

Need for India-Australia Rare Earths Alliance

Prelims - Current events of national and international importance.

Why in News?

Recently, India and Australia are deepening their strategic minerals alliance in an effort to counter China's control over the global rare earth supply chain.

- **Rare earth elements (REE)** - It is a group of 17 minerals essential to modern technology, are relatively abundant but costly and complex to extract, particularly heavy rare earths such as terbium, fetch high prices.
- **Uses of REE** - It is used to make powerful magnets, camera, telescope lenses, catalytic converters in cars, making control rods in nuclear reactors.
- REEs and critical metals like lithium are considered vital for achieving energy transition goals and maintaining national security.

RARE-EARTH ELEMENTS

58 Ce Cerium	66 Dy Dysprosium	68 Er Erbium	63 Eu Europium	64 Gd Gadolinium	67 Ho Holmium
57 La Lanthanum	71 Lu Lutetium	60 Nd Neodymium	59 Pr Praseodymium	61 Pm Promethium	62 Sm Samarium
21 Sc Scandium	65 Tb Terbium	69 Tm Thulium	70 Yb Ytterbium	39 Y Yttrium	

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- **China's dominance** - China currently accounts for **over 60% of global rare earth mining** and nearly 90% of processing output.
- **Export restriction of China** -Imposed export restrictions on 7 rare earth elements - samarium, gadolinium, terbium, dysprosium, lutetium, scandium and yttrium, requiring special export licences.

- **India's reserves** - India holds third-largest reserves globally about 6.9 million tonnes in monazite-rich sands along the coasts of Andhra Pradesh, Odisha, Kerala and Rajasthan's Jalore & Barmer districts.
- But India's production is negligible, contributing less than 1% of global output.
 - **Reasons** - Due to processing constraints, outdated mining methods, and legal restrictions under the ***Atomic Energy Act of 1962***.
- **Need for alternative alliance** - Australia has recently positioned leading alternative supplier, home to major deposits including the Mount Weld mine.
- **India- Australia Partnership** - Australia's advanced mining technologies and established supply chains could help India overcome production bottlenecks.

Australia ranks as the world's fourth-largest producer of rare earths.

- Australian firms are expected to participate in upcoming Indian auctions for rare earth mineral blocks.
- **Challenges** - India's strict environmental regulations, low mineral concentrations, and high extraction costs, alongside Australia's need to safeguard its own resource security, could complicate progress.
- **Significance** - India-Australia collaboration as a critical step toward securing rare earth supply chains, potentially positioning both countries as influential players in the sector.

Minerals Security Partnership (MSP) is a US-led international alliance of 14 countries, including India, established in 2022 to secure critical mineral supply chains.

Reference

[Swarajya| India - Australia Rare earth Elements](#)