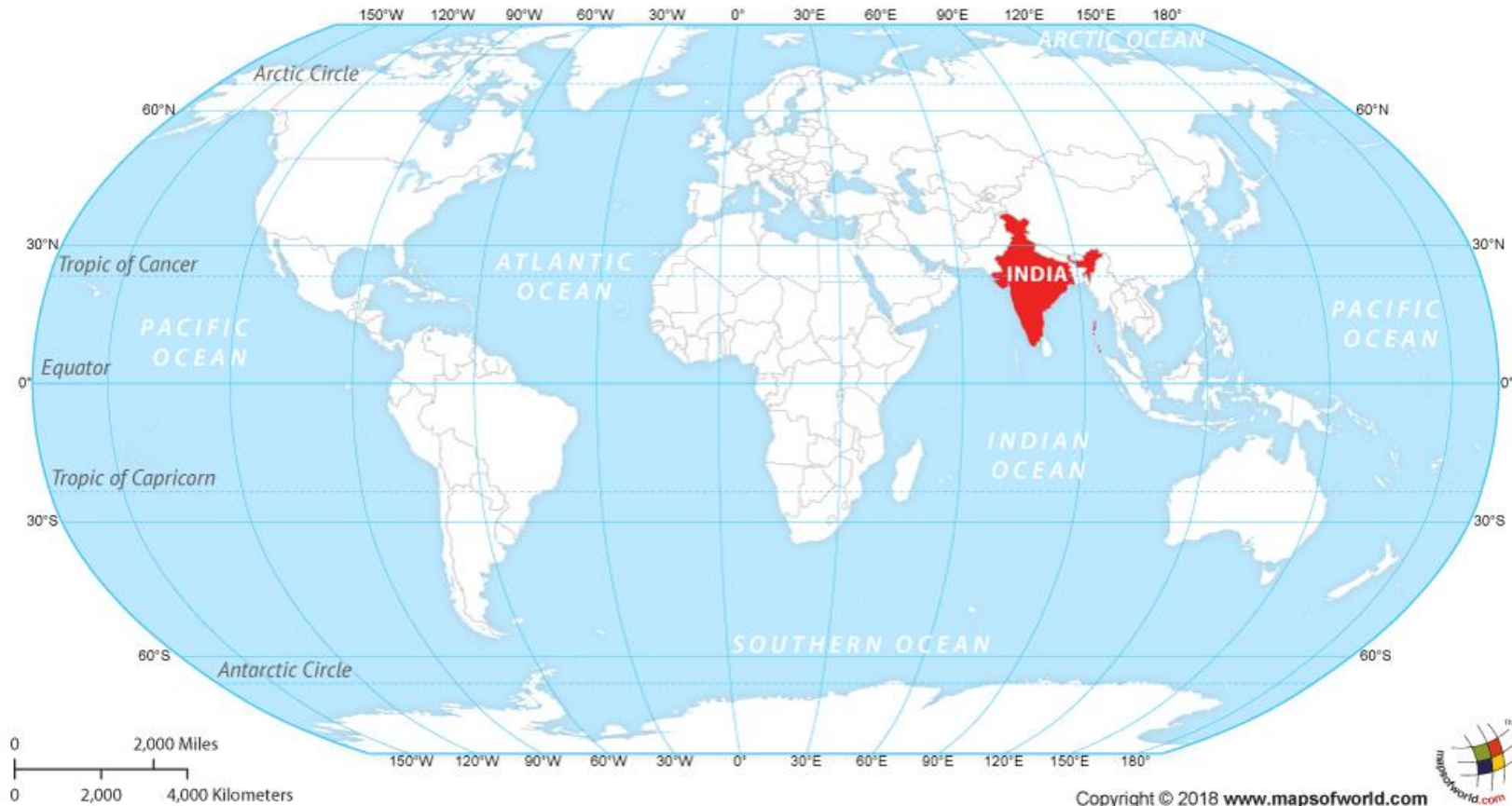


Phytogeography of india

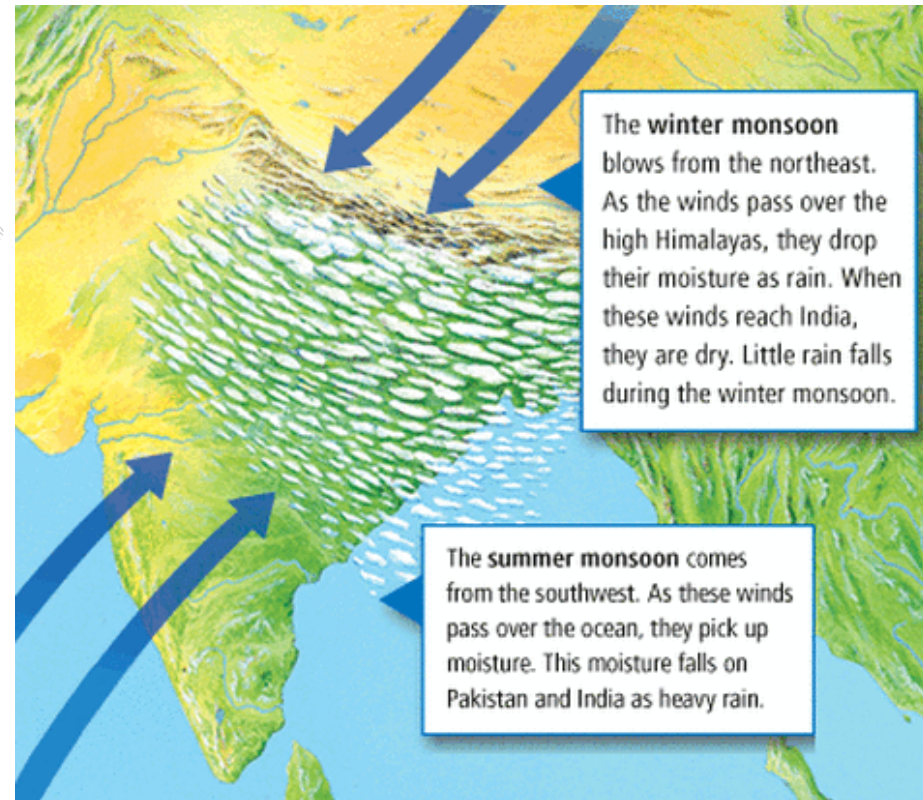
By

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INDIA LOCATION MAP



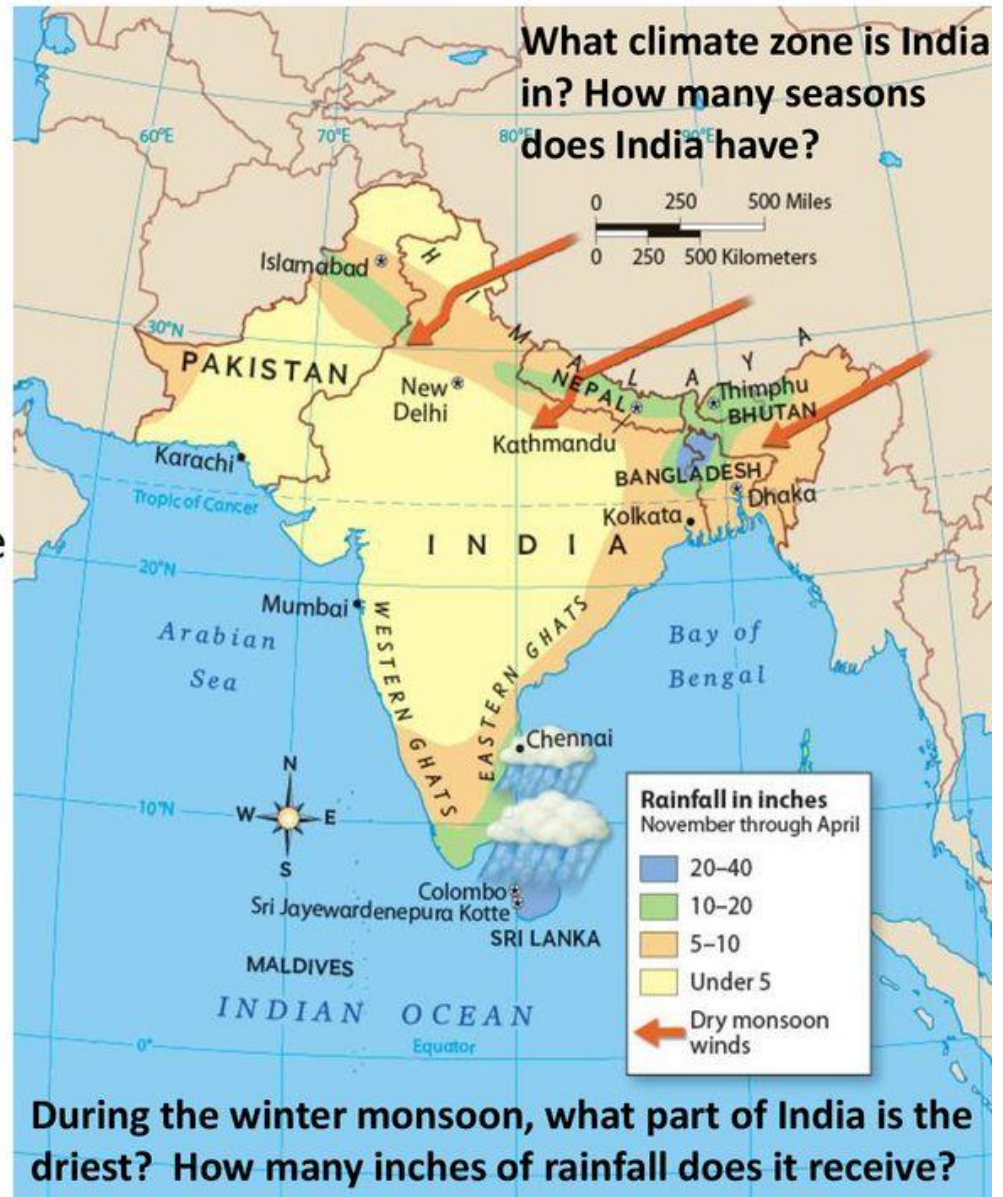
Lying entirely in the Northern hemisphere, the main land extends between latitudes $8^{\circ}4'N$ and $37^{\circ}6'N$ and longitudes $68^{\circ}7'E$ and $97^{\circ}25'E$. The Tropic of Cancer ($23^{\circ}30'N$) divides the country into almost two equal parts.



