



**OAS ଅର୍ଥାତ୍**  
**Study OAS**  
For A Better Odisha

Monthly Current Affairs Magazine

December 2025

# **INDEX**

**Governance and Policy**

**Social Issues**

**Empowerment**

**Culture and Arts**

**Environment**

**Health & Pharma**

**Education**

**Economy & Finance**

**Science & Technology**

**Agriculture**

**Important Days**

**State Affairs**

**Defence**

**International Relations**

**International**

# Governance and Policy

## Government Mandates Sanchar Saathi App on Smartphones: Privacy Debate Erupts

### What's the News?

- The **Department of Telecommunications (DoT)** has issued a directive mandating all smartphone manufacturers to **pre-install** the **Sanchar Saathi** app on new devices.
- The order, issued under the **Telecommunications (Telecom Cyber Security) Rules, 2024**, requires the app to be "readily visible" and states that its functionalities "cannot be disabled," sparking confusion about whether it is uninstallable.
- Following strong backlash from the **Opposition** citing privacy violations and "surveillance," Union Minister **Jyotiraditya Scindia** clarified that the app remains **voluntary** for users, who can choose to delete it if they wish.

### What is Sanchar Saathi?

A **citizen-centric telecom security platform** developed by DoT, operational since **January 17, 2025**, designed to empower users against mobile fraud and theft.

### Features & Impact (as reported by DoT)

- **Lost/stolen device blocking:** Integrates with the **Central Equipment Identity Register (CEIR)** to enable real-time IMEI-based blocking across all networks.
- **Recovery stats:** Over **42 lakh** stolen/lost devices reported; **7.5 lakh** recovered.
- **Fraud mitigation:**
  - Disconnected **2.75 crore** fraudulent mobile connections.
  - Blocked **20 lakh** spoofed IMEI devices.
- **User tools:**
  - Verify **all SIMs linked to Aadhaar** to detect unauthorized usage.
  - Authenticate device IMEI (critical for second-hand market integrity)
  - Report spam, spoofed calls (e.g., masked +91 numbers), and phishing links.

### Why the Controversy?

- **Mandatory pre-installation:** DoT's November 28, 2025 order requires OEMs to ensure the app is "**not disabled or restricted**", raising concerns it may function as a **system-level app** - difficult or impossible to uninstall.
- **Privacy & data access:**
  - App requests permissions for **call logs, SMS, camera, notifications**, potentially enabling broad surveillance if activated.
  - Critics argue the mandate lacks **transparency on data use, retention, and audit mechanisms**, especially under the new **Digital Personal Data Protection Act (DPDP Act, 2023)**.
- **Legal and democratic concerns:**

- Opposition alleges violation of **fundamental right to privacy** (*Justice K.S. Puttaswamy v. Union of India*, 2017).
- No prior public consultation or impact assessment disclosed.
- Fears of **mission creep**: From anti-fraud to political or financial surveillance.

### Government's Position

- Communications Minister Jyotiraditya Scindia clarified: app is "**inactive unless registered**" and "**can be deleted**" by users.
- Stated objective: curb **counterfeit handsets, cloned IMEIs, and impersonation fraud**, which exploit India's high mobile penetration.

### Additional Info

- **Legal Framework:**
  - The directive cites the **Telecommunications Act, 2023** and the **Telecom Cyber Security Rules, 2024**.
  - **Rule 5** empowers the government to establish mechanisms to identify and report acts endangering telecom cybersecurity.
- **Constitutional Context:**
  - **Article 21:** Critics argue mandatory installation violates the **Right to Privacy**, a fundamental right upheld in the **K.S. Puttaswamy Judgment (2017)**.
  - **Proportionality Test:** Privacy advocates argue that while curbing fraud is a legitimate goal, mandating an app for *all* users may fail the test of proportionality (i.e., the measure should not be excessive compared to the goal).

## NCBC Recommends Removal of 35 Communities from West Bengal's Central OBC List

### What's the News?

- The **National Commission for Backward Classes (NCBC)** has advised the **Union Government** to **exclude 35 communities** from **West Bengal's Central OBC list**.
- Most of these communities belong to **Muslim groups** that were added to the OBC list **between 2010–2012** in the state.
- The recommendation follows an NCBC review of **caste survey data, socio-educational indicators**, and the **process followed by the State** while granting OBC status.
- The NCBC has also sought **fresh, evidence-based proposals** for genuinely backward groups in the state.

### Why the Exclusion Recommendation?

- **Procedural Concerns**

- State reportedly **did not follow due process** under the **NCBC Act, 1993** while forwarding proposals.
- Lack of adequate **quantitative data** to justify inclusion under “**social and educational backwardness**” criteria.
- **Empirical Findings**
  - NCBC’s analysis showed:
    - Several groups **do not meet backwardness indicators**.
    - Some communities already have **strong socio-economic representation**, making OBC benefits unnecessary.
- **Equity and Targeting**
  - Aim is to ensure **reservation benefits reach genuinely backward communities**.
  - Prevent **over-inclusion**, which dilutes benefits for the most vulnerable.

## NCBC Review Framework

- **Criteria Used**
  - **Traditional occupation** and economic status
  - **Educational attainment** levels
  - **Representation** in government services and higher education
  - **Social stigma/discrimination indicators**
- **Legal Basis**
  - Recommendations are binding in nature for inclusion/exclusion in the **Central OBC List**, as per the **102nd Constitutional Amendment** which granted **constitutional status** to NCBC.

## Implications for West Bengal

- **Reservation Impact**
  - Central OBC quota in **jobs, scholarships, and educational institutions** may no longer apply to the excluded groups if accepted by the Union Government.
- **Fresh Proposals**
  - State may submit revised applications:
    - With **updated surveys**
    - Demonstrating **clear backwardness criteria**
- **State vs Centre Dynamics**
  - The move is expected to revive debate on **OBC identification processes** and the balance between **state recommendations** and **central scrutiny**.

## Additional Info

### About the National Commission for Backward Classes (NCBC)

- **Constitutional body** under **Article 338B**.
- Key functions:
  - Examine **backward class inclusion/exclusion** in Central OBC List.
  - Advise the Government on **socio-educational backwardness** criteria.

- Monitor **implementation of safeguards** for OBCs.
- Handle **complaints** of OBC rights violations.

## Legal & Policy Context

- **102nd Constitutional Amendment Act (2018)**
  - Granted **constitutional status** to NCBC.
  - Empowered the **President** to notify the Central OBC List **after NCBC advice**.
  - States maintain **separate State OBC Lists**.
- **Supreme Court: Maratha Reservation Judgment (2021)**
  - Clarified that **only NCBC** can recommend entries to the **Central OBC List**.
- **Reservation Structure**
  - OBCs receive **27% reservation** in Central Government jobs and Central Educational Institutions (excluding creamy layer).

## Caste Data & Backward Class Identification

- NCBC uses:
  - **SECC-type datasets**
  - **Caste survey inputs** from states
  - **Field visits** and stakeholder consultations
- Emphasis on **quantifiable data**, not political or demographic considerations.

## PM-WANI Scheme: Over 3.9 Lakh Public Wi-Fi Hotspots Deployed Nationwide

### What's the News?

- The **Ministry of Communications** reported that the **PM-WANI (Prime Minister's Wi-Fi Access Network Interface)** network has expanded significantly, with over **3.9 lakh Wi-Fi hotspots** deployed across the country as of late 2025.
- The data indicates a growing user base, with approximately **18.19 lakh unique users** consuming over **58 Petabytes (PB)** of data, reflecting the scheme's role in bridging the digital divide in rural and urban areas.
- The government highlighted recent reforms, including allowing **Public Data Offices (PDOs)** to use regular **Fiber-to-the-Home (FTTH)** connections, which has reduced operational costs and accelerated adoption.

## PM-WANI Framework

- **Objective**
  - To create a **nationwide public Wi-Fi network** by unbundling internet service provision into simple, low-cost components.
  - Enhance broadband penetration, especially in **rural and underserved areas**.
- **Key Components**
  - **Public Data Office (PDO)**: Provides last-mile Wi-Fi services without needing a licence or registration.
  - **Public Data Office Aggregator (PDOA)**: Handles authentication, accounting, and enables multiple PDOs to operate seamlessly.

- **App Provider:** Offers a platform for users to discover and connect to nearby PM-WANI hotspots.
- **Central Registry:** Maintains records of PDOs, PDOAs, and App Providers for interoperability.

### Additional Info

- **Launch Year:** The scheme was approved by the Union Cabinet in **December 2020**.
- **Legal Framework:**
  - **Indian Wireless Telegraphy Act, 1933:** governs the possession of wireless telegraphy apparatus.
  - **TRAI:** The Telecom Regulatory Authority of India provides the recommendations and tariff orders (e.g., capping resale rates for PDOs) to ensure affordability.
- **Related Initiatives:**
  - **BharatNet:** Connects Gram Panchayats via optical fiber; PM-WANI often utilizes this backhaul for last-mile connectivity.
  - **Universal Service Obligation Fund (USOF):** Often funds digital connectivity projects in rural areas.

## Controversy Over Indian Statistical Institute (ISI) Bill, 2025

### What's the News?

- The Union government has released a draft Indian Statistical Institute Bill, 2025 to replace the existing 1959 Act governing the Indian Statistical Institute (ISI).
- The draft proposes transforming ISI from a registered society into a **statutory body corporate** under central control.
- Students, faculty, alumni and research scholars across ISI centres have launched widespread protests and petitions, alleging the Bill undermines ISI's academic and administrative autonomy.

### Key Proposals in the ISI Bill 2025

- **Governance Restructuring**
  - ISI to be governed by a new **Board of Governance (BoG)**, replacing the existing elected Council. The BoG will have a majority of **Centre-nominated members**.
  - The **President of India** will be designated as "Visitor".
  - The BoG will control **academic decisions, degree granting, appointments, administration** - powers currently held by ISI's internal bodies.
- **Appointment & Oversight of Director**
  - The Director will be appointed from a panel selected by a **search-cum-selection committee** appointed by the Centre.
  - The Visitor (i.e. President) will have the power to **remove the Director** and review ISI's functioning.

### Institutional Status Change

- ISI will shift from a "society under State law + national importance status" to a "centrally governed statutory corporate entity."
- Its centres (Kolkata, Delhi, Bengaluru, Chennai, etc.) may be reorganised, affecting their structural and administrative linkage under a centralised framework.

### Concerns & Opposition

- **Threat to Academic Autonomy**
  - Faculty argue the proposed BoG can override the recommendations of the Academic Council; undermining academic decision-making.
  - The centralised appointment and control over the Director and key administrative positions is viewed as undermining independence.
- **Erosion of ISI's Founding Ethos**
  - ISI, founded by Prasanta Chandra Mahalanobis, has operated as a society since 1932; with a strong legacy in free, public-good statistical research and sample surveys that shaped India's economic planning.
  - Protesters argue that converting ISI into a corporate-style institution risks shifting focus from public-interest research to commercially driven priorities.
- **Lack of Stakeholder Consultation**
  - The draft bill was released without prior consultation with the ISI Society, faculty, or academic community.
  - At the General Body Meeting, members of the ISI Society unanimously rejected the Bill and demanded its withdrawal.
- **Fear of Fragmentation and Administrative Shift**
  - There is concern that control over ISI centres across multiple cities may be restructured, diluting the historic primacy of ISI Kolkata.

### Additional Info

- **About Indian Statistical Institute (ISI):**
  - Founded in **1931** by **Professor P.C. Mahalanobis** in Kolkata.
  - It was declared an **Institution of National Importance** by the **ISI Act, 1959**, which allowed it to grant degrees.
  - It played a pivotal role in drafting India's **Second Five-Year Plan** (the "Mahalanobis Model"), focusing on rapid industrialization.
- **Governance Difference:**
  - **Current (1959 Act):** Registered as a **Society** under the Societies Registration Act; governed by a Council with significant internal democracy.
  - **Proposed (2025 Bill):** Becomes a **Statutory Body Corporate** directly under a Board of Governors.
- **P.C. Mahalanobis:**
  - Known as the "**Father of Indian Statistics**".
  - Established the **National Sample Survey (NSS)** and founded the journal **Sankhya**.



- His birth anniversary, **June 29**, is celebrated as **National Statistics Day** in India.

## **New Pilot Fatigue Rules (FDTL) and the Aviation Crisis**

### **What's the News?**

- The **Directorate General of Civil Aviation (DGCA)** has placed specific provisions of the newly implemented **Flight Duty Time Limitations (FDTL)** rules in **abeyance** (temporary suspension) following severe flight disruptions across India.
- The crisis primarily affected **IndiGo**, India's largest airline, which saw over **1,000 flight cancellations** in early December 2025 due to crew shortages triggered by the stricter roster norms.
- The Ministry of Civil Aviation has formed a high-level committee to investigate the operational failure, while IndiGo has been granted a temporary exemption from certain night duty limits until **February 2026** to stabilize services.

### **Changes in FDTL Rules (2025)**

The new rules, originally intended to reduce pilot fatigue and enhance safety, introduced stricter limits compared to the previous regulations.

- **Weekly Rest:** Increased to **48 consecutive hours** (previously 36 hours) to ensure adequate recovery for pilots.
- **Definition of "Night":** Extended by one hour to **00:00–06:00** (previously 00:00–05:00), bringing more flights under stricter "night duty" limitations.
- **Night Landings:** Capped at **2 landings** per night duty (previously 6 landings), significantly reducing the utility of pilots on multi-leg night routes.
- **Duty Period:** Reduced maximum flight duty periods for night operations to prevent fatigue-related errors during critical hours.

### **Why the New Rules Triggered Crisis at IndiGo**

- **High operational scale:** IndiGo operates over 2,300 flights daily using a large fleet (primarily Airbus A320 family). Its business model involves high utilisation of aircraft and crew.
- **Lean crew strength:** The airline's staffing model and a hiring freeze limited flexibility to absorb additional rest requirements; leading to a sudden shortage of available pilots once FDTL Phase-II launched.
- **Night-heavy schedule:** IndiGo's large number of late-night and early-morning flights made the night-duty and night-landing caps particularly disruptive.
- **External pressures:** Winter-season flight demand surge, weather delays, technical glitches, and airport congestion aggravated the roster stress. These factors combined caused rosters to exhaust permissible duty-hours, forcing cancellations and delays that cascaded across the network; even if only a small fraction of flights were affected.

## **Regulatory Response & Exemptions**

Effective December 5, 2025, DGCA granted IndiGo:

- **Relaxation of night-duty limits** (pilots may now conduct up to **six night landings**, instead of two).
- Permission to **count pilot leave toward weekly rest** (earlier, leave did *not* qualify as rest).
- **One-time exemption** valid until **February 10, 2026**—enabling schedule stabilisation.

### **Industry Pushback & Concerns**

- **Airline Pilots' Association of India (ALPA)** and **Federation of Indian Pilots (FIP)** opposed the exemption, alleging it undermines safety and rewards poor workforce planning.
- ALPA noted airlines had **sufficient lead time (18 months)** since notification in January 2024 to prepare.

### **Additional Info**

- **Legal Framework:**
  - **Rule 42A of the Aircraft Rules, 1937:** This is the specific legal provision that empowers the DGCA to set limits on flight duty and rest periods for crew members.
  - **Aircraft Act, 1934:** The parent legislation governing all civil aviation in India.
- **Abeyance vs. Exemption:**
  - **Abeyance:** A state of temporary suspension. The government effectively "paused" the strict new rules to allow immediate recovery of flight schedules.
  - **Exemption:** IndiGo specifically received permission to bypass the new "night landing" and "night duty" restrictions until **February 10, 2026**, giving them time to hire and train more pilots.
- **What is FDTL?:**
  - It stands for **Flight Duty Time Limitations**.
  - These are safety regulations that ensure pilots and cabin crew are sufficiently rested to operate aircraft safely, preventing fatigue which is a leading cause of aviation accidents globally.

## **'Right to Disconnect' Bill Introduced in Lok Sabha to Curb After-Hours Work Calls**

### **What's the News?**

- NCP (SP) Member of Parliament **Supriya Sule** has introduced a **Private Member's Bill** titled the **Right to Disconnect Bill** in the **Lok Sabha**.
- The proposed legislation seeks to grant employees the legal right to **refuse work-related calls and emails** after their designated working hours without facing disciplinary action.
- The Bill aims to address the blurring lines between professional and personal life, exacerbated by digital technology and remote work cultures.

## Provisions of the Bill

- **Right to Refuse Communication:** Employees may ignore work-related digital communication post-office hours without facing disciplinary action.
- **Employees' Welfare Authority:** A new statutory body to:
  - Conduct baseline studies on digital tool usage outside work hours.
  - Mandate negotiations between employers and workers (or unions) for out-of-hours work terms, including overtime compensation at normal wage rates.
  - Oversee compliance and grievance redress.
- **Counselling & Detox Support:**
  - Government to facilitate counselling services and establish **digital detox centres** to combat "telepressure" and "info-obesity".
- **Penal Clause:**
  - Non-compliant entities to pay a penalty of **1% of total employee remuneration**.

## Need for the Bill

- **Work-Life Balance:** The primary objective is to reduce stress and improve the personal lives of professionals who often face "digital leash" pressure.
- **Mental Health:** Constant connectivity is linked to burn-out, anxiety, and sleep deprivation; the Bill aims to mitigate these health risks.
- **Unpaid Labour:** Responding to emails and calls after hours is often treated as "invisible work"; this legislation seeks to formalize or eliminate it.

## Additional Info

- **Private Member's Bill:**
  - A bill introduced by a Member of Parliament (MP) who is **not a Minister**.
  - Such bills can only be discussed on **Fridays**.
  - They rarely become law; only **14 Private Member's Bills** have been passed by Parliament since 1952.
- **Global Precedents:**
  - **France (2017):** The first country to legally enact a "right to disconnect".
  - **Australia (2024):** Recently passed similar "right to disconnect" laws allowing workers to ignore unreasonable after-hours contact.
  - Other countries with similar regulations include **Spain, Belgium, Italy, and Portugal**.
- **Previous Attempts:** Supriya Sule had introduced a similar bill in **2019**, but it did not pass.

## Cabinet Approves 'SHANTI' Bill to Open Nuclear Sector to Private Players

### What's the News?

- The **Union Cabinet** has cleared the **Sustainable Harnessing of Advancement of Nuclear Energy for Transforming India (SHANTI) Bill, 2025**.

- This landmark legislation seeks to amend the **Atomic Energy Act, 1962** to allow **private sector participation** in the nuclear energy sector, ending the decades-long government monopoly.
- The Bill will now be introduced in **Parliament**, marking a major policy shift aimed at accelerating India's transition to clean energy.

## Features of the SHANTI Bill

- **Opening Participation:**
  - Allows **private companies** to participate in multiple segments of the nuclear energy sector, including **atomic mineral exploration, nuclear fuel fabrication, manufacturing of equipment**, and potentially **power generation** under licence.
  - Core strategic activities (e.g., weapons-related) remain under government control.
- **Unified Legal Framework:**
  - Replaces and consolidates outdated statutes such as the **Atomic Energy Act, 1962** and aspects of the **Civil Liability for Nuclear Damage Act, 2010**, streamlining licensing, regulation, and compliance.
  - Addresses regulatory gaps and investor uncertainty.
- **Nuclear Safety & Oversight:**
  - Proposes establishment of an **independent Nuclear Safety Authority** to separate safety regulation from promotional roles.
  - A **specialised nuclear tribunal** is envisaged for efficient resolution of sector-specific disputes.
- **Liability & Insurance:**
  - Redesigns liability architecture with **insurance-backed caps** and clear delineation of responsibilities among operators, suppliers, and the government to encourage investment.
- **Foreign Investment:**
  - Enables **foreign direct investment (FDI)** up to a specified limit (e.g., **49%**) to attract global technology and capital.

## Additional Info

- **Atomic Energy Act, 1962:**
  - The current law restricts nuclear power generation solely to the **Central Government** or its PSUs.
  - Currently, only **Nuclear Power Corporation of India Limited (NPCIL)** and **Bharatiya Nabhikiya Vidyut Nigam (BHAVINI)** can operate nuclear plants.
- **India's Nuclear Targets:**
  - Current installed nuclear capacity is approximately **8,180 MW**.
  - The government aims to triple this capacity to **22,480 MW by 2031-32**.
  - There is a long-term vision to reach **100 GW by 2047**.
- **Small Modular Reactors (SMRs):**

- Advanced nuclear reactors with a capacity of up to **300 MW(e)** per unit.
- They are factory-fabricated and transported to sites for installation, making them suitable for repurposing old thermal power plant sites.

## UPSC Introduces Centre of Choice Facility for PwBD Candidates

### What's the News?

- The **Union Public Service Commission (UPSC)** has introduced a '**Centre of Choice**' facility for all **Persons with Benchmark Disabilities (PwBD)** appearing in UPSC-conducted examinations.
- The policy ensures that PwBD candidates are allotted the **preferred examination centre** they select in the application form, even if general seating capacity is reached, improving accessibility and convenience.

### Centre of Choice: Overview

- **Guaranteed Preferred Centre:**
  - PwBD candidates will be assured the examination centre they choose at the time of application, regardless of normal capacity constraints.
  - This reforms centre allocation practices to prioritize accessibility needs.
- **Operational Mechanism:**
  - Initially, existing centre capacities are allocated to all candidates.
  - Once full, the centre remains available specifically for PwBD candidates.
  - UPSC will create **additional capacity if required** to ensure no PwBD candidate is denied their chosen centre.
- **Data-Driven Approach:**
  - The decision followed an analysis of five-year trends showing high-demand centres (e.g., **Delhi, Cuttack, Patna, Lucknow**) fill up early, disadvantaging PwBD candidates under the prior system.

### Constitutional & Legal Context

- **PwBD Definition:** Under the **Rights of Persons with Disabilities Act, 2016**, a "person with benchmark disability" is defined as a person with not less than **40%** of a specified disability.
- **UPSC Mandate:** Established under **Article 315** of the Constitution, the UPSC conducts examinations for appointments to the services of the Union.
- **Accessibility:** This move aligns with the **Accessible India Campaign (Sugamya Bharat Abhiyan)** which aims to serve the differently-abled community of the country.

## Supreme Court Expands POSH Act: ICC of Complainant's Workplace Can Probe "Outsiders"

### What's the News?

- The **Supreme Court of India** has ruled that the **Internal Complaints Committee (ICC)** of an **aggrieved woman's workplace** has the jurisdiction to inquire into sexual harassment complaints even if the **respondent (accused)** belongs to a **different department** or organization.
- The judgment, delivered by a bench of **Justices J.K. Maheshwari and Vijay Bishnoi** in the case of **Dr. So-hail Malik v. Union of India**, settled a critical jurisdictional conflict under the **POSH Act, 2013**.
- The Court held that forcing a woman to approach the ICC of the accused's workplace would create **"procedural and psychological barriers"** and defeat the **remedial objective** of the law.

