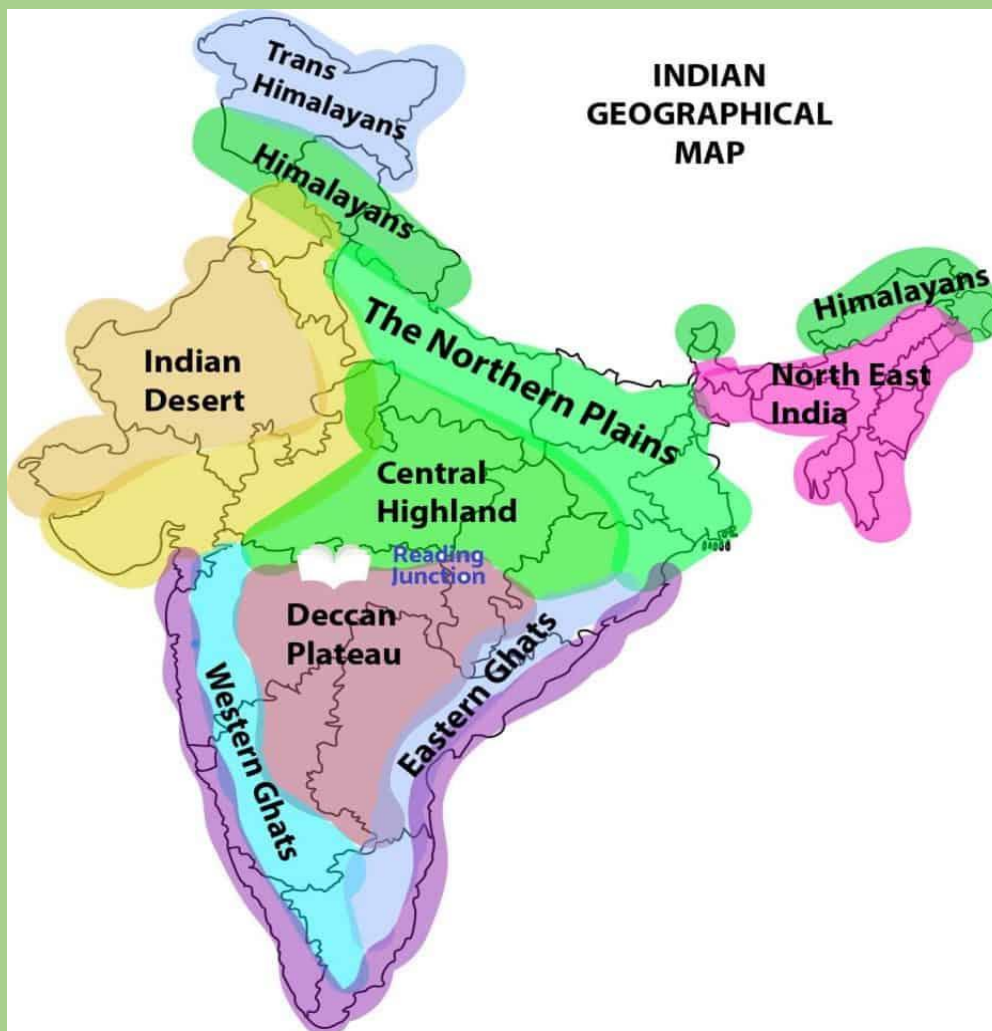


GEOGRAPHICAL SUB DIVISION OF INDIA

Dr. Sourav Dasgupta

India, a land of vast diversity and rich cultural heritage, is a mosaic of distinct geographical subdivisions that contribute to its unparalleled tapestry. From the towering peaks of the Himalayas to the sun-kissed beaches of the Indian Ocean, the country encompasses a myriad of landscapes, each marked by its unique characteristics and features. This intricate division plays a crucial role in shaping the nation's climate, culture, and way of life. *India is divided into several geographical subdivisions, each with its own unique characteristics and features.* Understanding these subdivisions is key to unraveling the complexities and richness of the Indian subcontinent.



The primary subdivisions include:

1. **The Himalayan Region:** Dominating the northern borders of India, the Himalayas stand as the world's highest mountain range. This region is not only known for its breathtaking

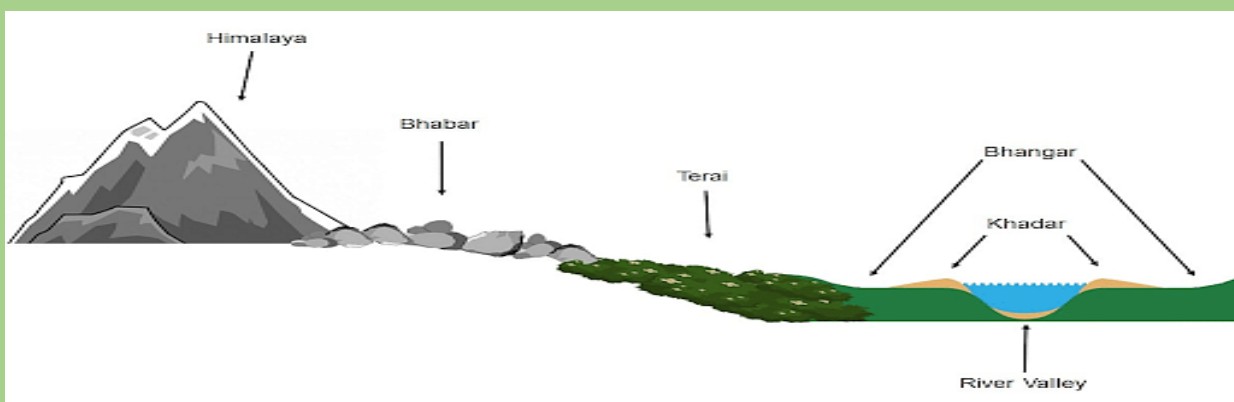
landscapes but also for its influence on India's climate, acting as a barrier against cold winds from Central Asia.

2. **The Northern Plains:** Stretching south from the foothills of the Himalayas, the Northern Plains are endowed with fertile alluvial soil, making them the country's agricultural heartland. This region is crisscrossed by numerous rivers, including the sacred Ganges, which play a pivotal role in the socio-economic life of the people.
3. **The Western Ghats:** Running parallel to the western coast, the Western Ghats are a mountain range adorned with lush greenery and home to a diverse range of flora and fauna. These ghats significantly influence the southwest monsoon, bringing copious rainfall to the coastal regions.
4. **The Deccan Plateau:** Situated between the Eastern and Western Ghats, the Deccan Plateau is a vast elevated landmass characterized by its arid expanses and rocky terrain. It has played a significant historical role and is home to numerous ancient civilizations.
5. **The Eastern Ghats:** Parallel to the Bay of Bengal, the Eastern Ghats contribute to the diverse topography of India. This region is marked by hills, plateaus, and dense forests, providing habitat to unique flora and fauna.
6. **The Coastal Regions:** India boasts an extensive coastline along the Arabian Sea to the west and the Bay of Bengal to the east. These coastal regions have been hubs of trade, commerce, and cultural exchange for centuries, influencing the development of vibrant coastal communities.

Northern Plains: This region comprises the fertile plains formed by the Ganges, Yamuna, and other rivers. It's one of the most densely populated and agriculturally productive areas in India.

- **Geographical Features:**

- Formed by the Ganges, Yamuna, and other rivers.
- Extends across states like Uttar Pradesh, Bihar, Haryana, and parts of Rajasthan.

