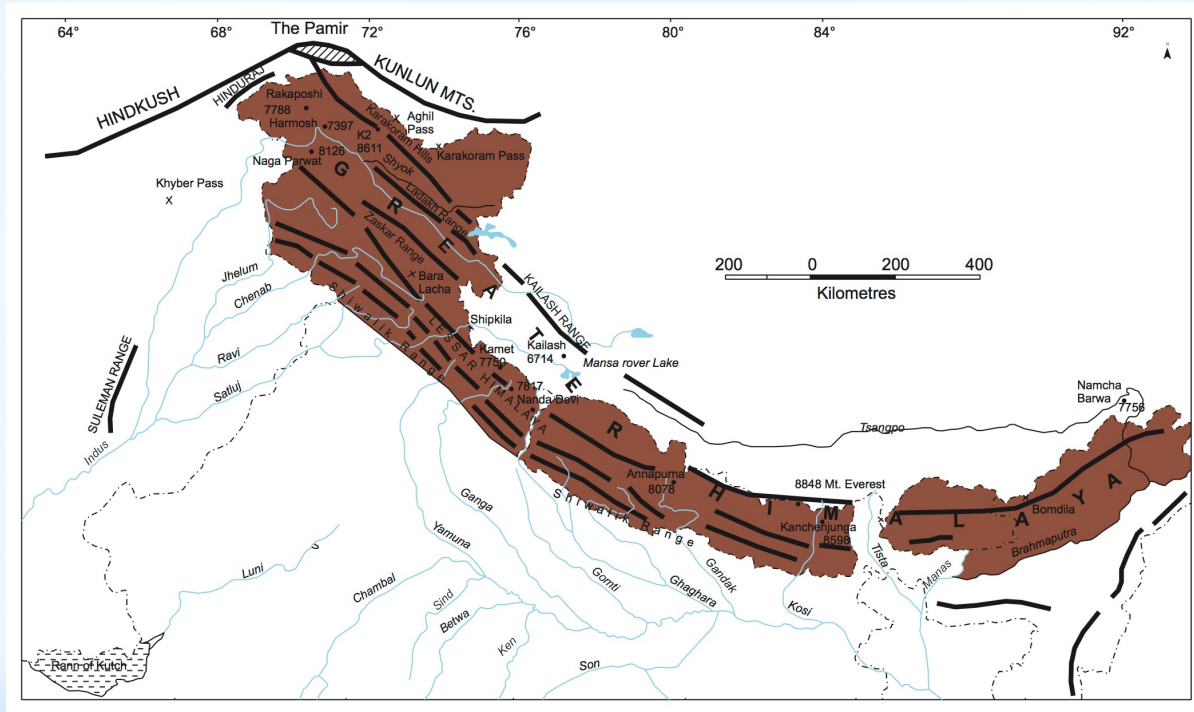


# The Himalayan Mountain System



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# Origin of the Himalayas

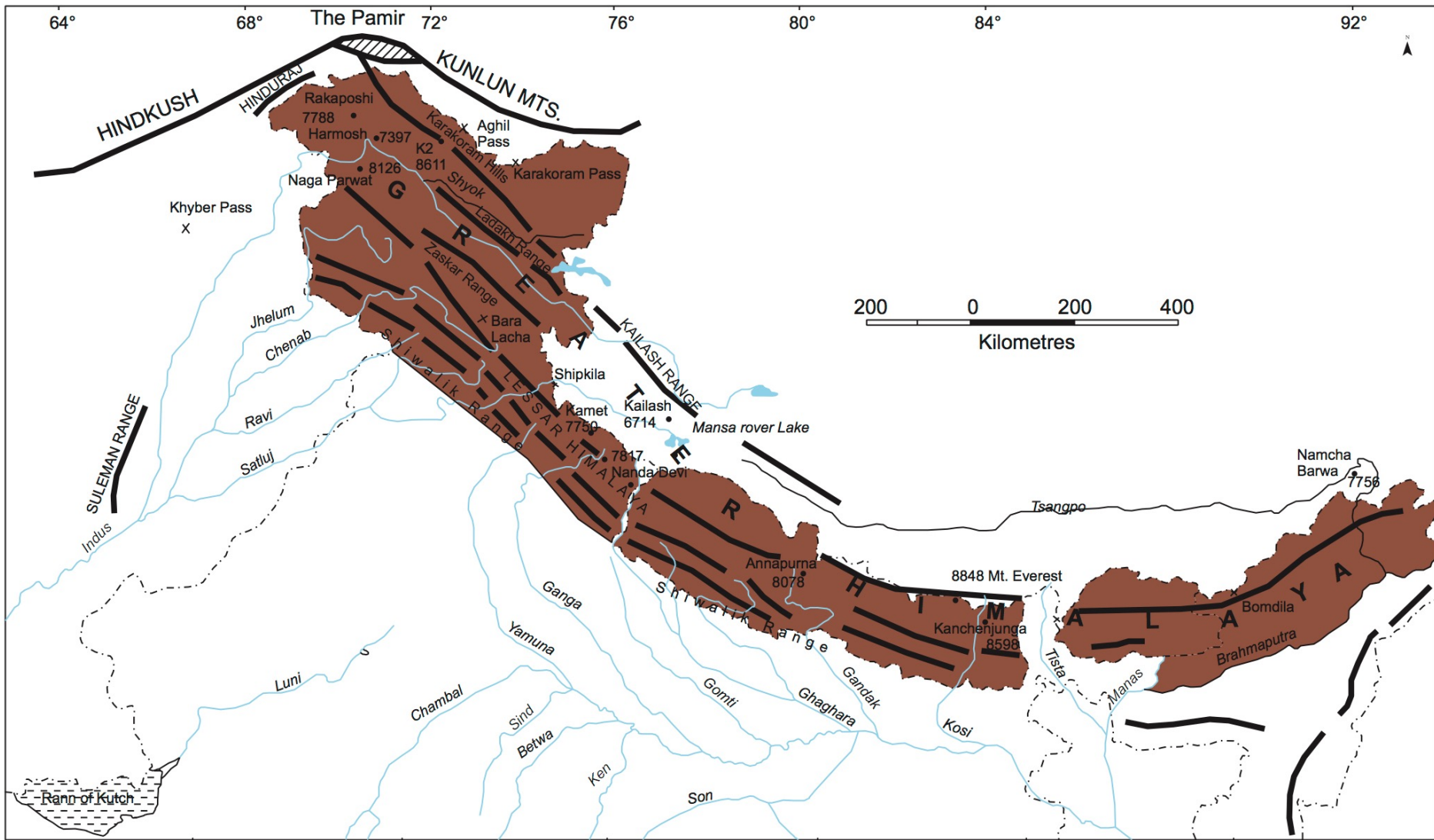
- भू-वैज्ञानिकों का मत है कि आज से लगभग करोड़ों वर्ष पहले मध्यजीवी पुराकल्प में वर्तमान हिमालय पर्वत के स्थान पर एक विशाल भू-अभिनति (Geo-Syncline) थी जिसे टेथिस सागर (Tethys Sea) के नाम से जाना जाता था।
- इस विशाल सागर के उत्तर में अंगारालैंड (Angaraland) तथा दक्षिण में गोन्डवाना लैंड (Gondwana Land) नामक स्थलीय भाग स्थित थे। इस सामूहिक गोन्डवाना लैंड तथा अंगारा लैंड भू-खण्ड को वैगनर महोदय ने पेंजियां (Pangea) की संज्ञा दी है।
- इन स्थलीय भू-भागों पर अनेक नदियां बहती थीं। जिन्होंने इन भू-भागों के तलछट को विशाल मात्रा में टैथिस सागर (Tethys Sea) में निक्षेपित किया।
- मध्यजीवी पुराकल्प के अन्त में कुछ भूगर्भीय हलचलों के कारण गोन्डवाना लैंड तथा अंगारालैंड एक दूसरे के निकट आए और टैथिस सागर में निक्षेपित तलछट पर संपीड़न होने लगा।
- इस संपीड़न के कारण यह तलछट बलित होकर ऊपर को उठने लगा और वर्तमान हिमालय का निर्माण हुआ। इस पर्वत निर्माण के दौर को प्रायः अल्पाइन के नाम से भी पुकारा जाता है क्योंकि आल्पस पर्वत का उत्थान भी इसी दौर में हुआ था।

