

03rd April
2025

Daily Current Affairs

Presented By-
Prabhakar Jha



The Waqf (Amendment) Bill, 2024

Key Amendments

- **Modification of the Waqf Act, 1995:** The Bill revises provisions related to the administration of Waqf properties in India.
- **Removal of "Waqf by Use":** Properties traditionally used as Waqf, such as mosques, will now require official documentation (Waqfnama) to be legally recognized as Waqf.
- **Survey of Waqf Properties:** The responsibility of surveying Waqf properties will shift from the Survey Commissioner to the District Collector or other senior officials.
- **Changes in Waqf Board Representation:** The Bill permits the appointment of non-Muslim Chief Executive Officers and members to state Waqf Boards.
- **Application of the Limitation Act:** By removing Section 107 of the 1995 Act, the Bill extends the Limitation Act (1963) to Waqf properties. This change enables individuals who have unlawfully possessed Waqf property for over 12 years to claim ownership through

A parliamentary panel recommended raising the OBC creamy layer income limit beyond ₹8 lakh

Creamy Layer Principle

- It is a concept used to ensure that reservations in educational institutions and government jobs are extended to those **who are economically and socially disadvantaged within a certain group**.
 - It aims to **prevent the more affluent or advantaged members** of a reserved category from availing themselves of these benefits.
- **Origin:** The concept was first articulated by the **Supreme Court of India** in the **Indra Sawhney case (1992)**, also known as the **Mandal Commission case**.
 - The Court's ruling emphasized that within the OBC (Other Backward Classes) category, those who are **relatively more privileged should not benefit from reservations**.
- **Impact:** By applying the creamy layer principle, the government aims to make its affirmative action policies more effective and equitable, ensuring that those who are most in need receive the

Tackling the Disinformation Threat in India

Disinformation Threat in India

- Disinformation, the intentional spread of false or misleading information, poses a significant challenge to India's socio-political and economic stability.
- India, with over 1.4 billion people and a multilingual landscape, is uniquely vulnerable to disinformation.
- According to the **Global Risks Report 2025 of World Economic Forum (WEF)**, misinformation and disinformation are the most pressing short-term global threats.
 - India is particularly vulnerable to manipulated narratives, voter influence, and economic disruptions, with **over 900 million Internet users**.
 - WEF defines '**global risk**' as an event that can adversely affect a sizable portion of the population, the global GDP, and natural resources.

India's Defence Exports Hit New Record

Initiative	Description
Defence Production and Export Promotion Policy (DPEPP) – 2020	Aims to achieve defence exports worth ₹50,000 crore by 2029. Focus on building a robust manufacturing ecosystem including private sector and MSMEs.
Simplified Export Authorization Process	The online portal under DDP facilitates fast export clearance. 1,762 authorizations issued in FY 2024-25, a 16.92% rise over last year.
Strategic Partnership (SP) Model	Enables Indian private firms to partner with foreign OEMs to co-develop and manufacture high-tech defence platforms. Boosts tech transfer.
Industrial Licensing Reforms	Removal of licensing for parts/components and extension of license validity reduces compliance burden for startups and MSMEs.
Defence Attaches Empowered for Export Promotion	Financial powers given to defence attachés abroad to promote exports, engage buyers, and participate in expos.
Export Promotion Cell in DDP	Dedicated cell in DDP coordinates with industry and governments to streamline export procedures and resolve issues.
Participation in International Defence Exhibitions	India regularly organises defence expos like Aero India, DefExpo, IDEX, enhancing brand visibility.
Encouraging MSMEs and Startups	iDEX platform supports over 250 startups with funding and incubation for export-ready innovation in AI, drones, etc.
Make in India & Atmanirbhar Bharat Abhiyan	Mission to promote indigenous manufacturing. Offers

- SpaceX's Fram2 Mission

SpaceX's Fram2 mission

- The Fram2 mission lifted off atop a Falcon 9 rocket from **NASA's Kennedy Space Center, Florida**, sending the **Crew Dragon capsule "Resilience"** into a polar orbit.
- It also allows scientists to study how astronauts' bodies respond to **weightlessness and motion sickness**.
- It will last between 3 to 5 days, with the crew traveling in a novel orbital path to perform various experiments.
- The crew will perform the **first-ever x-ray in space**, providing insights into how microgravity affects bone and muscle density.
- It will also focus on **cultivating mushrooms in space**, which could offer valuable insights into **sustainable food production** for future space missions.

