

“ज्ञान,विज्ञान आणि सुसंस्कार यासाठी शिक्षण प्रसार”

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# PHYSICAL FEATURES OF INDIA

(B.A.I)

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# **PHYSICAL FEATURES OF INDIA**



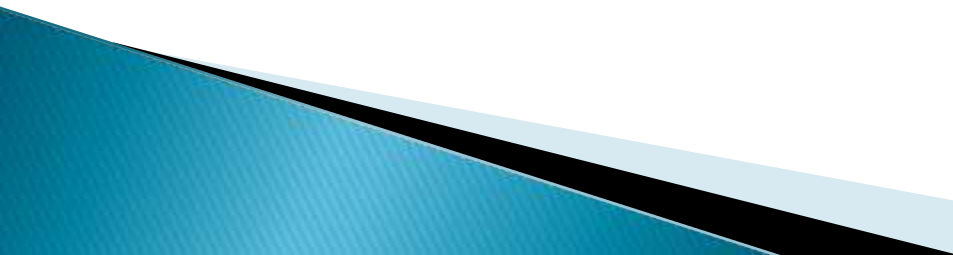
# PHYSICAL FEATURES OF INDIA

- India has a great diversity of landforms. ( Mountains, Plateaus, Plains, Valleys, Hills, Islands etc.)
- They have been formed in different ways at a different period of time. They are constantly being modified and reshaped by the internal and external forces of the earth.

