# Treaty on the Non-Proliferation of Nuclear Weapons (NPT) marks 55 years of Operation

NPT represents the **only binding commitment in a multilateral treaty** with the goal of disarmament by the **Nuclear-Weapon States (NWS)** and promotion of peaceful uses of nuclear energy.

#### **About NPT**

- Background: Enforced in 1970.
- Membership: 191 States.
  - India has not signed owing to discrimination of states into "nuclear haves" and "nuclear have-nots."

## **Major Provisions of the Treaty**

- Key Principles: Non-Proliferation (Parties to the Treaty should refrain from acquiring or transferring nuclearweapons); Disarmament; Access to Peaceful Nuclear Technology.
- Role of International Atomic Energy Agency (IAEA): Compliance with the Treaty is verified through inspections conducted by IAEA.
  - IAEA was created in 1957 under the United Nations to promote safe, secure and peaceful use of nuclear technologies.
- **▶** Review of the operation of the Treaty: Every five years.

## Significance of NPT in the present times

- ➤ Rising Nuclear Threats: In the form of small arms, evolving technologies like artificial intelligence, etc.
- Strengthening of Nuclear arsenals: As per Stockholm International Peace Research Institute (SIPRI), most nations have expanded their nuclear arsenals.

Weakening Nuclear Diplomacy: E.g., Russia withdrew its ratification of the Comprehensive Nuclear-Test-Ban Treaty (CTBT).

# **India and Nuclear Weapons**



## Nuclear Testing

Conducted nuclear explosion and testing in 1974 and 1998.



#### **Nuclear Doctrine**

Outlines its
eight-point nuclear
doctrine in 2003
emphasising on
no-first-use
posture.



Nuclear Cooperation India-USA Civil Nuclear Cooperation Initiative in 2005.

Agreement for Cooperation in the Peaceful Usage of Nuclear Energy between India and Japan in 2015.

#### Other Major Treaties on Nuclear Disarmaments

- Treaty Banning Nuclear Weapon Tests In The Atmosphere, In Outer Space And Under Water or the Comprehensive Nuclear-Test-Ban Treaty (CTBT): Not signed by India.
- Treaty on the Prohibition of Nuclear Weapons (TPNW): Not signed by India.

## World Spice Organization Suggests Greater Value Addition in Spices to Achieve \$10B Export Target

To achieve **Spices Board** of India's export **target of \$10 billion by 2030**, the country's share in value-added spices should rise up to 70%.

India's share in the global seasoning market, pegged at \$14 billion in 2024, is only a paltry 0.7%, against China's 12% and U.S.'s 11%.

#### India's Status in Spices

- ▶ Production: India is the world's largest spice producer. It is also the largest consumer.
  - India produces 75 of 109 varieties listed by International Organization for Standardization.
- ➤ Major Spices-producing States: Madhya Pradesh, Rajasthan, Gujarat, Andhra Pradesh, Telangana, Karnataka, Maharashtra etc.
- **Export:** India is largest exporter of spices. Chilli was the most exported spice from India (2021-22).
- ▶ Major Export Destinations: China, USA, Bangladesh, Thailand, UAE, Sri Lanka, Malaysia, UK etc.

#### Key challenges

Low Value Addition: only 48% of India's spice exports are valueadded products, while the rest are sold as raw whole spices.

## **Initiatives Undertaken**

- Spices Board of India: It is a statutory body constituted under administrative control of Department of Commerce for the development and global promotion of Indian spices.
- ➤ Export Development and Promotion of Spices: Aims to support the exporter to adopt high tech processing technologies
- Other: Setting up and maintenance of infrastructure for common processing (Spices Parks), National Sustainable Spice Program (NSSP) etc.
- **Socio-economic Challenges:** 98% of spice production is done by small-scale farmers with landholdings of less than 2 hectares.
- **Weak Regulation:** India lacks a national standard covering all Sanitary & Phytosanitary (SPS) measures.
- > Stiff Global Competition: from Vietnam, Indonesia, Brazil, China etc.







## SpaceX rocket explodes, scattering debris over Florida and the Bahamas

This incident highlights the growing risks associated with the expansion of satellite mega-constellations like Starlink and Kuiper.

Space debris refers to non-functional, artificial objects, including fragments, in Earth's orbit or re-entering the atmosphere.

## Governance and Legal Issues with Space Debris Management

- ▶ Lack of Definition: There is no universally accepted legal definition of space debris in international treaties.
- Liability: Disputes over whether debris qualifies as a "space object" under the 1972 Liability Convention. Liability becomes unclear when debris is no longer under a state's jurisdiction.
- **▶ Enforcement:** Many older satellites lack deorbiting mechanisms, and compliance with the UN's voluntary deorbiting guidelines.
- > Attribution: Identifying the source of debris is challenging, especially with older or fragmented objects.

**Key Sources:** Majority of debris objects originate from on-orbit break-ups as well as on-orbit collisions.

Space debris also originates from spent rocket stages, and use of space-based weapons (such as Anti-satellite missiles).

