

DAILY CLASS NOTES

Indian Geography

Lecture - 04

The Great Plains of India

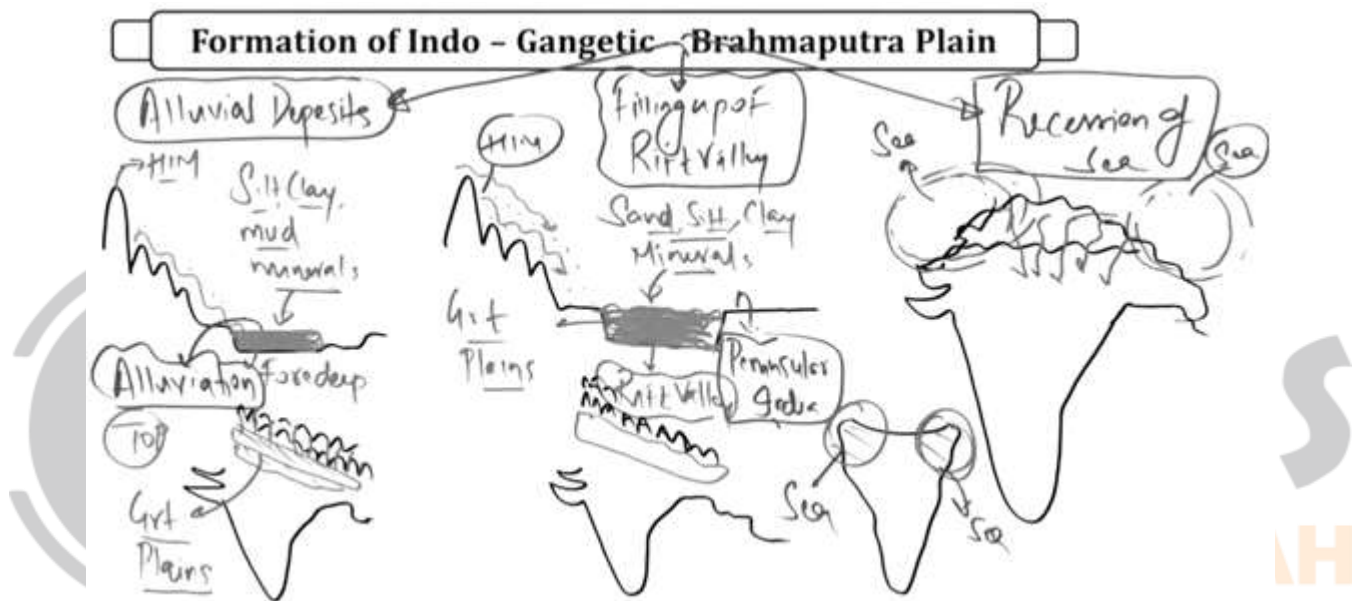


The Great Plains of India

Great Plains of India:

Formation of Indo–Gangetic–Brahmaputra Plains:

- ❖ The formation of the Indo-Gangetic plain is closely **related to the formation of the Himalayas**.
- ❖ It is a **transition zone between the Himalayas in North India and the Peninsular in South India**, and stretches for 2400 km, from West to East. Its width is 90-100 km in Assam to 500 km in Punjab.
- ❖ It is an aggradational plain formed by the alluvial deposits of the Indus, Ganga, and Brahmaputra rivers.
- ❖ It is homogenous with little variation in relief features for 100s of km.



Alluviation of Foredeep:

- ❖ A large foredeep was formed **in front of the Himalayas** which was like a **synclinerium (large syncline with small synclines and anticlines)**
- ❖ The **bed of the foredeep** had a gentle slope towards the **north** and steep slope towards the **peninsula**.
- ❖ The Alluviation of this foredeep led **to the formation of the Great Plains** by rivers descending from the **Himalayan region**.
- ❖ **Criticism:** Suess couldn't explain the uneven slope of the bed of the foredeep.

Infilling of the Rift Valley:

- ❖ During the Himalayan formation, a **rift valley** was formed between two parallel faults.
 - **One at the south Boundary of Shiwaliks and**
 - **Another at the Northern Boundary of the Peninsula.**
- ❖ It was filled up with the detritus brought down by the **Himalayan Rivers**.

- ❖ **Criticism:** Nowhere in this world has such a giant rift valley with a **2400 km length**, and there is no evidence of the formation of such a **rift valley in the Peninsular foreland**.

Recession of the Sea:

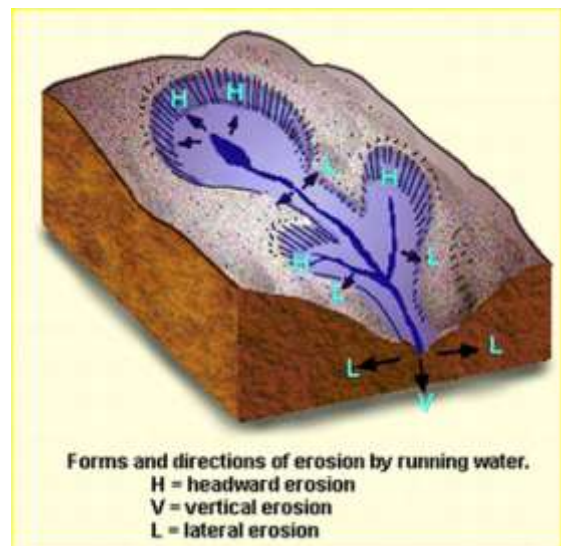
- ❖ **During the Eocene Period**, Peninsular India was joined together with **Africa**.
- ❖ Due to the rise of the Himalayas during the Miocene Period, these seas started receding due to gradual deposits of sediments. (**One Sea-From Assam to Irrawaddy River in the East and another from Iran and Baluchistan to Ladakh in the West**)
- ❖ After a prolonged period of sedimentation and subsidence, **the Gulf of Sindh (West) and Eastern Gulf (till Shillong Plateau) were filled up**.
- ❖ **Evidence:**
 - Limestone rocks **in the Kumaon region**
 - Presence of **saline lakes in Rajasthan (Sambhar Pushkar Nakki)**
 - Seaward extension of **Sundarbans Delta**
 - **Marine fossils**.