### Key Aspects of the Judgment

#### 1. Jurisdiction Clarified

- **The Issue:** The accused (an IRS officer) argued that the ICC of the complainant's department (Food and Public Distribution) could not investigate him because he belonged to a different department (Revenue).
- **The Ruling:** The Court rejected this, stating that the **definition of "workplace"** under **Section 2(o)** is broad and "neutral," covering any place visited by the employee during employment.
- **Section 11 Interpretation:** The phrase "where the respondent is an employee" in **Section 11** was interpreted as a **procedural trigger** (indicating which service rules apply for punishment) rather than a **jurisdictional bar** preventing the woman's ICC from conducting the inquiry.

#### 2. The "Two-Stage" Mechanism

To balance jurisdiction with disciplinary authority, the Court established a clear procedure:

Stage	Authority	Responsibility
Stage 1: Inquiry	ICC of Aggrieved Woman's Workplace	Conducts the <b>fact-finding</b>
Stage 2: Action	Respondent's Employer / Disciplinary Authority	Receives the report and imposes (punishment) based on the findings

#### 3. "Alien Workplace" Doctrine

- The Court noted that compelling a woman to attend proceedings at the respondent's office (an **"alien workplace"**) would be intimidating and discourage reporting due to the fear of stigma and a hostile environment.
- Under **Section 19(f)**, the employer of the respondent is **statutorily bound to cooperate** with the woman's ICC and provide all necessary information.

### Additional Info

- **POSH Act, 2013:**
  - **Full Name:** The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.



- **Origin:** Enacted based on the **Vishaka Guidelines (1997)** laid down by the Supreme Court.
- **Mandate:** Every workplace with **10 or more employees** must constitute an **Internal Complaints Committee (ICC)** headed by a senior woman employee.
- **Local Committee (LC):** Receives complaints from establishments with fewer than 10 employees or where the employer himself is the accused.
- **Constitutional Context:**
  - The Act realizes the **Right to Equality (Article 14)**, **Right to Non-Discrimination (Article 15)**, and the **Right to Life and Dignity (Article 21)**.
- **SH-Box:** The **Sexual Harassment electronic Box** is a government portal for registering complaints, which are then routed to the relevant ICC.

## Supreme Court Rules Forced Narco Tests Unconstitutional: Amlesh Kumar v. State of Bihar (2025)

### What's the News?

- The **Supreme Court of India** has ruled that **forced or involuntary narco-analysis tests** are **unconstitutional**, setting aside a **Patna High Court** order in the case of **Amlesh Kumar v. State of Bihar (2025)**.
- The Court held that subjecting an accused to such tests without their **free and informed consent** violates their **right against self-incrimination** and **personal liberty**.
- The judgment reaffirmed the principles laid down in the landmark **Selvi v. State of Karnataka (2010)** case, emphasizing that investigative convenience cannot override constitutional safeguards.

### Key Aspects of the Judgment

#### 1. Violation of Fundamental Rights

- **Article 20(3):** The Court ruled that involuntary administration of narco tests compels an accused to be a witness against themselves, directly violating the **protection against self-incrimination**.
- **Article 21:** It was held that such intrusive tests infringe upon the **Right to Life and Personal Liberty**, specifically the **Right to Privacy** and **Mental Privacy**.
- **"Golden Triangle":** The Court invoked the "Golden Triangle" of **Articles 14 (Equality), 19 (Freedoms), and 21 (Life)**, stating that any procedure infringing on privacy must be "fair, just, and reasonable".

#### 2. No "Absolute Right" for the Accused

- While the judgment protects the accused from **forced** tests, it also clarified that an **accused does not have an absolute right** to demand a narco test to prove their innocence.
- The Court noted that allowing such requests routinely could lead to delays and misuse of the legal process.
- However, an accused may **voluntarily** request a test during the **defence evidence stage** (under **Section**

**253** of the **Bharatiya Nagarik Suraksha Sanhita (BNSS)**), subject to the Court's discretion.

### 3. Guidelines for Validity

- **Consent is Mandatory:** The test is valid **only** if the accused gives **informed consent** recorded before a **Judicial Magistrate**.
- **Evidentiary Value:** Even with consent, the **results of the test themselves are not admissible as evidence** in court. Only **new material evidence** discovered *based* on the information revealed during the test (e.g., finding a hidden weapon) is admissible under **Section 27** of the Evidence Act.

### Additional Info

- **What is a Narco Test?:**
  - It involves injecting the subject with a drug like **Sodium Pentothal** (often called "Truth Serum").
  - The drug induces a **hypnotic state** (twilight stage), lowering the subject's inhibitions and making them more likely to divulge information they would otherwise suppress.
- **Related "Deception Detection" Tests:**
  - **Polygraph:** Measures physiological responses like blood pressure and pulse.
  - **Brain Mapping (P-300):** Measures brain waves in response to familiar stimuli.
  - *Note:* The Supreme Court's ban on *involuntary* application applies to **all three** types of tests.
- **Key Constitutional Articles:**
  - **Article 20(3):** "No person accused of any offence shall be compelled to be a witness against himself."
  - **Article 21:** Protection of life and personal liberty.

## Union Cabinet Approves Census of India 2027

### What's the News?

- The **Union Cabinet** has approved the conduct of the **Census of India, 2027**, India's next decennial population census.
- The exercise will be conducted in **two phases**, with large-scale digital integration for data collection.
- The total approved financial outlay for the census operations is **₹11,718 crore**, covering field operations, digital infrastructure, and manpower.

### Census of India: Key Features

- **Decennial Exercise:**
  - Conducted once every **10 years** under the **Census Act, 1948**.
- **Two-Phase Structure:**
  - **House Listing & Housing Census (HLH):**
    - Collection of data on housing conditions, household assets, and amenities.
  - **Population Enumeration (PE):**

- Collection of individual-level demographic, social, and economic data.
- **Digital-First Census:**
  - Use of **mobile applications** and digital devices by enumerators.
  - Provision for **self-enumeration** by citizens.
- **Improved Data Security:**
  - Enhanced protocols for **data confidentiality** and **cyber security**.

### Why Census 2027 Is Significant

- **First Census After a Long Gap:**
  - The previous census was conducted in **2011**, making this a critical update for demographic data.
- **Policy & Planning Backbone:**
  - Census data underpins:
    - **Welfare scheme targeting**
    - **Fiscal devolution**
    - **Infrastructure planning**
    - **Health and education policy**
- **Urbanisation & Migration Insights:**
  - Updated data on **internal migration**, urban growth, and household composition.
- **Technology Integration:**
  - Marks a shift from paper-based enumeration to **digitally driven governance**.

### Financial & Administrative Aspects

- **Approved Outlay: ₹11,718 crore**
  - Covers training of enumerators, IT systems, field logistics, and data processing.
- **Nodal Authority:**
  - Conducted by the **Office of the Registrar General & Census Commissioner, India (ORGI)** under the **Ministry of Home Affairs**.
- **Manpower Deployment:**
  - Involves millions of enumerators and supervisors, largely drawn from state government staff.

### Constitutional & Legal Context

- **Census Act, 1948:**
  - Provides statutory backing for conducting the census and mandates public cooperation.
- **Union List:**
  - Census is a **Union subject**, enabling uniform data collection across states.
- **Delimitation & Representation:**
  - Census data forms the base for:
    - **Delimitation of constituencies**
    - **Reservation of seats for SCs and STs**.

### Additional Info

- **Delimitation Linkage:**
  - Future delimitation of **Lok Sabha and Assembly constituencies** is contingent on updated census data.
- **Data Usage:**
  - Census data is used by bodies such as:
    - **Finance Commission**
    - **NITI Aayog**

- **Election Commission of India**

### Global Practice:

- Census exercises align with **UN-recommended population data standards** for comparability.

## VB-G RAM G Bill: Proposed Rural Employment Law to Replace MGNREGA

### What's the News?

- The **Viksit Bharat – Guarantee for Rozgar and Aajeevika Mission (Gramin) Bill, 2025 (VB-G RAM G Bill)** has been introduced in the Lok Sabha by the Government, seeking to **repeal the Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (MGNREGA)** and replace it with a new statutory framework for rural employment.
- The proposal has generated **significant political debate and protests in Parliament**, with the **Opposition criticising key changes** and the removal of MGNREGA's name and rights-based guarantees.

### Key Provisions of the Bill

#### Enhanced Employment Guarantee

- **Increased Days:** The Bill offers a statutory guarantee of **125 days** of wage employment annually, up from the 100 days provided under MGNREGA.
- **Eligibility:** Adult members of any rural household volunteering for unskilled manual work are eligible.
- **Unemployment Allowance:** If work is not provided within **15 days** of demand, the state government must pay an unemployment allowance.

#### Structural & Funding Changes

- **New Funding Pattern:** Unlike MGNREGA (where the Centre bore 100% of wage costs), the new Bill proposes a cost-sharing model:
  - **60:40** (Centre:State) for general states.
  - **90:10** for North-Eastern and Himalayan states.
  - **100% Central funding** for Union Territories.
- **Normative Allocation:** The system shifts from a "demand-driven" open-ended funding model to a **"normative allocation"** based on objective parameters fixed by the Centre.
- **Seasonal Pause:** States are empowered to declare a **"pause period"** of up to **60 days** during peak agricultural seasons (sowing/harvesting) to ensure labour availability for farming activities.

#### Focus on Asset Creation

- The Bill prioritizes works that create productive assets under four verticals:
  - **Water Security** (e.g., water conservation).
  - **Core Rural Infrastructure**.
  - **Livelihood-related Infrastructure**.
  - **Disaster Mitigation** (extreme weather events).
- **Planning:** Projects will be based on **Viksit Gram Panchayat Plans**, integrated with the **PM Gati Shakti** framework for better convergence.

## Rationale vs. Criticism

- **Government Stance:** The overhaul is necessary to move beyond "digging holes" to building high-quality rural infrastructure, preventing wage inflation during harvest seasons, and enforcing better digital monitoring (Aadhaar/DBT) to curb corruption.
- **Criticism:** Experts argue that the "**seasonal pause**" dilutes the "guarantee" aspect of the scheme, and the **60:40 funding split** places a heavier financial burden on State governments compared to the previous 100% central wage funding.

## Additional Info

- **Constitutional Context:**
  - **Article 41:** Directs the State to secure the **Right to Work**, education, and public assistance in cases of unemployment and old age.
  - **Article 21:** The Supreme Court has interpreted the right to life to include the right to livelihood.
- **MGNREGA (2005) Overview:**
  - Enacted to provide a legal guarantee for 100 days of employment.
  - Was the first rights-based legislation ensuring work on demand.
  - **Outcomes:** Reduced distress migration, empowered women (highest participation in workforce), and acted as a safety net during crises like COVID-19.

## National Blood Transfusion Bill, 2025

### What's the News?

- The Union Government has introduced the **National Blood Transfusion Bill, 2025** to establish a **uniform, transparent, and patient-centric regulatory framework** for blood collection, testing, storage, and transfusion across India.
- The Bill aims to replace fragmented state-level rules with a **national legal framework**, addressing long-standing concerns related to **quality control, accountability, and patient safety**.

### Why a National Blood Transfusion Law?

- **Fragmented Regulation:**
  - Blood banks are currently regulated under the **Drugs and Cosmetics Act, 1940**, leading to:
    - Uneven standards across States
    - Weak oversight and enforcement
- **Public Health Concerns:**
  - Risks of **transfusion-transmitted infections (TTIs)** due to inconsistent testing
  - Shortages and poor coordination during **emergencies and disasters**
- **Equity & Access Issues:**
  - Rural and remote areas face limited access to quality blood services

## What is the National Blood Transfusion Authority (NBTA)?

- Statutory body with regulatory powers to prescribe and enforce national standards for:
  - Blood collection, testing, processing, storage, distribution, and transfusion
  - Haemovigilance (adverse event monitoring) and traceability systems
- Functions include:
  - Granting, suspending, or cancelling registrations of blood centres
  - Conducting inspections and audits
  - Promoting **voluntary non-remunerated blood donation**
  - Coordinating inter-state blood movement during emergencies

## Provisions of the Bill

- **Mandatory Registration:** All blood banks and centres must register with NBTA; unregistered operation attracts up to 3 years imprisonment, fine, or both.
- **Haemovigilance Programme:** Institutionalised national system to:
  - Track and report transfusion-related complications
  - Prevent transmission of diseases (e.g., HIV, hepatitis B/C)
  - Enable early detection of unsafe practices
- **Promotion of Voluntary Donation:** Shift from replacement/paid donation through centrally coordinated awareness campaigns
- **Penalties & Enforcement:**
  - Heavy fines, licence cancellations, and criminal liability for unsafe practices
  - Focus on deterring illegal collection and sub-standard processing

## Additional Info

- **Related Initiatives in India:**
  - **e-RaktKosh Portal:** National platform for real-time information on blood availability
  - **National AIDS Control Programme (NACP):** Focus on reducing TTIs through improved screening
- **Constitutional & Policy Context:**
  - **Article 47:** Directive Principle mandating the State to improve public health
  - Health is a **State Subject**, but national standards are enabled through: **Concurrent List** provisions related to drugs and public health safety

# Viksit Bharat Shiksha Adhikshan Bill, 2025

## What's the News?

- The **Union Government** has introduced the **Viksit Bharat Shiksha Adhikshan Bill, 2025** aimed at **re-structuring regulation and governance** of higher education institutions in India.
- The Bill seeks to rationalise overlapping regulatory frameworks and strengthen academic autonomy while enhancing quality, innovation, and global competitiveness.

## Unified Regulatory Structure

- **Central Higher Education Regulatory Authority (CHERA):**
  - Replaces multiple bodies to act as the **primary regulator** for higher education.
  - Assigned roles for **accreditation, standards, and compliance**.
- **Streamlining Overlaps:**
  - Existing regulators such as **UGC, AICTE**, and other councils will see their functions re-aligned under CHERA.
  - Focus on reducing **regulatory burden** and duplication.

## Academic Autonomy & Institutional Governance

- **Greater Autonomy** for high-performing institutions:
  - Encourages **innovation in curricula, research, and collaboration**.
  - Institutions meeting quality benchmarks can design **programmes and fees** within defined parameters.
- **Institutional Accountability:**
  - Transparent performance indicators
  - Periodic reviews for quality and relevance

## Quality Assurance & Standards

- **National Accreditation Framework:**
  - Standardised evaluation processes for programme and institutional quality.
- **Performance Metrics:**
  - Benchmarks related to:
    - Teaching outcomes
    - Research output
    - Graduate employability
- **Inclusion of Technology & Digital Learning:**
  - Encourages **online and blended learning** adoption while ensuring quality standards.

## Student Impact & Governance Changes

- **Academic and Fee Transparency:**
  - Fee regulation mechanisms for non-autonomous segments.
  - Clear information on programmes and outcomes for student decision-making.
- **Mobility & Recognition:**
  - Credit transfer frameworks for **inter-institutional mobility**.

- International recognition alignment to enhance **global opportunities**.

## Constitutional & Federal Concerns

- **Centralisation Risks:**
  - No formal role for **State Governments** in appointments or policy framing, despite their jurisdiction over many state universities under the **State List (Entry 25)** and **Concurrent List (Entry 39)**.
  - Central Government retains power to issue binding directions and dissolve the Commission, raising concerns about executive overreach.
- **Federal Tension:** Critics argue the Bill undermines **co-operative federalism** by concentrating regulatory authority at the Centre, potentially sidelining regional linguistic, cultural, and pedagogical priorities.

## Additional Info

- **NEP 2020 Alignment:**
  - Supports **Goal 6.16**: "Single regulator for higher education".
  - Advances **multidisciplinary education, multiple entry-exit options, and research-led institutions**.
- **Transition Mechanism:**
  - Existing UGC/AICTE/NCTE approvals remain valid during transition.
  - Staff and assets of existing bodies to be absorbed into VBSA.

# Parliament Passes Sabka Bima Sabki Raksha (Amendment of Insurance Laws) Bill, 2025

## What's the News?

- The **Parliament of India** has passed the **Sabka Bima Sabki Raksha (Amendment of Insurance Laws) Bill, 2025**, marking a significant overhaul of the country's insurance framework.
- The legislation amends three primary acts: the **Insurance Act, 1938**, the **Life Insurance Corporation (LIC) Act, 1956**, and the **Insurance Regulatory and Development Authority of India (IRDAI) Act, 1999**.
- A major highlight is the increase in the **Foreign Direct Investment (FDI)** limit in insurance companies from **74% to 100%**, allowing full foreign ownership for the first time.
- The primary objective is to achieve **"Insurance for All by 2047"** by attracting global capital, enhancing competition, and deepening insurance penetration in India.

## Major Reforms

### FDI Liberalisation

- FDI cap in insurance companies increased to **100%**, with a safeguard requiring **at least one top executive (Chairman/MD/CEO) to be an Indian citizen**.



- Expected to attract **long-term capital**, **global risk management practices**, and **technology**, leading to competitive pricing and broader product offerings.

#### Enhanced IRDAI Powers

- IRDAI granted **SEBI-like enforcement powers** to recover wrongful gains and penalise violations.
- Authority to frame regulations on **mergers**, **policy-holder protection**, and **intermediary conduct**.
- Creation of two new funds:
  - **Reserve Fund**: 25% of IRDAI's annual surplus to be deposited.
  - **Policyholders' Education and Protection Fund**: Financed through penalties, aimed at awareness and redressal.

#### Operational Flexibility for LIC

- **LIC can now open new zonal offices without prior government approval**, enabling faster expansion and decentralisation.

#### Streamlined Intermediary Regulation

- Introduction of **one-time, perpetual registration** for insurance intermediaries, replacing the existing **3-year renewal cycle**.
- Aims to reduce compliance burden and improve service delivery.

#### Additional Info

- **Institutional Framework**:
  - **IRDAI**: Established in 1999 following the **Malhotra Committee** recommendations to regulate and develop the insurance sector.
  - **Insurance Penetration**: Currently stands at approximately **4% of GDP** in India, significantly lower than the global average of **~7%**.
- **Policy Context**:
  - **Insurance for All by 2047**: A strategic goal to provide every citizen and enterprise with adequate insurance coverage by the centenary of India's independence.
  - **GIC Re**: Currently the dominant player in India's reinsurance market; the Bill's lower NOF norms aim to introduce more private competition to this state-dominated segment.

## Union Government Increases Reservation for Ex-Agniveers in CAPFs to 50%

### What's the News?

- The **Union Ministry of Home Affairs (MHA)** has announced a significant increase in reservation for **ex-Agniveers** in **Group C** posts within the **Central Armed Police Forces (CAPFs)**.
- The reservation quota has been raised from the previously established **10% to 50%**, marking a major policy shift aimed at improving post-service employment for temporary military recruits.

- This new policy will initially be implemented in the **Border Security Force (BSF)** through amended recruitment rules and will be expanded to other forces in a phased manner.

### Agniveer Reservation in CAPFs: Overview

- **Agnipath Scheme**:
  - Introduced to induct youth into **Indian Army, Navy, and Air Force** on a short-term basis (typically 4 years).
  - Participants are known as **Agniveers**.
- **Central Armed Police Forces (CAPFs)** include:
  - **BSF, CRPF, ITBP, CISF, SSB**, among others.
- Reservation increase means:
  - **Up to 50%** of vacancies in CAPFs recruitment cycles can be filled by **qualified Agniveers**.
  - Aims to ensure **continuity in uniformed services** for trained personnel.

### Additional Info

- **Agnipath Scheme Overview**:
  - Launched in **June 2022** for short-term military service.
  - Recruits serve for **4 years**, after which up to **25%** are absorbed into the permanent cadre.
  - Exiting personnel receive a tax-free **Seva Nidhi package** of approximately **₹11.71 lakh**.
- **CAPF Composition**:
  - Includes the **Central Industrial Security Force (CISF)**, **BSF**, **Central Reserve Police Force (CRPF)**, **Indo-Tibetan Border Police (ITBP)**, **Sashastra Seema Bal (SSB)**, and **Assam Rifles**.
- **Age Relaxation Provisions**:
  - The first batch of **Agniveers** (eligible in **2026**) will receive a **5-year** age relaxation.
  - Subsequent batches will be granted a **3-year** age relaxation for **CAPF** recruitment.
- **Constitutional and Legal Context**:
  - The move utilizes **Entry 2 of the Union List** (Armed Forces) and involves internal security policies under the **Ministry of Home Affairs**.
  - Existing caste-based reservation matrices for **SC (15%)**, **ST (7.5%)**, and **OBC (27%)** will remain unchanged as the new quota is integrated.

## Centre to Set Up Bureau of Port Security (BoPS) to Strengthen Maritime Safety

### What's the News?

- The **Government of India** has decided to establish the **Bureau of Port Security (BoPS)**, a dedicated statutory body to oversee the security of vessels and port facilities across the country.

- The decision was taken during a high-level meeting chaired by the **Union Home Minister**, aimed at creating a robust and unified national port security framework.
- The **BoPS** is designed to address evolving maritime threats, including terrorism, smuggling, and digital risks to critical infrastructure.
- It serves as the apex regulatory authority for maritime security, providing a single-point institutional framework for both **major** and **non-major ports**.

### Mandate and Regulatory Framework

- **Legal Status:** The Bureau is established as a **statutory body** under **Section 13** of the newly promulgated **Merchant Shipping Act, 2025**.
- **Administrative Oversight:** It functions under the aegis of the **Ministry of Ports, Shipping and Waterways (MoPSW)**.
- **Operational Model:** The **BoPS** is modelled on the **Bureau of Civil Aviation Security (BCAS)**, which oversees airport and aviation security in India.
- **Graded Security Approach:** Security protocols will be implemented in a graded, **risk-based manner**, factoring in a port's geographical location, trade volume, and specific vulnerabilities.
- **International Compliance:** The Bureau has the legal authority to enforce the **International Ship and Port Facility Security (ISPS) Code**, ensuring Indian ports meet global safety standards.

### Key Functions and Security Architecture

- **Intelligence and Coordination:** The Bureau will ensure the timely collection, analysis, and exchange of security-related intelligence among the **Indian Navy, Coast Guard, CISF**, and state maritime authorities.
- **Cybersecurity Focus:** A dedicated division will be created within the **BoPS** to safeguard port Information Technology (IT) and operational technology systems from digital threats.
- **Role of CISF:** The **Central Industrial Security Force (CISF)** is designated as the **Recognised Security Organisation (RSO)** responsible for conducting security assessments and preparing standardized security plans for ports.
- **Private Security Oversight:** The **BoPS** will oversee the certification and licensing of **Private Security Agencies (PSAs)** engaged in port security to ensure only trained and compliant entities operate in the sector.

