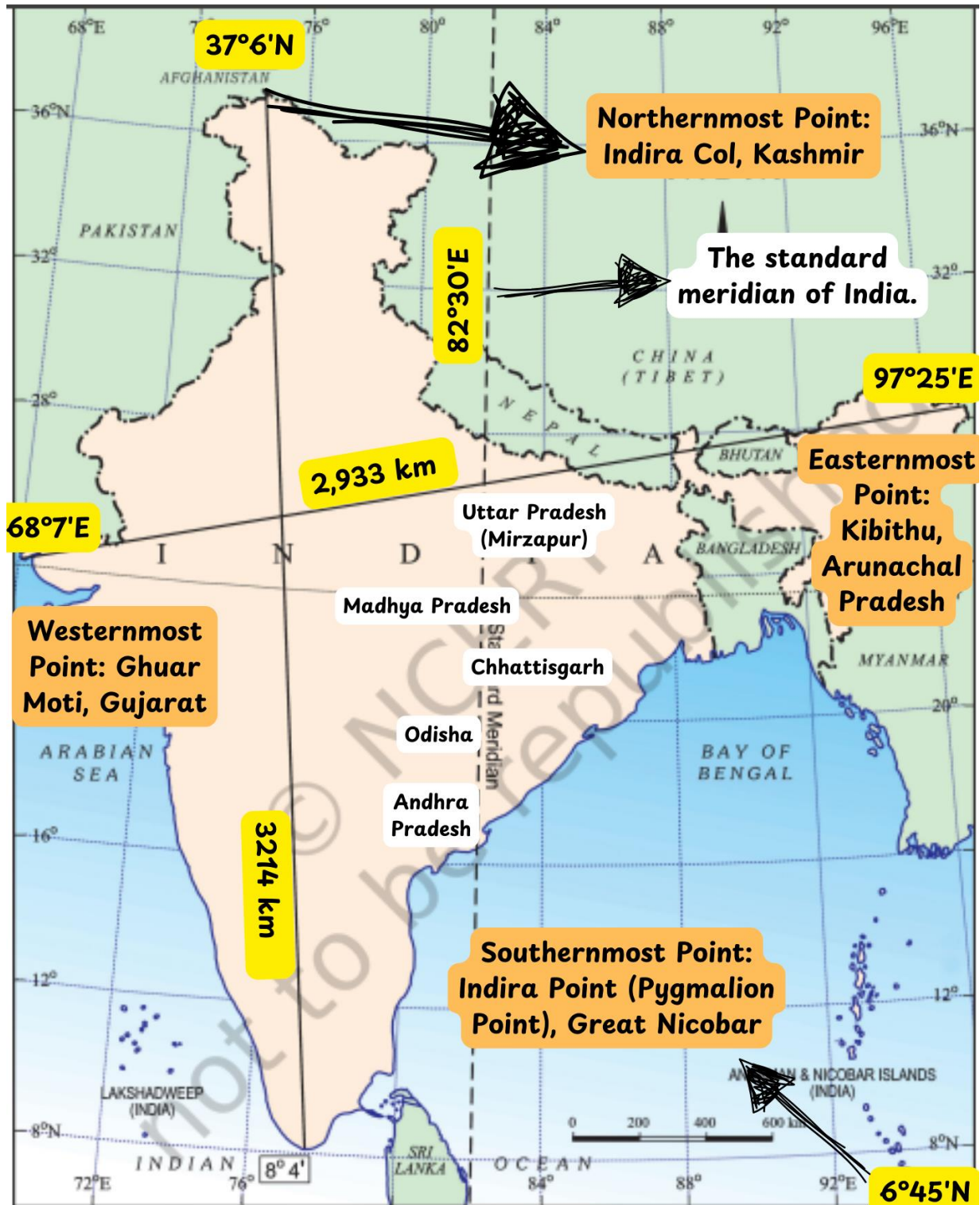


LECTURE 8 – INDIAN GEOGRAPHY PHYSIOGRAPHY

INDIA'S PHYSICAL EXTENT



IN TERMS OF AREA

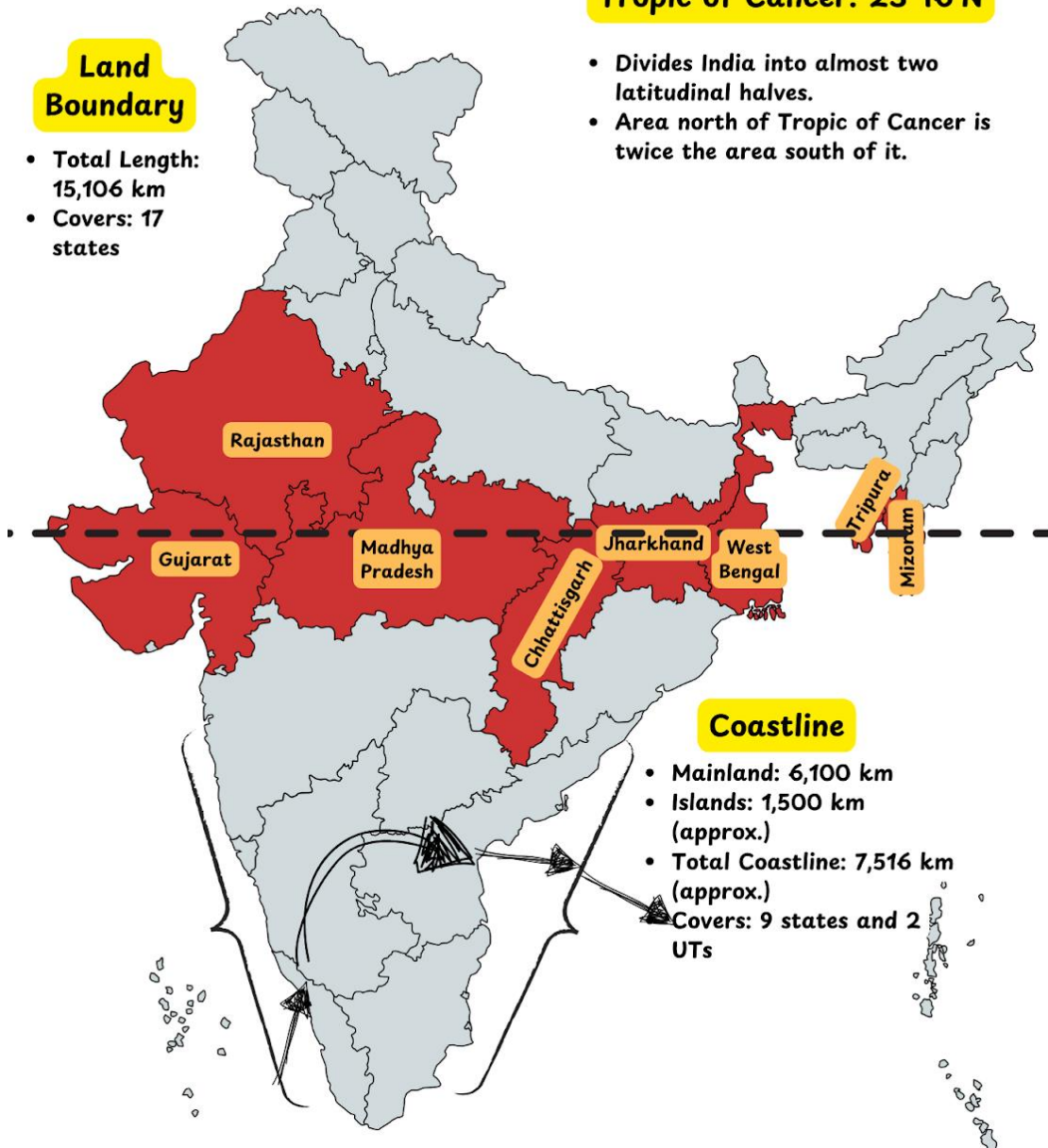
- India occupies 2.4% of the total surface area of the world.
- Total geographic area of India: 32.8 lakh sq. km
- Area-wise Largest Countries in the World: Russia (Largest) > Canada > United States (US) > China > Brazil > Australia > India (7th largest) > Argentina
- Area-wise Smallest Countries in the World: Tuvalu > Principality of Monaco (2nd smallest) > Vatican City (Smallest)

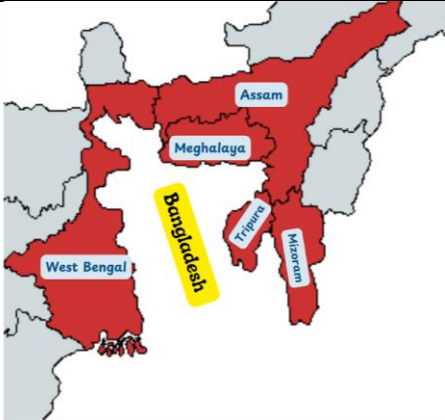
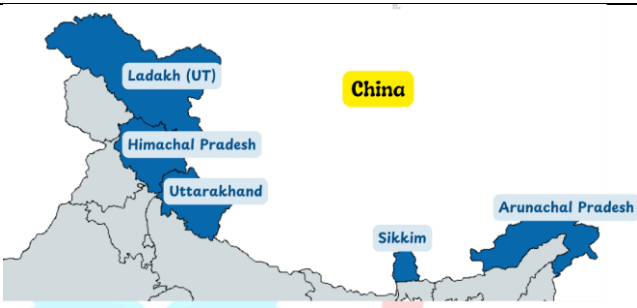

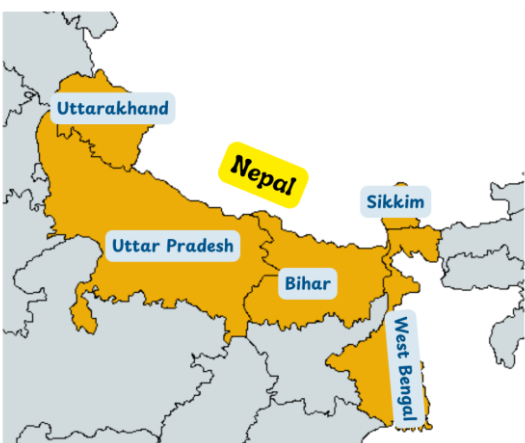
Land Boundary



- Total Length: 15,106 km
- Covers: 17 states

Tropic of Cancer: 23°16'N

- Divides India into almost two latitudinal halves.
- Area north of Tropic of Cancer is twice the area south of it.



