vaishali.
- Kaimur has the least population density in Bihar [488 persons/sq.km]
- Important 2011 Census Data:

Demographic Term	India	Bihar
Decadal Growth rate [2001-2011]	17.7%	25.42%
Urbanization	31.2%	11.3%
Population Density	382	1106
Sex ratio	943	918
Literacy rate	74.04%	61.8%
Male Literacy rate	82.14%	71.2%
Female Literacy rate	65.46%	51.5%

- **163**. Among the following tributaries, which one is the part of Ganga river Basin?
  - (a) Sankh
  - (b) North Koel
  - (c) South Koel
  - (d) Barakar
  - (e) None of the above/More than one of the above

#### **Ans.** (b)

#### **Explanation**

- North Koel is part of Ganga River Basin.
  - It rises on the Chhotanagpur plateau and flows in the Jharkhand.
  - Later on, it falls into Son river, which is a tributary of Ganga river.
- South Koel and Sankh river are the tributaries of Brahmani river.
- 164. In Bihar, "Krishi Kumbh Mela 2019" was held in
  - (a) Champaran
  - (b) Motihari
  - (c) Rajgir
  - (d) Gaya
  - (e) None of the above/More than one of the above.

# **Ans.** (b)

### **Explanation**

- In Bihar, "Krishi Kumbh Mela 2019" was organized in Motihari.
- About Motihari:
  - It is the administrative headquarter of East Champaran district.
  - East Champaran is part of Tirhut division of Bihar.
- 165. In NITI Aayog's Health Index, 2019 Bihar scored
  - (a) 30.12
  - (b) 30.13
  - (c) 32.11
  - (d) 32.12
  - (e) None of the above/More than one of the above.

### **Ans.** (*c*)

### **Explanation**

- In NITI Aayog's Health Index, 2019 Bihar scored 32.11.
- The State Health Index is annual tool to assess the performance of states and UTs. It is a weighted composite index based on 24 indicators grouped under the domains of 'Health Outcomes', 'Governance and Information', and 'Key Inputs/Processes'.
- Each domain has been assigned weights based on its importance with higher score for outcome indicators.
- To ensure comparison among similar entities, the ranking is categorized as 'Larger States', 'Smaller States' and 'Union Territories
- **166**. As per Census 2011, the Child sex ratio in Bihar was
  - (a)935
  - (b)934
  - (c) 933
  - (d) 932
  - (e) None of the above/More than one of the above.

**Ans.** (*a*)

- As per Census 2011, the Child Sex ratio in Bihar was
   935
- Important 2011 Census Data:

Demographic Term	India	Bihar
Decadal Growth rate [2001-2011]	17.7%	25.42%
Urbanization	31.2%	11.3%
Population Density	382	1106
Sex ratio	943	918
Literacy rate	74.04%	61.8%
Male Literacy rate	82.14%	71.2%
Female Literacy rate	65.46%	51.5%

- **167**. The growth rate of the tertiary sector in Bihar during the year 2017-18 was
  - (a) 14.2%
  - (b) 14.6%
  - (c) 15.6%
  - (d) 15.2%
  - (e) None of the above/More than one of the above.

#### **Ans.** (b)

### **Explanation**

- The growth rate of the tertiary sector in Bihar during the year 2017-18 was 14.6%.
- As per Economic Survey 2022-23:
  - The Bihar economy posted a strong recovery in 2021-22.
  - According to quick estimates, Gross State Domestic Product [GSDP] at constant prices recorded a robust growth of 10.98% compared to (-) 3.2% in 2020-21.
  - The national growth rates was 8.68% in 2021-22.
- **168.** The Gross State Domestic Product [GSDP] of Bihar at current prices in the year 2017-18 was
  - (a) Rs 4,87,628 crores
  - (b) Rs 3,61,504 crores
  - (c) Rs 1,50,036 crores
  - (*d*) Rs 5,63, 424 crores
  - (e) None of the above/More than one of the above

#### **Ans.** (a)

#### **Explanation**

- The GSDP of Bihar in 2017-18 was Rs. 4,87,628 crore at current prices. At constant (2011- 12) prices, the figure stood at Rs. 3,61,504 crore.
- The resulting Per Capita GSDP in 2017- 18 are —
   Rs. 42,242 (current prices) and Rs. 31,316 (constant prices)

- **169**. Who was the Chief Justice of the Patna High court who administered the oath of office to Mr Fagu Chauhan as the Governor of Bihar in July, 2019?
  - (a) Honourable Mukesh Shah
  - (b) Honorable A.P Shahi
  - (c) Honorable Rekha Manharlal Doshit
  - (e) Honorable Deepak Mishra.
  - (e) None of the above/More than one of the above.

#### **Ans.** (*b*)

### **Explanation**

- Honorable A.P Shahi, the Chief Justice of the Patna High Court administered the oath of office to "Mr Fagu Chauhan" as the Governor of Bihar in July, 2019.
- Present Chief Justice of Patna High Court: Honorable K.Vinod Chandran [Former Judge of Kerala High Court].
- Present Governor of Bihar: Rajendra Vishwanath Arlekar [Earlier, served as the Governor of Himachal Pradesh]
- **170**. What is the significance of "Bihar Diwas" that is celebrated on 22nd March every year?
  - (a) On this day, State Reorganization Commission created Bihar.
  - (b) Bihar was carved out of United Provinces on this day in 1873.
  - (c) To commemorate Bihar's separation from Bengal Presidency in 1912
  - (d) To celebrate naming of Bihar in 12th century by Muslim rulers.
  - (e) None of the above/More than one of the above.

### **Ans.** (*c*)

#### **Explanation**

- Bihar was a part of the Bengal Presidency under the British till 1912.
  - Bihar and Orrisa province was separated from Bengal Presidency in 1912.
  - In 1936, by the Government of India Act, 1935, Bihar and Odisha became separate provinces of British ruled-India.
- Bihar Diwas marks the formation of Bihar state from the Bengal presidency.
  - It was formed on March 22, 1912, when the British government partitioned the Bengal Province.
  - The theme of "Bihar Diwas 2023" is "Yuva Shakti-Bihar ki Pragati" [Progress of Bihar with Youth Power"]
- **171.** What is the tagline of Bihar State Tourism Development Corporation?
  - (a) Bright Bihar
  - (b) Hum Sabka Bihar
  - (c) Blissful Bihar
  - (d) Bihar is the best
  - (e) None of the above/More than one of the above.

**Ans.** (*c*)

- The tagline of Bihar State Tourism Development Corporation is "Blissful Bihar".
- About Bihar State Tourism Development Corporation:
  - Bihar State Tourism Development Corporation (BSTDC) was established in the year 1980 for the development of tourism in the State of Bihar and for commercialization of Tourist Resources available with the State.
  - To achieve this objective various tourist infrastructure like Tourist Bungalow, Cafeteria, Restaurant, Transportation facilities and Ropeway are provided at various tourists spots by Bihar State Tourism Development Corporation.
- **172.** Prime Minister Narendra Modi recently laid the foundation of Mandal Dam project to be built on which river?
  - (a) Koshi
  - (b) Burhi Gandak
  - (c) Phalgu
  - (d) North Koel
  - (e) None of the above/More than one of the above.

# **Ans.** (*d*)

### **Explanation**

- The Mandal Dam project will be built on "North Koel" river.
  - O The project was first conceived under the then Congress government in 1973 but its construction was halted on environmental grounds 25 years ago, when it fell short of 1992 amendments to the Forest (Conservation) Rules 1981.
  - The project is expected to irrigate 1.11 lakh hectares of land, including over 91,000 hectares of land in Bihar and 20,000 hectares of land in Jharkhand.
- **174.** In July 2019. Experts visited for the first documentation of a Megalithic site of Bihar in which of the following districts?
  - (a) Patna
  - (b) Kaimur
  - (c) Madhubani
  - (d) Banka
  - (e) None of the above/More than one of the above.