Summer Monsoon and Winter Monsoon

India's Summer and Winter Monsoon Seasons

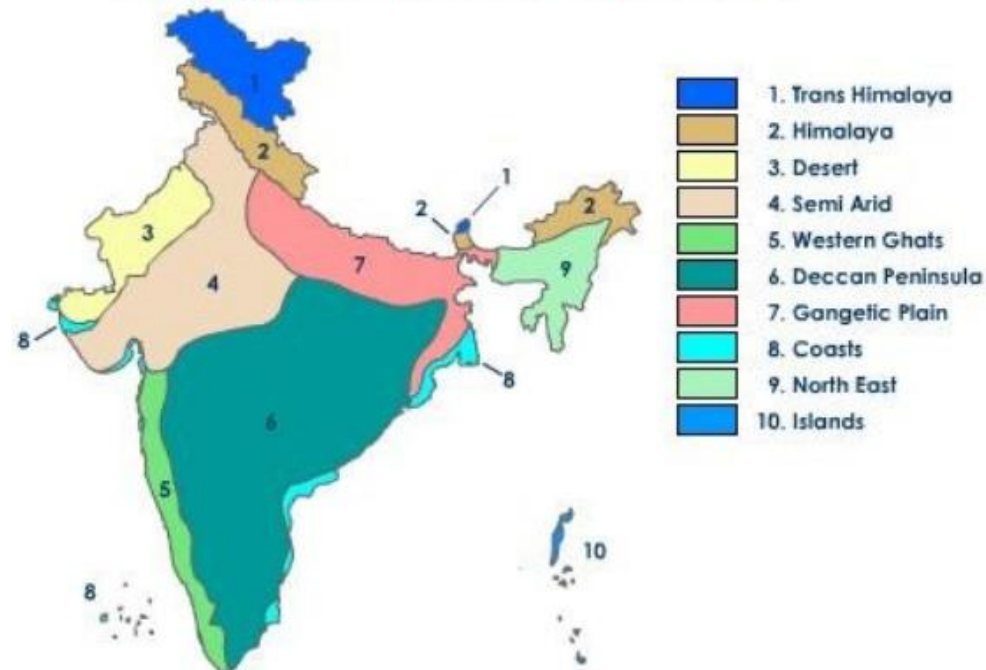
- Most of the rain in India comes from the summer monsoon rains.
- The word "**monsoon**" originated from the Arabic word *mausim* which means **seasonal** winds.
- The two monsoon seasons are the "summer" **south-west** monsoon and the "winter" **north-east** monsoon.
- The summer south-west monsoon is from **May** to **September**.
- The winter north-east monsoon is from **October** to **December**.



