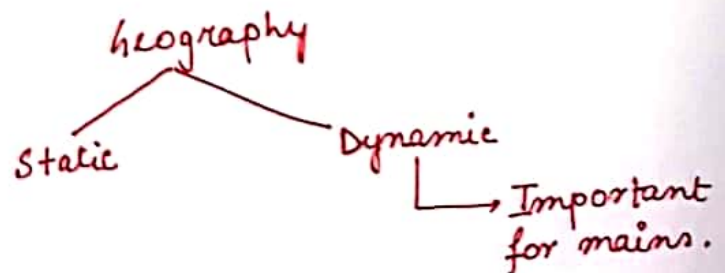


## "Indian Geography"

- 1) Physiography of India
- 2) Soils classification of India
- 3) Agriculture & related issues
- 4) Population & related issues
- 5) Factors responsible for distribution of primary, secondary & tertiary industries
- 6) Distribution of Resources in India
- 7) Migration patterns in India
- 8) Settlements.
- 9) Transport, trade & communication
- 10) Tourism.



18. 10. 20

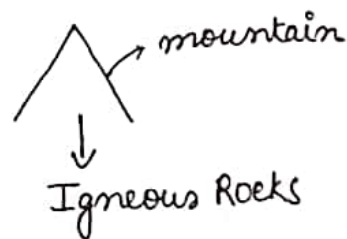
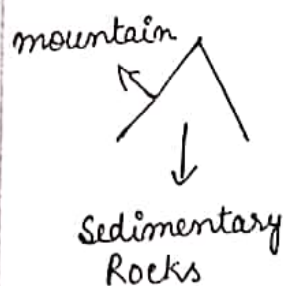
## Indian Physiography

India is called as land of Diversity in terms of its physiological features.

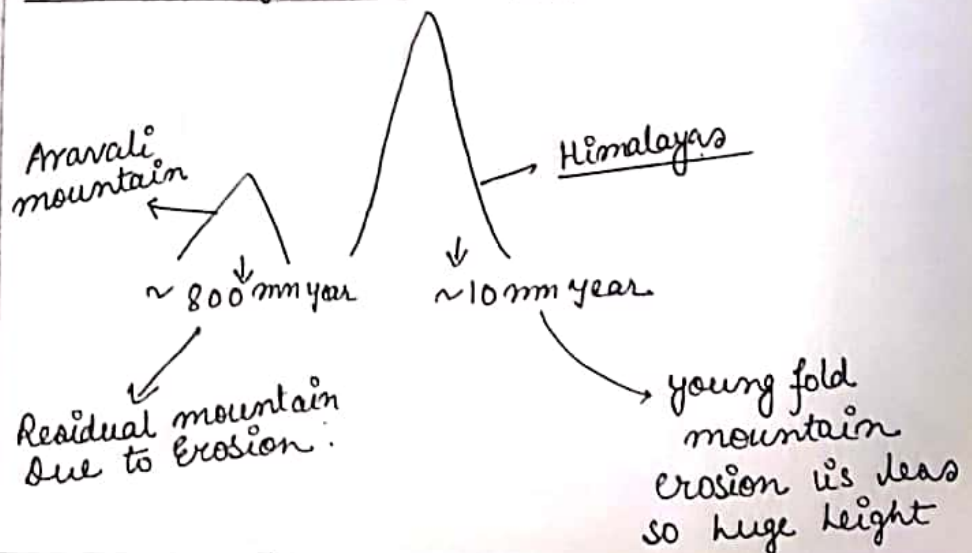
Reasons for formation of complex & varied topographical features in India →

### i) Types of <sup>Geological</sup> ~~geographical~~ structure

Basically, different Rock structure.

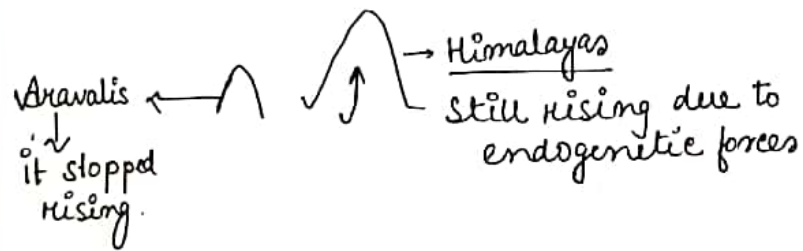


### ii) Evolutionary Time ↔ Different time frame for evolution.



3) Endogenetic forces →

e.g. earthquake, volcano. (convective forces)  
lead to formation of various topography.



