Indian Economy

Surat Diamond Bourse

- ***Tags:***
- ***GS Paper - 1***
- ***Mineral & Energy Resources***
- ***GS Paper - 2***
- ***Government Policies & Interventions***

For Prelims: Surat Diamond Bourse, Major Diamond Producing Countries, Lab-Grown Diamonds, Chemical vapor deposition method, Customs duty on imported seeds for Lab Grown Diamonds.

For Mains: Diamond Industry in India, Production Methods of Lab Grown Why in News?

Recently, the **Indian Prime Minister** inaugurated the **Surat Diamond Bourse (SDB)** in Gujarat, marking a significant development in the **diamond** and jewelry industry.

- The SDB stands as the **world's largest office complex.** It aims to relocate the diamond trading hub from Mumbai to Surat, **leveraging Surat's diamond cutting and polishing expertise.**

What is the Status of the Diamond Industry in India?

- **About Diamond:** A diamond is a rare, naturally occurring mineral made up of pure carbon. The word diamond comes from the Greek word Adamas, which means **indestructible.**
    - Diamond occurs in two types of deposits, **primarily in igneous rocks of basic**

or ultrabasic composition and in alluvial deposits derived from the primary sources.

- **Major Diamond Producing Countries:** Russia, Botswana, Canada, South Africa, Democratic Republic of the Congo.
    - Russia is the world's largest producer of rough diamonds, mining nearly 42 million carats in 2022.

Note

Recently, the G7 group of countries have announced direct import restrictions on Russian-origin diamonds from January 2024 and **diamonds processed by third countries like India from March 2024**, which has raised major concerns for the Indian gems and jewelry trade and diamond processing industry.

- However, **Lab grown diamonds** are gaining traction for their eco-friendly nature.
- **Diamond Industry in India:** India is the world's largest cutting and polishing center for diamonds, accounting for over 90% of polished diamond manufacturing globally.
    - According to Indian Minerals Yearbook 2019, diamond fields of India are grouped into four regions:
        - **Central Indian tract of Madhya Pradesh**, comprising Panna belt.
        - **South Indian tract of Andhra Pradesh**, comprising parts of Anantapur, Kadapa, Guntur, Krishna, Mahabubnagar and Kurnool districts.
        - **Behradin-Kodavali area in Raipur district** and Tokapal, Dugapal, etc. areas in Bastar district of Chhattisgarh.

        - **Eastern Indian tract mostly of Odisha**, lying between Mahanadi and Godavari valleys.
    - In 2022, India ranks first among the top exporters in **cut & polished diamonds.**

What are Lab-Grown Diamonds?

- **About:**
    - Lab-grown diamonds (LGDs) are diamonds that are grown in a laboratory using advanced technology.
        - They are also known as **cultured, synthetic, man-made, or artisan-created diamonds.**
    - Natural diamonds form deep within the Earth over an extensive period, often up to three billion years, under extreme pressure and high temperatures.
        - LGDs have essentially the same chemical, optical and physical properties and crystal structure as natural diamonds.
    - Unlike mined diamonds, **lab-grown diamonds do not involve the social and environmental ramifications associated with mining activities.**
        - Consequently, all LGDs are considered eco-friendly and contribute positively to environmental preservation.
- **Production Methods:** LGDs are synthesized in laboratories via two primary methods: **chemical vapor deposition (CVD) or high pressure, high temperature (HPHT).**

- Both HPHT and CVD methods of growing diamonds artificially begin with a **seed**, a slice of another diamond.

- **Market Share in India:** India, known as a significant hub for diamond cutting and polishing, has experienced a notable surge in export earnings due to the increasing global demand for LGDs.
    - However, their current share in the overall diamond industry stands at **2-3%.**
    - To improve the share, In Budget 2023-24, the Union Finance Minister announced elimination of Customs duty on i**mported seeds** used in the manufacturing process of rough LGDs.