THERMOBARIC WEAPONS - DEFENCE

News: Russia's use of **ODAB-1500 thermobaric weapons** in Ukraine has drawn significant attention due to their devastating effects.

What's in the news?

What Are Thermobaric Weapons?

- Thermobaric weapons, also known as "vacuum bombs" or "enhanced blast weapons," rely on the atmosphere's oxygen to fuel their explosive power.
- Unlike conventional explosives that contain both fuel and oxidizer, thermobaric bombs release a fuel cloud, which, when ignited, causes a high-temperature explosion.
- This explosion generates a blast wave of immense pressure, followed by a rapid vacuum effect as the oxygen in the vicinity is consumed.
- In 2001, the United States deployed these weapons to target al-Qaeda forces hiding in the caves of the Tora Bora mountains.



Impact

- The **combination of overpressure and vacuum** makes these weapons destructive in enclosed spaces such as bunkers, buildings, and tunnels.
- The shockwave produced by thermobaric bombs can destroy structures, while the blast's
 pressure differential causes catastrophic damage to the human body, including rupturing
 organs and lungs.



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• There are **no international laws** specifically banning their use, but if a country uses them to target civilian populations in built-up areas, schools or hospitals, then it could be convicted of a war crime under the **Hague Conventions of 1899 and 1907.**

Source: https://www.financialexpress.com/business/defence-explainer-the-growing-use-of-thermobaric-weapons-3623496/

