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# Introduction to Jharkhand's Geography

Jharkhand, often referred to as the "Land of Forests," is a state located in the eastern region of India. It was carved out of the southern part of Bihar on November 15, 2000, and since then, it has emerged as a significant state in terms of its natural resources and cultural heritage. The state's name is derived from the Hindi words "Jhar" (forest) and "Khand" (land), highlighting its rich forest cover and diverse terrain.

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## Location and Boundaries

Jharkhand is situated between the latitudes 22°00'N to 24°37'N and longitudes 83°15'E to 87°01'E. It is bordered by:



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- **North:** Bihar
- **East:** West Bengal
- **South:** Odisha
- **West:** Chhattisgarh and Uttar Pradesh

This strategic location gives Jharkhand an essential place in connecting eastern India with the central and northern regions.

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## Topography

Jharkhand's topography is highly varied, with a mix of plateau, hills, valleys, and plains. It is part of the Chotanagpur Plateau, which is a northeastern extension of the Deccan Plateau. Key features of its topography include:

- **Chotanagpur Plateau:** This is the dominant geographical feature of Jharkhand. It is divided into three parts:
  - **Ranchi Plateau:** The highest part, with an average elevation of 700 meters.
  - **Hazaribagh Plateau:** Known for its rolling landscape and rich coal reserves.
  - **Koderma-Giridih Plateau:** Famous for its mica deposits.
- **Rajmahal Hills:** Located in the northeastern part of the state, these hills are known for their volcanic origin and are rich in basalt rocks.
- **Damodar Valley:** A significant coal-bearing area, this valley plays a crucial role in the industrial development of the state.

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## Climate

Jharkhand experiences a tropical climate, characterized by three distinct seasons: summer, monsoon, and winter.

1. **Summer (March to June):**
   - Temperatures range between 25°C and 45°C.
   - The southern and western parts, being on higher altitudes, remain relatively cooler.
2. **Monsoon (July to September):**
   - The state receives an average annual rainfall of 1,100 to 1,600 mm, primarily from the southwest monsoon.
   - The heavy rains replenish water bodies but also lead to soil erosion and flooding in some areas.
3. **Winter (November to February):**
   - Temperatures can drop to 5°C in hilly areas.
   - It is the most pleasant season, with clear skies and mild weather.

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## Rivers and Water Resources

Jharkhand is endowed with several perennial and seasonal rivers, which are vital for irrigation, drinking water, and industrial use.



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- **Major Rivers:**
  - **Damodar River:** Known as the "Sorrow of Jharkhand" due to its history of floods, it is also the lifeline of the state, supporting industrial zones.
  - **Subarnarekha River:** Flows through Ranchi, East Singhbhum, and West Bengal, known for its scenic beauty and utility.
  - **Koel, Barakar, and Mayurakshi Rivers:** Important for local irrigation and water supply.
- **Waterfalls:**
  - **Hundru Falls:** Formed by the Subarnarekha River, a popular tourist attraction.
  - **Dassam Falls and Jonha Falls:** Both located near Ranchi, showcasing the rugged terrain and natural beauty of the region.

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## Natural Vegetation and Wildlife

Jharkhand boasts a rich biodiversity due to its extensive forest cover, which accounts for nearly 29% of the state's geographical area. The vegetation primarily comprises tropical deciduous forests, including:

- **Sal, Teak, and Mahua Trees:** Dominate the forests and provide significant economic value.
- **Medicinal Plants:** Many herbs and shrubs used in traditional medicine are found here.

Wildlife is another notable aspect, with several species of flora and fauna inhabiting the forests. Key wildlife sanctuaries and parks include:

- **Betla National Park:** Home to elephants, tigers, and a variety of birds.
- **Hazaribagh Wildlife Sanctuary:** Known for deer, panthers, and sloth bears.

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## Mineral Wealth

Jharkhand is often referred to as the "Mineral Hub of India" due to its vast reserves of minerals, which include:

- **Coal:** The state contributes significantly to India's coal production, with major coalfields in Dhanbad and Bokaro.
- **Iron Ore:** Found abundantly in Singhbhum district.
- **Mica, Bauxite, and Copper:** Other essential minerals that contribute to the state's economy.