Phytogeographical Regions of India:

- Distribution of plants is mainly controlled by climatic factors.
- 1. Temperature, Altitude, Precipitation, Atm moisture, Light intensity and duration.
- 2. Type of soil.
- 3. Biotic factors play an important role in distribution and establishment of species.

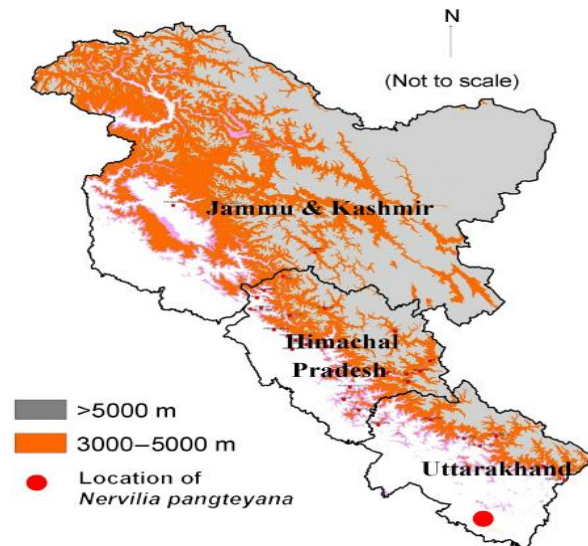
Bio geographical classification of india



Western Himalayas:

- Covers area from Kashmir To Kumaon in Uttranchal and shows climatic zonation with altitude.
- Submontane – 300-1500 m, dominated by *Shorea robusta*, *Dalbergia sissoo*, *Acacia catechu*.
- Temperate Zone – 1500-3500 m, *Pinus wallichiana*, *Pinus roxbughii*, *Quercus himalayana*, *Salix* and *Rhododendron*.
- Alpine Zone – 3500 m and above, Dominated by dwarf shrubs such *Salix*, *Lonicera*, *Saxifraga*, *Primula*, *Gernium* and *Polygonum*.

Eastern Himalayas: Covers Darjeeling, Sikkim and extending in the east to Arunachal Pradesh. Area having high rainfall, less snow and higher temperature. Sal forests and evergreen trees are found extensively all along the foothills of the Eastern Himalayas. Temperate zone extends between 1800-3800 m, dominated by *Quercus*, *Michelia*, *Eugenia* at lower level and *Rhododendron* and *Tsuga* at higher level. Alpine zone (3800-5000m) *Rhododendron* and *Juniperus* are common.



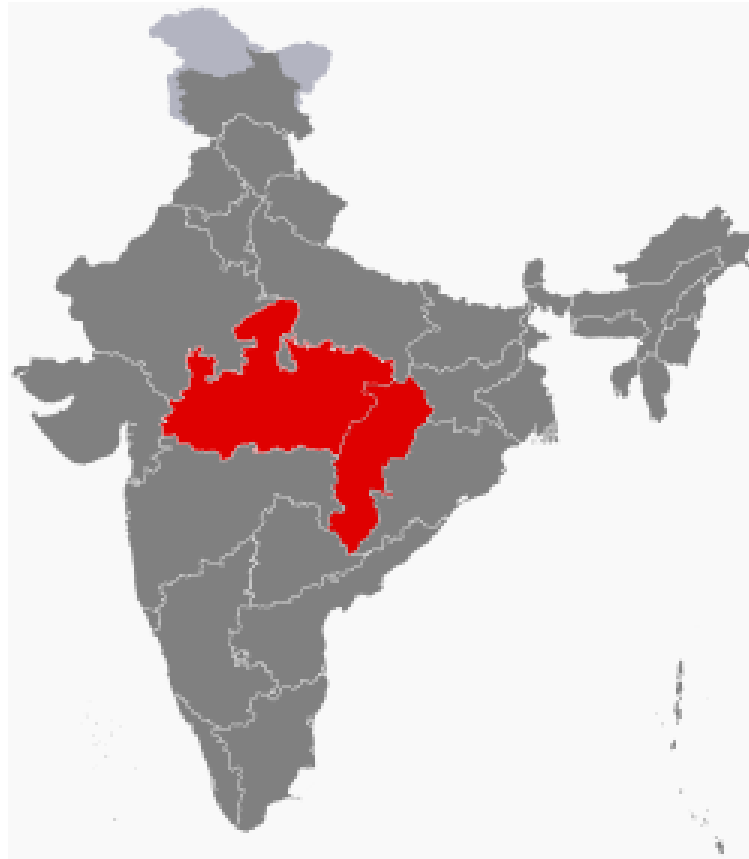
Indus Plain: This zone includes arid and semi arid regions of Punjab, Rajasthan, part of Gujarat and Delhi. Summer is very hot and dry, with cold temperatures in winter. Vegetation consisting thorn forest in semi arid and typical desert vegetation in arid region. *Acacia*, *Prosopis*, *Zizypus*, *Capparis* and *Salvadora* dominant woody cover. *Achyranthus*, *Cenchrus*, *Euphorbia* and *Saccharum* dominant herbaceous component.



