

Geography of Bihar

- Longitudinal extent - $83^{\circ}19'$ E to $88^{\circ}7'$ E
- Latitudinal extent - $24^{\circ}20'$ N to $27^{\circ}3'$ N
- Distance from east to west - 483 km
- Distance from north to south - 345 km
- Bihar has boundaries with the states of UP, Jharkhand and West Bengal. It also borders Nepal in the north.
- Length of Nepal border - 601 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 boundary with UP in some parts
- Sone river forms a boundary with Jharkhand in Rohtas district

Geological Structure of Bihar

- Younger rocks to the north, older rocks to the south
- North-west is Terai, Central is Gangetic plain and south is a plateau region
- Bihar plain is the youngest to be formed
- **Dharwar** rocks - South-eastern Bihar - Jamui, Nawada, Munger districts
- **Vindhyan** rocks - South-western Bihar - Kaimur, Rohtas districts
- **Plateau** region - extends as a narrow belt from Kaimur district to Banka district

Climate of Bihar

- Continental Monsoon type climate
- The northern part is cooler compared to the southern part
- Eastern part receives 200 cm of rainfall while the western part receives 100 cm.
- April month has the lowest humidity
- The temperature of the eastern part is reduced due to the impact of the Nor'wester showers.
- **Nor'wester** - tropical cyclonic thunderstorm, extremely helpful for pre-Kharif crops

- Gaya is hottest in May while coldest in January.

Soils of Bihar

- **Piedmont Swamp Soil** - West-Champaran, supports rice, rich in organic matter
- **Terai Soil** - found in the Northern belt bordering Nepal, Champaran to Kishanganj, sugarcane, jute
- **Bhangar** - older alluvial soil -loamy, sticky, rich in lime, good for paddy and sugarcane, Patna and Gaya
- **Khadar** - younger alluvial soil - rich in nitrogen, good for paddy and wheat, Purina, Saharsa, Darbhanga
- **Karail-Kewal** soil - heavy clay, alkaline, from Rohtas to Bhagalpur, brown to yellow
- Tal soil - poor drainage, grey, high yield, from Buxar to Banka
- **Balthar soil** - the presence of iron, red and yellow, less fertile, in the transitional zone between Chhotanagpur plateau and Ganga plain, Kaimur to Rajmahal hills
- **Bal Sundari** - alkaline, Saharsa and Champaran, maize and tobacco

Ganga

- Enters at **Chausa** forming boundary of Bhojpur and Saran
- Northern tributaries - **Ghaghra** in Saran, **Gandak** at Sonapur, **Bagmati** at Munger, **Kosi** at Kursela, **Kali-Kosi** at Manihari
- Southern tributaries - Sone at Maner, Karmanasa at Chausa, Punpun at Fathua
- It has the largest catchment area in Bihar
- **Mahatma Gandhi Setu** - connects Patna in the south to Hajipur in north

Ghaghra / Saryu

- Originates at **Nampa** in Nepal
- Enters Bihar at **Gopalganj**
- Joins Ganga at **Chhapra**

Gandak

- Originates at **Tibet**
- Enters India near **Triveni** in Nepal,
- Forms boundary of Bihar and UP
- Enters Bihar at **West Champaran**
- Joins Ganga at **Sonapur**

- **Triveni Canal** gets water from this river

Burhi Gandak

- Originates at **Someshwar hills** in Chautarwa Chaur of **West Champaran**
- Flows parallel to river Gandak
- Joins Ganga at **Khagaria**

Kosi

- Notoriously known as **Sorrow of Bihar** for its changing of course
- It is made up of seven channels from Nepal known as Sapt Kosi
- Enters Bihar through **Supaul**
- Joins Ganga at **Kursela in Katihar**

Bagmati

- Originates in **Shivpuri range** in Nepal
- Enters Bihar in **Sitamarhi**
- Joins Kosi at **Badlaghat**

Kamla

- Originates in **Mahabharat Range** in Nepal near **Sindhuliagarhi**
- Enters Bihar in **Madhubani**
- **Kamla Barrage** has been constructed
- Joins river Bagmati at **Badlaghat**

Mahananda

- Originates in **Sikkim**
- Enters Bihar in **Kishanganj**
- Joins Ganga at **Nawabganj in Bangladesh**
- In upper course forms an important linguistic boundary between Hindi and Bengali speaking area.

Sone

- Originates in **Amarkantak range in MP**
- Joins Ganga near Maner
- Important tributaries are Rihand and North Koel

Punpun

- Originates in the Hazaribagh plateau
- Joins Ganga near Fatuha
- Causes heavy flood damage to the east of Patna city

Phalgu

- It is also known as **Niranjana**
- It is considered a sacred river and flows past **Gaya**

Waterfalls in Bihar

- **Kakolat waterfall** - in Nawada near Jharkhand border, fall of 160 ft
- **Karkat waterfall** - in the Kaimur hills near the Kaimur Wildlife Sanctuary
- **Manjhar Kund and Dhua Kund** - in Sasaram, utilized for power generation

Hot Springs

- Most of the Hot Springs are concentrated in Rajgir and Munger.
- **Rajgir** - Saptdhara, Surya Kund, Makhdum Kund, Brahma Kund
- **Munger** - Lakshman Kund, Rameshwar Kund, Gaumukh Kund, Sita Kund, Rishi Kund

Flora and Fauna

- Total forest area - 7299 sq. km, 7.75% of total area (1.04% of India's forest) (IFR2017)
- Maximum forest area - Kaimur district
- Minimum forest area - Sheikhpura
- The total area under very dense forest is in West Champaran
- The moist deciduous forest is found in Kishanganj, West Champaran, Kaimur, Gaya etc.
- Dry Deciduous - most abundant in Bihar, Kaimur, Purnia, Raxaul etc.
- **Valmiki National Park** -located in West Champaran, established on **2nd August 1989**
- **Valmiki Tiger Reserve** consists of Valmiki National Park and Valmiki Wildlife Sanctuary
- **Bhimbandh Wildlife Sanctuary** - Munger, south of Ganga, has several hot springs like Sita Kund and Rishi Kund, more famous for birds than land animals, established on **25 June 1976**

- **Kaimur Wildlife Sanctuary** - Kaimur, Bengal Tigers are also found here, several waterfalls like Karkat and Telhar waterfall, the famous lake is **Anupam Lake**, established on **25 July 1979**
- **Gautam Buddha Wildlife Sanctuary** - located in Gaya and Hazaribagh (Jharkhand), previously it was private hunting reserve, established on **14 September 1971**
- **Vikramshila Gangetic Dolphin Sanctuary** - Bhagalpur stretching from Sultanganj to Kahalgaon, only protected area for Gangetic Dolphins, established on **28 August 1990**
- **Sanjay Gandhi Jaivik Udyan** - located in **Patna**, biological park combining a botanical garden with the zoo, established on **8th March 1983**

Miscellaneous

- Total area - **94,163 sq. km** (13th in India)
- Population - **10,40,99,452** (3rd in India)
- Decadal Growth Rate - 25.4%
- Population Density - 1106
- Sex Ratio - 918
- Child Sex Ratio - 935
- Literacy Rate - 61.8%
- Most Populated - Patna
- Least populated - Sheikhpura
- Most Dense - Sheohar (1880)
- Least Dense - Kaimur (488)
- Largest district Area Wise - West Champaran
- Smallest district Area Wise- Sheohar