



India-US Initiatives in Defence and Nuclear Cooperation

[Source: HT](#)

Why in News?

The **US National Security Advisor** visited India and signed **new initiatives** in areas such as technology and defence.

What are the new initiatives signed between India and the US?

- **Civil Nuclear Cooperation:** US announced to **remove restrictions** e.g., supply of **US nuclear reactors** on Indian nuclear entities like **Bhabha Atomic Research Center (BARC)** to implement **India-US civil nuclear cooperation agreement**.

Sonobuoy Co-Manufacturing: It aims to bolster the Indian Navy's **underwater threat detection capabilities**, particularly in detecting submarines and other hostile underwater objects.

- **Missile Export Control:** The US NSA briefed India on updates to **missile export controls** under the **MTCR**, enhancing **space cooperation** and creating new collaboration opportunities.
- **India** became a member of the **MTCR in 2016**.
- **Advancement of ICET:** Both nations reaffirmed cooperation in emerging technologies such as **artificial intelligence, quantum computing, telecommunications, and space**.

Note: India and the US decided to **curb terrorism** through 'de-radicalisation' of **vulnerable communities**.

What are Sonobuoys?

- **About:** Sonobuoys are **expendable, electro-mechanical acoustic sensors** designed to detect, classify, and track underwater sounds from ships and submarines.
 - They are primarily used in **anti-submarine warfare (ASW)**.
- **Functioning:** They are dropped in **canisters**, activate upon hitting water, and deploy an **inflatable system** with a **radio transmitter** on the surface.
 - They remain active for around **24 hours** and are designed to **operate only once**.
- **Communication:** The inflatable system on the surface of the water **maintains communication** with the **ship or aircraft** tracking the sonobuoy.

India-US Civil Nuclear Cooperation Agreement

- **About:** Also known as the **123 Agreement**, it allows India to **access nuclear fuel, technology, and reactors** for peaceful purposes like energy generation, even though India is **not** a signatory to the **Nuclear Non-Proliferation Treaty (NPT)**.
- **Key Components:** India agreed to place its **civilian nuclear facilities** under **IAEA** safeguards to ensure peaceful use of nuclear material.

- The US sought a **NSG exemption** to enable trade with India's expanding peaceful nuclear sector.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q. In India, why are some nuclear reactors kept under “IAEA safeguards” while others are not? (2020)

- (a) Some use uranium and others use thorium
- (b) Some use imported uranium and others use domestic supplies
- (c) Some are operated by foreign enterprises and others are operated by domestic enterprises
- (d) Some are State-owned and others are privately owned

Ans: (b)

Q. In the Indian context, what is the implication of ratifying the ‘Additional Protocol’ with the ‘International Atomic Energy Agency (IAEA)’? (2018)

- (a) The civilian nuclear reactors come under IAEA safeguards.
- (b) The military nuclear installations come under the inspection of IAEA.
- (c) The country will have the privilege to buy uranium from the Nuclear Suppliers Group (NSG).
- (d) The country automatically becomes a member of the NSG.

Ans: (a)