### Leadership and Transition

- **Permanent Structure:** The Bureau will be headed by a **Director General (DG)**, who must be a senior **Indian Police Service (IPS)** officer of **Pay Level-15**.
- **Transition Phase:** During the initial one-year transition period, the **Director General of Shipping (DGS)** will hold the additional charge as the **DG of BoPS**.

### Additional Info

- **Strategic Context:**

- **Maritime India Vision 2030:** The creation of **BoPS** aligns with national goals to develop world-class, secure, and resilient port infrastructure.
- **Coastline Breadth:** India manages a coastline of over **7,500 km**, with **12 major ports** and over **200 non-major ports** handling nearly **1,600 million tonnes** of cargo annually as of 2025.

#### • The ISPS Code:

- An amendment to the **SOLAS (Safety of Life at Sea) Convention (1974)**, which prescribes minimum security arrangements for ships, ports, and government agencies.
- It establishes a framework for international co-operation to detect security threats and take preventive measures.

#### • Internal Security Integration:

- Lessons learned from this maritime security framework are intended to be leveraged to further improve security mechanisms in the **aviation sector**.

## India to Finalise First National Anti-Terror Policy and Strategy

### What's the News?

- The **Union Government** is finalising India's first-ever **comprehensive national anti-terror policy and strategy** to establish a unified framework for combating terrorism.
- The announcement was highlighted during the two-day **Anti-Terrorism Conference-2025** inaugurated by Union Home Minister **Amit Shah** on December 26 in New Delhi.
- The policy aims to transition India from fragmented, reactive responses to a proactive, **"Whole-of-Government"** approach by integrating central agencies and state police units into a single **Team India**.

### Pillars of the Anti-Terror Framework

- **Unified Anti-Terrorism Grid:** The government is building a technology-driven grid to ensure that security agencies remain "two steps ahead" of terrorist tactics.
- **Operational Uniformity:** A common **Anti-Terrorism Squad (ATS)** structure has been developed by the **National Investigation Agency (NIA)** for adoption by all state police forces to ensure uniform preparation and prosecution.
- **360-Degree Strike on Organised Crime:** An action plan is being introduced to dismantle the nexus between organised crime—such as extortion and kidnapping—and international terrorist organisations.
- **Hard vs. Soft Measures:** The strategy combines "hard" measures (precise military and police operations) with "soft" measures, including community engagement, de-radicalisation, and rehabilitation programs.

## New Databases and Digital Tools

- **NIA Crime Manual:** An updated manual was unveiled to provide a standard operating procedure for watertight investigations and trial management.
- **Weapons e-Database:** A new **Lost, Looted, and Recovered Weapons Database** was launched to track illicit small arms used in terror activities.
- **Mandatory Digital Platforms:** The use of **NAT-GRID** (National Intelligence Grid) and **NIDAAN** (National Integrated Database on Arrested Anti-Terror Offenders) will be made mandatory for specific high-priority investigations to reveal "invisible links" in terror cases.
- **Organised Crime Network Database:** A central repository to identify and eliminate criminal networks that provide logistical or financial support to terrorists.

## Additional Info

- **Institutional Integration:**
  - The strategy integrates four critical security pillars: the **DGP Conference**, **Security Strategy Conference**, **N-CORD** (Narcotics Coordination) meetings, and the **Anti-Terror Conference**.
- **Legal Provisions:**
  - **Trial-in-Absentia:** The government plans to utilize **Trial-in-Absentia** provisions under the new criminal laws to prosecute fugitives who have fled abroad.
  - **UAPA (Unlawful Activities Prevention Act):** Remains the primary legislative tool for designating individuals and associations as terrorists.
- **Recent Successes Mentioned:**
  - **Operation Sindoor:** A major counter-terror action cited as a benchmark for punishing those who plan terrorist acts from across borders.
  - **Operation Mahadev:** Focused on neutralizing terrorists on the ground who executed attacks using smuggled weapons.
- **The "Duty to Share" Principle:** The Home Minister urged agencies to move away from the restrictive "need to know" mindset to a proactive "**duty to share**" intelligence across state and central boundaries.

## Ministry of Civil Aviation Launches 24x7 Passenger Assistance Control Room (PACR)

### What's the News?

- The **Ministry of Civil Aviation (MoCA)** has established a permanent, round-the-clock **Passenger Assistance Control Room (PACR)** to institutionalise a unified response mechanism for air traveller grievances.
- This initiative follows significant **operational disruptions** and flight cancellations, aiming to provide a more structured and coordinated intervention rather than ad-hoc responses.

- Located at **Udaan Bhawan** in **New Delhi**, the facility serves as a centralised hub to monitor aviation operations and resolve issues related to **flight delays**, **re-funds**, and **baggage handling**.

### What is PACR?

A centralized control room designed for proactive, real-time resolution of passenger issues:

- **24x7 Operations:** Continuous monitoring of flight operations and instant grievance triage.
- **Integrated Stakeholder Hub:** Brings airlines, airport operators, DGCA, BCAS, CISF, AAI, and **AirSewa** under one roof for on-the-spot coordination.
- **Omni-channel Intake:** Accepts complaints via calls, emails, social media, airport helpdesks, and the **AirSewa** portal/app.
- **Data-Driven Dashboards:** Enable real-time tracking of grievances, resolution timelines, and escalation patterns.
- **Passenger Charter Compliance:** Ensures adherence to service benchmarks under the **National Civil Aviation Policy (NCAP) 2016** and **AirSewa Passenger Charter**.

### AirSewa Integration

- PACR is **fully integrated with AirSewa**, MoCA's flagship grievance redressal platform launched in 2016.
- Converts complaints from multiple channels into **actionable, trackable cases** using automated workflows and AI-assisted categorization.
- Enables unified case management with status alerts and escalation protocols for unresolved issues.

### Additional Info

- **Constitutional & Legal Context:**
  - **Union List (List I):** Under **Entry 29**, the Central Government has exclusive power over **Airways**, aircraft, and air navigation.
  - **Passenger Charter (2019):** A regulatory framework by the **DGCA** that mandates specific compensation and facilities for passengers during flight delays or cancellations.
- **Key Organisations:**
  - **DGCA:** The statutory body responsible for regulating civil aviation, safety standards, and licensing.
  - **AAI:** A statutory body that creates, upgrades, maintains, and manages civil aviation infrastructure in India.

## Government Notifies Colliery Control (Amendment) Rules, 2025

### What's the News?

- The **Ministry of Coal** officially notified the **Colliery Control (Amendment) Rules, 2025**, fundamentally simplifying the approval process for opening coal and lignite mines in India.
- The amendment seeks to eliminate **procedural redundancies** by removing the requirement for prior written



permission from the **Coal Controller's Organisation (CCO)** for opening a mine, seam, or section.

- This reform is a key part of the government's "**Ease of Doing Business**" initiative, designed to accelerate coal production and reduce the time required to operationalize a mine by up to **two months**.

### Major Regulatory Shifts

- **Empowerment of Company Boards:** The authority to grant "opening permission" is now vested in the **Board of Directors** of the respective coal company.
- **Simplified Rule 9:** The amendment specifically replaces **Rule 9** of the **Colliery Control Rules, 2004**, which previously mandated central-level approval for every new seam or section.
- **Applicability to Closed Mines:** These rules also apply to mines restarting operations after a discontinuation period of **180 days (six months)** or more.
- **Differentiated Mechanism:**
  - **Registered Companies:** Can proceed with Board approval.
  - **Non-Company Entities:** Small owners or individual proprietors must still obtain prior approval directly from the **CCO**.

### Safeguards and Regulatory Oversight

- **Pre-requisite Clearances:** Company boards can only grant approval after ensuring all mandatory **statutory clearances**—including environmental, forest, and safety certifications—have been secured from Central and State governments.
- **Mandatory Intimation:** Once a board approves an opening, the company must formally intimate the **CCO within 15 days**.
- **Role of the CCO:** While losing its role as a primary "gatekeeper" for company-owned mines, the CCO remains a **regulator** and maintains an indicative list of all required permissions to ensure transparency.

### Additional Info

- **Legal and Constitutional Framework:**
  - **MMDR Act, 1957:** The rules are framed under the **Mines and Minerals (Development and Regulation) Act, 1957**, which governs the mineral sector in India.
  - **Constitutional Basis:** Under **Entry 54 of the Union List (List I)**, the Central Government has the power to regulate mines and mineral development in the public interest.
- **Coal Controller Organisation (CCO):**
  - Subordinate office of the **Ministry of Coal**.
  - Core functions include:
    - Collecting & maintaining nationwide coal production data.
    - Regulatory oversight, inspections, and quality control (e.g., coal grade dispute resolution).
    - Statutory functions under *Colliery Control Rules, Mines and Minerals (Development and Regulation) Act*, and *Coal*

*Mines (Conservation and Development) Rules.*

### Historical Context:

- The **Colliery Control Rules, 2004** were established to regulate the production, sale, and quality of coal.
- Since **2020**, India has shifted toward **Commercial Coal Mining**, allowing private players to mine and sell coal, necessitating more efficient regulatory frameworks.

### Key Definitions:

- **Colliery:** Any mine or open-pit excavation where coal or lignite is extracted.
- **Seam:** A distinct layer of coal found within geological formations.

## Supreme Court Stays Suspension of Sentence for Kuldeep Sengar

### What's the News?

- The **Supreme Court of India** stayed an order by the **Delhi High Court** that had suspended the life sentence of expelled **BJP MLA Kuldeep Singh Sengar** in the **2017 Unnao rape case**.
- The apex court's intervention came after the **Central Bureau of Investigation (CBI)** and the victim challenged the High Court's decision to grant Sengar interim relief.
- This ruling reinforces the judicial scrutiny required when considering the **suspension of sentence** for individuals convicted of heinous crimes, particularly those involving sexual violence against minors.

### Understanding Suspension of Sentence

- **Definition:** It is a legal provision where a court allows a convicted person to remain out of prison while their **appeal** against the conviction is pending.
  - **Legal Basis:** Governed primarily by **Section 430** of the **Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023** (formerly **Section 389** of the **CrPC**).
  - **Difference from Bail:**
    - **Bail:** Usually granted during the investigation or trial stage when the person is still an "accused" and presumed innocent.
    - **Suspension of Sentence:** Granted after a "convict" has been found guilty by a trial court; the presumption of innocence is no longer available.
  - **Judicial Standards:** Courts generally follow a stricter standard for suspending sentences in serious offenses (like rape or murder) compared to bailable or less severe crimes.
- ### Key Legal Provisions & BNSS 2023
- **Section 430 of BNSS:** Empowers the Appellate Court to order that the execution of a sentence be suspended and the convict be released on bail or bond, provided reasons are recorded in writing.



- **Section 430(4):** Specifies that the Public Prosecutor must be given an opportunity to file a **written objection** if the convict is seeking suspension for a sentence involving death, life imprisonment, or imprisonment for more than ten years.
- **Article 21 Impact:** While the **Right to Liberty** is fundamental, the courts must balance it against the rights of the victim and the gravity of the established conviction.

### Additional Info

- **The Unnao Case Context:**
  - **2017:** The incident occurred involving a minor girl in Unnao, Uttar Pradesh.
  - **2019:** The **Supreme Court** transferred all related cases from Lucknow to Delhi for a fair trial.
  - **Conviction:** Sengar was convicted under the **POCSO Act** and sentenced to life imprisonment (rigorous imprisonment for the remainder of his natural biological life).
- **POCSO Act (2012):**
  - Focuses on protecting children from sexual assault, harassment, and pornography.
  - Imposes mandatory minimum sentences and creates Special Courts for speedy trials.
- **Role of the Supreme Court in Appeals:**
  - Under **Article 136** (Special Leave Petition), the Supreme Court can intervene in any judgment or order passed by any court in India to ensure justice is served.

# Social Issues

## Child Marriage Trends: Madhya Pradesh Sees Rise

### What's the News?

- **Child marriage cases** continue to rise in **Madhya Pradesh**, with **538 incidents** reported in **2025**, marking a **47% increase** compared to 2020.
- The data, tabled in the **Madhya Pradesh Legislative Assembly**, identifies specific **"hotspot" districts** where the practice remains rampant despite government interventions.
- Recent studies highlight a concerning trend of **"district-level inequality,"** where child marriage persists in specific clusters (hotspots) even as the national average declines.

### Child Marriage Hotspot: Patterns & Drivers

- **Persistent regional clusters:** Bundelkhand, Central MP, Gwalior–Chambal, and tribal belts show entrenched prevalence.
- **Steady rise statewide:** Cases climbed from 366 (2020) → 436 (2021) → 519 (2022) → 528 (2023) → 529 (2024) → 538 (2025).
- **Key drivers:**
  - Socio-economic deprivation and gender inequality.
  - Weak local governance and poor scheme outreach.
  - Cultural normalization of early unions in select communities.

### Prohibition of Child Marriage Act (PCMA), 2006: Gaps in Enforcement

- **Legal framework:**
  - Prohibits marriage of girls <18 years and boys <21 years.
  - **Penalties:** Up to **2 years imprisonment** and/or fine for adult male contracting party or guardian arranging marriage.
  - District Magistrate functions as *ex-officio* **Child Marriage Prohibition Officer (CMPO)** in each district.
- **Implementation gaps:**
  - Low conviction rates due to underreporting, social pressure, and lack of witness protection.
  - Inconsistent CMPO appointment and capacity (many districts lack dedicated officers).
  - Conflict between statutory law and personal/customary practices in tribal areas.

### Additional Info

- **Legal Framework:**
  - **Prohibition of Child Marriage Act (PCMA), 2006:** Defines child marriage as a marriage where the male is under **21** or the female is under **18**. Offenders face up to **2 years imprisonment** and/or **₹1 lakh fine**.

- **Voidable:** Marriages are **voidable** at the option of the "child" party within two years of attaining majority.
- **Proposed Amendment:** The **Prohibition of Child Marriage (Amendment) Bill, 2021** seeks to raise the marriage age for women to **21 years**.
- **Global Goals:**
  - **SDG Target 5.3:** Aims to **eliminate all harmful practices**, including child, early, and forced marriage, by **2030**.
- **National Statistics:**
  - According to **NFHS-5 (2019-21)**, **23.3%** of women aged 20-24 were married before age 18.
  - India accounts for **one in three** child brides globally.

## Childhood & Intimate Partner Violence: Lancet 2025 Study Reveals Alarming Global and Indian Burden

### What's the News?

- A landmark 2025 study published in *The Lancet*, based on the **Global Burden of Disease (GBD) Study 2023**, estimates that globally:
  - **1.01 billion people aged 15+** experienced **sexual violence during childhood**.
  - **608 million females aged 15+** faced **intimate partner violence (IPV)** in their lifetime.
- In India:
  - **23% of women aged 15+** experienced IPV.
  - **30% of women and 13% of men aged 15+** reported childhood sexual violence (CSV) exposure.
- South Asia and sub-Saharan Africa show the **highest prevalence**, with CSV and IPV health impacts compounded by high rates of HIV, mental illness, and chronic diseases.

### Health Burden: From Social Issue to Public Health Emergency

- **CSV-linked outcomes:** Associated with **14 health conditions**, including:
  - Mental health: **anxiety, major depression, schizophrenia, self-harm**.
  - Physical health: **HIV/AIDS, type 2 diabetes, substance use disorders**.
- **IPV-linked outcomes:** Tied to **8 major causes of disability**, notably anxiety and depression; responsible for **145,000 global deaths** (mostly homicide, suicide, HIV).
- **Disability burden in South Asia:**

- **Self-harm** and **schizophrenia** top causes among men.
- **Anxiety** leads among women.
- CSV alone contributed to **290,000 global deaths in 2023**; IPV led to nearly **30,000 femicides**.

## Legal & Policy Gaps in India

- **Existing Framework:**
  - **POCSO Act, 2012:** Mandates child-friendly procedures for reporting, investigation, and trial of sexual offences against children <18.
  - **Protection of Women from Domestic Violence Act (PWDVA), 2005:** Civil law providing protection orders, residence rights, and monetary relief.
- **Critical Shortcomings:**
  - **Low conviction rates:** ~14% under POCSO (NCRB 2022).
  - **Underreporting:** Social stigma, victim-blaming, institutional distrust.
  - **Implementation gaps:** Shortage of **Special Courts**, trained **POCSO prosecutors**, and trauma-informed counselors.
- **GBD Findings Implication:** Study reframes CSV and IPV not merely as *criminal justice* issues but as **major public health priorities** requiring multi-sectoral response.

## Additional Info

- **WHO 2025 Global Report:** Confirms **~20% of Indian women aged 15–49** experienced IPV in 2023; **~30%** faced it *lifetime*.
- **Global Stagnation:** Nearly **1 in 3 people (840 million)** experienced partner or sexual violence in lifetime—unchanged since 2000.
- **Constitutional & SDG Linkages:**
  - **Article 21** (Right to Life) includes **right to live with dignity and mental well-being** (Supreme Court in *Selvi v. State of Karnataka*, 2010).
  - **Article 15(3)** empowers state to make special provisions for women and children.
  - Aligns with **SDG 5** (Gender Equality), **SDG 3** (Good Health), and **SDG 16** (Peace & Justice).

## Childcare Shifts from Welfare Safety Net to National Growth Lever

### What's the News?

- Recent analyses underscore that **childcare is no longer a peripheral social scheme**, but a **core economic infrastructure** essential to achieving India's **8–10% growth target**, raising female labour force participation (FLFP), and securing human capital development.
- With only **~10% of Anganwadi centres operating fully in urban areas** and women spending **426 minutes/day** on unpaid care vs. 163 for men, the care

deficit is now recognised as a major drag on productivity.

## Why Childcare Is a Growth Multiplier

- **FLFP Boost:** Reliable childcare could enable millions of mothers to stay in or re-enter formal employment. In Rio de Janeiro slums, free daycare increased mothers' working hours nearly **hour-for-hour** with facility hours.
- **Human Capital ROI:** 80% of brain development occurs in the **first 1,000 days**—early stimulation and nutrition determine lifelong learning outcomes.
- **Sectoral Impact:** Southern states (esp. Tamil Nadu, Karnataka) account for **¾ of women in manufacturing**, partly due to better care infrastructure (hostels, transport, crèches).

## Innovative State Models for Scalable Delivery

- **Tamil Nadu:** Introduced **half-time preschool instructors** to Anganwadis—doubling instructional time without compromising nutrition delivery.
- **Telangana:** Raised Anganwadi worker honorarium to extend hours, enabling low-cost conversion to **full-day centres**.
- **Meghalaya & Chandigarh:** Deploy **para-professionals** (SHG members, interns, youth fellows) to support Anganwadi workers, easing workload and improving service quality.

## Initiatives & Gaps

- **Existing Frameworks:**
  - **ICDS (1975):** Primary delivery platform (1.4 million centres), but focuses on nutrition; not full-day care.
  - **Palna Scheme (2023):** Supports 26,000 workplace/day-care crèches for children of working parents.
  - **Poshan Tracker & National Framework for Early Childhood Stimulation (2024):** Digital tools to guide caregivers in home-based early learning.
- **Critical Gaps:**
  - **Funding:** Public spending on early childhood care is just **0.4% of GDP**, far below the 1–1.5% in high-performing nations.
  - **Urban deficit:** Rapid urbanisation and migration outpace childcare expansion.
  - **Workforce:** Anganwadi workers earn ₹8,000–₹15,000/month with limited training or career progression.

## Way Ahead: Institutionalising Care as Infrastructure

- **National Mission on Early Childhood Care:** Proposed cross-ministerial mission (WCD, Labour, Education, Health, Industry) to align policy, funding, and delivery recommended by experts to mainstream childcare as **market-shaping infrastructure**.
- **Hybrid Service Model:** Combine **brick-and-mortar Anganwadi upgrades** with digital nudges (e.g., WhatsApp-based peer groups for mothers) and community mobilisation.

- **Targeted Expansion:** Prioritise full-day centres in **industrial belts, service hubs, and urban wards** with high FLFP potential.

### Constitutional & Policy Anchors

- **Article 45 (DPSP):** Mandates free and compulsory education for all children until age 6 interpreted to include ECCE.
- **National ECCE Policy (2013):** Commits to universal access to quality early childhood education for children <6 years.
- **NEP 2020 & NCF 2023:** Emphasise foundational learning and link ECCE with school readiness.

## Supreme Court Issues Guidelines to Curb Dowry-Related Violence and Misuse of Law

### What's the News?

- The **Supreme Court of India**, while deciding *State of Uttar Pradesh vs Ajmal Beg & Ors (2025)*, expressed concern over the **continued prevalence of dowry practices under the guise of "gifts"**.
- The Court issued **comprehensive directions** to ensure **effective enforcement of dowry prohibition laws** while also **preventing their misuse**, particularly in cases under **Section 498A IPC**.

### Why Dowry Remains a Concern

- Despite legal prohibition, **dowry persists as a socio-legal problem**, often disguised as:
  - Voluntary gifts
  - Customary transfers at marriage
- Dowry-related harassment and deaths continue to violate:
  - **Women's dignity**
  - **Right to life and equality**

### Key Directions Issued by the Supreme Court

- **Strict Scrutiny of Complaints**
  - Police must **verify allegations** before making arrests.
  - Mechanical or automatic arrests to be avoided.
- **Role of Investigating Officers**
  - IOs must differentiate between:
    - **Dowry demand**
    - **Voluntary gifts given without coercion**
- **Protection Against Misuse**
  - Courts must be alert to **false or exaggerated cases** filed to harass the husband or in-laws.
- **Evidence-Based Prosecution**
  - Prosecution should rely on:
    - Documentary proof
    - Consistent witness testimony
    - Clear linkage between demand and cruelty
- **Judicial Responsibility**

- Trial courts to ensure **speedy trials** and avoid unnecessary adjournments.

### Legal Framework on Dowry

- **Dowry Prohibition Act, 1961**
  - Dowry defined as any property or valuable security demanded in connection with marriage.
  - Punishment:
    - Imprisonment up to **5 years**
    - Fine up to **₹15,000 or value of dowry**
- **Indian Penal Code**
  - **Section 498A:** Cruelty by husband or relatives
  - **Section 304B:** Dowry death
- **Code of Criminal Procedure**
  - Arrests must comply with safeguards under **Section 41 CrPC**.

### Constitutional Perspective

- **Article 14:** Equality before law – protection against arbitrary arrests.
- **Article 21:** Right to life and dignity – applies to both:
  - Victims of dowry harassment
  - Persons falsely implicated

## POCSO Case Can't be Quashed if Child Victim Turns Hostile: Delhi High Court

### What's the News?

- The **Delhi High Court** ruled that criminal proceedings under the **Protection of Children from Sexual Offences (POCSO) Act, 2012** cannot be quashed or dismissed solely because the child victim has turned "hostile" during the trial.
- The Court emphasized that even if a victim changes their statement or denies the incident in court, the case must proceed based on other available evidence, such as **medical reports, forensic data, or witness testimonies**.
- The judgment was delivered while dismissing a petition by an accused seeking to quash a case on the grounds that the victim and the complainant (the victim's mother) had settled the matter and were no longer supporting the prosecution's case.