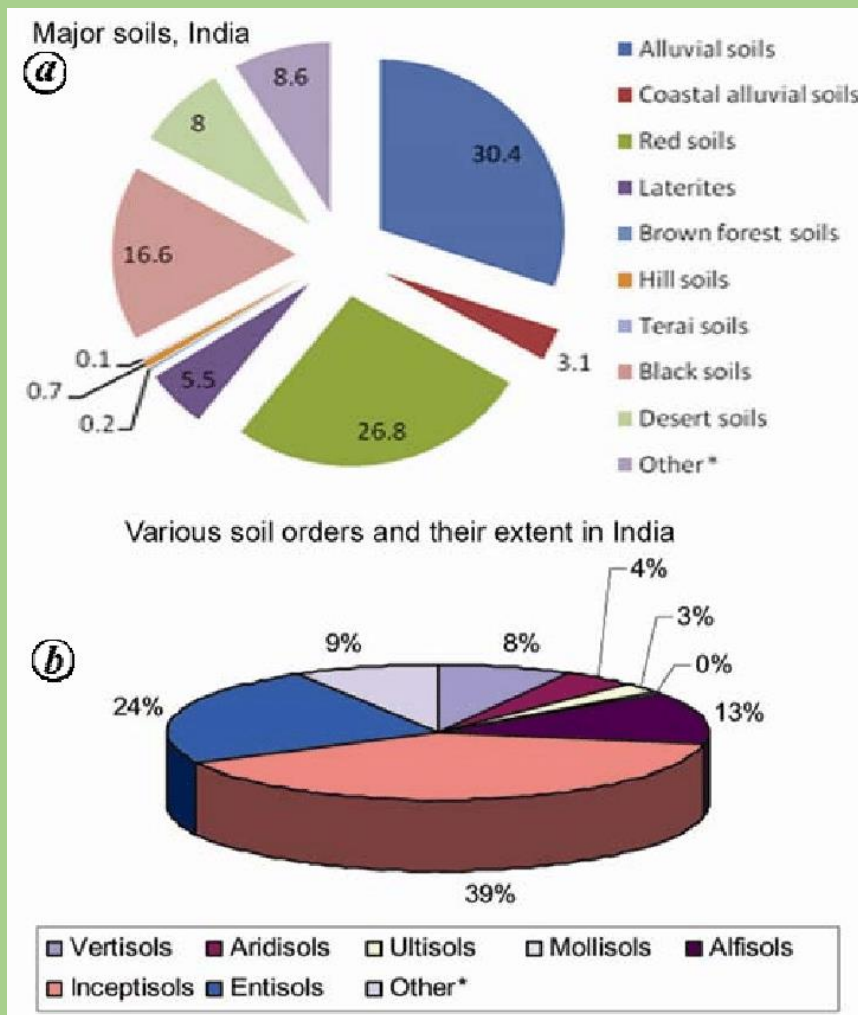


- **Fertility of Soil:**

- Rich alluvial soil due to the deposition of sediment by the rivers.

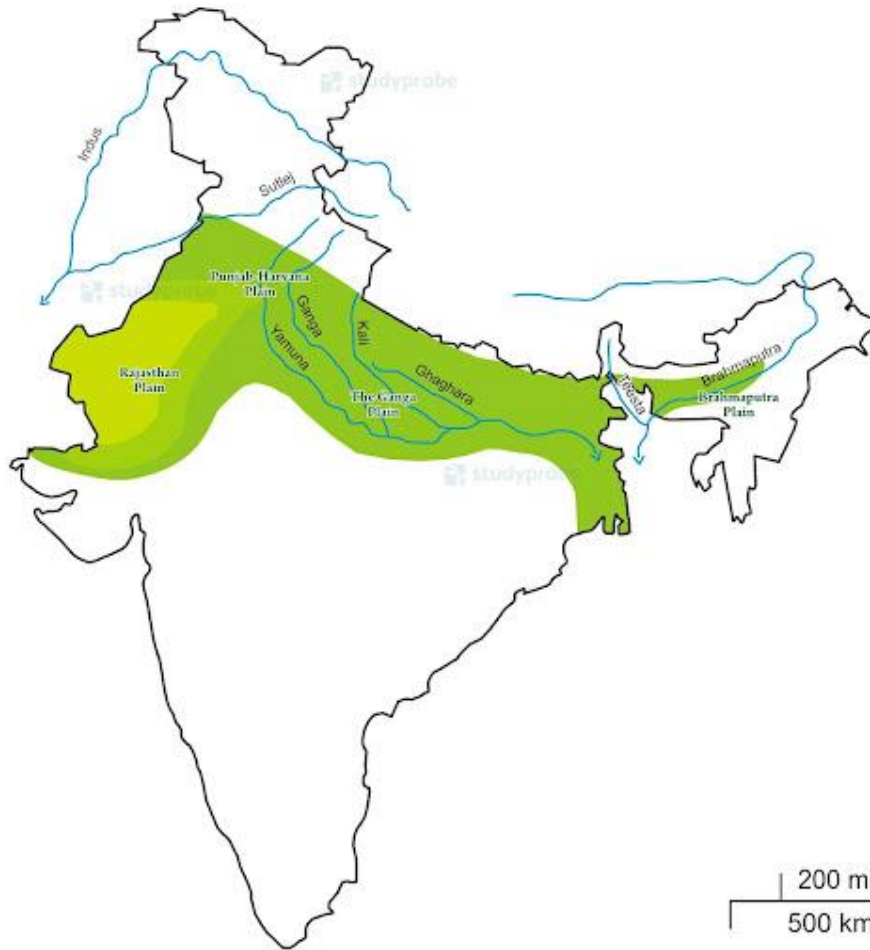
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- Ideal for agriculture, supporting a variety of crops.



- **Agricultural Productivity:**
 - Among the most agriculturally productive regions in India.
 - Major crops include rice, wheat, sugarcane, and various fruits and vegetables.
- **Densely Populated:**
 - High population density due to the availability of fertile land and agricultural opportunities.
 - Home to some of the most populous cities in India, such as Delhi and Kolkata.

Great Plain of North India



- **Cultural and Historical Significance:**

- Historical importance with several ancient civilizations thriving along the riverbanks.
- Varanasi, a prominent city in the region, is one of the oldest continuously inhabited cities in the world.

2. THE NORTHERN PLAINS.

- ➔ THE NORTH PLAINS ARE FORMED BY THE ALLUVIAL DEPOSITS BROUGHT BY THE RIVERS- THE INDUS, THE GANGA AND THE BRAHMAPUTRA.
- ➔ THESE PLAINS EXTEND APPROXIMATELY 3,200 km FROM THE EAST TO THE WEST.
- ➔ THE AVERAGE WIDTH OF THESE PLAINS VARIES BETWEEN 150-300 km.
- ➔ THE MAXIMUM DEPTH OF ALLUVIUM DEPOSITS VARIES BETWEEN 1,000-2,000 m.
- ➔ THE NORTH TO THE SOUTH, THESE CAN BE DIVIDED INTO THREE MAJOR ZONES: THE BHABAR, THE TARAI AND THE ALLUVIAL PLAINS.
- ➔ THE ALLUVIAL PLAINS CAN BE FURTHER DIVIDED INTO THE KHADAR AND THE BHANGAR.

What are northern plains ?

The northern plain has been formed by the interplay of the three major river systems- the Indus, the Ganga and the Brahmaputra along with their tributaries.

This plain is formed of alluvial soil. The deposition of alluvium in a vast basin lying at the foothills of the Himalaya over millions of years, formed this fertile plain.

