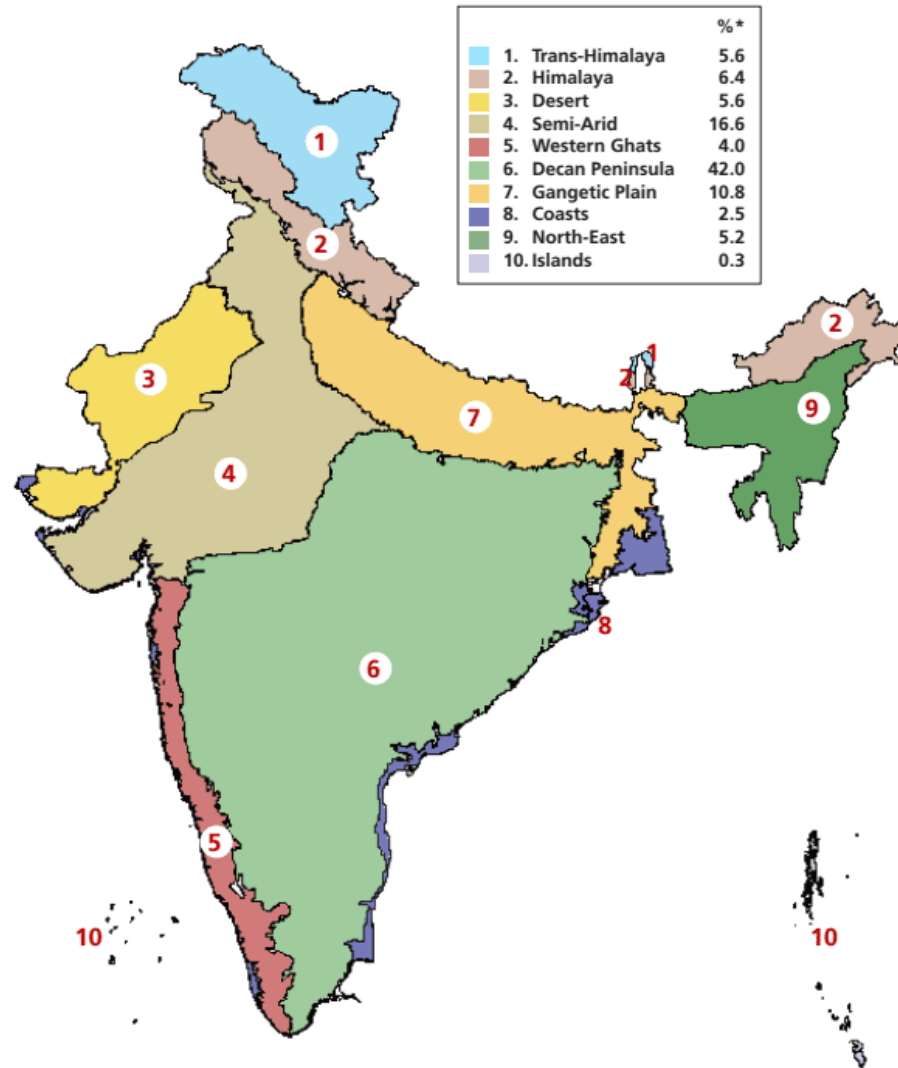


Vegetation types of India

Biogeographic zones of India



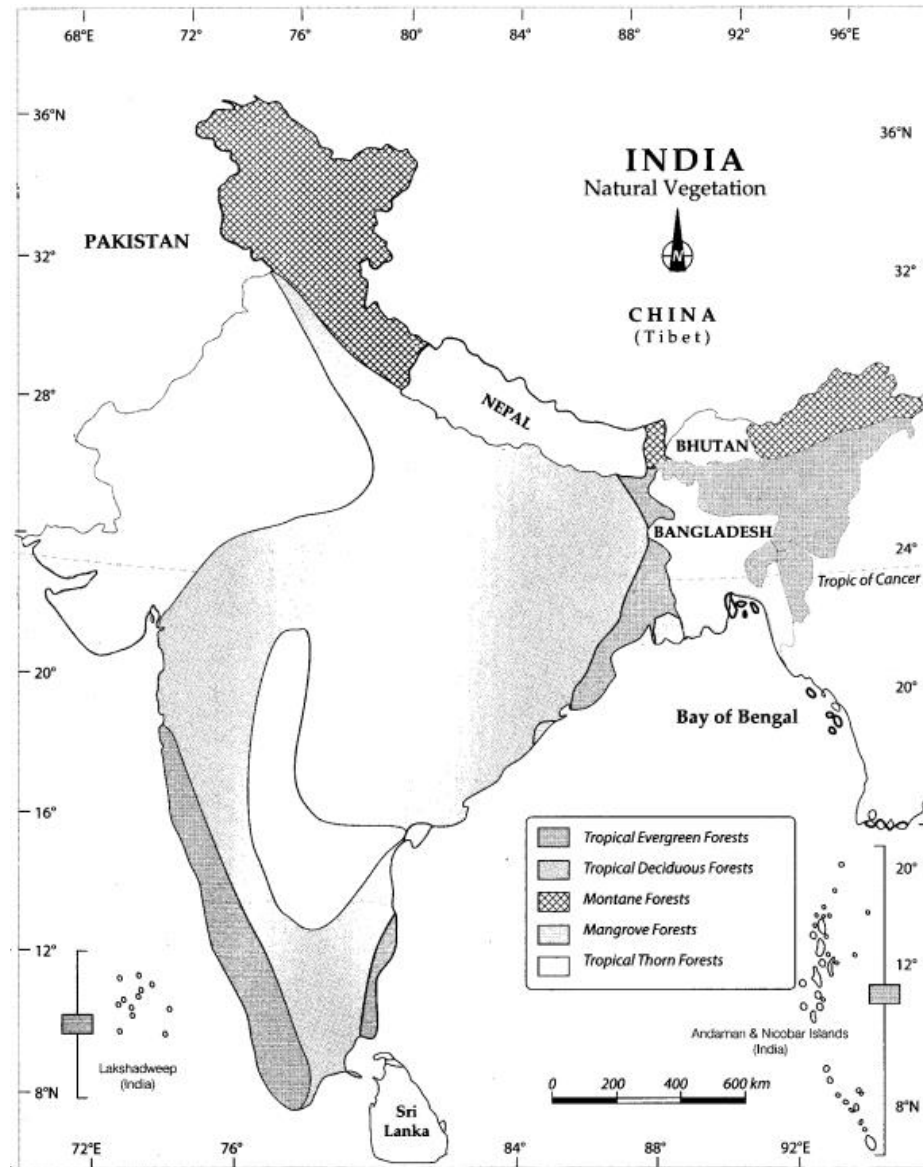
*Represents percentage of the total geographical area of India: 32,87,283 km²

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Source: India State of Forest Report 2011, Forest Survey of India, Dehradun.

- India is bestowed with a wide range of flora and fauna.
- Due to a diverse geographical and climatic condition, an extensive range of natural vegetation grows in India.
- Types of Natural Vegetation in India (Vegetation Types of India)
 - Tropical Evergreen Rain Forests
 - Deciduous or Monsoon Type of Forests
 - Dry Deciduous Forests
 - Mountain Forests
 - Tidal or Mangrove Forests
 - Semi-Desert and Desert Vegetations

Major vegetation types of India



1. Tropical evergreen rain forests

- It is found in the areas where precipitation is **more than 200 cm**.
- Temperature range: 15-30 degree C.
- They are largely found in the **Northeastern regions** of Arunachal Pradesh, Meghalaya, Assam, Nagaland, the **Western Ghats**, the Tarai areas of the **Himalayas**, and the **Andaman groups of Islands**.
- They are also found in the hills of Khasi and Jaintia.
- The trees in this area have **intense growth**.
- They are found mostly **near the equator**.
- Region is **warm and wet** throughout the year.
- Trees reach great heights up to **60 metres or even above**.
- It has copious vegetation of all kinds – trees, shrubs, and creepers giving it a multilayered structure.
- The major trees found in this area are Sandal Wood, Rosewood, Garjan, Mahogany, and bamboo.
- The elephants, monkey, lemur are the common animals found in these areas.

