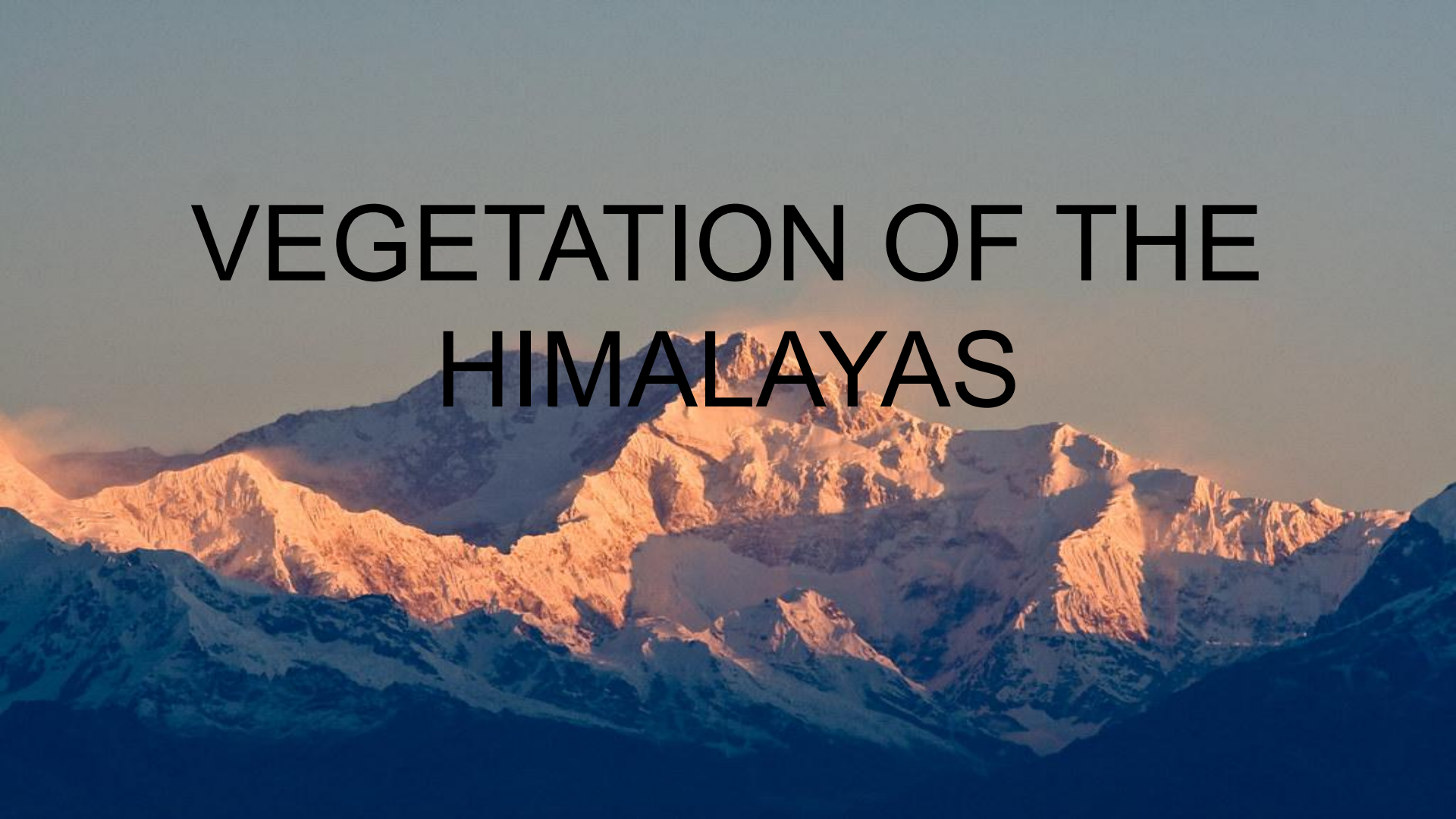


VEGETATION OF THE HIMALAYAS



THE HIMALAYAS

- **Himalayas**, great mountain system of Asia forming a barrier between the **Plateau of Tibet** to the north and the alluvial plains of the Indian subcontinent to the south.
- The Himalayas include the highest mountains in the world, with more than 110 peaks rising to elevations of 24,000 feet (7,300 metres) or more above **sea level**. One of those peaks is **Mount Everest** the world's highest, with an elevation of 29,032 feet (8,849 metres;
- Though **India**, Nepal, and Bhutan have **sovereignty** over most of the Himalayas, **Pakistan** and **China** also occupy parts of them.
- These **mountains** were formed because of the **folding** of the earth's crust due to tectonic activity (**fold mountains** are formed when two tectonic plates collide with one another).