**FORMATION  
OF  
PHYSICAL FEATURES  
OF  
INDIA**

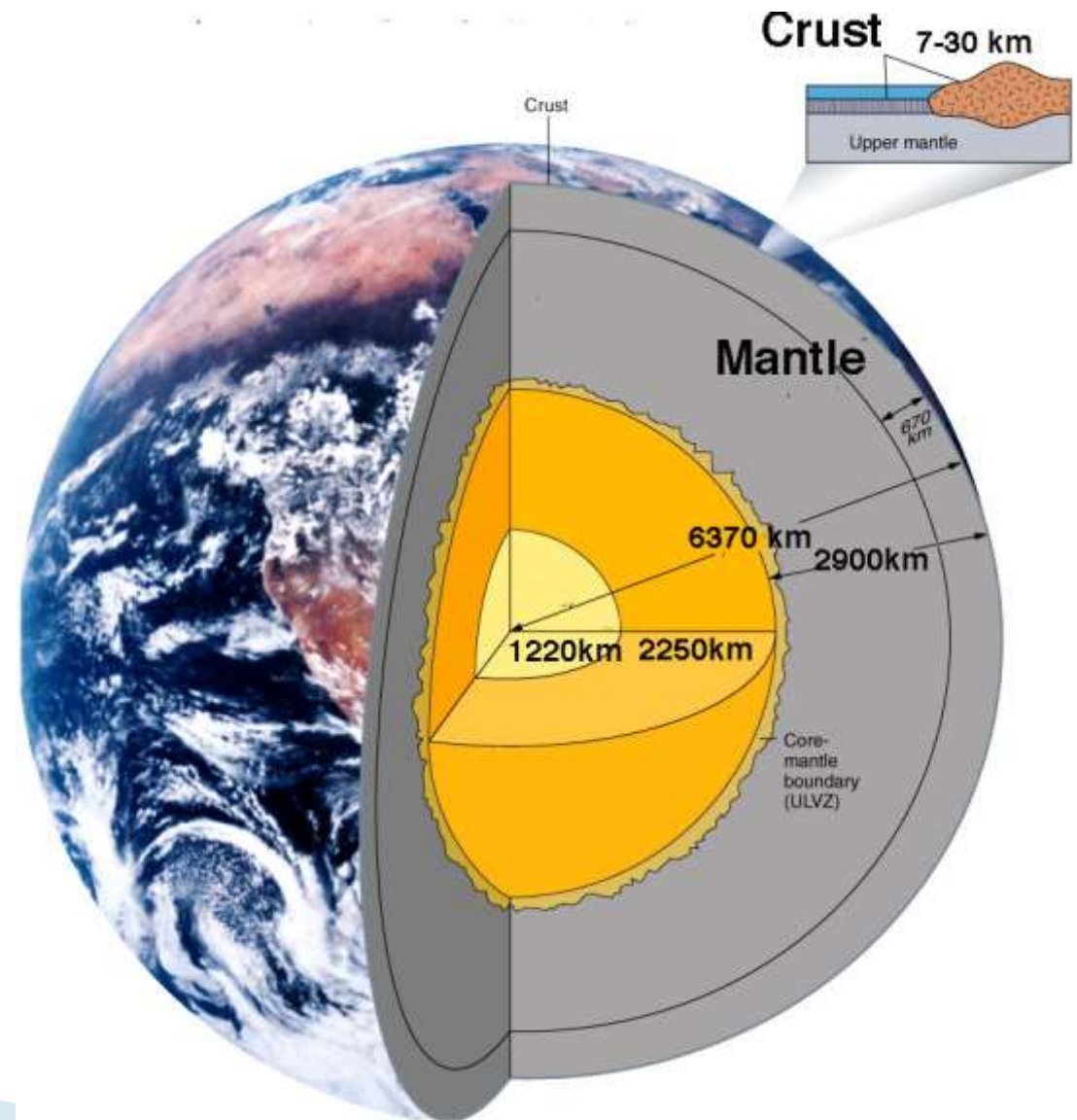


# FORMATION OF PHYSICAL FEATURES

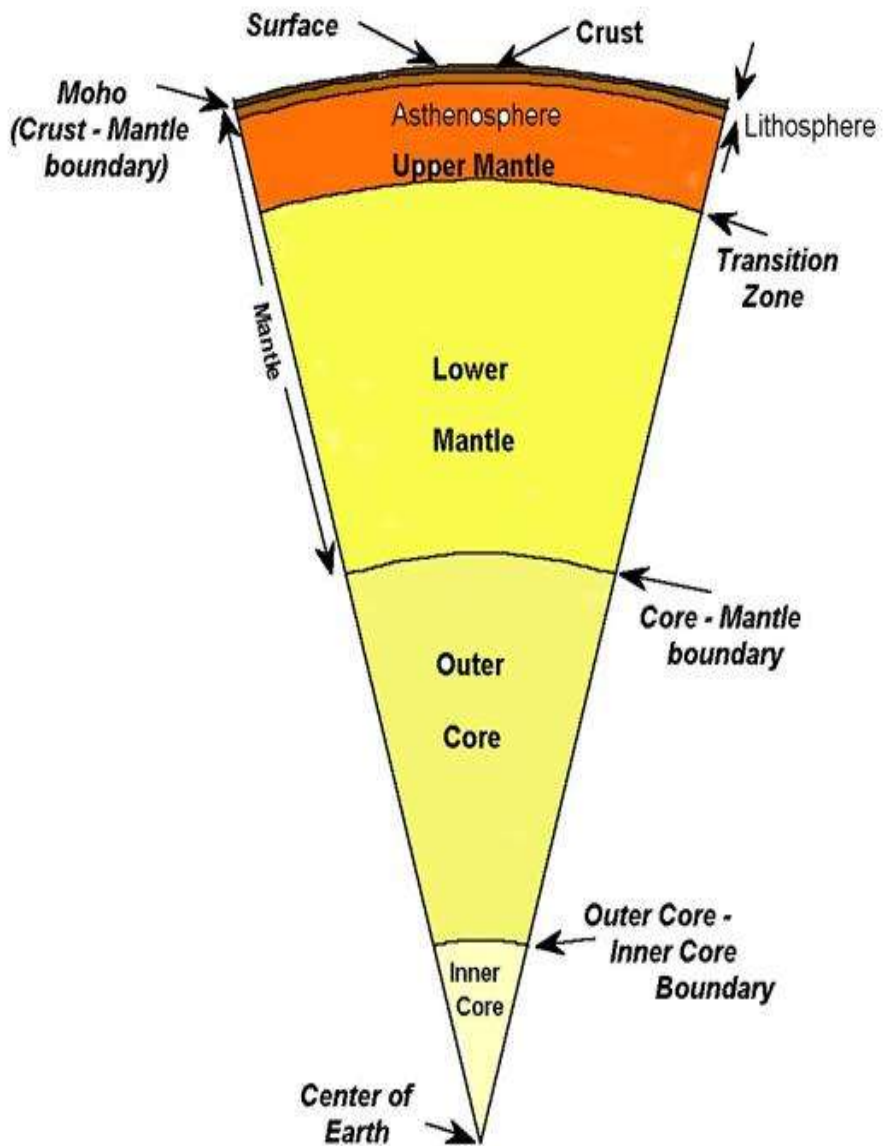
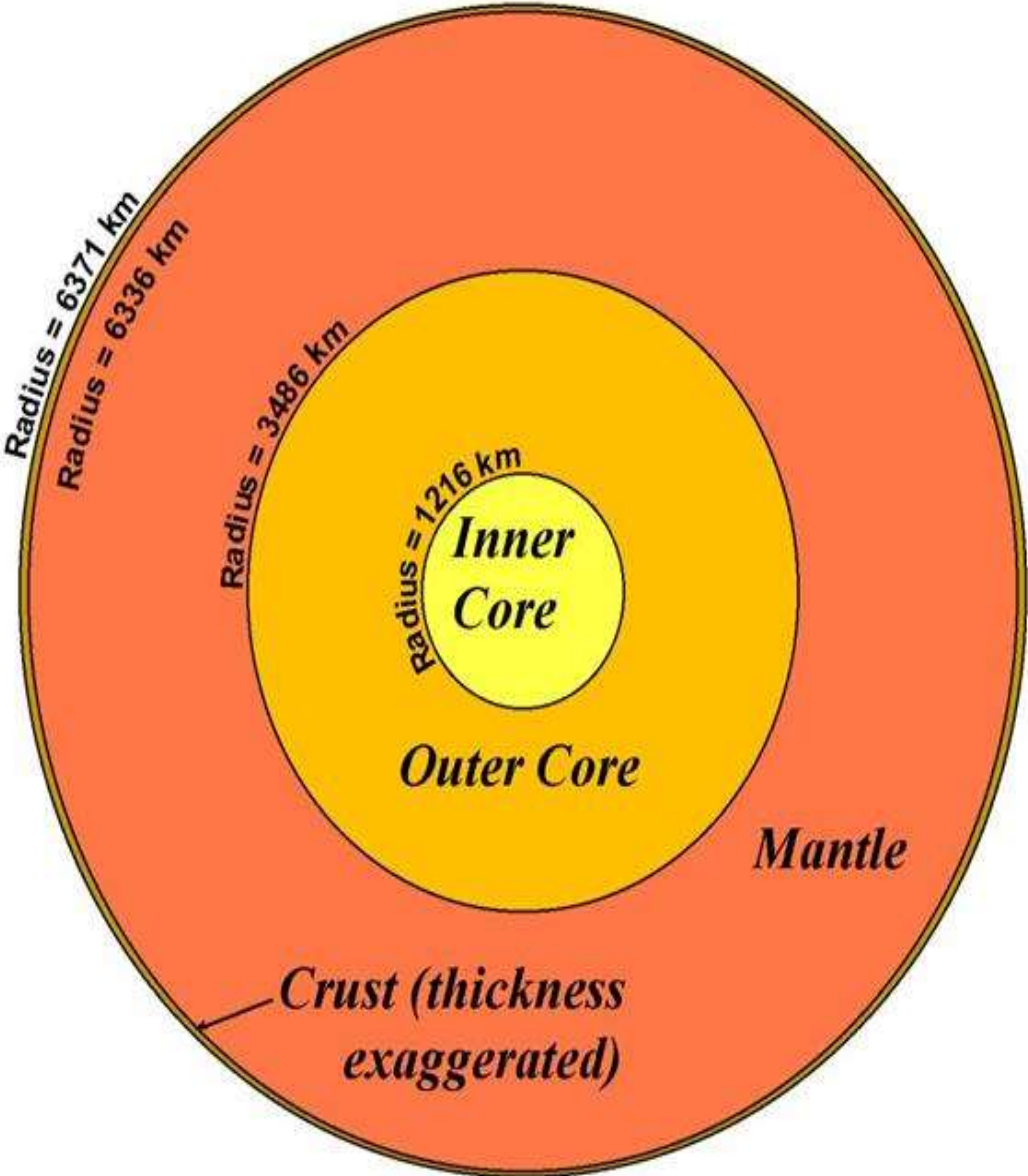
- To understand the physical features of India, we need to know how these physical features are formed and evolved.
  - The formation of the physical features of India is linked to the interior structure of the Earth.
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# Formation Of Physical Features

## Interior Structure of the Earth

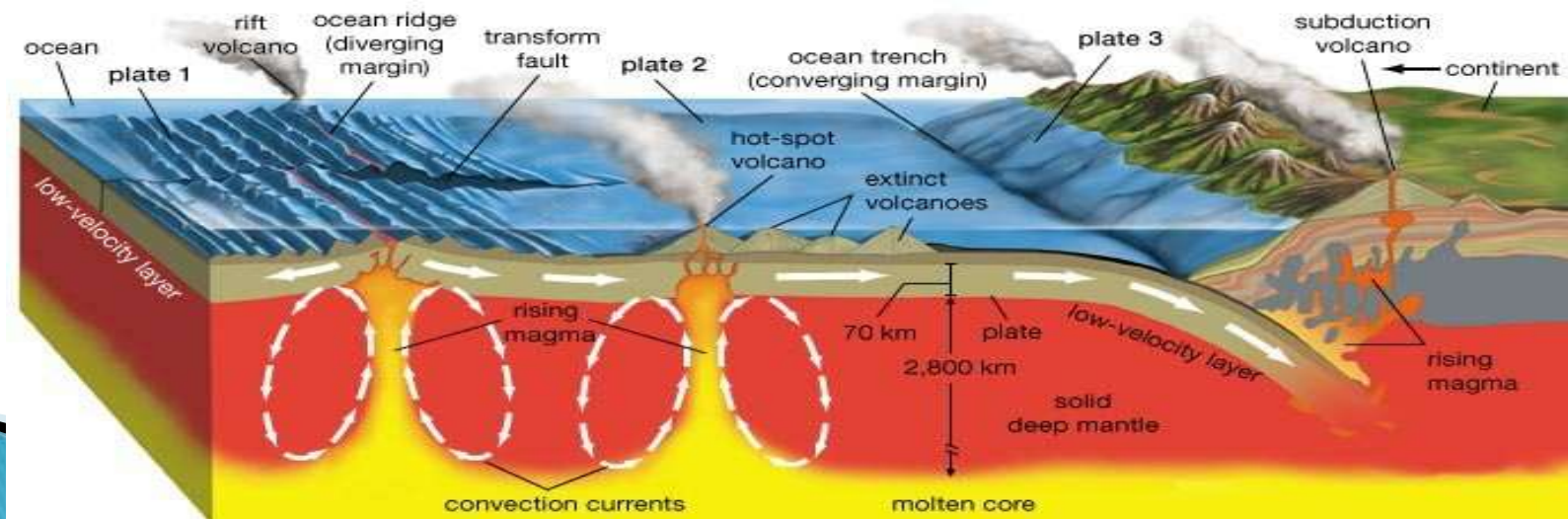


# Interior Layers of the Earth



# Energy inside the Earth

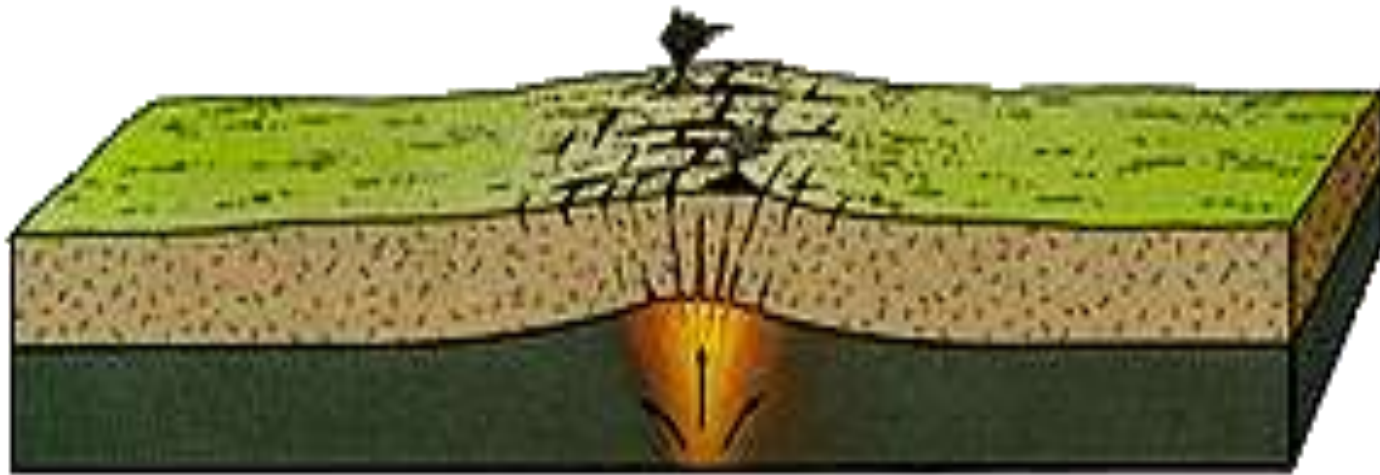
- A tremendous amount of energy is given out due to the differences in the **temperature, density and state of the materials** in the interior of the earth.
- Energy moves in the form of waves from one place to another place. Due to the flow of energy, movements are generated in the interior of the earth.





