



SSC

Stenographer Grade C&D

STAFF SELECTION COMMISSION (SSC)

Volume - 1

General Awareness



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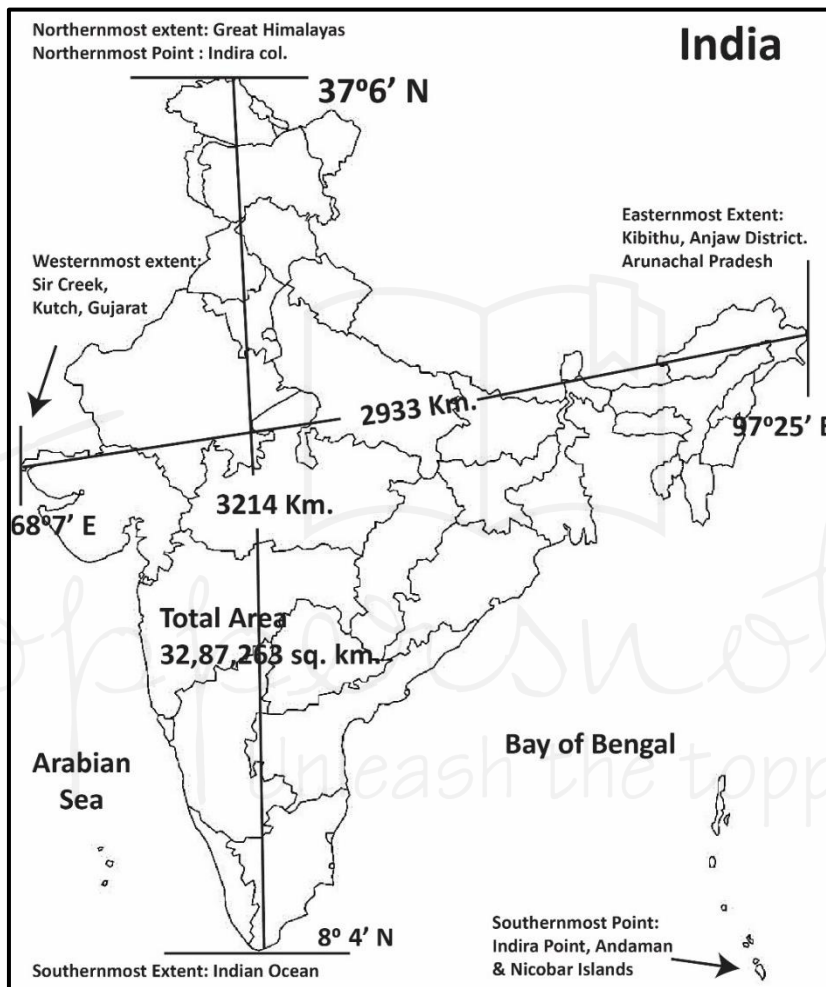
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1

CHAPTER

India-Size & Location

- **7th largest country** in the world.
- Situated in the **northern hemisphere (8°4'N to 37°6'N and 68°7'E to 97°25'E)**
 - India lies to the north of the equator between **6° 44' and 37°6'N latitude** and **68° 7' and 97° 25'** east longitude (including the islands).
- **Area: 32,87,263 sq. km (2.42% of the world)**
- **2nd most populated country in the world (17.5% of the world's population)**
- **Total land boundary = 15,200 km.**
- **Total Sea boundary = 7516.6 Km**
 - Without islands = 6100 Km



Border Countries:

| | |
|-------------------|--|
| North-west | <ul style="list-style-type: none"> • Afghanistan and Pakistan • Indo-Pak border: Radcliffe line • Pak - Afghanistan border: Durand Line |
| North | <ul style="list-style-type: none"> • China, Bhutan and Nepal • Indo-China border: McMahon line |
| East | <ul style="list-style-type: none"> • Myanmar, Bangladesh • Longest boundary with Bangladesh |
| South | <ul style="list-style-type: none"> • Sri Lanka • Separated by Palk Strait & Gulf of Mannar |

States sharing International borders:

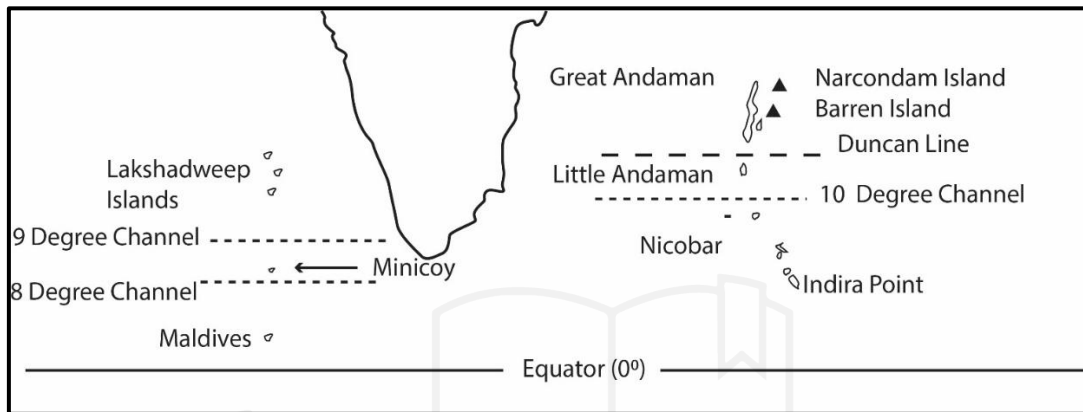
| | |
|-------------------|--|
| Bangladesh | 5 States: West Bengal, Mizoram, Meghalaya, Tripura, and Assam (4096 km) |
| China | 4 States and 1 UT: Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh and Ladakh (3488 km) |
| Pakistan | 3 States and 2 UTs: J&K, Punjab, Gujarat, Rajasthan and Ladakh (3323 km) |

| | |
|--------------------|---|
| Nepal | 5 States: Uttar Pradesh, Bihar, Uttarakhand, Sikkim, West Bengal (1751km) |
| Myanmar | 4 States: Arunachal Pradesh, Manipur, Mizoram, and Nagaland (1643 km) |
| Bhutan | 4 States: Arunachal Pradesh, Assam, Sikkim, and West Bengal (699 km) |
| Afghanistan | 1 UT: Ladakh (106 km) |

- **Indian Standard Meridian**
 - **82°30'E, Mirzapur(UP)** - India's Standard Meridian.

- **Ahead of meantime by 5 hours and 30 minutes.**
- **States through which IST Passes:** Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Odisha and Andhra Pradesh.
- **Tropic of cancer (23°30'N)** - Gujarat, Rajasthan, MP, Chhattisgarh, Jharkhand, West Bengal, Mizoram, and Tripura.
- **Coastal states of India: 9** (West Bengal, Odisha, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Goa, Maharashtra, and Gujarat)

Various Channels and their Location



- **Ten Degree Channel**
 - **Separates the Andaman Islands from the Nicobar Islands** in the Bay of Bengal
 - **150 km wide** from north to south and **10 km long** from east to west with a minimum depth of 7.3m.
- **Nine Degree Channel**
 - **Separates Minicoy island from the Lakshadweep archipelago.**
 - **200 km wide** with a **depth of 2597 metres.**
 - **Strategic importance:** Passage of major merchant shipping between Europe, the Middle East and Western Asia with South-East Asia and the far East.
- **Eight Degree Channel**
 - **Maritime boundary between the Maldives and India**
 - **Separates the islands of Minicoy and Maldives.**
 - Traditionally known as **Maliku Kandu** and **Māmalē Kandu Divehi.**

Duncan Passage

- A strait in the Indian Ocean.
- Located in between South Andaman and Little Andaman.
- Also lies within the EEZ of India, protected by the integrated tri-services Andaman and Nicobar Command of Indian Military.
- **Width: ~ 48km.**