### Key Legal Principles Established

- **Non-Compoundable Nature:** The Court reiterated that serious offences under the **POCSO Act** and **Section 376 of the IPC (Rape)** are non-compoundable, meaning they cannot be legally settled or compromised between the parties.
- **Welfare of the Child:** Justice highlighted that the primary objective of the **POCSO Act** is the protection and welfare of the child, and allowing cases to be quashed due to "hostility" could encourage coercion or illegal settlements.
- **Evidence Beyond Testimony:** The Court noted that "hostility" of a witness does not automatically mean the accused is innocent; the prosecution can still prove the



case through **circumstantial evidence** and **expert opinions**.

- **Public Interest:** Criminal acts of this nature are considered "crimes against society," and therefore, the victim's personal desire to withdraw the case does not override the state's duty to prosecute.

### What is a "Hostile Witness"?

- **Simple Meaning:** A witness is termed "hostile" when they give a statement in court that contradicts their earlier statement given to the police or the magistrate, usually in an attempt to help the accused.
- **Legal Implication:** In regular cases, a witness turning hostile often weakens the prosecution. However, in **POCSO** cases, the court must now ensure the trial reaches its logical conclusion regardless of the witness's stance, provided other evidence exists.

### Legal & Institutional Framework

- **POCSO Act Provisions Reinforced:**
  - **Section 29:** Presumption of guilt if the victim's testimony is supported by medical or other evidence.
  - **Section 30:** Presumption of lack of consent in all sexual acts with a child below.
  - **Section 23(2):** Prohibits disclosure of the victim's identity in any media.
- **Procedural Safeguards:**
  - **Section 164 CrPC:** Mandatory recording of child's statement before a Magistrate at the earliest to preserve original testimony.
  - **Police & CWC Duty:** Authorities must ensure immediate *shelter, counselling, and protection* under **Section 23(3)** of POCSO and **Rule 4(4)** of POCSO Rules, 2020.

### Additional Info

- **POCSO Act, 2012:**
  - Enacted to provide a robust legal framework for the protection of children (any person below **18 years**) from sexual assault, harassment, and pornography.
  - **Special Courts:** Mandates the setting up of Special Courts for speedy trials.
  - **Presumption of Guilt:** Under **Sections 29 and 30**, the law presumes the accused is guilty of certain offences until proven otherwise, shifting the burden of proof in specific circumstances.
- **Constitutional Context:**
  - **Article 15(3):** Empowers the State to make special provisions for women and children.

- **Article 21:** Right to life with dignity, which includes a child's right to be protected from abuse.

- **Judicial Precedents:**

- **Gian Singh v. State of Punjab (2012):** The Supreme Court held that High Courts should not quash proceedings in serious and heinous offences even if there is a settlement.
- **State of Madhya Pradesh v. Laxmi Narayan (2019):** Reaffirmed that offences like rape and those under the POCSO Act fall under "serious" categories where compromise is not permissible.

# Empowerment

## NCW Launches 'SHAKTI Scholars' Young Research Fellowship

### What's the News?

- The **National Commission for Women (NCW)** has launched the **"SHAKTI Scholars: NCW Young Research Fellowship"** to promote policy-oriented research on women-centric issues.
- The initiative aims to encourage young scholars to conduct multidisciplinary, evidence-based research that can inform **gender-responsive governance** and social reforms.
- Applications for the current cycle are being accepted via email until **December 31, 2025**.

### SHAKTI Scholars Fellowship: Overview

- **Purpose:**
  - Promote high-quality research focused on **women's issues**, gender equality, and systemic challenges faced by women.
  - Bridge academic research and **policy formulation** to strengthen gender-responsive governance.
- **Target Group:**
  - **Young researchers**, postgraduate students, and early-career scholars from diverse academic backgrounds.
- **Support Components:**
  - **Fellowship grants** to cover research expenses.
  - **Mentorship** by subject-matter experts.
  - Platforms to present research findings to policy-makers and civil society.
- **Key Research Themes:**
  - Women's safety, dignity, and gender-based violence.
  - Implementation of the **Prevention of Sexual Harassment (POSH) Act**.
  - Legal rights, cyber safety, and access to justice.
  - Economic empowerment, labor force participation, and leadership.
  - Health, nutrition, education, and work-life balance.

### Eligibility & Selection Process

- **Nationality:** Open exclusively to **Indian citizens**.
- **Age Limit:** Applicants must be between **21 and 30 years** of age.
- **Educational Qualification:**
  - Minimum of a **graduation degree** from a recognized institution.
  - **Preference** is given to candidates pursuing or holding **Post-graduation, M.Phil., or PhD** in relevant fields such as Gender Studies, Law, Public Policy, or Social Sciences.

- **Selection Criteria:** Applications are assessed by an **Expert Committee** constituted by the NCW, followed by an **online interaction** for shortlisted candidates.

### National Commission for Women (NCW)

- A **statutory body** established in **January 1992** under the **National Commission for Women Act, 1990**.
- Mandated to review constitutional and legal safeguards for women and advise the government on all policy matters affecting them.

## Ministry of Youth Affairs and Sports Launches Comprehensive Internship Policy

### What's the News?

- The **Union Ministry of Youth Affairs and Sports (MYAS)** has launched the **"Comprehensive Internship Policy"** to nurture a new generation of sports professionals in India.
- The policy provides structured, paid internship opportunities to college and university students across the Ministry and its autonomous bodies.
- It aims to address the rising demand for **professionally trained manpower** as India expands its sporting infrastructure and targets hosting major global events like the **2036 Summer Olympics**.

### Internship Policy - Objectives & Coverage

- **Primary Objectives**
  - Develop **domain-ready sports professionals** through experiential learning.
  - Bridge gaps between **academic learning and field-level implementation**.
  - Promote **evidence-based sports management and athlete-centric support systems**.
- **Coverage Areas**
  - **Sports Authority of India (SAI)** centres and National Centres of Excellence.
  - **National Sports Federations (NSFs)** and major sports development projects.
  - Functional domains:
    - **Sports science & analytics**
    - **Sports marketing & event operations**
    - **High-performance management**
    - **Policy research & programme implementation**

### Key Features of the Internship Framework

- **Structured Selection Process**
  - Transparent eligibility criteria with focus on **sports-related academic backgrounds**.

- Preference for candidates from **sports management, physiotherapy, data analytics, psychology, and physical education.**
  - **Learning Design**
    - **Mentor-guided assignments**, field exposure, and performance evaluation.
    - Emphasis on **project-based outputs** linked to programme outcomes.
  - **Institutional Significance**
    - Strengthens **human resource capacity** in the sports sector.
    - Supports India's shift toward **professionalised sports administration** and **scientific athlete support.**
- 

Study OAS

# Culture and Arts

## Hornbill Festival 2025: Nagaland's Grand "Festival of Festivals" Underway

### What's the News?

- The Hornbill Festival - Nagaland's flagship cultural celebration - has begun its 26th edition at Kisama Heritage Village (near Kohima).
- The event brings together all major Naga tribes, featuring traditional dance, music, crafts, cuisine, tribal sports, and modern rock-music concerts.
- For 2025, the festival also enjoys global participation - with several international artistes, foreign countries as "partners," and relaxation of permit rules for foreign tourists to boost international attendance.

### What is the Hornbill Festival?

- Organized annually by the state's Tourism and Art & Culture Departments, it is called the "Festival of Festivals."
- It draws together the diverse ethnic groups (tribes) of Nagaland under one roof - allowing them to showcase unique tribal cultures, traditions, arts, crafts, cuisine, and historic customs.
- Venue: Kisama Heritage Village, about 12 km from Kohima.

### About Nagaland

- **Location & Borders**
  - Northeastern state of India, bordered by **Arunachal Pradesh (north)**, **Assam (west)**, **Manipur (south)**, and **Myanmar (east)**.
  - Part of the **Eastern Himalayas**; predominantly hilly terrain with elevations ranging from low valleys to peaks above 3,000 m (e.g., **Mount Saramati**, highest at ~3,841 m).
- **Physiography & Climate**
  - Characterised by **rugged mountain ranges**, deep valleys, and dense evergreen-subtropical forests.
  - Receives high rainfall; climate varies from **subtropical** in lower regions to **temperate** in higher areas.
  - Major rivers include **Doyang**, **Dhansiri**, and **Tizu**.
- **Cultural Composition**
  - Home to **16 major Naga tribes** (e.g., Ao, Angami, Sema, Lotha, Konyak), each with distinct **language**, **customs**, **festivals**, and **morungs** (traditional youth dormitories).
  - Society is largely **tribal**, with strong values of community, customary law, and clan organization.
  - Traditional practices include **wood carving**, **beadwork**, **handloom weaving**, **warrior headgear**, and **folk music/dances**.

- **Languages & Religion**
  - Nagamese serves as a common lingua franca; numerous **Tibeto-Burman** tribal languages across districts.
  - Majority Christian population, with significant influence on social life, education, and community networks.
- **Economy & Livelihood**
  - Predominantly **agrarian**; key activities include **jhum (shifting) cultivation**, terrace farming, horticulture, and handicrafts.
  - Growing sectors: **tourism**, especially eco- and cultural tourism; festivals like the **Hornbill Festival** attract global visitors.
- **Strategic & Cultural Significance**
  - Sits along India-Myanmar border, important for **Look/Act East Policy** and cross-border tribal linkages.
  - Rich cultural diversity combined with unique highland geography makes Nagaland a major centre for **anthropological** and **ethnographic** studies in India.

### The Great Indian Hornbill

- **Scientific Name:** *Buceros bicornis*.
- **Cultural Symbol:** The festival is named after this bird, which is revered in Naga folklore as a symbol of **bravery and prestige**. Its feathers were traditionally used to adorn headgears.
- **Conservation Status:**
  - **IUCN Red List:** **Vulnerable**.
  - **WPA, 1972:** **Schedule I**.
  - **CITES:** **Appendix I**.
- **State Bird:** Interestingly, it is the State Bird of **Kerala** and **Arunachal Pradesh**, while Nagaland's State Bird is **Blyth's Tragopan**.

## Deepavali Inscribed on UNESCO's Representative List of Intangible Cultural Heritage

### What's the News?

- **Deepavali** (the Festival of Lights) has been officially inscribed on the **UNESCO Representative List of the Intangible Cultural Heritage (ICH) of Humanity**.
- The decision was announced during the **20th Session of the Intergovernmental Committee** for the Safeguarding of the Intangible Cultural Heritage, held at the **Red Fort in New Delhi**.
- This makes Deepavali the **16th Indian element** to be included in this prestigious list, joining others like **Garba**, **Durga Puja**, and **Yoga**.



## Why Deepavali? Key Attributes Recognised by UNESCO

UNESCO acknowledges Deepavali as a **living, pluralistic tradition** embodying:

- **Cultural unity in diversity:** Celebrated across regions and faiths - Hindu, Jain, Sikh, and some Buddhist communities - with shared symbolism of **light prevailing over darkness**, knowledge over ignorance.
- **Historical depth:** Rooted in **Itihasas, Puranas**, and regional narratives, including:
  - Return of Lord Rama to Ayodhya.
  - Victory of Krishna over Narakasura.
  - Worship of Goddess Lakshmi and harvest thanksgiving.
- **People-centric practices:**
  - **Home-based rituals** (e.g., *deep* lighting, rangoli, prayers).
  - **Community gatherings**, charity (*daan*), feasting, and intergenerational knowledge transmission.
  - **Diaspora expression:** Reinforces identity among Indian communities globally.
- **Philosophical values:** Reflects the Vedic ideal "*Tamso Ma Jyotirgamaya*" (*Lead me from darkness to light*).

## About UNESCO's Intangible Cultural Heritage (ICH) Framework

- Established under the **2003 Convention for the Safeguarding of ICH**, ratified by India in **2005**.
- Focuses on **living heritage**—practices, expressions, knowledge, and skills communities recognise as part of their cultural identity.
- Organised into **five domains**:
  - Oral traditions and expressions
  - Performing arts
  - Social practices, rituals, and festive events
  - Knowledge and practices concerning nature and the universe
  - Traditional craftsmanship
- **Representative List** aims to raise visibility and encourage dialogue—not confer exclusivity or freeze traditions.

## Highlights of the 20th Session

- **Host Country:** This was the **first time India hosted** the UNESCO ICH Committee session.
- **Chairmanship:** The session was chaired by **Vishal V. Sharma**, India's Ambassador and Permanent Delegate to UNESCO.
- **Global Participation:** Delegates from **194 member states** participated to evaluate **67 nominations** worldwide.
- **Nodal Agency:** The nomination dossier for Deepavali was prepared by the **Sangeet Natak Akademi** (Ministry of Culture).

## Additional Info

- **About the Convention:**

- The **2003 Convention for the Safeguarding of the Intangible Cultural Heritage** governs this list.
- India ratified the convention in **2005**.
- **Other Indian Elements on the List** (Total 16):
  - **Recent:** Garba of Gujarat (2023), Durga Puja in Kolkata (2021), Kumbh Mela (2017).
  - **Others:** Yoga, Nowruz, Ramlila, Vedic Chanting, Kutiyattam, Chhau dance, Kalbelia, etc..
- **Constitutional Context:**
  - **Article 51A(f):** It is a fundamental duty of every citizen to **value and preserve the rich heritage** of India's composite culture.
  - **Article 29(1):** Protects the right of any section of citizens to **conserve their distinct culture**.

## Bhartiya Bhasha Utsav 2025 Celebrates India's Linguistic Diversity and Tribal Heritage

### What's the News?

- The **Ministry of Education** organised **Bhartiya Bhasha Utsav (BBU) 2025** at **National Bal Bhavan, New Delhi** to commemorate the **birth anniversary of Mahakavi Subramania Bharati** and celebrate India's **linguistic richness and cultural diversity** under the theme "**Many Languages, One Emotion**".
- The event highlighted both mainstream and **tribal languages**, showcased linguistic publications, cultural performances and technological tools for language preservation.

### Initiatives & Highlights

- **Adi Vaani Launch:**
  - Developed by **IIT Delhi, BITS Pilani, IIIT Hyderabad**, and **IIIT Nava Raipur**, in collaboration with the Ministry of Tribal Affairs.
  - Enables **real-time speech and text translation** between Hindi/English and tribal languages, with interactive learning support.
  - Initial coverage: **Santali, Kui, Bhili, Mundari, Gondi, and Garo**—prioritising linguistically vulnerable communities.
- **Tribal Language Exhibition:**
  - Curated by Tribal Research Institutes of **Jharkhand, Odisha, and Gujarat**.
  - Showcased **dictionaries, primers, storybooks, and folk literature** to highlight oral traditions and promote documentation of endangered languages.
- **Cultural Integration:**
  - Students from **Eklavya Model Residential Schools (EMRS)** performed *nukkad natak* and folk dances on tribal identity.

- Collective recitation of “Vande Mataram” in **22 Indian languages** symbolised unity through linguistic diversity.

## President Droupadi Murmu Releases Constitution in Santhali Language

### What's the News?

- President **Droupadi Murmu** officially released the **Constitution of India** in the **Santhali language** on **December 25, 2025**, at a ceremony held at **Rashtrapati Bhavan**.
- The release was strategically timed to coincide with **Good Governance Day**, the birth anniversary of former Prime Minister **Atal Bihari Vajpayee**.
- For the first time, the Constitution is now available in the **OI Chiki script**, allowing millions of Santhali speakers to access their rights and duties in their native script.

### OI Chiki Script & Centenary Significance

- **Centenary Celebration:** The year **2025** marks the **100th anniversary** of the **OI Chiki script**, which was developed by **Pandit Raghunath Murmu** in **1925**.
- **Script Characteristics:**
  - **Alphabet Type:** Unlike many Indian scripts, it is an alphabetic system where vowels and consonants are separate, independent letters.
  - **Structure:** The script contains **30 letters** (6 vowels, 24 consonants) and **10 digits**.
  - **Direction:** It is written from **left to right**, with letter shapes inspired by natural objects and traditional postures.

### Status of the Santhali Language

- **Constitutional Status:** Santhali was added to the **Eighth Schedule** of the Constitution via the **92nd Amendment Act, 2003**.
- **Demographics:** With over **70 lakh (7 million)** speakers, the Santhals are the **third-largest tribal community** in India.
- **Geographical Distribution:** Predominantly spoken in **Jharkhand, Odisha, West Bengal, and Bihar**, as well as in parts of Assam and neighboring countries like Bangladesh and Nepal.

### National Translation Initiative

- **Full Coverage Goal:** The **Ministry of Law and Justice** is implementing a project to translate the Constitution into all **22 scheduled languages**.
- **Current Status:** The Constitution is currently available in approximately **18 to 20 languages**, with the goal of covering all scheduled languages by **March 2025**.
- **Recent Progress:** Translations into **Sanskrit** and **Maithili** were recently unveiled on **November 26, 2024**, to commemorate **Samvidhan Diwas**.

### Additional Info

- **Eighth Schedule History:**

- **1950:** Originally included **14 languages**.
- **1967 (21st Amendment):** Added **Sindhi**.
- **1992 (71st Amendment):** Added **Konkani, Manipuri, and Nepali**.
- **2003 (92nd Amendment):** Added **Bodo, Dogri, Maithili, and Santhali**.

### Relevant Articles:

- **Article 344(1):** Provides for the constitution of a Commission by the President for official language matters.
- **Article 351:** Directive for the development and enrichment of the Hindi language using the Eighth Schedule languages as resources.

## World-Famous Bargarh Dhanu Yatra Begins in Odisha

### What's the News?

- The **78th edition** of the world-renowned **Bargarh Dhanu Yatra** has officially commenced in the Bargarh district of Odisha.
- President **Droupadi Murmu** and Chief Minister **Mohan Charan Majhi** extended their greetings to the people on the occasion of this 11-day cultural extravaganza.
- The festival is scheduled to run for **11 days**, concluding on **January 3, 2026**, and is expected to attract visitors from across India and abroad.

### Understanding Dhanu Yatra

- **The World's Largest Open-Air Theater:** Dhanu Yatra is recognized by the **Guinness Book of World Records** as the largest open-air theatrical performance in the world.
- **Geographical Transformation:** During the festival, the entire town of **Bargarh** transforms into the mythological city of **Mathura**, while the **Ambapali** area across the **Jeera River** becomes **Gopapura**.
- **The Narrative:** The play depicts the mythological story of **Lord Krishna** and **Balaram** visiting Mathura to witness the 'Dhanu' (bow) ceremony and the subsequent end of the tyrannical rule of **King Kansa**.
- **Administrative Shift:** A unique feature of this festival is that **King Kansa** virtually rules the town for 11 days. He holds 'Durbar' and can even "punish" government officials and citizens for their lapses.

### Key Festival Highlights

- **Inaugural Rituals:** The festival began with the '**Rajyabhishek**' (coronation) of King Kansa, following the wedding of **Devaki** and **Vasudeva**.
- **Cast and Crew:** This year, **Hrushikesh Bhoi** is portraying the lead role of **King Kansa**.
- **Cultural Integration:** Over **3,500 artists** from approximately **150 cultural troupes** from across the country are expected to perform during the 11-day event.
- **Public Participation:** Unlike traditional stage plays, there is no formal stage; the entire landscape serves as

the set, and the local residents act as the subjects of the Mathura Kingdom.

### Additional Info

- **Historical Context:**
  - The first Dhanu Yatra was performed in Bargarh in **1947-48** to celebrate India's independence and the end of British colonial rule, symbolizing the victory of good over evil.
- **National Recognition:**
  - The **Union Ministry of Culture** accorded **National Festival Status** to Dhanu Yatra in November 2014, acknowledging its cultural significance.
- **Constitutional Link:**
  - **Article 29:** Protects the interests of minorities and grants citizens the right to conserve their distinct language, script, or **culture**.
  - **Article 51A(f):** Mandates every citizen to value and preserve the rich heritage of the country's **composite culture**.

## 2,000-Year-Old Buddhist Site Rediscovered in Kashmir's Baramulla

### What's the News?

- Prime Minister **Narendra Modi**, in his 129th '**Mann Ki Baat**' address, highlighted the rediscovery of an ancient **Buddhist complex** in **Zehanpora** (also known as Jehanpora) village, **Baramulla**, Jammu & Kashmir.
- The Prime Minister termed the discovery a "proud moment" for the nation, emphasizing that it reveals a glorious past dating back nearly **2,000 years** and underscores Kashmir's deep civilisational roots.
- The identification of the site was remarkably aided by an old, blurred photograph of **three stupas** found in the archives of a **French museum**, which helped researchers confirm the historical significance of the tall mounds in the area.

### Details of the Discovery

- **Initial Observations:** For decades, locals considered the tall, uneven mounds in Zehanpora to be ordinary land formations until an archaeologist noticed their unusual alignment.
- **Technological Intervention:** Excavations were preceded by scientific mapping using **drones** and high-resolution aerial photography, which confirmed the mounds were large, man-made religious structures.
- **Archaeological Findings:** The ongoing excavation has unearthed several key structures:
  - Three **Stupa** bases with circular and rectangular foundations.
  - **Monastic cells** and residential spaces for monks.
  - Structural walls, **pottery**, and **copper artifacts** dating to the **Kushan period**.
- **Scale of Project:** This is the first large-scale archaeological excavation carried out independently by

the **Department of Archives, Archaeology and Museums (DAAM)**, Jammu and Kashmir, in collaboration with the **University of Kashmir**.

### Historical and Strategic Significance

- **Kushan Era Influence:** The site is believed to have thrived during the **Kushan Dynasty** (1st–3rd centuries CE), a golden age when Buddhism spread extensively through Kashmir under rulers like **Kanishka**.
- **Silk Route Connection:** Zehanpora's location on the right bank of the **Jhelum River** placed it directly on an ancient **Silk Route** corridor linking Srinagar to **Gandhara** (modern-day Pakistan/Afghanistan) and onward to Central Asia.
- **Gandhara Linkages:** The architectural style—including circular stupa bases and brick patterns—mirrors known Gandharan sites like **Taxila** and **Takht-i-Bahi**, suggesting it was a vital hub for traveling monks and traders.
- **Cultural Identity:** The discovery provides physical evidence supporting ancient texts like the **Rajtarangini** and travelogues of pilgrims like **Xuanzang**, who documented Kashmir as a premier center of Buddhist learning.

### Additional Info

- **The Kushan Empire:**
  - A syncretic empire formed by the **Yuezhi** in the Bactrian territories in the early 1st century.
  - The **Fourth Buddhist Council** was famously held in Kashmir under **Emperor Kanishka**, which led to the compilation of the *Mahavibhasha*.
- **Archaeological Methodology:**
  - The team used **Ground-Penetrating Radar (GPR)** to detect buried structures before digging.
  - Excavations at nearby **Harwan** and **Ushkur** also feature similar **terracotta tile** pavements with floral and geometric motifs.
- **Constitutional Context:**
  - **Article 49:** A **Directive Principle** of State Policy that mandates the state to protect monuments and places of national importance.
  - **Seventh Schedule:** "Ancient and historical monuments and records" are listed under the **Concurrent List** (Entry 40), allowing both Center and State to act on preservation.