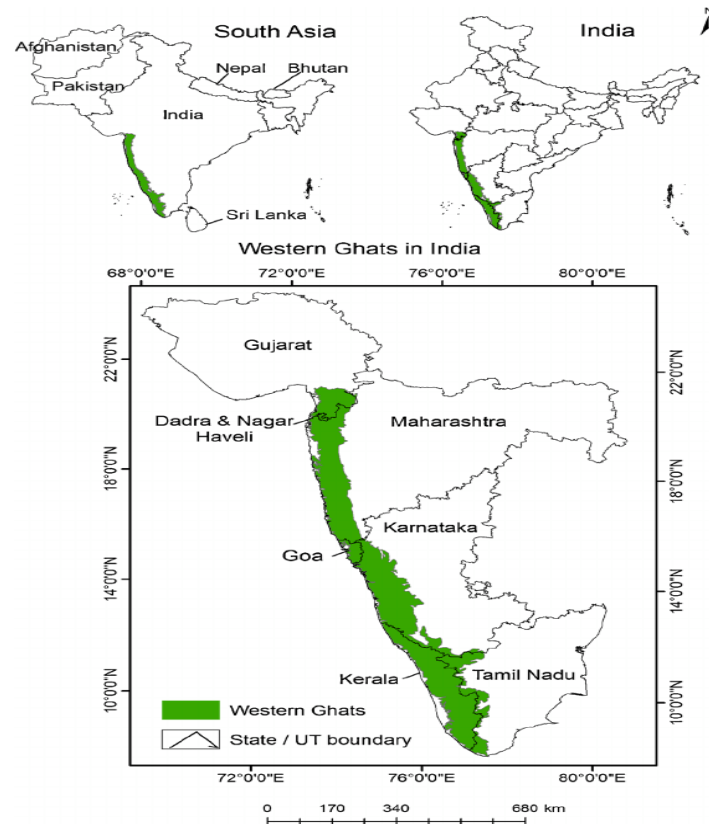
Gangetic Plains: The zone extends from eastern part of Delhi, southern part of Uttar Pradesh, Bihar Bengal and northern part of Odissa. Rain fall ranges between 70- 150 cm. Soils fertile and vegetation ranges from moist tropical to dry deciduous forests. *Dalbergia sissoo*, *Butea monosperma*, *Madhuca indica*, *Diospyros melanoxylon* and *Xanthium*, *Amaranthus Dichanthium*. Mangroove vegetation in Gangetic Delta.



Central India: Madhya Pradesh, parts of Orissa and Gujarat. Rain fall ranges between 150-200 cm supports mixed deciduous to thorny vegetation. *Tectona*, *Madhuca*, *Diospyros*, *Butea* and *Dalbergia* are woody plants and *Zizypus* and *Acacia* are thorny species.



Western Ghats: The **Western Ghats**, also known as **Sahyadri** (Benevolent Mountains), are a mountain range that covers an area of 140,000 square kilometers (54,000 sq mi) in a stretch of 1,600 kilometers (990 mi) parallel to the western coast of the Indian peninsula. These hills cover an area of about 160,000 sq km starting from the border of Gujarat and covering the states of Maharashtra, Goa, Karnataka, Tamil Nadu, Kerala and finally ending at Kanyakumari embracing the Indian Ocean. The Western Ghats, owing to its richness in biodiversity, nurtures more the 5,000 species of plants, 1,700 of which are endemic. It is mostly covered with equatorial tropical evergreen forests. About 63% of India's woody evergreen taxa are endemic to the Western Ghats.



Deccan: The plateau is located between two mountain ranges, the Western Ghats and the Eastern Ghats. Deccan plateau extends over eight Indian states and form a triangular form of land just below the central India, covering significant parts of Telangana, Maharashtra, Karnataka and Andhra Pradesh. Rain fall is low about 100 cm, supports dry deciduous forest *Boswellia*, *Tectona* and *Hardwickia*, whereas coromandal coast has *Santalum* and *Cedrela*.