### Various Physiographical Divisions in India :-

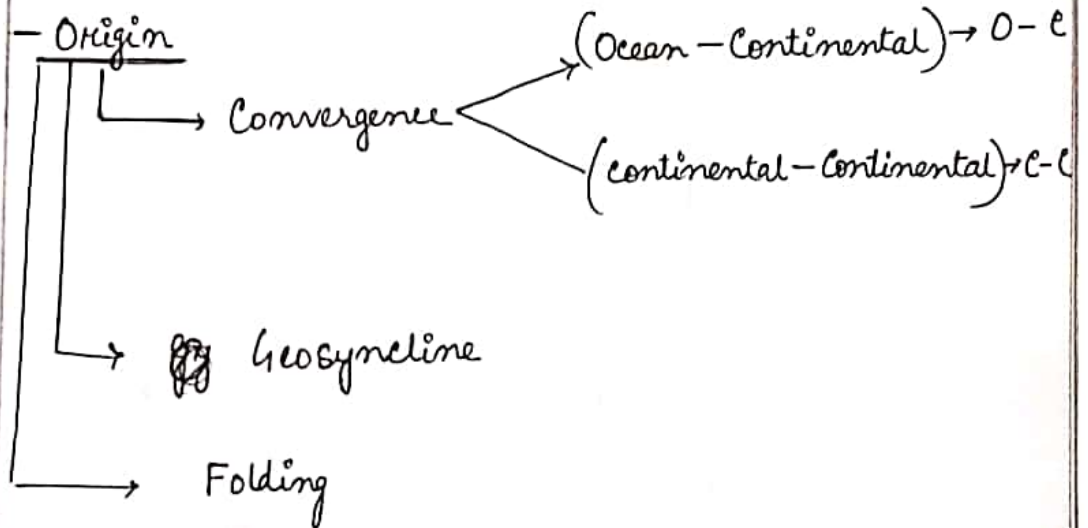
Refer Mapping  
Booklet

There are 6  
physiographic divisions  
of India —

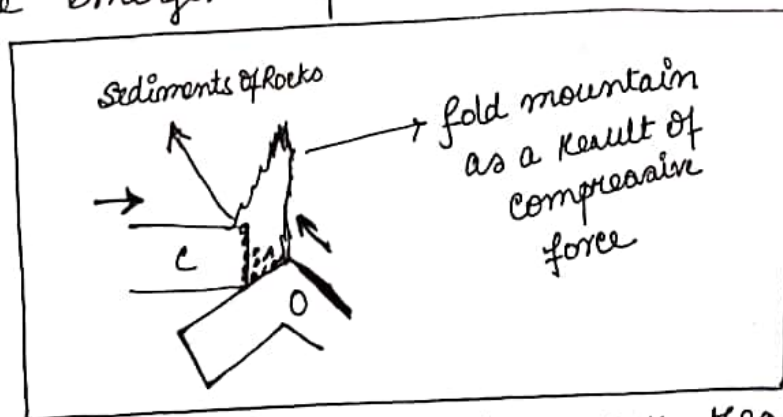
- i) Himalayas
- ii) The Northern Plains
- iii) The Thar Desert
- iv) The Peninsular plateau
- v) The Coastal Plains
- vi) The Islands

Map

## 1) The Himalayas ⇨



- 1) • Oceanic & Continental plates' convergence lead to the emergence of Fold Mountains.