Plains of Northern India

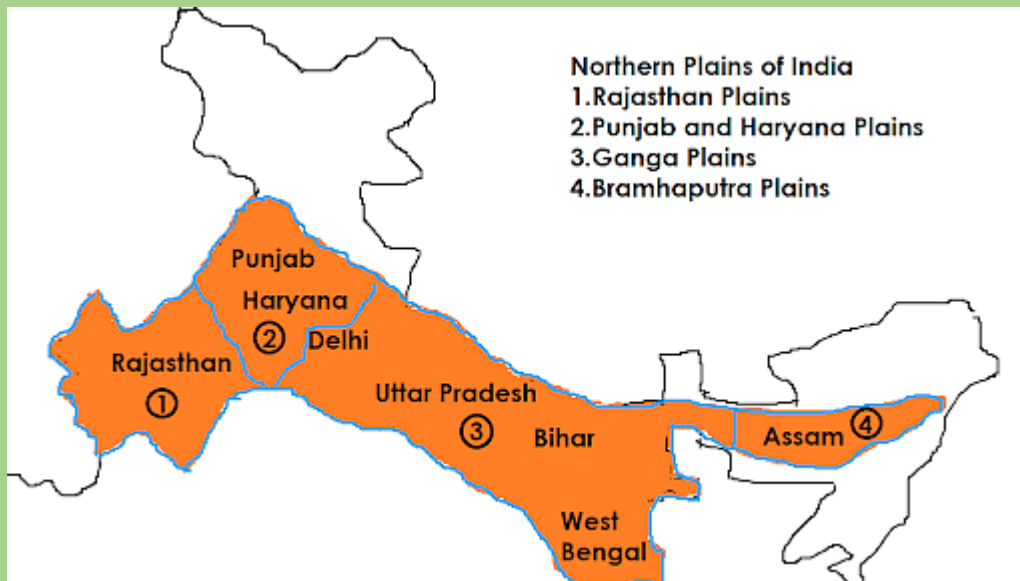
- **Water Resources:**
 - Abundance of water resources from the Ganges and Yamuna rivers.
 - Irrigation facilities support extensive farming activities.
- **Economic Contribution:**
 - Contributes significantly to the national economy through agricultural output.

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- Industries and services also play a role in the economic landscape.
- **Challenges:**
 - Facing environmental challenges, including pollution of rivers and depletion of groundwater.
 - Balancing urbanization and industrialization with sustainable agricultural practices.
- **Cultural Diversity:**
 - Home to diverse cultures and traditions.
 - Festivals and religious practices are integral parts of life in this region.
- **Transportation Hub:**
 - Well-connected by road, rail, and waterways, facilitating transportation of goods and people.
 - Strategic location makes it a hub for trade and commerce.
- **Biodiversity:**
 - Diverse flora and fauna supported by the fertile ecosystem.
 - Efforts needed for conservation amid increasing human activities.

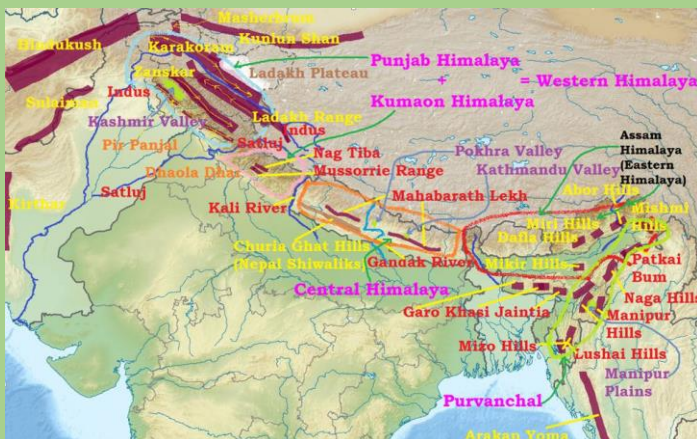


- **Educational and Academic Centers:**
 - Houses several educational institutions and universities.
 - Contributes to the intellectual and academic development of the country.



Himalayan Region: Located in the northern part of India, this region is characterized by the majestic Himalayan mountain range. It includes states like Jammu and Kashmir, Himachal Pradesh, Uttarakhand, and parts of northeastern states.

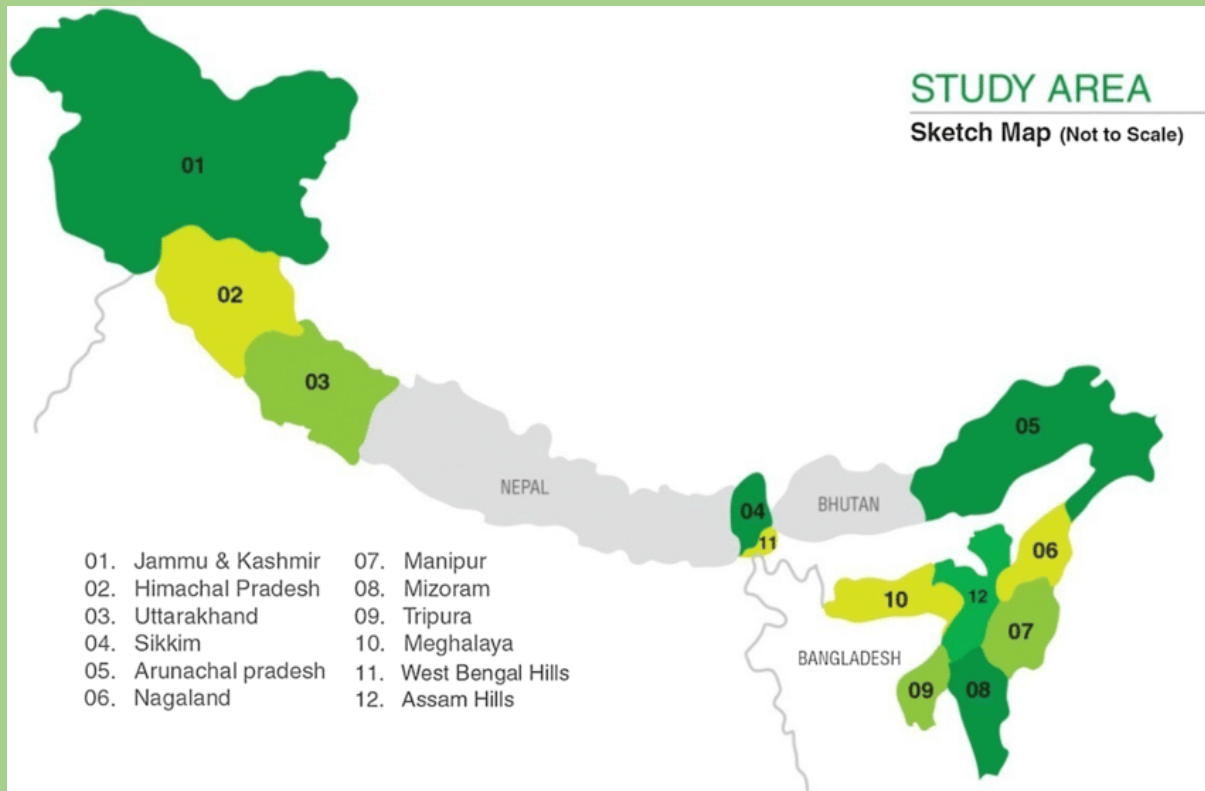
- **Geographical Overview:**
 - Located in the northern part of India.
 - Dominated by the majestic Himalayan mountain range.



- **States Encompassed:**
 - Jammu and Kashmir
 - Himachal Pradesh
 - Uttarakhand

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- Parts of northeastern states
- **Physical Features:**
 - Home to some of the world's highest peaks, including Mount Everest.
 - Abundance of glaciers, contributing to major river systems like the Ganges, Yamuna, and Brahmaputra.



- **Cultural Diversity:**
 - Rich cultural heritage with a blend of various ethnicities.
 - Diverse traditions and customs influenced by the challenging terrain.



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- **Tourist Attractions:**

- Popular destination for adventure enthusiasts and nature lovers.
- Attractions include pilgrimage sites, national parks, and scenic landscapes.



- **Biodiversity:**

- Unique flora and fauna due to varying altitudes and climates.
- Houses endangered species like the snow leopard and red panda.



- **Climatic Variation:**

- Varied climate zones ranging from subtropical to alpine.
- Impact on local agriculture and lifestyle.