Countries forming boundary with India (In Decreasing order)	Indian States which are on International Boundary
Bangladesh (Largest)	 <p>A map showing the Indian states of Assam, Meghalaya, Tripura, Mizoram, and West Bengal, which share a border with Bangladesh. The states are highlighted in red, and Bangladesh is labeled in a yellow box.</p>
China	 <p>A map showing the Indian states of Ladakh (UT), Himachal Pradesh, Uttarakhand, Sikkim, and Arunachal Pradesh, which share a border with China. The states are highlighted in blue, and China is labeled in a yellow box.</p>
Pakistan	 <p>A map showing the Indian states of Ladakh (UT), Jammu Kashmir (UT), Punjab, Rajasthan, and Gujarat, which share a border with Pakistan. The states are highlighted in green, and Pakistan is labeled in a yellow box.</p>
Nepal	 <p>A map showing the Indian states of Uttarakhand, Uttar Pradesh, Bihar, Sikkim, and West Bengal, which share a border with Nepal. The states are highlighted in orange, and Nepal is labeled in a yellow box.</p>

Myanmar	
Bhutan	
Afghanistan	Ladakh

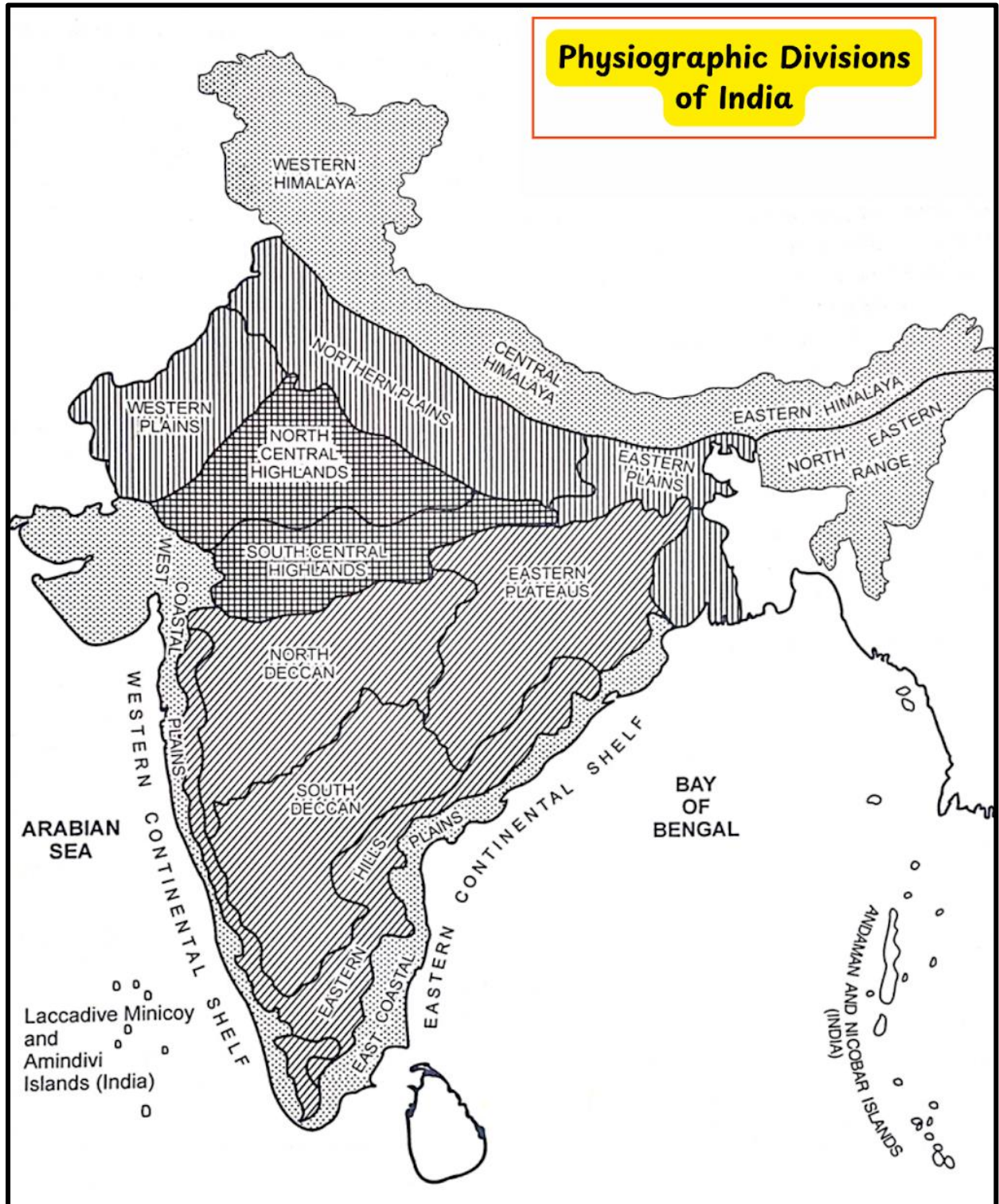
States/UTs – Area and Coastline

Largest State/UTs Area Wise	Smallest States area wise	States/UTs with Largest Coastline	States/UTs with Smallest Coastline
Rajasthan (Largest)	Goa (smallest)	Andaman & Nicobar Islands	Puducherry (Smallest overall)
Madhya Pradesh	Sikkim	Gujarat	Goa has smallest coastline among all states.
Maharashtra	Tripura	Andhra Pradesh	
Uttar Pradesh	Nagaland	Tamil Nadu	

Area of Union Territories

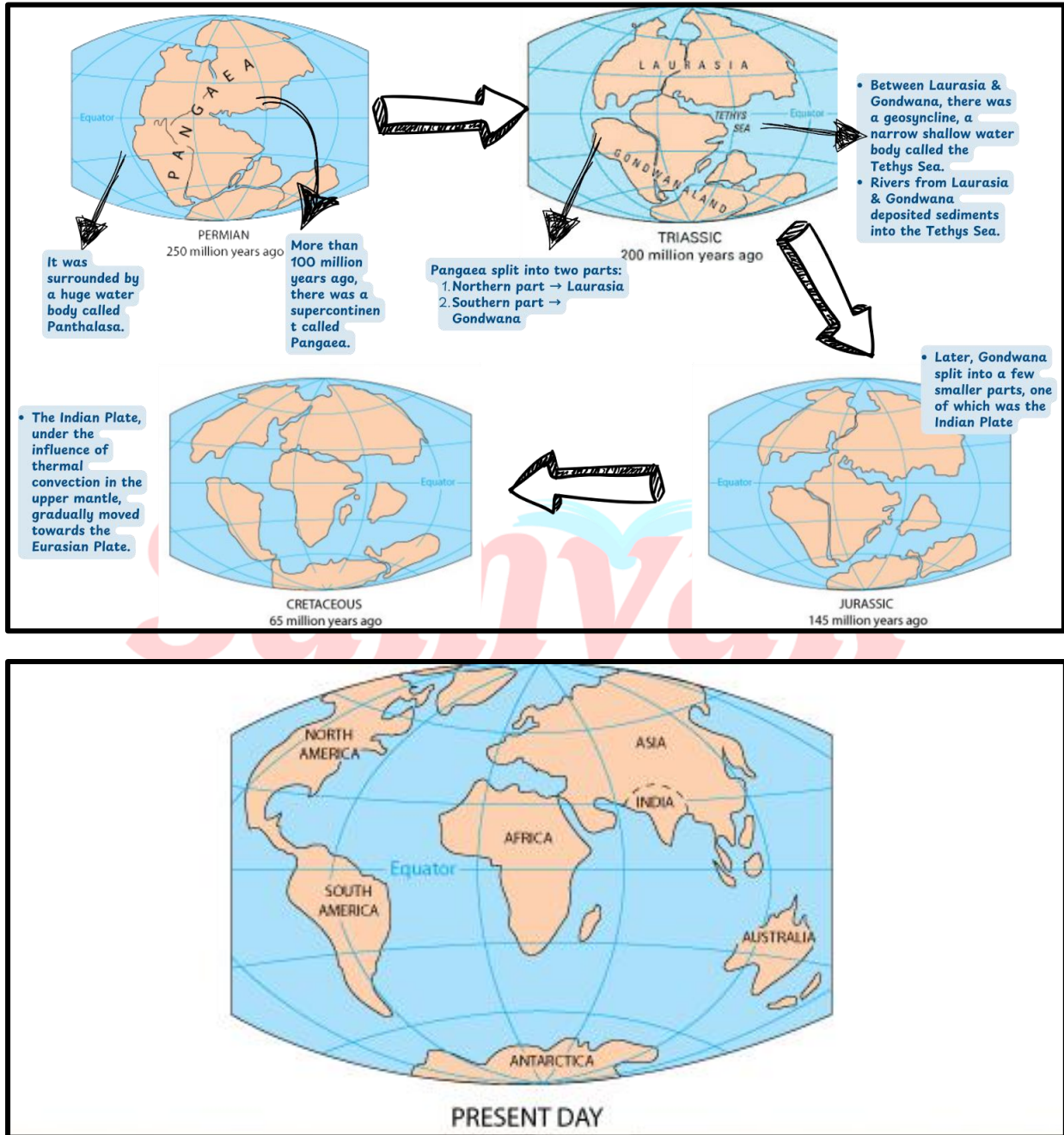
- **Largest – Ladakh > Jammu Kashmir > Andaman & Nicobar Islands** (all three have areas larger than Sikkim and Goa)
- **Smallest UT – Lakshadweep**

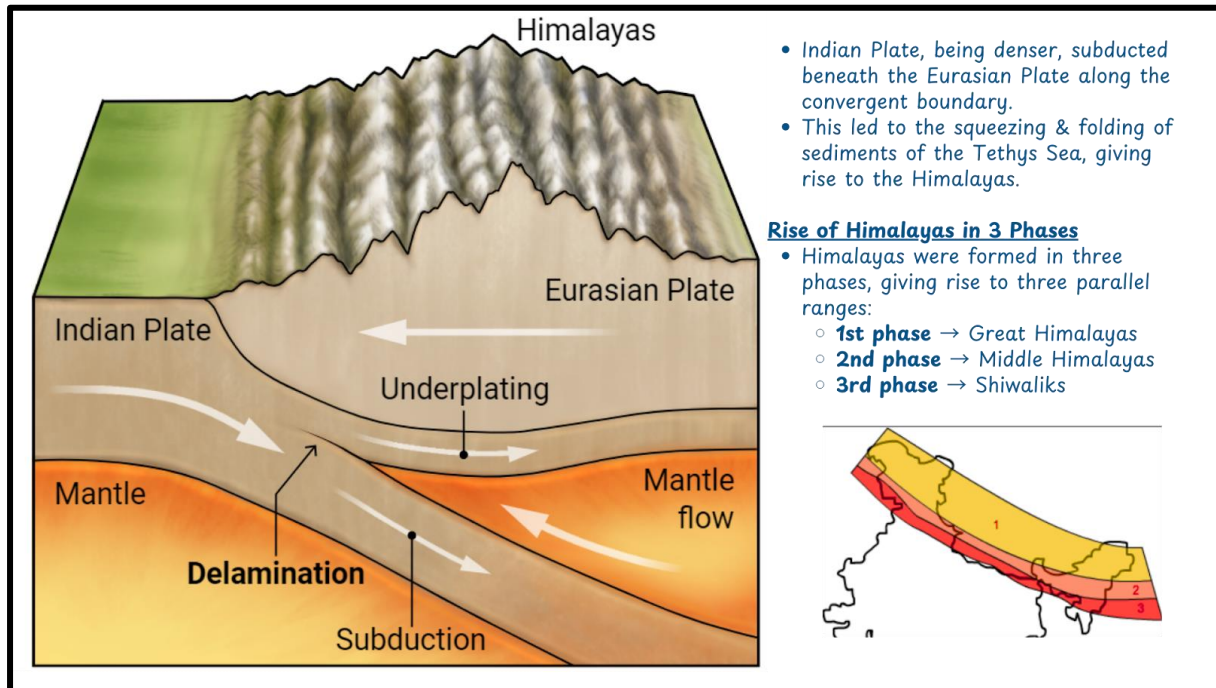
Physiographic Divisions



HIMALAYAS

Formation





ONGOING PROCESS

- Evidence suggests that Himalayas are still rising.

Evidences:

- Appearance of a fracture in outer fringes of Shiwaliks.
- Indian Plate is still moving northward.
- Rivers are still in the youthful stage.
- Isostatic equilibrium not achieved, leading to frequent earthquakes.