- The Himalayas, geologically young and structurally fold mountains stretch over the northern borders of India.
- These mountain ranges run in a west-east direction from the Indus to the Brahmaputra.
- The Himalayas represent the loftiest and one of the most rugged mountain barriers of the world.
- They form an arc, which covers a distance of about 2,400 Km. Their width varies from 400 Km in Kashmir to 150 Km in Arunachal Pradesh.
- The altitudinal variations are greater in the eastern half than those in the western half. The Himalaya consists of three parallel ranges in its longitudinal extent.
- A number of valleys lie between these ranges and gives an overview of the altitudinal and longitudinal divisions of the Himalayas and their multi facet significance.

# The Himalayan Mountain System

- The Himalayas extend from Kashmir in the west to Arunachal Pradesh in the east for a distance of 2400 km.
- They form the highest mountain system of the world. The highest peak of the Himalayas is the Mount Everest (8848 m) in Nepal.
- The Himalayas are still unstable and prone to earthquakes.
- The Himalayas consist of three parallel ranges, each with characteristic orographic features.

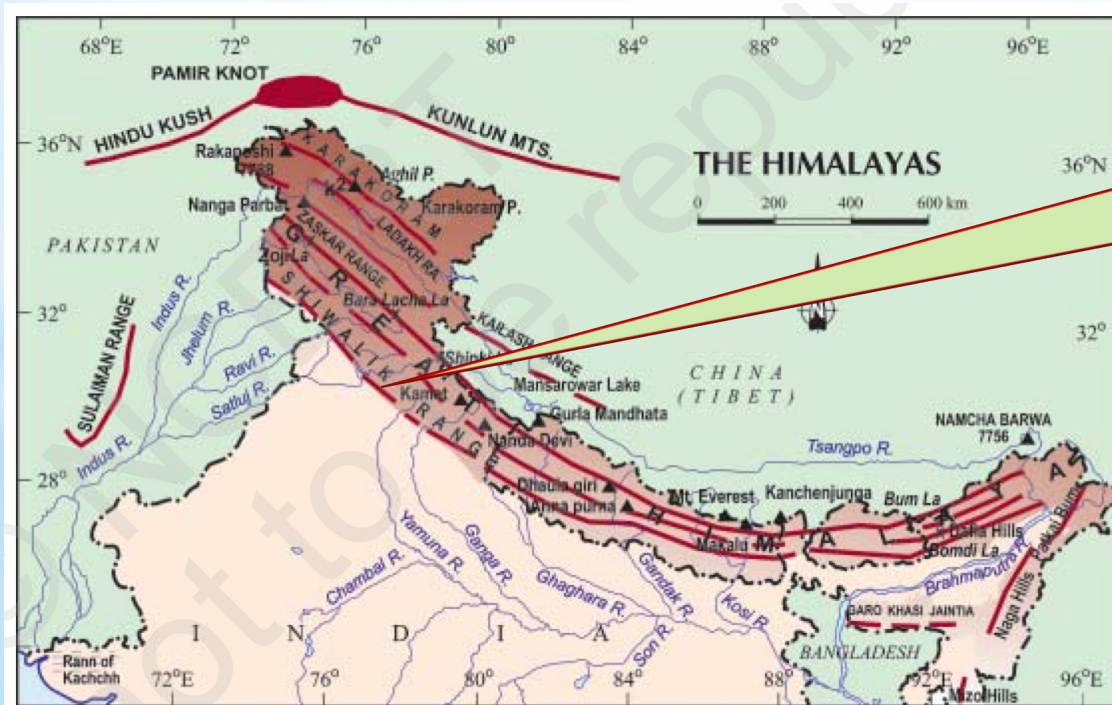




*The Himalyan Mountains*

# Outer Himalayas or Shiwalik

- The Shiwalik are the foothills of the Himalayas.
- They were formed by deposition of alluvium by the mountain streams which come down the slopes.
- They comprise a series of parallel ridges and structural valleys, rising to a maximum height of 1500 m. In between the parallel ridges lie narrow plains called duns, e.g. Dehradun.