#### **Ans.** (b)

#### **Explanation**

- In July, 2019, experts visited for the first documentation of a megalithic site of Bihar in "Kaimur district".
- About Kaimur district:
  - It was earlier part of "Rohtas district", carved out in 1991 and renamed as "Kaimur" in 1994.

- O District HQ: at Bhabua.
- Kaimur Wildlife Sanctuary is located here.
- The second tiger reserve of Bihar will come up in this district.
- Waterfalls: Karkat and Telhar located here.
- o Balther soil is found, fit for Jowar, Bajra and Arhar.
- As per Indian State of Forest Report, 2021, it is at first position in Bihar in terms of forest cover.

# 64th BPSC Prelims Exam, 2018

- 174. Bihar as an Indian state was formed in
  - (a) 1911
  - (b) 1912
  - (c) 1936
  - (d) 2000
  - (e) None of the above/More than one of the above.

### **Ans.** (*c*)

#### **Explanation**

- Bihar was a part of the Bengal Presidency under the British till 1912.
  - Bihar and Orrisa province was separated from Bengal Presidency in 1912.
  - In 1936, by the Government of India Act, 1935, Bihar and Odisha became separate states of British ruled-India.
    - So, out of the given options, "Option C" that is 1936 is the most appropriate solution.
- **175**. After the Mahaparinirvana of Lord Buddha, the first Buddhist council was held at
  - (a) Rajagriha
  - (b) Gaya
  - (c) Pataliputra
  - (d) Vaishali
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

First Buddhist Council	<ul> <li>Year: 483 BC.</li> <li>Venue: Saptaparni Cave, Rajagriha.</li> <li>Chairman: Mahakassapa</li> <li>Patron: Ajatashatru of Haryanka dynasty.</li> </ul>	
	Compilation of Sutta Pitaka and Vinay Pitaka by Ananda and Upali respectively.	

- **176.** The earliest description of Bakhtiyar Khalji's invasion of Bihar is mentioned in
  - (a) Tarikh-i-Hind
  - (b) Tabaqat-i-Nasiri



- (c) Taj-ul-Maasir
- (d) Tarik-i Mubarak Shahi
- (e) None of the above/More than one of the above.

#### **Explanation**

- The earliest description of Bakhtiyar Khilji's invasion of Bihar is in "Tabaqat-i-Nasiri" [in Persian language] written by Minhaj-i-Siraj.
- Bakhtiyar Khalji was the real founder of "Turk rule" in Bihar. He is also considered as the first "Muslim Conqueror of Bihar.
  - He attacked on the fortified university town (Hisari-Bihar) of Bihar in 1199 AD.
  - Further, he invaded Biharsarif and plundered "Odantipuri Mahavihara".
  - The place "Bakhtiyarpur" in Bihar Sharif subdivision was probably named after him following the "Turkish conquest" of the town.
- He launched an ill-fated campaign "Tibet Campaign" in 1206 AD and was assassinated upon returning to Bengal by Ali Mardan.
- 177. The ruler of Suvarnabhumi who founded a Buddhist monastery at Nalanda and requested Devpala through his ambassador to grant five villages for its maintenance, was
  - (a) Dharanindra
  - (b) Sangramadhananjaya
  - (c) Balaputradeva
  - (d) Chudamanivarmana
  - (e) None of the above/More than one of the above.

#### **Ans.** (c)

#### **Explanation**

- "Balaputradeva" founded a Buddhist monastery at Nalanda and requested "Devpala" through his ambassador to grant villages for its maintenance.
- He belonged to Shailendra dynasty of Suvarnabhumi.
- Additional Facts:
- Devpala was the ruler of Pala dynasty.
  - Pala dynasty was founded by Gopala in 750 AD.
  - He built the monastery at Odantipuri, Bihar.
  - Vikramshila Mahavihara was founded by Dharmapala.
- **178.** Which one of the following parts of Bihar is geologically older in age respectively?
  - (a) Rohtas Plateau
  - (b) North-Western Hills
  - (c) Kharagpur Hills

- (d) North Ganga Plains
- (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

### **Explanation**

- Rohtas Plateau of Bihar is geologically older in age respectively.
- About Geology of Bihar:
  - The geology of Bihar is quite balanced as it consists of both younger and older formations of rock.
  - In terms of its geology, it consists of younger (Tertiary period) and older rock formations (Precambrian period).
  - On the basis of physical and structural conditions, Bihar can be divided into three physiographic units:
    - Shiwalik range.
    - · The Bihar Plain.
    - The Southern Plateau region.
- 179. The Indigo Rebellion was about
  - (a) The peasant not wanting to grow Indigo but being forced to.
  - (b) The peasant wanting to grow Indigo but being forced not to
  - (c) The peasant not wanting to grow Indigo but being forced to grow at price that was unacceptable.
  - (d) A protest movement that carried an Indigocoloured flag.
  - (e) None of the above/More than one of the above.

### **Ans.** (*a*)

#### **Explanation**

- The Indigo Rebellion was about:
  - The peasant not wanting to grow Indigo but being forced to grow at price that was unacceptable.
  - It was a revolt by the farmers against British planters who had forced them to grow indigo under terms that were greatly unfavourable to the farmers.
  - It took place in 1859-60.
  - Leaders: Digambar Biswas and Bishnu Biswas.
- **180.** By how many districts of Bihar was Patna district bounded till July, 2018?
  - (a)7
  - (b) 8
  - (c) 9
  - (d) 10
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

- Patna is bounded by 9 districts of Bihar.
  - The nine districts are Bhojpur, Saran, Vaishali, Samastipur, Begusarai, Lakhisarai, Nalanda, Jehanabad and Arwal.



- There are nine administrative divisions of Bihar.
  - Patna is district as well as administrative division of Bihar.
  - Patna division consists of 6 districts namely Buxar, Bhojpur, Patna, Nalanda, Kaimur and Rohtas.
- **181**. Most of the area in Bihar is covered by
  - (a) Mountainous soil
  - (b) Alluvial Soil
  - (c) Regur Soil
  - (d) Terai soil
  - (e) None of the above/More than one of the above.

### **Explanation**

- Most of the area in Bihar is covered by Alluvial Soil.
- Important Soils of Bihar:

Types of Soil	District	Сгор	Physical and Chemical properties
Balthar	Kaimur	Jowar, Bajra, Arhar	Sandy, Calcareous, Yellow
Tal	Patna, Munger	Pulses, Wheat, Oilseeds	Heavy Soil
Terai	Champaran, Kishanganj	Sugarcane, Rice and Jute	Sandy and Calcerous, Brown and Light yellow
Bhangar	Patna, Gaya, Rohtas	Jute, Arhar and Sugarcane	Acidic, rich in lime
Khadar	Muzaffarpur, Purnea, Saharsa, Darbhanga and Bhagalpur	Wheat, Gram, Rice and Maize	Dark brown, fertile
Bal Sundari	Saharsa, East and West Champaran.	Maize, Sugarcane, Tobacco, Wheat	Lime, Alkaline.

- **182**. Among the states of India, Bihar's rank in terms of lowest literacy rate [Census 2011] is
  - (a) First
  - (b) Second
  - (c) Third
  - (d) Fourth
  - (e) None of the above/More than one of the above.