Formation of Indo-Gangetic-Bhrahmaputra trough:

- ❖ The rivers that were previously flowing into the **Tethys sea (Before the Indian Plate collided with the Eurasian Plate)** deposited huge amounts of sediments in the **Tethys geosyncline**. (**Geosyncline- a huge depression**)
- ❖ Himalayas are formed out of these sediments which were **uplifted, folded, and compressed due to the northern movement of the Indian plate**.
- ❖ **Northern movement** of the Indian plate also created a **trough to the south of the Himalayas**.

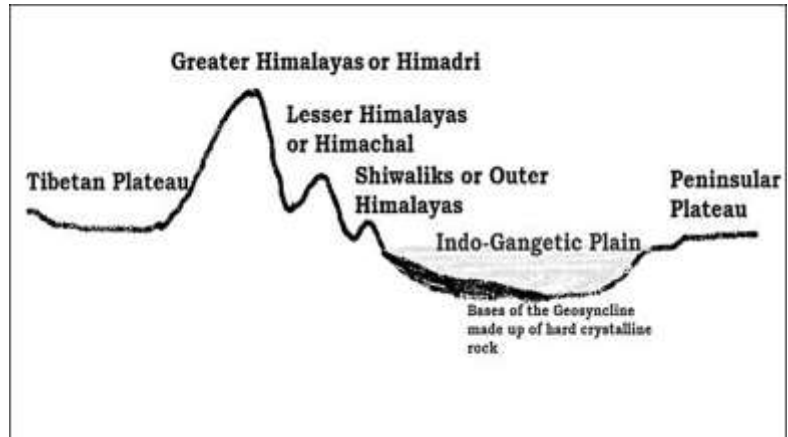
Depositional Activity:

- ❖ During the initial stages of upliftment of sediments, the **already existing rivers changed their course several times** and they were **rejuvenated each time** (perpetual youth stage of rivers {Fluvial Landforms}).
- ❖ The rejuvenation is associated with **intense headward and vertical downcutting of the soft strata** overlying the harder rock stratum.
- ❖ **Headward erosion and vertical erosion of the river valley** in the initial stages, and lateral erosion in later stages contributed **huge amounts of conglomerates (detritus)(rock debris, silt, clay, etc.)** which were **carried downstream**.



➤ **Headward erosion:** Erosion at the origin of a stream channel, which causes the origin to move back away from the direction of the stream flow, and so causes the stream channel to lengthen.

- ❖ These conglomerates were **deposited in the depression (Indo-Gangetic Trough or Indo-Gangetic syncline) (the base of the geosyncline is a hard crystalline rock) between peninsular India and the convergent boundary** (the region of present-day Himalayas).

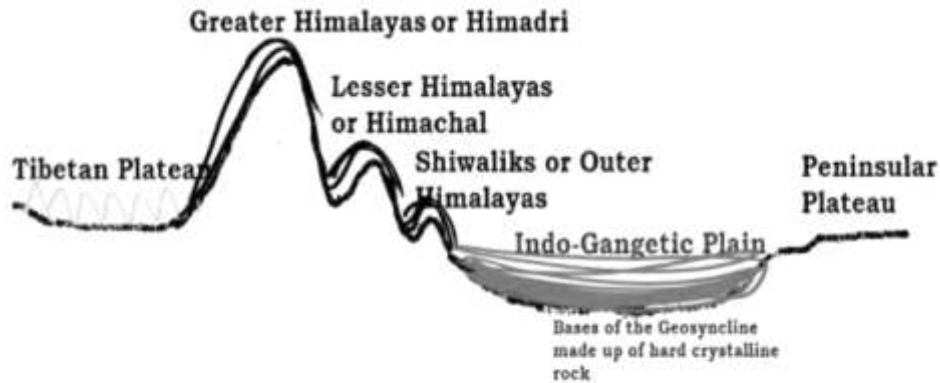


New Rivers and More Alluvium:

- ❖ The rise of the Himalayas and the subsequent formation of glaciers gave rise to many new rivers. These **rivers along with glacial erosion** supplied more alluvium which intensified the filling of the depression.
- ❖ With the **accumulation of more and more sediments** (conglomerates), the **Tethys Sea started receding**.
- ❖ With the passage of time, the **depression was completely filled with alluvium, gravel, and rock debris** (conglomerates) and the **Tethys completely disappeared** leaving behind a **monotonous aggradational plain**.
 - **Monotonous:** featureless topography; aggradational plain: plain formed due to depositional activity. Indo-Gangetic plain is a monotonous aggradational plain formed due to fluvial depositions.
- ❖ **Upper peninsular rivers** have also contributed to the formation of plains but to a very small extent.
- ❖ In recent times (since a few million years ago), **depositional work of three major river systems viz., the Indus, the Ganga, and the Brahmaputra** has become **predominant**.
- ❖ Hence, this arcuate (curved) plain is also known as the **Indo-Gangetic-Brahmaputra Plain**.

Features of Indo–Gangetic–Brahmaputra Plain:

- ❖ Indo-Gangetic-Brahmaputra Plain is the **largest alluvial tract in the world**.
- ❖ The **Northern Boundary is well marked by the Shiwaliks** and the **southern boundary is a wavy irregular line** along the northern edge of Peninsular India.
- ❖ The western border is marked by the **Sulaiman and Kirthar ranges**. On the eastern side, the plains are bordered by **Purvanchal hills**.
- ❖ The width of the plain varies from region to region. It is the **widest in the west** where it stretches for about 500 km. Its **width decreases in the east**.
- ❖ The **thickness** of the alluvium deposits also **varies from place to place**.

