



Geospatial Survey to Combat Illegal Mining

Why in News?

- Recently, **Haryana** has ordered a [geospatial survey](#) of [the Aravallis](#) near the **Rajasthan border**. The survey will **demarcate banned mining areas** in Haryana and identify licensed mines in Rajasthan to [curb illegal mining](#).

Key Points

- **About the Survey:**
 - Conducted by **Haryana Space Applications Centre (HARSAC)**, the survey aims to **define the jurisdiction of Haryana and Rajasthan over various hills** and update revenue records.
- **Addressing Jurisdictional Issues:**
 - **Illegal mining** mafias exploit the jurisdictional ambiguity over the Aravalli hills.
 - The **Enforcement Bureau registered an [First Information Report \(FIR\)](#)** for the illegal mining of 6,000 metric tonnes of hill in Rava village.
- **Illegal Mining:**
 - **About:**
 - Illegal mining is the extraction of minerals, ores, or other valuable resources from land or water bodies **without the necessary permits, licenses, or regulatory approvals** from government authorities.
 - It can also involve the violation of environmental, labor, and safety standards.
 - **Issues:**
 - **Environmental Degradation:**
 - It can lead to deforestation, soil erosion, and water pollution and can result in the **destruction of habitats for [wildlife](#)**, which can have serious ecological consequences.
 - **Hazards:**
 - Illegal mining often involves the **use of hazardous chemicals such as [mercury](#) and [cyanide](#)**, which can pose serious **health risks to miners** and nearby communities.
 - **Loss of Revenue:**
 - It can lead to a **loss of [revenue](#) for governments** as miners may not pay appropriate taxes and royalties.
 - This can have significant economic impacts, particularly in countries where natural resources are a major source of revenue.
 - **Human Rights Violations:**
 - Illegal mining can also result in **[human rights violations](#)**, including forced labor, child labor, and exploitation of vulnerable populations.

The Aravallis

- **About:**
 - The Aravalli Range extends from Gujarat to Delhi through Rajasthan, 692 km in length and varies between 10 to 120 km in width.
 - The range acts as a natural green wall, **with 80% located in Rajasthan and 20%**

in Haryana, Delhi, and Gujarat.

- The Aravalli mountains are divided into two main ranges - **the Sambhar Sirohi Range and the Sambhar Khetri Range in Rajasthan**, where their extension is about 560 km.
- It serves as an **ecotone** between the **Thar Desert and the Gangetic Plain**.
 - Ecotones are areas where **two or more ecosystems, biological communities, or biotic regions meet**.
- **Gurusikhar (Rajasthan)**, the highest peak in the range, reaches an elevation of 1,722 meters.

▪ Significance of Aravallis:

- The Aravallis **prevent the Thar Desert from encroaching** on the Indo-Gangetic plains, historically serving as a catchment for rivers and plains.
- The range **supports 300 native plant species**, 120 bird species, and exclusive animals like jackals and mongooses.
- During **monsoons**, the Aravallis **direct monsoon clouds eastward**, benefiting sub-Himalayan rivers and North Indian plains. In winter, they **shield fertile valleys from cold westerly winds**.
- The range **aids in groundwater replenishment** by absorbing rainwater, thus reviving groundwater levels.
- The Aravallis act as the **“lungs” for Delhi-NCR**, mitigating some effects of the **region's severe air pollution**.

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