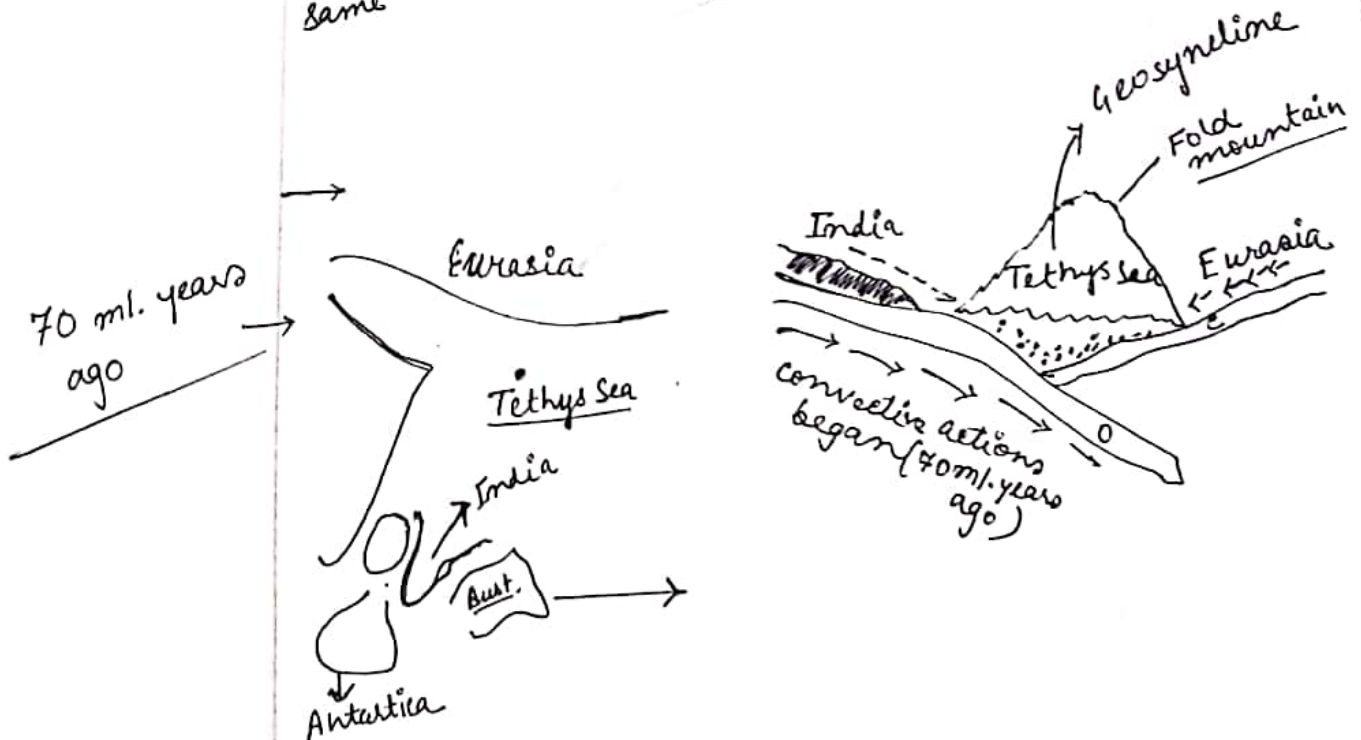
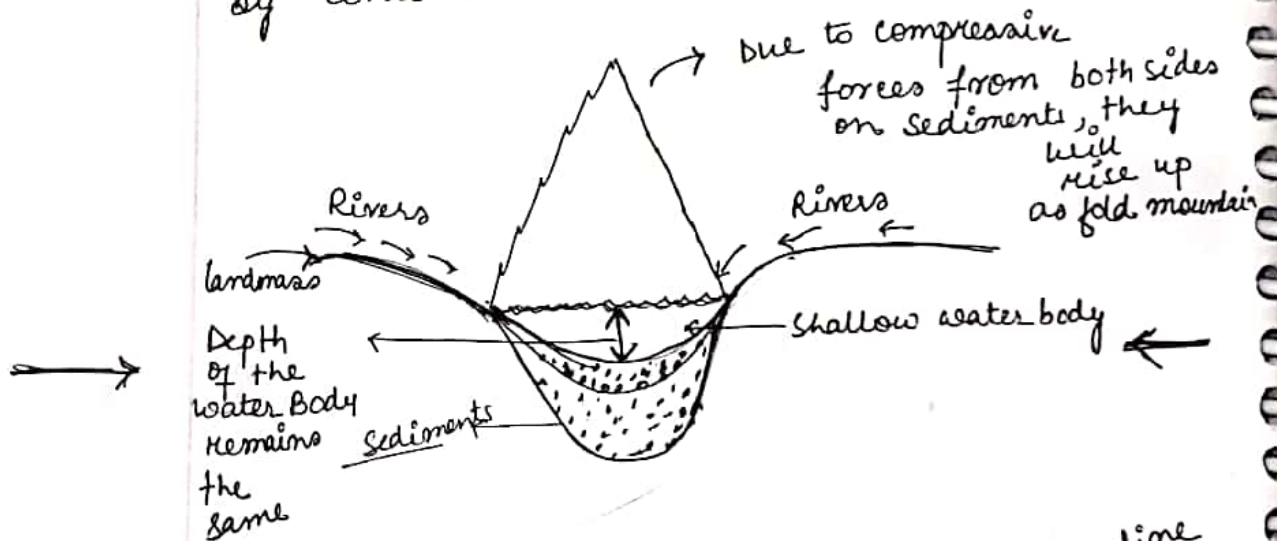
- Continental-Continental convergence results into increase in height of the fold mountain.