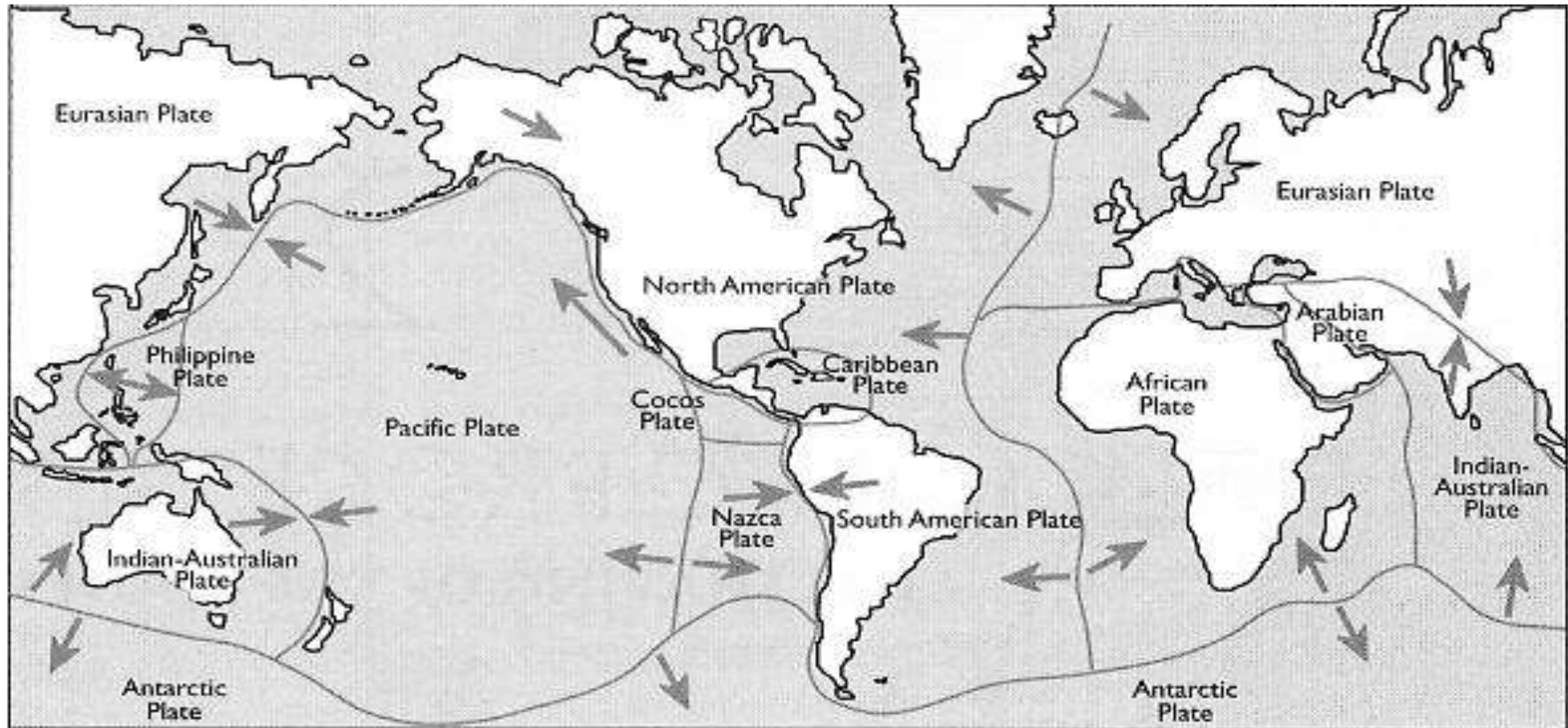
# Lithospheric Plates

- Rising energy currents tear the crust apart, dividing it into large fragments, called Tectonic or Lithospheric Plates.



# Major Lithospheric Plates.

According to the Earth Scientists, the crust of the earth has been formed out of seven major and some minor plates.



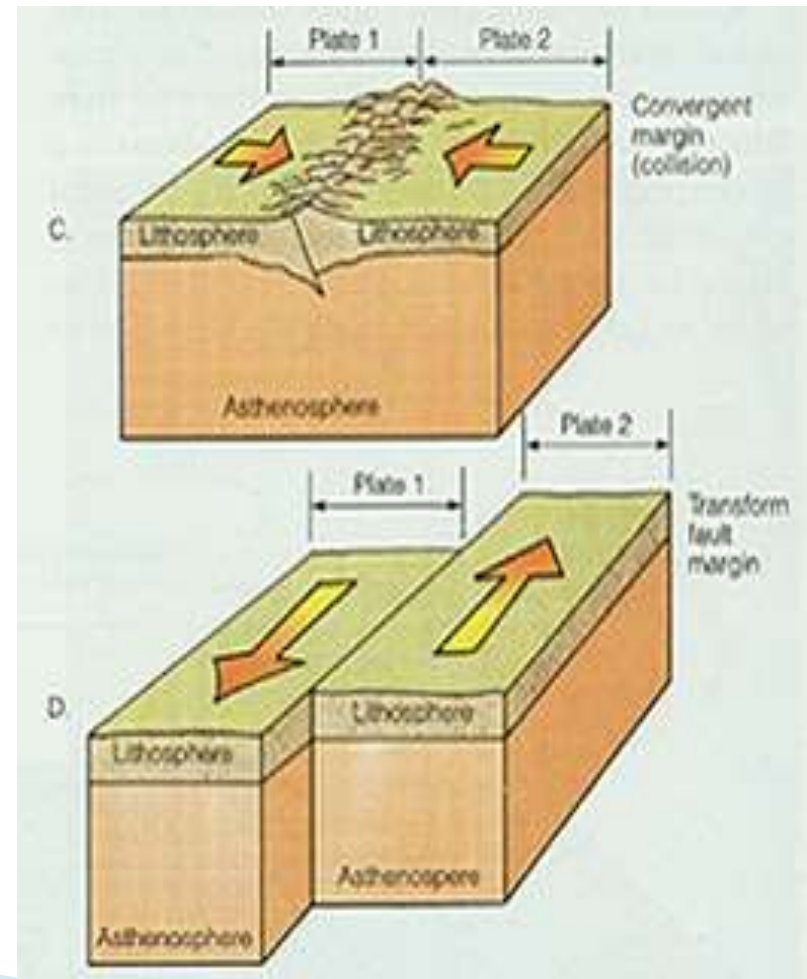
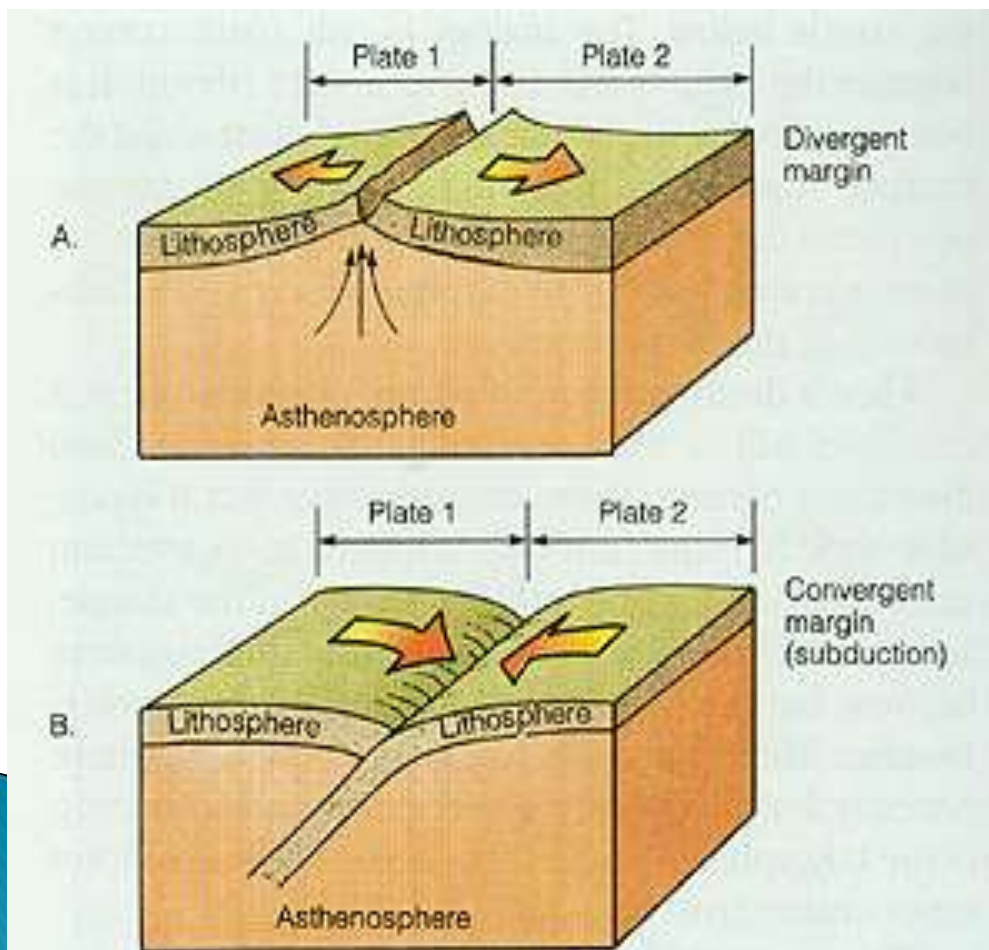
# PLATE MOVEMENTS

