India-Australia Critical Minerals Investment Partnership

For Prelims: Critical Minerals, QUAD, Indo-Pacific Region, KABIL or the Khanij Bidesh India Limited.

For Mains: India and Australia Relations, India-Australia Critical Minerals Investment Partnership, Significance.

Why in News?

Recently, **India and Australia** decided to strengthen their partnership **in the field of projects and supply chains for critical minerals.**

- Australia confirmed that it would **commit USD 5.8 million** to the three-year **India-Australia Critical Minerals Investment Partnership.**

What are Critical Minerals?

- **About:**
  - Critical minerals are **elements that are the building blocks of essential modern-day technologies** and are at risk of supply chain disruptions.
- **Examples:**
  - Based on their individual needs and strategic considerations, **different countries create their own lists.**
    - However, such lists mostly **include graphite,** lithium **and** cobalt**,** which are used for making EV batteries; rare earth that is **used for making magnets and silicon** which is a key mineral for making computer chips and solar panels.
  - India's Department of Science and Technology, in collaboration with the Council on Energy, Environment and Water, drafted the Critical Minerals Strategy for India in 2016, with a focus on India's resource requirements till 2030.
    - The Indian Critical Minerals Strategy has **identified 49 minerals that will be vital for India's future economic growth.**
- **Significance:**
  - These minerals are now **used everywhere** from making mobile phones, and computers to batteries, **electric vehicles** (EV) and green technologies like solar panels and wind turbines.
  - Aerospace, communications and defence industries also **rely on several such minerals as they are used in manufacturing fighter jets,** drones**, radio sets and other critical equipment.**

Why are these Minerals Considered a Critical Source?

- **Increased Dependency:**
  - As countries around the world scale up their transition toward clean energy and a digital economy, these critical resources are **key to the ecosystem that fuels this change.**
    - Any supply shock can severely imperil the economy and strategic autonomy of a

country over-dependent on others to procure critical minerals.

- **Low Availability:**
  - These supply risks exist due to rare availability, growing demand and complex processing value chain. Many times, the complex supply chain can be disrupted by hostile regimes, or due to politically unstable regions.
- **Increasing Demand:**
  - According to the United States (US) Government, as the world transitions to a clean energy economy, **global demand for these critical minerals is set to rapidly increase by 400-600%** over the next several decades, and, for minerals such as lithium and graphite used in EV batteries, **demand will increase by even more as much as 4,000%.**
    - They are critical as the **world is fast shifting from a fossil fuel-intensive to a mineral-intensive energy system.**

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What is the Significance of India Australia Partnership?

- **Reduction in Emissions & Essential Demand:** Australia has the resources to help India fulfil its ambitions to lower emissions and **meet the growing demand for critical minerals** to help India's space and defence industries, and the **manufacture of solar panels, batteries and electric vehicles.**
- **Expanding Global Trade:** India's strong interest and support for a bilateral partnership will help advance critical minerals projects in Australia while diversifying global supply chains.
- **The Path to Achieve Clean Energy:** India is among the fastest-growing economies in the world and there is huge scope for collaboration in the mineral sector. Technology transfer, knowledge-sharing and investment in critical minerals like lithium and cobalt are strategic to achieving clean energy ambitions.

How has been the India- Australia Trade Relations so far?

- **Cordial Relations:** India and Australia enjoy excellent bilateral relations that have undergone transformational evolution in recent years, developing along a positive track, into a friendly partnership.
  - This is a special partnership characterised by shared values of pluralistic, parliamentary democracies, Commonwealth traditions, expanding economic engagement, long-standing people-to-people ties and increasing high-level interaction.
- **India-Australia Comprehensive Strategic Partnership:** It was initiated during the **India-**

Australia Leaders' Virtual Summit held in June 2020 and is the cornerstone of India-Australia multi-faceted bilateral relations.

- **Trading Partners:**
  - India-Australia **bilateral trade for both merchandise and services is valued** at USD 27.5 billion in 2021.
  - India's merchandise **exports to Australia grew 135% between 2019 and 2021.** India's exports consist primarily of a broad-based basket largely of finished products and were USD 6.9 billion in 2021.
  - India's merchandise **imports from Australia were USD 15.1 billion in 2021,** consisting largely of raw materials, minerals and intermediate goods.
- **Others:**
  - India and Australia are partners in the trilateral **Supply Chain Resilience Initiative (SCRI)** arrangement along with Japan which seeks to enhance the resilience of supply chains in the **Indo-Pacific Region.**
  - Further, India and Australia are also members of the **QUAD grouping (India, the US, Australia and Japan)**, to enhance cooperation and develop partnership across several issues of common concern.

What makes China a threat in this situation?

- **Largest Producer:** As per the 2019 US Geological Survey (USGS) Mineral Commodity Summaries report, China is the **world's largest producer of 16 critical minerals.**
  - The level of concentration is even higher for processing operations, where China has **a strong presence across the board.** China's share of refining is around 35% for nickel, 50-70% for lithium and cobalt, and nearly 90% for rare earth elements.
- **Responsible for Global Production: It also controls cobalt mines in the Democratic Republic of Congo,** from where 70% of this mineral is sourced.
  - China, according to a report on the role of critical minerals by the **International Energy Agency (IEA)**, was responsible for some 70% and 60% of global production of cobalt and rare earth elements, respectively, in 2019.

What are Countries Around the World doing About this Issue?

- **United States:** In 2021, the US **ordered a review of vulnerabilities in its critical minerals supply chains** and found that an over-reliance on foreign sources and adversarial nations for critical minerals and materials posed national and economic security threats.
  - Post the supply chain assessment, it has shifted its focus on expanding domestic mining, production, processing, and recycling of critical minerals and materials.
- **India:** It has set up **KABIL or the Khanij Bidesh India Limited**, a joint venture of three public sector companies, to ensure a consistent supply of critical and strategic minerals to the Indian domestic market.
  - It **ensures the mineral security of the nation;** it also helps in realising the overall objective of import substitution.
  - Australia's Critical Minerals Facilitation Office (CMFO) and KABIL had **recently signed an MoU (Memorandum of Understanding)** aimed at ensuring a reliable supply of critical minerals to India.
- **United Kingdom:** Recently, the United Kingdom (UK) unveiled its **new Critical Minerals Intelligence Centre** to study the future demand for and supply of these minerals.
  - The country's critical mineral strategy will be unveiled later in 2022.
- **Other Countries:** In 2020, the US, Canada and Australia launched an **interactive map of critical mineral deposits** intending to help governments to identify options to diversify the sources of their critical minerals.

Source: IE