The Himalayan Range

The himalayan ranges can be divided into

1. The Greater/inner Himalayas (Himadri)
2. The Lesser/Middle Himalayas (Himachal)
3. The Outer Himalayas (shivalik)

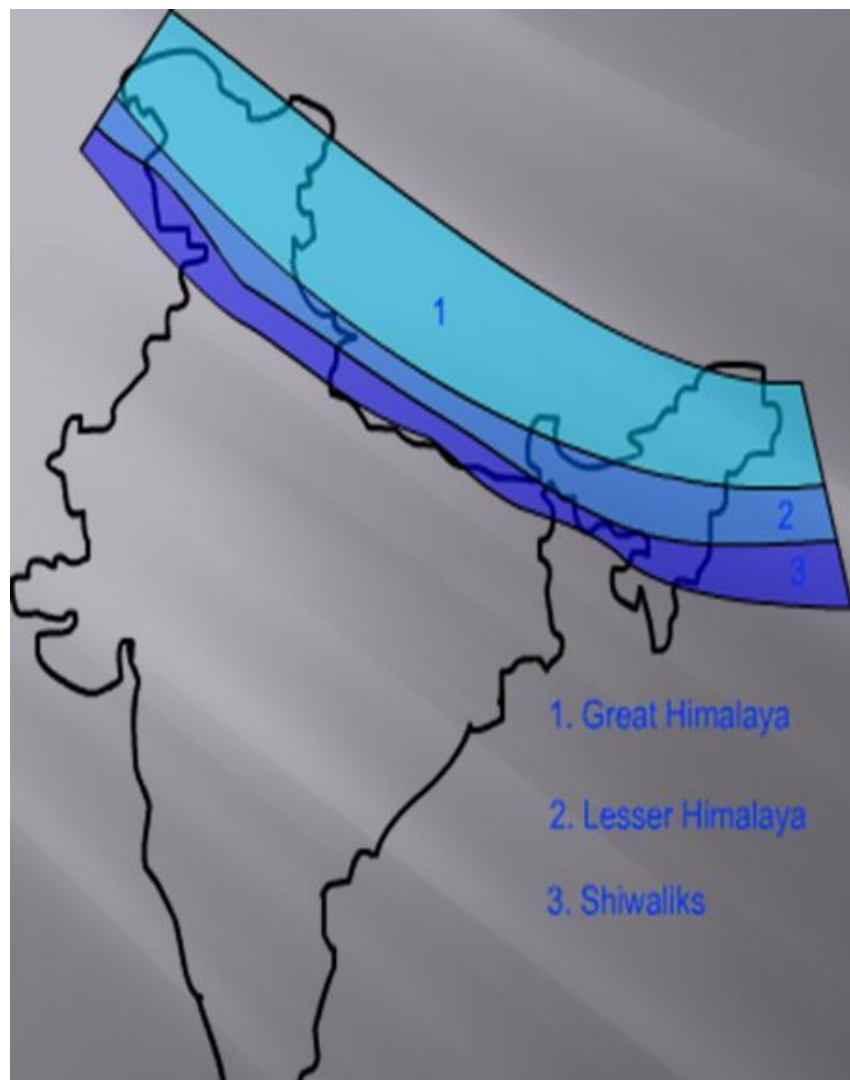
THE HIMALAYAN RANGE:

* West to East- 2500km

* Broad (west) – 400
km

(east) – 150 km

- Himadri or Inner Himalayas
- Himachal or Middle Himalayas
- Shiwalik or Outer Himalayas



1. Great Himalaya

2. Lesser Himalaya

3. Shiwaliks

THE VEGETATION OF WESTERN HIMALAYA

The western himalaya include all the hilly regions ranging from Kumaon to Kashmir (excluding N.W. Frontier Province) and western part of Tibet.

The vegetation is divided into 3 altitudinal zones:

- Tropical and subtropical (upto 1,500m)
- Temperate (2,000 to 3,500 m)
- Alpine (4,000 m onwards)

THE VEGETATION OF WESTERN HIMALAYA

- ❖ At the foot hills (tropical and sub tropical)- sclerophyllous vegetation
- ❖ Between subtropical and temperate zone -forests of Pinus, Quercus, Cedrus, Abies are found
- ❖ Temperate zone -Oak, Acer, Alnus, Betula, Rhododendron are found
- ❖ Tropical and subtropical zones comprising siwaliks -forest of Shorea and some savannahs (arboreal plants in the grassland are Bombax, Betua, Acacia, etc.
- ❖ Above the tree limit(alpine zone) -grassland (Anemone, Geranium, saussurea, Abies, Picea, Juniperous)

The Eastern Himalayas

The Eastern Himalayas include

- ❖ Darjeeling district of west bengal
- ❖ Sikkim
- ❖ Bhutan
- ❖ Regions extending to Mishmi hills in upper Assam

The Eastern Himalayas

These regions are distinguished from Western Himalayas by

- ❑ Higher rainfall
- ❑ Scanty snowfall
- ❑ Higher humidity and temperature

It is considered as a biodiversity hotspot

The Floras of Eastern Himalayas

The flora is arranged as regards relative position into 4 altitudinal zones

1. Tropical - composed of Sal forest with patches of riverain mixed deciduous forest, savannah, swamps
2. Subtropical- almost same
3. Temperate -conifers and bamboos
4. Alpine- Rhododendron and junipers

Forest types of Eastern Himalayas

1. Rain Green Deciduous Forest-

found in tropical and sub tropical zone at the himalan foothills(altitude 700 to 900m)

Trees- *Tectona grandis*, *Dalbergia sisoo*, *Bombax malabaricum*, *Quercus* sp.

shrubs-*Butea minor*, *Zizyphus mauritania* etc

Forest types of Eastern Himalayas

2. Mixed broad leaved forest

Subtropical mixed forest occur at an altitude of 1,500 to 1,700 m

Trees- *Albezia*, *Erytrina*, *Quercus* etc.

Shrubs- *Begonia*, *Peristrophe*

3. Evergreen oak forest

Temperate forest occurring in middle elevation of mountain at an altitude of 2,500 to 2,800 m

plants- *Rhododendron*, *Symplocos*, *Acer* etc.

Forest types of Eastern Himalayas

4. Rhododendron Conifer forest

Plants- Rhododendron spp. Prunus, Primula etc.

The Rhododendron forest mark the timber line at an altitude of 4,000m

5. Alpine scrub and meadows

The area upto 5000m is occupied by alpine meadows

plants-Juniper squamata, bushes of rhododendron

6. Temperate deciduous forest

Found in small patches on northern and eastern slope in evergreen oak and rhododendron forest

Plants- Acer, Betula, Magnolia, Prunus etc.