



Gold Deposits in Sonbhadra

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Why in News

The **Geological Survey of India** has rejected the UP government's Department of Geology and Mining claims of discovering about 3,000 tonnes of gold deposits in **Uttar Pradesh's Sonbhadra district**, saying the actual estimated reserve stands at 160 kg.

Gold: Science

- Gold is a chemical element with the **symbol Au (from Latin: Aurum)** and **atomic number 79**.
- Some of the **unique properties** of gold are:
 - Conducts electricity.
 - Resistant to corrosion.
 - Exceptionally malleable and ductile.
 - Catalytic properties.
 - Biocompatible.
 - Nanogold.

Gold: Currency

- Owing to its unique qualities, gold has been the one material that is universally accepted in exchange for goods and services.
- Gold began to serve as backing for paper-currency systems when they became widespread in the 19th century and from the 1870s until **World War I**, the **gold standard** was the basis for the world's currencies.
- Although gold's official role in the international monetary system had come to an end by the 1970s, the **metal remains a highly regarded reserve asset and approximately 45% of all the world's gold is held by governments and central banks for this purpose**.
- Gold is still accepted by all nations as a medium of international payment.

- **India's Forex Reserve** also includes **Gold** along with **Foreign Currency Assets (such as dollar)** and **Special Drawing Rights**.

Why Gold

- There are five precious metals which can potentially be worked with: **platinum, palladium, rhodium, silver and gold**. Silver has been used as money but it tarnishes over time. Rhodium and palladium are more recent discoveries with limited historical uses.
- Platinum and gold are the remaining elements. Platinum's extremely high melting point makes it impractical to melt. Thus gold is the only option left. It melts at a lower temperature and is malleable, making it easy to work with.

Gold: Facts

- According to the **World Gold Council**, India has gold reserves of more than 600 tonnes, the **10th largest** in the world.
- **U.S has the highest** gold reserves with 8,133.5 tonnes of total gold reserves, **followed by Germany** with 3,366.8 tonnes and the **International Monetary Fund (IMF)** with a holding of 2,451.8 tonnes
- The weight of gold is measured in **troy ounces (1 troy ounce = 31.1034768 grams)**, however its **purity is measured in 'carats'**. 24 carat is pure gold with no other metals.

Sonbhadra

- Sonbhadra is the **second largest district (area-wise) of Uttar Pradesh** after **Lakhimpur Kheri**.
- It is the **only district in the country which shares borders with four states**. **Madhya Pradesh** to the west, **Chhattisgarh** to the south, **Jharkhand** to the south-east and **Bihar** to the east.
- Sonbhadra district is an **industrial zone** and has lots of minerals like **bauxite, limestone, coal, gold** etc.
- It is drained by tributaries of the Ganges including the **Belan** and **Karmanasha** rivers. **Son** river flows through the district from **west to east**. **Rihand** river rises to the south in the highlands of Surguja district of Chhattisgarh and flows north to join the Son in the centre of Sonbhadra.
The **Govind Ballabh Pant Sagar** (also known as **Rihand Dam**) is a reservoir on the Rihand, lies partly in the district and partly in Madhya Pradesh.
- **Kaimoor Wildlife Sanctuary** lies mostly within Sonbhadra, reaching generally east and west along the **Kaimur Range**, and extending to the Son river at its eastern end.

- Sonbhadra is known for its several **Cave painting sites found in the Vindhya region.**
 - The **Lakhania caves** are located in the Kaimur ranges and are known for their beautiful ageless **rock paintings.**

These historic paintings are about 4000 years old.
 - **Khodwa Pahar or Ghoramangar** is another well-known ancient cave painting site.



Source: IE