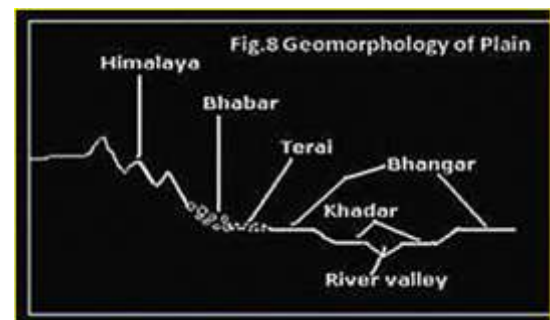


Geomorphological Features of Indo–Gangetic–Brahmaputra Plain:

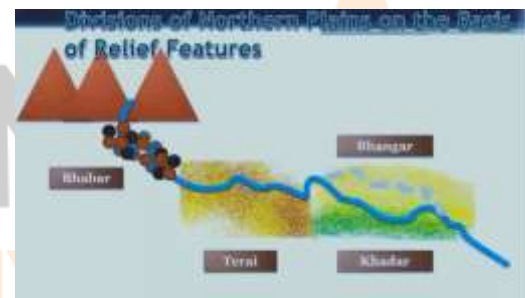
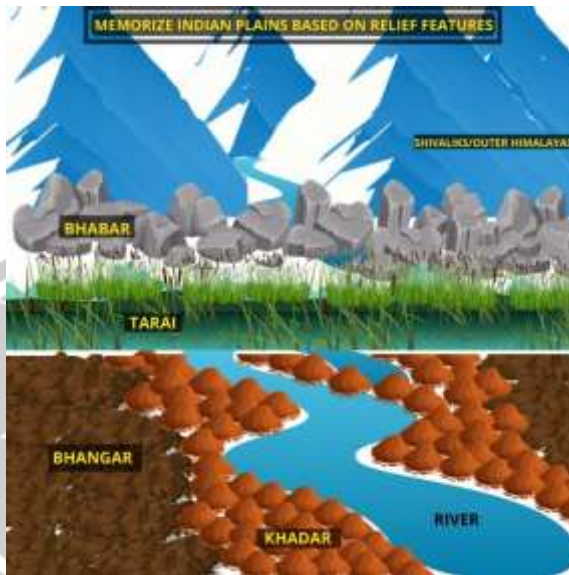
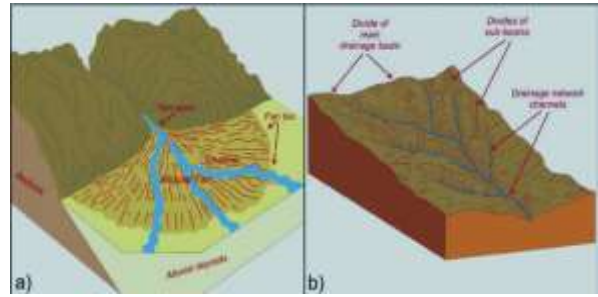


1. Bhabar:

- ❖ It is a **narrow, porous, northernmost stretch of the Indo-Gangetic plain**, ranging about **8-16 km** wide and running in the **east-west direction** (Jammu to Assam) along the foothills (alluvial fans) of the Shiwaliks.
- ❖ They show a **spectacular continuity from the Indus to the Teesta**.
- ❖ Rivers descending from the Himalayas deposit their load along the foothills in the form of alluvial fans.
- ❖ These alluvial fans have **merged together to build up the bhabar belt**. The **porosity of the bhabar is the most unique feature**.
- ❖ Inhabitants here are cattle-keeping Gujjars.



- ❖ The porosity is due to the deposition of a huge number of pebbles and rock debris across the alluvial fans.
- ❖ The streams disappear once they reach the bhabar region because of this porosity.
- ❖ Therefore, the area is marked by dry river courses except in the rainy season.
- ❖ The Bhabar belt is comparatively narrow in the east and extensive in the western and north-western hilly regions.
- ❖ The area is not suitable for agriculture and only big trees with large roots thrive in this belt.



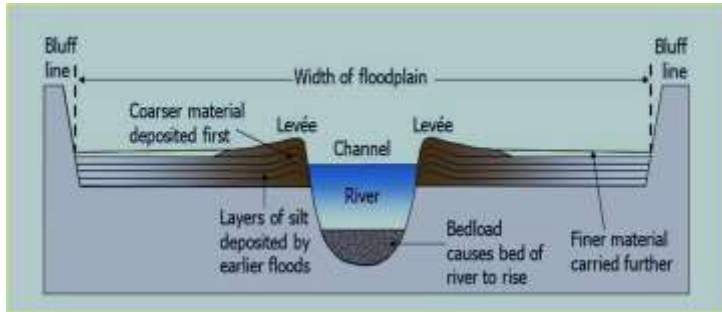
2. Terai:

- ❖ Terai is an ill-drained, damp (marshy), and thickly forested narrow tract to the south of Bhabar running parallel to it, and ranges about 15-30 km wide.
- ❖ The underground streams of the Bhabar belt re-emerge in this belt.
- ❖ This thickly forested region provides shelter to a variety of wildlife. [Jim Corbett National Park in Uttarakhand and Kaziranga National Park in Assam lie in the Terai region].
- ❖ The Terai is more marked in the eastern part than in the west because the eastern parts receive comparatively higher amounts of rainfall.
- ❖ Most of the Terai land, especially in Punjab, Uttar Pradesh, and Uttarakhand, has been turned into agricultural land which gives good crops of sugarcane, rice, and wheat.



3. Bhangar:

- ❖ Bhangar is the **older alluvium** along the river beds forming terraces higher than the floodplain.
- ❖ The terraces are often impregnated with calcareous concretions known as '**Kankar**'.
- ❖ '**The Barind plains**' in the deltaic region of Bengal and the '**Bhur formations**' in the middle Ganga and Yamuna doab are **regional variations of Bhangar**.



➤ **Bhur denotes** an elevated piece of land situated along the banks of the Ganga River, especially in the upper Ganga-Yamuna Doab. This has been formed due to the accumulation of wind-blown sands during the hot dry months of the year.

- ❖ Bhangar **contains fossils of animals** like rhinoceros, hippopotamus, elephants, etc.
- ❖ Soil is **dark in color, rich in humus content, and productive**.
- ❖ It is a well-drained and most productive part of the Great Plains of India.

4. Khadar:

- ❖ The Khadar is composed of **newer alluvium** and forms the **flood plains along the river banks**.
- ❖ A **new layer of alluvium** is deposited by river floods almost every year.
- ❖ This makes them the **most fertile soils of the Ganges**.
- ❖ It comprises **sand, silt, clay, and mud**.