### **Ans.** (a)

#### **Explanation**

- In terms of lowest literacy rate as per Census 2011, Bihar stands at first position.
- Important 2011 Census Data:

Demographic Term	India	Bihar
Decadal Growth rate [2001-2011]	17.7%	25.42%
Urbanization	31.2%	11.3%
Population Density	382	1106
Sex ratio	943	918
Literacy rate	74.04%	61.8%
Male Literacy rate	82.14%	71.2%
Female Literacy rate	65.46%	51.5%

- **183**. Which type of industries has potentials and prospects in Bihar?
  - (a) Oil Refinery
  - (b) Forest-based industry
  - (c) Sand-mining industry
  - (d) Agro-based industr
  - (e) None of the above/More than one of the above.

### **Ans.** (*d*)

### **Explanation**

- Agro-based industry has potentials and prospects in Rihar
- The cereal based industry has dominated among the agro-based industries in Bihar.
- Agro-based industries comprises of:
  - Food products, Textiles, Leather Products, Beverages and Tobacco products, furniture and paper industry.
  - Major agricultural products of Bihar include cereals, pulses, oilseeds and cash crops.
- **184.** Which one of the following states has the highest density of population according to the Census of India, 2011?
  - (a) Kerala
  - (b) Haryana
  - (c) Bihar
  - (d) Uttar Pradesh
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

- Population density means "people per sq.km of land area".
- Out of the given states, Bihar has the highest density of population according to the Census of India, 2011.
- Census 2011 Population density

Census 2011	Population density
India	382
Uttar Pradesh	829
Kerala	860
Haryana	573

- **185**. What is the sex ratio of Bihar as per the Census of India, 2011
  - (a)893
  - (b) 916
  - (c)918
  - (d)925
  - (e) None of the above/More than one of the above.

#### **Ans.** (c)

### **Explanation**

- Sex ratio is defined as the number of females per 1000 males in a given population.
- As per Census 2011, the sex ratio of Bihar is 918.
- Important 2011 Census Data:

Demographic Term	India	Bihar
Decadal Growth rate [2001-2011]	17.7%	25.42%
Urbanization	31.2%	11.3%
Population Density	382	1106
Sex ratio	943	918
Literacy rate	74.04%	61.8%
Male Literacy rate	82.14%	71.2%
Female Literacy rate	65.46%	51.5%

- **186**. Bihar Economic Survey, for the first time, was published for the financial year
  - (a) 2004-05
  - (b) 2006-07
  - (c) 2008-09
  - (d) 2009-10
  - (e) None of the above/More than one of the above.

### **Ans.** (b)

#### **Explanation**

- The first economic survey of Bihar was released in 2006-07.
  - It was presented by "Sushil Modi", who was then the deputy Chief Minister and Finance minister of Bihar.

### Important Facts:

- Bihar [Fiscal Responsibility & Budget Management Act] FRBM Act: 2006.
- Bihar [Right to Public Services Act]: 2011.
- Child Budgeting in Bihar started from 2013-14.
- Bihar Right to Public Grievance Redressal Act]:2015 [effective from 5th June, 2016]
- o Bihar's first green Budget in 2020.
- **187**. Where did Kunwar Singh join the Rebellion of 1857 against the British?
  - (a) Arrah
  - (b) Patna
  - C.. Bettiah
  - (d) Varanasi
  - (e) None of the above/More than one of the above.

#### **Ans.** (b)

### **Explanation**

- Kunwar Singh spearheaded the "1857 revolt" in Bihar.
  - As per the BPSC's final answer key, Kunwar Singh joined the rebellion of 1857 against the British at Patna.

### • Additional Facts on Kunwar Singh:

- Kunwar Singh was born in November, 1782 to Raja Shahabzada Singh and Rani Pancharatan Devi in Jagdishpur of the Shahbad district [Presently Bhojpur district of Bihar].
- He belonged to the Ujjainiya Rajput clan.
- At the age of 80, he actively led the "First War of Independence" in 1857 in Bihar.
- He died on 26th April, 1858.
- **188**. In which territory did tribals rebel against the British?
  - (a) Bihar
  - (b) Punjab
  - (c) Sindh
  - (d) Kathiawar
  - (e) None of the above/More than one of the above.

### **Ans.** (*a*)

- Tribals revolted against the Britishers in "Bihar".
- The following tribal revolts took place in Bihar:
  - The Kol Uprising [1831-32].
  - The Bhumij revolt [1832-33].



- The Santhal revolt [1855-56].
- Birsa Munda revolt.
- The Tana Bhagat revolt.
- **189**. Which of the following was the first Satyagraha of Mahatma Gandhi in India?
  - (a) Ahmedabad
  - (b) Bardoli
  - (c) Champaran
  - (d) Individual Satyagraha
  - (e) None of the above/More than one of the above.

# **Ans.** (c)

# **Explanation**

- The Champaran Satyagraha of 1917 was Mahatma Gandhi's first Satyagraha.
  - It was the first "Civil Disobedience Movement".
  - Rajkumar Shukla had invited "Mahatma Gandhi" to look into indigo planter's problem.
    - The European planters had been forcing the peasants to grow indigo on 3/20 of the total land called "Tinkathiya system".
  - Several other leaders like Rajendra Prasad, Anugraha Narayan Singh, Mazhar-ul-Haque, Mahadeo Desai, J.B Kriplani also assisted in the passive resistance against British atrocities.
  - The satyagraha forced "British government" to appoint a committee to make enquiry into the matter of indigo planter's issue.
    - Gandhiji as a member of the committee convinced the authority about the atrocities perpetuated under the Tinkathiya system, so should be abolished and the compensation should be given to planters.
    - As a compromise with the planters, Gandhiji agreed that only 25% of the money taken should be compensated.
- 190. Gandhiji's Non Co-operation Movement urged people to avoid alcohol. This resulted in a serious loss of revenue for the government. The government of a province circulated a list of prominent individuals who drank alcohol as a device to persuade people to start drinking again. Name the province.
  - (a) Andhra Pradesh
  - (b) Bihar
  - (c) Bombay
  - (d) Gujarat
  - (e) None of the above/More than one of the above.

#### **Ans.** (b)

#### **Explanation**

- Gandhiji's Non Co-operation Movement urged people to avoid alcohol. This resulted in a serious loss of revenue for the government.
  - The government of a province circulated a list of prominent individuals who drank alcohol as a device to persuade people to start drinking again.
  - It happed in the province of Bihar.
- **191.** During Salt Satyagraha, in Bihar, in addition to making salt, the people choose to oppose the government by opposing which tax?
  - (a) Chowkidari
  - (b) Haathi
  - (c) Development
  - (d) Malba
  - (e) None of the above/More than one of the above

#### **Ans.** (*a*)

### **Explanation**

 During the "Salt Satyagraha in Bihar", in addition to making salt, the people choose to oppose the government by "non payment of Chowkidari tax" in Bihar.

#### • Salt Satyagraha in Bihar:

- The salt satyagraha in Bihar was started on April 15, 1930 in Saran and Champaran districts.
- In Patna, the salt satyagraha was inaugurated on 16th April, 1930, when the volunteers proceeded to Nakhas Pind, near Mangle Tank in Patna city, which had been selected as the spot for the violation of salt laws by manufacturing salt.
- o In 1930, as a response to the national call for civil disobedience, the people of Bihpur [Bhagalpur] began a Satyagraha which included the manufacture of salt and picketing of liquor and drug shops
- In the Munger district, Shri Krishna Singh the then secretary of the Provincial Congress committee and Nand Kumar Sinha led the congress activities.
- The inmates of the Chapra jail refused to use foreign clothes and went for naked hartal till swadeshi clothes were provided.
- The Congress was declared illegal organization on June 30, 1930.
- **192.** The elected government of Bihar resigned in February, 1938 for which reason?
  - (a) The participation of India in war.
  - (b) Satyagraha against the British at the call of Gandhi.
  - (c) High taxes being imposed by the British.
  - (*d*) For the release of political prisoners.
  - (e) None of the above/More than one of the above.