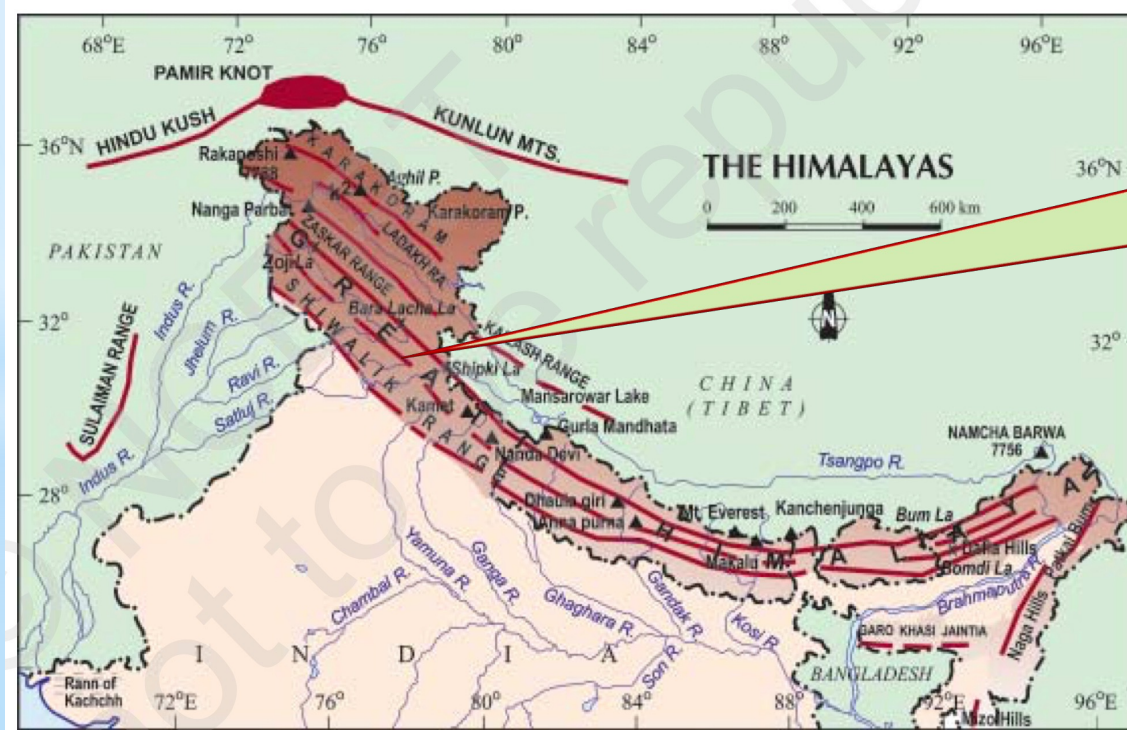


**Shiwalik  
Range**



# Lesser Himalayas or Himachal

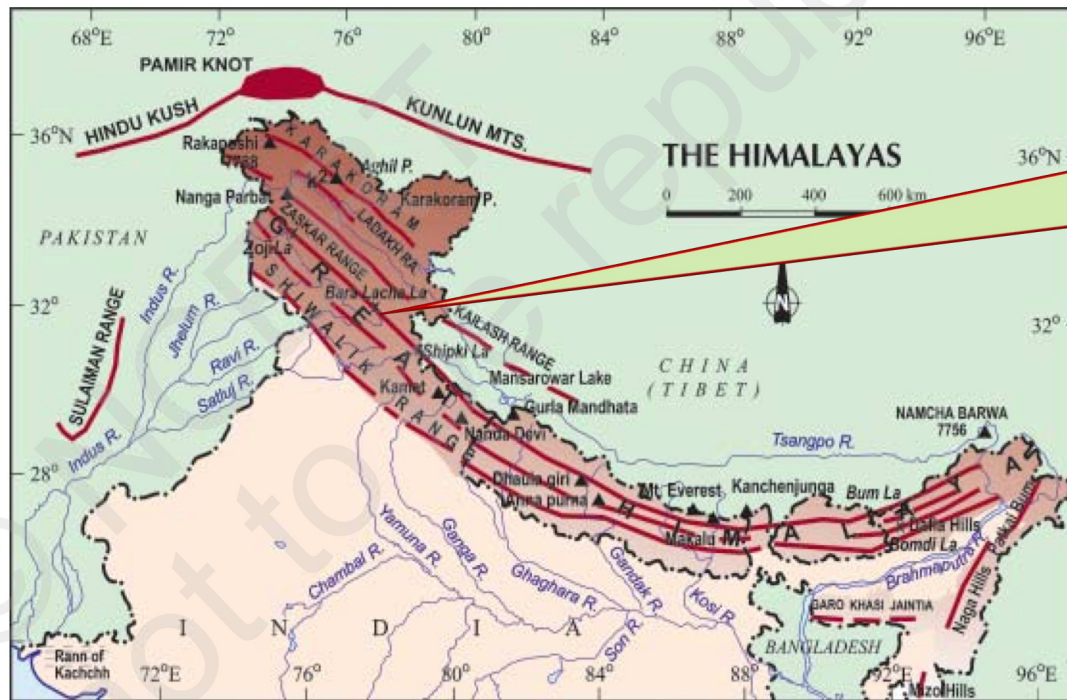
- The Lesser Himalayas are situated in between the Shiwalik in the south and Greater Himalayas in the north, rising to a maximum elevation of 4500–5000 m.
- This range consists of parallel ranges, some of which are covered by snow. Important mountain ranges are Pir Panjal, Dhauladhar, Mahabharat and Mussoorie ranges.
- Picturesque valleys such as the Kashmir valley, Kulu valley, Kangra valley, Lahul valley are renowned for attracting tourists. Hill stations in these ranges are Darjeeling, Shimla, Ranikhet and Nainital.