Post-Mission Task

- After returning to Earth, the crew plans to exit the Dragon spacecraft unassisted, aiding research on astronauts' ability to perform tasks without medical or operational help after spaceflight.

- India's Air Pollution Concern

World Air Quality Report 2024

- **Thirteen of the world's top 20 most polluted cities are in India**, with Byrnihat on the Assam-Meghalaya border being the most polluted.
- **India is the fifth most polluted country in the world**, with an average Air Quality Index (AQI) of 50.6 $\mu\text{g}/\text{m}^3$ – 10 times higher than the World Health Organization's (WHO) annual PM_{2.5} guideline value of 5 $\mu\text{g}/\text{m}^3$.
- **Delhi continues to be the most polluted Capital city** in the world with an average PM 2.5 concentration of 91.8 $\mu\text{g}/\text{m}^3$.

Government Initiatives

- **National Clean Air Programme (NCAP):** Launched in 2019, NCAP is a comprehensive initiative with the goal of reducing air pollution in identified cities and regions across India.
 - The program focuses on improving air quality monitoring, implementing stricter emission standards, and promoting public awareness.
- **Bharat Stage VI (BS-VI) Emission Standards:** The government implemented BS-VI emission standards for vehicles nationwide in 2020.
 - These standards aim to reduce vehicular emissions by mandating the use of cleaner fuel and more advanced emission control technologies.
- **Pradhan Mantri Ujjwala Yojana (PMUY):** The PMUY scheme aims to provide clean cooking fuel to households by promoting the use of liquefied petroleum gas (LPG) as an alternative to traditional biomass-based cooking methods.
- **FAME (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles) Scheme:** The FAME scheme promotes the adoption of electric and hybrid vehicles to reduce air pollution caused by vehicular emissions.
 - Incentives are provided to both manufacturers and consumers to encourage the use of electric vehicles.
- **Green Initiatives for Sustainable Habitat (GRIHA):** GRIHA is an initiative to promote sustainable and environmentally friendly practices in the construction and operation of buildings.
 - It encourages the use of energy-efficient technologies and materials to reduce pollution.
- **Waste Management Programs:** It is crucial to prevent the burning of waste, which contributes to air pollution.
 - Various waste management initiatives, including the Swachh Bharat Abhiyan, aim to address solid waste issues and promote cleaner disposal methods.
- **Commission for Air Quality Management:** The Commission has been set up for Air Quality Management in the National Capital Region and Adjoining Areas for better coordination, research, identification, and resolution of problems surrounding the air quality index.
- **Afforestation Programs:** Initiatives like the Green India Mission aim to increase tree cover, which can help absorb pollutants and improve air quality.

NITI-NCAER Portal on State Finances

Syllabus: GS2/Governance

Context

Finance Minister Nirmala Sitharaman has introduced the "NITI NCAER States Economic Forum" portal.

About the Portal

- **Developed By:** A collaborative initiative between NITI Aayog and the National Council of Applied Economic Research (NCAER).
- **Scope:** Serves as a comprehensive database on state finances, covering data from 1990-91 to 2022-23.
- **Objective:** Functions as a research hub, enabling historical and real-time data analysis to monitor state performance, identify trends, and support evidence-based policymaking.