→ Due to thrust, height of the mountain will go up

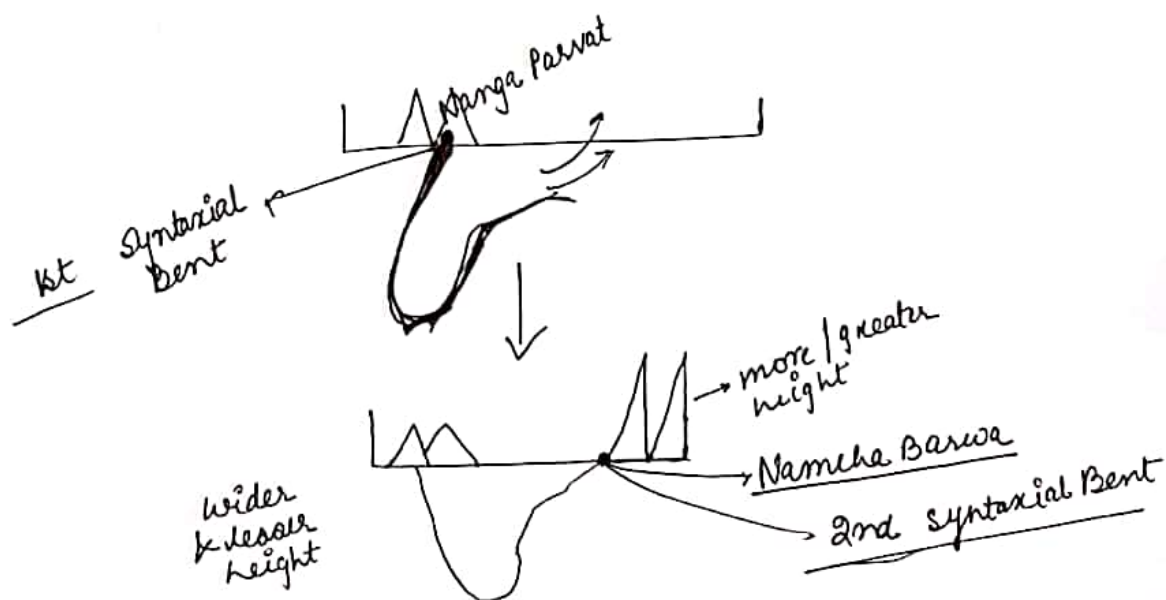
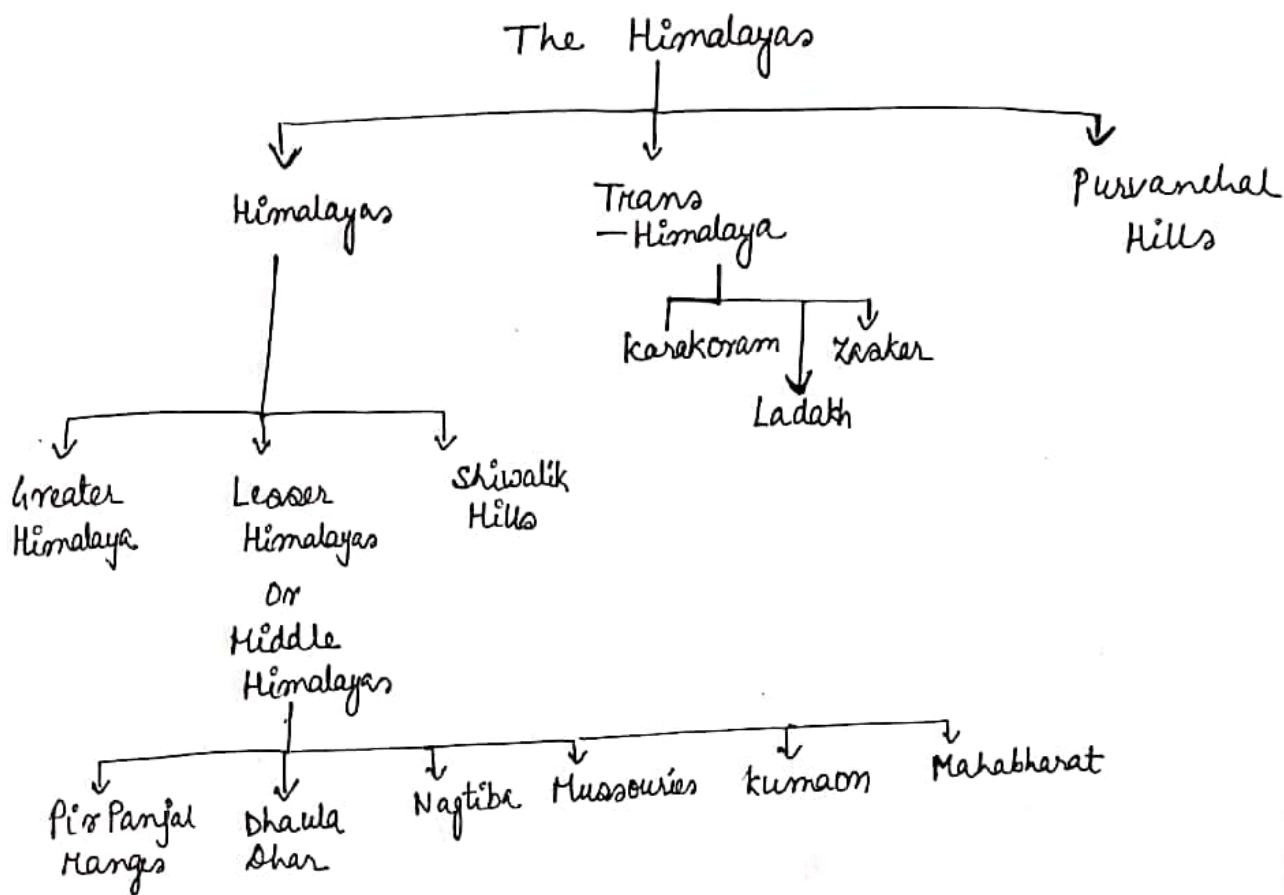
## ii) Geosyncline →

Geosynclines are narrow, shallow & mobile water bodies which are characterised by continuous sedimentation & subsidence.

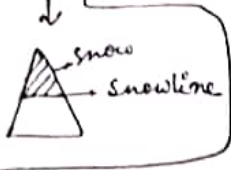




According to Plate-tectonic theory, the Himalayas are product of convergence of of Eurasian plate in the North & Indian Plate in the South. Around 70 ml. years ago, Indian Plate started moving towards the Asian/Eurasian Plate & the Tethys sea between these two plates began to contract, Due to movement of Indian & Eurasian Plate towards each other. Since the Indian Plate was made up of denser material than the Asian Plate, the former began to subduct under the latter causing the lateral compression of marine sediments in the bed of the Tethys, which led to the formation of Himalayas. This upheaval is believed to have occurred in 3 successive phases giving rise to 3 important ranges of Himalayas →



## Difference between North East & North-West Himalayas

	North West	North-East
<u>Syntaxial Bent</u>	Nanga Parbat	Namcha Barwa
<u>Width</u>	Wider	Narrow
<u>Height</u>	Lesser	Higher
<u>Snowline</u>	Lower	Higher
<p>(the line at which permanent snow of the mountain ends)</p> 		
<u>Compression</u>	Less	More

### Features :-

- 1) Kashmir Valley
- 2) Dun Valley
- 3) Antecedent Rivers
- 4) Molasses Basin of North-East.