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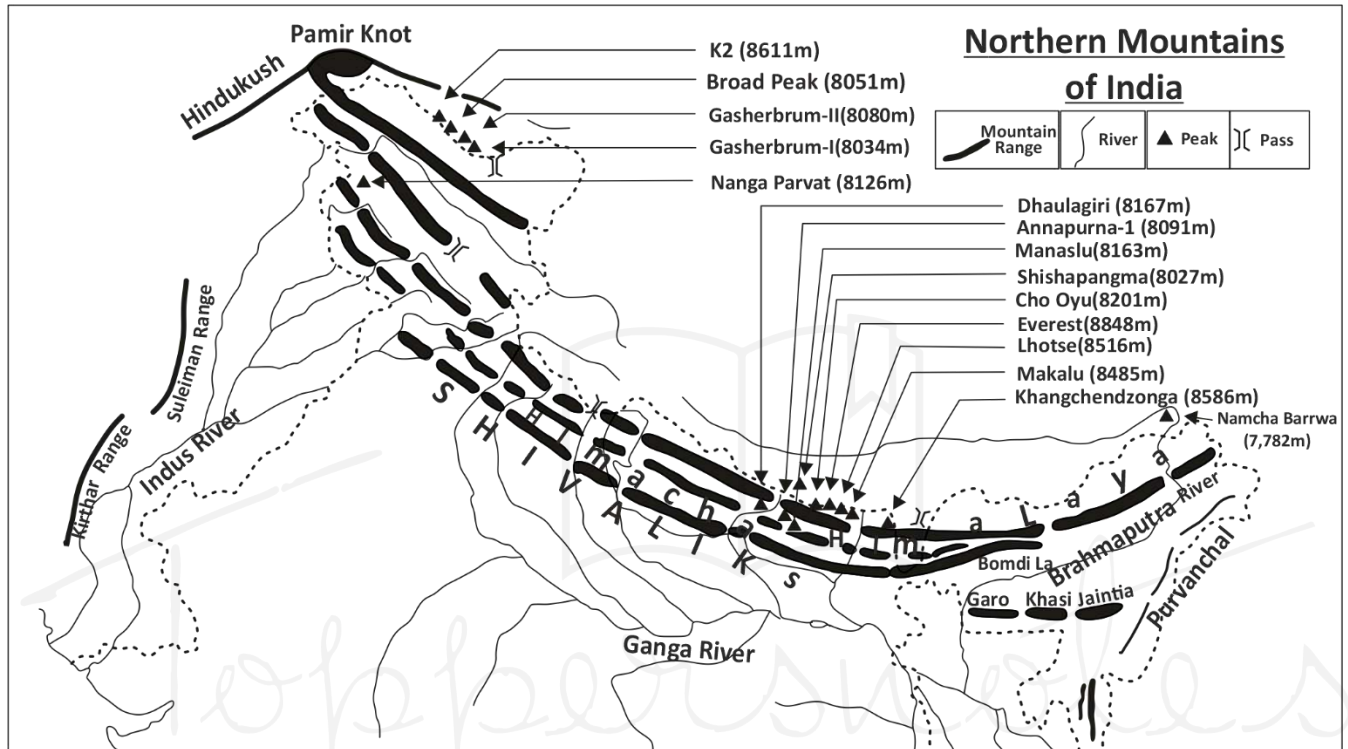
CHAPTER

Physiographic Divisions of India

Based on physical features, India is divided into six physiographic divisions:

- | | | |
|------------------------|--------------------------|-----------------------|
| 1. Himalayan Mountains | 2. Great Plains of India | 3. Peninsular Plateau |
| 4. Indian Desert | 5. Coastal Plains | 6. Islands |

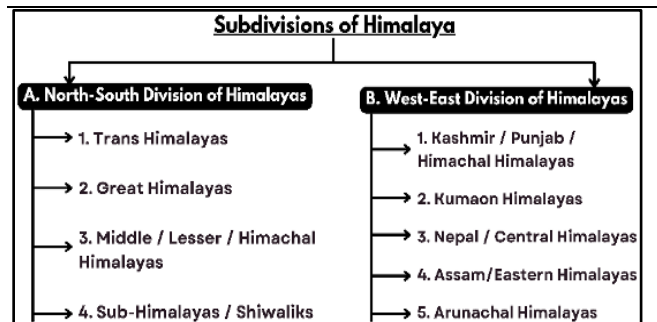
1. Himalayan Mountains



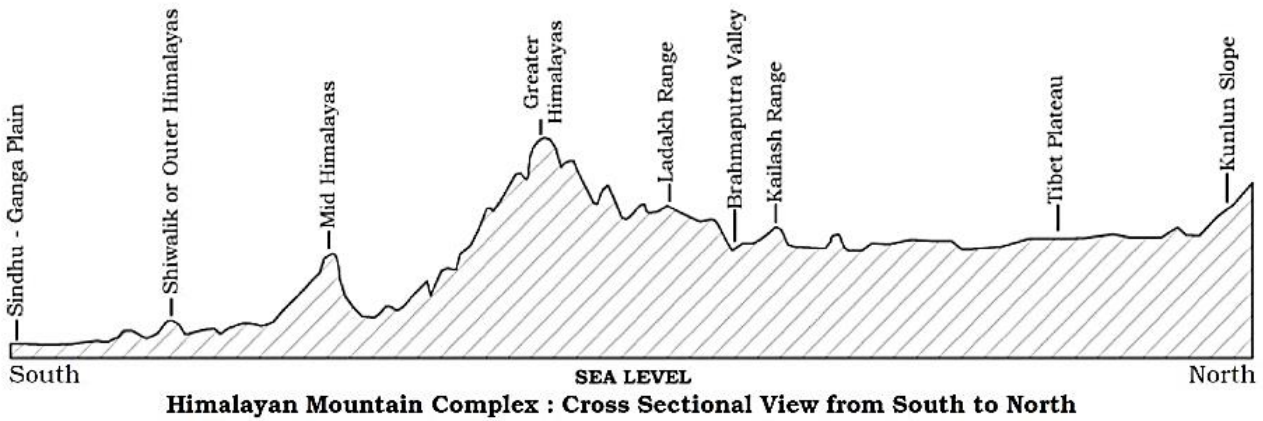
- **Highest and the youngest fold mountain ranges** of the world.
- **One of the highest earthquake-prone regions** of the world.
- **Length:** runs **west-northwest to east-southeast** in an arc **2,500 km long**.
 - **Western anchor:** Nanga Parbat (lies just south of the northernmost bend of the Indus River)
 - **Eastern anchor:** Namcha Barwa (lies immediately west of the great bend of the Yarlung Tsangpo River)
- **Width:** 400 km - 150 km (West- East).
- **Soaring heights, steep-sided jagged peaks,** valley and alpine glaciers often of stupendous size
- **Topography** deeply cut by **erosion**, seemingly unfathomable river gorges, complex geologic structure, and series of elevational belts (or zones)

- **Greater part of the Himalayas** lies below the snow line.
- The **mountain-building process** that created the range is still active.
- **Considerable stream erosion and gigantic landslides.**

Sub Divisions of the Himalayas



A. North-South Division of Himalayas



1. Trans-Himalayan Ranges:

- **Location:** North of the Great Himalayas
- Also known as **Tibetan Himalaya** because most of it lies in Tibet.
- **Lifted much before the Himalayas** between Jurassic and Cretaceous
- **Geologically not a part of the Himalayas.**
- **Start from Pamir Knot.**
- **Godwin Austen/ K2/ Qogir (8,611 m) - second highest peak in the world / highest peak in the Indian Union** found in Karakoram Range
- **Length- 1,000 km** in the east-west direction.
- **Average elevation - 5000 m** above mean sea level.
- **Average width - 40 km- 225 km** (extremities - central part).
- **Siachen glacier** - highest battlefield.
- **Glacier Baltaro** - largest Mountain glacier from the Karakoram range.
- **Karakoram Pass** - connects the **Aksai Chin**, an erosional plateau of an average height 5000m.
- **Main ranges:**

| | |
|------------------------|--|
| Karakoram Range | <ul style="list-style-type: none"> ● Northernmost range of the Trans-Himalayan Ranges in India ● Also known as Krishnagiri range ● Extends eastwards from Pamir for about 800 km. ● Average elevation - 5,500 m and above. |
| Ladakh Range | <ul style="list-style-type: none"> ● North of the Zaskar Range ● Highest point - Rakaposhi ● Lies north of Leh. ● Merges with the Kailash range in Tibet. ● Important passes - Khardung La, and Digar La. |
| Zaskar Range | <ul style="list-style-type: none"> ● A mountain range in the union territory of Ladakh. ● Separates Zaskar from Ladakh. |

| | |
|---------------------|--|
| | <ul style="list-style-type: none"> ● Average height - about 6,000 m. ● Acts as a climatic barrier protecting Ladakh and Zaskar from monsoon ● Major passes- Marbal Pass, Zojila Pass - extreme northwest. ● Major rivers- Hanle River, Khurna River, Zaskar River, Suru River (Indus), and Shingo River. |
| Kailas Range | <ul style="list-style-type: none"> ● Offshoot of the Ladakh Range. ● Highest peak - Mount Kailash (6714 m). ● River Indus originates from the northern slopes of the Kailas range. |

Ladakh Plateau

- **Cold desert**
- Lies to the **northeast of the Karakoram Range.**
- **Dissected into** many plains and mountains - **Soda Plains, Aksai Chin, Lingzi Tang, Depsang Plains and Chang Chenmo.**
- **Northwestern part - Deosai mountains** are the **end of the Trans-Himalayan region**

2. Great Himalayas:

- Also known as **Himadri.**
- **Average height** - 6000 m
- **Average width** - 25 km
- **Extension** - Mt. Namcha Barwa to Nanga Parbat (2400 km)- World's one of the longest-running fold mountain ranges
- **Features:** High relief, deep gorges, vertical slopes, symmetrical convexity, and antecedent drainage.
- **Terminates abruptly** at the **syntaxial bends.**
 - **Nanga Parbat** - north-west
 - **Namcha Barwa** - north-east.
- **Composed of metamorphic and sedimentary rocks.**

- **Core - Batholith** representing the intrusion of Magma (Granitic Magma)
- **Have asymmetrical folds** due to high compression, and they **have fractured rocks** in the **eastern part**.
- **14 of the 28 tallest peaks** in the world (> 8000 m) are situated here.
- **Major passes** - Zojila Pass (connects Srinagar with Leh), Shipki La Pass, Burzil Pass, Nathu La Pass etc.
- **Major glaciers** - Rongbuk glacier (largest in the Himadri), Gangotri, Zemu etc.
- **Separated from lesser Himalayas** by longitudinal **valleys** filled with sediments known as **Doons**.
 - Eg. Patli Dun, Chaukamba Dun, Dehradun etc.