The movement of the plates results in the building up of stresses within the plates and the continental rocks above, leading to folding, faulting and volcanic activity.



# PLATE BOUNDARIES

- The point where two / more plates meet is known as Plate Boundary.



- The movement of these lithospheric plates have changed the position and size of the continents over millions of years. These movements have also influenced the evolution of the present landform features of India.



# FORMATION OF PRESENT CONTINENTS



**PERMIAN**  
225 million years ago



**TRIASSIC**  
200 million years ago



**JURASSIC**  
135 million years ago

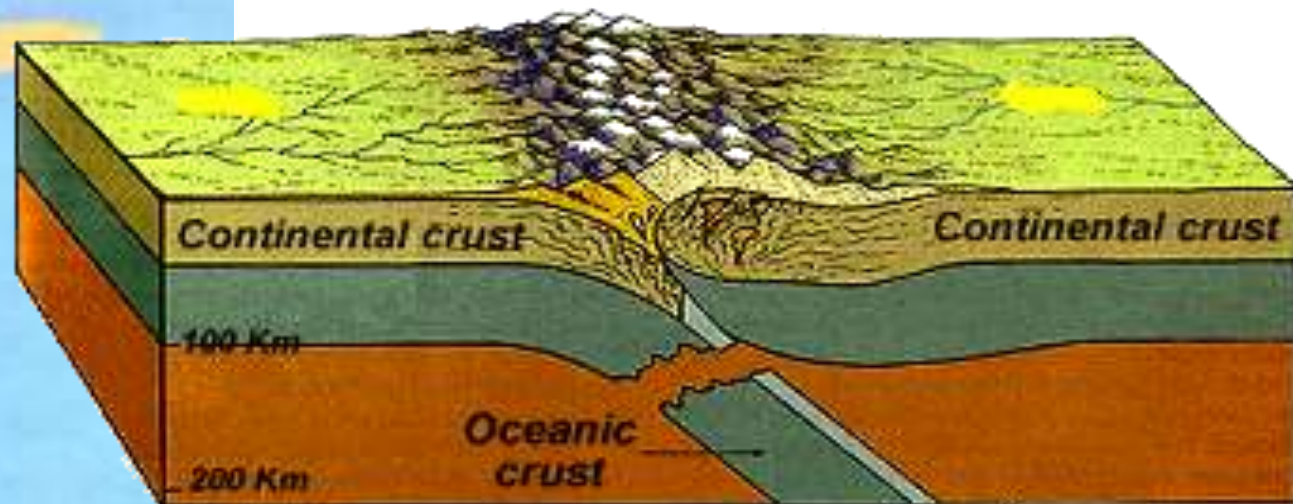
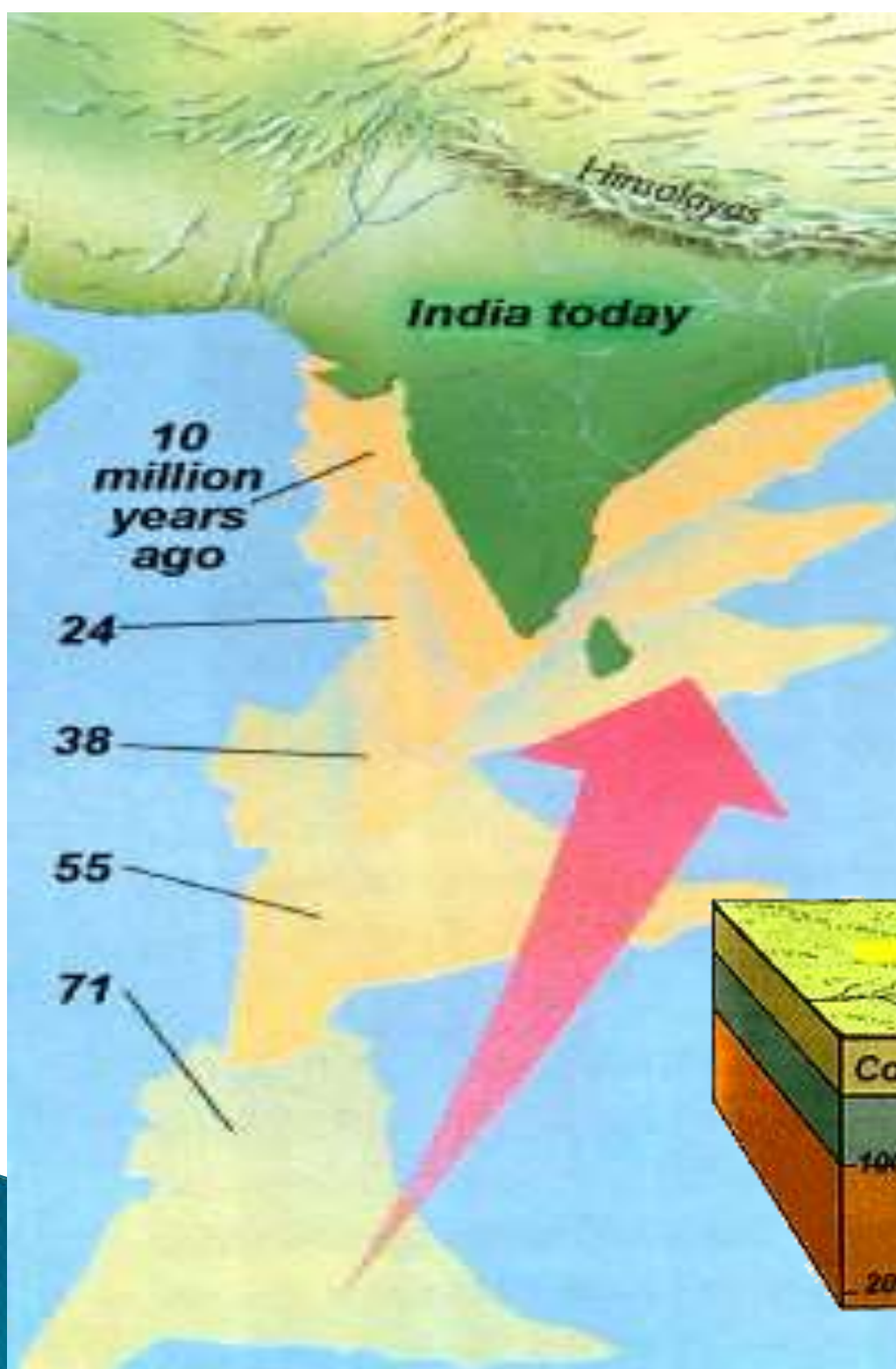