**Ans.** (*d*)

- The elected Government of Bihar formed by Shri Krishna Singh resigned in February, 1938 for the "release of political prisoners".
  - The Ministry in Bihar strong resented to a circular issued by Mr. Brett, the Chief Secretary, and he had to withdraw it.
  - When the Governor refused to release the political prisoners, the Ministry resigned.
  - However, the ministry resumed office, only after an agreement was reached on this matter in February, 1938.
- **193**. When were the rights of the tenants on land in Bengal and Bihar recognized by the Bengal Tenancy Act?
  - (a) 1868
  - (b) 1881
  - (c) 1885
  - (d) 1893
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

### **Explanation**

- Bengal Tenancy Act was passed in 1885 to recognize the rights of the tenants on land in Bengal and Bihar.
  - The basic objective of this act was to protect peasant from Zamindari oppression.
  - According to the provisions of the act,
    - The peasant would have the occupancy rights of land if he held this land for at least twelve years in the same village.
- **194**. When did Bihar become a separate province in India?
  - (a) 1897
  - (b) 1905
  - (c) 1907
  - (d) 1912
  - (e) None of the above/More than one of the above.

#### Ans. (d)

### **Explanation**

- Bihar was a part of the Bengal Presidency under the British till 1912.
  - Bihar and Orrisa province was separated from Bengal Presidency in 1912.
    - So, Bihar became a separate province in British ruled India in 1912.
  - In 1936, by the Government of India Act, 1935, Bihar and Odisha became separate states of British ruled-India.

- Bihar Day marks the formation of Bihar state from the Bengal presidency.
  - o It was formed on March 22, 1912, when the British government partitioned the Bengal Province.
  - The theme of "Bihar Diwas 2023" is "Yuva Shakti-Bihar ki Pragati" [Progress of Bihar with Youth Power"]
- 195. Who invited Gandhji to Champaran?
  - (a) Rajendra Prasad
  - (b) Raj Kumar Shukla
  - (c) Mazharul Haq
  - (d) Krishna Sahay
  - (e) None of the above/More than one of the above.

### **Ans.** (b)

# **Explanation**

- Raj Kumar Shukla invited Gandhiji to Champaran.
- The Champaran Satyagraha of 1917 was Mahatma Gandhi's first Satyagraha.
  - It was the first "Civil Disobedience Movement".
    - The European planters had been forcing the peasants to grow indigo on 3/20 of the total land called "Tinkathiya system".
  - Several other leaders like Rajendra Prasad, Anugraha Narayan Singh, Mazhar-ul-Haque, Mahadeo Desai, J.B Kriplani also assisted in the passive resistance against British atrocities.
  - The satyagraha forced "British government" to appoint a committee to make enquiry into the matter of indigo planter's issue.
    - Gandhiji as a member of the committee convinced the authority about the atrocities perpetuated under the Tinkathiya system, so should be abolished and the compensation should be given to planters.
    - As a compromise with the planters, Gandhiji agreed that only 25% of the money taken should be compensated.
- 196. When was the Bihar Socialist Party formed?
  - (a) 1921
  - (b) 1927
  - (c) 1931
  - (d) 1934
  - (e) None of the above/More than one of the above.

**Ans.** (*c*)



- Ganga Sharan Sinha, Rambriksh Benipuri and Ramanand Mishra formed the "Bihar Socialist Party in 1931.
- Later in 1934, Jaiprakash Narayan convened a meeting in Anjuman Islamia Hall in Patna and formally inaugurated "Bihar Congress Socialist Party".
  - Acharya Narendra Dev became the President of the party and Jaiprakash Narayan was made general secretary.
  - The party closely coordinated with Congress for welfare and organization of peasants and workers.
- **197**. Who among the following was the leader of the first Congress ministry in Bihar?
  - (a) Anugraha Narayan Sinha
  - (b) Abdul Bari
  - (c) Jayaprakash Narayan
  - (d) Krishna Sinha.
  - (e) None of the above/More than one of the above.

#### **Ans.** (*d*)

# **Explanation**

- Elections under Government of India Act, 1935:
  - The Congress decided to contest the elections under "Government of India Act, 1935".
  - The elections to the Legislative Assembly in Bihar took place between January 22 to 27, 1937.
    - Of the total 152 seats in the Assembly, Congress contested on 107 seats and won 98 seats.
  - However, initially, Shri Krishna Singh refused to form despite being in majority.
    - Mohammad Yunus, who was leader of Independent party [second largest party in majority] formed the government.
    - He became the first Prime Minister of Bihar.
  - Later on, Congress Ministry was formed on July 20, 1937 with Shri Krishna Singh as Premier.
    - Ram Dayalu Singh became the speaker and Abdul Bari became the deputy speaker.

### 63rd BPSC Prelims Exam, 2018

- **198.** Which of the following districts of Bihar does not share border with Nepal?
  - (a) Madhubani
  - (b) Kishanganj
  - (c) Sitamarhi
  - (d) Purnea
  - (e) None of the above/More than one of the above.

### **Ans.** (*d*)

#### **Explanation**

- Purnea district of Bihar does not share boundary with Nepal.
- There are seven districts of Bihar that share boundary with Nepal.

	1. West Champaran
	2. East Champaran
District 1	3. Sitamarhi
Districts sharing boundary with Nepal	4. Madhubani.
boundary with Nepar	5. Supaul.
	6. Araria
	7. Kishanganj

- **199**. Which of the following is the only UNESCO World Heritage Site in Bihar state of India?
  - (a) Mahabodhi Vihar
  - (b) Buddhist Monastery in Nalanda.
  - (c) Ancient site of Vikramashila Monastery.
  - (d) Tomb of Sher Shah Suri
  - (e) None of the above/More than one of the above.

### **Ans.** (e)

#### **Explanation**

- UNESCO World Heritage Sites in Bihar: Place where it is located
- Mahabodhi Temple [2002] Bodh Gaya, Gaya.
- Nalanda Mahavihara [2016] Nalanda

UNESCO World Heritage Sites in Bihar	Place where it is located
Mahabodhi Temple [2002]	Bodh Gaya, Gaya.
Nalanda Mahavihara [2016]	Nalanda

- **200.** The Barh Super Thermal Power station is located in which state?
  - (a) Bihar
  - (b) Karnataka
  - (c) Rajasthan
  - (d) Punjab
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

Thermal Power Plants in Bihar	Associated District
Kanti Bijlee Utpadan Nigam Limited	Muzaffarpur
NTPC, Nabinagar	Aurangabad

NTPC, Barh	Patna
NTPC, Barauni	Begusarai
NTPC, Kahalgaon	Bhagalpur
Chausa Thermal Power Plant	Buxar

- **201**. Kaimur plateau is famous for
  - (a) Copper
  - (b) Limestone
  - (c) Lithium
  - (d) Bauxite.
  - (e) None of the above/More than one of the above.

# **Explanation**

Minerals	Districts where it is found
Limestone	Kaimur, Munger and Rohtas.
Mica	Nawada, Jamui and Gaya
Quartzite	Lakhisarai, Munger and Nalanda,
Lead Zinc	Banka and Rohtas.
Monazite	Gaya and Munger
Uranium	Gaya
China Clay	Bhagalpur and Munger

- **202**. Which one of the following rivers joins the Ganga at Fatuha?
  - (a) Son
  - (b) Punpun
  - (c) Sakri
  - (d) Balan
  - (e) None of the above/More than one of the above.