3. Middle/ Lesser/ Himachal Himalaya:

- **Most rugged** mountain system.
- Lies **between** the **Shivaliks** in the south and the **Greater Himalayas** in the north.
- **Composed of highly compressed and altered rocks**.
- **Average altitude** - 3,700 - 4,500 metres.
- **Average width** - 50 to 80 Km.
- **Pir Panjal range - longest**
 - **Extends from Jhelum - upper Beas River** for over 300 km.
 - Rises to 5,000 metres and contains **mostly volcanic rocks**.
- **Passes:**
 - **Pir Panjal Pass** (3,480 m), the **Bidil** (4,270 m), **Gulabgarh Pass** (3,812 m) and **Banihal Pass** (2,835 m).
 - **Banihal Pass**- Jammu-Srinagar highway and Jammu-Baramulla railway.
- **Rivers:** Kishanganga, the Jhelum and Chenab.
- **Important Valleys**

| | |
|--------------------------|--|
| Valley of Kashmir | <ul style="list-style-type: none"> ● Between the Pir Panjal and the Zaskar Range (average elevation- 1,585 m) ● Composed of alluvial, lacustrine [lake deposits], fluvial [river action] and glacial deposits. ● Jhelum River meanders through these deposits and cuts a deep gorge in Pir Panjal. |
| Kangra Valley | <ul style="list-style-type: none"> ● Extends from the foot of the Dhauladhar Range to the south of Beas. |
| Kullu Valley | <ul style="list-style-type: none"> ● In the upper course of the Ravi ● A transverse valley. |

- **Most important range** - Dhauladhar and Mahabharat ranges.

- **Includes** famous valley of Kashmir, the Kangra and Kullu Valley in Himachal Pradesh.
 - **Well known for its hill stations**.
- **Cut across by the Jhelum and Chenab rivers**.
- **Dhauladhar ranges** – an extension of Pir Panjal into Himachal Pradesh - cut across by the river Ravi.
- **Mussoorie ranges** - divide the waters of Sutlej and Ganga
- Have **steep, bare southern slopes** [prevents soil formation] and gentler, **forest-covered northern slopes**.
- **Uttarakhand**- marked by **Mussoorie and Nag Tibba ranges**.

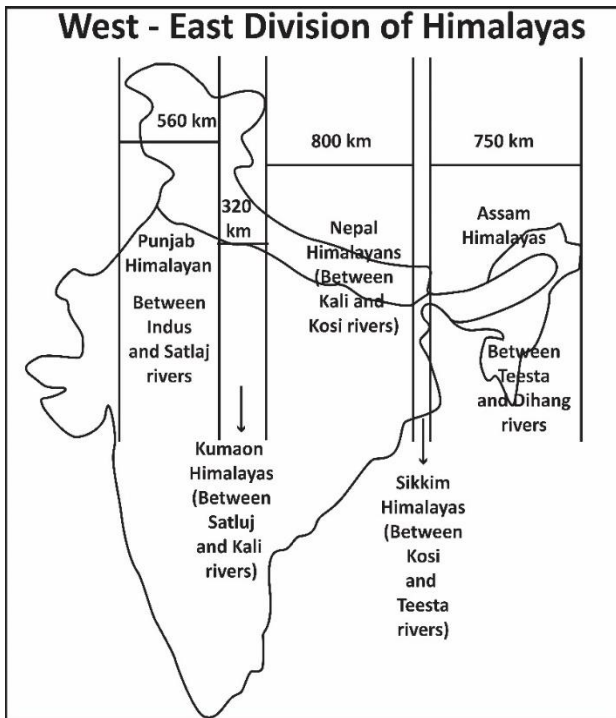
| Important ranges of Lesser Himalayas | Region |
|---|---|
| Pir Panjal Range | Jammu and Kashmir (south of Kashmir Valley) |
| Dhauladhar Range | Himachal Pradesh |
| Mussoorie Range and Nag Tibba Range | Uttarakhand |
| Mahabharat Range | Nepal |

4. Sub-Himalayas/ Shivaliks:

- Also known as **Outer Himalayas**.
- **Between Great Plains and Lesser Himalayas**.
- **Altitude**- 600-1500 metres.
- **Length**- 2,400 km - **Potwar Plateau to Brahmaputra valley**.
- **Southern slopes** - steep
- **Northern slopes** - gentle.
- **Width** - 50 km - 15 km (Himachal Pradesh -Arunachal Pradesh).
- **Almost unbroken except** for 80-90 km – **Tista and Raidak River valley**.
- Covered with **thick forests from North-East India up to Nepal**.
- **Southern slopes** in **Punjab** and **Himachal Pradesh**- almost **NO forest cover**.
- **Highly dissected by seasonal streams** - **Chos**.
- **Valleys** - part of **synclines** and **hills** - part of **anticlines**
- **Different names:**

| Region | Name of Shivaliks |
|------------------------------------|--------------------------|
| Jammu Region | Jammu Hills |
| Dafla, Miri, Abor and Mishmi Hills | Arunachal Pradesh |
| The Dhang Range, Dundwa Range | Uttarakhand |
| Churia Ghat Hills | Nepal |

B. West-East Division of Himalayas



1. Kashmir / Punjab / Himachal Himalayas

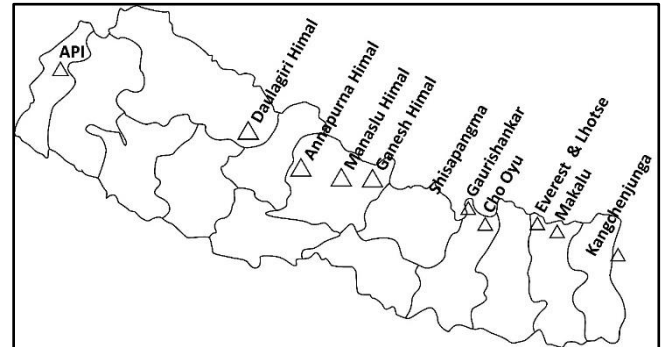
- Located **between Indus and Satluj gorge**
- **Length**- 560 kms
- **Width** - 320 kms
- **Zaskar range** - northern boundary and **Shivaliks** - Southern boundary
- **Characterized by** ridge and valley topography (Kashmir Valley is the syncline basin) formed by the Lacustrine deposits (**Karewas**- helpful in **growing saffron**- from Pulwama to Pampore) of Jhelum.
- **Major ox-bow lakes** - Wular lake, Dal Lake, etc.
- Also known as "**Vail of Kashmir**"
- **Rainfall** upto 100cm in **summers** and **snow** during **winters**
- **Only gateway to Kashmir** - **Banihal pass** - Jawahar tunnel (Second Largest in India)
- **Major passes**- Burzil pass, Zozila pass.

2. Kumaon Himalayas

- Located between **Satluj and Kali gorges**
- **Length**- 320 kms
- **Major mountain ranges** - Nag Tibba, Dhaula Dhar, Mussoorie, and the Greater Himalayas.
- **Major peaks** - Nandadevi, Kamet, Badrinath, Kedarnath, etc.
- **Major rivers** – Gangotri, Yamunotri, Pindari, etc.
- **Characteristics:**
 - **Snowfall** in winters
 - **Coniferous** forests above **3200m** and **Deodar** Forest between **1600-3200m**.
 - Has **tectonic valleys**- Kullu, Manali, and Kangra.
 - **Rainfall** of about 200cm in summers
 - **More prone to Seismicity** and landslides.

3. Nepal/ Central Himalaya

- **Length**- 800 km
- **Between Kali** in the west and **Tista** in the east.
- **Great Himalayas** attain a **maximum height** in this portion.
- **Major peaks**- Mt. Everest, Kanchenjunga, Makalu, Annapurna, Gosainthan and Dhaulagiri.
- **Lesser Himalaya** is known as **Mahabharat Lekh** here.
- **Major rivers**- Ghaghara, Gandak, Kosi, etc.
- **Major valleys**- Kathmandu and Pokhra lacustrine valleys (previously lakes).



4. Assam/ Eastern Himalayas

- **Length**- 750km
- Located between **Tista** in the **west** and **Brahmaputra** (Dihang gorges) in the **east**.
- Occupy **mainly Arunachal Pradesh** and **Bhutan**.
- Narrow longitudinal valleys
- **Rainfall > 200cms**.
- Show a **marked dominance of fluvial erosion** due to heavy rainfall.
- **Landslides** and **earthquakes** are very **common** as rocks are fractured
- **Inhabited by tribes**
- **Important peaks** - Namcha Barwa (7756 m), Kula Kangri (7554 m), Chomolhari (7327 m).
- **Major hills** - Also known as hills, Dafla hills, Miri hills, Abor hills, Mishmi hills, Namcha Barwa, Patkai bum, Manipur hills, Blue Mountain, Tripura range, and Braille range.
- **Major passes**- Bomdi La, Yong Yap, Diphu, Pangsau, Tse La, Dihang, Debang, Tunga, and Bom La.