**CRETACEOUS**  
65 million years ago



**PRESENT DAY**


# Formation of Himalayas



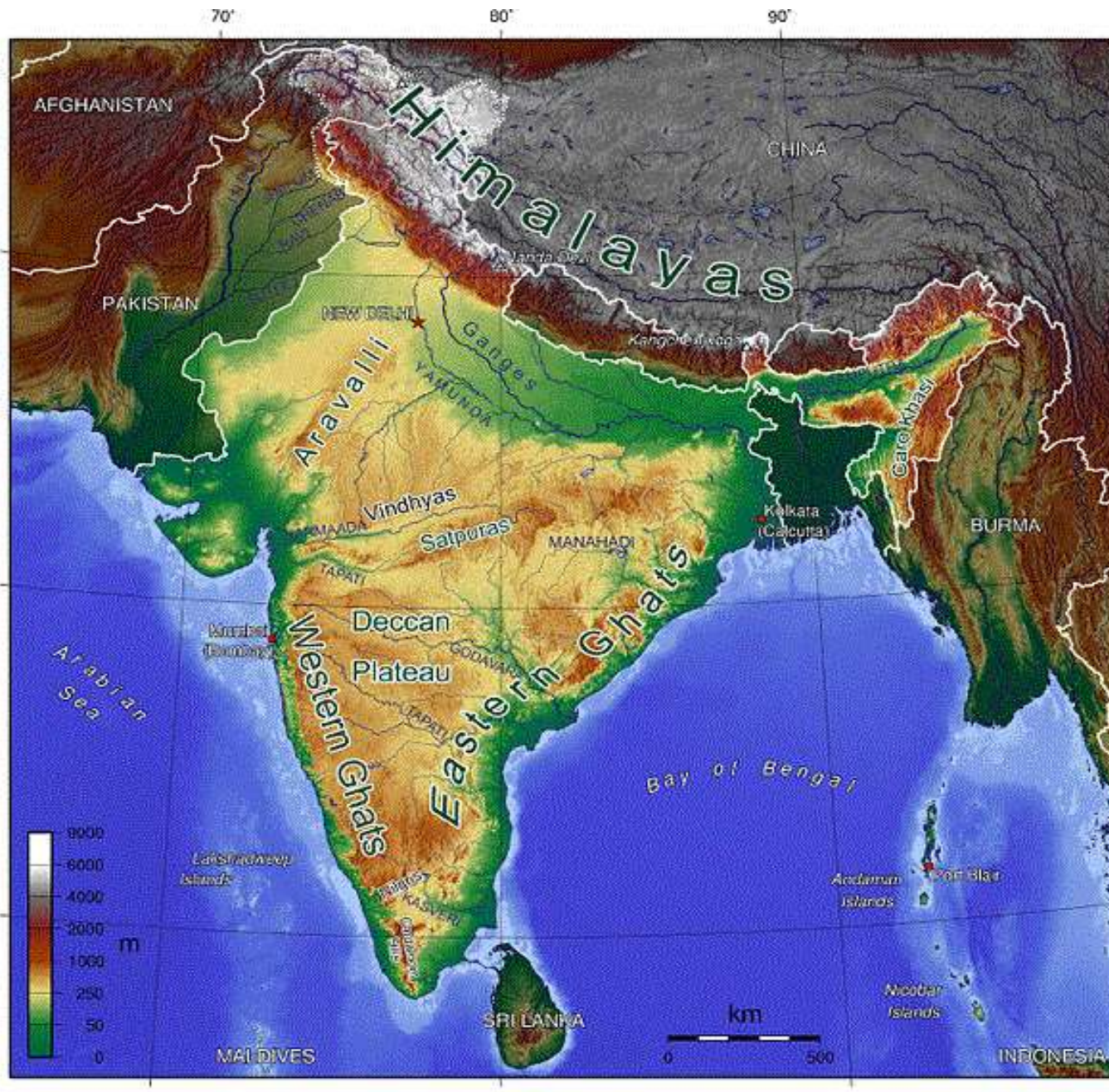


# PHYSICAL DIVISIONS OF INDIA

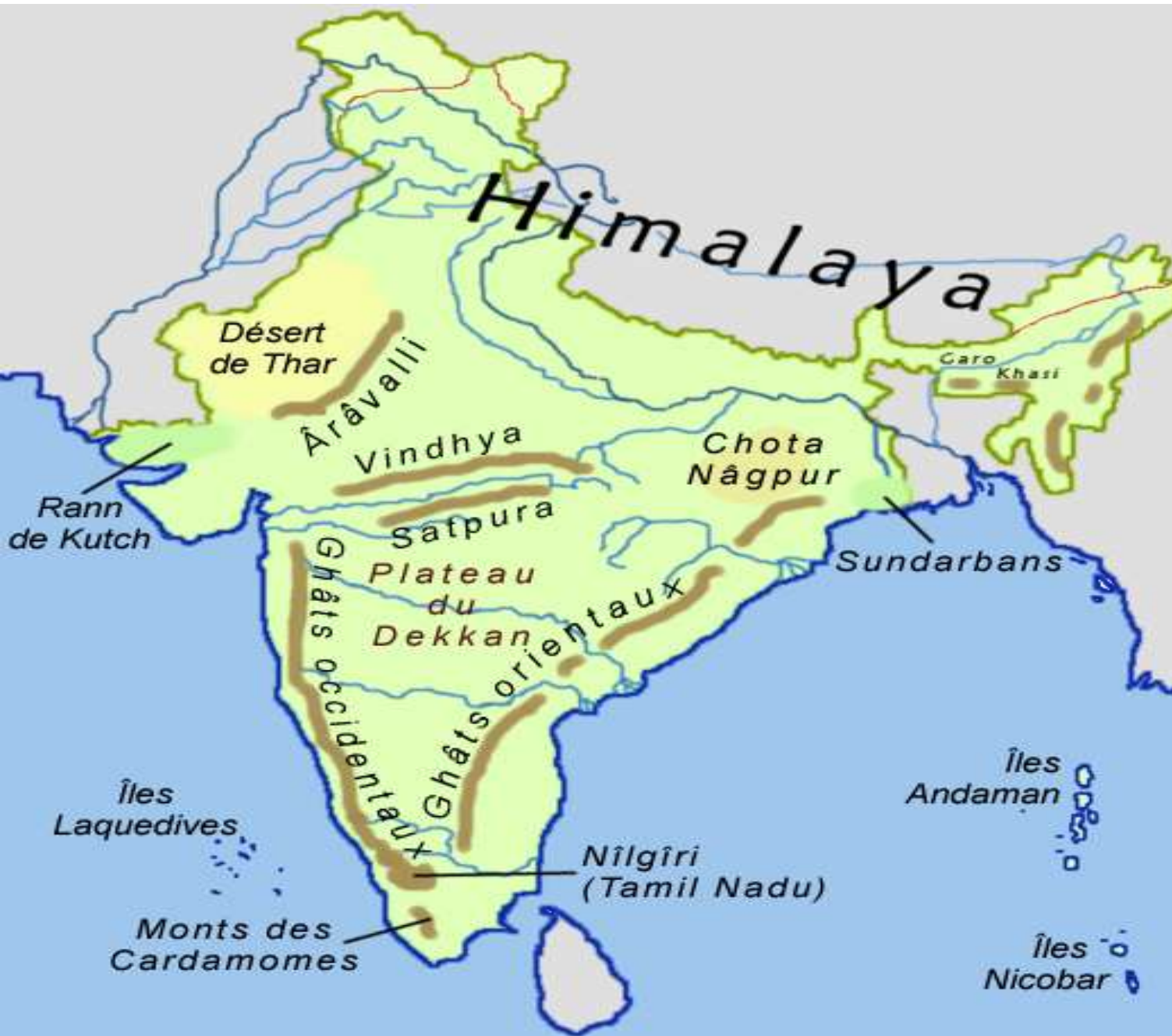
India may be divided broadly into SIX physical units : –

- 1) The Great Northern Mountains.
  - 2) The Northern Plains.
  - 3) The Peninsular Plateau.
  - 4) The Desert.
  - 5) The Coastal Plains.
  - 6) The Islands.
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# PHYSICAL DIVISIONS OF INDIA



# PHYSICAL DIVISIONS OF INDIA



# 1) THE GREAT NORTHERN MOUNTAINS

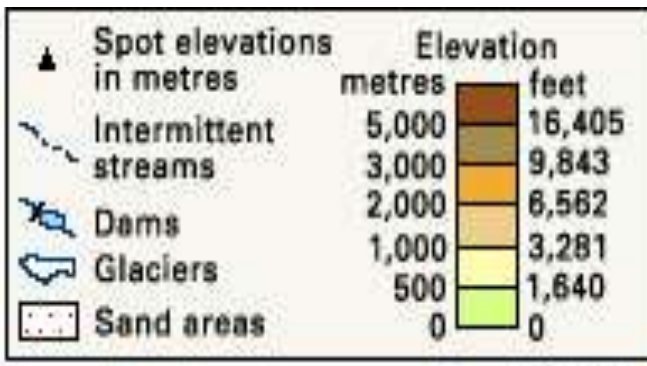
From Pamir Plateau in the west to the Indo-Myanmar border in the east, there is a chain of mountains. They stretch almost uninterruptedly for about 3600 km and form an arc. The width of this mountain belt varies between 150 km to 400 km.

- A) The Karakoram Range.
- B) The Himalayas.
- C) The Purvachal.

