

Illegal Uranium sale

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In news: Maharashtra Anti-Terrorism Squad (ATS) recently arrested two persons under the **Atomic Energy Act of 1962** for possessing 7 kg natural uranium without licence.

About Uranium-

- Uranium occurs naturally in low concentrations in soil, rock and sea water and is commercially extracted from uranium-bearing minerals.
- It was **discovered in 1789 by Martin Klaproth**, a German chemist, in the mineral called **pitchblende**.
- It was **named after the planet Uranus**, which had been discovered eight years earlier.
- Uranium has a **melting point of 1132°C**.
- It has a silvery grey metallic appearance and is mainly used in nuclear power plants due to its unique nuclear properties.
- Depleted uranium is also used as a shield against radiation in medical processes using radiation therapy and also while transporting radioactive materials.
- Its **high density** makes it effective in halting radiation and useful as counterweights in aircraft and industrial machinery.
- The **U-235 nucleus is 'fissile'**, that of U-238 is said to be 'fertile'.
- This means that it can capture one of the neutrons which are flying about in the core of the reactor and become (indirectly) plutonium-239, which is fissile.