5. Arunachal Himalayas

- **Form the eastern frontier** of the **Eastern Himalayas**.
- **Namcha Barwa** - **extreme east** of Arunachal Pradesh.
- **Earlier known as Assam Himalayas**.
- **Himalayan range** enters Arunachal Pradesh **from Bhutan** in the West Kameng district.
- **Characteristics**
 - **High ridges** and **low valleys**
 - **Altitude** - 800 m to 7,000 m above sea level.
 - **Extend** from the east of the Bhutan Himalayas - Diphu pass in the east.
 - **Dissected by the Brahmaputra**, which flows through a deep gorge after crossing Namcha Barwa.
- **Major tribes**- Monpa, Abor, Mishmi, Nyishi and the Nagas- practice Jhumming.

Purvanchal Himalayas

- Geologically considered **part of the Himalayas**
- Has **structural differences**, thus, **separated from the main Himalayan ranges**.
- Lies **south of the Brahmaputra valley**.
- Belong to **Arakan Yoma orogenesis**.
- Have **loose, fragmented sedimentary rocks** like shale, mudstone, sandstone, quartzite

- **Most fractured parts** of the Himalayas.
- **Naga fault line**- earthquakes and landslides
- **Rainfall** - 150-200 cm
- **Densely forested**
- **Elevation** decreases from **north to south**.
- **Convex to the west**.
- **Low hills** where Jhum cultivation is prevalent.
- **Major Hills:**

| | |
|-------------------------|--|
| Dafila Hills | <ul style="list-style-type: none"> ● Location: north of Tezpur and north Lakhimpur ● Bounded on west by the Aka Hills and on the east by the Abor Range. |
| Abor Hills | <ul style="list-style-type: none"> ● Location: region of Arunachal Pradesh in NE of India, near China border ● Bordered by Mishmi Hills and Miri Hills. ● Drained by the Dibang River, a tributary of the Brahmaputra. |
| Mishmi Hills | <ul style="list-style-type: none"> ● Location: southward extension of the Great Himalayan ranges. ● Northern and eastern parts touch China. |
| Patkai Bum Hills | <ul style="list-style-type: none"> ● Location: India's NE border between Arunachal Pradesh and Myanmar. ● "Patkai" - "to cut chicken" in Tai-Ahom language. ● Originated by the same tectonic processes that resulted in the formation of the Himalayas in the Mesozoic. ● Have conical peaks, steep slopes and deep valleys ● Not as rough as the Himalayas. ● Whole region is surrounded by forests composed of sandstones. |
| Naga Hills | <ul style="list-style-type: none"> ● Location: extending into Myanmar forms a divide between India and Myanmar. ● Highest peak - Saramati. ● Receive a heavy monsoon rainfall and densely forested. |
| Manipur Hills | <ul style="list-style-type: none"> ● Location: north of Nagaland, Mizoram in the south, upper Myanmar in east and Assam in the west bound Manipur Hills. ● Border between Manipur and Myanmar. ● Loktak Lake - only floating national park of the world. ● Keibul-Lamjao national park situated here. |
| Mizo Hills | <ul style="list-style-type: none"> ● Location- south-eastern Mizoram state. ● Formerly known as Lushai Hills. ● Highest part- Blue Mountain. ● Part of the North Arakan Yoma system. ● Also known as 'Molasses basin' - made up of soft unconsolidated deposits. ● Shifting agriculture and some terrace cultivation practised. |
| Tripura Hills | <ul style="list-style-type: none"> ● series of parallel north-south folds, decreasing in elevation to south. ● Merge into greater Ganges-Brahmaputra lowlands (aka Eastern Plains). |
| Mikir Hills | <ul style="list-style-type: none"> ● Location- south of the Kaziranga National Park, Assam. ● Part of the Karbi Anglong Plateau. ● Mikir Hills - oldest landform in Assam. ● Radial drainage pattern ● Major rivers- Dhansiri and Jamuna. ● Highest peak – Dambuchko. |
| Garo Hills | <ul style="list-style-type: none"> ● Location: Meghalaya state. ● Highest peak: Nokrek Peak. |
| Khasi Hills | <ul style="list-style-type: none"> ● Part of Garo-Khasi Range in Meghalaya. ● Cherrapunji - East Khasi Hills. ● Highest peak: Lum Shyllong. |
| Jaintia Hills | <ul style="list-style-type: none"> ● Location: further to the east of the Khasi Hills. |
| Barail Hill | <ul style="list-style-type: none"> ● Location: North Cachar Hill District. ● Southwestern extension of the Patkai Range. ● Runs in a south-westerly direction from southern Nagaland and parts of northern Manipur up to the Jaintia Hills of Meghalaya. |

Himalayan Passes

1. Passes of Jammu and Kashmir and Ladakh

| | |
|--------------------------------------|--|
| Banihal Pass (Jawahar Tunnel) | <ul style="list-style-type: none"> ● A famous pass in Jammu and Kashmir. ● Situated in Pir- Panjal Range. ● Connects Banihal with Qazigund. |
| Zoji La | <ul style="list-style-type: none"> ● Connects Srinagar with Kargil and Leh. ● Border Road Organization- clears and maintains the road, especially during winter. |
| Burzil Pass | <ul style="list-style-type: none"> ● Srinagar- Kishan Ganga Valley ● Joins the Valley of Kashmir with the Deosai Plains of Ladakh. |
| Pir-Panjal Pass | <ul style="list-style-type: none"> ● A traditional pass from Jammu to Srinagar. ● Closed after the partition. ● Shortest roadway access to Kashmir valley from Jammu. |
| Qara Tagh Pass | <ul style="list-style-type: none"> ● Located in the Karakoram Mountains. ● A subsidiary of the ancient silk route. |
| Khardung La | <ul style="list-style-type: none"> ● Highest motorable pass in the country (5602 m). ● Connects Leh and Siachen glaciers. ● Closed during the winter. |
| Thang La | <ul style="list-style-type: none"> ● Located in Ladakh. ● Second highest motorable mountain pass in India. |
| Aghil Pass | <ul style="list-style-type: none"> ● North of Mount Godwin-Austen in Karakoram. ● Connects Ladakh with Xinjiang province of China. |
| Chang-La | <ul style="list-style-type: none"> ● Connects Ladakh with Tibet. |
| Lanak La | <ul style="list-style-type: none"> ● Aksai Chin in Ladakh region. ● Connects Ladakh and Lhasa. ● Chinese authorities have built a road to join Xinjiang with Tibet. |
| Khunjerab Pass | <ul style="list-style-type: none"> ● Kashmir and China ● On the Indo-China border |
| Mintaka Pass | <ul style="list-style-type: none"> ● Kashmir and China ● Tri Junction of India-China and Afghanistan border |

2. Passes of Himachal Pradesh

| | |
|------------------------|---|
| Shipki La Pass | <ul style="list-style-type: none"> ● Passes through Sutlej Gorge. ● Connects Himachal Pradesh with Tibet. ● India's 3rd border post for trade with China (Lipu Lekh and Nathula Pass) |
| Bara-Lacha Pass | <ul style="list-style-type: none"> ● Himachal Pradesh- Leh-Ladakh ● Situated on the National Highway in Jammu and Kashmir. ● Connects Manali and Leh. |
| Debsa Pass | <ul style="list-style-type: none"> ● Joins Spiti and Parvati Valley. ● Between the Kullu and Spiti of |

| | |
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| | <p>Himachal Pradesh.</p> <ul style="list-style-type: none"> ● Bypass route of Pin-Parvati Pass. |
| Rohtang Pass | <ul style="list-style-type: none"> ● High road transportation- high jams ● Connects Kullu, Spiti, and Lahaul. |

3. Passes of Uttarakhand

| | |
|---------------------------|--|
| Lipu Lekh | <ul style="list-style-type: none"> ● Connects Uttarakhand with Tibet. ● Important border post for trade with China. ● The pilgrims for Kailash-Manasarovar travel through this pass. |
| Mana Pass | <ul style="list-style-type: none"> ● Located in the Greater Himalayas. ● Connects Tibet with Uttarakhand. ● Remains under snow for six months during winter. |
| Mangsha Dhura Pass | <ul style="list-style-type: none"> ● Connects Uttarakhand-Tibet. ● Known for landslides. ● Pilgrims for Manasarovar cross this route. |
| Muling La | <ul style="list-style-type: none"> ● Seasonal pass ● Connects Uttarakhand with Tibet ● Snow covered during the winter season |
| Niti Pass | <ul style="list-style-type: none"> ● Joins Uttarakhand with Tibet. ● Remains snow-covered during the winter season. |
| Trail's Pass | <ul style="list-style-type: none"> ● Situated at the end of the Pindari glacier. ● Connects the Pindari valley to Milam valley. ● Steep and rugged. |

4. Passes of Sikkim

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|----------------------|---|
| Nathu La Pass | <ul style="list-style-type: none"> ● Located on the India- China border. ● Forms a part of an offshoot of the ancient silk route. ● One of the trading borders posts between India and China. |
| Jelep La Pass | <ul style="list-style-type: none"> ● Passes through the Chumbi valley. ● Connects Sikkim with Lhasa, the capital of Tibet. |