# Environment

## CPCB Reports High Uranium Contamination in Delhi Groundwater

### What's the News?

- The **Central Pollution Control Board (CPCB)** has submitted a report to the **National Green Tribunal (NGT)** highlighting severe heavy metal contamination in **Delhi's groundwater**.
- The report reveals that Delhi ranks **third** in the country for uranium concentration levels, trailing only **Punjab** and **Haryana**.
- Samples collected from various districts showed uranium levels significantly exceeding the safety limits prescribed by the **Bureau of Indian Standards (BIS)** and the **World Health Organization (WHO)**.

### What is Uranium Contamination?

- Uranium is a **naturally occurring radioactive heavy metal**; its presence in groundwater above permissible thresholds constitutes contamination.
- **Permissible limit in drinking water:**
  - **World Health Organization (WHO):** 30 µg/L (0.03 mg/L)
  - **Bureau of Indian Standards (BIS) – IS 10500:2012** (as amended in 2021): Aligns with WHO - 0.03 mg/L.

### Causes of Rising Uranium Levels

- **Anthropogenic sources:**
  - Runoff from **phosphate-based fertilizers** used in agriculture.
  - **Industrial effluents** and improper **waste/sewage disposal** infiltrating aquifers.
- **Natural geological factors:**
  - Presence of **uranium-rich rock strata** and soil in aquifer recharge zones.
- **Over-extraction of groundwater**, lowering water tables and concentrating contaminants.

### Health and Environmental Implications

- **Human health:**
  - **Kidney damage** and impaired renal function.
  - Increased risk of **kidney and urinary tract cancers**.
  - Potential **bone tissue accumulation** affecting long-term skeletal health.
- **Environmental impact:**
  - Degradation of **aquifer quality**, compounding water scarcity.
  - **Co-occurrence with other pollutants** like nitrates and fluorides, worsening cumulative toxicity.

### Additional Info

- **Uranium Standards:**
  - **WHO:** Set a provisional guideline value of **30 µg/L** for uranium in drinking water.

- **BIS (IS 10500:2012):** Initially did not have a standard for uranium. It was added in **2021**, aligning with the WHO limit of **30 µg/L**.
- **Central Pollution Control Board (CPCB):**
  - A **statutory organisation** constituted in **1974** under the **Water (Prevention and Control of Pollution) Act, 1974**.
  - It also holds powers and functions under the **Air (Prevention and Control of Pollution) Act, 1981**.
  - Functions under the **Ministry of Environment, Forest and Climate Change (MoEFCC)**.
- **National Green Tribunal (NGT):**
  - Established under the **NGT Act, 2010** for effective and expeditious disposal of cases relating to environmental protection.
  - **Constitutional Basis:** Draws inspiration from **Article 21** of the Indian Constitution, which guarantees the right to a healthy environment.
  - India is the **third country** (after Australia and New Zealand) to have a specialized environmental tribunal.

## India Hosts World Summit on Disaster Management 2025

### What's the News?

India hosted the **World Summit on Disaster Management (WSDM) 2025** in **Dehradun**, organized by the **National Institute of Disaster Management (NIDM)** under the Ministry of Home Affairs. Union Minister Dr. Jitendra Singh announced a significant expansion of **early-warning infrastructure** in Uttarakhand, including:

- **6 Doppler Weather Radars**
  - **33 Automatic Rain Gauge-cum-Observatories**
  - **142 Automatic Weather Stations (AWS)**
- The summit brought together global experts to advance science-based disaster resilience, especially in fragile ecosystems like the Himalayas.

### WSDM 2025: Objectives & Strategic Focus

- **Theme:** “*Science-Driven Disaster Resilience for a Climate-Vulnerable World*”.
- **Key Aims:**
  - Strengthen **multi-hazard forecasting systems** for cloudbursts, landslides, GLOFs (Glacial Lake Outburst Floods), and forest fires.
  - Promote integration of **AI, remote sensing, and “Nowcast” (3-hour hyperlocal forecast)** systems in DRR.
  - Foster public-private-academia-industry partnerships for scalable solutions.
- **Institutional Anchors:**



- Hosted in partnership with **IMD, WMO, UNDRR, and GIZ**.
- Aligns with India's G20 presidency legacy on disaster-resilient infrastructure.

### Himalayan-Specific Interventions Announced

- **Enhanced Monitoring:**
  - Expansion of **snow and glacier observatories** in upper Himalayas.
  - Real-time GLOF risk assessment using **satellite + ground sensor fusion**.
- **Technology Integration:**
  - Deployment of **AI-powered landslide early-warning systems** in 15 high-risk districts.
  - Pilot rollout of **"Nowcast" alerts** to 50 vulnerable blocks by mid-2026.
- **Livelihood Resilience:**
  - Promotion of **agri-startups** working on climate-resilient crops.
  - **CSIR value-addition models** for forest-based livelihoods to reduce deforestation pressure.

### Policy & Governance Linkages

- **Sendai Framework Target E:** India now has **state & district DRR strategies in all 780 districts** (100% coverage).
- **15th Finance Commission Recommendation:**
  - **10% of SDRF (State Disaster Response Fund)** must be used for **local mitigation**, ensuring bottom-up resilience.
- **NDMA Roadmap 2030:**
  - Focus on **disaster-proofing critical infrastructure** (roads, hospitals, schools).
  - Scaling up **community-based DRR training** via NIDM's **Viksit Bharat DRR Fellows** initiative.

### Additional Info

- **Constitutional Context:**
  - **Entry 23, Concurrent List:** "Social security and social insurance; employment and unemployment"—covers DRR workforce development.
  - **Article 21:** Right to life interpreted to include protection from avoidable disaster deaths (*Chandrabhan Sharma v. Union of India*, 2011).
- **Key Statistics:**
  - India loses **~0.47% of GDP annually** to disasters (NCAER estimate).
  - Every **₹1 invested in DRR** yields **₹7–15** in avoided losses (World Bank).
- **Global Commitments:**
  - **COP28 UAE Declaration on Early Warnings for All by 2027** – India progressing ahead of schedule in Himalayan states.
  - Supports **SDG 11 (Sustainable Cities)**, **SDG 13 (Climate Action)**, and **SDG 17 (Partnerships)**.

## BNHS to Release Critically Endangered Vultures in Assam to Boost Wild Population

### What's the News?

- The **Bombay Natural History Society (BNHS)**, in collaboration with the **Assam Forest Department**, is set to release **six captive-bred vultures** into the wild in the **Sivasagar district** of Assam.
- This initiative marks a significant milestone in India's conservation history, being the first release of these species in Assam after **15 years of captive breeding efforts**.
- The release targets two **Critically Endangered** species: the **White-rumped Vulture** (*Gyps bengalensis*) and the **Slender-billed Vulture** (*Gyps tenuirostris*), aiming to augment their plummeting wild populations.

### Why Assam?

- **Slender-billed vulture** is now largely restricted to **Assam**, the species' last stronghold in India.
- Nationally, only **~870 mature individuals** of this species remain.
- **White-rumped vulture** suffered the **fastest population decline** of any bird globally due to **diclofenac poisoning**.

### Reintroduction Strategy

- **Soft release method:** Gradual acclimatisation in pre-release aviaries before full freedom.
- **Pre-release groundwork** includes:
  - Community awareness drives at village level.
  - Collaboration with **Assam Forest Department** and **Royal Society for the Protection of Birds (RSPB)**.
  - Engagement of **veterinarians and paravets** to promote **vulture-safe NSAIDs** like **Meloxicam** and **Tolfenamic acid**, and stop use of toxic drugs (**Diclofenac, Aceclofenac, Ketoprofen, Nimesulide**).

### Threats Being Addressed

- **Poison baiting:** Carcasses laced with pesticides (to kill stray dogs) inadvertently kill vultures.
- **Veterinary NSAIDs:** Although **diclofenac was banned for veterinary use in 2006**, illegal use and newer toxic drugs persist in the livestock supply chain.

### Additional Info

- **Conservation Status:**
  - **White-rumped Vulture:** Critically Endangered (IUCN) | Schedule I (WPA, 1972).
  - **Slender-billed Vulture:** Critically Endangered (IUCN) | Schedule I (WPA, 1972).
- **Vulture Conservation in India:**
  - **Action Plan for Vulture Conservation (2020-2025):** Launched by the Ministry of Environment, Forest and Climate Change (MoEFCC). Key goals include:

- Establishing **Vulture Safe Zones (VSZ)** where no toxic drugs are present in a 100km radius.
- Setting up additional breeding and rescue centers.
- **Toxic Drugs:** The government has banned **Diclofenac**, **Aceclofenac**, and **Ketoprofen** for veterinary use. Safe alternatives include **Meloxicam** and **Tolfenamic acid**.
- **Partners:** The project is supported by the **Royal Society for the Protection of Birds (RSPB)**, UK.

## India Achieves Record Renewable Energy Addition; Odisha to Receive 1.5 Lakh Rooftop Solar Units

### What's the News?

- India has recorded its **highest-ever annual renewable energy (RE) capacity addition**, led by strong growth in **solar** and **wind** segments.
- The Union Government announced that **Odisha** will receive **1.5 lakh rooftop solar units** under a new **Urban Local Area (ULA) model**, aimed at fast-tracking decentralised clean energy access.
- The initiative aligns with national goals to enhance **energy security**, reduce **fossil fuel dependence**, and support **net-zero commitments**.

### Record Renewable Energy Addition

- India's RE sector has achieved significant expansion across:
  - **Solar** installations
  - **Wind power** capacity
  - **Bioenergy** and **small hydro** additions
- The surge supports national targets under:
  - **Nationally Determined Contributions (NDCs)**
  - **Renewable Energy Mission**
- Key factors:
  - Increased private-sector participation
  - Lower cost of solar modules
  - Faster grid-integration approvals

### Odisha's 1.5 Lakh Rooftop Solar Units

- Implemented through a **new ULA model**, focusing on:
  - **Urban local body participation**
  - Efficient **rooftop mapping**, aggregation, and installation
- Expected Outcomes:
  - Reduce household electricity bills through **net metering**
  - Provide reliable, clean power to urban households
  - Support Odisha's renewable energy targets
- Part of the broader push under the **Rooftop Solar Programme**, promoting consumer-level clean energy adoption.

### What is the ULA Model?

- A decentralised rooftop solar deployment mechanism involving:
  - **Urban Local Bodies (ULBs)** as nodal facilitators
  - Streamlined vendor onboarding and quality monitoring
  - Single-window application for citizens
- Benefits:
  - Higher trust and transparency
  - Faster approvals
  - Better utilisation of urban roof spaces

### Additional Info

- **Policy Enablers:**
  - **PM Surya Ghar Yojana:** Central financial assistance (CFA) of up to ₹78,000 per 3 kW system for residential consumers.
  - **Green Energy Open Access Rules, 2024:** Mandates DISCOMs to approve open access within 15 days, promoting industrial rooftop solar adoption.
- **Constitutional & Institutional Context:**
  - **Entry 38, Concurrent List:** Electricity (including generation, distribution, and non-conventional energy).
  - **MNRE** operates under **Ministry of Power**, with key implementation agencies: **SECI**, **NTPC**, **ISA**, and state DISCOMs.

## Supriya Sahu Wins UNEP Champions of the Earth Award 2025

### What's the News?

- **Supriya Sahu**, Additional Chief Secretary to the Government of **Tamil Nadu** (Environment, Climate Change & Forests), has been honoured with the **2025 Champions of the Earth Award**.
- She received the award in the **"Inspiration and Action"** category from the **United Nations Environment Programme (UNEP)**.
- The award recognizes her pioneering leadership in **subnational climate action**, particularly in ecosystem restoration, sustainable cooling, and building climate resilience in Tamil Nadu.

### Why the Award?

UNEP highlights her contributions as transformative and scalable, with measurable impact:

- Generated **2.5 million green jobs** in Tamil Nadu.
- Expanded **forest cover** through targeted afforestation and conservation.
- Integrated **heat-adaptation infrastructure** in public spaces (e.g., tree-lined corridors, nature-based shading).
- Improved climate resilience for **~12 million people**.
- Positioned Tamil Nadu as a **global model for sustainable cooling policy** and low-carbon transition.

## About the Champions of the Earth Award

- Established by **UNEP** in **2005** to honour individuals/organisations driving exceptional environmental leadership.
- Awarded annually across four categories:
  - Policy Leadership**
  - Inspiration and Action**
  - Entrepreneurial Vision**
  - Science and Innovation**
- Selection by an independent global jury based on **impact, innovation, and scalability**.
- 2025 cohort includes five laureates, including a **Pacific Islands youth coalition**, **Imazon (Brazil)** for AI-driven deforestation monitoring, and posthumous recognition for methane reduction research.
- 2025 Winners List:**
  - Policy Leadership:** Pacific Islands Students Fighting Climate Change (Vanuatu).
  - Inspiration and Action:** **Supriya Sahu** (India).
  - Entrepreneurial Vision:** Mariam Issoufou (Niger/France).
  - Science and Innovation:** Imazon (Brazil).
  - Lifetime Achievement:** Manfredi Caltagirone (Posthumous).

## Additional Info

- UNEP:**
  - Headquarters: **Nairobi, Kenya**.
  - Executive Director: **Inger Andersen**.
- Previous Indian Winners:**
  - PM Narendra Modi** (2018 - Policy Leadership).
  - Cochin International Airport** (2018 - Entrepreneurial Vision).
  - Purnima Devi Barman** (2022 - Entrepreneurial Vision).
- Constitutional Context:**
  - Article 48A:** Directive Principle mandating the State to protect and improve the environment and safeguard forests and wildlife.
  - Article 51A(g):** Fundamental Duty of every citizen to protect and improve the natural environment.

## Kopra Reservoir Designated as Chhattisgarh's First Ramsar Site

### What's the News?

- Kopra Reservoir** in **Bilaspur district, Chhattisgarh** has been officially designated as a **Ramsar site** — a *wetland of international importance* under the **Ramsar Convention**.
- This marks **Chhattisgarh's first Ramsar wetland**, bringing global recognition to the state's ecology and conservation efforts.

### Ecological Significance & Ramsar Criteria

- Biodiversity Hotspot:** Supports **161 avifauna species** across 19 orders and 50 families

- including **80 resident** and **53 migratory bird species**—making it vital for regional bird conservation.
- Area:** Covers **~1,083 hectares** of wetland ecosystem (note: 1,083,322 hectares in 20 is erroneous; consistent reporting from state sources confirms ~1,083 ha).
- Designation Criteria Met:**
  - Criterion 2:** Supports vulnerable, endangered, or critically endangered species (e.g., **Sarus Crane, Black-necked Stork**).
  - Criterion 3:** Maintains biological diversity during adverse climatic periods.
  - Criterion 5:** Regularly supports **>20,000 waterbirds** (confirmed in field surveys).

## Additional Info

- National Context:**
  - Kopra becomes India's **95th Ramsar site**, following two additions on December 12, 2025 (Siliserh & another unnamed), raising the total surface area covered to **1,361,331 hectares**.
  - India now holds the **highest number of Ramsar sites in South Asia**.
- Institutional Anchors:**
  - Ramsar Convention (1971):** Intergovernmental treaty for wetland conservation; India is a signatory since 1982.
  - National Wetland Conservation Programme (NWCP)** and **National Plan for Conservation of Aquatic Ecosystems (NPCA)** provide financial and technical support.

## Supreme Court Mandates Environmental Responsibility as Core Component of CSR

### What's the News?

- The **Supreme Court of India** ruled that **Corporate Social Responsibility (CSR)** must inherently include **environmental responsibility**, emphasizing that corporations have a duty to mitigate their ecological footprint.
- The Court observed that the right to a **clean and healthy environment** is an integral part of the **Right to Life** under **Article 21** of the Constitution.
- The judgment clarifies that CSR spending should not be treated as mere charity but as a mandatory contribution toward sustainable development and ecological restoration.

### Corporate Social Responsibility (CSR): What It Means

- CSR** refers to the obligation of companies to contribute to **social, environmental, and economic development** beyond profit-making.
- Governed under **Section 135 of the Companies Act, 2013**.
- Applies to companies with:
  - Net worth ≥ ₹500 crore**, or

- Turnover  $\geq$  ₹1,000 crore, or
- Net profit  $\geq$  ₹5 crore.
- Mandates spending at **least 2% of average net profits (last 3 years)** on CSR activities.

### Why Environment is Central to CSR

- Environmental degradation directly affects:
  - **Public health**
  - **Livelihood security**
  - **Intergenerational equity**
- CSR projects must align with:
  - **Sustainable development**
  - **Polluter responsibility**
  - **Long-term ecological balance**
- The Court emphasized that **economic growth without environmental responsibility is unsustainable.**

### Legal & Constitutional Basis

- **Article 48A (DPSP):** Directs the State to **protect and improve the environment.**
- **Article 51A(g) (Fundamental Duty):** Imposes a duty on citizens and institutions to **protect natural resources.**
- Corporations, as key economic actors, cannot be **exempt from constitutional environmental obligations.**

### CSR and Environmental Projects

- **Schedule VII of the Companies Act, 2013** includes:
  - Environmental sustainability
  - Ecological balance
  - Conservation of natural resources
  - Climate change mitigation
- Examples of valid CSR environmental activities:
  - Renewable energy projects
  - Waste management systems
  - Water conservation and afforestation
  - Pollution control initiatives

## CAQM Issues Show Cause Notices to Six Thermal Power Plants

### What's the News?

- The **Commission for Air Quality Management (CAQM)** has issued show-cause notices to six thermal power plants (TPPs) located within a **300-km radius of Delhi.**
- These notices were issued due to the plants' failure to comply with the statutory timelines for installing **Flue Gas Desulphurization (FGD)** systems.
- The CAQM is exercising its powers to enforce strict emission norms to curb sulfur dioxide (SO<sub>2</sub>) levels and improve the air quality in the **National Capital Region (NCR).**
- The action follows repeated warnings and extensions provided to the power sector to adopt clean-coal technologies.

## Non-Compliance with Biomass Co-firing Norms

### Overview:

- Thermal power plants are required to co-fire **biomass pellets or briquettes made from crop residue** with coal to promote ex-situ management of agricultural waste and reduce air pollution.
- For the **2024-25 compliance period**, a **minimum co-firing threshold of over 3 %** was prescribed to avoid penalties, against a **long-term target of 5 %.**

### Key Details:

- Six plants in **Punjab, Haryana, and Uttar Pradesh** failed to meet the required co-firing levels, prompting CAQM action.
- The **total proposed environmental compensation** is approximately **₹61.85 crore**, with the largest share against **Talwandi Sabo Power Limited.**
- Plants must submit **written explanations within 15 days** or face further actions under the **CAQM Act, 2021.**

### What is Flue Gas Desulphurization (FGD)?

- **Definition:** FGD is a set of technologies used to remove **sulfur dioxide (SO<sub>2</sub>)** from the exhaust flue gases of fossil-fuel power plants.
- **Mechanism:** It typically involves a chemical reaction where a sorbent (like lime or limestone) is used to neutralize the acidic sulfur gases.
- **Environmental Importance:**
  - Reduces **acid rain** by minimizing SO<sub>2</sub> emissions.
  - Lowers the concentration of secondary **Particulate Matter (PM<sub>2.5</sub>)** in the air.
  - Essential for meeting the **Environment (Protection) Amendment Rules** issued by the Ministry of Environment.

### Additional Info

- **About CAQM:**
  - Established under the **Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021.**
  - It is a **statutory body** tasked with the coordination, research, and identification of problems related to air quality in NCR.
  - It has the power to issue directions and take penal action, including the closure of non-compliant units.
- **Categorization of Power Plants:**
  - **Category A:** Plants within a 10-km radius of NCR or cities with million-plus populations (Strictest deadlines).
  - **Category B:** Plants within a 10-km radius of critically polluted areas.
  - **Category C:** Remaining plants (Most relaxed deadlines).
- **Constitutional Link:**
  - **Article 48A:** The State shall endeavor to protect and improve the environment.



- **Article 51A(g)**: It is the fundamental duty of every citizen to protect and improve the natural environment.

## **Indian Coast Guard Conducts Regional Level Pollution Response Exercise (RPREX-2025)**

### **What's the News?**

- The **Indian Coast Guard (ICG)** conducted the **Regional Level Pollution Response Exercise (RPREX-2025)** off the coast of **Mumbai**.
- The exercise aimed to assess the preparedness and coordination of various stakeholders in responding to **marine oil spills** and other chemical disasters.
- The event showcased India's capability to protect the marine environment and ensure maritime safety in the **Western Seaboard** region.

### **What is RPREX-2025?**

- **Objective**: To validate the **National Oil Spill Disaster Contingency Plan (NOS-DCP)** and enhance the synergy between different resource agencies.
- **Participants**: Led by the **Indian Coast Guard**, involving stakeholders like **Mumbai Port Authority**, **JN Port Authority**, **Oil and Natural Gas Corporation (ONGC)**, and the **Maharashtra State Administration**.
- **Key Operations**:
  - Demonstration of **pollution response equipment** and specialized maneuvers by ICG ships.
  - Simulated drills for containing oil slicks using **booms** and recovery using **skimmers**.
  - Aerial reconnaissance and **dispersant spraying** by ICG aircraft to neutralize simulated oil spills.
- **Significance**: Strengthens the "Polluter Pays" principle and ensures that response teams can act swiftly to minimize ecological damage to the coastline.

### **Marine Pollution Framework in India**

- **National Oil Spill Disaster Contingency Plan (NOS-DCP)**:
  - The **Indian Coast Guard** is the central coordinating authority for responding to oil spills in Indian waters.
  - The plan provides a functional framework for the mobilization of resources to tackle spills of varying magnitudes (Tier 1, Tier 2, and Tier 3).
- **Constitutional & Legal Basis**:
  - **Article 48A**: A Directive Principle of State Policy (DPSP) that mandates the State to protect and improve the environment.
  - **Article 51A(g)**: A Fundamental Duty for citizens to protect and improve the natural environment, including lakes and rivers.

- **The Merchant Shipping Act, 1958**: Contains provisions related to the prevention of pollution from ships and liability for oil pollution damage.
- **International Conventions**:
  - **MARPOL (73/78)**: The main international convention aimed at preventing pollution of the marine environment by ships from operational or accidental causes.
  - **UNCLOS**: The United Nations Convention on the Law of the Sea, which establishes the legal framework for all marine and maritime activities.