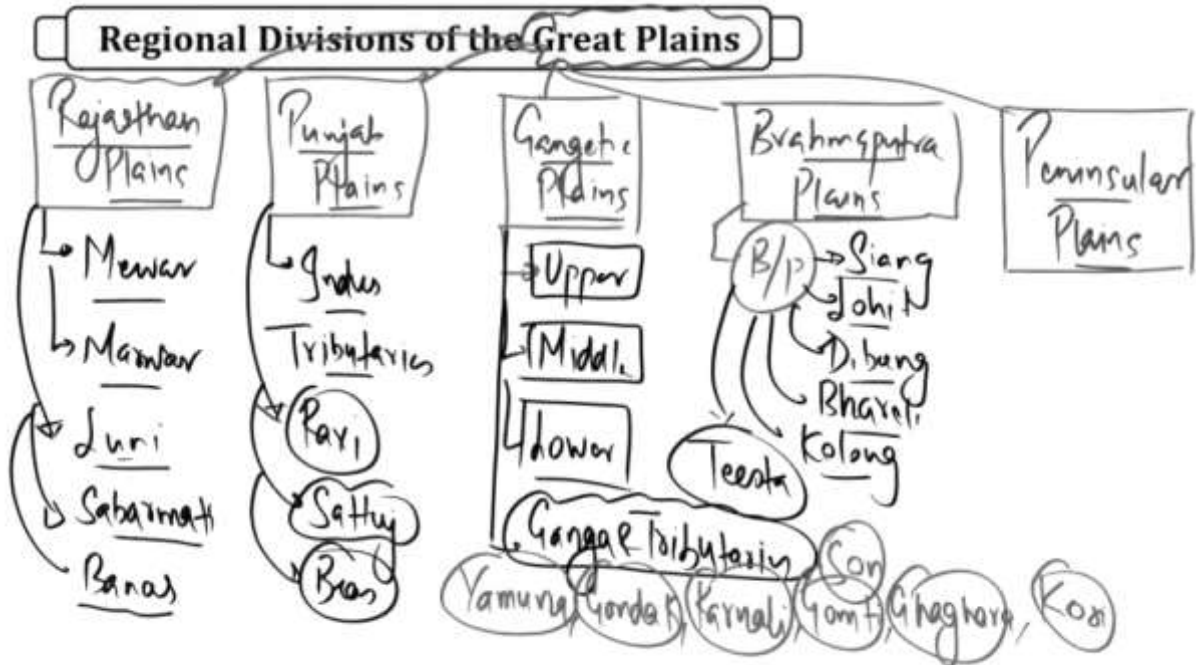
Bhangar	Khadar
Bhangar is the largest part of the northern plain and is composed of the oldest alluvial soil.	The floodplains formed by younger alluvium are called Khadar.
They lie above the flood plains. They resemble terraces.	The soil in this region is renewed every year and is highly fertile.
The soil of this region is locally known as kankar and is composed of calcareous deposits.	This region is very suitable for intensive agricultural activities.

Khadar	Bhangar
1 The Khadar soil are found in low areas of valley bottom which are flooded every year.	1 The Bhangar soil are found in the higher reaches about 30 m above the flood level.
2 These soil are fine in texture.	2 These are coarse in texture.
3 The Khadar soils are more fertile.	3 The Bhangar soils are less fertile.

5. Reh or Kollar:

- ❖ Reh or Kollar comprises **saline efflorescences of drier areas** in Haryana.
- ❖ Reh areas have **spread in recent times with an increase in irrigation** (capillary action brings salts to the surface).

Regional Division of Plains:



BY PHYSICS WALLAH



- Sindh Plain
- Rajasthan Plain.
- Punjab Plain.
- Ganga Plain.
- Brahmaputra Plain.
- Ganga - Brahmaputra Delta

1. Sindh Plain [Pakistan]:

- ❖ It is mainly **formed from the Bhangar Plains.**
- ❖ **Dhors:** Long narrow depressions which are the remnants of the course of former rivers.

- ❖ **Dhand:** Alkaline lakes on some dhors.

2. Rajasthan Plain:

- ❖ **It Lies West of Aravallis and includes the Marusthali and Bagar regions of Rajasthan.**

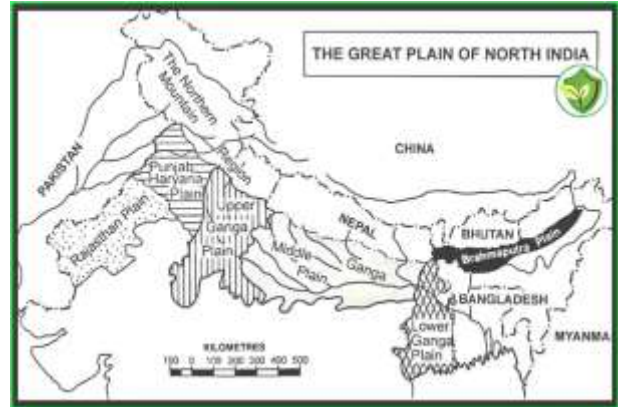
- ❖ A substantial part has been formed by **the recession of the sea** [evidence is the presence of saltwater lakes (Sambhar)]

- ❖ It has several dry beds of rivers like **Saraswati and Drishadvati.**

- ❖ At present, Rajasthan Plains is a desert **covered with longitudinal and transverse sand dunes and Barchans.**

- ❖ It is occupied by **Thar or the Great Indian Desert.**

- ❖ This plain is an undulating plain [wave-like] whose average elevation is about 325 meters above mean sea level.



- ❖ The desert region is called **Marusthali** and **forms a greater part of the Marwar plain.**

- ❖ It has a few outcrops of gneisses, schists, and granites which proves that geologically it is a part of the Peninsular Plateau.

- ❖ It is only at the surface that it looks like an aggradational plain.

- ❖ In general, the eastern part of the Marusthali is rocky while its western part is covered by shifting sand dunes locally known as **Dhrians.**

- ❖ The eastern part of the **Thar Desert up to the Aravali Range is a semi-arid plain known as Rajasthan Bagar.**

- ❖ It is **drained by a number of short seasonal streams** originating from the Aravali and supports agriculture in some patches of fertile tracts.