2. Deciduous or monsoon type forests

- They are the **most widespread** forests of India.
- The Deciduous forests are found on the **lower slope of the Himalayas**, West Bengal, Chhattisgarh, Bihar, Orissa, Karnataka, Maharashtra Jharkhand, and the adjoining areas.
- The precipitation in this area is between **70 cm and 200 cm**.
- **Teak is the dominant species** seen in the area, along with that Deodar, Blue Gum, Pal Ash, Sal, Sandalwood, Ebony, Arjun, Khair, and Bamboo are also seen.
- The trees in this forest **shed their leaves** during dry winter and dry summer.
- Based on the availability of water, these forests are again **divided into** moist and dry deciduous.

A. Moist deciduous forests:

- It found in areas receiving rainfall between **200 and 100 cm**.
- Exist mostly in the **eastern part of the country** – northeastern states, along the foothills of the Himalayas, Jharkhand, West Orissa and Chhattisgarh, and on the eastern slopes of the Western Ghats.
- **Teak is the most dominant** species of this forest.
- Bamboos, sal, shisham, sandalwood, khair , kusum, arjun, mulberry are other commercially important species.

B. Dry deciduous forests

- The dry deciduous forests are found in areas having rainfall between **100 cm and 70cm**.
- These forests are found in the rainier parts of the peninsular plateau and the plains of Bihar and Uttar Pradesh.
- There are open stretches in which **Teak, Sal, Peepal, and Neem** grow.
- A large part of this region has been **cleared for cultivation** and some parts are **used for grazing**.
- Common animals found are lion, tiger , pig, deer and elephant. Variety of birds, lizards, snakes, and tortoises are also found here.

Distinguish between moist and dry deciduous forests?

Moist deciduous

- Found in areas with rainfall between 100 and 200 cm.
- Found in N.E. states, along foothills of Himalayas, Jharkhand, West Orissa, Chhattisgarh and eastern slopes of Western Ghats.
- Important species – Teak, bamboo, sal shisham, khair, kusum, arjun, mulberry sandalwood