- **Strategic Significance:**

- Strategic border region, especially in the context of Jammu and Kashmir.

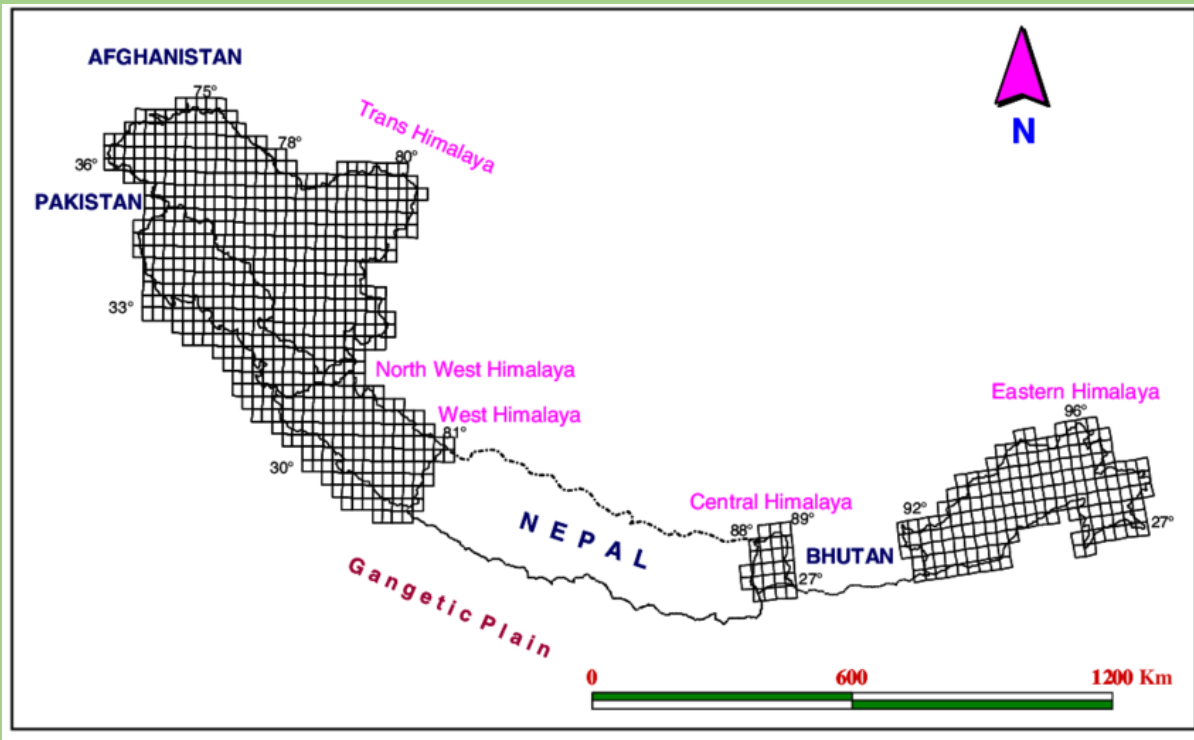
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- Historically significant for trade routes and invasions.
- **Challenges Faced:**
 - Vulnerability to natural disasters such as earthquakes and landslides.
 - Difficulties in connectivity and transportation due to challenging terrains.
- **Economic Activities:**
 - Agriculture, horticulture, and tourism contribute significantly to the local economy.
 - Handicrafts and traditional industries play a role in sustaining livelihoods.
- **Cultural and Spiritual Hubs:**
 - Houses various religious and spiritual centers like Amarnath, Kedarnath, and Badrinath.
 - Influential monasteries in the northeastern part contribute to the region's cultural significance.



- **Conservation Efforts:**
 - Efforts to preserve the fragile ecosystem and protect endangered species.
 - Balancing development with ecological sustainability is a key concern.
- **Historical Significance:**
 - Region has historical importance in ancient trade routes and invasions.
 - Witnessed the spread of Buddhism and development of unique cultural practices.
- **Strategic Importance:**
 - Due to its proximity to international borders, the region holds strategic significance for defense and security.

- Geostrategic importance in international relations, especially regarding neighboring countries.



Western Ghats: Running parallel to the western coast of India, the Western Ghats are a mountain range known for their biodiversity hotspots and lush forests. States like Maharashtra, Goa, Karnataka, Kerala, and Tamil Nadu have parts of the Western Ghats within their borders.



- **Geographical Location:**
 - The Western Ghats run parallel to the western coast of India.

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- Extending over a length of approximately 1,600 kilometers, these mountains play a crucial role in shaping the geography of the region.
- **Biodiversity Hotspots:**
 - *The Western Ghats are renowned for being one of the world's biodiversity hotspots.*
 - *They host a wide array of flora and fauna, including numerous endemic species that are not found anywhere else in the world.*



- **Lush Forests:**
 - *The Western Ghats are characterized by lush and dense forests, contributing to their designation as one of the 34 global biodiversity hotspots.*
 - *These forests provide habitat for diverse wildlife, making the region ecologically significant.*
- **States Encompassed:**
 - *The states of Maharashtra, Goa, Karnataka, Kerala, and Tamil Nadu have significant portions of the Western Ghats within their borders.*
 - *Each state contributes to the rich biodiversity and cultural diversity associated with the Western Ghats.*
- **Water Resources:**
 - *The Western Ghats play a crucial role in India's water resource system.*
 - *Numerous rivers originate from these mountains, supplying water to the surrounding regions and contributing to the agricultural prosperity of the area.*
- **Cultural Significance:**
 - *Apart from ecological importance, the Western Ghats hold cultural significance.*
 - *Local communities residing in the Western Ghats have developed unique traditions, customs, and lifestyles, often intertwined with the natural surroundings.*

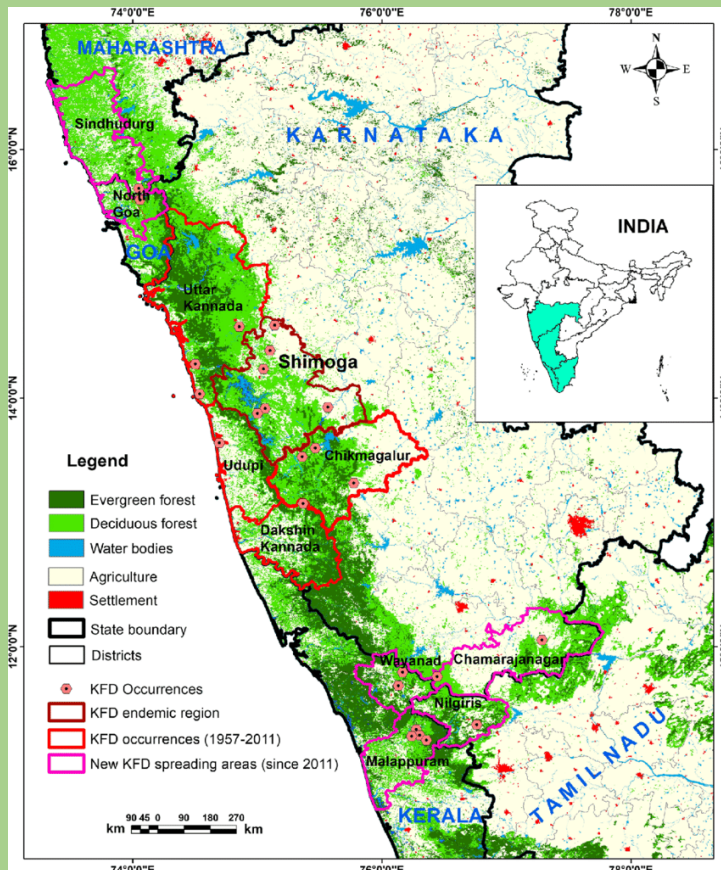
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- **Conservation Challenges:**

- *Despite their ecological significance, the Western Ghats face various conservation challenges.*
- *Human activities such as deforestation, urbanization, and industrialization pose threats to the delicate ecosystems, requiring sustainable conservation efforts.*

- **Recognition as a UNESCO World Heritage Site:**

- *In acknowledgment of its ecological importance, several sections of the Western Ghats have been designated as UNESCO World Heritage Sites.*



- *This recognition aims to promote the conservation of the unique biodiversity and ecosystems present in the Western Ghats.*

- **Tourist Attractions:**

- *The Western Ghats attract nature enthusiasts and tourists with their scenic landscapes, trekking trails, and biodiversity.*
- *Popular destinations within the Western Ghats offer opportunities for ecotourism and adventure activities, contributing to the local economies.*

Eastern Ghats: These are discontinuous hill ranges along the eastern coast of India. They run parallel to the Bay of Bengal and pass through states like Odisha, Andhra Pradesh, Tamil Nadu, and Karnataka.