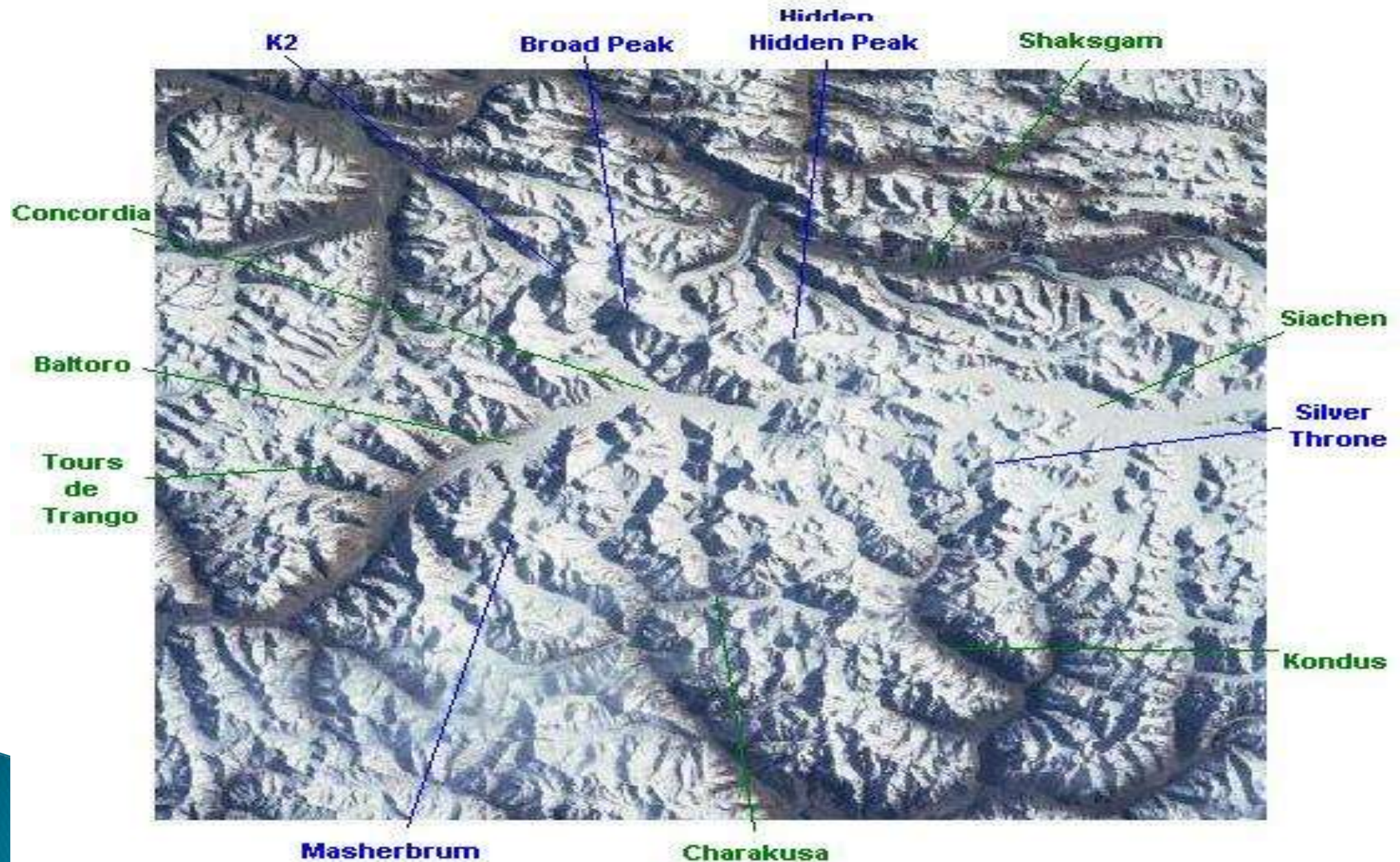
# A) THE KARAKORAM RANGE

The mountains extending between the Pamir Plateau and the Indus river in Kashmir are known as the Karakoram Range.

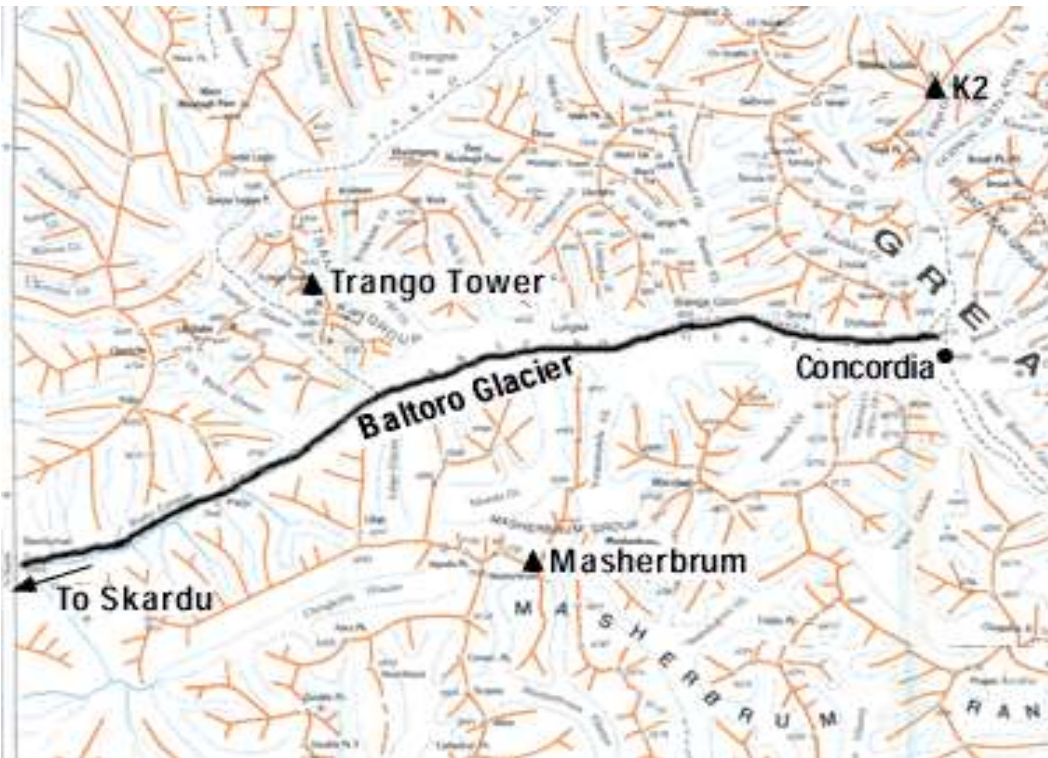
• Located in the northern part of Jammu and Kashmir State beyond the Indus river. This range runs roughly in the east – west direction.



• This mountain range contains some of the world's largest mountain glaciers (Baltoro and Siachen).



# Map of Mountain Glaciers








- K 2 / Godwin Austin ( 8611 metres), the second highest peak in the world and the first high peak in the Indian union belongs to this mountain range.

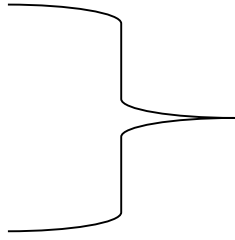
## B) THE HIMALAYAS

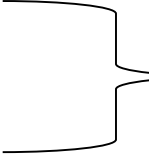
- The mountains extending between the Indus river and the Brahmaputra river are called the Himalayas ( abode / house of snow ).