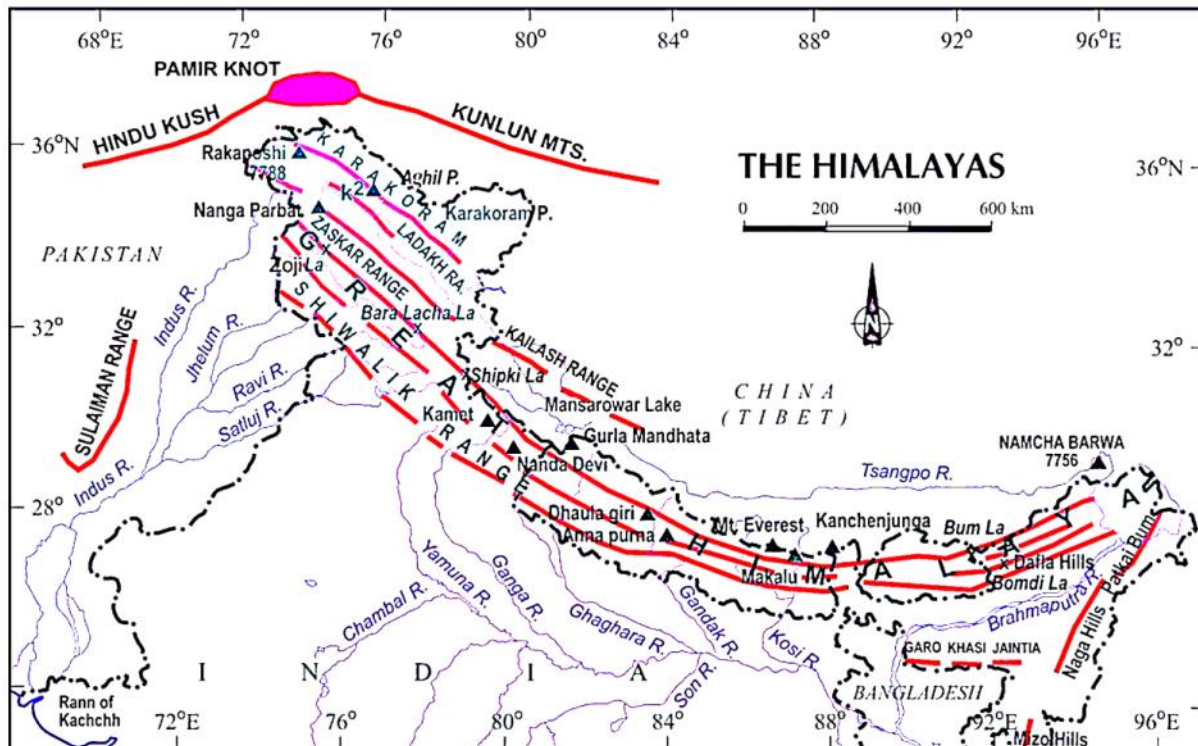
GENERAL FEATURES OF HIMALAYAS

Dimensions	Features
Type	Young, Fold Mountains
Length	Extend for 2400 km in length from Indus gorge in the west to Brahmaputra gorge in the East
Shape	Arcuate curve which is convex to the south Ponder over: “Why Himalayas has syntaxial bends?”
Width	Width is more in the west and decreases from West to East
Height	Western Himalayas rises gradually from the plains whereas the Eastern Himalayas rises abruptly to attain great height
Topography	<ul style="list-style-type: none"> ✓ Ridge and Valley Topography ✓ Hog – back appearance ✓ Asymmetrical Fold
Slope	Southern slope is steep whereas Northern slope is gentle

Great Himalayas

Dimensions	Features
Average Height	6100 metre above sea level
Average width	25 km
Made up of	Granite and Gneisses
Important Passes	<ul style="list-style-type: none"> ➤ Jammu & Kashmir – Burzil Pass and Zoji La ➤ Himachal Pradesh – Bara Lacha La and Shipki La ➤ Uttarakhand – Thag La, Niti Pass and Lipu Lekh ➤ Sikkim – Nathu La and Jelep La
Top 5 Highest Peaks	<ol style="list-style-type: none"> 1. Mount Everest 2. Kanchenjunga 3. Lhotse I 4. Makalu 5. Dhaulagiri

Middle Himalayas / Lower or Lesser Himalayas



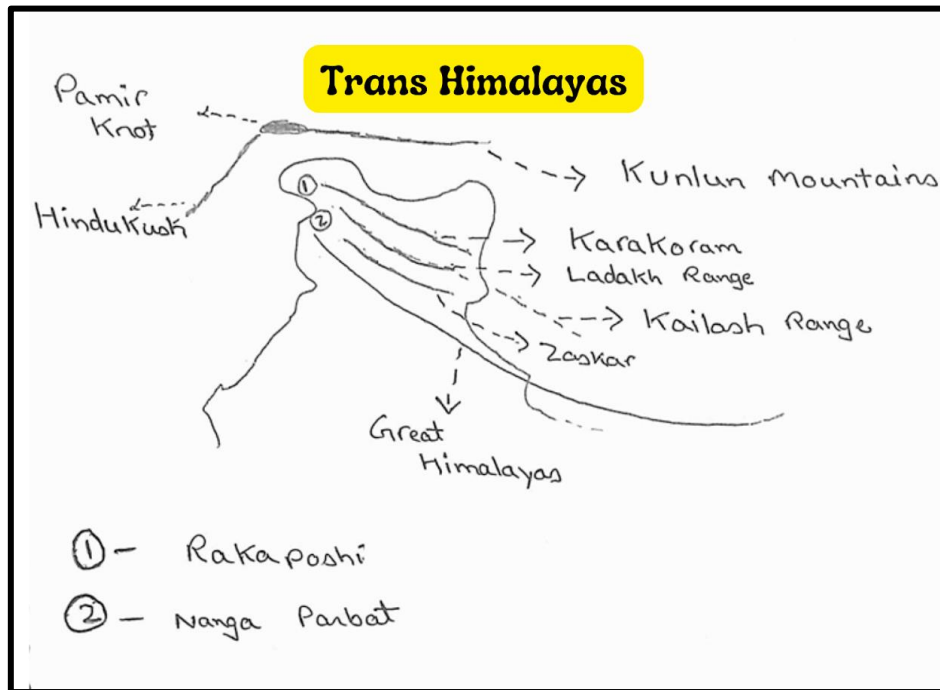
Dimensions	Features
Average Height	4000 metres
Average Width	60 – 80 km
Ranges	<p>Pir Panjal in Kashmir</p> <ul style="list-style-type: none"> ➤ From Jhelum to Upper Beas River ➤ Volcanic rocks ➤ Passes – Banihal Pass, Bidil Pass, Pir Panjal Pass, Gulabgarh Pass ➤ Kishenganga, Jhelum and Chenab cut through this range <p>Dhaulodhar Range in Himachal</p> <ul style="list-style-type: none"> ➤ Southernmost range of Middle Himalayas ➤ Has hill stations like Shimla, Dalhousie

	<ul style="list-style-type: none"> ➤ Cut across Ravi ➤ Lama Dal Lake <p>Mussoorie Range and Nag Tibba Range in Uttarakhand</p> <ul style="list-style-type: none"> ➤ Has hill stations like Nainital, Lansdowne, Ranikhet ➤ Has Bugyals – Alpine Grasslands / meadows. Also known as “Nature’s Own Gardens” <p>Mahabharat Lekh in Nepal</p> <ul style="list-style-type: none"> ➤ Kathmandu Valley is north of it
Valleys	<p>Valley of Kashmir</p> <ul style="list-style-type: none"> ➤ Between Pir Panjal and Zaskar Range ➤ Formation – In Pleistocene period, there as a basin occupied by a Lake in this region. The Lake got filled with sediments and uplifted to form the valley. ➤ Oval Shaped basin ➤ Jhelum valley meanders around it ➤ Has Lacustrine deposits (deposits in lake) , alluvial deposits ➤ Dal Lake and Wular Lake <p>Kangra Valley – Himachal Pradesh</p> <ul style="list-style-type: none"> ➤ In the course of Beas River <p>Kulu Valley – Himachal Pradesh</p> <ul style="list-style-type: none"> ➤ In the upper course of Ravi River
Karewas	<ul style="list-style-type: none"> ➤ In valley of Kashmir ➤ These are flat – topped mounds of lacustrine deposits bordering Valley of Kashmir on all sides. ➤ Has fossils of mammals ➤ Suitable for Agriculture and horticulture ➤ Zafran – variety of Saffron is cultivated here
Glaciers	<ul style="list-style-type: none"> ➤ Sonapani and Bara Shigri in Chandra Valley of Lahaul and Spiti

Shiwalik or Outer Himalayas

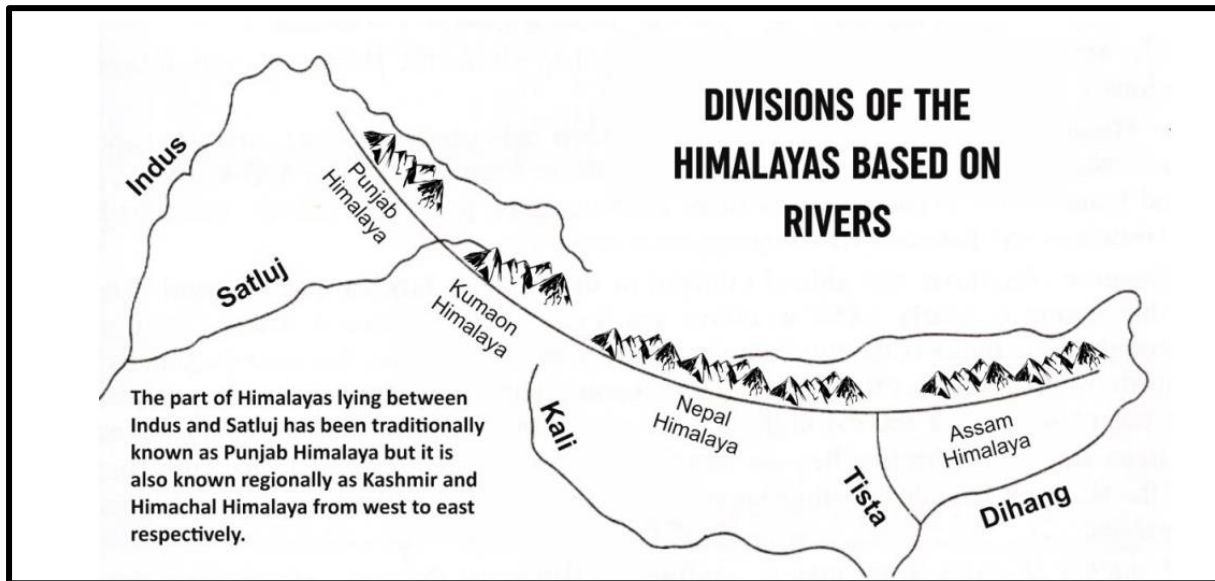
Dimensions	Features
Length	Almost continuous for 2400 kms except for a gap of 80 kms formed by River Teesta
Average Height	600 metres to 1500 metres
Average Width	More in the west and less in the East
Ranges	<ul style="list-style-type: none"> ➤ Jammu Hills ➤ Dhang and Dundwa Range in Uttarakhand ➤ Churia Ghat in Nepal ➤ Dafla, Miri, Abor and Mishmi in Arunachal Pradesh
Forests	Thickly forested in the East and Thinly forested in the West
Doons and Duars	<ul style="list-style-type: none"> ➤ Shiwaliks were formed in the 3rd phase of the Himalayan Formation ➤ Thus, during their formation they obstructed the rivers which were coming from the Great and Middle Himalayas leading to the formation of temporary lakes ➤ After rivers cut their courses through Shiwaliks, these lakes were drained leaving behind plains which are called Doons in the West and Duars in the East