Key Features

- 1.State Reports:** Presents macroeconomic and fiscal data for 28 states, covering demographics, economic structure, and fiscal indicators.
- 2.Data Repository:** Offers categorized data across five key areas—Demography, Economic Structure, Fiscal, Health, and Education.
- 3.State Fiscal and Economic Dashboard:** Provides graphical representations of major economic indicators along with quick access to appendices and summary tables.
- 4.Research and Commentary:** Features in-depth studies on state finances and fiscal policies at both state and national levels.

Government Securities

Syllabus: GS3/Economy

In the News

The Reserve Bank of India (RBI) has announced an infusion of ₹80,000 crore by purchasing government securities, citing "evolving liquidity conditions."

What are Government Securities (G-Secs)?

- **Definition:** Tradeable instruments issued by the Central and State Governments, representing a government's debt obligation.
- **Types:**
 - **Short-term securities** - Treasury bills (maturity less than one year).
 - **Long-term securities** - Government bonds or dated securities (maturity of one year or more).

G-Secs in India

- The **Central Government** issues both treasury bills and dated securities.
- **State Governments** issue only dated securities, known as **State Development Loans (SDLs)**.
- G-Secs are considered risk-free, as they carry virtually no default risk.

Future Circular Collider (FCC) Feasibility Study

Syllabus: GS3/Space

In the News

CERN, along with international collaborators, has completed a feasibility study for the Future Circular Collider (FCC), with inputs from over 1,000 physicists and engineers.

What is the Future Circular Collider (FCC)?

- The FCC is planned as the **successor to the Large Hadron Collider (LHC)**, expected to begin operations in the 2040s.
- It will have a **91 km circumference** and focus on **fundamental physics, particularly the Higgs boson**.
- The FCC aims to address unresolved questions from the 2012 Higgs boson discovery, such as **the origin of mass and the fate of the universe**.
- The project could lead to technological advancements in fields such as **medicine, fusion energy, electricity transmission, and advanced accelerators**.

Key Features

- **Design:** A proposed particle accelerator colliding protons at **unprecedented energy levels** (100 trillion electronvolts, over seven times that of the LHC).
- **Phases of Development:**
 - **Electron-positron collider** (starting 2046).
 - **Proton-proton collider** (slated for 2070).

Did You Know?

- The **Large Hadron Collider (LHC)** has been operational since 2008 and made **landmark discoveries, including the Higgs boson**.
- The **LHC is expected to cease operations by 2041**, with the FCC set to take over cutting-edge research in particle physics.

Saturn Gained 128 New Official Moons

Syllabus: GS3/Space

Context

Astronomers in Taiwan have identified **128 additional moons orbiting Saturn**, making it the planet with the most moons in the Solar System.

Key Highlights

- **Saturn's New Title:** Now holds the record with **274 confirmed moons**, surpassing the total moons of all other planets combined.
- **Discovery Process:** Some moons were detected during past space missions (e.g., **Voyager 1**), while others were identified during **ring-plane crossings**.

Types of Moons

- **Irregular Moons:**
 - Newly discovered moons are **small (a few kilometers in size)** and have **elliptical orbits at various angles**.
 - These moons were likely **captured by Saturn's gravity** and later fragmented by collisions.
- **Regular Moons:**
 - Formed alongside Saturn and orbit in stable, circular paths.

Scientific Significance

- The discovery provides insights into **Saturn's rings**, believed to be remnants of **comets, asteroids, and shattered moons**.
- The newly identified moons currently have **technical designations** (e.g., "S/2020 S 27") and await official naming by the **International Astronomical Union (IAU)**.

About Saturn

- **Second-largest planet in the Solar System** and **sixth from the Sun**.
- **Its rings are primarily composed of water ice**, with some rocky material.
- **Titan, its largest moon**, is bigger than **Mercury and Pluto**.

Green Credit Programme

Syllabus: GS3/Environment

In the News

The government has invited voluntary participation in activities such as tree plantations and water conservation under the **Green Credit Programme**, where participants can earn tradable green credits.