5. Passes of Arunachal Pradesh

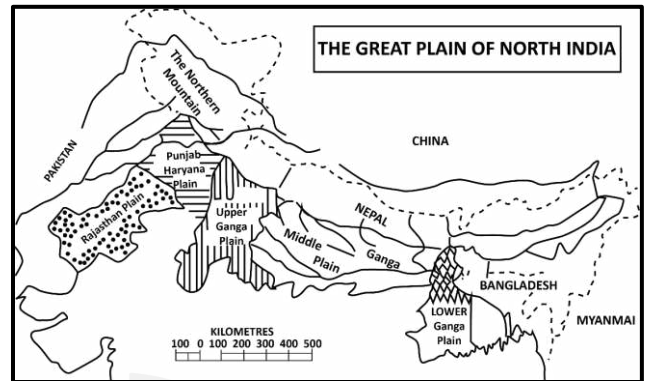
| | |
|----------------------|---|
| Bomdi-La | <ul style="list-style-type: none"> ● Connects Arunachal Pradesh- Lhasa, the capital city of Tibet. ● Located in the east of Bhutan. |
| Dihang pass | <ul style="list-style-type: none"> ● Located in the Northeastern states of Arunachal Pradesh. ● Connects Arunachal Pradesh with Myanmar (Mandalay) |
| Diphu pass | <ul style="list-style-type: none"> ● An alternate route to Myanmar. ● Remains open throughout the year for transportation and trade. |
| Lekhapani | <ul style="list-style-type: none"> ● Remains open throughout a year for transport and trade. ● Connects Arunachal Pradesh with Myanmar. |
| Pangsang Pass | Connects Arunachal Pradesh and Myanmar . |

| | |
|---|--|
| Yonggyap Pass | Connects Arunachal Pradesh with Tibet |
| Kumjawng Pass | Connects Arunachal Pradesh with Myanmar |
| Hpungan Pass | Connects Arunachal Pradesh with Myanmar |
| Chankan Pass | Connects Arunachal Pradesh with Myanmar |
| Tuju Pass: | |
| <ul style="list-style-type: none"> ● Manipur. ● Connects Imphal to Myanmar. | |

2. Great Plains of India

- Lie to the **south of Shiwalik** separated by the Himalayan Front Fault (HFF).
- A **transitional zone between the Himalayas and Peninsular India.**
- **Aggradation plain** formed by **alluvial deposits of the Indus, Ganga, Brahmaputra** and their tributaries.
- Stretches for about **2400 km from west to east.**

- **Width-** 90-100 in Assam, 160 km near Rajmahal (Jharkhand), 200 km in Bihar, 280 km near Allahabad and 500 km in Punjab. (Increases from east to west.)
- **Consists largely of alluvial deposits** brought down by rivers of the Himalayan and the Peninsular region.
 - **Maximum depth > 8000 metres** - Ambala, Yamunanager and Jagadhri (Haryana).
- Merges into the **Thar Desert** in the **southwest.**
- A **low watershed of the Delhi ridge** (278 m) + **Yamuna River separates the Satluj plains** (a part of the Indus plain) from the **Ganga plains.**



Divisions of the Great Plains

A. North-South Division of Great Plains of India

| | |
|------------------------------------|---|
| 1. Bhabar | <ul style="list-style-type: none"> ● Along the foot of Siwaliks with remarkable continuity from Indus to Tista. ● 8-16 km wide belt consisting of gravel and unsorted sediments ● Deposited by Himalayan rivers in the foreland zone due to sudden slope break. ● Himalayan rivers deposit their loads along the foothills in the form of alluvial fans. <ul style="list-style-type: none"> ○ Coarser sediments merged to build up piedmont plain/ Bhabar. ● Most unique feature - porosity. <ul style="list-style-type: none"> ○ Porous due to the deposition of a huge number of pebbles and rock debris across the alluvial fans. ○ Not suitable for agriculture ● Comparatively narrow in the east |
| 2. Tarai | <ul style="list-style-type: none"> ● 10-20 km wide marshy region in the south of Bhabar and runs parallel to it. ● Wider in eastern parts of the Great Plains - Brahmaputra valley due to heavy rainfall. ● Re-emergence of underground streams of the Bhabar belt ● Most of Terai land (especially in Punjab, Uttar Pradesh and Uttarakhand) has been reclaimed and turned into agricultural land over some time. ● Receives high rainfall and has excessive humidity. ● Has underground streams → ground marshy. ● Suitable for wheat, maize, rice, rice, sugarcane, etc. |
| 3. Khadar | <ul style="list-style-type: none"> ● Younger alluvium of flood plains of numerous rivers ● Also known as Bet/betlands (in Punjab). ● Contains new alluvial deposits along the course of the river. ● Alluvium – light-coloured and poor calcareous matter consisting of sand, silt, mud and clay deposits. ● Suitable for extensive cultivation. ● Rivers in the Punjab-Haryana plains have broad floodplains of Khadar flanked by bluffs known as Dhayas. |
| 4. Bangar or Bhangar Plains | <ul style="list-style-type: none"> ● Uplands (alluvial terrace) formed by deposition of older alluvium. ● Lies above the flood limit of the plains. ● Main constituent: clay. ● Rich in humus - high yield. |

- **Contains** Calcium Carbonate nodules known as **'Kankars'** - impure and found in doabs
- **Regional variations:**
 - **Barind plains**- the deltaic region of Bengal
 - **Bhur formations** - middle Ganga and Yamuna doab.
 - **'Reh', 'Kollar' or 'Bhur'** - Drier areas- exhibit small tracts of saline and alkaline efflorescence.

B. Regional Classification of Great Plains

1. Sindh Plain

- Lies in **Pakistan**
- Mainly **formed of the Bhangar Plains.**
- **Dhars: Long narrow depressions** - remnants of the course of **former rivers.**
- **Dhand: Alkaline lakes on some Dhars.**

2. Rajasthan Plains

- **Occupied by Thar Desert.**
- An **undulating plain** (average elevation - 325 m above mean sea level).
- **Desert region known as Marusthali** forms a greater **part of the Marwar plain.**
- Has a few outcrops of **gneisses, schists and granites**
 - Proof that it is **geologically a part of the Peninsular Plateau.**
- **Eastern part is rocky**, while the **western part has shifting sand dunes.**
- **Eastern part of Thar Desert till Aravalli Range - Rajasthan Bangar-** semi-arid plain.
- **Drained by several short seasonal streams** from the Aravali and **supports agriculture** in some patches of fertile tracts.
- **Luni** – a significant **seasonal stream** which **flows into Rann of Kutch.**
- **Tract north of Luni - thali** or sandy plain.

3. Punjab Plain

- Form the **western part of northern plain.**
- Majorly in **Pakistan.**
- **Divided into many Doabs.** Formed by **5 important rivers** of the Indus system.
- **Literally means "(The Land of Five Waters"** referring to: **Jhelum, Chenab, Ravi, Sutlej, and Beas.**

| | |
|------------------------------|---|
| Sindh Sagar Doab | between the Indus and Jhelum rivers. |
| Jech Doabs/ Chaj Doab | between the Jhelum and Chenab rivers. |
| Rechna Doab | between the Chenab and Ravi rivers. |

| | |
|-------------------|---|
| Bari Doabs | between the Ravi and Beas rivers. |
| Bist Doab | between the Beas and Sutlej rivers. |

- **Total area** - 1.75 lakh sq km.
- **Average elevation** - 250 m above mean sea level.
- **Eastern boundary** - Delhi-Aravali ridge.
- **Northern part** [Shivalik hills] is **intensively eroded** by numerous **streams** called **Chaos.**
 - Resulted in **enormous gullying.**
- **South of Satluj river - Malwa plain** of Punjab.
- **Area between the Ghaggar and Yamuna rivers - 'Haryana Tract'.**
 - **Water divide** b/w **Yamuna and Satluj** rivers.