- ❖ **Luni** is an important seasonal stream that **flows into Rann of Kachchh.** The tract north of the **Luni is known as thali or sandy plain.**



Saline Lakes:

- ❖ **North of the Luni**, there is inland drainage having several saline lakes. They are a source of common salt and many other salts.
- ❖ **Sambhar, Didwana, Degana, Kuchaman, etc.** are some of the important lakes.
- ❖ The **largest is the Sambhar lake near Jaipur.**

3. Punjab Plain:

- ❖ This plain is formed by **five important rivers of the Indus system**.
- ❖ The plain is primarily made up of ‘doabs’ —**the land between two rivers**.
- ❖ The depositional process by the rivers has united these doabs giving a **homogenous appearance**.
- ❖ Punjab literally means "(The Land of) Five Waters" referring to the following rivers: **the Jhelum, Chenab, Ravi, Sutlej, and Beas**.
- ❖ The total area of this plain is about **1.75 lakh sq km**.
- ❖ The average elevation of the plain is about **250 meters above mean sea level**.
- ❖ The **eastern boundary of the Punjab Haryana plain** is marked by the **subsurface Delhi-Aravali ridge**.
- ❖ The northern part of this plain [Shivalik hills] has been intensively eroded by numerous streams called **Chaos**. This has led to **enormous gullying [Arid Landforms]**.
- ❖ To the **south of the Satluj River**, there is the **Malwa plain of Punjab**.
- ❖ The area **between the Ghaggar and the Yamuna rivers** lies in Haryana and is often termed as the ‘**Haryana Tract**’. It acts as a **water divide between the Yamuna and the Satluj rivers**.
- ❖ The **only river between the Yamuna and the Satluj is the Ghaggar** which is considered to be the present-day **successor of the legendary Saraswati River**.



4. Ganga Plain:

- ❖ This is the **largest unit of the Great Plain of India stretching from Delhi to Kolkata (about 3.75 lakh sq km)**.
- ❖ The Ganga along with its large number of tributaries originating in the **Himalayas have brought large quantities of alluvium from the mountains and deposited it here to build this extensive plain**.
- ❖ The peninsular **rivers such as Chambal, Betwa, Ken, Son, etc.** joining the Ganga river system have also contributed to the formation of this plain.
- ❖ The general **slope of the entire plain is to the east and southeast**.
- ❖ Rivers flow sluggishly **in the lower sections of the Ganges** as a result of which the area is marked by local prominences such as **levees, bluffs, oxbow lakes, marshes, ravines, etc.**
- ❖ Almost all the rivers keep on shifting their courses making this area prone to frequent floods.
- ❖ **The Kosi River** is very notorious in this respect. It has long been called the ‘**Sorrow of Bihar**’.



Features of Indo-Gangetic Plains:



Regional Divisions of Ganga Plain:

1. Upper Ganga Plains:

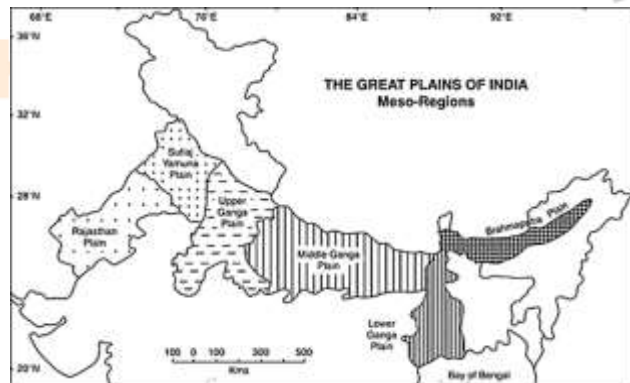
- ❖ It includes **Ganga Yamuna Doab, parts of Rohilkhand, and the Agra division.**
- ❖ Traversed by the **Yamuna, Ganga, Kali, and Sharda rivers.**
- ❖ It has the presence of Bhur (**Undulating Aeolian Sandy deposits**).
- ❖ **Sugarcane, Rice, Wheat, Maize, and Pulses** are grown here.
- ❖ **The Green Revolution** has been a great success in this region.

2. Middle Gangetic Plains:

- ❖ It includes **Central and Eastern UP and Bihar Plains.**
- ❖ It has thick alluvial deposits.
- ❖ The region is featureless and homogenous where monotony is broken **by levees, Dhur, Taals, Jala, and Chuars (marshy lands)**
- ❖ It has a low gradient. The rivers often **change course. Example: Gandak and Kosi.**

3. Lower Gangetic Plains:

- ❖ It extends from **Patna in the west to the Foot of Darjeeling in the North to the Bay of Bengal in the South.**
- ❖ The Eastern part is drained by **the Teesta, Jaldhaka, and Sankosh rivers.**
- ❖ It is formed by the **down warping of the part of peninsular India** between Rajmahal hills and the Meghalaya plateau and subsequent sedimentation by the Ganga and Brahmaputra rivers.
- ❖ The Meghalaya region is separated from the peninsular region by the **Malda Gap or Garo Rajmahal Gap.**



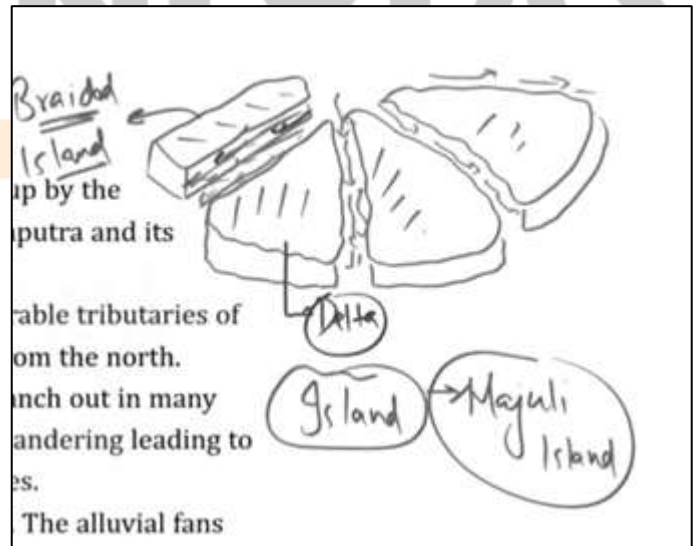
Ganga-Brahmaputra Delta:

- ❖ This is the **largest delta in the world**.
- ❖ The **Ganga River divides itself into several channels in the delta area**.
- ❖ The seaward face of the delta is studded with a **large number of estuaries, mud flats, mangrove swamps, sandbanks, and islands**.
- ❖ A large part of the coastal delta is covered by tidal forests. These are called **the Sundarbans** because of the predominance of the **Sundri tree** here.