#### **Ans.** (c)

### **Explanation**

- Rivers joining Ganga at different places:
  - The river "Punpun" meets the Ganga near Fatuha in Patna.
  - o The river "Karamnasa" meets river Ganga near Chausa [Buxar district].
  - The river "Saryu" joins Ganga from North-West direction in Chhapra.

- The confluence of the rivers "Son and Ganga" is located in "Patna district" of Bihar.
- **203**. Which soil is predominantly found in the districts of Muzaffarpur, Darbhanga and Champaran?
  - (a) Black Soil
  - (b) Newer Alluvium
  - (c) Older Alluvium
  - (d) Red Soil
  - (e) None of the above/More than one of the above.

#### **Ans.** (*b*)

# **Explanation**

Types of Soil	District	Crop	Physical and Chemical properties
Balthar	Kaimur	Jowar, Bajra, Arhar	Sandy, Calcareous, Yellow
Tal	Patna, Munger	Pulses, Wheat, Oilseeds	Heavy Soil
Terai	Champaran, Kishanganj	Sugarcane, Rice and Jute	Sandy and Calcerous, Brown and Light yellow
Bhangar	Patna, Gaya, Rohtas	Jute, Arhar and Sugarcane	Acidic, rich in lime
Khadar	Muzaffarpur, Purnea, Saharsa, Darbhanga and Bhagalpur	Wheat, Gram, Rice and Maize	Dark brown, fertile
Bal Sundari	Saharsa, East and West Champaran.	Maize, Sugarcane, Tobacco, Wheat	Lime, Alkaline.

- **203**. The largest jute producing district of Bihar is
  - (a) Siwan
  - (b) Gaya
  - (c) Vaishali
  - (d) Purnea
  - (e) None of the above/More than one of the above.

**Ans.** (*d*)

- The largest jute producing district of Bihar is "Purnea".
- Additional Facts:
  - West Bengal is at first position in terms of jute production in India.
  - Bihar is at 2nd position.
  - India accounts for around 50% of global jute production.
- 205. Triveni Canal has been constructed on the river
  - (a) Kosi
  - (b) Son
  - (c) Gandak
  - (d) Kamla

E.None of the above/More than one of the above.

### **Ans.** (c)

#### **Explanation**

- Triveni canal has been constructed on the river "Gandak". It irrigates lands of West Champaran district.
- Irrigation in Bihar:
  - Canals, tubewells, wells and ponds are the chief sources of irrigation.
  - Canal irrigation is the leading source of irrigation in Bihar.
    - Availability of plain area, alluvial soil, perennial river provide favourable basis for canal development in Bihar.
    - Major portion of canal irrigated plains lie in South Bihar.

	Two canals have been taken out from Tihri namely Eastern Son Canal and Western Son Canal.
Son Canal	1. <b>Eastern Son Canal:</b> It irrigates Patna, Aurangabad, Gaya and Jehanabad districts.
	2. <b>Western Son Canal:</b> It has three branches namely Ara, Buxar and Chausa. It irrigates lands of Bhojpur, Buxar and Rohtas districts.

	3. Eastern Kosi Canal:	
	<ul> <li>It has been taken out from Western part of Hanuman Nagar reservoir.</li> </ul>	
Kosi Canal	<ul><li>It has four branches Murliganj, Janki Nagar, Purnia and Araria.</li></ul>	
	<ul> <li>Rajpur Canal is a branch of this canal which irrigates Saharsa and Munger districts.</li> </ul>	
	4. Western Kosi Canal:	
	<ul> <li>It has been taken out from the left side of Hanuman Nagar reservoir.</li> </ul>	
	<ul><li>It irrigates lands of Darbhanga district.</li></ul>	
A dam near <b>Valmiki Nagar</b> ha built on river Gandak, which kms long and 10 m high. Two have been taken from this pla		
Gandak Canal	1. Saran Canal irrigates Saran, Gopalganj and Siwan districts.	
	<ol> <li>Tirhut Canal flows eastward and irrigates land of Muzaffarpur, Vaishali and Champaran.</li> </ol>	
Kamla Canal	It has been taken out from Kamla river in Darbhanga and irrigates mainly Madhubani district.	
Sakri Canal	It was built in 1950 and irrigates Munger, Gaya and Patna districts.	
Dhaka and Teur Canal	They have been taken out from Lalwakia and Teur river respectively in Champaran.	

- 206. Bihar Provincial Kisan Sabha was formed in
  - (a) 1929
  - (b) 1930
  - (c) 1931
  - (d) 1932
  - (e) None of the above/More than one of the above.

# **Ans.** (*a*)

- In 1929, Swami Sahajanand Saraswati formed the "Bihar Provincial Kisan Sabha".
  - To mobilise peasant grievances against the Zamindari attacks on their occupancy rights.
- Zamindars in retaliation formed "United Political Party" in order to suppress peasants.



- **207**. By which Act, Bihar became a separate Province?
  - (a) The Government of India Act, 1935
  - (b) The Government of India Act of 1919
  - (c) The Indian Council Act of 1909
  - (d) The India Independence Act of 1947
  - (e) None of the above/More than one of the above

### **Ans.** (a)

#### **Explanation**

- Bihar was a part of the Bengal Presidency under the British till 1912.
  - Bihar and Orrisa province was separated from Bengal Presidency in 1912.
  - In 1936, by the Government of India Act, 1935, Bihar and Odisha became separate provinces of British ruled-India.
- Bihar Day marks the formation of Bihar state from the Bengal presidency.
  - It was formed on March 22, 1912, when the British government partitioned the Bengal Province.
  - The theme of "Bihar Diwas 2023" is "Yuva Shakti-Bihar ki Pragati" [Progress of Bihar with Youth Power"]
- **208**. Whom did Rajendra Prasad consider as the "Father of Pakistan"?
  - (a) Md Jinnah
  - (b) Lord Mountbatten
  - (c) Lord Minto
  - (d) Liaquat Ali Khan
  - (e) None of the above/More than one of the above.

### **Ans.** (c)

### **Explanation**

- Rajendra Prasad considered "Lord Minto" as the "Father of Pakistan".
  - Lord Minto is also known as "Father of Communal Electorate".
  - He introduced "Morley Minto Reforms of 1909" which introduced the concept of "communal electorate in India".
  - Under the provisions of Communal electorate system, "Muslim members were to be elected by the Muslim voters only".

- **209**. When was Patna Lawn renamed as "Gandhi Maidan"?
  - (a) During Quit India Movement
  - (b) During Anti-Simon Commission Rally
  - (c) During Champaran Satyagraha
  - (d) On the eve of Independence
  - (e) None of the above/More than one of the above.

### **Ans.** (*e*)

### **Explanation**

- After assassination of Mahatma Gandhi, Patna Lawn was renamed as "Gandhi Maidan".
  - So, "Option E", that is None of the above is the most appropriate solution.
  - During British period, it was used as a golf course and horse racing track.
- **210**. The first Indian Ministry in Bihar in 1937 came into existence under whose leadership?
  - (a) Shri Krishna Singh
  - (b) Md. Yunus
  - (c) GS Lal
  - (d) Wahab Ali
  - (e) None of the above/More than one of the above.