- **Geographical Overview:**
 - The Eastern Ghats are a series of **discontinuous hill ranges** situated along the eastern coast of India.
 - *They run parallel to the Bay of Bengal, shaping the landscape of the eastern states.*
- **States Covered:**
 - These hill ranges traverse through several states, including **Odisha, Andhra Pradesh, Tamil Nadu, and Karnataka.**
 - *Their presence significantly influences the topography and climate of these regions.*
- **Formation and Composition:**
 - The Eastern Ghats are primarily composed of ancient rocks and exhibit a diverse geological structure.
 - *Their formation dates back to millions of years, contributing to the rich biodiversity in the region.*
- **Biodiversity Hotspot:**
 - The Eastern Ghats are recognized as a **biodiversity hotspot**, hosting a wide array of flora and fauna.
 - *The varied ecosystems within the ghats support numerous endemic species, making it a crucial ecological zone.*
- **Cultural Significance:**
 - *Several indigenous communities reside in the Eastern Ghats, contributing to the cultural diversity of the region.*
 - The ghats hold historical importance, with ancient temples and cultural heritage sites dotting the landscape.

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- **Economic Importance:**

- *The Eastern Ghats play a vital role in the water resources of the region, acting as a source for many rivers and tributaries.*
- Agriculture in the surrounding areas relies on the water supply originating from these hills, impacting the local economy.

- **Challenges and Conservation Efforts:**

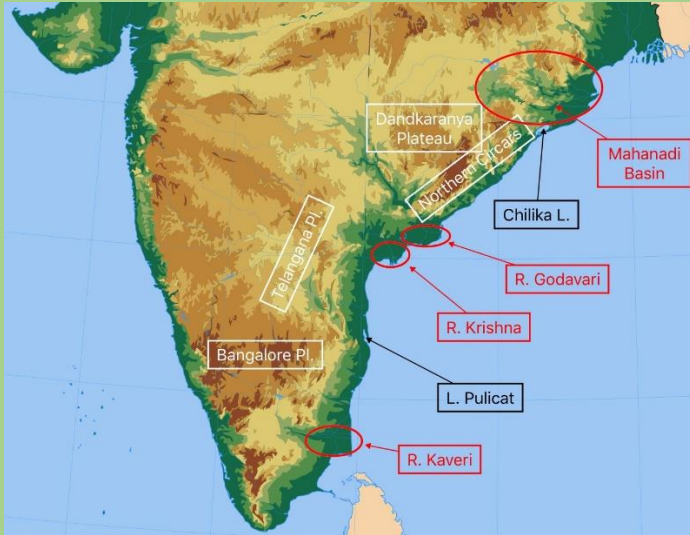
- *Human activities such as deforestation and mining pose significant threats to the Eastern Ghats.*
- Conservation initiatives aim to protect the unique ecosystems, with a focus on sustainable development and biodiversity conservation.

- **Scenic Beauty and Tourism:**

- The Eastern Ghats boast picturesque landscapes, offering scenic views and trekking opportunities.
- *Tourism in the region has been growing, with travelers exploring the natural beauty and cultural heritage of the Eastern Ghats.*



In summary, the Eastern Ghats stand as a remarkable geographical feature, shaping the ecology, culture, and economy of the eastern coastal states of India. Their discontinuous hill ranges contribute to the region's biodiversity and play a crucial role in sustaining life and livelihoods.



Thar Desert: Located in the northwest of India, primarily in the state of Rajasthan, the Thar Desert is characterized by arid landscapes, sand dunes, and extreme temperatures.



- **Geographical Location:**
 - *Northwest of India*
 - *Primarily in the state of Rajasthan*



• **Physical Characteristics:**

- *Arid landscapes*
- *Vast stretches of sand dunes*
- *Extreme temperatures*



• **Climate and Weather:**

- *Low rainfall, making it a desert region*
- *Hot summers with temperatures exceeding 40°C (104°F)*
- *Cold winters with temperatures dropping significantly*

- **Flora and Fauna:**

- *Adapted plant species such as thorny bushes and xerophytic vegetation*
- *Animal adaptations include camels and other desert-adapted species*

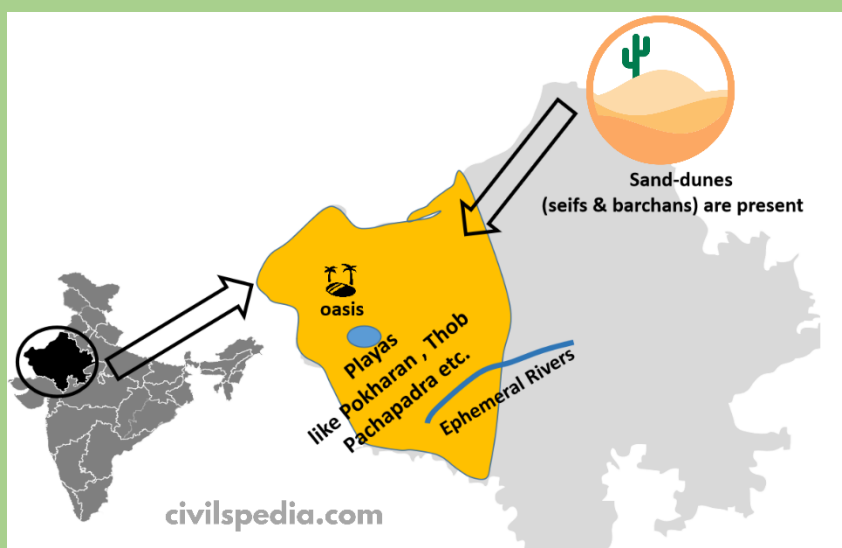


- **Human Population:**

- *Home to various communities, including the Rajputs and various tribal groups*
- *Nomadic and semi-nomadic lifestyles among some communities*

- **Economic Activities:**

- *Agriculture is challenging, with limited cultivation using traditional methods*
- *Livestock rearing, especially camels, is a common economic activity*