# The Himalayan Ranges

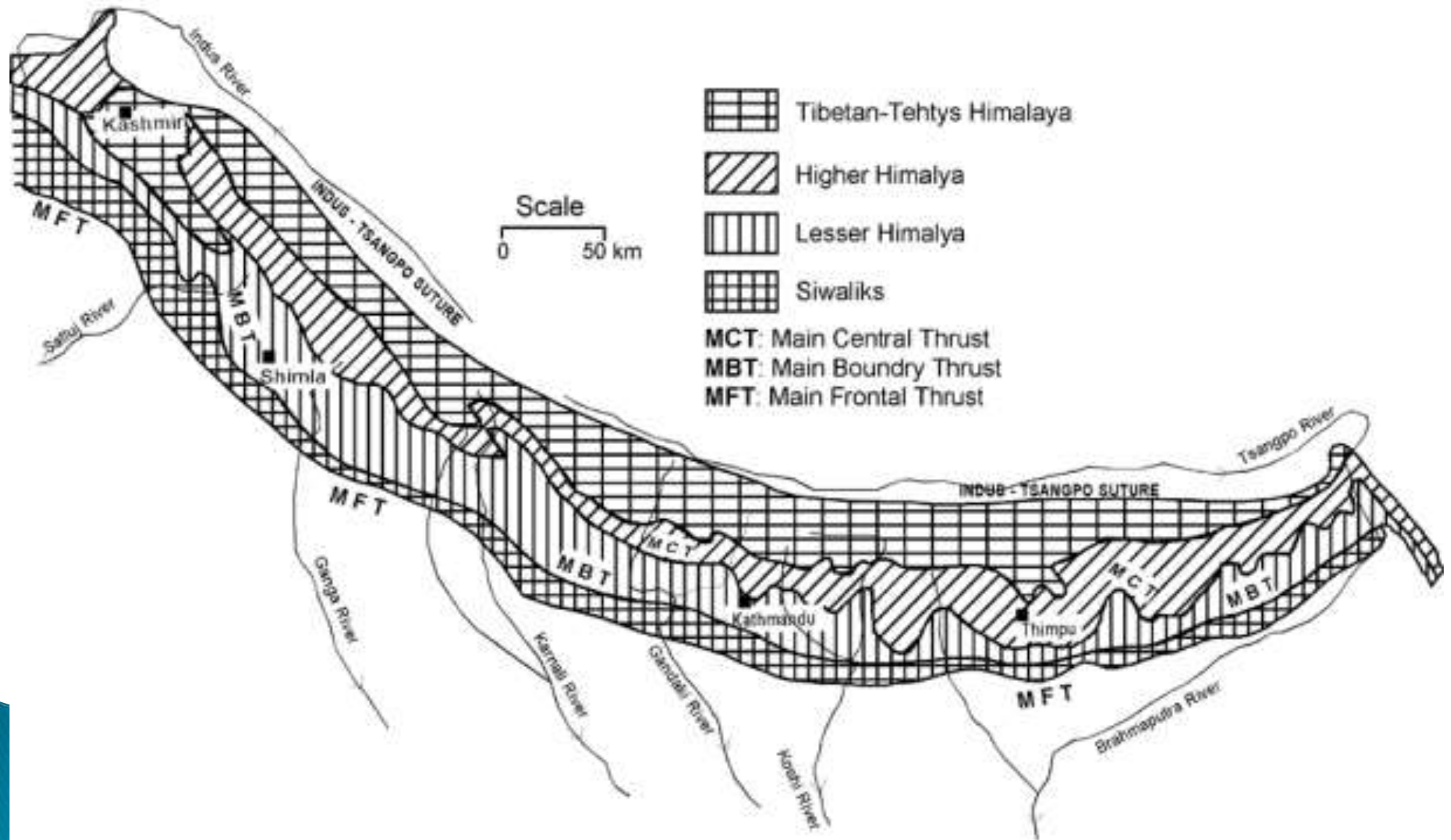
The Himalayas consist of main three parallel ranges.

1) The Siwalik Range / southernmost range.  The Outer Himalaya

2) The lesser Himalaya / The Middle Himalaya / The Himachal  The ranges lying north of the Siwalik

3) The Great Himalaya / The Himadri Himalayas.  The northernmost ranges of the

# THE HIMALAYAS



# 1) THE SIWALIK RANGE

- The southernmost range of the Himalayas.
- Average height of the range – between 1000 metres to 1200 metres above the msl.
- It's width varies between 10 to 50 km.
- It is made of unconsolidated materials such as mud, silt, boulder and soft rocks. – Landslides. Soil erosion is at its worst in these ranges.
- This is not a continuous range & merges with other ranges in the east.

## 2) THE MIDDLE / LESSER HIMALAYA

- The ranges lying north of the Siwalik.
- The Dholadhar & the Pir Panjal (J & K and Himachal Pradesh), the Mussorie Range (Uttaranchal) and the Mahabharat Range (Nepal) belong to the Middle Himalaya.
- Average height of the range - 4000 metres to 4500 metres and its width is in about 80 km.
- All the hill stations - Dalhousie, Dharmashala, Shimla, Mussorie, Nainital & Darjiling belong to this range ( Cool climate & scenic beauty ).

### 3) THE GREATER HIMALAYAS / HIMADRI

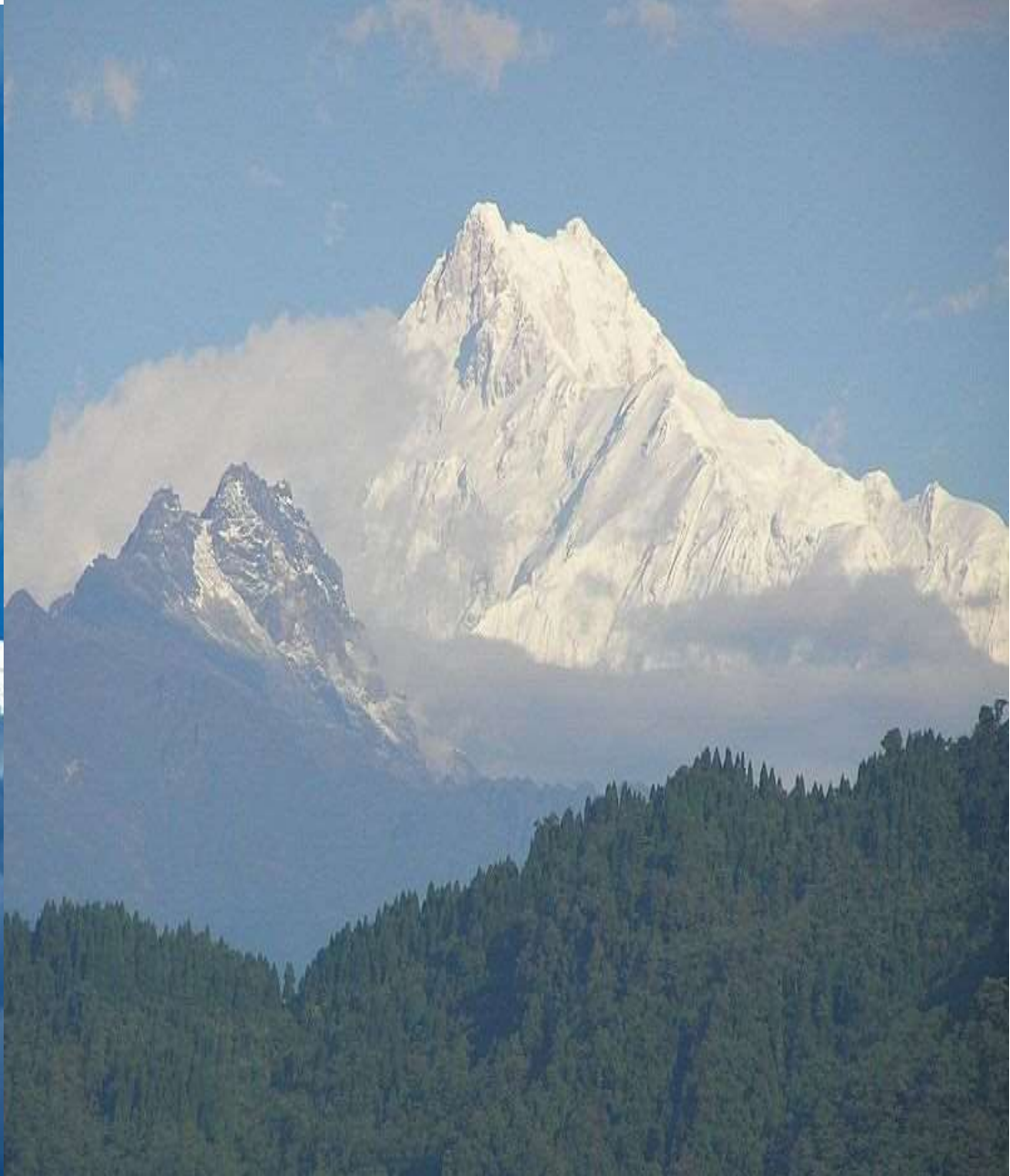
- The northernmost ranges of the Himalayas, are the highest with an average height of more than 6100 metres above the sea level. They contain some of the world's highest peaks.

Mt. Everest ( 8848 metres ) in Nepal is the world's highest peak.





Kanchenjunga ( 8598 metres ) in Sikkim is the highest peak of the Himalayas, in India.



