

## Aravalli's - The New Definition and Conservation

**Mains:** GS I - Geography/ GS III - Environment

### Why in News?

*Recently, The Supreme Court (SC), in an order last month, settled on a uniform definition of the Aravalli hills and ranges, and paused the grant of fresh mining leases inside its areas spanning Delhi, Haryana, Rajasthan and Gujarat.*

### What are the significances of Aravalli's?

- **Ancient & Oldest** - It's one of the world's oldest fold mountain ranges, with origins in the Proterozoic era (over 2 billion years old).
- **Location** - Extends approximately 650 km from Delhi through Haryana, Rajasthan, to Gujarat.
- **Highest Peak** - Guru Shikhar on Mount Abu (1,722 m).
- **Climate Regulator** - Acts as a natural barrier, preventing the Thar Desert from encroaching on fertile plains and guiding monsoon clouds eastward.
- **Biodiversity Hotspot** - Rich in flora and fauna, with sanctuaries like Sariska & Ranthambore, supporting significant NCR biodiversity.
- **Mineral Wealth** - It is richly endowed with sandstone, limestone, marble, granite, and minerals such as lead, zinc, copper, gold, and tungsten.
- While historically mined for these resources, it has in the past four decades been excessively quarried for stone and sand.
- **Watershed** - A vital source for rivers like Chambal, Sabarmati, and Luni, and crucial for groundwater recharge.
- **Ecological Significance:**
  - **Desertification Barrier** - They help arrest the eastward spread of the Thar Desert into Haryana, Rajasthan and western Uttar Pradesh.
  - **Air Quality** - Reduces dust pollution in the Delhi-NCR region.
  - **Water Security** - Helps recharge groundwater for northern India.



### What was the action taken against mining?

- **Rules of ministry** – The Environment Ministry, since the early 1990s, has laid down rules restricting mining to only sanctioned projects but these have been flagrantly violated.
- **Supreme court ruling** – In 2009, the SC stepped in and imposed a blanket ban on mining in the Faridabad, Gurugram, and Mewat districts of Haryana.
  - In May 2024, the SC prohibited granting of fresh mining leases and renewals in the range and directed its *Central Empowered Committee (CEC)* to undertake a detailed examination, leading to a set of recommendations submitted in March 2024.
- **Proposal of The CEC** – It proposed a comprehensive approach that included:
  - a complete scientific mapping of the Aravalli range across all States.
  - a macro-level environmental impact assessment of mining activities.
  - strict prohibition of mining in ecologically sensitive areas such as protected habitats, water bodies, tiger corridors, key aquifer recharge zones and areas within the National Capital Region.
- It urged stringent regulation of stone-crushing units.

- It also recommended that no new mining leases or renewals be permitted until proper mapping and impact assessments were completed.
- These recommendations were taken up by the Court in its order of November 2025.
- **Green wall project** – In June, 2025, the Centre started an Aravalli 'Green Wall' project.
- The plan is to expand green cover in the five-km buffer area around the Aravallis in 29 districts of Gujarat, Rajasthan, Haryana and Delhi.
- The government said this initiative will play a crucial role in restoring 26 million hectares of degraded land by 2030.

### Why there is a need for a uniform definition?

- **Erratic criteria** – The Court found that States were using inconsistent criteria to identify Aravalli formations.
- **Contradictory definitions** – There have also been differing definitions, including by expert groups such as the Forest Survey of India (FSI) on what makes up 'Aravalli Hills and Ranges.'
- **FSI definition** – In 2010, the FSI had said hills with:
  - Slope  $>3^\circ$ ,
  - Foothill buffer = 100m,
  - Inter hill distance or valley width= 500m and
  - The area enclosed by above defined hills from all sides," would make up Aravalli hill and ranges.
- **Supreme court's intervention** – To resolve this, it constituted a committee comprising representatives from the Environment Ministry, the FSI, State Forest Departments, the Geological Survey of India and the CEC.
- This committee was tasked with creating a scientifically grounded, nationwide definition of the Aravallis.
- The committee submitted its findings in October 2025.
- **Recent definition** – The SC committee finally ruled that only hills above 100 metres would make the cut.

### What are the other observations of the Supreme Court?

- **Suggestion for management plan** – The Court directed the preparation of a detailed Management Plan for Sustainable Mining (MPSM) covering the entire Aravalli range.
- The plan must:
  - Demarcate areas where mining must be absolutely prohibited,

- Identify zones where limited and highly regulated mining may be permitted
- Map sensitive habitats and wildlife corridors
- Evaluate cumulative ecological impacts
- Determine ecological carrying capacity
- Articulate restoration and rehabilitation measures.
- **Approach on mining** - The Court explained that past experiences show *total bans often lead to the rise of illegal mining syndicates*, violent sand mafias and unregulated extraction.
- The Court therefore opted for a calibrated approach:
  - Existing legal mining continues under tight regulation
  - New mining is paused until a scientifically driven plan is prepared
  - Permanently sensitive areas remain off-limits.

## Reference

[The Hindu| Protection of Aravalli's](#)