Challenges associated with rising space debris: risk to operational satellites and to the life of astronauts, leads to high cost for maintaining satellites, etc.

## **Initiatives Taken**

#### Global

- Inter-Agency Debris Coordination Committee (IADC), established in 1993
- ➤ UN Space Debris Mitigation Guidelines, Prepared by UN Committee on the Peaceful Uses of Outer Space (UN-COPUOS)
- Zero Debris Charter: Signed by 12 countries Austria, Belgium, Cyprus, etc.

#### India

- Debris Free Space Missions (DFSM) 2030.
- ISRO System for Safe and Sustainable Operations Management (IS40M)
- Established Space Situational Awareness Control Centre (SSACC)
- Project Network for Space Object Tracking and Analysis (NETRA)

# Study highlights significance of Seagrass conservation for Global Biodiversity

A recent review article published in the Nature Reviews Earth & Environment highlights the way seagrass beds support biodiversity and ecosystem services, their dominant threats, and opportunities.

#### **About Seagrasses**

- They are marine flowering plants that grow in shallow, coastal waters, typically in estuarine and oceanic habitats.
- Known as the "lungs of the sea," seagrasses play a crucial role in oxygen production through photosynthesis, contributing significantly to marine ecosystems.
- Distribution of Seagrasses
  - Found across all continents except Antarctica.
  - India: Gulf of Mannar and Palk Bay regions on the east coast, Gulf of Kachchh region on the west coast, the lagoons of islands in Lakshadweep in the Arabian Sea, and Andaman and Nicobar Islands in the Bay of Bengal.

#### Significance of Segrasses

- **Biodiversity Support:** Seagrass meadows provide habitat for 121 species of conservation concern and 746 fish species.
- Carbon Sequestration: Seagrasses capture carbon 35 times faster than rainforests, storing 10-18% of the ocean's carbon despite covering less than 0.1% of the seafloor.
- Coastal Protection: Protect coastlines from storms and erosion by reducing wave impact.
- Economic Value: Seagrass ecosystems are valued at US \$6.4 trillion annually and support over 20% of global fishery landings, benefiting fishing and tourism industries.
- Threats: urban, industrial, and agricultural run-off; coastal development; dredging; unregulated fishing and boating activities; and climate change.

# **Initiatives to Protect Seagrasses**

#### Global

- **UNEP Community Manual:** UNEP and partners launched a manual to guide community-based seagrass conservation projects.
- **Seagrass Watch:** A collaborative program that trains volunteers and organizations to monitor and conserve seagrass habitats.
- **Blue Carbon Initiative:** Focuses on coastal ecosystems, including seagrasses, for carbon sequestration and climate change mitigation.
- National Policy on Marine Fisheries: Highlights the importance of seagrasses, along with mangroves and coral reefs, in coastal marine ecosystems.
- Climate Resilience Project: in Andhra Pradesh, Maharashtra, and Odisha to enhance coastal climate resilience. This includes protection and restoration of natural ecosystems like seagrasses, supported by a grant from the Global Climate Fund.



# Supreme Court (SC) emphasized on the need for stricter implementation of existing laws for Women Empowerment

Through such observations and judgements, Indian judiciary has time and again played an important role in women empowerment.

## Role of Judiciary in empowerment of Women

- Preventing Sexual Harassment: In Vishaka Sawhney v. State of Rajasthan (1998), SC laid down exhaustive guidelines to prevent sexual harassment of women in workplace.
- ➤ Upholding Women Rights: In Shayara Bano v. Union Of India (2017), SC held Triple Talaq as unconstitutional infringing on the fundamental rights of women.
- Gender Equality: In Danamma @ Suman Surpur v. Amar (2018), SC upheld the equal right of a daughter as son in ancestral property.
- ➤ Reforming Criminal Laws: In Joseph Shine v. Union of India (2018) SC struck down Section 497 IPC that criminalises adultery assuming woman as the property of the husband.
- ➤ Wage Equality: In Randhir Singh v. Union of India (1982), SC recognized "equal pay for equal work" as a constitutional goal under Article 39(d).

Other Constitutional and Legislative Measures on Women Empowerment

- Constitutional
  - Fundamental Rights: Article 14 (right to equality), Article 15(1) (prohibits discrimination on the basis of sex), etc.
  - Directive Principles: Article 42 (State to make provision for securing just and humane conditions of work and for maternity relief), etc.
- ➤ Legislative Frameworks: Protection of Women from Domestic Violence Act, 2005; The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, etc.

#### Also In News



#### **Right to Livelihood**

The SC permits Ranveer Allahbadia to air programs as it is only source of livelihood" for him.

#### Right to Livelihood

- ➤ The Supreme Court through various judgements held that Article 21 includes the right to life and right to livelihood.
- ➤ Article 39: The State shall ensure that all citizens, men and women equally, have the right to an adequate livelihood.