#### **Ans.** (*b*)

#### **Explanation**

- Elections under Government of India Act, 1935:
  - The Congress decided to contest the elections under "Government of India Act, 1935".
  - The elections to the Legislative Assembly in Bihar took place between January 22 to 27, 1937.
    - Of the total 152 seats in the Assembly, Congress contested on 107 seats and won 98 seats.
  - However, initially, Shri Krishna Singh refused to form despite being in majority.
    - Mohammad Yunus, who was leader of Independent party [second largest party in majority] formed the government.
    - He became the first Prime Minister of Bihar.
  - Later on, Congress Ministry was formed on July 20, 1937 with Shri Krishna Singh as Premier.
    - Ram Dayalu Singh became the speaker and Abdul Bari became the deputy speaker.
- **211**. Who was member of the Constituent Assembly from Bihar?
  - (a) A.N Sinha
  - (b) Rajendra Prasad
  - (c) Jagjivan Ram
  - (d) Shyam Nandan Prasad Mishra
  - (e) None of the above/More than one of the above.

**Ans.** (*e*)

- Anugraha Narayan Sinha and Jagjivan Ram were members of the Constituent Assembly from Bihar.
- Dr. Sachchidananda Sinha, the senior most member of the Constituent Assembly, was nominated as the Interim President and on the December 11, 1946, Dr Rajendra Prasad was elected as the permanent President of the Constituent Assembly.
  - Other personalities from Bihar who made their valuable contributions in the Constituent Assembly were Shri Anugrah Narayan Sinha, Shri Krishna Sinha, Maharaja Kameshwar Singh of Darbhanga, Shri Jagat Narayan Lal, Shri Shyam Nandan Sahay, Shri Satyanarayan Sinha, Shri Jaipal Singh, Babu Jagjivan Ram, Shri Ram Narayan Singh and Shri Brajeshwar Prasad.
- **212.** Bihar Socialist Party was born in 1934 with its Secretary
  - (a) Acharya Narendra Dev
  - (b) Jayaprakash Narayan
  - (c) Rambriksh Benipuri
  - (d) Karpoori Thakur
  - (e) None of the above/More than one of the above.

#### **Ans.** (*b*)

## **Explanation**

- Ganga Sharan Sinha, Rambriksh Benipuri and Ramanand Mishra formed the "Bihar Socialist Party in 1931.
- Later in 1934, Jaiprakash Narayan convened a meeting in Anjuman Islamia Hall in Patna and formally inaugurated "Bihar Congress Socialist Party".
  - Acharya Narendra Dev became the President of the party and Jaiprakash Narayan was made general secretary.
  - The party closely coordinated with Congress for welfare and organization of peasants and workers.
- 213. Who organized "Kisan Sabha" at Munger in 1922-23?
  - (a) Swami Sahajanand Saraswati
  - (b) Krishna Singh
  - (c) Mohammed Jubair
  - (d) K.N Singh
  - (e) None of the above/More than one of the above.

### **Ans.** (*e*)

#### **Explanation**

Organization	Year	
Kisan Sabha at Munger	1922-23	It was organized by Mohammad Zubair and Shri Krishna Singh.
Bihar Provincial Kisan Sabha	1929	It was formed by Swami Sahajanand Saraswati.
Bihar Kisan Sabha	1933	It aimed to readdress the existing grievances of peasants.
All India Kisan Sabha	1936	It was formed at Lucknow. Swami Sahajanand was its President and N.G Ranga was secretary.

- **214**. Who established a branch of Anushilan Samiti at Patna in 1913?
  - (a) Rewati Nag
  - (b) Yadunath Sarkar
  - (c) Sachindranath Sanyal
  - (d) Mazharul Haque
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

### **Explanation**

- Sachindranath Sanyal established a branch of "Anushilan Samiti" in Patna in 1913 AD.
  - Bankimchandra Mitra of B.N College was entrusted with the leadership of this organization.
- About Sachindranath Sanyal:
  - He was an Indian revolutionary and co-founder of the Hindustan Republican Army.
  - He mentored "Chandra Shekhar Aza, Jatindra Nath Das and Bhagat Singh,
  - In 1912, he along with Rashbehari Bose attacked the Viceroy Lord Hardinge.
- **215**. Swami Sahajanand Saraswati published a journal named
  - (a) Jankranti
  - (b) Hunkar
  - (c) Krishak Samachar
  - (d) Vidrohi
  - (e) None of the above/More than one of the above.

**Ans.** (*b*)

- The name of the journal published by Swami Sahajanand Saraswati was "Hunkar".
- About Swami Sahajanand Saraswati:
  - He was born in Ghazipur district of Uttar Pradesh on 22nd February, 1889.
  - In 1929, he formed the "Bihar Provincial Kisan Sabha" to mobilise peasant grievances against the Zamindari attacks on their occupancy rights.
  - In 1936, All India Kisan Sabha was formed at Lucknow.
    - Swami Sahajanand Saraswati was the President and N.G Ranga as secretary of the All India Kisan Sabha.

# 60-62nd BPSC Prelims Exam, 2017

- **216**. JEEVIKA is an initiative of Bihar government for
  - (a) Employment generation
  - (b) Financial Inclusion
  - (c) Poverty Attenuation
  - (*d*) Public Distribution
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

#### **Explanation**

- The Government of Bihar (GoB), through the Bihar Rural Livelihoods Promotion Society (BRLPS), an autonomous body under the Department of Rural Development, is spearheading the World Bank aided Bihar Rural Livelihoods Project (BRLP), locally known as JEEViKA with the objective of social & economic empowerment of the rural poor.
- The GoB is committed for poverty alleviation through building, supporting and sustaining institutions of the poor and enhancing their livelihoods.
- 217. "SPUR" project in Bihar relates to
  - (a) Health
  - (b) Poverty
  - (c) Banking
  - (d) Municipal Finances.
  - (e) None of the above/More than one of the above.

#### **Ans.** (*d*)

# **Explanation**

 SPUR stands for "Support Programme for Urban Reforms".

- The Urban Development and Housing Department (UD & HD), Government of Bihar was supported by the Department for International Development (DFID) to implement the Support Programme for Urban Reforms (SPUR) in Bihar
  - It aims to support Government of Bihar strengthen governance at state and urban local government levels to enable affordable and sustainable access to basic services, especially for poor people.
  - Working with Bihar's Urban Development Department and Urban Local Bodies will sustain urban services and attract private investment.
- **218**. Which of the following canal systems irrigate areas of Bihar?
  - (a) Upper Ganga Canal
  - (b) Triveni Canal
  - (c) Sharda Canal
  - (d) Eastern Yamuna Canal
  - (e) None of the above/More than one of the above.

#### **Ans.** (*b*)

#### **Explanation**

• Triveni canal has been constructed on the river "Gandak". It irrigates lands of West Champaran district.

### Irrigation in Bihar:

- Canals, tubewells, wells and ponds are the chief sources of irrigation.
- Canal irrigation is the leading source of irrigation in Bihar.
  - Availability of plain area, alluvial soil, perennial river provide a favorable basis for canal development in Bihar.
  - Major portion of canal irrigated plains lie in South Bihar.

# Son Canal

Two canals have been taken out from Tihri namely Eastern Son Canal and Western Son Canal.

- Eastern Son Canal: It irrigates Patna, Aurangabad, Gaya and Jehanabad districts.
- Western Son Canal: It has three branches namely Ara, Buxar and Chausa. It irrigates lands of Bhojpur, Buxar and Rohtas districts.