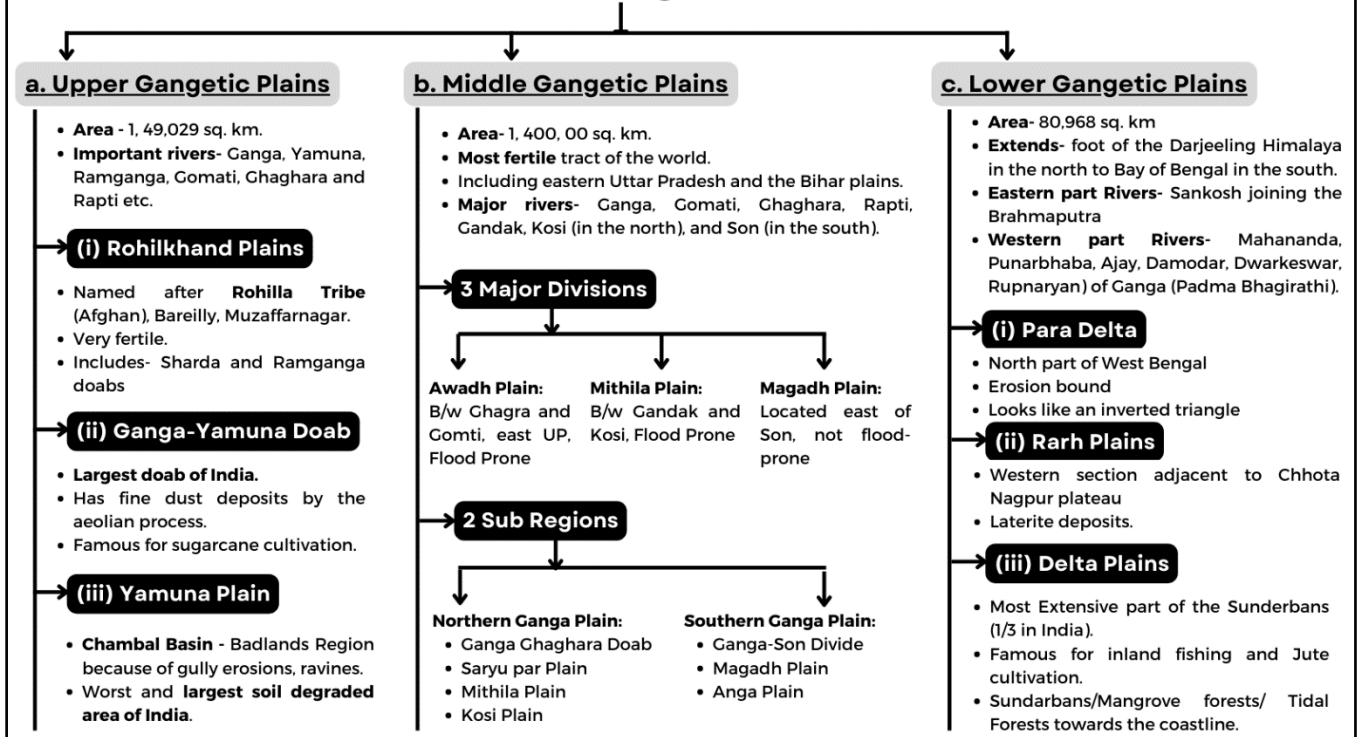
Other Doabs of India:

- **Malwa Doab:** Covers **Madhya Pradesh** and parts of north-eastern **Rajasthan.**
- **Raichur Doab:** A triangular region of **Andhra Pradesh** and **Karnataka** lying between **Krishna** and its tributary **Tungabhadra River.**

4. Ganga Plain

- **Extend from Yamuna River** in west to **western borders of Bangladesh** (~ 1,400 km).
- **Average width** - 300 km.
- **Maximum height** - **Saharanpur** (276m) - decreases towards **Sagar Islands** (3 m).
- **Largest unit of Great Plain** of India - from **Delhi to Kolkata** (about 3.75 lakh sq km).
- **Major Himalayan river-** **Ganga.**
- **Peninsular rivers** - **Chambal, Betwa, Ken, Son,** etc. (join **Ganga river system** - contribute to formation of this plain).
- **Slope** - east and south east.
- **Rivers flow sluggishly in lower sections of Ganges** resulting in **levees, bluffs, oxbow lakes, marshes, ravines,** etc.
- **Rivers keep shifting their courses** making this area **prone to frequent floods.**
 - **Kosi river-** 'Sorrow of Bihar'.

Divisions of Ganga Plains



5. Brahmaputra/Assam Plains

- Area- 56,274 sq. km
- **Easternmost part** of Great Plains
- Aggradation plain built up by the **Brahmaputra and its tributaries.**
- **Extend** from Sadiya (in the east) to Dhubri (near the Bangladesh border in the west).
- **Majuli** (area 929 km²)- **largest river island** in the world.
- **Large marshy tracts** → formation of **terai or semi-terai conditions.**
- **2 sub-regions:**
 - Upper Assam Valley
 - Lower Assam Valley

3. Indian Desert

A. Sandy Thar Desert

- **India**- ~ 85% of Thar Desert
- **Rest**- in Pakistan.
- 4.56% of the **total geographical area** of India.
- **Geographical characteristics:**
 - **Location:** partly in **Rajasthan** and partly in **Punjab and Sindh.**
 - **Area:** > 2,00,000 sq. km.
 - **Rainfall**< 150 mm per year- arid climate with **low vegetation cover.**
 - Forms a **natural boundary** along the **border** Between **India** and **Pakistan.**
 - Came into **existence** in the **Pleistocene age.**
 - Believed to be **submerged in sea** during the **Mesozoic era.**
 - **Evidence** - wood fossils park at Aakal and marine deposits around Brahmsar, near Jaisalmer.

- **Underlying rock structure** of desert – the **extension** of the **Peninsular plateau.**
- **Major desert land features** - mushroom rocks, shifting dunes and oasis (mostly in its southern part).
- Also known as **Marustali** (the dead land) and **Bagar.**
- Comprises of **aeolian wind deposits**
- **Dry climate** and **alluvial deposits**
- **2 parts:**
 - **Northern part** - sloping towards Sindh.
 - **Southern part** - towards Rann of Kutch.
- **Most rivers** in this region are **ephemeral.**
- **Sand dunes** - elevation 150 m
- **Metamorphic Rocks**
- **Short seasonal streams** originating from Aravallis
- **Oasis** in its **southern part**
- **High and low dunes** separated by sandy plains and low barren hills, or bhakars, rise abruptly from the surrounding plains.
 - **Dunes** - continual motion and varying shapes and sizes.
 - **Barchan/Barkhan**- crescent-shaped sand dune produced by the action of wind
- **Climate:**
 - **Subtropical desert climate** - persistent **high pressure** and **subsidence.**
 - **Southwest Monsoon rainfall** in the summer seasons.
 - **Low annual rainfall** (4-20 inches) as compared to the other parts of India.
 - **Coldest month** - January
 - **Hottest month** - May and June.

- **Average temperature -**
 - **Summers-** 75-70 degrees Celsius
 - **Winters-** 39-50 degrees Celsius
- **Biodiversity and Vegetation:**
 - **Major features:**
 - **Drought-resistant scrub trees** like khejri and propolis
 - **Animals** like blackbucks, gazelle, and partridges
 - **Migratory birds** such as ducks, geese, and grouse.
 - **Herbaceous plants** like cactus, neem, khejri, acacia nilotica-can accommodate **varying temperatures** and **difficult climatic conditions**.
 - **Wild animals** like leopard, Asiatic wild cat (*Felis silvestris ornata*), chousingha (*Tetracerus quadricornis*), chinkara (*Gazella bennettii*), Bengal desert fox (*Vulpes bengalensis*), Blackbuck (antelope) and several species of reptiles.

- **Harsh natural environment** and **extreme temperature variations** - severely inhibit vegetation growth.

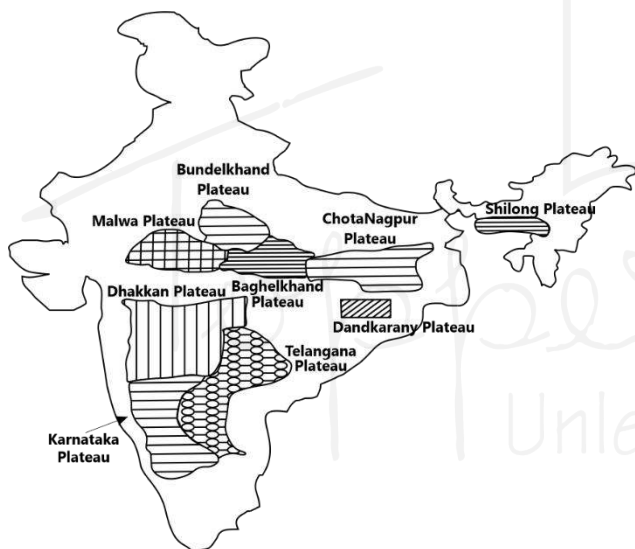
B. Cold Desert

- Located in **Kashmir and Himachal Pradesh**.
- Somewhere **Between Tibet and India**
- **Harsh climatic conditions** - low rainfall and high elevation (3000 – 5000m above Sea Level).
- **Blizzards, snowstorms and avalanches are common**.
- **Soil is not very fertile**
- **Very short growing seasons**.
- **Minimal water resources** - glacier-fed streams.

C. White Salt Desert of Kutch

- Also known as **White Rann** or Great Rann of Kutch.
- **Area-** 2898 square miles
- **Covers-** Gujarat and Sind region in Pakistan.
- **Overall covering of white salt** furnishing it a **snow-covered aura**.
- **Extreme temperatures:**
 - **Summers:** 50 degree celsius
 - **Winter-** < 0 degree celsius.

4. Peninsular Plateau



- Roughly **triangular** in shape.
- **Extension:**
 - **Apex** - at Kanyakumari.
 - **NW-** Delhi ridge
 - **East-** Rajmahal hills
 - **West-** Gir range
 - **South-** Cardamom hills
- An **extension** also seen in **northeast** i.e. **Shillong** and **Karbi-Anglong plateau**.
- **Area** - 16 lakh sq km (India as a whole is 32 lakh sq km).
- **Height-** 600-900 m above sea level (varies from region to region).
- Most rivers flow **west to east**, indicating general slope.
- **Ranges:**

- **Exception:** Narmada-Tapti flows - east to west.
- One of the **oldest** and **most stable landforms** of earth.
- **Highly stable block** composed mostly of **Archaean gneisses** and **schists**.
- Made up of different **patland plateaus** like Hazaribagh plateau, the Palamu plateau, the Ranchi plateau, the Malwa plateau, the Coimbatore plateau and Karnataka plateau, etc.
- **Important physiographic features:** tors, block mountains, rift valleys, spurs, bare rocky structures, series of hummocky hills and wall-like quartzite dykes offering natural sites for water storage.
- **3 groups on the basis of relief features**

A. Central Highlands

- **Northern part** of the peninsular plateau.
- **Also known as** Madhya Bharat Pathar/ Madhya Bharat Plateau/ Central Highlands.
- **East of the Marwar** or Mewar Upland.
- **Location:**
 - **North of Narmada River.**
 - **West - Aravallis.**
 - **South- Satpura** ranges (formed by a series of scarp plateaus)
- **General Elevation:** 700-1,000 m
- **Slopes** - north and northeastern directions.
- **Rivers:**
 - **Chambal river** - rift valley.
 - **Kali Sindh-** flows from Rana Prataph Sagar.
 - **Tributaries-** Banas, Parwan and Parbati.