- 1) Kashmir Valley → It lies in Middle Himalayas near Pir Panjal Ranges.

It is believed that Kashmir Valley has formed out of Satish lake due to breaking of Mountain wall near Baramulla Ranges.

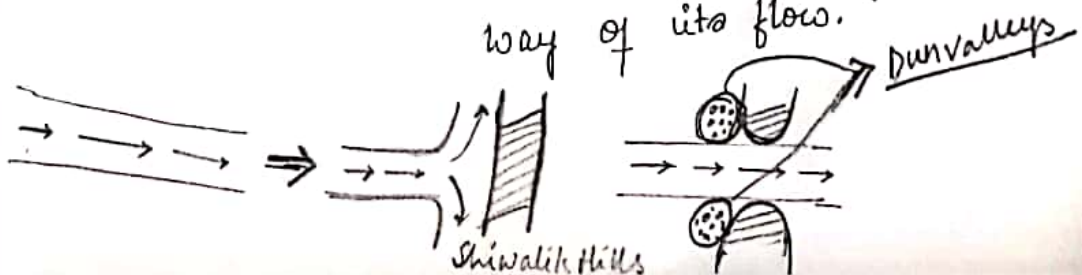
The water in Satish lake got flushed out & mud sediment also known as "Karewas" remained behind in the valley which is also known as Kashmir Valley.

- 2) Dun Valley →

- 3) Antecedent Rivers →

~~Dun~~ Dun Valleys are present between middle Himalayas & Shivalik Ranges.

Antecedent River is that river which does not change its course permanently due to any physiographic change or obstacle coming in the way of its flow.



#### 4) Molasses Basin →

(Dihang  
gorge)

Eastern Hills or Purvanehal is the southward extension of Himalayas running along the North-Eastern edge of India. At the Dihang <sup>gorge</sup>, the Himalayas takes sudden southward bent & formed series of comparatively low hills which are collectively called as Purvanehal. Mizoram is called as land of Rolling Mountains. Here, formation of most of the Hills are accompanied by formation of Foreland Basin or in simple terms Valley types depression which runs parallel to mountains. These depressions get accumulated with ~~unconsolidated~~ unconsolidated deposits also known as Molasses Basin. It comprises Miahmi, Patkai, Naga, Mizo Hills which are located in Eastern side.

#### 5) Dun Valley formation :

The emergence of Shivalik Hill obstructed the course of the rivers draining from higher reaches of the Himalayas & formed temporary lakes. Once these rivers cut through the Shivalik Hills Range, the lakes were drained away forming Dun Valleys. Such as Dehra Dun, Chumbi Valley, Patli Dun, etc.

## • Syntaxial Bent :-

generally it has been seen that the altitude of Eastern Himalayas are much higher & steeper than Western Himalayas. This is because the Western Himalayas rise through series of steps while the Eastern Himalayas rise up steeply & abruptly from the "Tarai Plains".

During the collision of Indian subcontinent with the Eurasian Plate the 1st collision was between the north-western part of Indian sub-continent which subsequently rotated the north-western hinge in anti-clockwise direction. After that the hinge was broken off & the north-eastern part got hinged. While the rotation continued thereafter. It resulted in abrupt increase in height of North-eastern part. The two syntaxial bent thus formed are

- Nanga Parbat in North-West
- Namcha Barwa in North East.