- **Cultural Significance:**

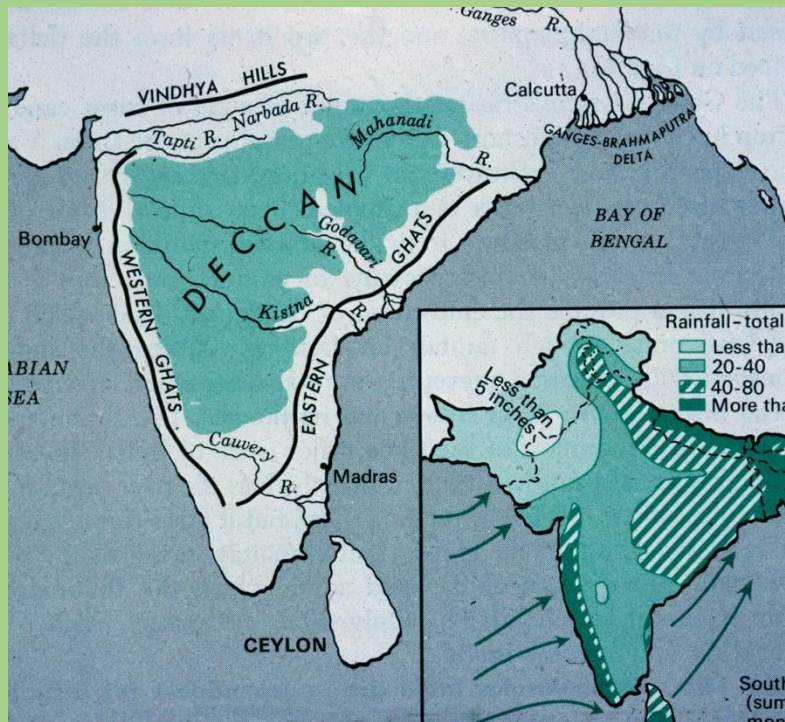
- *Rich cultural heritage with traditional art, music, and dance*

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- *Influence on local festivals and celebrations*
- **Conservation Efforts:**
 - *Challenges related to desertification and water scarcity*
 - *Initiatives to promote sustainable practices and water management*
- **Tourism:**
 - *Attractions include the unique desert landscape and cultural experiences*
 - *Camel safaris and desert festivals draw tourists to the region*
- **Challenges and Solutions:**
 - *Water conservation and efficient irrigation methods are crucial*
 - *Addressing issues of desertification and promoting sustainable development*
- **Environmental Impact:**
 - *Biodiversity challenges due to the harsh desert conditions*
 - *Efforts to preserve and protect the fragile ecosystem*
- **Future Prospects:**
 - *Balancing economic development with environmental conservation*
 - *Exploration of renewable energy sources to meet energy needs*

The Thar Desert, with its distinctive features and challenges, reflects the delicate balance between nature, culture, and human activities in an arid environment.

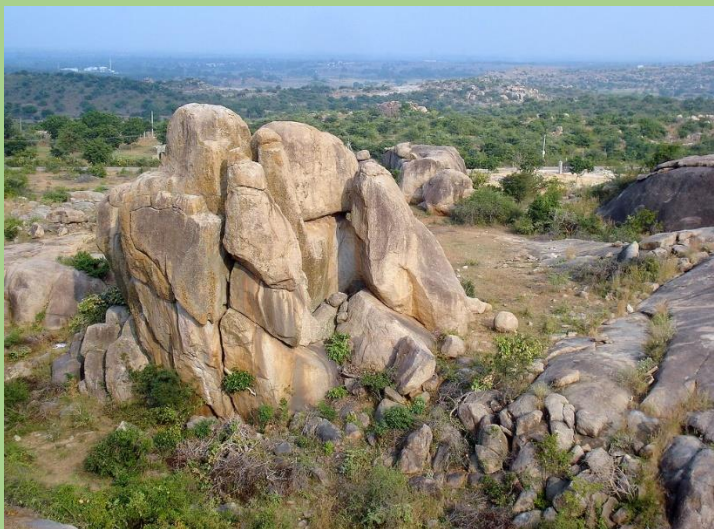
Deccan Plateau: Covering a large part of southern India, the Deccan Plateau is a vast elevated region with rich mineral resources. It includes states like Maharashtra, Telangana, Andhra Pradesh, Karnataka, and Tamil Nadu.



- **Geographical Coverage:** The **Deccan Plateau** spans a significant portion of southern India, encompassing states such as *Maharashtra, Telangana, Andhra Pradesh, Karnataka, and Tamil Nadu.*

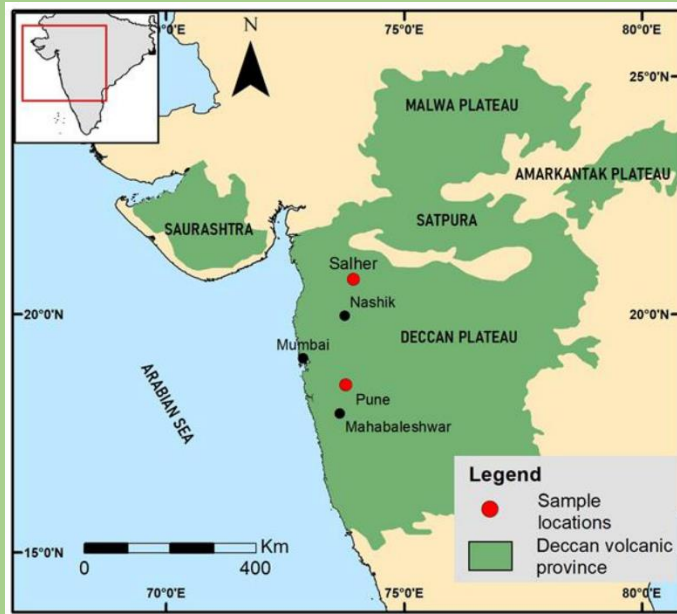


- **Elevation and Topography:** This expansive plateau is characterized by its elevated terrain, contributing to the overall topographical diversity of the Indian subcontinent. The region showcases a varied landscape with hills, plateaus, and plains.
- **Rich Mineral Resources:** One of the key features of the Deccan Plateau is its **abundance of mineral resources.** The plateau is endowed with substantial deposits of minerals, including iron ore, manganese, coal, and limestone, which play a crucial role in the economic development of the region.



- **Agricultural Significance:** The plateau's fertile soil and moderate climate make it suitable for agriculture. *Maharashtra and Karnataka*, in particular, are known for their agricultural productivity, contributing significantly to the overall food production of the country.
- **Historical and Cultural Significance:** The Deccan Plateau has been a witness to rich historical and cultural developments. It has been home to various ancient kingdoms and empires, leaving behind a legacy of architectural marvels and cultural heritage.
- **Deccan Trap Formation:** The plateau is renowned for the **Deccan Trap**, a large volcanic plateau made up of numerous basalt layers. This geological formation has played a significant role in shaping the region's landscape.

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- **Biodiversity:** The Deccan Plateau hosts a diverse range of flora and fauna. The varied ecosystems, including deciduous forests and grasslands, contribute to the overall biodiversity of the region.
- **Water Resources:** Rivers such as the Krishna, Godavari, and Tungabhadra originate from the Western Ghats and flow across the Deccan Plateau, providing essential water resources for agriculture and human consumption.
- **Urbanization and Economic Hubs:** Urban centers on the Deccan Plateau, such as Mumbai, Hyderabad, Bangalore, and Chennai, serve as major economic hubs. These cities contribute significantly to industrial development, technology, and commerce.
- **Challenges and Conservation Efforts:** Rapid urbanization and industrialization pose challenges to the environment and natural resources. Efforts are underway to balance development with conservation, promoting sustainable practices and protecting the unique ecosystems of the Deccan Plateau.