Brahmaputra Plain:

- ❖ This is also known as the **Brahmaputra Valley or Assam Valley or Assam Plain** as most of the Brahmaputra valley is situated in Assam.
- ❖ Its western boundary is formed by the Indo-Bangladesh border as well as the boundary of the lower Ganga Plain.
- ❖ Its eastern boundary is formed by Purvanchal hills.
- ❖ It is an aggradational plain built up by the depositional work of the Brahmaputra and its tributaries.
- ❖ The innumerable tributaries of the Brahmaputra river coming from the north form a number of alluvial fans.
- ❖ Consequently, the tributaries branch out in many channels giving birth to the river meandering leading to the **formation of Bill and Oxbow lakes**.
- ❖ There are large marshy tracts in this area.
- ❖ The alluvial fans formed by the **coarse alluvial debris have led to the formation of terai or semi-terai conditions**.
- ❖ The Brahmaputra is a highly braided river having numerous islands. Example: **Majuli is the largest riverine island**.
- ❖ It is the most productive part. **Rice and Jute are the main crops grown here**.



Significance of the Plain:

- ❖ This one-fourth of the land of the country **hosts half of the Indian population**.
- ❖ **Fertile alluvial soils**, flat surfaces, slow-moving perennial rivers, and favorable climate facilitate intense agricultural activity.

- ❖ Soils here are the most fertile, thus it is known as the Granaries of the World.
 - Crops like Wheat, Mustard, Sugarcane, corn, Cereals, Groundnuts, etc are grown here.
- ❖ **Rivers, Canals, and Irrigation** have ensured water availability which has helped in Agriculture.
 - The extensive use of irrigation has made Punjab, Haryana, and the western part of Uttar Pradesh the granary of India (**Prairies are called granaries of the world**).
- ❖ **The rich water table** has been used for Irrigation, Industrial and Domestic use.
- ❖ **Navigable River**; Gentle gradients have been utilized for transportation by ships.
- ❖ **Infrastructure** is easy to develop due to manpower development, capital availability, and government policies. The entire plain except for the Thar Desert has a close network of roads and railways which has led to large-scale **industrialization and urbanization**.
- ❖ **Sedimentary Rocks**: Petroleum and Natural Gas.
- ❖ **Cultural tourism**: There are many religious places along the banks of the sacred rivers like the Ganga and the Yamuna which are very dear to Hindus. Here the religions of Budha and Mahavira and the movements of Bhakti and Sufism. (Temples, Wildlife Sanctuaries, river rafting, etc.)
- ❖ It also contributes a major share of **Inland fisheries**.

Significance of the Great Plains of India:

- ❖ **Soils**: Most fertile, Granaries of the world.
- ❖ **Rivers**: Canals-Irrigation-Agriculture.
- ❖ **Rich Water Table**: Irrigation, Industrial and Domestic Use.
- ❖ **Navigable Rivers**: Gentle gradients. Example- NW-1, NW-2, etc.
- ❖ **Infrastructure**: easy to develop.
- ❖ **Sedimentary Rocks**: Petroleum and Natural gas.
- ❖ **Employment**: Agriculture-based industries
- ❖ **Transport**: waterways, Railways, Roads etc
- ❖ Tourism.

Peninsular Plateau:

Features of the Peninsular Plateau:

- ❖ It is roughly **triangular in shape** with its base coinciding with the southern edge of the great plain of North India. The apex of the triangular plateau is at **Kanyakumari**.
- ❖ It covers a total area of about **16 lakh sq km (India as a whole is 32 lakh sq km)**.
- ❖ The average **height of the plateau is 600-900 meters** above sea level (varies from region to region).
- ❖ Most of the peninsular rivers flow west to east.
- ❖ The Peninsular Plateau is **one of the oldest landforms on earth. It is the most stable landmass**.

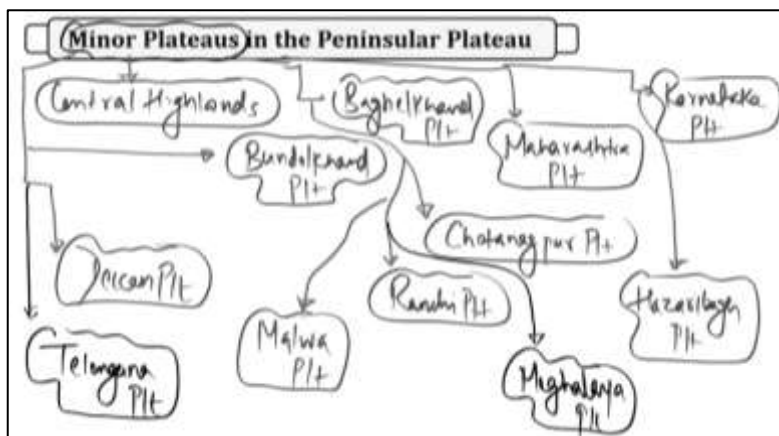


- ❖ It is a highly stable block **composed mostly of the Archaean gneisses and schists.**
- ❖ It has been a stable shield that has gone through little structural changes since its formation.
- ❖ It is subjected to erosion such as in Aravali hills.
- ❖ Peninsular Plateau is an aggregation of several smaller plateaus, hill ranges **interspersed with river basins and valleys.**

The Himalayan Region	The Peninsular Plateau
Having a comparatively recent origin, it is made up of young fold mountains.	It is the oldest landmass of the Indian subcontinent; was part of the Gondwana land.
Consists of the loftiest mountains and deep valleys.	Consists of broad and shallow valleys, and rounded hills.
Formed due to the collision of the Indo-Australian and Eurasian plates.	Formed due to the breaking and drifting of the Gondwana land.
Composed of sedimentary rocks.	Composed of igneous and metamorphic rocks.
From the point of view of geology, this region forms an unstable zone.	This region forms a stable zone.
Major rivers like – the Indus, the Ganges and the Brahmaputra originate from the Himalayas.	Major rivers like – the Narmada and the Tapti, Godavari, Krishna and Kaveri originate from these hills.
Important hill stations like – Shimla, Mussoorie, Darjeeling, Nainital, etc. are found on the Himalayas.	Important hill stations like - Khandala, Panchgani, Ooty, Kodaikanal, etc. are found on the Peninsular Plateau.

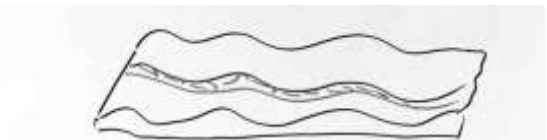
The Himalayan Region	The Peninsular Region
Unstable in nature (tectonically Active)	Not tectonically Active
Soft alluvial deposits	Presence of hard rocks
River streams are perennial in nature, fed by glaciers.	The streams are dependent on the monsoon.