	3. Eastern Kosi Canal:	
Kosi Canal	<ul> <li>It has been taken out from Western part of Hanuman Nagar reservoir.</li> <li>It has four branches Murliganj, Janki Nagar, Purnia and Araria.</li> <li>Rajpur Canal is a branch of this canal which irrigates Saharsa and Munger districts.</li> <li>Western Kosi Canal:</li> </ul>	
	<ul> <li>It has been taken out from the left</li> </ul>	
	side of Hanuman Nagar reservoir.	
	<ul> <li>It irrigates lands of Darbhanga district.</li> </ul>	
	A dam near <b>Valmiki Nagar</b> has been built	
	on river Gandak, which is 743 kms long	
	and 10 m high. Two canals have been taken from this place.	
Gandak Canal	<ol> <li>Saran Canal irrigates Saran, Gopalganj and Siwan districts.</li> </ol>	
	2. Tirhut Canal flows eastward and irrigates land of Muzaffarpur, Vaishali	
	and Champaran.	
Kamla Canal	It has been taken out from Kamla river in Darbhanga and irrigates mainly Madhubani district.	
Sakri Canal	It was built in 1950 and irrigates Munger, Gaya and Patna districts.	
Dhaka and Teur Canal	They have been taken out from Lalwakia and Teur river respectively in Champaran.	

- **219**. Which of the following landforms occupy the North-Western parts of Bihar state?
  - (a) Someshwar hilly range
  - (b) Kaimur Plateau
  - (c) Nawada Hilly region
  - (d) Rajgir Hilly region
  - (e) None of the above/More than one of the above.

### **Ans.** (*a*)

### **Explanation**

- Someshwar hilly range occupies the North-Western parts of Bihar state.
  - It is a small hilly region with an area of 74 square kilometers.
  - It extends from the mouth of Triveni Canal upto Bhikna Thori Pass.
  - o It forms a boundary between India and Nepal.
  - The highest point is the Someshwar Fort which is 874 m in height and is the highest place in Bihar.

- **220.** River Tel is a tributary of which of the following rivers?
  - (a) Bagmati
  - (b) Ghaghara
  - (c) Gandak
  - (d) Kamla
  - (e) None of the above/More than one of the above.

#### **Ans.** (*e*)

#### **Explanation**

- River Tel is a tributary of "Mahanadi river".
  - The Tel river flows in Nabarangpur, Kalahandi, Balangir, Boudh Sonepur District of Odisha, India.
  - It flows just eight kilometers away from the town of Titilagarh.
  - This significant tributary of the Mahanadi river meets the main river at Sonepur or Subarnapur
- **221.** Which of the following districts record highest growth of population during 2001-11?
  - (a) Kishangani
  - (b) Araria
  - (c) Madhepura
  - (d) Khagaria
  - (e) None of the above/More than one of the above.

### **Ans.** (*c*)

# **Explanation**

Districts and State	Decadal Growth Rate [2001-11]
Madhepura	30.65%
Kishanganj	30.44%
Bihar	25.07%

- **222.** Which of the following is a silk textile producing centre in Bihar?
  - (a) Motipur
  - (b) Banjari
  - (c) Bhagalpur
  - (d) Dalmianagar
  - (e) None of the above/More than one of the above.

### **Ans.** (c)

- Bhagalpur is a silk textile producing centre in Bihar.
  - It is known as the "Silk City of Bihar".
- About Bhagalpur:
  - Bhagalpur is located in the southern region of Bihar.



- It is one of the oldest districts of Bihar and is situated in the Ganga basin at 141 ft above the sea level.
- The city is spread on an area of 2569 sq. km. It Lies between 25° 07′ - 25° 30′ N Latitude and between 86° 37′ – 87° 30'E longitude.
- The district is surrounded by Munger, Khagaria, Madhepura, Purnea, Katihar and Banka districts of Bihar, Godda and Sahebganj districts of Jharkhand.
- Bhagalpur district comprises three Sub-Divisions: Bhagalpur Sadar, Kahalgaon and Naugachia.
- 223. At which of the following places Bharat Wagon and Engineering Corporation Limited is situated?
  - (a) Madhepura
  - (b) Jamalpur
  - (c) Harnat
  - (d) Mokama
  - (e) None of the above/More than one of the above.

#### **Ans.** (*d*)

#### **Explanation**

- Bharat Wagon and Engineering Corporation Limited is located at "Mokama"
  - o It deals with manufacturing of rail wagon and other engineering products.
- Major Industries and their locations in Bihar:

Industry	Location
Barauni Refinery	It is located in Barauni in Begusarai district. It was established in 1964 with the help of erstwhile USSR.
Bihar State Scooters Limited	Fatuha, Patna
Leather Industry	Mokama, Begusarai, Gaya and Muzaffarpur
Gun Factory, Cigarette Factory	Munger
Rail Engine Repair	Jamalpur
Paper Industry	Samastipur, Darbhanga.
Plywood Industry	Hajipur
Jute Industry	Katihar
Match Stick Industry	Katihar
Utensils	Siwan, Bihar
Lac industry	Gaya, Purnea.

- 224. A pleader of Bihar, who left his lucrative practice during Non-Cooperation movement
  - (a) Jai Prakash Narayan
  - (b) Rajendra Prasad
  - (c) Sahajanand Saraswati
  - (d) Raj Kumar Shukla
  - (e) None of the above/More than one of the above.

#### **Ans.** (b)

### **Explanation**

Rajendra Prasad left his lucrative practice during "Non-Cooperation" movement.

### Non-Cooperation Movement (1920-22) in Bihar:

- Gandhiji started the Non-Cooperation movement against the Punjab and Khilafat wrongs in 1920 and it reached its height during 1921-22. Bihar played an important role in this movement,
  - o On August 28, 1920, the Bihar Provincial Conference presided over by "Dr. Rajendra Prasad" passed a resolution supporting Mahatma Gandhi's non-cooperation, which he had declared on 1st August, 1920.
  - Gandhiji visited Bihar in December, 1920 and laid the foundation of a National College and Bihar Vidyapeeth.
- Features of Non-Cooperation Movement in Bihar:
  - Teachers and students left schools and colleges and the lawyers abstained from attending courts. Foreign goods were boycotted.
  - When the Prince of Wales landed in Bombay on November 17, there was a hartal in whole of Bihar.
    - When the Prince visited Patna on December 22, there was a complete boycott.
  - o The arrest of Gandhiji in March 1922 was marked by state-wide protest meetings in Bihar.
  - o The Civil Disobedience Enquiry Committee of the Congress visited Bihar in 1922.
  - Bihar Vidyapeeth was established on February 6, 1921, which was inaugurated by Gandhiji.
    - Maulana Mazharul Hague and Braj Kishore Prasad were made its Chancellor and Vice-Chancellor respectively.
    - Rajendra Prasad was made Principal at National School, Patna.
  - Mazharul Haque established "Sadaqat Ashram" near Digha in Patna which became the main center of national movement.
    - He also started a newspaper called "Motherland" from September 30, 1921.

- **225.** Who joined Subash Chandra Bose to found All India Forward Bloc and was actively associated with the INA Movement?
  - (a) A.Jai Prakash Narayan
  - (b) Baikunth Shukla
  - (c) Sheel Bhadra Yajee
  - (d) Ram Narain Prasad
  - (e) None of the above/More than one of the above.

#### **Ans.** (*c*)

### **Explanation**

 Sheel Bhadra Yajee joined "Subash Chandra Bose" to found All India Forward Bloc and was actively associated with the INA Movement.

