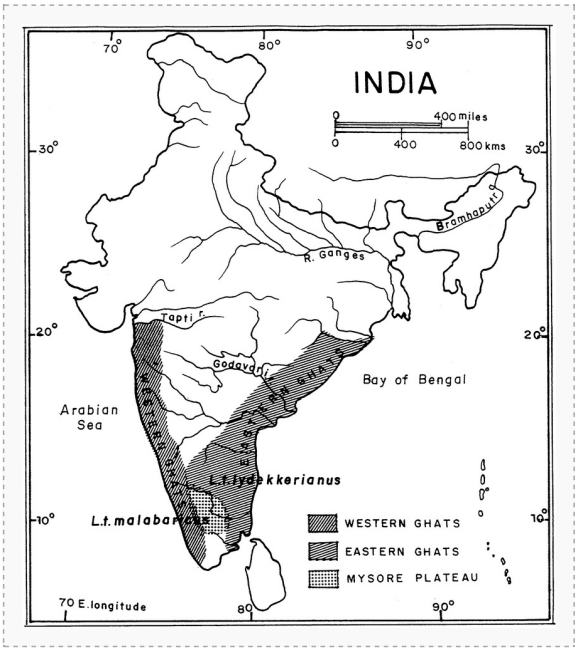
Ghats of India: Quick Note

The **Ghats** are two major mountain ranges running along the western and eastern coasts of peninsular India.

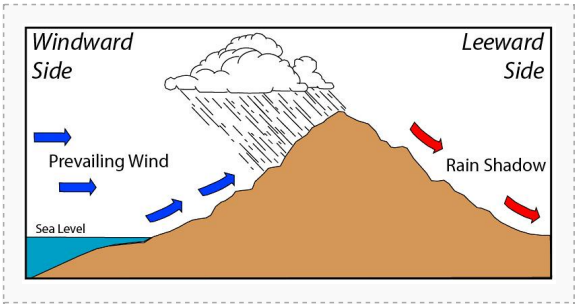


Western Ghats (Sahyadri)

- **Other Names:** Sahyadri (Maharashtra, Goa, Karnataka), Sahya Parvatham (Kerala).
- **Extent:** Parallel to western coast, from **Tapti River valley to Kanyakumari** (approx. 1600 km).
- **States Covered:** Gujarat, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu.

Key Characteristics:

- **Continuous range**, traversable mainly through passes. Higher than Eastern Ghats.
- Average elevation: **900-1600m**. Elevation generally increases from North to South.
- Forms a major **watershed**; source of Peninsular rivers: **Godavari, Krishna, Kaveri, Bhima, Tungabhadra**
- **Steep western slope** (facing Arabian Sea), gentle eastern slope (towards Deccan Plateau).
- Causes heavy **orographic rainfall** on western (windward) slopes during SW Monsoon. Eastern (leeward) slopes are in rain-shadow.



Biodiversity & Conservation:

- One of the world's **8 'hottest hotspots'** of biological diversity. High endemism.
- **UNESCO World Heritage Site** (39 serial sites inscribed in 2012).
- **Vegetation:** Tropical evergreen, semi-evergreen, moist deciduous forests, and **Shola forests** (montane evergreen forests with grasslands) in higher altitudes.

Important Passes (North to South):

- **Thal Ghat (Kasara Ghat):** Connects Mumbai to Nashik.
- **Bhor Ghat:** Connects Mumbai to Pune.
- **Palghat Gap (Palakkad Gap):** Connects Coimbatore (TN) to Palakkad (Kerala). Significant break (approx. 30km wide).
- **Senkotta Gap:** Connects Kollam (Kerala) to Madurai (TN) (Shencottah-Madurai).

Major Peaks:

- **Anamudi (2695m):** Highest peak in Peninsular India & Western Ghats. Located in **Anaimalai Hills** (Kerala).
- **Doddabetta (2637m):** Second highest in WG, highest in **Nilgiri Hills** (Tamil Nadu).
- **Kalsubai (1646m):** Highest peak in Maharashtra.
- **Mahabaleshwar (1438m):** Maharashtra, source of Krishna river.
- **Kudremukh (1892m):** Karnataka (known for iron ore).
- **Agasthyamalai (1868m):** Southernmost part, a Biosphere Reserve.