Minor Plateaus in the Peninsular Plateau:



1. Marwar Plateau or Mewar Plateau

- ❖ It is the plateau of eastern Rajasthan. [Marwar plain is to the west of Aravalis whereas Marwar plateau is to the east].
- ❖ The average elevation is **250-500 m above sea level** and it slopes down eastwards.
- ❖ It is made up of sandstone, shales, and limestones of the Vindhyan period.
- ❖ The **Banas River**, along with its tributaries [Berach River, Khari Rivers] originate in the **Aravali Range and flow towards the north into the Chambal River**.
- ❖ The erosional activity of these rivers makes the plateau top appear like a rolling plain.
 - **Rolling Plain:** ‘Rolling plains’ are not completely flat: there are slight rises and falls in the landform.
Ex: Prairies of the USA.



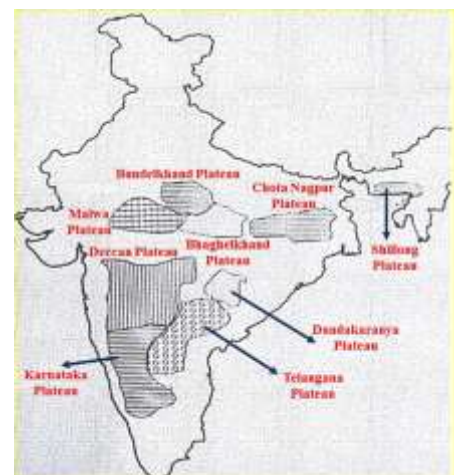
2. Central Highland:

- ❖ It is also called the **Madhya Bharat Pathar or Madhya Bharat Plateau**.
- ❖ It is to the east of the **Marwar or Mewar Upland**.
- ❖ Most of the plateau comprises the basin of the **Chambal river which flows in a rift valley**.
- ❖ The **Kali Sindh**, flowing from **Rana Pratap Sagar**, the **Banas** flowing through the **Mewar plateau** and the **Parbati** flowing from Madhya Pradesh are its main tributaries.
- ❖ It is a **rolling plateau** with rounded hills composed of sandstone. Thick forests grow here.
- ❖ To the north are the **ravines or badlands of the Chambal River** [They are typical to the Chambal River basin].



3. Bundelkhand Upland:

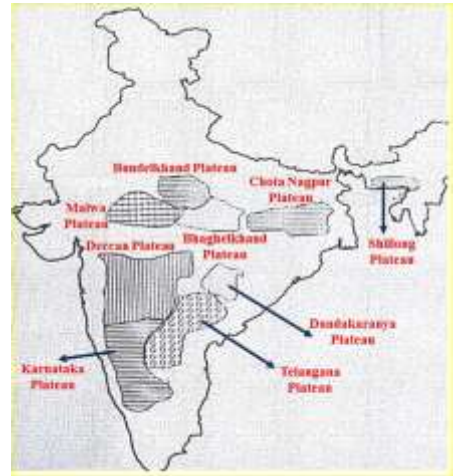
- ❖ It is bounded by the **Yamuna River to the north, Madhya Bharat Pathar to the west, Vindhyan Scarplands to the east, Panna Ajaygarh Range in the south-east, and Malwa Plateau to the south**.
- ❖ It is the old dissected (divided by a number of deep valleys) upland of the ‘**Bundelkhand gneiss**’ comprising **granite and gneiss**.
- ❖ It is spread over five districts of **Uttar Pradesh and four districts of Madhya Pradesh**.
- ❖ With an average elevation of 300-600 meters above sea level, this area slopes down from the **Vindhyan Scrap toward the Yamuna River**.



- ❖ The area is marked by a chain of hillocks (small hills) made of granite and sandstone.
- ❖ The erosion work of the rivers flowing here has converted it into an undulating (wave-like surface) area and rendered it unfit for cultivation.
- ❖ **Streams like Betwa, Dhasan, and Ken** flow through the plateau and have created gorges, rapids, and waterfalls.

4. Malwa Plateau:

- ❖ The Malwa Plateau roughly forms a **triangle based on the Vindhyan Hills, bounded by the Aravali Range in the west Madhya Bharat Pathar to the north, and Bundelkhand to the east.**
- ❖ This plateau has **two systems of drainage; one towards the Arabian Sea (The Narmada, the Tapi, and the Mahi), and the other towards the Bay of Bengal (Chambal and Betwa, joining the Yamuna).**
- ❖ In the north, it is drained by the **Chambal and many of its right-bank tributaries like the Kali, the Sindh, and the Parbati. It also includes the upper courses of the Sindh, the Ken, and the Betwa.**
- ❖ It is composed of extensive lava flow and is **covered with black soil.**
- ❖ The general **slope is towards the north** [decreases from 600 meters in the south to less than 500 meters in the north]
- ❖ This is a rolling plateau dissected by rivers.



5. Baghelkhand Plateau:

- ❖ It lies to the north of the **Maikal Range.**
- ❖ It is made of limestones and sandstones on the west and granite on the east.
- ❖ It is bounded by the Son River on the north.
- ❖ **The Central part of the plateau acts as a water divide between the Son drainage system in the north in the north and the Mahanadi river system in the south.**
- ❖ The region is uneven with general elevation varying from 150m to 1200 m.
- ❖ The general horizontality of the strata shows that this area has not undergone any major disturbances.