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| Aravalli | <ul style="list-style-type: none"> • One of the oldest mountain ranges. • Sedimentary, metamorphosed rocks. • Elevation- 400-600 m (few hills well above 1,000 m). • Presently, seen as a discontinuous ridge from Delhi to Ajmer • Highest peak- Gurushikhar, Mt Abu (1722m). • Regional names- 'Jarga' near Udaipur and 'Delhi Ridge' near Delhi. |
| Vindhya range | <ul style="list-style-type: none"> • Source of many north-flowing rivers that meet Yamuna. • Represents the water divide of central India. • Major river: Mahi <ul style="list-style-type: none"> ○ Origin from north side of Vindhya ○ A west-flowing river. • As an escarpment running parallel to the Narmada-Son valley • Location: Gujarat, Rajasthan border to MP., UP, Chhattisgarh and Jharkhand • 3 major divisions: Bharner hills, Kaimur hills and Parasnath hills • General elevation: 300- 650 m. • Most made up of sedimentary rocks of ancient ages. • Watershed Between Gangetic and peninsular river systems. |
| Satpura range | <ul style="list-style-type: none"> • Run Between Narmada and Tapi, parallel to Maharashtra-MP border. • Found from Gujarat (Rajpipla hills) to Chhattisgarh. • Major part in MP • 3 divisions: Rajpipla hills, Mahadev hills and Maikal hills • A block mountain having India's biggest rift valley. • Major rivers: <ul style="list-style-type: none"> ○ North - Narmada ○ South - Tapti • Major folds: Maikal Hills, Mahadeo Hills near Pachmarhi, Kalibhit, Asirgarh, Bijargarh, Barwani and Arwani (extends to Rajpipla Hills in Eastern Gujarat). • Highest peak- Dhupgarh (1,350 m) near Pachmarhi (Mahadev Hills). • Amarkantak (1,127 m) - highest peak -Maikal Hills- origin of Narmada and Son. |
| Kaimur Range | Eastern portion of the Vindhya Range in MP, UP & Bihar; runs parallel to river Son |
| Mahadeo Range | Forms the central part of the Satpura Range, located in MP, Highest peak: Dhoopgarh |
| Maikal Range | Eastern part of the Satpuras range (MP) |
| Ajanta Range | Maharashtra, south of river Tapi, sheltering caves of world-famous paintings of Gupta period |
| Rajmahal Hills | <ul style="list-style-type: none"> • Located in Jharkhand made up of lava basaltic rocks • Point of Ganges bifurcation |

• **Major Plateaus**

| | |
|---------------------------------------|--|
| Marwar upland or Mewar Plateau | <ul style="list-style-type: none"> • to the east of Aravallis in Rajasthan • A rolling plain carved by the Banas River and its tributaries Berach river Khari rivers. • Average elevation - 250-500 m above sea level. • Composed of sandstone, shales and limestones of Vindhyan period. |
| Madhya Bharat Pathar | <ul style="list-style-type: none"> • East of Marwar upland. • Also known as Central Highland. • Major river- Chambal. <ul style="list-style-type: none"> ○ Kali-Sindh, Banas, and Parbati. |
| Malwa plateau | <ul style="list-style-type: none"> • Lies in Madhya Pradesh Between Aravali and Vindhya. • Composed of an extensive lava flow- black soils. • Narmada river - southern boundary. • Forms a triangle based on the Vindhyan Hills, bounded by <ul style="list-style-type: none"> ○ Aravali Range - west ○ Madhya Bharat Pathar- north ○ Bundelkhand- east. • 2 systems of drainage; <ul style="list-style-type: none"> ○ Arabian sea (The Narmada, the Tapi and the Mahi) ○ Bay of Bengal (Chambal and Betwa, joining the Yamuna). |
| Bundelkhand plateau | <ul style="list-style-type: none"> • Lies along the borders of UP and MP. • Intensive erosion, semi-arid climate - unfit for cultivation. • Divided by deep valley uplands of the 'Bundelkhand Gneiss', consisting of granite and gneiss. • Boundaries: <ul style="list-style-type: none"> ○ Yamuna river - north |

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|-----------------------------|---|
| | <ul style="list-style-type: none"> ○ Madhya Bharat Pathar - west ○ Vindhyan Scarp lands- east ○ South-east and Malwa Plateau - south. ● Average elevation- 300-600 m above sea level ● Slopes down from Vindhyan Scarp toward Yamuna River. ● Characterized by senile (caused by old age) topography. ● Rivers: Betwa, Dhasan and Ken. |
| Baghelkhand plateau | <ul style="list-style-type: none"> ● Lies north to east of the Maikal range. ● 3 States - UP, MP, and Chhattisgarh ● Made of limestone and sandstone in the west and granite in the east. ● Separates Ganga basin from Mahanadi basin. ● Bounded by the Son river in the north. <ul style="list-style-type: none"> ○ Rihand Dam and Govind Ballabh Pant Sagar reservoir (largest manmade lake in India). ● Contains Dharwar and Gondwana rocks. ● Major coal fields- Sohagpur, Shahdol coal field ● Central segment acts as a water divide Between Son drainage system (north) and Mahanadi River system (south). ● General elevation : 150 m to 1,200 m |
| Chota Nagpur plateau | <ul style="list-style-type: none"> ● North-east part of the Peninsular plateau. ● Composed mainly of Gondwana rocks. ● Average elevation: 600 to 700 m above sea level. ● Consists of a series of step-like sub-plateaus known as patlands. ● Mineral rich plateau ● Also known as Ruhr of India. ● Major rivers: <ul style="list-style-type: none"> ○ Son - north-west boundary. ○ Damodar, Subarnarekha, North Koel, South Koel and Barkar. <ul style="list-style-type: none"> ■ Damodar- flows through the rift valley from west to east. ● Gondwana coal fields (most coal supply in India) found here. ● Rajmahal Hills - northeastern border <ul style="list-style-type: none"> ○ Covered by lava flows (Basaltic). ○ Spread in a north-south direction ○ Average elevation - 400 m . |
| Kathiawar plateau | <ul style="list-style-type: none"> ● In Kathiawar region of Gujarat ● Has many pipe-like volcanic openings giving rise to many hill ranges like Girnar range, Junagarh range, Pavagadh range etc. ● Lake Nalsarovar (bird sanctuary) - Northeast boundary. ● Little Rann- north. ● Volcanic hills- Mandav hills and Balda hills. ● Highest point: Mt. Girnar. |

B. Deccan Plateau

- **Triangular in shape**.
- **Boundaries**
 - Satpura and the Vindhya- north-west
 - Mahadev and Maikal- north
 - Western Ghats - west
 - Eastern Ghats - east.
- **Average elevation** - 600 m.
 - Rises to **1000 m in south** but subsides to **500 m in the north**.
- **Broadly divided into**:

- **Slope** - west to east (evidenced by flow of rivers).
- **Largest** plateau in **India**
- **Volcanic** in origin.
- **Sedimentary layers** Between layers of solidified lava- **inter-trapping structure**
- **Black soil belt** known as **Deccan trap**.
 - Good for **cotton** and **sugarcane** cultivation
 - Home to rich **mineral resources**
 - Good **hydroelectric power capacity**.

| | |
|----------------------------|---|
| Maharashtra Plateau | <ul style="list-style-type: none"> ● Northern part of Deccan Plateau. ● Underlain by basaltic rocks of lava origin. ● Resembles a rolling plain due to the weathering. ● Horizontal lava sheets → formation of typical Deccan Trap topography. ● Covered by black cotton soil known as regur. |
| Karnataka Plateau | <ul style="list-style-type: none"> ● Also known as Mysore plateau. ● Tapers to south Between Western and Eastern Ghats; merges with Nilgiris. ● Lies to south of Maharashtra plateau. |

