Comprehensive Nuclear Test Ban Treaty (CTBT)

Why in news?

Recently, Russia said that it might revoke its ratification to the Comprehensive Nuclear Test Ban Treaty (CTBT).

What is Comprehensive Nuclear Test Ban Treaty (CTBT)?

- It is a multilateral treaty that *bans all nuclear explosions*, for both civilian and military purposes, in all environments.
- **Adopted by-** The *United Nations General Assembly (UNGA)* in 1996.
- **Structure -** The CTBT itself includes a Protocol in 3 parts.
    - Part I detailing the International Monitoring System (IMS)
    - Part II on On-Site Inspections (OSI)
    - Part III on Confidence-Building Measures (CBMs)
- There are also 2 Annexes to the Protocol.
    - Annex 1 detailing the location of various Treaty monitoring assets associated with the IMS
    - Annex 2 detailing the parameters for screening events
- **CTBTO** - The Treaty establishes a *CTBT Organization (CTBTO),* located in *Vienna,* to ensure the implementation of its provisions
- The CTBTO consists of 2 organs,
    - Preparatory Commission (a plenary body) and
    - Provisional Technical Secretariat (PTS)
- **Administered by** - Preparatory Commission for CTBTO
- **Condition-** For the treaty to enter into force, 44 ***"Annex 2" States*** must sign and ratify the Treaty.
    - **Signed but not ratified-** China, Egypt, Iran, Israel and the United States
    - **Non-signatories**- India, North Korea and Pakistan
- **Withdrawal-** Each State Party has the right to withdraw from the CTBT if it decides that extraordinary events related to the subject matter of the Treaty have jeopardized the State Party's supreme national interests.

Russia ratified the CTBT agreement in 2000.

How did CTBT come into existence?

- **1940s** - USA conducted the world's 1st successful nuclear weapons test in 1945 whereas Soviet Union tested its 1st nuclear weapon in 1949.
- These tests triggered a decades-long arms race between the two superpowers.
    - Between 1945 and 1996, more than 2,000 nuclear tests were carried out.

- **1960s-** *Limited Nuclear Test-Ban Treaty (LTBT),* 1963 prohibited nuclear testing in the atmosphere, outer space, and underwater, but underground tests were still permitted.
- **1970s** - The US and Soviet Union agreed to sign the *Threshold Test Ban Treaty (TTBT),* which established a nuclear threshold by banning the two countries from conducting tests that would produce a yield exceeding 150 kilotons (equivalent to 150,000 tons of TNT).
- **1990s**- A major breakthrough came after the Cold War ended through the *CTBT in 1996* that will prohibit all nuclear weapons tests and other nuclear explosions upon its entry into force

What is the status since the signing of CTBT?

- **Timely information -** Post 2011 Fukushima nuclear accident, CTBTO data provided timely information on the radioactive emissions from the crippled plant and their global dispersion.
- **Monitoring** - International Monitoring System monitors the Earth's crust, listens in the atmosphere and in the oceans and sniffs the air for traces of radioactivity.
- **Nuclear testing**- Since the CTBT, 10 nuclear test have taken place in countries such as Pakistan, India and North Korea.
- **Superpowers-** The United States last tested in 1992, China and France in 1996 and the Soviet Union in 1990.
- Russia, which inherited most of the Soviet nuclear arsenal, has never conducted a nuclear test.

What is India's stand on CTBT?

India is a member of the Multilateral Export Control Regime (Australia Group, Wassenar Agreement, Missile Technology Control Regime) ***except the Nuclear Suppliers Group.***

- **Standstill agreement**- It was launched by India in 1954, by then Prime Minister Jawaharlal Nehru.
- Testing of all nuclear weapons was to be immediately suspended, pending an agreement on their complete prohibition.
- **LTBT**- Nehru played an important role in building international momentum for the 1963 Limited Test Ban Treaty, which India joined.
- **CTBT** - India did not support the treaty in 1996 and still does not, but it had been very supportive during negotiations.
    - **Security concerns -** India considers the enforcement of the treaty as a threat to national security.
    - **Discriminatory** - US has already conducted more than 2000 tests suddenly realizes that here was no need to test nuclear devices any more.
    - **Time limit** - No time-bound disarmament schedule for nuclear weapon states
    - **Limited Coverage**- CTBT would not help towards nuclear disarmament since it only banned nuclear explosive testing, but not other activities related to nuclear

weapons, such as sub-critical (non-nuclear explosive) experiments, or computer simulations.

- In 2016, the CTBTO has invited India to become an "*Observer*" in the CTBT.

Conventions that Control the Weapons of Mass Destruction	
Convention	**Purpose**
Geneva Protocol 1925	Banned the use of chemical and biological weapons
Biological Weapons Convention, 1972	Puts comprehensive ban on the biological weapons
Chemical Weapons Convention, 1992	Puts comprehensive ban on the chemical weapons
Nuclear Non-Proliferation Treaty (NPT)	Regulates the use and proliferation of nuclear weapons.

Related links - History of India's Nuclear Program

References

1. Indian Express- Explained nuclear test ban treaty
2. CTBTO- About the treaty

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