Trans Himalayas

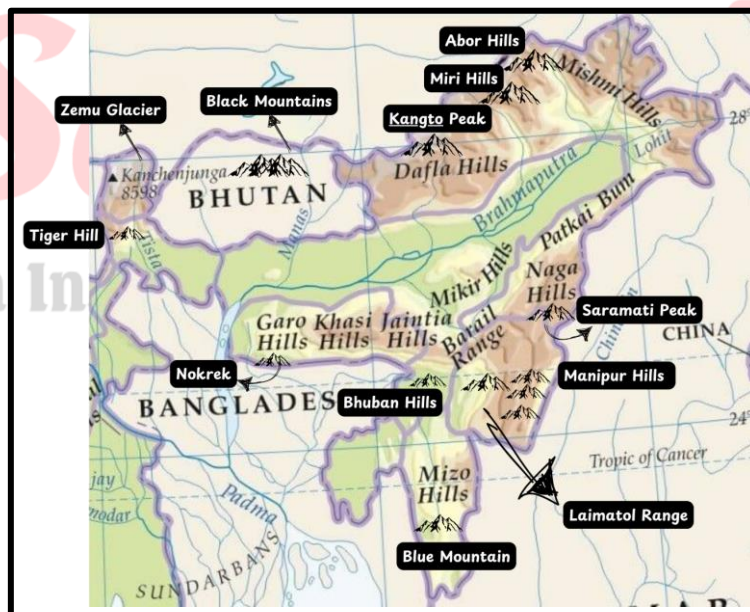


Range	Features
Karakoram	<ul style="list-style-type: none"> ➤ Also known as Krishnagiri ➤ Average length – 800 kms ➤ Average width – 120 kms ➤ K2/Godwin Austin – highest peak of India and second highest peak in the World is located here ➤ Forms watershed between India and Turkmenistan <p>Ladakh Plateau</p> <ul style="list-style-type: none"> ➤ Lies North – East of Karakoram range ➤ Highest plateau of India ➤ It consists of Aksai Chin, Dopsang Plains, Soda Plains and Chang Chenmo
Ladakh Range	<ul style="list-style-type: none"> ➤ Average length – 300 metres ➤ In the West, Rakaposhi – Haramosh is its extension and in the East, Kailash Range is its extension
Kailash Range	<ul style="list-style-type: none"> ➤ River Indus Originates from here ➤ Indus flows between Ladakh and Zaskar
Zaskar Range	<ul style="list-style-type: none"> ➤ Nanga Parbat in the North - west is its extension

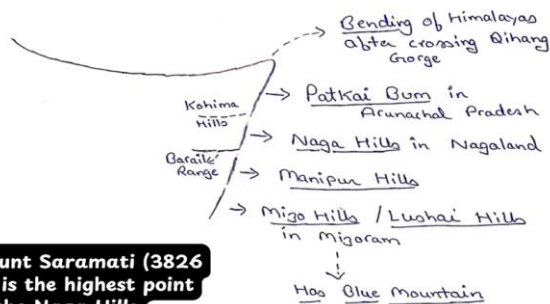
REGIONAL DIVISIONS OF HIMALAYS



EASTERN HILLS AND PEAKS



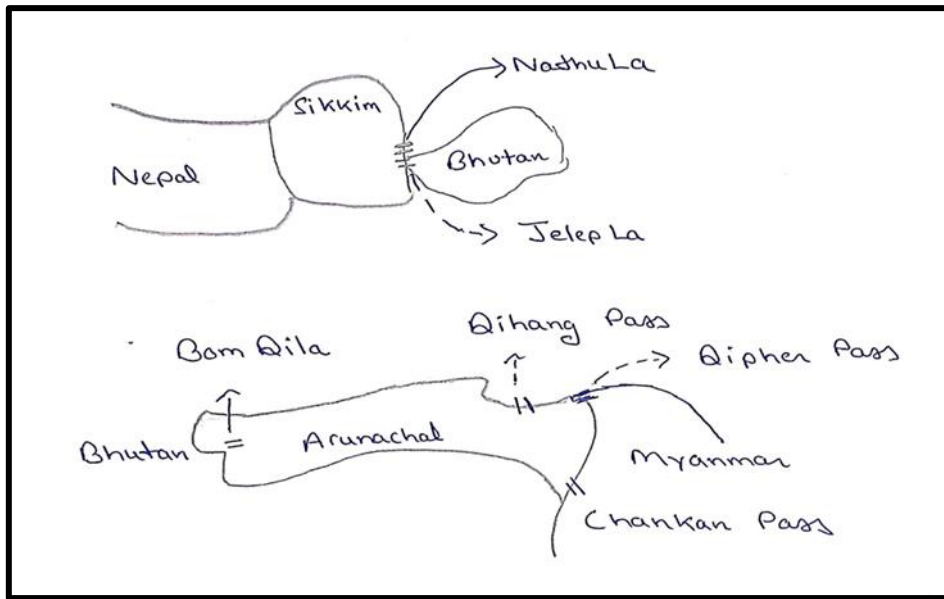
Purvanchal



Features

- Crescent-shaped, with convex side facing the west.
- Made up of sandstone.
- Low in elevation, and their height decreases from north to south.
- Rough terrain, dense forests, and swift streams.

Passes in Himalayas



Peaks in Himalayas

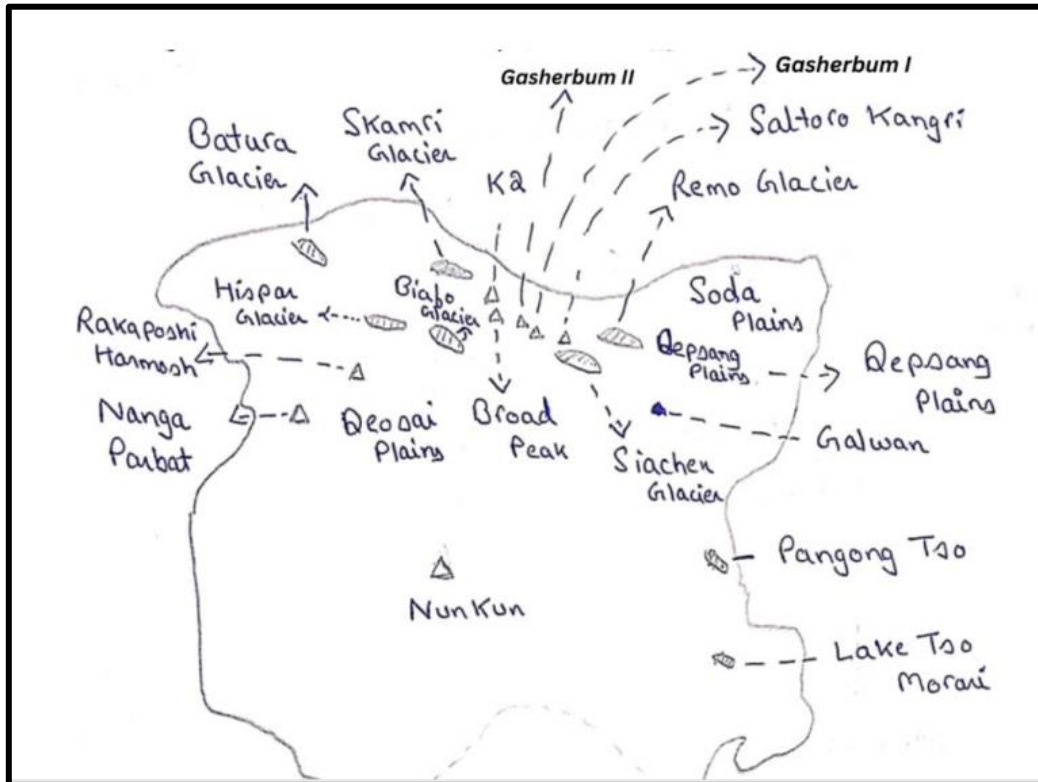
Top 5 Highest Peaks in India

Peaks	Features
K2	<ul style="list-style-type: none"> ➤ Highest Peak of India ➤ Highest Peak of Karakoram
Kangchenjunga	<ul style="list-style-type: none"> ➤ Known as Five Treasures of Snow
Nanda Devi	<ul style="list-style-type: none"> ➤ Highest Peak of India which is located entirely in India
Kamet	<ul style="list-style-type: none"> ➤ In Uttarakhand

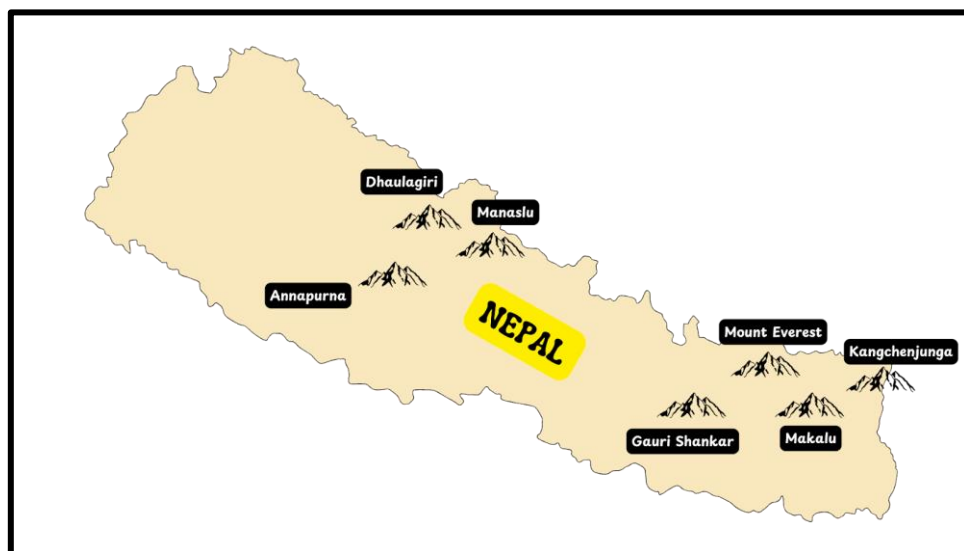
Saltoro Kangri	➤ Near Siachen Glacier
-----------------------	------------------------

Highest Peak of Eastern Ghat	➤ Arnakonda / Jindhagada (Andhra Pradesh)
Highest Peak of South India	➤ Anamudi (Kerala)
Highest Peak of Central India	➤ Dhupgarh (Mahadeo Hills, Satpura Range) Madhya Pradesh

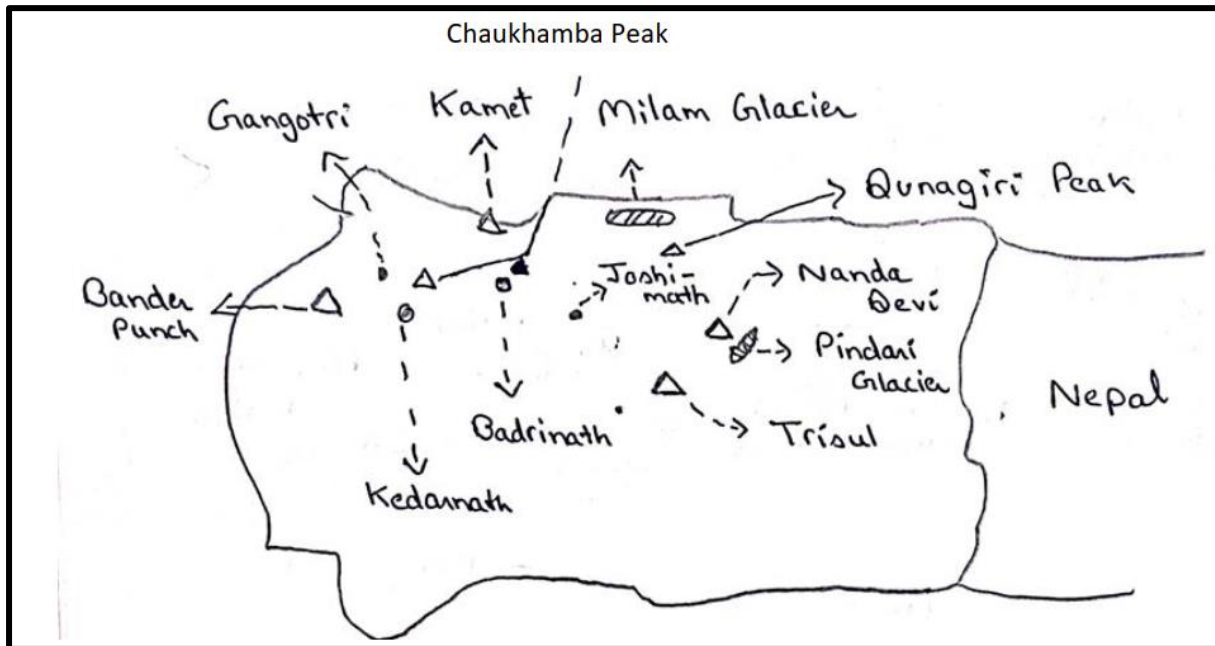
Peaks in Jammu & Kashmir and Ladakh



Peaks in Nepal



Peaks in Uttarakhand



Impact of the Himalayan Mountains on India

Climate Regulation:

- Acts as a barrier to cold winds from Central Asia, moderating winters.
- Triggers monsoons by intercepting summer winds from the Bay of Bengal & Arabian Sea.
- Splits the jet stream, influencing monsoon patterns.