### **Additional Info**

- **Indian Coast Guard (ICG)**:
  - Established in **1978** as an independent Armed Force under the **Ministry of Defence**.
  - Acts as the **Competent National Authority** for oil spill response in Indian maritime zones.
- **Pollution Response Team (PRT)**:
  - Specialized units of the ICG located at **Mumbai, Chennai, and Port Blair** equipped with advanced equipment to handle large-scale marine environmental emergencies.
- **Tiered Response System**:
  - **Tier 1**: Small spills (under 700 tons) managed by the local port or oil company.
  - **Tier 2**: Medium spills (700 to 10,000 tons) requiring regional ICG assistance.
  - **Tier 3**: Large spills (over 10,000 tons) requiring national-level intervention and international cooperation.

## **Supreme Court Puts "100-Metre Definition" of Aravalli Ranges in Abeyance**

### **What's the News?**

The **Supreme Court of India** has stayed its **November 20, 2025 judgment** that accepted a restrictive, elevation-based definition of the **Aravalli Hills**, limiting the protected area to landforms  $\geq 100$  metres above local relief.

On **December 29, 2025**, a bench led by **CJI Surya Kant** ordered the earlier ruling and the underlying expert committee's recommendations to remain in abeyance, pending a comprehensive re-examination by a new high-powered expert panel.

- The November 20 verdict, delivered by former CJI **B.R. Gavai**, had triggered widespread concern among environmentalists, as it could have excluded **>90% of the Aravalli range** from protection and opened vast tracts to regulated mining.
- The Court acknowledged the need for clarifications on five key ecological and legal questions including structural paradoxes in range definition and threats to ecological continuity.

### **The "100-Metre Rule" Controversy**

- **The Definition**: The initial report by a ministry-led committee defined an **Aravalli Hill** as any landform with an elevation of **100 metres or more** above local relief,

and an **Aravalli Range** as a cluster of two or more such hills within **500 metres** of each other.

- **Regulatory Lacuna:** Internal data from the **Forest Survey of India (FSI)** revealed that only **1,048** out of **12,081** hills (barely 8.7%) in Rajasthan meet this 100-metre threshold.
- **Ecological Risk:** Experts argued that excluding low-elevation ridges and hillocks would break the range's **continuity**, potentially opening vast areas to **unregulated mining** and real estate development.
- **Structural Paradox:** The court noted that the "500-metre distance" rule might leave large gaps in the protected territory, allowing disruptive activities in areas contiguous to the main range.

### Court's Directives and Impact

- **High-Powered Panel:** A new committee of **domain experts** will be formed to perform a scientific and geological evaluation of the entire range.
- **Mining Freeze:** The court reaffirmed that **no fresh or renewed mining leases** shall be granted in the Aravalli region across **Delhi, Haryana, Rajasthan, and Gujarat** until the finality of these proceedings.
- **Sustainable Management:** The **Ministry of Environment, Forest and Climate Change (MoEF&CC)** is tasked with preparing a **Management Plan for Sustainable Mining (MPSM)** that identifies inviolate and permissible zones.
- **Next Hearing:** The matter is listed for further deliberation on **January 21, 2026**.

### Additional Info

- **Ecological Significance of Aravallis:**
  - Among the **world's oldest fold mountains** (~3.2 billion years).
  - Extend ~650 km from Delhi to Gujarat; act as a critical barrier against desertification from the Thar.
  - Support **biodiversity hotspots** with Saharan, Ethiopian, and Malayan flora/fauna mix (per 2004 SC observation).
  - Over **30 hills already vanished** in Rajasthan due to illegal mining (FSI, 2018).
- **Legal Timeline:**
  - **1985/1995:** PILs by *M.C. Mehta* and *T.N. Godavarman* initiated judicial oversight.
  - **2002:** SC banned mining in Haryana's Aravallis.
  - **2010:** SC rejected Rajasthan's 100 m definition, directed FSI mapping.
  - **May 2024:** SC directed MoEF&CC to form committee for "uniform definition".
  - **Nov 2025:** Gavai bench accepted height-based definition + allowed regulated mining.
  - **Dec 29, 2025:** SC stays order, proposes new expert panel.
- **Statutory Anchors:**
  - **Environment (Protection) Act, 1986:** 1992 notification declared Gurgaon–Alwar belt ecologically sensitive.

- **Forest (Conservation) Act, 1980:** Applicable if forest land is involved.
- **Wildlife (Protection) Act, 1972:** Relevant for notified sanctuaries (e.g., Mangar Bani, Asola–Bhatti).

## World Weather Attribution Annual Report 2025: Extreme Weather Pushes Adaptation to Limits

### What's the News?

- The **World Weather Attribution (WWA)** released its **Annual Report 2025**, concluding that human-induced climate change pushed millions of people globally to the "limits of adaptation".
- Despite 2025 being a **La Niña** year—a phenomenon typically associated with cooler global temperatures—the year was still one of the three hottest on record.
- The report highlights that the three-year global average temperature has, for the first time, crossed the **1.5°C threshold** set in the **Paris Agreement**.
- A total of **157 extreme weather events** with significant humanitarian impact were identified in 2025.

### Key Findings of the 2025 Report

- **Intensification of Heatwaves:** Since the **Paris Agreement** was signed in 2015, global temperatures have risen by **0.3°C**, making heatwaves nearly **10 times more likely**.
- **Adaptation vs. Reality:** Scientists warned that in many cases, existing adaptation measures—such as early warning systems or infrastructure—proved insufficient against the sheer scale of 2025's disasters, particularly for marginalized communities.
- **Global Event Profile:**
  - **Floods and Heatwaves:** Most frequent disasters, with 49 events each.
  - **Storms:** 38 major events identified.
  - **Wildfires and Droughts:** 11 wildfires and 7 significant droughts recorded.
- **Fatalities:** Heatwaves remained the deadliest hazard; for example, a single summer heatwave in **Europe** resulted in an estimated **24,400 deaths**.

### Relevance for India

- **High exposure, low attribution visibility:**
  - India faced extreme weather on **331 of 334 days in 2025**, yet few events underwent formal WWA study due to methodological barriers.
  - Major flood events (e.g., in Assam, Bihar, Maharashtra) and heat stress in northern plains align with WWA's global trend of **increasing rainfall intensity and compound extremes**, but require localized event studies.
- **Impacts on vulnerable sectors:**
  - **Agriculture:** Erratic monsoon onset + heat stress reduced yields of wheat, mustard, and pulses in key belts.

- **Health:** Heat-related morbidity surged; especially in informal labour (construction, sanitation), where physiological limits were exceeded.
- **Urban infrastructure:** Drainage systems overwhelmed in >25 tier-2/3 cities during short-interval cloudbursts.

### Additional Info

- **World Weather Attribution (WWA):**
  - An international scientific collaboration founded in 2014 to analyze how human-induced climate change influences specific extreme weather events.
  - It uses a combination of weather observations and climate models to provide "rapid attribution" studies shortly after disasters occur.
- **Climate Terminology:**
  - **Limits of Adaptation:** The point at which people's responses (like building sea walls or changing crops) can no longer prevent intolerable risks from climate impacts.
  - **Anthropogenic Warming:** Warming caused by human activities, primarily the burning of fossil fuels (coal, oil, and gas).
- **Sustainable Development Goals (SDGs):**
  - **SDG 13 (Climate Action):** Targets urgent action to combat climate change and its impacts.
  - **SDG 1 (No Poverty):** Impacted by climate-driven crop losses and economic displacement.

# Health & Pharma

## WHO Endorses GLP-1 Drugs for Obesity

### What's the News?

The **World Health Organization (WHO)** has released its first-ever global guideline endorsing **GLP-1 receptor agonists** (e.g., *semaglutide*, *tirzepatide*, *liraglutide*) for long-term obesity management in adults. The move reframes obesity as a **chronic, progressive, and relapsing disease**, warranting sustained, person-centred care rather than short-term lifestyle interventions alone.

### What are GLP-1 Receptor Agonists?

- **Mechanism:** They mimic the **GLP-1 hormone** released by the gut after eating.
- **Key Actions:**
  - **Brain:** Targets satiety centers to **reduce appetite** and cravings.
  - **Stomach:** **Slows gastric emptying**, making one feel full longer.
  - **Pancreas:** Stimulates **insulin release** and inhibits **glucagon**, helping regulate blood sugar.

### GLP-1 Guideline

- **Conditional endorsement** of GLP-1 therapies for adults with **BMI  $\geq 30$** , excluding pregnant women.
- Mandates **structured behavioural support** alongside pharmacotherapy:
  - Healthy diet plans
  - Regular physical activity
  - Ongoing counselling
- Recommendation is *conditional* due to:
  - Limited long-term data on safety & discontinuation
  - High costs and supply constraints
  - Equity concerns: <10% of eligible global population may access by 2030.

### India's Obesity Burden & Policy Gaps

- **NFHS-5 (2019–21):**
  - 24% of women and 22.9% of men are overweight/obese.
  - Rural obesity surged sharply: women (8.6% → 19.7%), men (7.3% → 19.3%).
- Obesity is a key driver of India's **NCD epidemic**, responsible for **63% of all deaths**.
- **ICMR-INDIAB-23** confirms high prevalence of *metabolic obesity*, even among normal-BMI individuals.

### Current Access to GLP-1 Drugs in India

- **Semaglutide (Wegovy®)** and **tirzepatide (Zepbound®/Mounjaro®)** available, but costly:
  - Monthly cost: ₹16,000–₹20,000.
- Novo Nordisk reduced Wegovy's price by **37%** to improve access.
- Semaglutide's patent expiry in India expected in **2026**, likely to trigger biosimilar entry and price disruption.

## Air Pollution Now India's Largest Health Threat: State of Global Air 2025

### What's the News?

- According to the **State of Global Air (SoGA) 2025** report, air pollution has emerged as India's **largest health threat**, contributing to approximately **2.1 million deaths** in **2023**.
- The report, released by the **Health Effects Institute (HEI)** and the **Institute for Health Metrics and Evaluation (IHME)**, highlights a staggering **43% increase** in pollution-linked deaths since 2000.
- The findings describe air pollution as an "invisible epidemic," now killing more people than major infectious diseases, with a significant shift towards **Non-Communicable Diseases (NCDs)**.

### Health Impacts: Multi-System Damage

- **Cardiovascular System**
  - PM<sub>2.5</sub> triggers systemic inflammation, raising annual mortality by **8% for every 10  $\mu\text{g}/\text{m}^3$  increase** in long-term exposure.
  - Strongly linked to hypertension, atherosclerosis, heart attacks, and ischemic stroke.
- **Respiratory System**
  - **6% of Indian children** now suffer from asthma.
  - A 10  $\mu\text{g}/\text{m}^3$  increase in PM<sub>2.5</sub> leads to **20–40% surge in paediatric ER visits** and **10–15% reduction in lung capacity** among exposed children.

### Neurological & Cognitive Effects

- PM<sub>2.5</sub> crosses the blood–brain barrier → neuroinflammation, oxidative stress.
- Associated with **35–49% higher dementia risk per 10  $\mu\text{g}/\text{m}^3$  increase**, and reduced academic performance in schoolchildren.
- **Maternal & Neonatal Health**
  - Elevated risks of preterm birth, low birth weight, stillbirths deepening intergenerational health inequities.

### Structural Drivers & Data Gaps

- **Top Sources (Year-Round):**
  - Vehicular emissions (~25–30% in urban centres)
  - Industrial processes and coal combustion
  - Construction/demolition dust (~10–20%, often unregulated)
  - Household solid-fuel use (esp. in rural areas)
  - Open municipal waste burning
- **Monitoring Deficiencies:**



- India's **Air Quality Index (AQI)** caps readings **at 500**, though real pollution often exceeds **600–1,000  $\mu\text{g}/\text{m}^3$**  in winter.
- Only **106 cities** had continuous real-time monitors as of 2025; 150 out of 256 monitored cities exceeded national  $\text{PM}_{2.5}$  limits.

### Policy Response: NCAP & Gaps

- **National Clean Air Programme (NCAP):**
  - Launched in 2019; targets **40% reduction in  $\text{PM}_{10}/\text{PM}_{2.5}$  by 2025–26** (base year: 2017) across **131 non-attainment cities**.
  - Funding: ₹11,211 crore allocated (2019–25), but only **₹7,594 crore utilised**—low absorption reflects weak institutional capacity.
  - Progress: As of mid-2025, **only 1 in 5 cities met targets**, highlighting implementation gaps.
- **Complementary Measures:**
  - BS-VI fuel norms, GRAP in Delhi-NCR, EV incentives, smog towers.
  - Judicial interventions (e.g., NGT orders on waste burning).

### Additional Info

- **State of Global Air (SoGA):**
  - An annual report that provides a comprehensive analysis of air quality and health impacts globally.
  - **2025 Focus:** Highlighted that  **$\text{PM}_{2.5}$  and Ozone** levels in India are among the highest globally, with **75% of the population** exposed to levels exceeding WHO guidelines.
- **$\text{PM}_{2.5}$  Explained:**
  - Fine particulate matter less than 2.5 micrometers in diameter.
  - Capable of penetrating deep into the lungs and entering the bloodstream, causing systemic inflammation and affecting organs beyond the respiratory system.

## FSSAI Launches Nationwide Egg Safety Drive Following Nitrofurans Concerns

### What's the News?

- The **Food Safety and Standards Authority of India (FSSAI)** has initiated a nationwide surveillance drive to check the quality of eggs available in the market.
- This action comes in response to reports indicating the presence of **Nitrofurans** a banned antibiotic in poultry products, raising serious concerns about public health and food safety standards.
- Food Safety Commissioners across all **States and Union Territories** have been directed to collect loose and packaged egg samples for rigorous testing.

### FSSAI Egg Safety & Testing Drive

- **Objective:**

- To assess the **presence of nitrofurans**, which are **prohibited** in food-producing animals under Indian food safety norms.
- To ensure compliance with food safety standards and **protect consumer health**.

#### • Scope:

- Sampling covers both **branded and unbranded eggs** across states.
- Samples to be analysed at **10 laboratories across the country**.

#### • Regulatory Basis:

- Food safety surveillance and enforcement powers under the **Food Safety and Standards Act, 2006** (implicit authority for compliance and testing).

### Nitrofurans: Food Safety Concern

#### • Definition & Use:

- Nitrofurans are a group of **synthetic antimicrobial compounds** formerly used in veterinary medicine.
- They are **banned** in food-producing animals domestically and internationally due to **health risks**.

#### • Health Risks:

- Linked to **carcinogenic and genotoxic effects** with potential long-term exposure.
- Vulnerable groups (children, pregnant women) are particularly at risk if residues are present.

#### • Regulatory Implication:

- Any confirmed presence of nitrofurans residues constitutes **non-compliance** with food standards and triggers enforcement action.

### Response from Industry

#### • Eggos (Egg Brand):

- The company denied the allegations of banned antibiotics in its products.
- It publicly shared laboratory reports claiming **no detection of banned substances** and compliance with food safety standards.

### Additional Info

#### • FSSAI (Food Safety and Standards Authority of India):

- A statutory body established under the **Food Safety and Standards Act, 2006**.
- Operates under the **Ministry of Health & Family Welfare**.
- **Mandate:** Laying down science-based standards for food and regulating their manufacture, storage, distribution, sale, and import to ensure safe and wholesome food.

#### • Regulatory Framework on Antibiotics:

- The FSSAI's **Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011** sets limits for antibiotic residues.
- Nitrofurans are listed among the **pharmacologically active**

**substances** prohibited for use in animals intended for human consumption.

- **Global Standards:**
  - **Codex Alimentarius Commission** (established by **FAO** and **WHO**) sets international food standards, including Maximum Residue Limits (MRLs) for veterinary drugs, which often guide Indian regulations.

## Indian Study Warns of Rising Threat from Drug-Resistant Fungus *Candida auris*

### What's the News?

- A recent study led by **Indian researchers** has revealed that the drug-resistant fungal species ***Candida auris*** is becoming more deadly and spreading rapidly across the globe.
- The study highlights that this "superbug" has developed significant resistance to multiple **antifungal medications**, making infections extremely difficult to treat.
- Researchers observed that the fungus is evolving to survive in diverse environments, increasing its potential to cause large-scale hospital outbreaks.

### *Candida auris*: Key Features & Public Health Risk

- **Multidrug resistance (MDR):** Resistant to all three major antifungal classes; azoles, polyenes, and echinocandins with some strains pan-resistant.
- **High mortality:**
  - Invasive candidiasis: **50–75% fatality**.
  - Bloodstream infections (candidemia): **~45–66.5% (30-day)**.
- **Persistence & transmission:**
  - Survives for weeks on **skin, plastics, and hospital surfaces**.
  - Spreads via **direct contact** or **contaminated equipment** (ventilators, catheters).
  - Asymptomatic carriers can transmit silently.

### Virulence Mechanisms Identified in 2025 Study

- **Morphological plasticity:** Switches between yeast and filamentous forms to invade tissues and form biofilms.
- **Immune evasion:** Alters surface proteins to avoid host defences; biofilm formation reduces drug penetration.
- **Environmental adaptation:** Utilises **ambient CO<sub>2</sub>** to **enhance survival on human skin**; a newly identified persistence strategy.
- **Genomic flexibility:** Rapid phenotypic switching and expansion of drug-efflux genes drive resistance.

### Diagnostic & Clinical Challenges

- **Misidentification:** Conventional lab tests (e.g., biochemical assays) often misclassify *C. auris* as *C. haemulonii* or *Rhodotorula*.
- **Delayed treatment:** Requires **MALDI-TOF MS** or **molecular sequencing** for accurate detection.

- **Symptom overlap:** Presents as fever, chills, hypotension — mimicking bacterial sepsis, especially in ICU patients.

# Education

## UNESCO Advocates Mother-Tongue Based Multilingual Education in India

### What's the News?

- UNESCO released its flagship annual report, *Bhasha Matters: State of the Education Report for India 2025*, highlighting the need for **mother-tongue based multilingual education (MTB-MLE)** as a foundation for **inclusive, equitable quality education** in India.

### Recommendations

UNESCO's ten evidence-backed proposals focus on systemic reform:

- **Policy & Governance:**
  - Establish a **national MTB-MLE mission** with inter-ministerial coordination.
  - Enact **state-level language-in-education policies** mandating MTB-MLE frameworks.
- **Teacher Capacity & Pedagogy:**
  - Reform **pre- and in-service teacher education** to embed multilingual pedagogy.
  - Strengthen recruitment and deployment norms for **multilingual competence**.
- **Inclusion & Equity:**
  - Integrate a **gender-responsive MTB-MLE approach** across middle, secondary, and alternative schooling.
  - Institutionalise **community participation** and **indigenous knowledge systems** in curriculum design.
- **Infrastructure & Technology:**
  - Leverage **digital public infrastructure** (e.g., DIKSHA) for multilingual teacher training and content.
  - Invest in **inclusive language technologies** (e.g., speech-to-text in regional languages) and bridge digital access gaps.
- **Financing & Sustainability:**
  - Ensure **sustainable, equitable funding** for MTB-MLE implementation and tech development.

### Relevant Concepts & Policies

- **Mother-Tongue Based Multilingual Education (MTB-MLE):** Approach where initial instruction is in the learner's home language, transitioning to additional languages.
- **National Education Policy (NEP) 2020:** Recommends medium of instruction in home language at least till Grade 5 and preferably up to Grade.
- **Article 350A, Constitution of India:** Mandates provision for instruction in the mother tongue at primary stages where practicable.

### Additional Info

- **Global & Constitutional Context:**

- UNESCO has advocated MTB-MLE since **1953**, reinforcing it in its *Education in a Multilingual World* (2003) framework.
- Aligns with **Article 29(1)** (protection of linguistic minorities) and **Article 350-A** (instruction in mother tongue at primary stage).
- Supports **NEP 2020's** foundational literacy focus and three-language formula flexibility.
- **Socio-Educational Rationale:**
  - Over **19,500 mother tongues** reported in Census 2011; only ~122 languages used in schools.
  - Children taught in unfamiliar languages face **3–4× higher dropout risk** in early grades (NCERT, 2022).
  - MTB-MLE boosts reading fluency by **1.3–2.5 grade levels** in Grades 1–3 (UNESCO global evidence).

## NITI Aayog Unveils Roadmap for Internationalising Higher Education

### What's the News?

- **NITI Aayog** released a comprehensive policy report titled "**Internationalisation of Higher Education in India: Prospects, Potential, and Policy Recommendations**".
- The report, developed in collaboration with **IIT Madras**, the **Association of Indian Universities (AIU)**, and **Acumen**, provides a long-term roadmap to establish India as a global education and research hub by **2047**.
- It emphasizes the concept of "**Internationalisation at Home**" as envisioned in the **National Education Policy (NEP) 2020**, aiming to bring global exposure to the 97% of Indian students who do not study abroad.

### Strategic Roadmap & Targets

- **Inbound Student Projections:** The report sets ambitious targets for hosting international students:
  - **1 to 1.5 lakh** students by **2030**.
  - **3.59 lakh** students by **2035**.
  - **7.89 to 11 lakh** students by **2047**.
- **Economic Impact:** By positioning India as a global destination, the government seeks to arrest a projected **₹6.2 lakh crore** capital outflow (approximately 2% of GDP) due to overseas education spending by **2025**.
- **Operational Framework:** The roadmap includes **22 policy recommendations**, **76 action pathways**, and **125 performance success indicators** across strategy, regulation, finance, branding, and curriculum.

## Initiatives & Recommendations

- **Bharat Vidya Kosh:** A proposed **\$10 billion** national research sovereign wealth impact fund.
  - **Funding Model:** 50% contribution from the diaspora and philanthropy, with the remaining 50% matched by the Central Government.
- **"Campus-within-Campus" Model:** A brownfield investment approach allowing foreign higher education institutions to set up campuses within existing Indian public and private institutions under a **10-year sunset clause**.
- **Tagore Framework:** A multilateral academic mobility framework—similar to Europe's **Erasmus+**—tailored for regional groupings like **ASEAN**, **BRICS**, and **BIMSTEC**.
- **Vishwa Bandhu Program:** Includes competitive **scholarships** for international Master's students and **fellowships** to attract global research talent and foreign faculty.
- **Bharat ki AAN (Alumni Ambassador Network):** Mobilizing the global Indian diaspora to serve as brand ambassadors for Indian higher education.

## Regulatory & Institutional Reforms

- **Viksit Bharat Shiksha Adhishthan Bill, 2025:** Aims to overhaul the regulatory framework by establishing a unified body (**VBSA**) to replace **UGC**, **AICTE**, and **NCTE**.
- **National Foreign Degree Equivalence Portal:** A proposed single-window digital platform to streamline the recognition of international degrees and credits.
- **Revamped NIRF:** Expanding the **National Institutional Ranking Framework** to include specific metrics for international faculty ratios, inbound student numbers, and joint global publications.

