



## Lithium-Deal with Argentina

[Source: BL](#)

### Why in News?

The **Ministry of Mines**, Government of India through the **state-owned** [Khanij Bidesh India Ltd \(KABIL\)](#), has entered into a draft exploration and development agreement with **Argentinan miner CAMYEN** for possible acquisition and development of **five-odd lithium blocks**.

- The company has also entered into a **non-disclosure agreement with Chilean miner ENAMI** for “possible exploration, extraction, processing and commercialisation” of the mineral.

### What is Lithium?

- **About:**
  - Lithium is an alkali mineral, also called '**white gold**'. It is soft, silvery-white metal, the lightest metal of the periodic table.
- **Major Properties:**
  - High Reactivity
  - Low Density
  - Excellent Electrochemical Properties
- **Occurrence and Top Producers:**
  - Lithium is found naturally in various minerals, including **spodumene, petalite, and lepidolite**.
    - It is extracted from these minerals and refined into lithium metal or its compounds.
  - The top producers of lithium are **Australia, Chile, China, and Argentina**.
    - In 2022, **Australia** was the world leader in terms of lithium mine production. **Chile and China** ranked second and third.
  - Recently, a massive lithium deposit beneath **California's Salton Sea (US)**, holding an estimated **18 million tons of lithium**, was discovered.

### Note

**Lithium triangle** made up of **Argentina, Chile, and Bolivia**—contain roughly half the world's known lithium.

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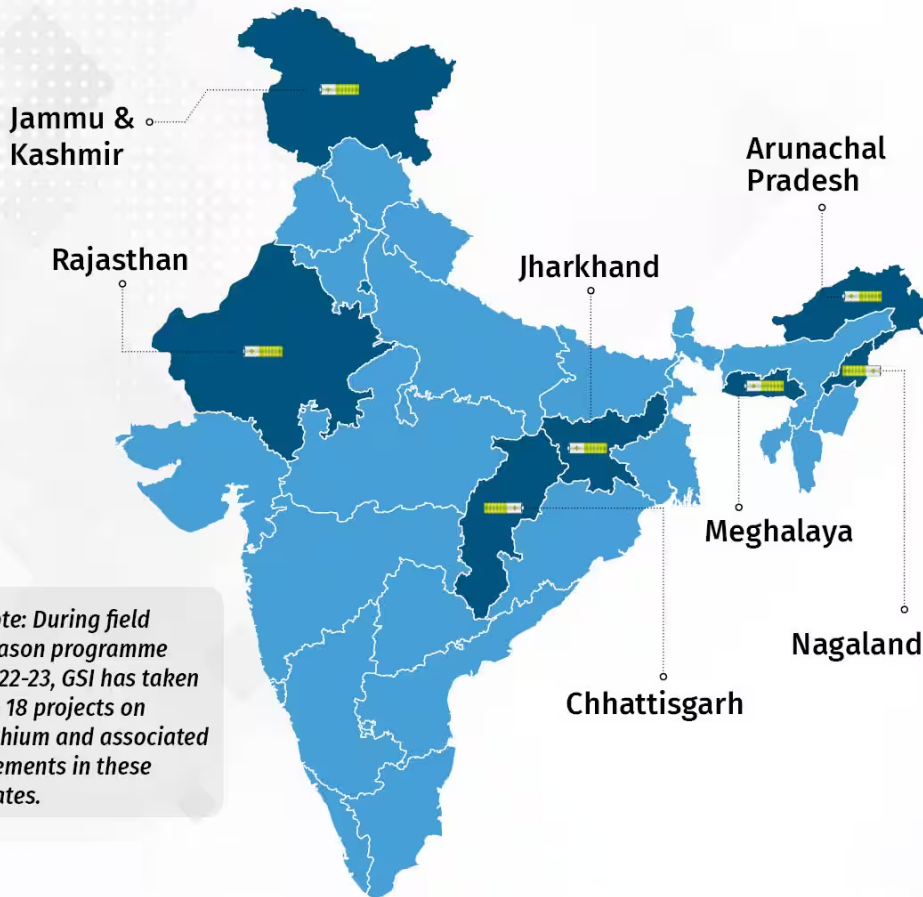
#### ▪ Applications:

- **Batteries:** Lithium is a crucial component of [rechargeable batteries](#) used in smartphones, laptops, electric vehicles, and other electronics.
- **Glass and Ceramics:** Lithium compounds are used to **strengthen glass and ceramics**, making them more durable and heat-resistant.
- **Medicine:** Lithium is used as a **mood stabilizer** in the treatment of [bipolar disorder](#).
- **Lubricants:** Lithium greases are used in **high-pressure and high-temperature** applications.

#### ▪ Lithium in India:

- 2023 saw a surge in lithium discoveries:
  - Massive reserves unearthed in **Salal-Haimna areas of Reasi district of Jammu and Kashmir** (estimated 5.9 million tonnes).
  - Additional reserves identified in Koderma and Giridih regions of **Jharkhand**.
- However, India has put up lithium blocks for auction: **one in J&K and another in Chhattisgarh**, with most of its domestic requirements, across categories like [EVs](#), lithium-ion battery making, and other energy storage solutions, being met completely through imports. Import bill is pegged at around **₹24,000 crore**.

# IN LITHIUM SEARCH



## UPSC Civil Services Examination, Previous Year Question (PYQ)

**Q. Which one of the following pairs of metals constitutes the lightest metal and the heaviest metal, respectively? (2008)**

- (a) Lithium and mercury
- (b) Lithium and osmium
- (c) Aluminium and osmium
- (d) Aluminium and mercury

**Ans: (b)**