River System & Agriculture:

- Source of major Indian rivers due to glaciers and heavy rainfall.
- Rivers carry alluvium, forming the fertile Indo-Gangetic plains.
- Plate tectonics led to the formation of these plains.

Strategic & Economic Significance:

- Acts as a natural defense barrier against foreign invasions.
- Facilitates hydroelectric power generation through Himalayan river dams.

Ecological & Tourism Importance:

- Rich biodiversity with vast forest tracts.
- Major tourist attraction with scenic landscapes.



ISLANDS IN INDIA

Lakshadweep and Other Islands

Features

- Situated in the Arabian Sea is a **group of 36 islands**
- extending between **8° N and 12° N latitude**

Pitti Island

- Breeding place for **sea turtles** and for a number of pelagic birds such as **greater crested tern**.
- The Pitti island has been declared a **bird sanctuary**.

Topography

- Most of the islands have **low elevation** and do not rise more than five meters above sea level (Extremely Vulnerable to sea-level change).
- Their topography is **flat and relief features such as hills, forests, streams, valleys, etc. are absent**
- **Note: Maldives is not part of Lakshadweep**

Lakshadweep Islands

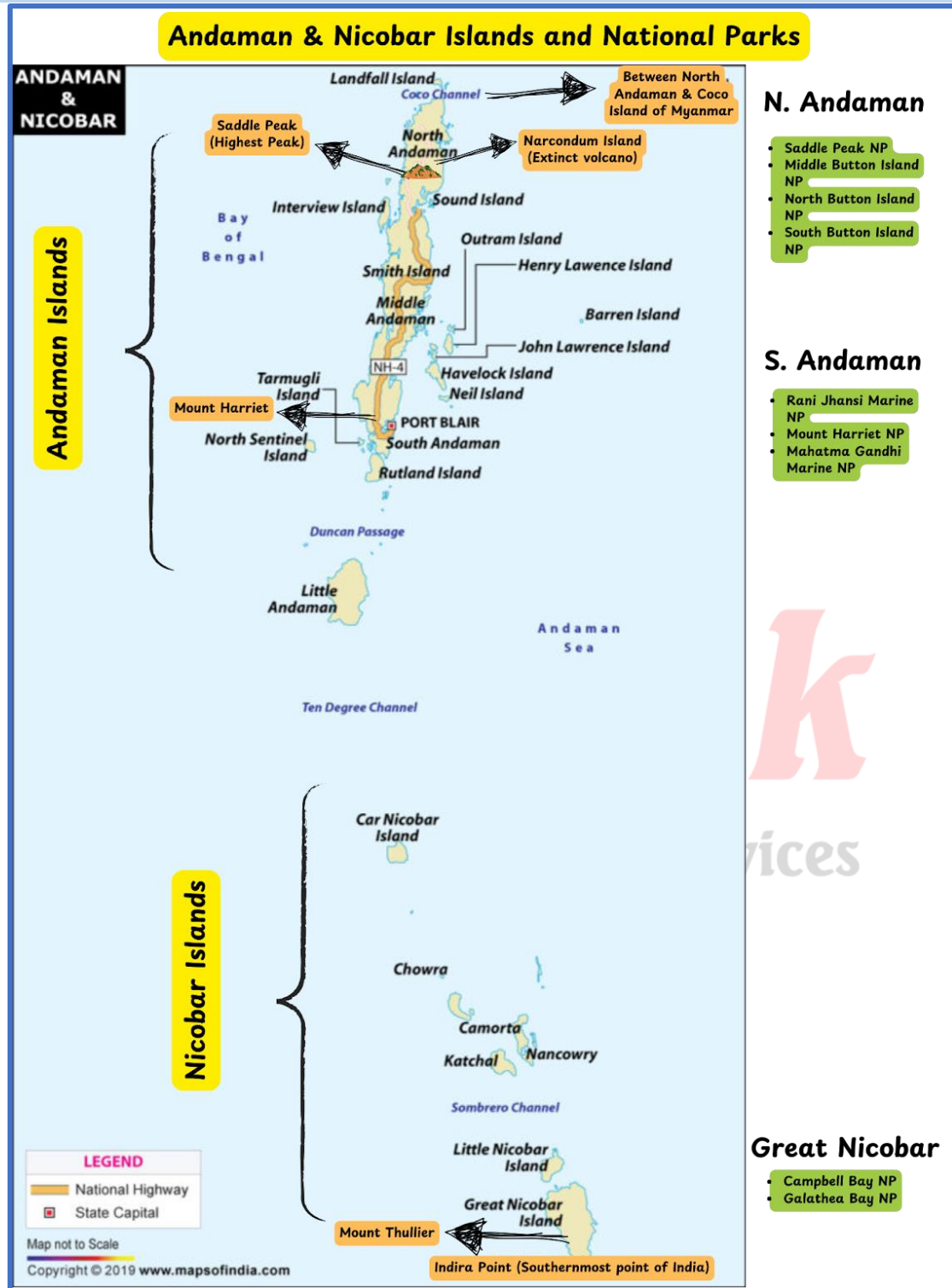


Other Important Islands

Islands	Location	Features
New Moore Island / Purbasha Island	Off the coast of Ganga – Brahmaputra Delta in Bay of Bengal.	<ul style="list-style-type: none"> ➤ Sandbar landform ➤ Keeps on emerging and disappearing
Majuli Island	In Brahmaputra River, Assam	<ul style="list-style-type: none"> ➤ Largest Riverine island ➤ Formed due to change of course of Brahmaputra river ➤ Neo – Vaishnavite Culture
Butcher Island / Jawahar Dweep	Off the Coast of Mumbai	<ul style="list-style-type: none"> ➤ Has Oil Terminal
Elephanta Island / Gharapuri Island	Off the coast of Mumbai	<ul style="list-style-type: none"> ➤ Elephanta Caves are here
Oyster Rock	Off the coast of Mumbai	<ul style="list-style-type: none"> ➤ Fortified and owned by Indian Navy

Sri Harikota Island	Off the coast of Andhra Pradesh	<ul style="list-style-type: none"> ➤ Barrier Island ➤ Has Satish Dhawan Space Centre ➤ Separates Pulicat Lake from Bay of Bengal
Pamban Island / Rameshwaram Island	In Gulf of Mannar off the coast of Tamil Nadu	<ul style="list-style-type: none"> ➤ Covered with White Sand ➤ Separates Palk Bay with Gulf of Mannar
Abdul Kalam Island/ Wheeler Island	Off the coast of Orissa	➤ Missile Testing Site
Sagar and Halliday Island	Ganga Brahmaputra Delta	
Munroe Island	Kerala	➤ At confluence of Ashtamudi Lake and River Kallada
Floating Islands - Phumdis	Manipur	<ul style="list-style-type: none"> ➤ Part of Keibul Lamjao National Park ➤ Famous for Sangai / Elf's Deer
Katchatheevu Island	In Palk Strait	➤ India has ceded this island to Sri Lanka through Joint Agreement

ANDAMAN AND NICOBAR ISLANDS



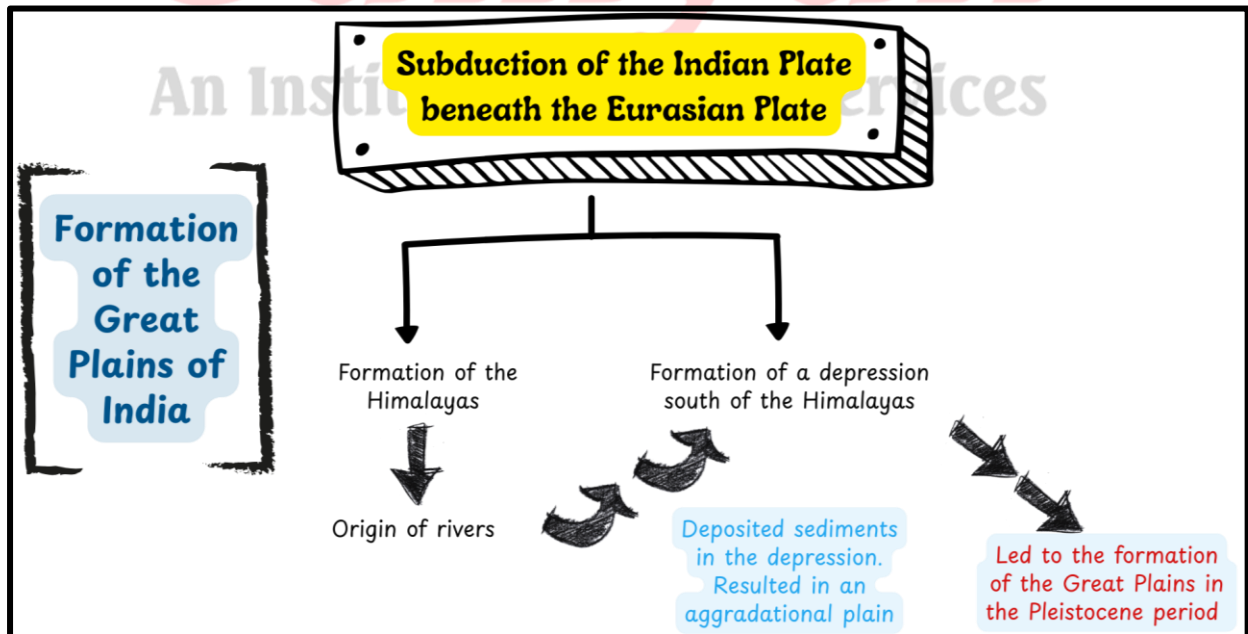
Features

Number of Islands	➤ Around 572 with around 38 are inhabited
North – South Extent	➤ 6° 45' N to 13° 45' N.
Formation	➤ Due to collision between Indian Plate