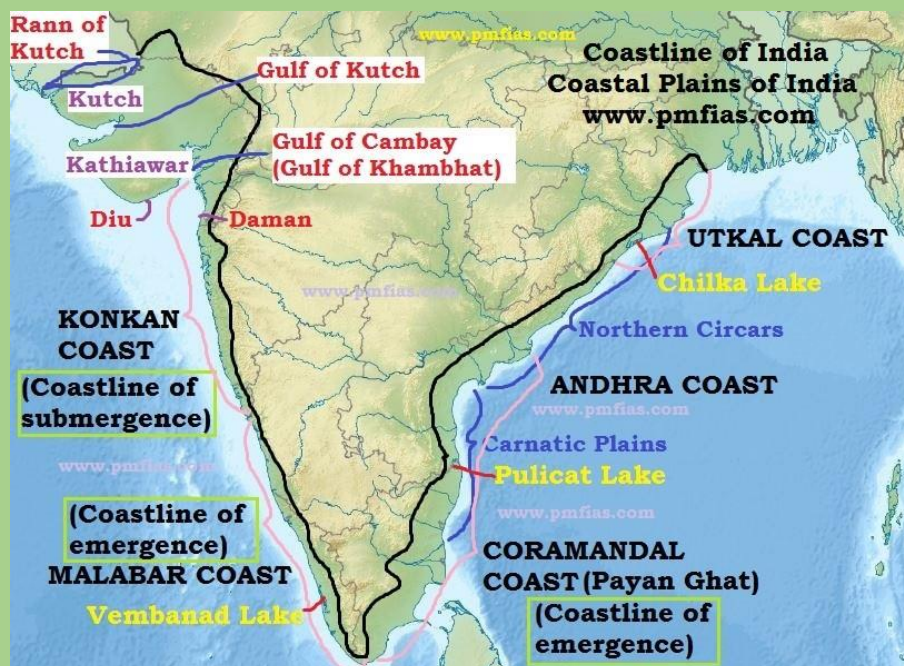
Coastal Plains: India has two major coastal plains: the Western Coastal Plains along the Arabian Sea and the Eastern Coastal Plains along the Bay of Bengal. These plains are characterized by fertile land and important port cities.



Lagoon Kerala

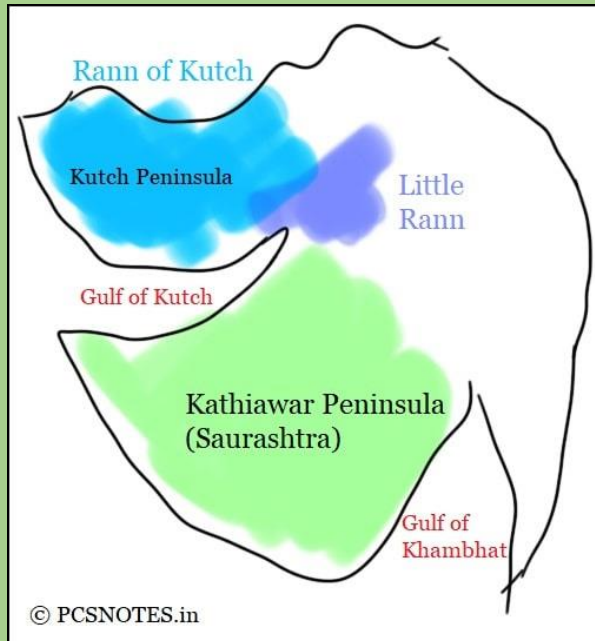
- **Geographical Division:**

- India is endowed with two prominent coastal plains: the **Western Coastal Plains** bordering the **Arabian Sea** in the west and the **Eastern Coastal Plains** along the **Bay of Bengal** in the east.



- **Western Coastal Plains:**

- *Stretching along the Arabian Sea coast, the Western Coastal Plains encompass regions from **Gujarat to Kerala**.*
- *Marked by a narrow strip of land between the Western Ghats and the Arabian Sea, these plains are characterized by a unique blend of lush green landscapes and coastal ecosystems.*



Eastern Coastal Plains:

- *Running parallel to the Bay of Bengal*, the Eastern Coastal Plains extend from **West Bengal to Tamil Nadu**.
- *Defined by the Eastern Ghats running parallel to the coast*, this region boasts diverse topography, from deltas to sandy beaches.

Western coastal plain	Eastern coastal plain
<ul style="list-style-type: none"> • Between the Arabian Sea and the Western Ghats • From the Rann of Kutchh to Kanyakumari • Comparatively narrow • Can be divided into Gujarat coast, Konkan coast, and Malabar coast • Backwaters and estuaries are seen 	<ul style="list-style-type: none"> • Between the Bay of Bengal and the Eastern Ghats • From the Sundarban delta region to Kanyakumari • Comparatively wide • Can be divided into north Zircar plain and Coromandal coast • Delta formation takes place

The Eastern Coastal Plains

- It stretches from Tamil Nadu in the south to West Bengal in the north.
- The width of the plains varies between 100 and 130 km.
- The eastern coastal plains are wider and leveled than the western coastal plains and the region is divided into two parts.

- 1) The Northern Circa.
- 2) The Coromandel Coast.

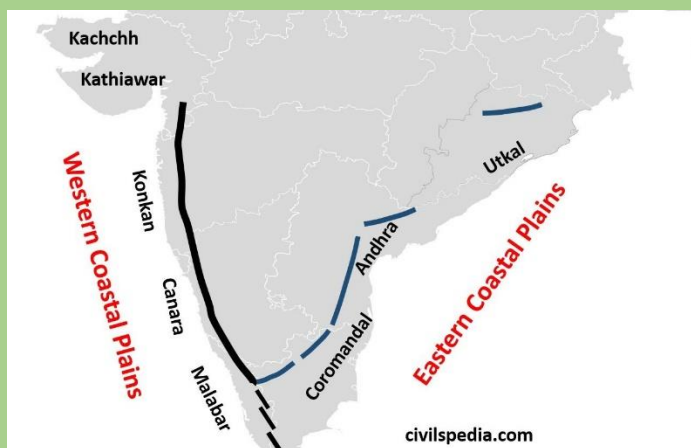


- **Fertility and Agriculture:**

- *Both coastal plains are agriculturally significant, featuring **fertile alluvial soil** brought by rivers originating from the Western and Eastern Ghats.*
- *This fertility supports a wide range of crops, making these plains essential contributors to India's agricultural output.*

- **Port Cities and Trade Hubs:**

- *Strategically located along the coast, these plains host several **major port cities**.*
- *Examples include Mumbai, Mangalore, and Kochi on the Western Coast, and Chennai, Vishakhapatnam, and Kolkata on the Eastern Coast.*
- **These ports play a pivotal role in facilitating trade and commerce, connecting India with the global market.**



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- **Biodiversity and Coastal Ecosystems:**

- *Rich in biodiversity*, the coastal plains are home to diverse flora and fauna, including mangroves and marine life.
- *These ecosystems are vital for maintaining ecological balance*, acting as nurseries for various aquatic species.




- **Tourism and Cultural Significance:**

- *The scenic beauty and cultural heritage of these coastal regions attract tourists*, fostering a vibrant tourism industry.
- *Historical sites, traditional art forms, and culinary delights* contribute to the cultural richness of the coastal plains.

- **Vulnerability to Natural Disasters:**

- *Despite their economic importance*, these regions are susceptible to natural disasters such as cyclones and floods.
- *Efforts to manage and mitigate these risks are crucial* to safeguard the lives and livelihoods of the coastal communities.