Relevant Committees (Conservation):

- **Madhav Gadgil Committee (2011) (WGEEP - Western Ghats Ecology Expert Panel):** Recommended stringent protection, designating large areas as Ecologically Sensitive Zones (ESZs) with graded regulations.
- **Kasturirangan Committee (2013) (HLWG - High-Level Working Group):** Recommended a more balanced approach, reducing the area under ESZs compared to Gadgil report; aimed to balance development and conservation.

Eastern Ghats (Purva Ghat)

- **Other Names:** Purva Ghat. Ancient texts may refer to parts as Mahendra Parvatam.
- **Extent:** Discontinuous range along eastern coast, from **Mahanadi River valley (Odisha) to Vaigai River (Tamil Nadu)** Meets WG at Nilgiris.
- **States Covered:** Odisha, Andhra Pradesh, Telangana (parts), Tamil Nadu, Karnataka (small parts).

Key Characteristics:

- **Discontinuous and highly eroded** by major east-flowing Peninsular rivers (Mahanadi, Godavari, Krishna, Kaveri, Pennar).
- Average elevation: **~600m** (lower than WG). Individual ranges vary.
- Do not cause significant orographic rainfall like WG. Receive rainfall from both SW and NE monsoons (especially southern parts from NE).
- Rich in **minerals:** Bauxite, iron ore, limestone, manganese, mica.

Major Hill Ranges (North to South - general order):

- **Garhjat Hills** (Odisha) - Often considered as extension of Chota Nagpur Plateau.
- **Mahendragiri Hills** (Odisha-Andhra Pradesh border).
- **Nallamala Hills** (Andhra Pradesh, Telangana) - Composed of Cuddapah system rocks.
- **Velikonda Hills** (Andhra Pradesh).
- **Palkonda Hills** (Andhra Pradesh).
- **Nagari Hills** (Andhra Pradesh).
- **Javadi Hills** (Tamil Nadu).
- **Shevaroy Hills** (Tamil Nadu) - Yercaud hill station located here.
- **Pachaimalai Hills** (Tamil Nadu).
- **Sirumalai Hills** (Tamil Nadu).
- **Biligiriranga Hills (BR Hills):** (Karnataka/TN) - Ecologically significant, acts as a bridge between WG & EG.

Major Peaks:

- **Jindhagada Peak (1690m):** Located in Araku Valley, Andhra Pradesh. Often cited as the highest peak.
- **Arma Konda (1680m):** Andhra Pradesh, also cited as one of the highest.
- **Devmali (1672m):** Odisha.
- **Mahendragiri (1501m):** Odisha.
- *Note: There's some variation in reported highest peaks of EG. Jindhagada/Arma Konda are prominent contenders.*

Meeting Point of Ghats

- The Western Ghats and Eastern Ghats converge at the **Nilgiri Hills** in Tamil Nadu (also bordering Kerala & Karnataka).
- **Doddabetta (2637m)** is the highest peak in the Nilgiri Hills.
- The **Nilgiri Biosphere Reserve**, India's first, is located here.

Key Differences: Western Ghats vs. Eastern Ghats

- **Continuity:** WG are **continuous**; EG are **discontinuous** and broken into separate hill ranges.
- **Elevation & Width:** WG are generally **higher and wider** (avg. 900-1600m); EG are **lower** (avg. 600m) and narrower.
- **Slope & Relief:** WG have steep western slopes & gentler eastern slopes; EG have a more subdued and varied relief.
- **Erosion:** WG are comparatively less eroded; EG are **highly eroded** by east-flowing rivers.
- **River Origin:** WG are the source of major Peninsular rivers; EG are dissected by rivers mostly originating in WG or Deccan Plateau.
- **Rainfall Pattern:** WG cause significant **orographic rainfall**; EG have a less pronounced orographic effect and receive rainfall from both monsoons.
- **Biodiversity:** WG are a **global biodiversity hotspot** with high endemism; EG are also rich in biodiversity but generally less diverse and with lower endemism compared to WG.
- **Dominant Vegetation:** WG feature tropical evergreen, semi-evergreen, and Shola forests; EG predominantly have dry/moist deciduous forests and scrub vegetation.