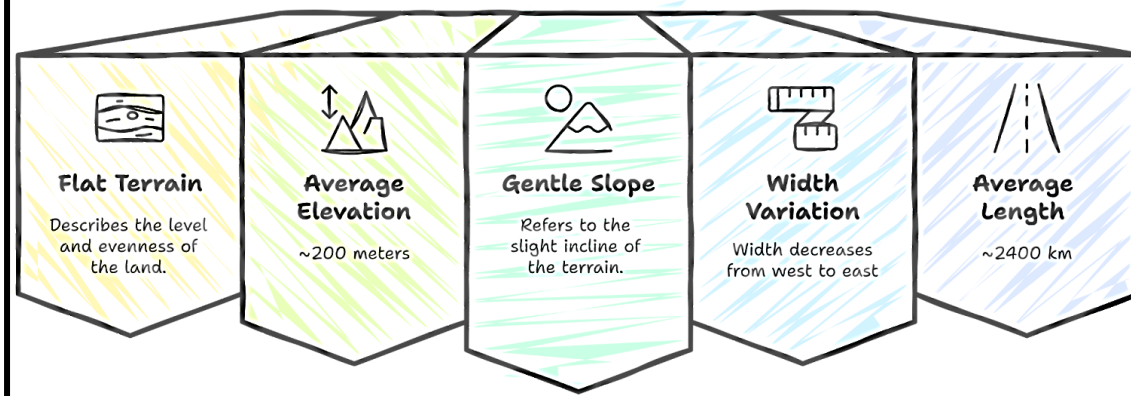
	<p>and Burma minor plate</p> <ul style="list-style-type: none"> ➤ They are Southward Extension of Arakan Yoma Range of Myanmar
Climate	<ul style="list-style-type: none"> ➤ Tropical Marine Climate
Forest	<ul style="list-style-type: none"> ➤ Tropical Rain Forest
Tribes	<ul style="list-style-type: none"> ➤ Andaman (Negrito Tribes) ➤ Great Andamanese and Onge ➤ Jarawa and Sentinelese ➤ Nicobar (Mongoloid Tribes) ➤ Shompen and Nicobarese
Wildlife	<ul style="list-style-type: none"> ➤ Dugong (Sea Mammal) – State Animal of Andaman (Vulnerable category) ➤ Giant Robber Crab – can climb Coconut Trees and can even break hard shell of coconut ➤ Andaman shrew – Critically Endangered ➤ Jenkin’s shrew – Critically Endangered ➤ Nicobar shrew – Critically Endangered

GREAT INDIAN PLAINS

FORMATION OF THE GREAT PLAINS OF INDIA



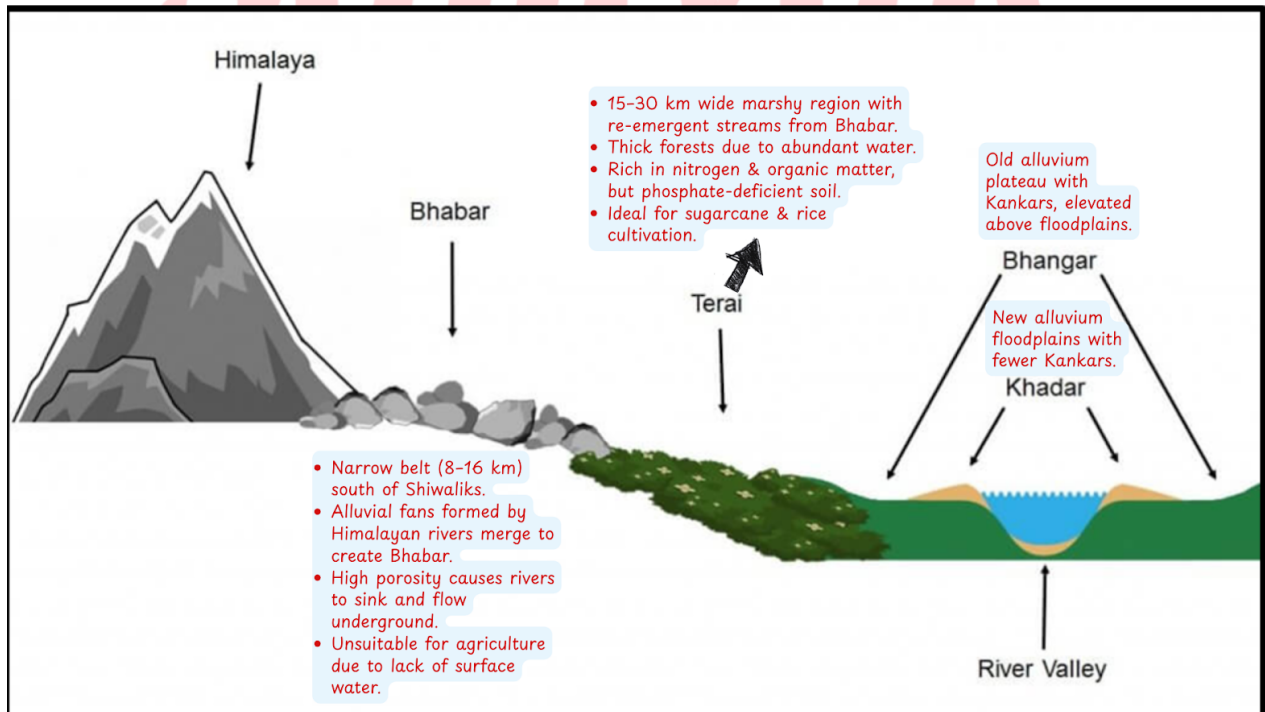
Features of the Great Plains



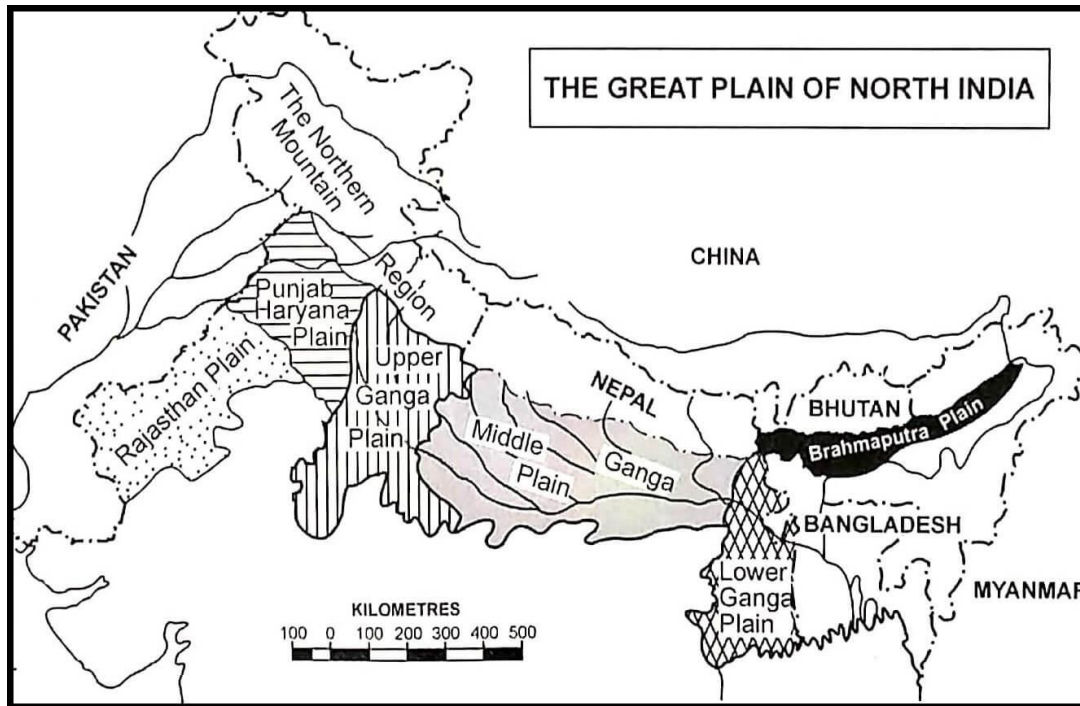
CHARACTERISTICS OF NORTH INDIAN PLAINS

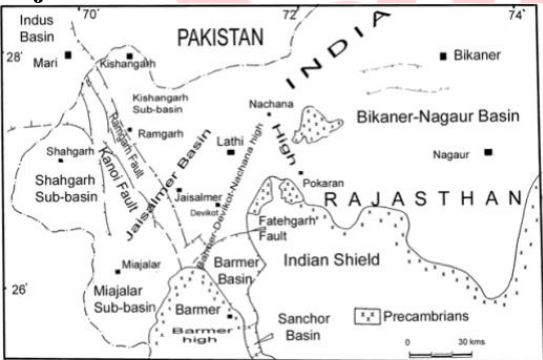
- The 300m contour line divides the Himalayas and the Gangetic Basin.
- The plains are **flat and are rolling**.
- **Monotonous in Character** (Featureless topography)
- Aggradational Plain – formed due to depositional activity
- **Arcuate (curved) plain**

LONGITUDINAL PROFILE OF PLAINS



REGIONAL DIVISION OF PLAINS



PLAINS	FEATURES
<p>Rajasthan Plains</p>  <p style="text-align: center;"><i>Figure 1 Oil Fields in Rajasthan</i></p>	<ul style="list-style-type: none"> ➤ Rajasthan Bagar - Semi – Arid Plain between Thar Desert and Aravali Range ➤ Rohi - Fertile tracts formed by seasonal rivers from Aravali in Rajasthan Bagar ➤ Plain is an undulating plain (wave-like)
<p>Punjab Plains</p>	<ul style="list-style-type: none"> ➤ Malwa Plains – South of Sutlej River Doabs – Land between two rivers ➤ Bist Doab – Between River Beas and River Sutlej ➤ Bari Doab – Between Beas and Ravi ➤ Rachna Doab – Between Ravi and Chenab ➤ Chaj Doab - Between Chenab and Jhelum ➤ Sind Sagar Doab – Between Jhelum – Chenab and Indus ➤ Haryana Tract – Water divide between Yamuna and Sutlej Chos – Small seasonal streams from Shiwaliks
<p>Upper Gangetic Plains</p>	<ul style="list-style-type: none"> ➤ Ganga – Yamuna Doab – Largest doab in India ➤ Rohilkhand Plains – In Uttar Pradesh

	<ul style="list-style-type: none"> ➤ Bhurs – Elevated piece of land formed due to the deposition of sand by the wind ➤ Reh / Kallar – Saline Efflorescence in UP
Middle Gangetic Plains	<ul style="list-style-type: none"> ➤ Awadh Plains – Between River Ghaghra and Gomti ➤ Mithila Plains – Between River Gandak and Kosi and its flood prone ➤ Magadh Plains – East of Son River and its not flood prone
Lower Gangetic Plains	<ul style="list-style-type: none"> ➤ Barind Plains – Old Alluvium and between Kosi – Mahananda and River Sankosh ➤ Paradelta – looks like inverted triangle ➤ Rarh Plains – Has Laterite Deposits ➤ Sundarban Delta
Brahmputra Plains	<ul style="list-style-type: none"> ➤ Assam Valley

COASTAL PLAINS

India's Coastline

- 7516 Kms in length
- **Straight and regular** due to faulting of Gondwana Land

Emergent Coast

- Formed either by an **uplift of the land** or by the **lowering of the sea level**.
- East Coast of India and Kerala Coast