**Lesser  
Himalayas**

# Greater Himalayas or Himadri

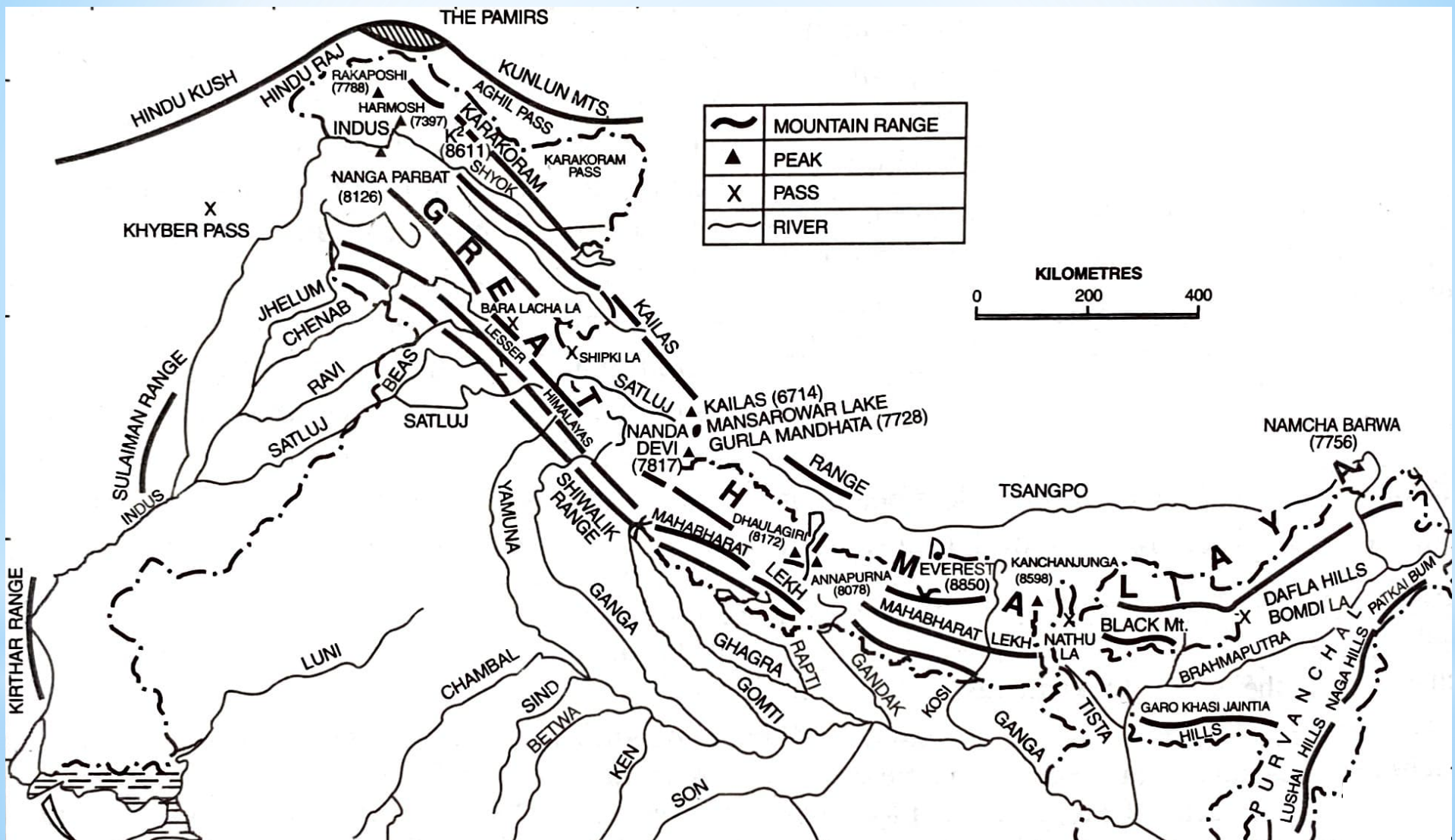
- The highest range of the Himalayas, with an average altitude of 6000 m, the Himadri range extends from Nanga Parbat in the west to Namcha Barwa in the east.
- These mountain ranges rise above the limit of perpetual snow. The highest peak of the world, Mount Everest (8848 m), is located in Nepal (known as Sagarmatha in Nepal). Kanchanjunga (8598 m), Nandadevi, Dhaulagiri, Nanga Parbat are some of the highest peaks of the world, situated on this range. K2 or Godwin Austin (8611 m) in the Karakoram Range is the highest peak of India.
- The Himadri range is the home of many glaciers. The Gangotri glacier (the source of river Ganges) and the Yamunotri glacier are some examples. There are several major mountain passes such as the Shipki La, Jelep La and Nathu La on this range.