## **SC Judgments**

- Olga Tellis v. Bombay Municipal Corporation (Pavement Dwellers Case): Right to livelihood is part of the right to life, as no one can live without a means of livelihood.
- M.J. Sivani v. State of Karnataka: The right to life under Article 21 includes protection of livelihood.



## **Digital footprint-based lending for MSMEs**

Ministry of Finance launched a new credit assessment model using MSMEs' digital footprints to streamline credit appraisal and disbursement.

## **About New Credit Assessment Model**

- It will leverage the digitally fetched and verifiable data available in the ecosystem and devise automated journeys for MSME loan appraisal.
- It aims to improve financial inclusion, reduce reliance on traditional credit scores, and support MSMEs with easier access to formal credit.
- ▶ It was announced in Union Budget 2024-25 that public sector banks (PSBs) will build their in-house capability to assess MSMEs for credit, instead of relying on external assessment.



## **Scheme for Cooperative Sugar Mills**

Recently, Union Government has notified a scheme for Cooperative Sugar Mills under modified Ethanol Interest Subvention Scheme.

**About Scheme for Cooperative Sugar Mills** 

- Ministry: Ministry of Consumer Affairs, Department of Food & Public Distribution
- Aim: Conversion of existing sugarcane-based feedstock ethanol plants into multi-feedstock based plants to use grains like Maize and Damaged Food Grains (DFG).
- Under modified Ethanol Interest Subvention Scheme, Government is providing Interest subvention @ 6% per annum or 50% of rate of interest



#### **TROPEX - 2025**

TROPEX 25 conducted over a period of three months from Jan to Mar 25.

## **About TROPEX**

- It is the Indian Navy's premier biennial war exercise.
- ➤ Aim: To assess and enhance the operational preparedness of the Indian Navy in coordination with the Indian Army, Air Force, and Coast Guard.











## **Organization of Islamic Cooperation**

The OIC endorsed the Arab League's alternate proposal against Trump's plan to seize Gaza and displace its residents.

#### **About OIC**

- It is an international organization that represents the collective voice of the Muslim world.
- Membership: It is the second largest organization after United Nations with **57 states** spread over 4 continents.
- Genesis: 25 September 1969
- Permanent Secretariat: Jeddah
- Objective: To safeguard and protect interests of the Muslim world in the spirit of promoting international peace and harmony among various people of world.



#### Missile 'Gandiva'

The DRDO has officially designated its air-to-air missile technology as "Gandiva."

#### **Key Features of Gandiva/Astra MK-3**

- > It is next in line of the Astra series, building upon the success of its predecessors, the Astra MK-1 and MK-2.
- Propulsion System: It is powered by a Solid Fuel Ducted Ramjet propulsion system, a cutting-edge technology that utilizes atmospheric oxygen as an oxidizer.
- **Speed:** It can sustain supersonic speeds, reportedly up to Mach 4.5, over extended ranges of 300-350 kilometres.



## **POSHAN Abhiyan**

Recently, POSHAN (Prime Minister's Overarching Scheme for Holistic Nutrition) Abhiyan (launched in 2018) completed 7 years of its implementation.

## **About POSHAN Abhiyan**

- **▶ Ministry:** Union Ministry of Women and Child Development.
- **Nature:** Centrally Sponsored Scheme.
- ➤ Objective: Improve nutritional status of adolescent girls, pregnant women, lactating mothers, and children from 0-6 years age.
- ➤ Mission POSHAN 2.0: Launched in 2021, it amalgamated various programmes with similar objectives such as Supplementary Nutrition Programme and POSHAN Abhiyaan under one umbrella.
- Funding pattern:
  - For States & UTs with a legislature: 60:40 between Union and State/ UT Government.
  - For Northeastern (NER) & Himalayan States: 90:10 between Union and State Government.
  - For UTs without a legislature: 100% by Union Government.



## **Personality in news**

Govind Ballabh Pant (1887 - 1961)

Eminent Freedom fighter and first CM of UP was remembered on his death anniversary (March 07).

#### **About Govind Ballabh Pant**

- Born in Khoont village near Almora, Uttarakhand.
- In 1921, he entered politics and was elected to Legislative Assembly of the United Provinces of Agra and Oudh.

## **Key Contributions**

- ▶ He was appointed by Congress to initially represent Ramprasad Bismill, Ashfaqulla Khan, and other revolutionaries involved in the Kakori case.
- Took part in Salt March, Quit India Movement, and was arrested in 1930 for planning Civil Disobedience Movement.
- Contributions as CM of UP: Abolition of the zamindari system, passed the Hindu Code Bill, gave the Hindu women the rights of divorce and inheritance, etc.
- Contributions as Home Minister: Reorganisation of States along linguistic lines.
  - ⊕ He was also responsible for the establishment of Hindi as an official language of the central government and a few states.
- Rewards and Recognition: Received Bharat Ratna (1957).

Values: Leadership, integrity, Compassion. etc.































AHMEDABAD

BENGALURU

BHOPAL

CHANDIGARH

DELHI

GUWAHATI

HYDERABAD

JODHPUR

LUCKNOW

PRAYAGRAJ

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