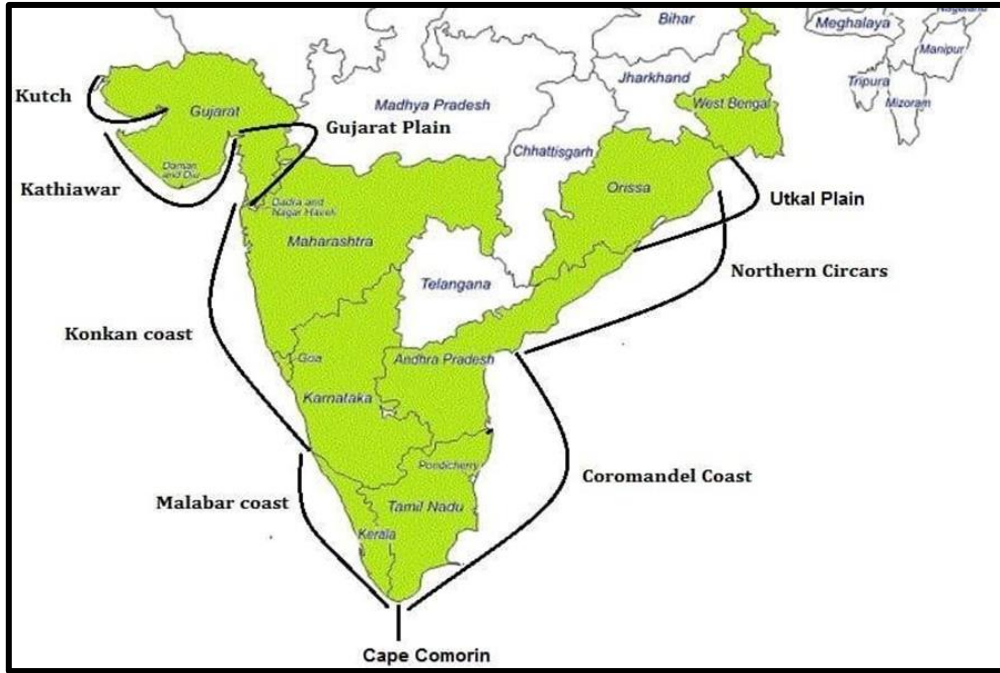
Submergent Coast

- Formed due to **submergence of the land** or by **increase in the sea level**
- Konkan Coast and Karnataka Coast

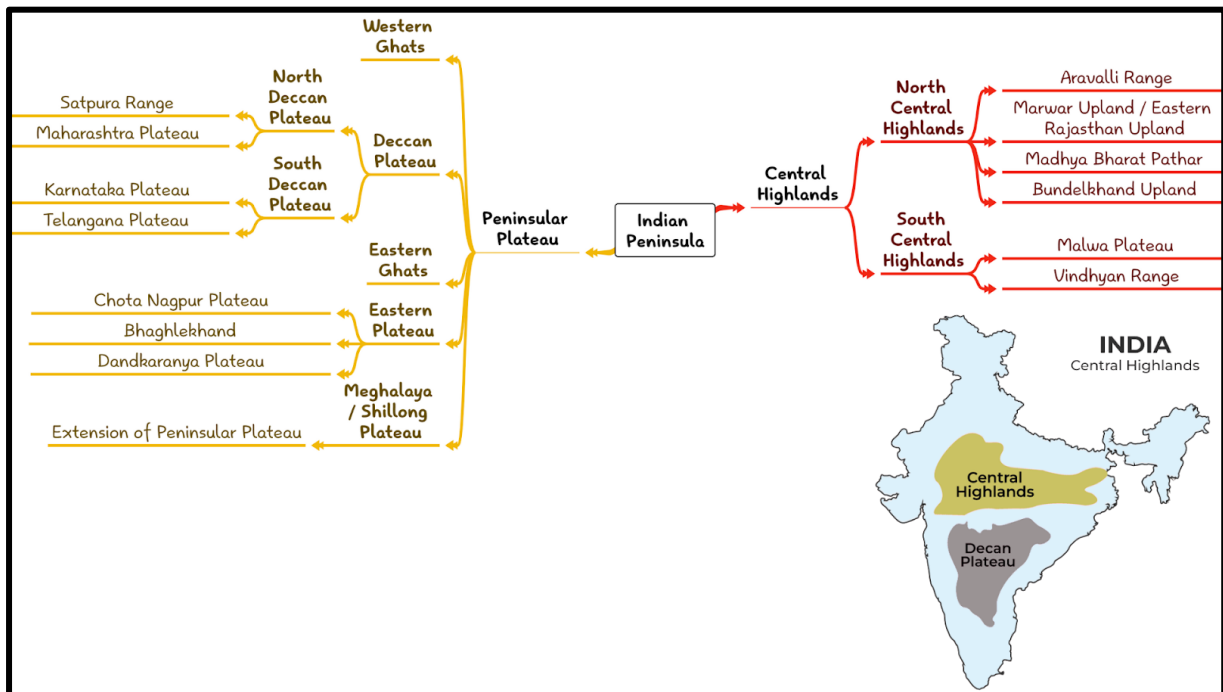
Comparison between Western Coastal Plains and Eastern Coastal Plains

DIMENSIONS	WESTERN COASTAL PLAINS	EASTERN COASTAL PLAINS
Extent	<ul style="list-style-type: none"> ➤ From Rann of Kutch to Kanyakumari 	<ul style="list-style-type: none"> ➤ From Subarnarekha to Kanyakumari
Width	<ul style="list-style-type: none"> ➤ Narrow (around 65kms) 	<ul style="list-style-type: none"> ➤ Broad (around 100 kms)
Type	<ul style="list-style-type: none"> ➤ Submergent and Emergent (Kerala coast) 	<ul style="list-style-type: none"> ➤ Emergent Coast
Rivers	<ul style="list-style-type: none"> ➤ Small and swift which makes Estuary 	<ul style="list-style-type: none"> ➤ Larger rivers make Deltas
Topography	<ul style="list-style-type: none"> ➤ Relatively Rocky and slopes abruptly towards the sea 	<ul style="list-style-type: none"> ➤ Sandy with gentle slope towards the sea

Continuity	<ul style="list-style-type: none"> ➤ Broken and intersected by ridges 	<ul style="list-style-type: none"> ➤ Level and runs smoothly
Ports development	<ul style="list-style-type: none"> ➤ Suitable 	<ul style="list-style-type: none"> ➤ Not Suitable
Climate	<ul style="list-style-type: none"> ➤ Heavy Rainfall 	<ul style="list-style-type: none"> ➤ Low Rainfall



PENINSULAR INDIA



North Central Highlands

Sub – Divisions within North Central Highlands	Features
Aravalli Range	<ul style="list-style-type: none"> ➤ Oldest Fold Mountain ➤ A residual mountain – means its highly eroded ➤ Runs in North – East to South West direction from Delhi to Palanpur in Gujarat ➤ Highest Peak – Guru Shikhar in Mt. Abu ➤ Passes – Barr, Pipli Ghat, Dewair and Desuri
Eastern Rajasthan Upland / Marwar Upland	<ul style="list-style-type: none"> ➤ It lies East of Aravalli Range ➤ It is made up of Sandstone and Limestones ➤ Slopes Eastward ➤ Occupied by Banas River basin ➤ It appears like Rolling Plains (plains which are not completely flat but slightly rises and falls in the landforms) ➤ NOTE – Marwar PLAINS is WEST of Aravallis
Madhya Bharat Pathar	<ul style="list-style-type: none"> ➤ East of Marwar Upland ➤ Occupies basin of Chambal River which flows through Rift Valley ➤ It composed of Rounded hills made up of sandstone
Bundhelkhand	<ul style="list-style-type: none"> ➤ South of Yamuna River and East of Madhya Bharat Pathar ➤ Made up of Granite and Gneiss ➤ Has rounded hummocky hills made up of Granite and Gneiss ➤ Spread over some districts of UP and MP ➤ Highly eroded by rivers like Betwa and Ken

South Central Highlands

Sub – Divisions within South Central Highlands	Features
Malwa Plateau	<ul style="list-style-type: none"> ➤ Triangle shaped ➤ Has two systems of Drainage <ul style="list-style-type: none"> ○ One towards Arabian Sea (Narmada – Tapi – Mahi) ○ One towards Bay of Bengal (Chambal – Betwa) ➤ It covers extensive lava flow and thus has black soil ➤ In its north, we have Chambal Ravines
Vindhyan Range	<ul style="list-style-type: none"> ➤ An escarpment which runs in East – West direction from Jobat, Gujarat to Sasaram in Bihar ➤ Average Elevation is 350 metres to 600 metres ➤ It's further extended eastward as Bharner and Kaiumr Hills ➤ Forms watershed between Ganga River System and Rivers of South India ➤ Made up of Sedimentary rocks ➤ Important Peak – Gomanpur Peak in MP
Narmada Valley	<ul style="list-style-type: none"> ➤ South of Vindhyan Range ➤ A rift valley through which River Narmada flows towards Arabian Sea



Deccan Plateau

- Largest unit of the Peninsular Plateau of India
- **Triangular shaped** and surrounded by hills
- General **slope is from West to the East** (This is why major South Indian Rivers flow Eastward)
- Southern Part has higher elevation than the Northern Part
- **Further divided into**
 - North Deccan Plateau
 - South Deccan Plateau

North Deccan Plateau

Satpura Range

- **Block Mountains**
- It's a series of **7 mountains** which begins from **Rajpipla Hills** in the West to **Mahadev Hills** to **Maikala Hills**

- Runs in East – direction **between River Narmada in the North and River Tapi in the South**
- **Important Peaks**
 - **Dhupgarh** – highest peak of Central India is located on Mahadev Hills, Satpura Range
 - **Amarkantak on Maikala Range**
 - **Astamba Dongar**

Maharashtra Plateau

- ✓ Horizontal Lava sheets led to the formation of **Deccan Trap Topography** (Step – like)
- ✓ Has **Black soil**
- ✓ **Ajanta Range** lies South of River Tapi

South Deccan Plateau

Karnataka Plateau

Its further divided into

- **Northern Section** – Krishna and Tungabhadra Rivers flows through this
- **Mysore Plateau**
 - **Malnad** - Hilly area with dense forests
 - **Maidan** - Rolling Plains with low hills
- **Highest Peak – Mulangiri, Baba Budan Hills** in Karnataka

Telangana Plateau

- Godavari River divides into two parts
 - Northern part is hilly and forested
 - Southern part has low hills and shallow depressions

Eastern Plateaus



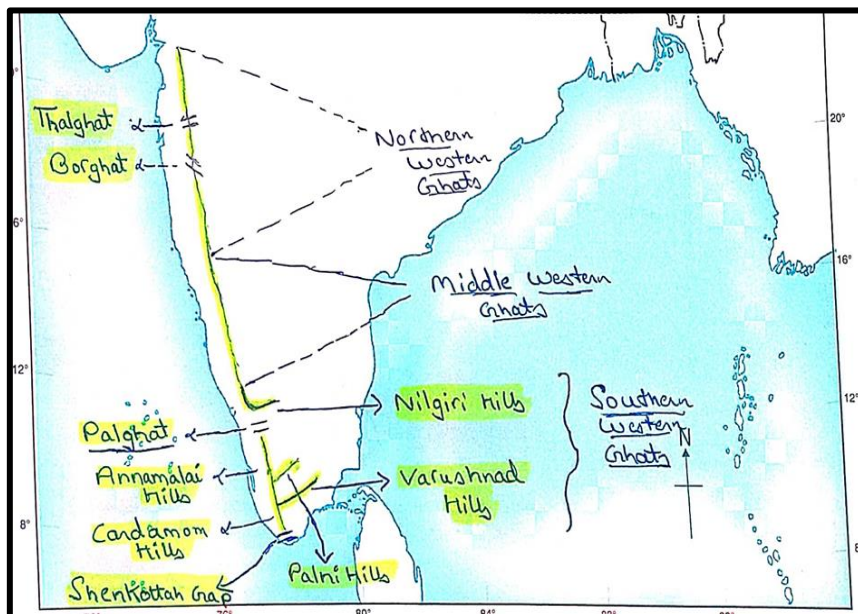
Sub - Divisions	Features
Chota Nagpur Plateau	<ul style="list-style-type: none"> ➤ Location – East of Baghelkhand ➤ States – Jharkhand, Northern Part of Chhatisgarh and Purulia district of West Bengal ➤ Rock system – Gondwana with patches of Deccan Lava and

	<p>granite</p> <ul style="list-style-type: none"> ➤ Pat – Lands – High level laterite plateau in the mid-west portion of Chota – Nagpur Plateau. From, here elevation decreases in all directions ➤ Drainage – Radial ➤ River Damodar flows through the middle in a rift valley from West to East <p>Hazaribagh Plateau</p> <ul style="list-style-type: none"> ➤ North of River Damodar ➤ Highly eroded ➤ Parasnath hill is here <p>Ranchi Plateau</p> <ul style="list-style-type: none"> ➤ South of River Damodar ➤ Netrahat Pat is here <p>Rajmahal hills</p> <ul style="list-style-type: none"> ➤ North Eastern Edge of Chota Nagpur Plateau ➤ Made up of Basalt and covered with lava flows
Baghelkhand	<ul style="list-style-type: none"> ➤ West of Chota Nagpur Plateau ➤ Has scarps of Vindhyan sandstones
Chhatisgarh Plain	<ul style="list-style-type: none"> ➤ Central part of Mahanadi Basin and lies in South of Eastern Plateau
Meghalaya Plateau	<ul style="list-style-type: none"> ➤ Extension of Peninsular Plateau ➤ It's separated from main peninsular plateau by Garo – Rajmahal Gap which was formed by down – faulting and was later filled by sediments deposited by River Ganga ➤ It has Garo – Khasi – Jaintia Hills.