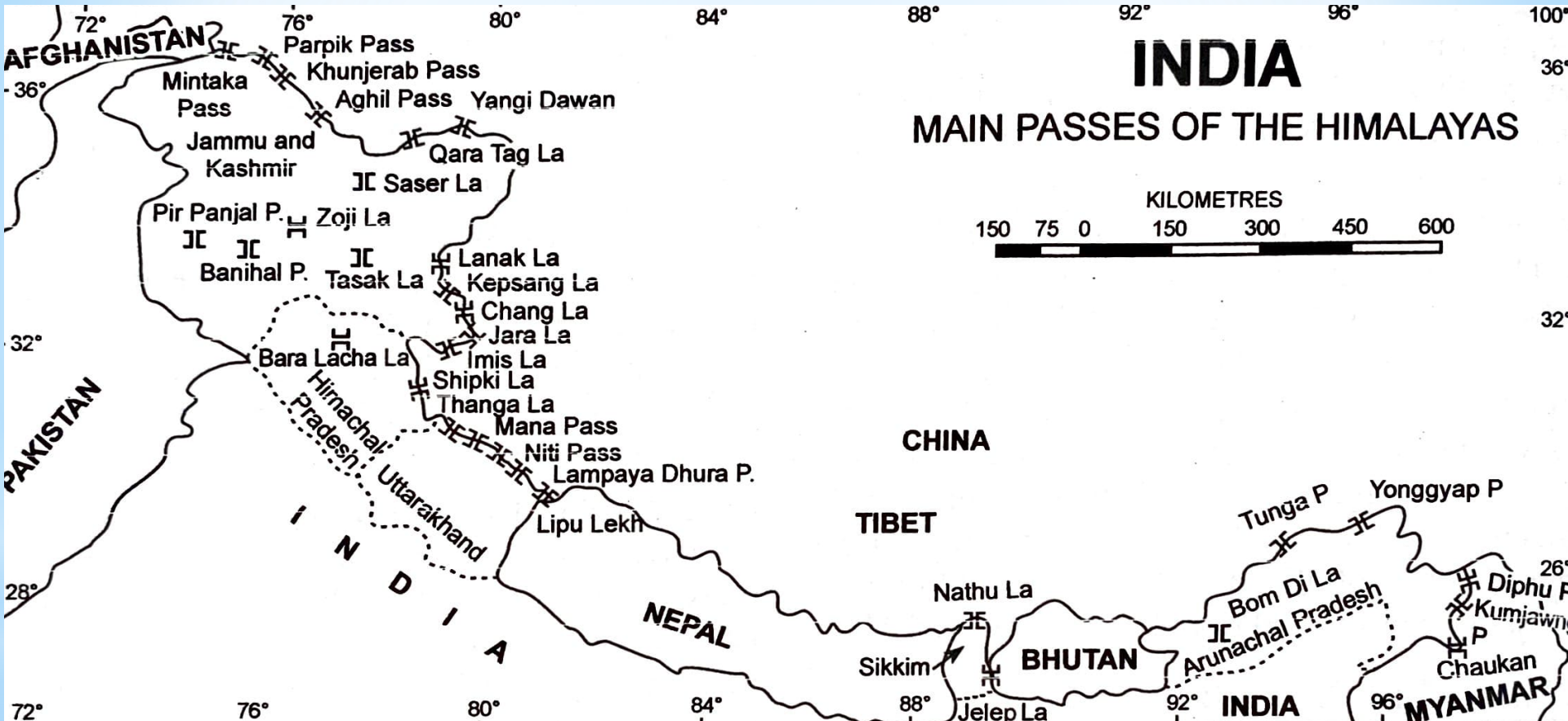
**The  
Greater  
Himalayas**



<b>Name of the Peak</b>	<b>Height above sea level (in metres)</b>
1. Mount Everest	8,850*
2. Kanchenjunga	8,598
3. Lhotse I	8,501
4. Makalu	8,481
5. Dhaulagiri	8,172
6. Manaslu	8,156
7. Cho Oyu	8,153
8. Annapurna	8,078
9. Gosainthan or Shisha Pangma	8,013
10. Nanda Devi	7,817
11. Kamet	7,756
12. Namcha Barwa	7,756
13. Gurla Mandhata	7,728
14. Trisul	7,140
15. Badarinath	7,138