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## Soil Types

The state has diverse soil types, influenced by its topography and parent rock material. Key soil types include:

1. **Red Soil:** Found in plateau regions, rich in iron but low in organic content.
2. **Black Soil:** Found in some areas, suitable for cotton cultivation.
3. **Laterite Soil:** Found in hilly areas, ideal for horticulture and plantation crops.
4. **Alluvial Soil:** Found in river valleys, highly fertile and suitable for paddy cultivation.



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### Challenges in Geography

Jharkhand's unique geography also poses several challenges:

1. **Deforestation:** Increasing industrialization and mining have led to significant deforestation.
2. **Soil Erosion:** Hilly terrain combined with heavy rainfall results in loss of fertile soil.
3. **Water Scarcity:** Despite having numerous rivers, water management remains a challenge due to seasonal fluctuations and over-dependence on monsoons.

## Geographical Location and Boundaries

Jharkhand, a state in eastern India, is known for its rich mineral resources, dense forests, and diverse tribal culture. Its geographical location and boundaries play a crucial role in shaping its identity and development.

**Geographical Location**

Jharkhand is situated in the northeastern part of the Indian peninsula, between 21°58' and 25°18' North latitude and 83°20' and 87°57' East longitude. It covers an area of 79,714 square kilometers, making it the 15th largest state in India.

The state's location places it in a strategic position, connecting the northern and southern regions of the country. It also serves as a gateway to the northeastern states.

**Boundaries**

Jharkhand shares its borders with five states:

- **North:** Bihar
- **West:** Uttar Pradesh and Chhattisgarh
- **South:** Odisha
- **East:** West Bengal

This central location within India makes Jharkhand a vital link in the country's transportation and communication networks.

**Physiographic Features**

Jharkhand's topography is dominated by the Chota Nagpur Plateau, which covers most of the state. This plateau is characterized by rolling hills, valleys, and dense forests. The highest point in Jharkhand is Parasnath Hill (1,366 meters), a significant pilgrimage site for Jains.

Several rivers flow through Jharkhand, including the Damodar, Subarnarekha, Koel, and Brahmani. These rivers play an important role in the state's economy, providing water for irrigation and industry.



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**Climate**

Jharkhand has a tropical climate with three distinct seasons:

- **Summer:** Hot and humid, with temperatures reaching up to 47°C.
- **Monsoon:** Rainy season, with average rainfall of 1,400 mm.
- **Winter:** Pleasant and cool, with temperatures ranging from 4°C to 25°C.

**Natural Resources**

Jharkhand is rich in mineral resources, including coal, iron ore, copper, bauxite, and limestone. These resources have contributed significantly to the state's industrial development. The state also has abundant forest resources, which provide timber, fuelwood, and other forest products.

**Impact of Geographical Location and Boundaries**

Jharkhand's geographical location and boundaries have had a significant impact on its:

- **Economy:** The state's central location and rich natural resources have made it an important industrial center.
- **Culture:** Jharkhand's diverse tribal population has been influenced by its proximity to different states.
- **Transportation:** The state's location makes it a crucial link in India's transportation network.
- **Environment:** Jharkhand's forests play an important role in regulating the region's climate and water resources.

## Physiographic Divisions of Jharkhand

Jharkhand, the land of forests, is geographically diverse and rich in natural beauty. The state is characterized by a rugged terrain, plateaus, hills, and river valleys that contribute to its unique physiographic divisions. These physiographic divisions play a critical role in shaping the state's climate, biodiversity, and socio-economic activities.

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### 1. Introduction to Jharkhand's Physiography

Jharkhand's physiography is a mix of ancient plateaus, forested hills, and river valleys. Situated in eastern India, it spans an area of 79,716 km². The region is dominated by the Chotanagpur Plateau, which is a part of the Deccan Plateau system. The diverse terrain supports rich mineral resources, dense forests, and agricultural activities.

*Key Features:*

- Location: Between 21°58′ and 25°18′ N latitude, and 83°22′ and 87°57′ E longitude.



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