### About Sheel Bhadra Yajee:

- He was born on 22nd March, 1906 at Bakhtiyarpur village in Patna district of Bihar.
- He took active part in Bharat Naujawan Sabha held at Karachi, presided over by Subash Chandra Bose in 1931.
- He was chosen as the lieutenant of the nation's accredited Kisan leader [Swami Sahajanand Saraswati].
- He became a member of Bihar Legislative Assembly in 1937.
- In March, 1940, a massive demonstration was held at Ramgarh in Bihar by the Forward Bloc and Kisan Sabha just opposite the Congress pandal.
  - Shri Yajee was the chief organizer of this Anti-Compromise Conference.
- He was vice President of the All India Forward Bloc but in the absence of Netaji Subash Chandra Bose, he was appointed president of the All India Forward Bloc to conduct the Quit Indian Movement in India in 1942.
- **226.** Who left Patna College with just 20 days remaining for his examination during the Non Cooperation movement?
  - (a) Rajendra Prasad
  - (b) Brij Kishore
  - (c) Jai Prakash Narayan
  - (d) Sri Krishna Sinha
  - (e) None of the above/More than one of the above.

# **Ans.** (*c*)

#### **Explanation**

- Jai Prakash Narayan left "Patna College" with just 20 days remaining for his examination during the Non Cooperation movement.
- Background behind leaving the college:
  - Jayaprakash, along with some friends, went to listen to Maulana Abul Kalam Azad speak about the Non-co-operation movement launched by Gandhi against the passing of the Rowlatt Act of 1919.
  - The Maulana was a brilliant orator and his call to give up English education was "like leaves before a storm: Jayaprakash was swept away and momentarily lifted up to the skies.
  - That brief experience of soaring up with the winds of a great idea left imprints on his inner being".
  - Jayaprakash took the Maulana's words to heart and left Bihar National College with just 20 days remaining for his examinations.
  - Jayaprakash joined the Bihar Vidyapeeth, a college founded by Rajendra Prasad and became among the first students of Gandhian Anugraha Narayan Sinha.
- **227**. Who drew Mahatma Gandhi's attention towards the exploitation of the peasants by the European Indigo planters?
  - (a) Baba Ram Chandra
  - (b) Raj Kumar Shukla
  - (c) Swami Sahajanand Saraswati
  - (d) Shri Krishna Singh
  - (e) None of the above/More than one of the above.

#### **Ans.** (*b*)

- The name of the journal published by Swami Sahajanand Saraswati was "Hunkar".
- About Swami Sahajanand Saraswati:
  - He was born in Ghazipur district of Uttar Pradesh on 22nd February, 1889.
  - In 1929, he formed the "Bihar Provincial Kisan Sabha" to mobilise peasant grievances against the Zamindari attacks on their occupancy rights.
  - In 1936, All India Kisan Sabha was formed at Lucknow.
    - Swami Sahajanand Saraswati was the President and N.G Ranga as secretary of the All India Kisan Sabha.

- **228.** Which among the following state "Odantipur" Education Centre was situated?
  - (a) Bengal
  - (b) Bihar
  - (c) Gujarat
  - (d) Tamil Nadu
  - (e) None of the above/More than one of the above.

# **Explanation**

• "Odantipur" Education Centre was situated in Bihar.

#### About Swami Sahajanand Saraswati:

- He was born in Ghazipur district of Uttar Pradesh on 22nd February, 1889.
- In 1929, he formed the "Bihar Provincial Kisan Sabha" to mobilise peasant grievances against the Zamindari attacks on their occupancy rights.
- In 1936, All India Kisan Sabha was formed at Lucknow.
  - Swami Sahajanand Saraswati was the President and N.G Ranga as secretary of the All India Kisan Sabha.
- 229. Who was the first Muslim conqueror of Bihar?
  - (a) Malik Ibrahim
  - (b) Iltutmish
  - (c) Bakhtiyar Khalji
  - (d) Ali Mardan Khalji
  - (e) None of the above/More than one of the above.

# **Ans.** (*c*)

# **Explanation**

- Bakhtiyar Khalji was the real founder of "Turk rule" in Bihar. He is also considered as the first "Muslim Conqueror of Bihar.
  - He attacked on the fortified university town (Hisari-Bihar) of Bihar in 1199 AD.
  - Further, he invaded Biharsarif and plundered "Odantipuri Mahavihara".
  - The place "Bakhtiyarpur" in Bihar Sharif subdivision was probably named after him following the "Turkish conquest" of the town.
- The earliest description of Bakhtiyar Khilji's invasion of Bihar is in "Tabaqat-i-Nasiri" [in Persian language] written by Minhaj-i-Siraj.

- He launched an ill-fated campaign "Tibet Campaign" in 1206 AD and was assassinated upon returning to Bengal by Ali Mardan.
- **230**. Who was the last King of Karnata dynasty?
  - (a) Harisimha
  - (b) Ramsimha
  - (c) Matisimha
  - (d) Shyamsimha
  - (e) None of the above/More than one of the above.

#### **Ans.** (*a*)

#### **Explanation**

- Hari shimhadeva [Hari Singh Deva] was the last king of "Karnata dynasty".
- The independent "Karnata dynasty" in Mithila was founded by "Nanyadeva" in 1097 AD.
  - Simraon, in Champaran was the capital of Karnatas of Mithila.
  - The Karnatas of Mithila hailed from the Deccan in the wake of Chalukya invaders.

#### • About Karnata rulers:

- Nanyadeva is called "Karnatakshatriya" and "Karnatakulabhushana" in Mithila tradition.
- o Chronology: Nanyadeva-Gangadeva-Narshimadeva
- During the reign of Narmshimadeva, Muhammad Bakhtiyar Khalji passed with his army through Tirhut on his way to Lakhnauti in 1202 AD.
- 231. Nalanda Vihar was destroyed by
  - (a) Bakhtiyar Khalji
  - (b) Qutubuddin Khalji
  - (c) Muhammad Bin Tughlaq
  - (d) Alauddin Khalji
  - (e) None of the above/More than one of the above.

# **Ans.** (*a*)

- Nalanda Vihar was destroyed by Bakhtiyar Khalji.
  - He attacked the fortified university town (Hisar-i-Bihar) of Bihar in 1199 AD.
  - Further, he invaded Bihar Sharif and plundered "Odantapuri Mahavihara".
  - The place "Bakhtiyarpur" in Bihar Sharif subdivision was probably named after him following the "Turkish conquest" of the town.

- 231. Who was the founder of Karnata Dynasty?
  - (a) Nanyadev
  - (b) Narshimadev
  - (c) Vijaydev
  - (d) Haridev
  - (e) None of the above/More than one of the above.

### **Ans.** (*a*)

### **Explanation**

- The independent "Karnata dynasty" in Mithila was founded by "Nanyadeva" in 1097 AD.
  - Simraon, in Champaran was the capital of Karnatas of Mithila.
  - The Karnatas of Mithila hailed from the Deccan in the wake of Chalukya invaders.

#### About Karnata rulers:

- Nanyadeva is called "Karnatakshatriya" and "Karnatakulabhushana" in Mithila tradition.
- Chronology: Nanyadeva-Gangadeva-Narshimadeva
- During the reign of Narmshimadeva, Muhammad Bakhtiyar Khalji passed with his army through Tirhut on his way to Lakhnauti in 1202 AD.

- **233**. Who was the leader of revolutionaries in Bihar during the revolt of 1857?
  - (a) Namdar Khan
  - (b) Babu Kunwar Singh
  - (c) Birsa Munda
  - (d) Shankar Shah
  - (e) None of the above/More than one of the above.

### **Ans.** (*b*)

- Babu Kunwar Singh was the leader of revolutionaries in Bihar during the revolt of 1857.
- Kunwar Singh was born in November, 1782 to Raja Shahabzada Singh and Rani Pancharatan Devi in Jagdishpur of the Shahabad district [Presently Bhojpur district of Bihar].
  - He belonged to the Ujjainiya Rajput clan.
  - At the age of 80, he actively led the "First War of Independence" in 1857 in Bihar.
  - He died on 26th April, 1858.



