

Aravalli Range

The Aravalli Mountain is a fold mountain formed by the orogenic process. The formation of the Aravalli Range is similar to the Himalayan ranges. The northern end of the range has rocky hills, and it is between Delhi and Haryana.

The range also has heritage value as it is home to several forts. The southwestern range of Aravalli passes through the states of Rajasthan and Gujarat.

- An extension of Aravalli divides the drainage of Ganga and Indus from Delhi to Haridwar.
- The two main ranges of Aravalli include the Sambhar Khetri Range and the Sambhar Sirohi Range, situated in Rajasthan.
- Though largely forested in the south, it is mostly barren and thinly populated, consisting of large areas of sand and stone and masses of rose-colored quartzite.
- The highest peak of Aravalli is Guru Shikhar near Mount Abu, which is 1722 meters high.

How are Aravalli Range Formed?

- Aravalli Range is a belt formed by folding the Earth's crust, also called orogenic.
- It stretches from northeast to southwest, discovered in the Indian Peninsula.
- The range is an element of India's Shield formed from cratonic collisions.
- In old times, Aravalli was extremely tall but has been modeled down entirely from the long-time weathering process.
- The Aravalli Range connects two age-old Earth's crust pieces that create the Indian craton, the Aravalli and the Bundelkand Craton.
- Cratons are discovered in the interior part of tectonic plates. They are ancient and steady regions of the continental geosphere.
- It comprises two sequences in the Proterozoic eon, metasedimentary and metavolcanic rock.
- The Aravalli-Delhi Orogen is an event that led to sizeable structural deformation of the Earth's lithosphere, such as the Aravalli mountains, due to the interactivity between tectonic plates when a continental plate is destroyed and is forced in the upwards direction to build mountain ranges.

Importance of Aravalli Range

The Aravalli Mountain range has significant geological and economic value. It plays a prominent role in recharging the groundwater of the surrounding region.

- The range contributes to climate change in the northern region of India as it acts as a barrier for the clouds.
- It acts as a barrier to preventing the further spread of desertification to the eastern part of Rajasthan.
- The Aravalli Range is also responsible for originating major rivers such as Sabarmati and Luni.
- The hills shield the plains from the impact of westerly flowing from Central Asia.
- Responsible for sufficient rainfall and supporting various flora and fauna, rich biodiversity, livelihood, and farming in the constituent states.

- The Aravalli is a buffer for the urban terrain to absorb the shock of rising anthropogenic actions and pollution even with its reserved forest resources.
- A greener Aravalli is a groundwater restoration for the part facing acute water starvation.

Why is the Aravalli Mountain Range in the News?

Due to the illegal encroachment on forest lands, colossal exploitation of natural resources, and mining activities in the Aravalli Range, the issue reached the Supreme Court of India.

- More causes have resulted in the destruction of fragile forest ecosystems and the degradation of groundwater resources.
- The range has also experienced an increase in the event of human-wildlife conflict in recent years.

What were the Supreme Court Orders Regarding the Aravalli Range Vanishing Issue?

Earlier, the Supreme Court of India ordered the suspension of all mining activities in the Aravalli Range of Haryana. In June 2021, the Supreme Court ordered the demolition of housing complexes that violate environmental laws and affect the ecosystem of forests around the Aravalli Range in Haryana.

- Environmental activist Vijaypal Baghel proposed a 1600 km long Green Wall of India at COP14.
- The Aravalli Range is critical in affecting the local climate, leveraging geographical and environmental resources, and directing economic activities.
- It faces many challenges, such as illegal mining activities that result in loss of critical habitat, groundwater, and increased pollution levels.
- The State must come together to protect and restore the Aravalli Mountain through several effective measures.

Environmental and Developmental Problems of the Aravalli Range

- The coming danger of desertification extending east of Aravalli is confirmed.
- As per the report published by the Wildlife Institute of India, around 12 places in Haryana faced depletion of groundwater levels due to variations in geography by anthropogenic actions.
- The wildlife was forced to risk human occupancy due to invading forest land mixed with exhausting wildlife habitat and dried-up water bodies.
- A report was released by MOEFCC, stating that Haryana was on the top in India for diversion of forest land for non-forest activities between 2014-2017.
- Haryana and Rajasthan followed legislation to exploit mineral resources, which is incompatible with the plans for sustainable development.
- Aravalli mountain has the most downgrading forests in India, per a notice discharged by the Wildlife Institute of India.

Aravalli range in Rajasthan, along with its constituent parts, faced irreversible exploitation due to the following activities:

- Depleting groundwater level

- Artificial pit- lakes
- Loss of biodiversity
- Occurrence of disease
- Pest attacks (Termite)
- Man-animal conflict
- Over the years, left-out mines.