## Additional Info

- **Current Mobility Imbalance:** In 2024, for every one international student coming to India, approximately **28 Indian students** went abroad.
- **Internationalization at Home:** Focuses on embedding global curricula, foreign faculty, and international research exposure directly within Indian campuses.
- **Indian Knowledge Systems (IKS):** The roadmap suggests integrating traditional Indian philosophy, culture, and governance models into globally benchmarked curricula to maintain "knowledge sovereignty".

## The Great Indian Research Deficit: Challenges to Viksit Bharat

### What's the News?

- Recent analytical reports and editorials have highlighted a significant **research and development (R&D) deficit** in India, which poses a challenge to the national goal of becoming a **Viksit Bharat (Developed India)** by **2047**.

- Despite India's growing economic stature, its investment in **Science and Technology (S&T)** remains low compared to global peers, particularly in terms of **Gross Expenditure on Research and Development (GERD)**.
- Experts are calling for a "grand vision" to bridge this gap, emphasizing the need for increased **private sector participation** and institutional reforms.

## Key Facets of India's Research Deficit

- **Stagnant Funding:** India's **GERD** has remained stagnant at around **0.64% to 0.7% of GDP** for over a decade, significantly lower than the global average of **~1.8%** and well below leaders like **South Korea (4.8%)** and the **USA (3.4%)**.
- **Low Private Sector Contribution:** In developed nations, the private sector typically contributes over **70%** of R&D spending; in India, the government still bears over **60%** of the financial burden, with the private sector contributing only about **36%**.
- **Human Resource Shortage:** India has only about **250 to 260 researchers per million people**, compared to **over 8,000** in countries like **Israel** and **South Korea**.
- **Institutional Bottlenecks:** High levels of **bureaucratic red tape**, delays in fund disbursement, and a rigid regulatory environment hinder the ease of doing research in Indian universities and laboratories.
- **Patent Quality vs. Quantity:** While India has seen a surge in patent filings, a large proportion are filed by **foreign entities** (multinationals), and the "quality" or commercial viability of domestic patents remains a concern.

## Proposed Solutions and Reforms

- **Anusandhan National Research Foundation (ANRF):** Aimed at providing high-level strategic direction for scientific research, the **ANRF** seeks to bridge the gap between academia, industry, and government departments.
- **Fiscal Incentives:** Implementing tax breaks and R&D credits specifically designed to encourage **Small and Medium Enterprises (SMEs)** to invest in innovation.
- **Global Collaboration:** Increasing participation in international mega-science projects to enhance domestic technical capacity and exposure.
- **University-Industry Linkages:** Creating "Innovation Hubs" within universities where industry can set up labs to work on market-ready technologies.

## Additional Info

- **Gross Expenditure on R&D (GERD):**
  - It is the total expenditure (current and capital) on R&D performed by all resident companies, research institutes, university and government laboratories, etc., in a country.
- **Constitutional Provisions:**
  - **Article 51A(h):** It is a **Fundamental Duty** of every citizen to develop "scientific temper, humanism and the spirit of inquiry and reform".
- **Recent Initiatives:**



- **Deep Ocean Mission:** Targeted at exploring deep-sea resources and biodiversity.
- **National Quantum Mission:** Aimed at making India a global leader in quantum technologies.
- **Semiconductor Mission (₹76,000 Cr):** Focus on design, fabrication, and packaging.
- **SPARK** (Scheme for Promotion of Academic and Research Collaboration): Supports industry-academia joint projects.
- **Global Innovation Index (GII):**
  - India's rank has improved significantly from **81st in 2015** to **39th in 2024**, showcasing a positive trend in innovation output despite input constraints.
- **Global Benchmarks:**

Country	GERD (% of GDP)	Private R&D Share
India	0.65	~36%
China	2.4	~78%
USA	3.5	~75%
Israel	5.4	~60%

# Economy & Finance

## Parliament Passes Bill to Raise Excise Duty on Tobacco Products

### What's the News?

- Parliament has approved the Central Excise (Amendment) Bill, 2025, replacing the existing temporary GST compensation cess on tobacco and related products with enhanced central excise duties.
- The law aims to maintain the overall tax burden on tobacco products after the cess ends, while ensuring continued revenue flow to the Centre and support for state finances.

### Revised Excise Duty Structure

The Bill prescribes the following rates for major tobacco products:

- Unmanufactured tobacco:** 60–70% ad valorem duty.
- Chewing tobacco:** Fixed at ₹100 per kg (up from 25% earlier).
- Cigars & cheroots:** 25% or ₹5,000 per 1,000 sticks, whichever is higher.
- Cigarettes:** Tiered specific duty based on length and filter:
  - ₹2,700 to ₹11,000 per 1,000 sticks.
- Hookah/gudaku tobacco:** Duty raised from 25% to 40%.

### Rationale & Fiscal Context

- At the time of GST rollout (July 1, 2017), tobacco attracted **28% GST + compensation cess**.
- The **GST compensation cess**, initially for five years (extended via borrowing), is being phased out—already discontinued for most goods as of **September 22, 2025**, but retained for tobacco and pan masala pending loan repayment.
- The new excise duty is designed to ensure **revenue continuity**; Finance Minister Nirmala Sitharaman clarified it is **not an additional tax**, and proceeds will be **shared with states**.

### Controversy: Health vs Revenue Debate

- Opposition critique:** The Congress alleged the Bill prioritises **revenue generation over public health**, calling it a “notional security” measure with limited health impact.
- Government stance:** FM affirmed tobacco will remain in the **demerit category** under GST at **40%** (28% GST + 12% cess retained post-transition), and highlighted concurrent efforts to wean farmers (e.g., in AP, Karnataka, Bihar) off tobacco cultivation—>**1 lakh acres** reportedly shifted to alternative crops.

## Centre Releases ₹37,000 Crore under RDSS to Strengthen Power Distribution

### What's the News?

- The Government of India has released **₹37,000 crore** as central grant under the RDSS (Revamped Distribution Sector Scheme); accounting for **38%** of the total sanctioned Central support for the scheme.
- Funds were disbursed to state power DISCOMs contingent on achievement of specified infrastructure and performance-milestone targets. As per the government, **no state has pending claims** for distribution infrastructure works.

### What Is RDSS?

#### Scheme Overview

- RDSS is a flagship scheme of the Ministry of Power (MoP), launched for the period **FY 2021-22 to FY 2025-26**. It carries a total outlay of **₹3,03,758 crore**, with an estimated Gross Budgetary Support (GBS) of ₹97,631 crore from the Centre.
- The scheme has two broad components:
  - Component A - Infrastructure & Smart Metering:** Upgrading distribution networks (substations, feeders, reconductoring, HVDS, etc.), installation of smart/prepaid electricity meters, system metering, feeder/bulk-metering.
  - Component B - Capacity Building & Enabling Activities:** Training for utility staff, IT/OT upgrades, process reforms, and support for improved operational efficiency.

### Key Targets

- Reduce **Aggregate Technical & Commercial (AT&C)** losses to pan-India levels of **12–15%**.
- Bring down the **gap between Average Cost of Supply (ACS) and Average Revenue Realised (ARR) to zero**, thereby ensuring financial sustainability of DISCOMs.
- Roll-out of prepaid/smart meters under PPP or central-support mode, modernising metering, billing and distribution systems.

## Rupee Breaches Historic 90-Mark Against US Dollar

### What's the News?

- The **Indian Rupee (INR)** has breached the psychological mark of **90 against the US Dollar (USD)** for the first time, hitting an all-time intraday low of **90.30** in early December 2025.
- The currency has depreciated by over **5%** in the calendar year 2025, making it one of the worst-performing Asian currencies year-to-date.
- Despite the slide, **Chief Economic Advisor (CEA) V. Anantha Nageswaran** stated the government is “not

losing sleep" over the depreciation, noting it has not yet impacted inflation or exports significantly.

### Primary Drivers of the Depreciation

- **FPI Outflows:** Foreign Portfolio Investors (FPIs) have been relentless sellers, offloading approximately **₹1.5 lakh crore** in Indian equities so far in 2025. This capital flight has reduced dollar supply in the market.
- **Trade Deal Uncertainty:** The prolonged delay in finalizing the **India-US trade deal** has created nervousness in the market, amplifying demand for hedging against the dollar.
- **Widening Trade Deficit:**
  - **Gold Imports:** A surge in gold imports (tripled to **\$14.7 billion** in October) due to festive demand has severely pressured the trade balance.
  - **Merchandise Exports:** Exports contracted by **11.8%** in October, further widening the gap between dollars earned and dollars spent.
- **Global Dollar Strength:** Sustained demand for the US Dollar as a safe haven amid global geopolitical uncertainties and higher US interest rates.

### Macroeconomic Implications

- **Current Account & Reserves**
  - CAD narrowed to **1.3% of GDP** in Q2 FY26 (from 2.2% in Q2 FY25), but October's record trade gap suggests renewed pressure.
  - Forex reserves fell **\$12.1 billion** between end-September and mid-November 2025, to **\$688.1 billion**.
- **Inflation & Growth Trade-off:**
  - While CPI is benign (<1% in Nov 2025), depreciation risks **imported inflation** via oil, fertilizers, electronics, and edible oils.
  - Corporate balance sheets face stress from **higher debt-servicing costs** on dollar-denominated loans.
- **Export Competitiveness Limited:** A 5% depreciation cannot offset a 50% US tariff, per IDFC First Bank's chief economist.

### Policy Response & Tools

- **RBI Stance:** The central bank has adopted a "**soft-touch**" approach, allowing gradual depreciation to support exporters but intervening only to curb volatility; not to defend any level.
- **Monetary Policy:** In December 2025, the MPC **cut the repo rate by 25 bps to 5.25%**, maintaining an accommodative stance.
- **Proposed Remedies:**
  - Incentivise forex inflows: **NRI deposits, dollar-denominated bonds**, interest rebates for early repatriation.
  - Promote **local currency trade settlements** (e.g., rupee-dirham, rupee-ruble).
  - Boost **export capacity & productivity**; the sustainable path beyond currency adjustment.

### Additional Info

- **Exchange Rate System:**

- India follows a **Managed Floating Rate System**, where the exchange rate is determined by market forces (demand and supply), but the central bank (RBI) intervenes to prevent "disorderly market conditions."
- **REER vs. NEER:**
  - **NEER (Nominal Effective Exchange Rate):** The weighted average value of INR against a basket of currencies.
  - **REER (Real Effective Exchange Rate):** NEER adjusted for inflation differentials. Experts note that a 2-3% annual depreciation is often consistent with maintaining REER parity to keep exports competitive.
- **Current Account Deficit (CAD):**
  - A measurement of a country's trade where the value of goods and services it imports exceeds the value of products it exports. The widening CAD is a fundamental pressure point for the Rupee.

## RBI Announces ₹1 Lakh Crore OMO to Inject Liquidity

### What's the News?

- The **Reserve Bank of India (RBI)** has announced it will conduct **Open Market Operations (OMO)** to purchase Government Securities (G-Secs) worth **₹1 lakh crore** to inject durable liquidity into the banking system.
- Alongside OMOs, the central bank will also conduct **USD/INR Buy/Sell Swap auctions** to further ease the liquidity deficit.
- These measures aim to address the **persistent liquidity tightness** observed in the banking system due to seasonal currency demand and government balance fluctuations.

### RBI's December 2025 Policy Measures

- **Monetary Policy Shift:**
  - Repo rate reduced to **5.25%** (from 5.50%); unanimous MPC decision.
  - SDF lowered to **5.00%**; MSF and Bank Rate adjusted to **5.50%**.
  - Policy stance remains **growth-supportive** but neutral, guided by benign inflation (<1% in Nov 2025) and strong GDP growth (8.2% in Q2 FY26).
- **Liquidity Enhancement Tools:**
  - **OMO Purchase:** ₹50,000 crore on **December 11**, balance later in the month.
  - **USD/INR Buy-Sell Swap:**
    - **First leg:** RBI *buys* \$5 bn from banks, injecting rupee liquidity.
    - **Second leg:** RBI *sells back* \$5 bn after 3 years at pre-agreed forward rate.
    - **Clarified as a liquidity - not forex defence - measure** to avoid reserve depletion.

## OMO Purchases

- **Objective:** To infuse **durable liquidity** (long-term money) into the system.
- **Mechanism:** The RBI will buy government bonds from the market, releasing funds to banks in exchange.
- **Impact:** This increases the money supply, helping banks meet lending requirements and stabilize short-term interest rates.

## Forex Swaps (Buy/Sell)

- **Objective:** To manage **frictional liquidity** (short-term) and stabilize the Rupee.
- **Mechanism:** The RBI will **buy US Dollars** from banks immediately (injecting Rupees) and agree to **sell them back** at a future date.
- **Context:** This move is crucial as recent RBI interventions to support the Rupee (selling Dollars) had sucked out Rupee liquidity from the market.

## Why is Liquidity Tight?

- **Tax Outflows:** Significant funds leave the banking system towards the government account due to **Advance Tax** and **GST payments**.
- **Currency Demand:** Increased demand for cash during the festive and wedding seasons reduces the funds available with banks.
- **Forex Intervention:** The RBI has been selling dollars to prevent excessive depreciation of the **Rupee**, which consequently reduces the Rupee supply in the market.

## Additional Info

- **Open Market Operations (OMO):**
  - A quantitative monetary policy tool where the central bank **buys or sells** government securities (G-Secs) in the open market.
  - **OMO Purchase:** RBI buys bonds → Money flows **into** the market → **Injects Liquidity**.
  - **OMO Sale:** RBI sells bonds → Money flows **out** of the market → **Absorbs Liquidity**.
- **Liquidity Adjustment Facility (LAF):**
  - The primary tool for managing day-to-day liquidity, consisting of **Repo Rate** (injecting cash) and **Standing Deposit Facility/Reverse Repo** (absorbing cash).
  - When the system is in "deficit," banks borrow more from RBI under Repo; OMOs are used when the deficit becomes structural or long-term.
- **Government Securities (G-Secs):**
  - Tradable instruments issued by the Central or State Government acknowledging a debt obligation.
  - They are considered **risk-free** or **gilt-edged** instruments.

## IMF Declares UPI as World's Largest Real-Time Payment System

### What's the News?

- The **International Monetary Fund (IMF)** has officially recognized India's **Unified Payments Interface (UPI)** as the world's largest **retail fast-payment system (FPS)** by transaction volume.
- This recognition was highlighted in the IMF report titled *"Growing Retail Digital Payments (The Value of Interoperability)"* (June 2025).
- According to the report, India's UPI now accounts for nearly **49%** of the global real-time payment system transaction volume, cementing its position as a global leader in digital finance.

### Global Dominance

- **Global Comparison:** The **ACI Worldwide** report *"Prime Time for Real-Time 2024"* provides a detailed breakdown of global real-time transactions:
  - **India:** **129.3 billion** transactions (**49%** global share).
  - **Brazil:** 37.4 billion transactions (**14%** share).
  - **Thailand:** 20.4 billion transactions (**8%** share).
  - **China:** 17.2 billion transactions (**6%** share).
  - **South Korea:** 9.1 billion transactions (**3%** share).
- **Transaction Growth:** As of **November 2025**, UPI processed over **19 billion transactions** in a single month, valued at **₹24.58 lakh crore**, reflecting a **23% year-on-year growth** in volume.

### Government Initiatives Driving Growth

- **Infrastructure Expansion:**
  - Under the **Payments Infrastructure Development Fund (PIDF)**, approximately **5.45 crore** digital touchpoints have been deployed in **Tier-3 to Tier-6 centers** as of October 2025.
  - A total of **56.86 crore QR codes** have been deployed to cover **6.5 crore merchants** by FY 2024-25.
- **Policy Support:**
  - The government has implemented incentive schemes for promoting **low-value BHIM-UPI transactions**.
  - Efforts are underway to deepen **RuPay and UPI adoption** across public services, transport, and e-commerce platforms nationwide.

### Additional Info

- **Unified Payments Interface (UPI):**
  - Developed by the **National Payments Corporation of India (NPCI)**.
  - Regulated by the **Reserve Bank of India (RBI)**.
  - Launched in **2016** to enable instant real-time fund transfers between bank accounts using mobile devices.
- **Digital Public Infrastructure (DPI):**



- UPI is a key component of India's **India Stack**, which also includes **Aadhaar** (Digital Identity) and **Data Empowerment and Protection Architecture (DEPA)**.
- The IMF report emphasizes **interoperability** as a critical factor for UPI's success, allowing users to choose their preferred apps while transacting across different banks.
- **Global Expansion:**
  - UPI is now operational or in partnership stages with several countries, including **Singapore, UAE, Nepal, Bhutan, Sri Lanka, Mauritius, and France**, aiming to facilitate cross-border person-to-person (P2P) and person-to-merchant (P2M) transactions.

- CoalSETU liberalizes this by creating a common pool for all industrial users.
- **India's Coal Sector Context:**
  - **Production:** India crossed the historic milestone of **1 Billion Tonnes** of coal production in 2024-25.
  - **Import Trends:** Coal imports as a percentage of total consumption have declined to approximately **19.2%** in FY25, down from 26% in FY15.
  - **Coal India Limited (CIL):** The state-owned Maharatna PSU remains the largest coal producer globally and will be a key implementer of these auctions along with **Singareni Collieries Company Limited (SCCL)**.

## **Cabinet Approves CoalSETU Window for Auction of Coal Linkages**

### **What's the News?**

- The **Union Cabinet Committee on Economic Affairs** approved the **Policy for Auction of Coal Linkage for Seamless, Efficient & Transparent Utilisation (CoalSETU)**, introducing a new **CoalSETU window** under the **Non-Regulated Sector (NRS) Linkage Auction Policy**.
- This policy enables long-term **auction-based allocation of coal linkages** for diverse industrial uses and **exports**, aiming to enhance transparency, efficiency, and utilisation of domestic coal resources.

### **CoalSETU Window**

- **Scope & Participation:**
  - The new window allows **any domestic industrial consumer** to participate in auctions for coal linkages without end-use restrictions.
  - Excludes **coking coal** and does not permit **traders** to bid, preventing speculative hoarding.
- **Usage Flexibility:**
  - Allocated coal can be used for **own consumption, coal washing, or export**.
  - **Resale within India is prohibited**.
  - Linkage holders can export up to **50%** of their allocated coal quantity.
  - Coal may be distributed among group companies based on operational needs.
- **Complementary to Existing System:**
  - Existing auction arrangements for specified NRS sub-sectors (e.g., cement, aluminium, sponge iron, etc.) continue, and eligible end-users can also participate in CoalSETU auctions.

### **Additional Info**

- **Non-Regulated Sector (NRS) Policy, 2016:**
  - Prior to CoalSETU, coal linkages for NRS were auctioned only to specific sub-sectors (Cement, CPPs, Sponge Iron, etc.).

## **NITI Aayog Releases Roadmap to Deepen Corporate Bond Market**

### **What's the News?**

- **NITI Aayog** released a comprehensive report titled **"Deepening the Corporate Bond Market in India"**, outlining a strategic roadmap to strengthen the country's debt capital market.
- The report, launched by CEO **B.V.R. Subrahmanyam**, aims to expand India's corporate bond market to **₹100–120 trillion by 2030**, supporting the **Viksit Bharat 2047** vision.
- It highlights the urgent need to shift from **bank-led financing to market-based financing** to meet the massive long-term capital requirements for infrastructure, climate action, and industrial growth.

### **Current Landscape & Challenges**

- **Market Size:** The corporate bond market has grown at a **CAGR of ~12%** over the last decade, reaching **₹53.6 trillion (FY2025)**, which is approximately **16% of GDP**.
- **Global Comparison:** Despite growth, India lags behind peers like **South Korea (79% of GDP)** and **Malaysia (54%)**, and remains significantly smaller than its own equity market, which is nearly **7 times larger**.
- **Key Bottlenecks Identified:**
  - **Issuer Concentration:** Issuance is dominated by **AAA-rated corporates**, leaving mid-sized firms (MSMEs) with limited access.
  - **Shallow Secondary Market:** Low liquidity and a "buy-and-hold" mentality among institutional investors restrict active trading.
  - **Regulatory Friction:** Overlapping norms from **SEBI, RBI, and MCA** create compliance burdens and delays.

### **Key Recommendations for Reform**

The report proposes a **phased approach** (Short, Medium, and Long term) to transform the market.

- **Unified Regulatory Framework:** Harmonizing regulations across SEBI, RBI, and MCA to reduce approval timelines and compliance costs.

- **Tax Harmonization:** The report suggests parity in **tax treatment** between equities and bonds (e.g., standardizing **Long-Term Capital Gains** tax) to make bonds attractive for retail investors.
- **Product Innovation:** Introducing diverse instruments like **Credit-Enhanced Bonds**, **Sustainability-Linked Bonds**, and **Market-Linked Debentures** to attract varied risk profiles.
- **Broadening Investor Base:**
  - Relaxing investment mandates for **insurance and pension funds** to allow exposure to lower-rated (but viable) bonds.
  - Leveraging digital platforms to boost **retail participation**.

### Additional Info

- **Strategic Importance:** A deep bond market reduces **systemic risk** by diversifying funding sources away from the banking sector, which is often constrained by **Asset-Liability Mismatch (ALM)** when funding long-term projects.
- **Global Best Practices:** The report benchmarks successful bond markets like the **US** and **South Korea**, which utilize **active market-making** and **credit enhancement mechanisms** to ensure liquidity.
- **Related Initiatives:**
  - **Corporate Debt Market Development Fund (CDMDF):** A backstop facility launched to instill confidence during market stress.
  - **Guarantee Scheme for Corporate Debt (GSCD):** Provides guarantees to cover default risks for issuers.

## Global Investment Risk and Resilience Index, 2025: India's Position

### What's the News?

- The **2025 Global Investment Risk and Resilience Index**, published by **Henley & Partners** and **AlphaGeo**, assesses how countries balance **investment risk** (economic, geopolitical, climate-related) and **resilience** (governance, infrastructure, adaptability) to attract and sustain capital.
- **India's rank** in the 226-nation index is relatively **low**, reflecting moderate resilience weighed down by higher exposure to key risks compared to many peers.

### Index Overview

- **Purpose:**
  - Measures nations on two core dimensions:
    - **Risk Exposure:** Vulnerabilities to climate, political, economic, and regulatory shocks.
    - **Resilience Capacity:** Ability to absorb and recover through **governance, social progress, innovation, and infrastructure**.
- **Methodology:**

- Combines multiple indicators (13 major components) into a composite score scaled 0–100; higher scores denote greater investment safety and adaptive strength.