Western Ghats

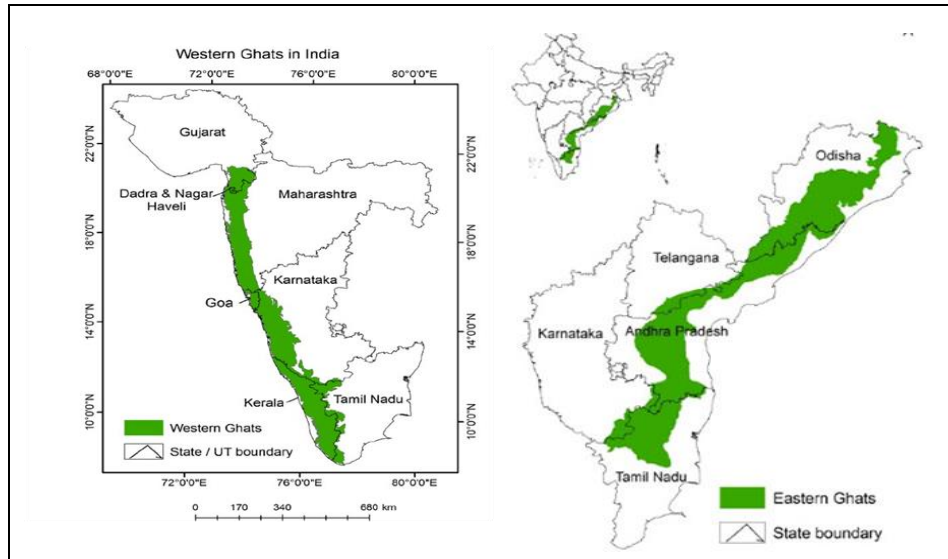
Aspects	Features
Formation	<ul style="list-style-type: none"> ➤ Subduction of Arabian Basin and tilting of Peninsula East and North East during Himalayan Uplift. ➤ They are older than Himalayas
Type	➤ Block Mountains
Extent	<ul style="list-style-type: none"> ➤ From Tapi Valley to the Kanyakumari for a distance of 1600 kms ➤ Its spread over 6 states – Gujarat, Maharashtra, Goa, Karnataka, Tamil Nadu and Kerala
Slope	<ul style="list-style-type: none"> ➤ Steep slope in the west (From west coast) and look like a Treppen ➤ Gentle slope in the east thus they hardly appear like mountains when viewed from the Deccan
Appearance	➤ Stairs like appearance because of weathering of horizontally bedded lavas
Sub - Divisions	<p style="text-align: center;">Northern Western Ghats</p> <ul style="list-style-type: none"> ➤ From Tapi Valley to Goa ➤ Has basaltic lava horizontal sheets ➤ Passes <ul style="list-style-type: none"> ○ Thal Ghat – Connects Mumbai and Nashik ○ Bor Ghat – Connects Mumbai and Pune ○ Amba Ghat ○ Naneghat – Connects Pune and Junnar City ○ Amboli Ghat – connects Maharashtra and Belgaum, Karnataka

	<p>➤ Peaks</p> <ul style="list-style-type: none"> ○ Kalsubai ○ Mahabaleshwar ○ Salher ○ Harishchandragarh <p style="text-align: center;">Middle Western Ghats</p> <p>➤ From Goa up to Nilgiris</p> <p>➤ Important Peaks</p> <ul style="list-style-type: none"> ○ Kudermukh ○ Pashpagiri ○ Nilgiri Hills <ul style="list-style-type: none"> ▪ Western Ghats and Eastern Ghats meets here ▪ Doda Betta is the highest peak of Nilgiri <p style="text-align: center;">Southern Western Ghats</p> <p>➤ Passes</p> <ul style="list-style-type: none"> ○ Palghat / Palakkad Gap <ul style="list-style-type: none"> ▪ Likely a rift valley ▪ Separates Nilgiri and Anaimalai Hills ▪ Connects Tamil Nadu and Kerala ▪ It's through Palghat S-W monsoon winds enters mainland ○ Shencotta Gap <ul style="list-style-type: none"> ▪ Connects Madurai and Kottayam <p>➤ Important Hills</p> <ul style="list-style-type: none"> ○ Anaimalai Hills – Anai Mudi is the highest peak of Southern India ○ Palni Hills ○ Cardamom Hills - Agastimalai is the highest peak of Cardamom Hills
Forests	<p>➤ Eastern Slopes – Dry and Moist Deciduous Forests</p> <p>➤ Western Slopes – Tropical Moist Broadleaf Forests</p>
Biodiversity	<p>➤ One of the Bio – Diversity Hotspots</p> <p>➤ Some important Endemic Species</p> <ul style="list-style-type: none"> ○ Nilgiri Tahr ○ Lion – Tailed Macaque

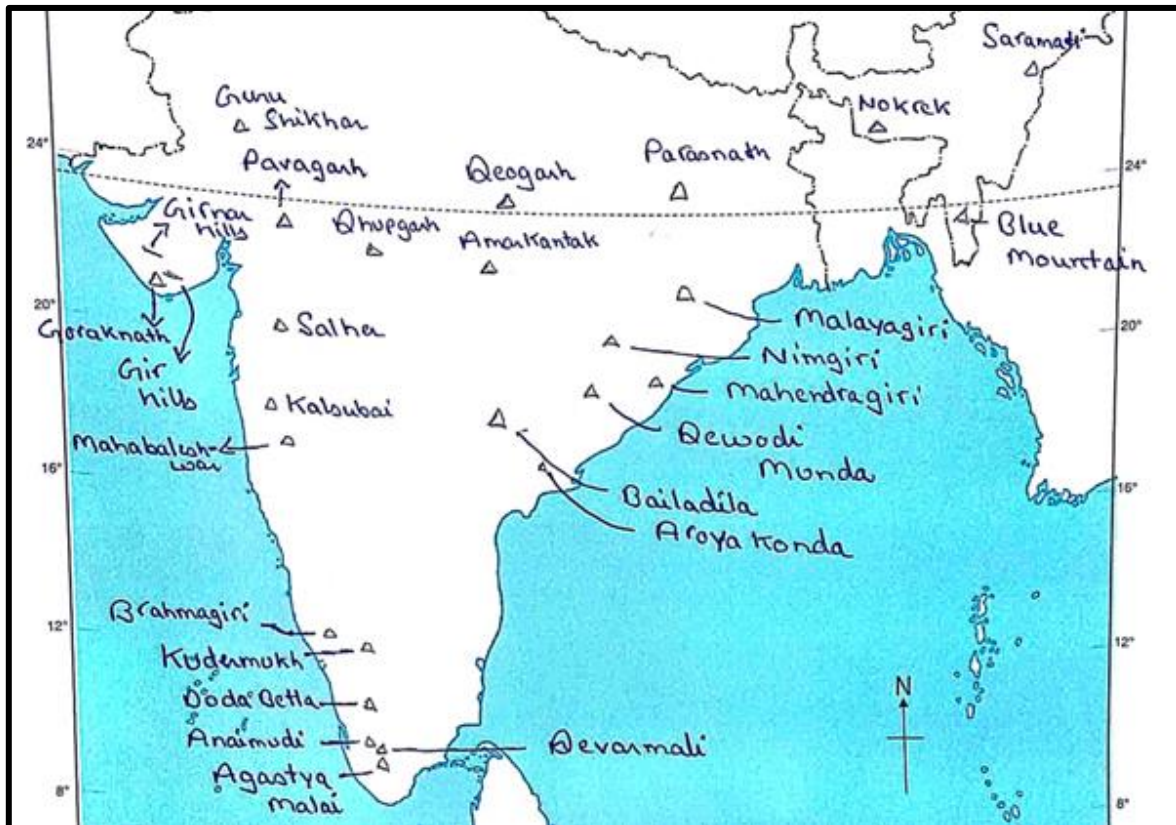


Comparison of Western and Eastern Ghats

Dimensions	Western Ghats	Eastern Ghats
Extent	<ul style="list-style-type: none"> ➤ From Tapi Valley to Kanyakumari ➤ Almost Continuous hills and can be crossed via passes 	<ul style="list-style-type: none"> ➤ From Mahanadi valley to Vagai Riiver in Tamil Nadu ➤ They are discontinuous and broken due to River deltas
Formation	<ul style="list-style-type: none"> ➤ Subduction of Arabian basin and tilting of Peninsula 	<ul style="list-style-type: none"> ➤ They are Fold mountains
Type	<ul style="list-style-type: none"> ➤ Block Mountains 	<ul style="list-style-type: none"> ➤ They are Precambrian fold mountains ➤ They are older than Western Ghats but younger than Aravallis
Average Width	<ul style="list-style-type: none"> ➤ 50 – 80 kms 	<ul style="list-style-type: none"> ➤ Has more width than Western Ghats
Coast	<ul style="list-style-type: none"> ➤ There are narrow Coastal Plains between Western Ghats and Arabian Sea 	<ul style="list-style-type: none"> ➤ There are broader coastal Plains between Eastern Ghats and Bay of Bengal
Average Elevation	<ul style="list-style-type: none"> ➤ 900 – 1600 metres 	<ul style="list-style-type: none"> ➤ Comparatively lower in elevation
Rivers	<ul style="list-style-type: none"> ➤ Source of Origin of Major peninsular rivers ➤ Rivers form mainly Estuaries 	<ul style="list-style-type: none"> ➤ No major river originates from here except for River Indravati ➤ Rivers forms deltas
Rainfall	<ul style="list-style-type: none"> ➤ Receives higher rainfall from SW Monsoon 	<ul style="list-style-type: none"> ➤ Bay of Bengal branch of SW Monsoon runs parallel to it and it receives less rainfall
Forest	<ul style="list-style-type: none"> ➤ East Slope – Tropical Rainforest 	<ul style="list-style-type: none"> ➤ Deciduous forest
Different Names	<ul style="list-style-type: none"> ➤ Sahayadri In Maharashtra ➤ Nilgiri in Tamil Nadu ➤ Anaimalai and Cardamom in Kerala 	<ul style="list-style-type: none"> ➤ Maliya and Madugula Konda in Odisha ➤ Nallamala and Palkonda in Andhra Pradesh ➤ Further south, they run as detached low hills in form of Javadi Hills, Shevaroy, Panchaimalai Hills in Tamil Nadu
Highest Peak	<ul style="list-style-type: none"> ➤ Anaimudi - Kerala 	<ul style="list-style-type: none"> ➤ Jindaghada, Andhra Pradesh
Soil	<ul style="list-style-type: none"> ➤ Laterite soil 	<ul style="list-style-type: none"> ➤ Red Sandy Soil



PEAKS IN PENINSULA INDIA



Hills of Peninsula India