## Significance of Himalayas :

- 1) It forms natural barriers against the cold Siberian Winds.
- 2) It is because of Himalayas that Indian sub-continent has its typical unique culture.
- 3) Medicinal Plants
- 4) Tourism
- 5) Security
- 6) Agriculture →
  - (a) plantation crops such as tea
  - (b) orchards
  - (c) strawberry
  - (d) saffron.
- 7) Biological Diversity of Himalayas.
- 8) Due to swift flowing rivers from higher reaches of mountains, Himalayas provide unique opportunity to generate hydroelectricity.

## Northern Plains

Origin →



The great plains of India ~~is the~~ are one of the most fertile regions of the world. It is an aggradational plain formed by the depositional work of 3 major river system i.e. Indus, Ganga & Brahmaputra. It is the largest alluvial tract of the world. It is almost accepted fact that northern plains have formed as a result of deep ~~of~~ depression lying between peninsular & Himalayan regions by the depositional work of the rivers coming from these two land masses.



• geomorphological divisions  $\div$

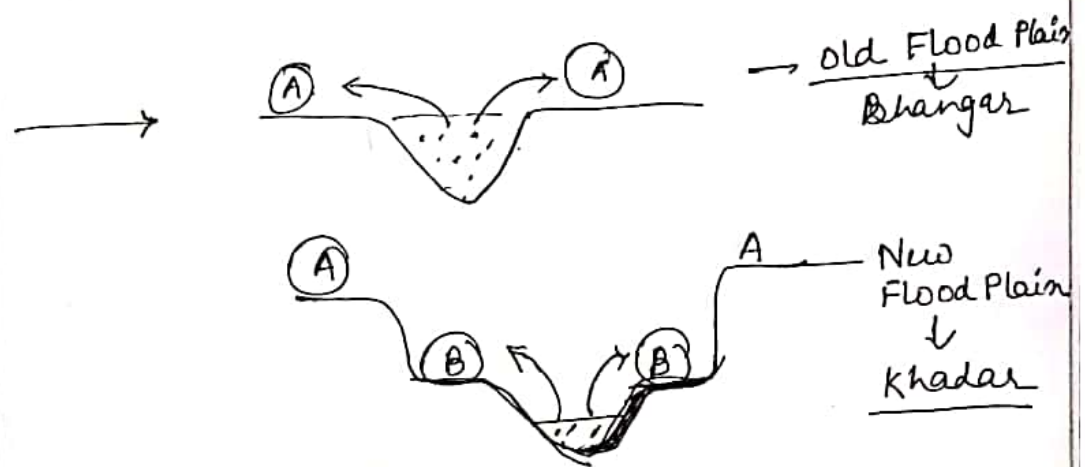
- ~~Bhabhar~~
- Bhabhar
- Tarai
- Bhangar
- Khadar

Types of Erosion

River Widening - Lateral

River Deepening - Downward

River Lengthening - Headward



1) Bhabhar  $\div$  It is present at Himalayan foothills & is formed out of coalesced alluvial fans. It has remarkable continuity along the entire stretch of Shiwalik Shiwaliks. Large boulders, rounded rocks, pebbles, high porosity & unsuitable for agriculture are the main features.

2) Tarai  $\rightarrow$  It has bad drainage so the streams lost in Bhabhar belt reappears here & formed marshy swamps. Due to high rain it is better developed in eastern part. Tarai in Bengal is also known as Suans. Traditionally

Sal

it has rich deciduous ~~forest~~ forest which have been deforested today. The region is suffering <sup>with</sup> from salinity problem due to excess water intensive to crops. The Tarai is more marked in the eastern part than in the west. Because the eastern part receives comparatively higher amount of rainfall.

Alluvium → Bhangar: It is composed of old alluvium of middle pleistocene age & form the alluvial terrace above the level of flood plains. This region has fine texture soils & rich in lime concretions called as "kankar". It is known to have fossils of pleistocene life forms.

Khadar ÷ They are young & active flood plains & low in lime content. The region is renewed every year thus are very fertile & consists of finest texture. It can have fossils of

Contemporary life forms.

6 physiographical divisions →

Map,

- i) Rajasthan Plain
- ii) Punjab Haryana Plain
- iii) Upper Ganga Plain
- iv) Middle " "
- v) Lower " "
- vi) Brahmaputra plain

Refer the  
mapping  
booklet.