6. Chotanagpur Plateau:

- ❖ Chotanagpur plateau represents the north-eastern projection of the Indian Peninsula.
- ❖ It lies mostly in Jharkhand, the northern part of Chhattisgarh, and the Purulia district of West Bengal.
- ❖ The **Son River** flows in the northwest of the plateau and joins the Ganga.
- ❖ The average elevation of the plateau is **700 meters above sea level.**

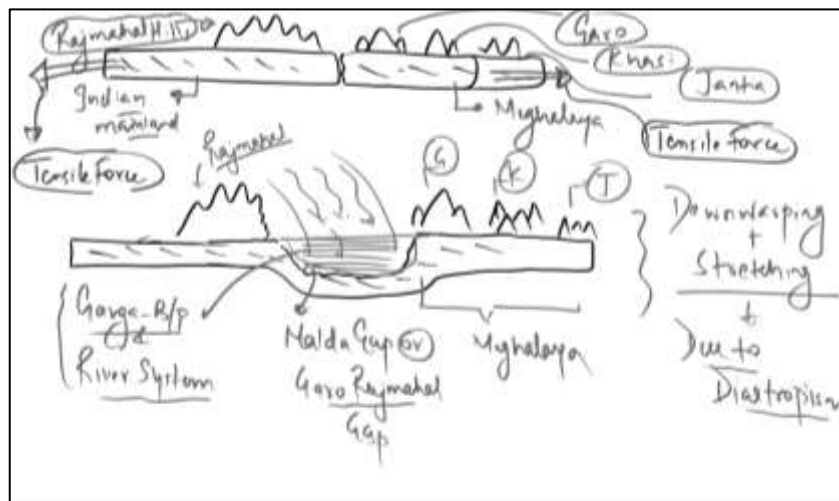
- ❖ This plateau is composed mainly of Gondwana rocks (containing coal deposits).
- ❖ The plateau is drained by numerous rivers and streams in different directions and presents a radial drainage pattern.
 - Rivers like the **Damodar, the Subarnarekha, the North Koel, the South Koel, and the Barkar** have developed extensive drainage basins.



- ❖ The **Damodar River** flows through the middle of this region in a rift valley from west to east. Here are found the **Gondwana coal fields** which provide the bulk of coal in India.
- ❖ **North of the Damodar River is the Hazaribagh plateau** with an average elevation of 600 meters above mean sea level. This plateau has isolated hills. It looks like a peneplain due to large-scale erosion.
- ❖ The Ranchi Plateau to the south of the **Damodar Valley** rises to about **600 meters** above mean sea level.
- ❖ **Most of the surface is rolling** where the city of **Ranchi (661 meters)** is located.
- ❖ The Rajmahal Hills forming the northeastern edge of the **Chotanagpur Plateau** are mostly made of **basalt and are covered by lava flows (Basaltic Lava)**.
- ❖ They run in a **north-south direction** and rise to an average elevation of **400 meters** (the highest mount is 567 meters). These hills have been **dissected into separate plateaus**.

7. Meghalaya Plateau:

- ❖ The peninsular plateau extends further east beyond the **Rajmahal hills to Meghalaya or the Shillong plateau**.
- ❖ **The Garo-Rajmahal Gap** separates this plateau from the main block.
- ❖ This gap was **formed by down-faulting** (normal fault: a block of earth slides downwards). It was later filled by sediments **deposited by the Ganga and Brahmaputra rivers**.



- ❖ The plateau is formed by **Archaean quartzites, shales, and schists.**
- ❖ The plateau **slopes down to Brahmaputra valley in the north and the Surma and Meghna valleys in the south.**
- ❖ Its western boundary more or less **coincides with the Bangladesh border.**
- ❖ The western, central, and eastern parts of the plateau are known as the **Garo Hills (900 meters), the Khasi-Jaintia Hills (1,500 meters), and the Mikir Hills (700 meters).**
- ❖ **Shillong (1,961 meters) is the highest point of the plateau.**

8. Deccan Plateau:

- ❖ It covers an area of about **five lakh sq km.**
- ❖ It is triangular in shape and is bounded by the **Satpura and the Vindhya in the north, the Mahadev and the Maikal in the northeast, the Western Ghats in the west, and the Eastern Ghats in the east.**
- ❖ Its **average elevation is 600 meters.**
- ❖ It rises to **1000 meters in the south but dips to 500 meters in the north.**
- ❖ Its general slope is from **west to east** which is indicated by the flow of its major rivers.
- ❖ Rivers have further subdivided this plateau into a number of smaller plateaus.



9. Maharashtra Plateau:

- ❖ The Maharashtra Plateau lies **in Maharashtra.**
- ❖ It forms the **northern part of the Deccan Plateau.**
- ❖ Much of the region is underlain by **basaltic rocks of lava origin** [Most of the Deccan Traps lie in this region].
- ❖ The horizontal lava sheets have led to the **formation of typical Deccan Trap topography [step like].**
- ❖ The broad and **shallow valleys of the Godavari, the Bhima, and the Krishna are flanked** [bordered on the opposite sides] by **flat-topped steep-sided hills and ridges.**
- ❖ The entire area is covered by black cotton soil known as **regur.**



10. Karnataka Plateau:

- ❖ It is also known as the **Mysore Plateau.**
- ❖ It has a dominance of **Archean and Dharwar rock formations.**
- ❖ It lies to the **south of the Maharashtra plateau.**
- ❖ It is highly dissected by numerous rivers rising from the **Western Ghats. Example: Kaveri and Tungabhadra rivers.**
- ❖ The general trend of the hills is either parallel to the Western Ghats or across it.



- ❖ The highest peak (**1913 meters**) is at **Mullayanagiri** in **Baba Budan Hills** in **Chikmagalur district**.
- ❖ The plateau is divided into two parts called **Malnad** and **Maidan**.
- ❖ **Malnad** in **Kannada** means the hill country. It is dissected into deep valleys covered with dense forests.
- ❖ The **Maidan** on the other hand is formed of a **rolling plain with low granite hills**.
- ❖ The plateau **tapers between the Western Ghats and the Eastern Ghats** in the south and merges with the **Nilgiri hills** there.



11. Telangana Plateau:

- ❖ The Telangana plateau consists of **Archaean gneisses**.
- ❖ Its average **elevation is 500-600 meters**.
- ❖ The **southern part is higher than its northern counterpart**.
- ❖ The region is **drained by three river systems, the Godavari, the Krishna, and the Penneru**.
- ❖ The entire plateau is **divided into Ghats and the Peneplains** (a vast featureless, undulating plain which last stage of the deposition process)

12. Chhattisgarh Plain:

- ❖ The Chhattisgarh Plain is the **only plain worth the name in the Peninsular Plateau**.
- ❖ It is a saucer-shaped depression **drained by the upper Mahanadi**.
- ❖ The whole basin lies **between the Maikala Range and the Odisha hills**.
- ❖ The region was once ruled by **Haithaivanshi Rajputs** from whose **thirty-six forts (Chhattisgarh)** it derives its name.



○○○