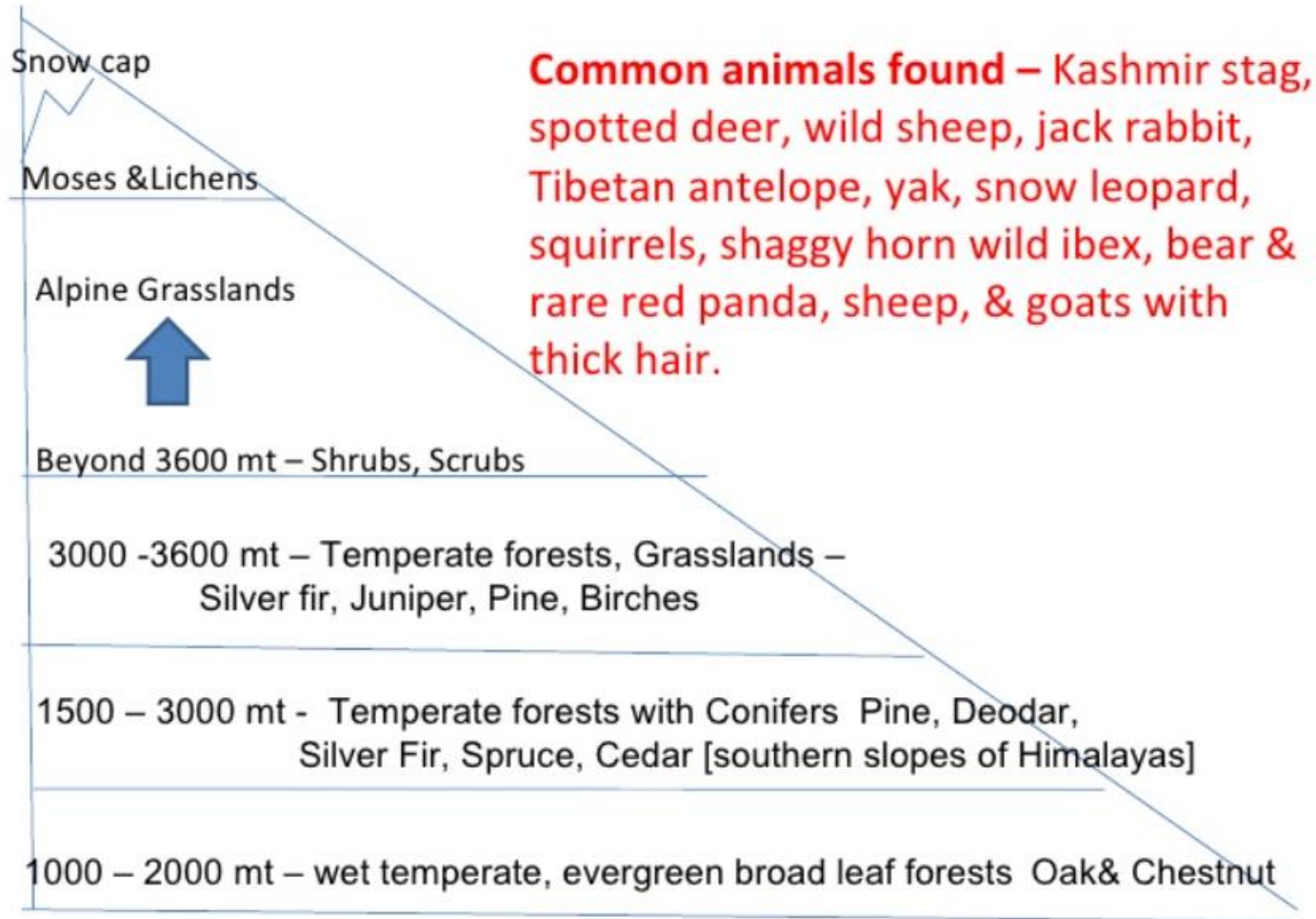
Dry deciduous

- Found in areas with rainfall between 75 and 100 cm.
- Found in rainier parts of peninsular plateau and the plains of Bihar and Uttar Pradesh.
- There are open stretches in which teak, sal, peepal, neem and other trees grow.
- A large part of this vegetation has been cleared for cultivation and some parts are used for grazing.

3. Mountain/montane forests

- Montane forests are those found in **mountains with decreasing temperature**.
- Mountain forests **differ significantly along the slopes** of the mountain.
- On the foothills of the Himalayas until a **height of 1500 meters**, evergreen trees like Sal, teak, and bamboo grow copiously.
- On the **higher slope, temperate conifer trees** like pine, fir, and oak grow.
- At the **higher elevation of the Himalayas**, rhododendrons and junipers are found.
- Further, then these vegetation zones, alpine grasslands appear up to the snowfield.
- Common animals found in these forests are Kashmir stag, spotted deer, wild sheep, jack rabbit, Tibetan antelope, yak, snow leopard, squirrels, Shaggy horn wild ibex, bear and rare red panda, sheep and goats with thick hair.