About the Programme

- **Launched By:** Ministry of Environment, Forest and Climate Change (MoEFCC).
- **Officially Unveiled:** December 1, 2023, at **COP28 in Dubai** by PM **Narendra Modi** and UAE President **Sheikh Mohammed bin Zayed Al Nahyan**.
- **Objective:** To **encourage voluntary environmental actions** through tradable "green credits."
- **Link to Mission LiFE:** Aligned with **Mission Lifestyle for Environment (LiFE)** to promote sustainable living.
- **Participation:** Open to **individuals, companies, PSUs, and institutions**.

Eligible Activities

Participants can earn **green credits** for:

- **Tree plantations and eco-restoration** (grasses, shrubs, herbs).
- **Water conservation** (rainwater harvesting, soil moisture conservation).
- **Waste management and air pollution reduction**.

Incentive Mechanism

- **Credits are tradable** on a domestic market platform.
- **Uses of Green Credits:**
 - **Compensatory afforestation obligations.**
 - **Environmental, Social, and Governance (ESG) compliance** under SEBI guidelines.

Concerns and Criticism

- **Legal Issues:** The **Ministry of Law and Justice has raised questions** about the legal basis of the trading model.
- **Supreme Court Review:** A petition is under review regarding **plantation survival rates and compliance with the amended Forest Act**.
- **Ecological Risks:** Critics argue the programme may:
 - Encourage **forest diversion** by substituting non-forest land with degraded land.
 - Threaten **ecologically important scrublands and open forests**.
 - Undermine the **"land-for-land" principle of compensatory afforestation**.

Migration Pattern of Painted Lady Butterflies

Syllabus: GS3/Environment

Context

Evolutionary biologist **Daria Shipilina** is studying the role of genetics in migration patterns, focusing on **painted lady butterflies**.

About the Study

- Researchers tracked **butterflies migrating between the Sahara Desert and Southern Europe**.
- They used **stable isotopes of hydrogen and strontium** in butterfly wings to determine their origin, as these isotopes remain unchanged from the larval stage.

Key Findings

- **Multi-Generational Migration:**
 - The migration cycle spans **8-10 generations**, with each butterfly living **only 2-4 weeks**.
- **Genetics vs. Environment:**
 - Unlike birds, which have distinct genetic traits for short- and long-distance migration, **painted lady butterflies do not show significant genetic differences based on migration distance**.
 - Instead, **environmental factors seem to influence migration**.

Did You Know?

- **Painted lady butterflies (Vanessa cardui)** undertake migrations of up to **15,000 km**.
- They can **thrive in diverse climates**, from grasslands to deserts,

Exercise Prachand Prahar

Syllabus: GS3/Defence

Context

- The Indian Armed Forces recently conducted a high-level tri-service integrated multi-domain exercise, **Prachand Prahar**, in the high-altitude terrain of Arunachal Pradesh.

About the Exercise

- The exercise showcased the seamless integration of advanced surveillance, strike capabilities, and multi-domain operational planning.
- Cutting-edge platforms such as long-range maritime reconnaissance aircraft, armed helicopters, UAVs, loitering munitions, and space-based assets were employed to achieve total situational awareness and rapid target engagement.
- Prachand Prahar follows **Exercise Poorvi Prahar**, conducted in November 2024, which focused on the integrated application of aviation assets.

Nag Missile System (NAMIS)

Syllabus: GS3/Defence

In News:

To enhance India's self-reliance in defence, the **Ministry of Defence** has signed a contract under the **Buy (Indian-Indigenously Designed, Developed, and Manufactured)** category for procuring the **Nag Missile System (NAMIS)**.

About NAMIS:

- NAMIS is a **third-generation, fire-and-forget Anti-Tank Guided Missile (ATGM)** developed by DRDO.
- It is designed specifically for the **Indian Army** to **eliminate heavily armoured enemy tanks**.
- The missile requires **no further guidance** after launch, allowing for **autonomous target engagement**.