# SOME OTHER IMPORTANT PEAKS

Dhaulagiri(8172 m)

Nepal

Makalu (8481 m)

Annapurna(8176m)

Gouri Sankar (7145 m)

Tibet ----- Namcha Barwa (7756 m )

Nanda Devi (7817 m)

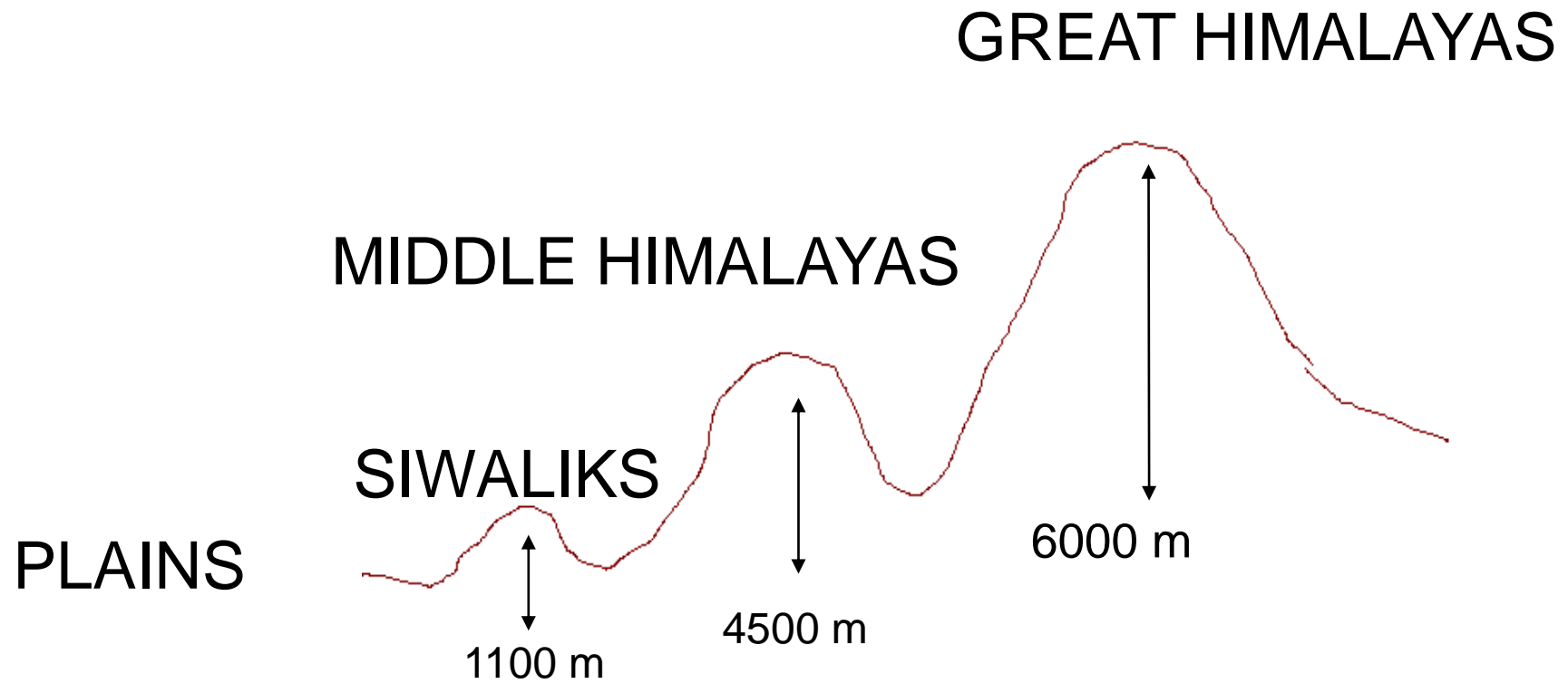
India

Kamet (7756 m)

Nanga Parbat (8125 m)

Rakaposhi (7788 m)

# THREE LONGITUDINAL BELTS



# PASSES

- Himalayan ranges are forbidding and can be crossed by a few passes which are generally higher than 4600 metres above sea level.
  - The Burzil & the Zojila – Jammu & Kashmir.
  - The Baralachala & the Shipkila
  - The Nathula & Jeleppla
- Himachal Pradesh  
Sikkim



# SHIPKI LA



# BARA LACHA LA



# REGIONAL DIVISIONS OF HIMALAYAS

- The Himalayas have been divided on the basis of regions from west to east.
- These divisions have been demarcated by river valleys.



# REGIONWISE HIMALAYAS

- **Punjab Himalayas**:--

The part of the Himalayas lying between Indus river and Satluj river.

- **Kumaon Himalayas**:--

The part of the Himalayas lying between Satluj river and Kali river.

# REGIONWISE HIMALAYAS

- **Nepal Himalayas**:--

The part of the Himalayas lying between Kali river and Tista river.

- **Assam Himalayas**:--

The part of the Himalayas lying between Tista river and Dihang river.

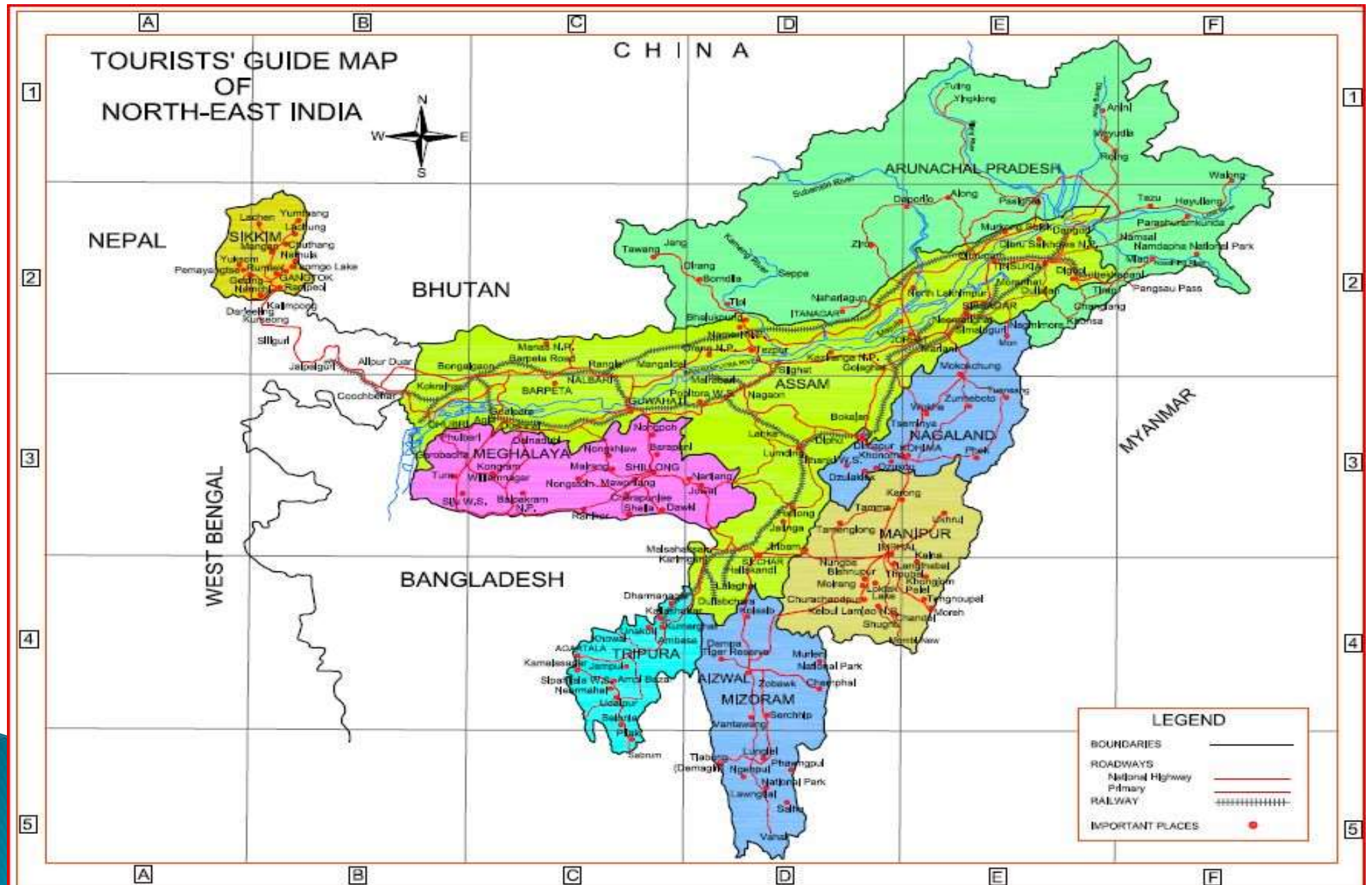
# Map of Regional Himalayas



## C) THE PURVANCHAL

- The eastern extension of the Himalayan mountains along the border of Myanmar is known as the Purvanchal or the Eastern Hills and Mountains.

# North East India



# The Purvachal

- It is consist of the Garo, Khasi, Jaintia, Lushai, Patkai – Bum, Miri and the Mishmi hills.

# The Purvachal

- These hills are mostly composed of strong sandstones which are sedimentary rocks and covered with dense forests.