Montane forests



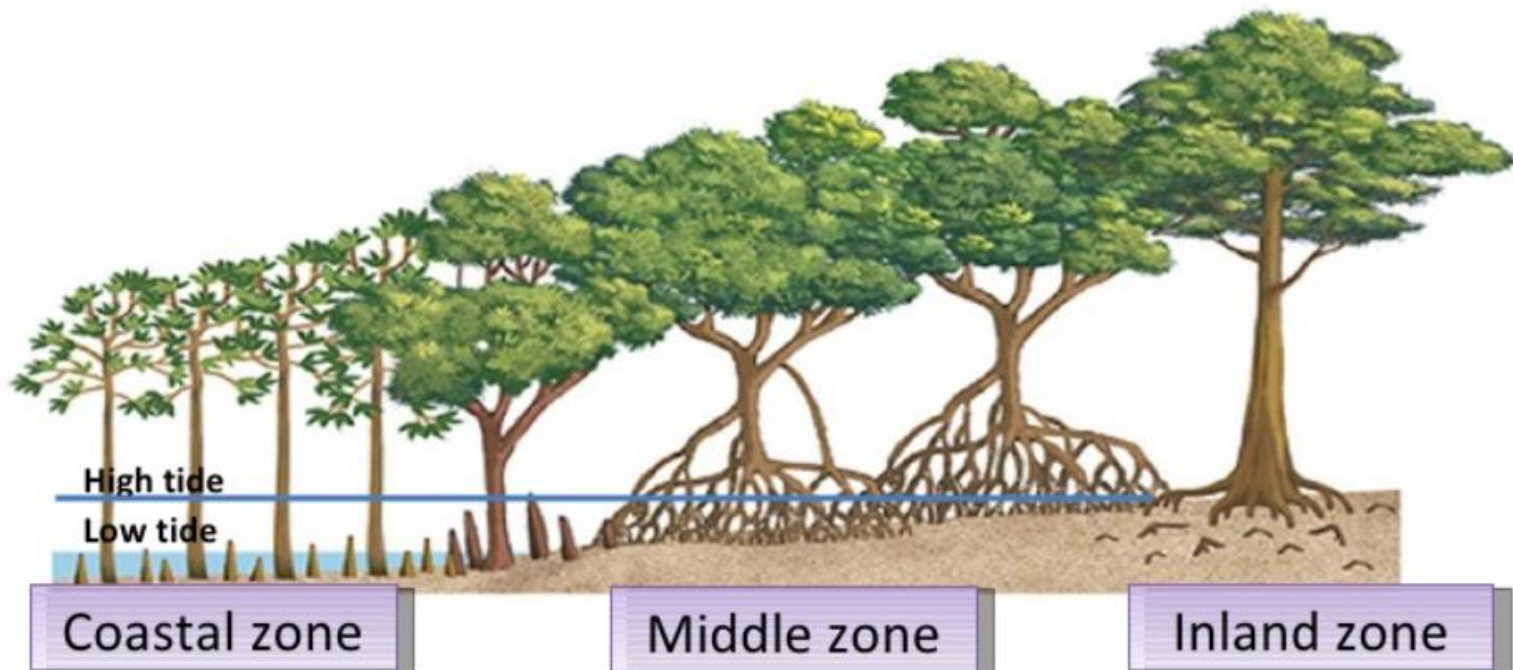
4. Tidal or mangrove forests



- The tidal or mangrove forests **grow by the side of the coast** and on the edges of the deltas e.g., the deltas of the Cauvery, Krishna, Mahanadi, Godavari, and Ganga.
- Dense mangroves are the common varieties **with roots of the plants submerged under water**.
- In West Bengal, these forests are known as '**Sundarbans**'.
- The '**Sundari**' (*Heritiera sp.*) **is the most major tree** in these forests. The important trees of the tidal forests are Hogla, Garan, Pasur, etc.
- This forest is an important factor in the **timber industry** as they provide timber and firewood.
- Palm and coconut trees beautify the coastal strip.
- **Royal Bengal Tiger** is the famous animal in these forests.
- Turtles, crocodiles, gharials and snakes are also found in these forests.

Structure of Mangrove Forests

- 3 horizontal zones with trees about 15m tall
- Trees vary in height from 2m – 40m as muddy soil in environment cannot provide firm support



5. Semi-desert and desert vegetation

- This area receives rainfall of **less than 50 cm**.
- Thorny bushes, acacia, and Babul are found in this vegetation region.
- The Indian wild date is generally found here. They have long roots and thick flesh.
- The plants found in this region store water in their stem to endure during the drought.
- Acacias, palms, euphorbias and cacti are the main plant species.
- **Trees are scattered** and have **long roots** penetrating deep into the soil in order to get moisture.
- The stems are succulent to conserve water.
- Leaves are mostly thick and small to minimize evaporation
- These vegetation are found in parts of Gujarat's, Punjab, and Rajasthan.

- Finished...