Indian Oak Trees

Prelims: *Current events of national and international importance | Conservation*

Why in News?

The Uttarakhand High Court has stayed the felling of oak trees in Mussoorie for construction by the Municipal Council.

- These are indigenous species found across the ***Himalayan region between 1,000–3,500 meters altitude,*** often found in the Western Himalayas and Arunachal Pradesh.
- **Genus –** Quercus.
- **Family –** Fagaceae.
- **Prominent Species -** The 5 prominent evergreen Himalayan species



- **Soil –** Moist, well-drained, loamy soils; rich in organic matter.
- **Climate –** Temperate to cool climates; thrive in areas with high rainfall and humidity.
- **Land Type –** Mountain slopes, valleys, and temperate forest belts.

Oaks are generally slow-growing trees, Himalayan Oaks can grow up to 10-35 metres.

- **Habitats -** They dominate moist temperate forests, often serving as the "climax species"—the final stage of ecological succession in their ecosystems.
- **Distribution (India) -** Approximately 20 species are in the Western Himalayas and 15 in the Eastern Himalayas (e.g., Arunachal Pradesh).
- **Global distribution –** Temperate deciduous, Mediterranean evergreen, montane oak forests (North America, Asia, Europe).

Mexico has the largest number of oak species globally.

- **Uses –** Fuelwood & Fodder, timber, and traditional uses.
- **Ecological Importance**
  - Soil & water conservation.
  - Assist watershed protection by promoting the recharge of springs.
  - Biodiversity hubs.
  - Provide carbon stock and regulate microclimate.
- **Threats & Degradation –**
  - **Rate of Degradation –** 0.36 sq km/year.
  - **Chronic Disturbance –** Grazing, lopping, litter removal.
  - **Invasive Species -***Eupatorium adenophorum*, *Lantana camara*, chir pine replacement.
  - **Forest Fires –** Oaks highly susceptible; damaged stems prone to pathogens.



Reference

[The Indian Express | Oak Trees]

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