The Himalayan Mountains can be further divided into following major ranges -

### **Greater Himalaya (Inner Himalaya/ Himadri)**

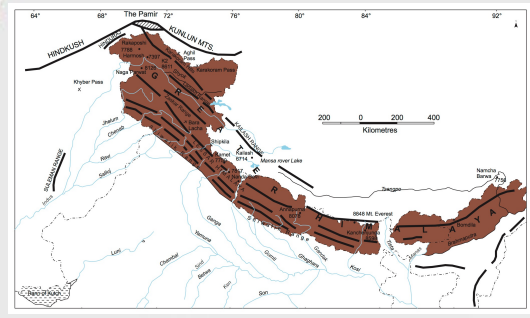
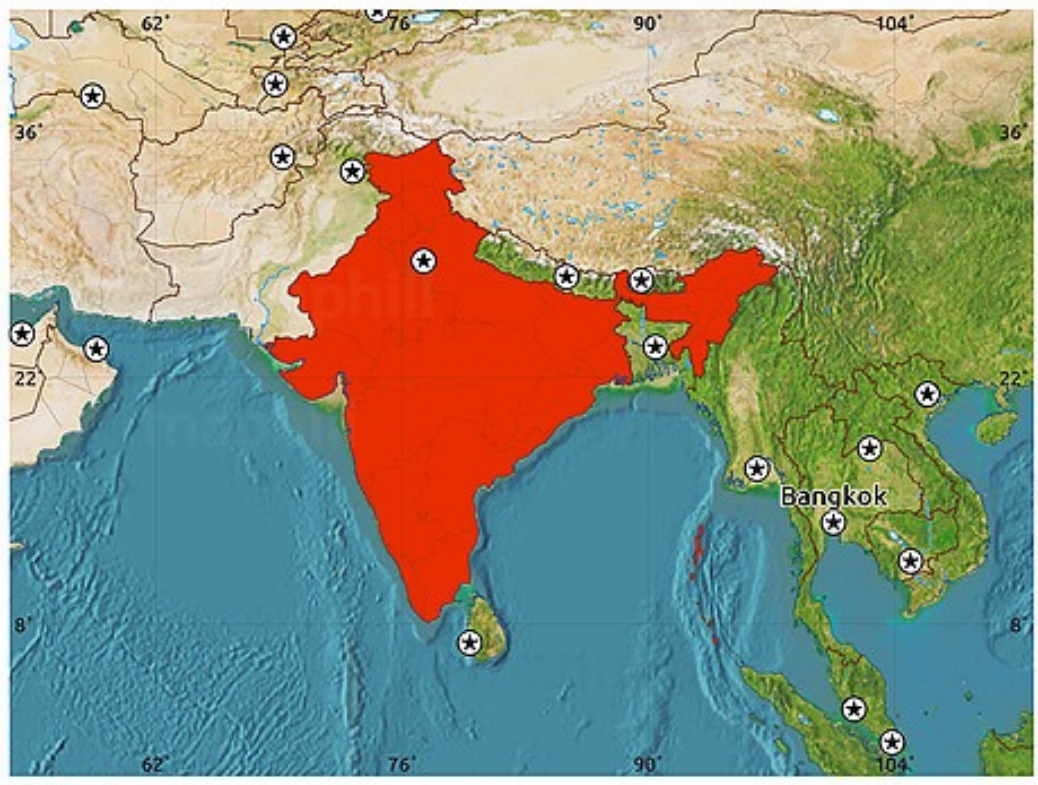
- Always covered with snow known as Himadri
- Average height 6000 mts . Most continuous range
- Core composed of granite
- Ranges : Zaskar, Ladakh and Karakoram Range

### **Middle Himalaya (Himachal)**

- Average height 3500 - 4500 mts .
- Most of the valleys & hill stations are located in this range e.g. Kashmir, Kathmandu, Nainital
- Ranges Pir Panjal, Dhauladhar, Mahabharat

### **Outer Himalaya (Shivalik Range)**

- Average height 600 - 1200 mts .
- Most of the Dun & Duars are located in this range
- Dehradun, Patlidun (longitudinal valleys)



**Thanks**