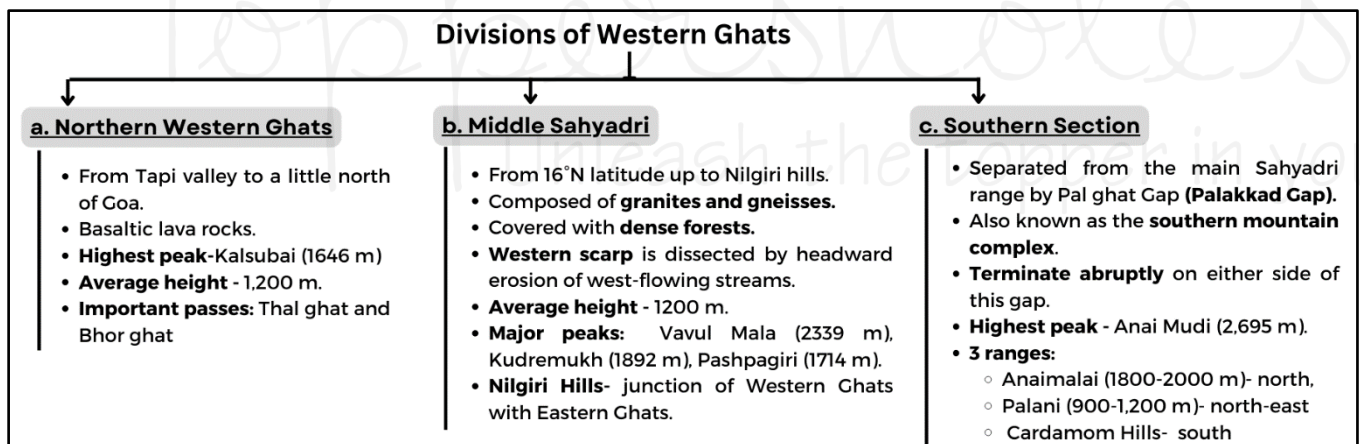
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|--------------------------|--|
| | <ul style="list-style-type: none"> ● Baba Budan hills - iron ores ● Resembles a rolling plateau. ● Average elevation - 600-900 m. ● Intensely dissected by rivers from the Western Ghats. ● Highest peak- Mullayanagiri - Baba Budan Hills - Chikmagalur. ● 2 parts: <ul style="list-style-type: none"> ○ Malnad- a hilly region covered with dense forests. ○ Maidan- rolling plain with low lying granitic hills. |
| Telangana plateau | <ul style="list-style-type: none"> ● Consists of Archaean gneisses. ● Average elevation - 500-600 m. ● Southern part is higher than the northern counterpart. ● Divided into Ghats and Peneplains ● Made up of Dharwar rocks & Gondwana rocks (Godavari valley). ● Major rivers- Godavari, Krishna, and Penna . ● Rich in mineral resources. ● Good rainfall (average of 100 cm/year). |

C. Northeastern Plateau/ Meghalaya Plateau

- **Extension** seen in **Karbi Anglong hills** of Assam.
- Receives **maximum rainfall** from the **south-west monsoon**.
- **Garo-Rajmahal Gap** separates this plateau from the **main block**.
 - Formed by **down-faulting**
 - **Filled by sediments** deposited by **Ganga** and **Brahmaputa**.
- Western, central and eastern parts known as **Garo Hills** (900 m), **Khasi-Jaintia Hills** (1,500 m) and **Mikir (Rengma) Hills** (700 m).
- **Highest point**- Shillong (1,961 m).

D. Western Ghats

- Formed by **subduction of Arabian basin** and tilting of peninsula in east and northeast during Himalayan uplift.
- One of the **eight biological diversity hotspots** in the world.
- **Run from Tapi valley** (21° N latitude) to **north of Kanyakumari** (11° N latitude) - 1,600 km.
- **Extent**: Gujarat, Maharashtra, Goa, Karnataka, Tamil Nadu and Kerala.
- **UNESCO World Heritage site**.
- **Influence Indian monsoon** by intercepting the rain-laden South-west monsoon winds.
- known as **Sahyadri till 11° N**.



E. Eastern Ghats

- **From Odisha to North of Nilgiri hills**
- Run **parallel to eastern coastal plains** of India.
- **Discontinuous** and **dissected by rivers** that drain into Bay of Bengal.

- **Lower in elevation** than western ghats.
 - **Highest peak** - Jindhagada peak (1690 meters).
 - Also known as **Arma Konda** or **Sitamma Konda**.
- **Main crop** - Rice.

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| Nilgiri Hills | <ul style="list-style-type: none"> ● Referred as Blue Mountains, a range of mountains in the westernmost part of Tamil Nadu at the junction of Karnataka and Kerala ● Hills are separated from the Karnataka plateau to the north by the Moyar River and from the Anamalai Hills and Palni Hills to the south by the Palghat Gap |
| Cardmom Hills | <ul style="list-style-type: none"> ● Part of Western Ghats, in southeast Kerala and southwest Tamil Nadu |

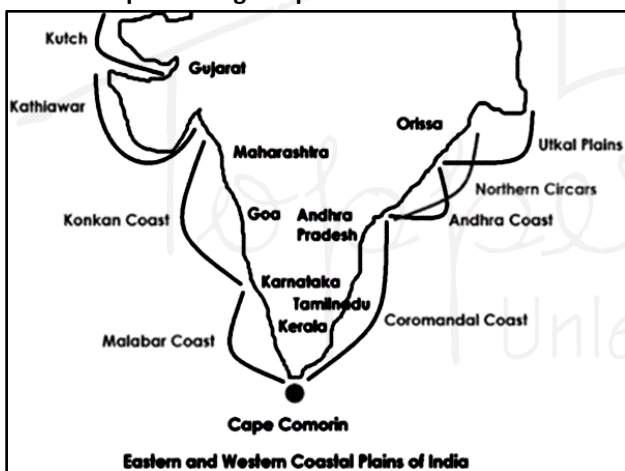
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| Pachamalai Hills | <ul style="list-style-type: none"> Also known as the Pachais Eastern Ghats in Tamil Nadu |
| Anamalai Hills | <ul style="list-style-type: none"> Also known as Elephant Hill a range of mountains in the Western Ghats in Tamil Nadu and Kerala with the highest peak Anaimudi |

5. Coastal Plains

- **Area-** 7516.6 km (**Mainland coastline is 6100 km and Island coastline of 1197 km**).
- **States-** Gujarat, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Odisha, West Bengal and **UTs--** Daman and Diu and Puducherry.
- **Coastal plains in India are of 2 types:**

A. Eastern Coastal Plains

- **Location:** b/w Bay of Bengal and the Eastern Ghats
- **Width:** 100 – 130 kms
- **Extends from the Ganga delta to Kanyakumari.**
- **Marked by** well-developed deltas of Godavari, Mahanadi, Kaveri, and Krishna.
- **Important geographical features** - Chilika Lake and Pulicat Lake (lagoon).
- **Wider and drier** → resulting in **shifting sand dunes**.
- **Very fertile** for Agriculture.
 - **Delta of river Krishna - Granary of South India.**
- **Emergent in nature - Continental shelf extends up to 500 km into the sea, which makes it difficult for development of good ports and harbours.**



- **Divisions:**

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|------------------------|---|
| Utkal coast | <ul style="list-style-type: none"> Extending Between Chilika and Kolleru Lake Much wider than western coastal plains. Intense rainfall. Vulnerable to cyclones. Major crops: rice, coconut and banana |
| Northern Circar | <ul style="list-style-type: none"> Northern part Between Mahanadi and Godavari, Krishna rivers. |
| Andhra coast | <ul style="list-style-type: none"> Between Kolleru and Pulicat Lake. Forms a basin area for Krishna |

| | |
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| | and Godavari rivers. |
| Coromandel coast or Payan Ghat | <ul style="list-style-type: none"> Between Pulicat Lake and Kanyakumari in Tamil Nadu. Remains dry in summer. Receives rainfall during winters. |
| Golkonda Coast | <ul style="list-style-type: none"> Between the Godavari and Krishna River |

B. Western Coastal Plains

- Stretch from **Gulf of Cambay** (Gulf of Khambhat) in the north to **Cape Comorin** (Kanyakumari).
- Stretch for **1600 km north to south**
- **Width** - 10 to 25 km. (**Widest off the Bombay coast**. Rich in oil.)
- **Straight** coastline.
- Affected by **South-West Monsoon** winds over a period of 6 months. Thus, **wetter** than their eastern counterpart.
- **More indented** than eastern coast
 - Provides **natural conditions** for development of **ports and harbours**.
 - **Eg.** Kandla, Mazagaon, JLN port Navha Sheva, Marmagao, Mangalore, Cochin, etc.
- Characterized by a **large number of coves** (a very small bay), **creeks** (a narrow, sheltered waterway such as an inlet in a shoreline or channel in a marsh) and a few **estuaries**. **Eg.** estuaries of Narmada and Tapi.
- Rivers do **not** form any **delta**. Instead form a chain of waterfalls.
- **Kayals** – **Backwaters or shallow lagoons** or the inlets of the sea and lie **parallel to the coastline**.
 - Used for **fishing, inland navigation and tourism**.
 - **Largest - Vembanad lake.**
- **Submergent** coasts.
- **4 divisions:**

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|----------------------------------|---|
| Kutch and Kathiawar coast | <ul style="list-style-type: none"> Extension of Peninsular plateau But treated as a part of Western Coastal Plains as they are now levelled down. Kutch formed by the deposition of silt by the Indus. <ul style="list-style-type: none"> ○ Covered with shallow water during the monsoons ○ Divided into Great Rann (north) and Little Rann (east). Kathiawar- south of Kutch. |
| Konkan coast | <ul style="list-style-type: none"> Between Daman (north) to Goa (south). |