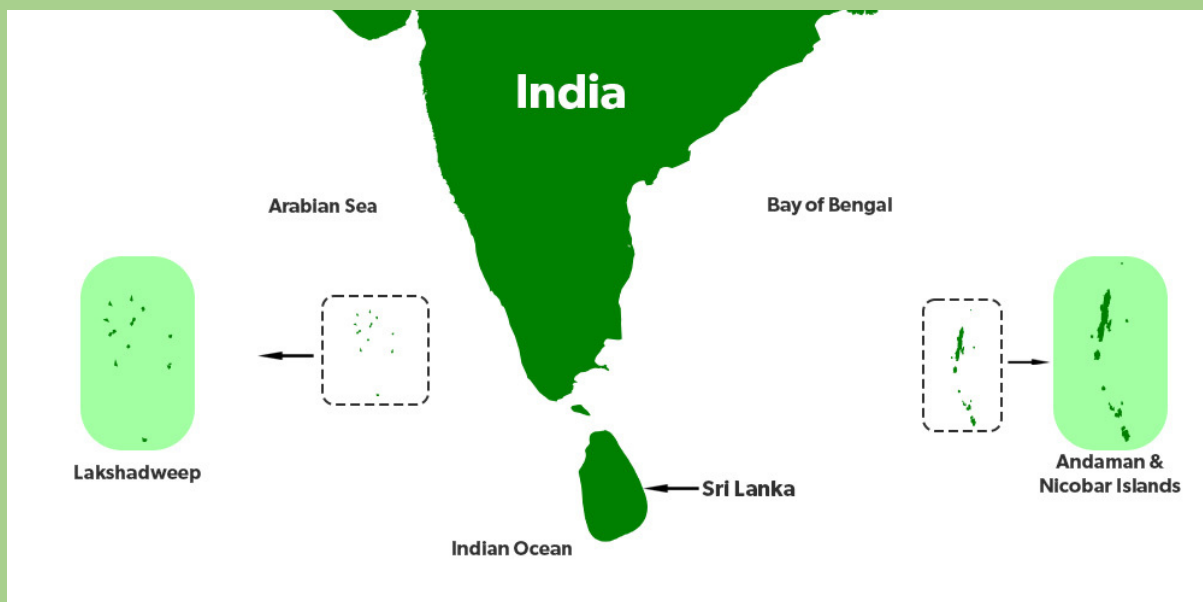
Risk and Vulnerability

- Initial step of disaster preparedness is to identify the potential risks, assess their viability, evaluate the probability of risks occurring, and appraise the potential damage.
- Vulnerability assessment depends on the frequency of hazards (in a specified area), population density, vocation of the majority of the people. In case of cyclone the proximity to the coast, river, low-lying areas, transport and communication.
- Hazard awareness, and understanding of the causes and consequences of that hazard "profile" are the first steps in the disaster reduction process known as hazards risk management.

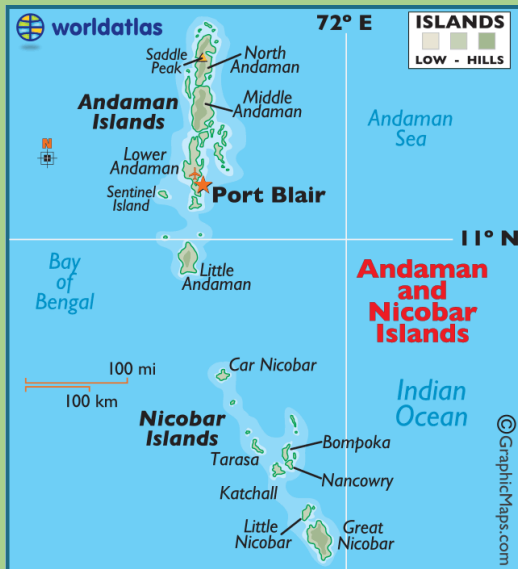
In conclusion, India's Western and Eastern Coastal Plains are not only integral to its economic prosperity but also embody a unique blend of natural beauty, cultural diversity, and strategic importance in global trade.

Islands: India has several island territories, including the Andaman and Nicobar Islands in the Bay of Bengal and the Lakshadweep Islands in the Arabian Sea.

- India boasts diverse geographical features, including several island territories that contribute to its rich natural landscape.



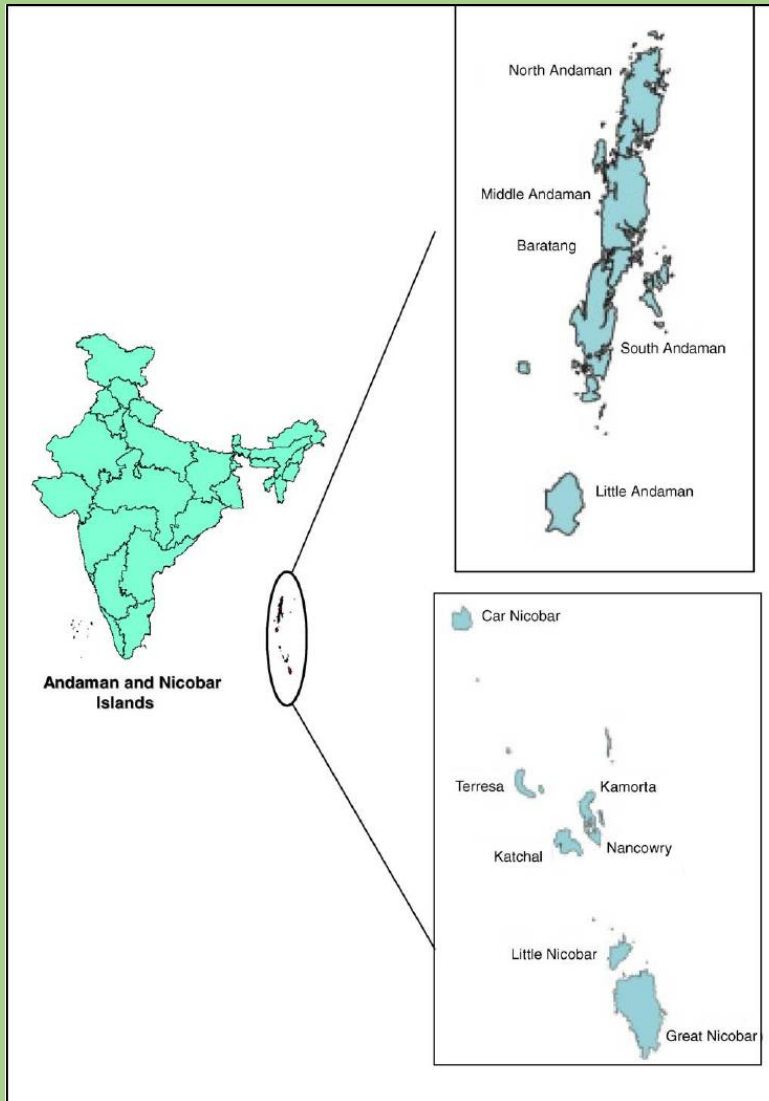
- **Andaman and Nicobar Islands:**
 - *Location:* Situated in the Bay of Bengal, the Andaman and Nicobar Islands form a crucial part of India's maritime territory.



- **Biodiversity:** These islands are renowned for their exceptional biodiversity, featuring unique flora and fauna.



- **Cultural Significance:** Home to indigenous tribes, the islands hold cultural importance, reflecting the heritage of these communities.
- **Strategic Importance:** Due to their strategic location, the Andaman and Nicobar Islands play a crucial role in India's defense and security.



- **Lakshadweep Islands:**



- *Location:* Nestled in the Arabian Sea, the Lakshadweep Islands constitute another set of Indian territories with distinct characteristics.
- *Coral Reefs:* Known for their pristine coral reefs, these islands attract marine enthusiasts and researchers interested in the vibrant underwater ecosystems.



- *Tourism Potential:* The picturesque landscapes and azure waters make Lakshadweep a potential tourist destination, contributing to the region's economic development.
- *Environmental Concerns:* The fragile ecosystem of Lakshadweep necessitates careful environmental management to preserve its natural beauty.



• **Challenges and Opportunities:**

- *Environmental Conservation:* Both island groups face challenges related to environmental conservation, necessitating sustainable practices to protect their unique ecosystems.
- *Infrastructure Development:* Balancing development with conservation poses a challenge, especially considering the delicate nature of these island environments.

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- *Tourism Development:* The tourism potential of these islands presents an opportunity for economic growth, but it requires a careful balance to prevent negative impacts on the local ecosystems and cultures.
- **Conclusion:**
 - *Diverse Heritage:* India's island territories, with their distinct characteristics, contribute to the nation's diverse heritage, blending natural beauty, cultural richness, and strategic significance.
 - *Sustainable Future:* The responsible management of these islands is crucial to ensure a sustainable future, preserving their unique ecosystems for generations to come.

These subdivisions play a significant role in shaping the geography, climate, economy, and culture of India.