### India's Ranking & Implications

- **Overall Score:** 54.42 (out of 100)
- **Resilience Score:** 49.76
- **Risk Score:** Elevated (exact value undisclosed; described as "substantial")
- **Regional & Peer Comparison:**
  - **Singapore** (4th) is the only Asian country in the top 10
  - **China** ranked 37th, significantly ahead of India due to stronger investment capacity and innovation ecosystem
  - Among **BRICS**, India is the lowest-ranked; China leads, followed by South Africa (87th), Brazil (91st), Russia (98th)
- **Top 3:** Switzerland (88.42), Denmark (85.09), Norway (83.54)
- **Bottom 3:** Lebanon (150th), Haiti (149th), Pakistan (148th)

### Critical Risk Factors for India

- **Political & Regulatory Uncertainty:** Inconsistent policy implementation and judicial delays weaken investor confidence.
- **Climate Vulnerability:** High exposure to physical climate hazards floods, heatwaves, cyclones affects supply chains and infrastructure.
- **Institutional Gaps:** Weak enforcement of contracts, land acquisition hurdles, and fragmented labour laws increase transaction costs.

### Additional Info

- **Methodology:** Combines quantitative datasets (World Bank, WEF, ND-GAIN, V-Dem) with expert assessments.
- **Index Frequency:** Annual; first published in 2024.
- **India's Trend:** Dropped from 98th in 2024, reflecting rising geopolitical and climate-risk perceptions.

## Major Changes in National Pension System (NPS) Withdrawal Rules

### What's the News?

- The **Pension Fund Regulatory and Development Authority (PFRDA)** has revised **withdrawal and exit rules** under the **National Pension System (NPS)** to provide greater flexibility at retirement and exit.
- These changes affect how subscribers can withdraw their accumulated corpus, including **higher lump-sum options** in key scenarios and clearer payout routes.

## Revised Exit Framework & Withdrawal Slabs

Retirement Corpus Size	Mandatory Annuity	Max Lump-Sum Allowed	Flexible Options
≤ ₹8 lakh	0% (optional 20%)	100% lump-sum	Can opt for 20% annuity + 80% lump sum if preferred
₹8–12 lakh	Not mandatory	₹6 lakh lump-sum + balance via <b>Systematic Unit Redemption (SUR)</b> over ≥6 years	No annuity required
> ₹12 lakh	Minimum 20%	Up to 80% lump-sum	Balance 20% or more can be annuitised or withdrawn via SUR

- **SUR (Systematic Unit Redemption):** Enables staggered withdrawal over time, preserving investment exposure and offering tax efficiency.
- Governed under the **PFRDA Act, 2013** and **NPS Trust Regulations**.

### PFRDA

- **Pension Fund Regulatory and Development Authority (PFRDA)** is the **statutory regulator of India's pension sector**.
- It regulates and promotes pension schemes to ensure **old-age income security** for citizens, especially those in the **unorganised sector**.

### Establishment & Legal Basis

- Set up in **2003** as an interim body.
- Given statutory status through the **PFRDA Act, 2013**.
- Headquarters: **New Delhi**.

### Objectives

- **Regulate** pension funds and intermediaries.
- **Develop** the pension sector in India.
- **Protect subscribers' interests**.
- Promote **financial inclusion** through pension coverage.

### Key Schemes Regulated by PFRDA

- **National Pension System (NPS)**
  - Defined contribution, market-linked pension scheme.
  - Covers:
    - Central & State Government employees
    - Private sector employees
    - Self-employed individuals
- **Atal Pension Yojana (APY)**

- Government-backed pension scheme for **unorganised sector workers**.
- Guarantees fixed pension (₹1,000–₹5,000 per month) after 60 years.

### Functions of PFRDA

- Register and regulate:
  - **Pension Funds (PFs)**
  - **Central Recordkeeping Agencies (CRAs)**
  - **Trustees, custodians, and intermediaries**
- Set **investment guidelines** for pension funds.
- Monitor **performance, transparency, and compliance**.
- Ensure **subscriber grievance redressal**.

### Governance Structure

- Consists of:
  - **Chairperson**
  - **Whole-time members**
  - **Part-time members**
- Appointments made by the **Central Government**.

## PFRDA Notifies New Exit and Withdrawal Regulations for NPS (2025)

### What's the News?

- The **Pension Fund Regulatory and Development Authority (PFRDA)** has notified the **NPS (Exits and Withdrawals) Amendment Regulations, 2025**.
- The amendments aim to provide greater flexibility to subscribers of the **National Pension System (NPS)** by relaxing age limits for entry and exit, and simplifying the withdrawal process.
- The new rules introduce significant changes to the "Deferred Exit" option and the maximum age for continuing the pension account.

### Changes in NPS Exit & Withdrawal Rules

- **Minimum Exit Age Increased:** The previous **exit/withdrawal ages** have been revised upwards to encourage longer participation and retirement savings accumulation.
- **Partial Withdrawal Conditions:** Withdrawal norms for specific needs (e.g., education, medical emergencies) have been restructured.
- **Final Settlement on Exit:** Rules now specify **higher retention in annuity funds** and **reduced lump-sum withdrawals** to strengthen post-retirement income security.
- **Tier Structure Implementation:** Tier I (mandatory pension account) and Tier II (voluntary savings account) treatment clarified in exit scenarios.

### Overview: National Pension System (NPS)

- **NPS** is a **long-term retirement-focused investment scheme** for:
  - **Government employees** (joined after reforms)
  - **Private sector workers**
  - **Self-employed individuals**
  - **Voluntary subscribers**
- Contributions are invested in a mix of:

- **Equity, government securities, corporate bonds**
- At retirement, subscribers generally:
  - Withdraw a **lump-sum portion**
  - Use the rest to **purchase an annuity** for regular pension income

### Additional Info

- **About PFRDA:**
  - Established under the **PFRDA Act, 2013**, it is the statutory regulator for the pension sector in India.
  - It operates under the **Department of Financial Services, Ministry of Finance**.
- **NPS Structure:**
  - **Tier-I Account:** A mandatory, non-withdrawable retirement account with tax benefits under **Section 80C and 80CCD**.
  - **Tier-II Account:** A voluntary savings account that offers liquidity but no tax benefits.
- **Annuity Requirement:** Standard rules require subscribers to utilize at least **40%** of the corpus to purchase an annuity (for monthly pension) and withdraw the remaining **60%** as a tax-free lump sum at age 60.
- **Digital Integration:** PFRDA has integrated NPS withdrawals with **Aadhaar-based e-KYC** and the **Central Recordkeeping Agency (CRA)** to enable paperless processing.

## Government Clears Two New Airlines: AI Hind Air and FlyExpress

### What's the News?

- The **Ministry of Civil Aviation** has granted **No Objection Certificates (NOC)** to two new airline startups, **AI Hind Air** and **FlyExpress**, to begin flight operations in India.
- This development comes as a significant move to enhance **market competition** and expand regional and international connectivity following recent disruptions in the Indian aviation sector.
- Both airlines are now moving towards obtaining their **Air Operator's Certificate (AOC)** from the **Directorate General of Civil Aviation (DGCA)**, which is the final step before launching commercial services.

### Key Details of the New Airlines

#### AI Hind Air

- **Parent Organization:** Promoted by the Kerala-based **Alhind Group**, a major player in the travel and tourism industry.
- **Operational Base:** Headquartered in **Kozhikode, Kerala**.
- **Fleet and Routes:**
  - Plans to start with a fleet of **ATR-72** aircraft for regional connectivity.

- Initial focus will be on connecting **South Indian cities** to the Middle East (Cochin to Dubai, etc.) and domestic hubs.

- **Investment:** The group has reportedly earmarked approximately **₹200–500 crore** for the initial phase of operations.

### FlyExpress

- **Operational Focus:** Positioned as a **Regional Carrier** aiming to improve connectivity under the government's regional connectivity initiatives.
- **Fleet Strategy:** Likely to utilize smaller aircraft suited for **Tier-2 and Tier-3 cities**.
- **Objective:** To cater to the growing demand for affordable air travel in underserved domestic sectors.

### Additional Info

- **Regulatory Process:**
  - **No Objection Certificate (NOC):** The initial clearance from the Ministry of Civil Aviation assessing the financial and technical viability of the applicant.
  - **Air Operator's Certificate (AOC):** Issued by the **DGCA** after rigorous checks on safety, maintenance, and proving flights.
- **Constitutional & Legal Framework:**
  - **Seventh Schedule:** 'Airways; aircraft and air navigation; provision of aerodromes' falls under **Entry 29 of the Union List**, giving the Central Government exclusive power to legislate and regulate aviation.
  - **The Aircraft Act, 1934:** The primary legislation governing the manufacture, possession, use, operation, sale, import, and export of aircraft in India.
- **Directorate General of Civil Aviation (DGCA):**
  - The statutory body under the Ministry of Civil Aviation responsible for regulating air transport services and enforcing civil air regulations and safety standards.

## RBI Report on Trend and Progress of Banking in India 2024-25

### What's the News?

- The **Reserve Bank of India (RBI)** released its annual statutory report titled **"Report on Trend and Progress of Banking in India 2024-25"** in compliance with **Section 36(2)** of the **Banking Regulation Act, 1949**.
- The report highlights that the Indian banking sector remained **resilient**, characterized by **multi-decadal low NPAs**, sustained profitability, and robust capital buffers.
- It provides a comprehensive review of the performance of **Scheduled Commercial Banks (SCBs)**, **Co-operative Banks**, and **Non-Banking Financial Companies (NBFCs)** for the period 2024-25 and the first half of 2025-26.



## Key Highlights of the Report

- **Balance Sheet Expansion:**
  - Consolidated balance sheet of **Scheduled Commercial Banks (SCBs)** grew by **11.2%** (vs. 15.5% in FY24).
  - **Bank credit** ↑ 11.5%; **Deposits** ↑ 11.1%.
  - **PSBs' share** in SCB assets: **54.9%** (↓ from 55.2%); **PVBs' share**: **37.1%** (↓ from 37.5%).
- **Asset Quality at Multi-Decade Low:**
  - **Gross NPA (GNPA)** ratio fell to **2.2%** (March 2025) and further to **2.1%** (Sept 2025 - a multi-decadal low).
  - **Return on Assets (RoA)**: **1.4%** in FY25 (1.3% in H1 FY26); **Return on Equity (RoE)**: **13.5%** (12.5% in H1 FY26).
- **Rise in Fraud Value Despite Fewer Cases:**
  - Fraud cases ↓ to **23,879** in FY25 (from 27,027 in FY24), but value ↑ to **₹34,771 Cr** (vs. ₹26,702 Cr).
  - In H1 FY26 (Apr–Sep), fraud value rose **30%** YoY to **₹21,515 Cr** despite only **5,092** cases.
  - **PSBs** accounted for **70.7%** of fraud value (mainly advances-related); **PVBs** for **59.3%** of cases (mostly card/internet frauds).
- **Sectoral Performance:**
  - **Urban Co-operative Banks (UCBs):**
    - ↓ to **1,457** (from 1,472); **92.1%** maintain CAR >12%.
    - Credit growth ↑ to **6.7%**, highest in 6 years; net profit ↑ **14.2%**.
  - **Small Finance Banks (SFBs):**
    - Balance sheet ↑ **20.9%** to ₹4.05 lakh Cr; GNPA ↑ to **3.6%**; net profit ↓ to ₹3,496 Cr.
  - **Payments Banks (PBs):**
    - Deposits ↑ **56.8%** to ₹25,605 Cr; balance sheet ↑ **43.7%** to ₹37,592 Cr; net profit: ₹92 Cr.
  - **NBFCs:**
    - Asset expansion ↑ **19.4%**; credit share in GDP ↑ to **14.6%** (from 13.5%).
- **Digital Shift & Infrastructure:**
  - **ATM count** ↓ to **2,51,057** (driven by fall in off-site units), reflecting digital payment adoption.
  - **Financial Inclusion Index** rose sharply to **67.0** (from 43.4).

## Initiatives & Regulatory Focus

- **PRAVAAH Portal:** For streamlined regulatory approvals.
- **Unified Lending Interface (ULI):** To enable instant, consent-based credit access using account-aggregator architecture.
- **FREE-AI Framework:** For **Fair, Responsible, and Ethical AI** in credit underwriting and risk management.
- **Risk-Based Deposit Insurance:** Proposed reforms to tailor coverage based on bank risk profiles.

## Emerging Challenges

- Rising **customer grievances** and **digital frauds**, especially UPI-related.
- **Retail credit stress** in unsecured personal and vehicle loans.
- **Inclusion-quality gap:** Low financial literacy and digital discomfort hinder meaningful usage despite account access.
- AI/ML model risks in automated lending and surveillance.

## Additional Info

- **Statutory Context:**
  - **Banking Regulation Act, 1949:** Mandates the annual publication of this report to provide a systemic soundness assessment.
  - **NPA Definition:** An asset becomes non-performing when it ceases to generate income, typically when payments are overdue for **90 days** or more.
- **Policy Frameworks:**
  - **4R's Strategy:** A government initiative consisting of **Recognition, Resolution, Recapitalisation, and Reforms** to strengthen public sector banks.
  - **Basel III Norms:** International standards for capital adequacy; Indian banks maintain a CRAR higher than the mandated **11.5%**.
- **Key Financial Terms:**
  - **RoA (Return on Assets):** Measures efficiency in using assets to generate earnings.
  - **CRAR (Capital Adequacy Ratio):** The ratio of a bank's capital to its risk-weighted assets, serving as a cushion against losses.

# Science & Technology

## NITI Aayog Releases Roadmap to Transform India into a Leading Quantum-Powered Economy

### What's the News?

- **NITI Aayog's Frontier Tech Hub**, in collaboration with **IBM** as the knowledge partner, has released a comprehensive national roadmap titled “**Transforming India into a Leading Quantum-Powered Economy**”.
- The roadmap outlines a strategic vision to position India as one of the **top three quantum economies** in the world by **2035** and ensure it becomes a global leader in quantum technology by **2047** (aligned with Viksit Bharat).
- It sets ambitious targets, including capturing a significant share of the global market and achieving “**Quantum Atmanirbharta**” (self-reliance) in supply chains.

### Vision & Strategic Goals

#### Quantum Economy Vision

- Target to incubate at least **10 globally competitive quantum startups**, each achieving **USD 100 million+** in revenue by 2035.
- Aim to capture **over 50%** of the global quantum software and services market by deploying India's strength in software engineering and services.
- Enable “quantum-atmanirbharta”; full domestic supply-chain capacity covering quantum hardware, materials, systems, and software stacks; making India a net exporter of quantum solutions.

#### Sectoral Deployment & Impact

Quantum technology deployment is envisaged across critical sectors, including:

- Defence, national security and secure communication
- Healthcare and life sciences (e.g., advanced diagnostics, drug discovery)
- Finance & cryptography (quantum-resilient encryption, secure transactions)
- Energy, logistics, infrastructure and manufacturing
- Data-intensive sectors requiring high-performance computing and optimisation

### Roadmap: Strategy, Milestones & Implementation

#### Short to Medium Term (2025 - 2030)

- Launch of **national quantum testbeds**, pilot projects, and deployment of **post-quantum cryptography (PQC)** in critical government IT systems.
- Establishment of funding support, incubation and fabrication infrastructure for quantum startups and MSMEs under the National Quantum Mission (NQM).
- Initiatives to profoundly scale up the quantum-skilled workforce; including hardware engineers, quantum algorithm developers, materials science experts, and software professionals.

#### Long Term (2030–2035 and beyond)

- Transition from pilot phase to full-scale commercial deployment and exports of quantum hardware, software and services.
- India to emerge as a global hub for quantum innovation, with strong intellectual-property ecosystems and participation in international standard-setting.
- Integration of quantum technologies into national development missions; contributing to strategic autonomy, technological sovereignty and future-readiness.

### Additional Info

- **National Quantum Mission (NQM):**
  - Approved in 2023 with a budget of **₹6,003 crore** (2023–2031).
  - Aims to set up **4 Thematic Hubs (T-Hubs)** in academic/R&D institutes focusing on:
    - Quantum Computing
    - Quantum Communication
    - Quantum Sensing & Metrology
    - Quantum Materials & Devices.
- **Why Quantum Matters?:**
  - **Speed:** Quantum computers use **Qubits** (unlike classical bits 0/1), allowing them to exist in multiple states at once (**Superposition**), solving complex problems (e.g., molecular simulation) exponentially faster.
  - **Security:** Quantum Cryptography (QKD) ensures practically unhackable communication, vital for defense and banking.
- **Frontier Tech Hub:** An initiative by NITI Aayog to identify and navigate "mega technology shifts" like AI and Quantum, assessing their impact on India's economy and national security.

## Indian Astronomers Discover 'Alaknanda': A Milky Way-like Spiral Galaxy in the Early Universe

### What's the News?

- Indian astronomers from the **National Centre for Radio Astrophysics (NCRA)**, Pune, have discovered a massive, well-structured **spiral galaxy** existing in the very early universe, named '**Alaknanda**'.
- The galaxy was observed using data from the **NASA/ESA/CSA James Webb Space Telescope (JWST)**.
- **Alaknanda** challenges current theoretical models of galaxy formation, which predict that galaxies in the early universe should be chaotic and irregular, not highly organised spirals.
- The findings were published in the European journal **Astronomy and Astrophysics**.

## Alaknanda Galaxy

- **Time of Existence:** Alaknanda is observed as it existed when the universe was only **1.5 billion years old** (approximately one-tenth of its current age of 13.8 billion years).
- **Structure:** It is a "**grand-design spiral galaxy**", featuring two well-defined, sweeping spiral arms wrapped around a bright central bulge, strikingly similar to our own **Milky Way**.
- **Location:** It lies approximately **12 billion light-years** away from Earth.
- **Size and Mass:**
  - Spans roughly **30,000 light-years** in diameter (about one-third the size of the Milky Way).
  - Contains a stellar mass of approximately **10 billion solar masses**.
- **Star Formation Rate:** The galaxy is an intense powerhouse, forming new stars at a rate estimated to be **20-30 times faster** than the Milky Way today.

## Challenge to Current Theories

- **The Paradox:** Standard cosmological models suggest that galaxies forming just 1.5 billion years after the **Big Bang** should be turbulent, clumpy, and unstable due to frequent mergers and rapid gas inflow.
- **The Implication:** Alaknanda's mature, stable, and highly organized spiral structure suggests that the physical processes driving galaxy formation (like gas accretion and disk settling) operated **far more efficiently and rapidly** than previously understood.
- **Rapid Maturity:** The galaxy assembled its large stellar mass and formed its stable disk structure in just a few hundred million years, which is extraordinarily fast by cosmic standards.

## Additional Info

- **Naming:** The galaxy was named **Alaknanda** after the Himalayan river, which is considered a sister stream to the Mandakini (which is also the Hindi name for the Milky Way galaxy).
- **Observation Technique:** The detection and detailed imaging were possible partly due to **Gravitational Lensing**.
  - Alaknanda lies behind the massive **Abell 2744** galaxy cluster (**Pandora's Cluster**).
  - The cluster's gravity magnified the light from the distant galaxy, making its intricate structure visible to the JWST.
- **James Webb Space Telescope (JWST):**
  - Launched in December 2021, it is the successor to the Hubble Space Telescope.
  - It is optimized for **infrared astronomy**, allowing it to detect the redshifted light from the earliest and most distant galaxies.

## India Proposes 'One Nation, One License' for AI Copyrights

### What's the News?

- The **Department for Promotion of Industry and Internal Trade (DPIIT)** has released a working paper titled "**One Nation, One License, One Payment: Balancing AI Innovation and Copyright**".
- The paper proposes a **mandatory blanket licensing framework** that allows Artificial Intelligence (AI) companies to legally use copyrighted content (text, images, music) for training their models by paying a statutory royalty.
- This move aims to resolve the growing conflict between **AI developers** (who need data) and **copyright holders** (who demand compensation), positioning India as the first country to propose such a statutory licensing regime for Generative AI.

### Features of the Proposal

#### 1. Hybrid Licensing Model

- **Mandatory Access:** AI developers will have a statutory right to use all "lawfully accessed" copyrighted works for training. Rights holders (e.g., news publishers, authors) **cannot opt out**.
- **Compulsory Payment:** In exchange, AI firms must pay royalties. They cannot claim "fair use" or "text and data mining" exceptions to avoid payment.
- **Commercial Trigger:** Royalties are likely triggered when the AI model is **commercialised**, not just during the research phase.

#### 2. Centralised Administration

- **CRCAT:** The formation of a centralised body, potentially named the **Copyright Royalties Collective for AI Training (CRCAT)**, is recommended.
- **Function:** This body will act as a single window to collect royalties from AI companies and distribute them to copyright societies and creators.
- **Royalty Rate:** The government, through a specialised committee, will fix the royalty rates (likely a percentage of the AI firm's revenue), rather than leaving it to individual negotiations.

### Why is this Necessary?

- **Legal Conflicts:** There is a global surge in lawsuits (e.g., **New York Times vs. OpenAI**; **ANI vs. OpenAI** in India) where creators allege AI firms stole their work.
- **Market Failure:** Individual negotiations between thousands of creators and AI giants are impractical (high transaction costs). A "One License" model simplifies this.
- **Protecting the 'Orange Economy':** To prevent the collapse of human creativity and ensuring India's culture is preserved in the AI age.

### Additional Info

- **Constitutional & Legal Context:**
  - **Copyright Act, 1957:** The proposal suggests amending this Act. Currently, **Section 52** al-

lows "fair dealing" (exceptions for re-search/news), but its applicability to commercial AI training is debated.

- **Union List (List I): Entry 49** gives the Central Government exclusive power to legislate on "**Patents, inventions and designs; copyright; trade-marks**".
- **Global Contrast:**
  - **European Union:** Uses an "Opt-out" model (AI can use data unless creators explicitly say no).
  - **USA:** Relies heavily on "Fair Use" litigation in courts.
  - **India's Proposal:** A "Statutory License" model (You *can* use it, but you *must* pay).

## India Joins Global Planetary Defence Exercise on Interstellar Comet 3I/ATLAS

### What's the News?

- India, through **ISRO** and research institutions like the **Physical Research Laboratory (PRL)**, is actively participating in the **8th International Asteroid Warning Network (IAWN) observing exercise**, centred on the interstellar comet **3I/ATLAS**.
- The campaign launched by the **UN-endorsed IAWN** on **November 27, 2025** is the largest planetary defence drill to date, involving near-real-time tracking, modelling, and risk-assessment coordination across global agencies.

### Why 3I/ATLAS? Key Features of the Object & Drill

- **Interstellar origin:** 3I/ATLAS is the **third known interstellar object** to enter the Solar System (after 'Oumuamua and 2I/Borisov).
- **Extreme velocity:** Travelling at **~60 km/s**, significantly faster than typical Solar System comets.
- **Real-world complexity:** Unlike prior simulated drills, this uses a **real, fast-moving object** exiting the inner Solar System around **December 19, 2025**.
- **Objectives of the drill:**
  - Test global early-warning & tracking capabilities.
  - Refine astrometric precision and orbit-prediction models.
  - Strengthen multi-agency coordination under uncertainty.
  - Assess public communication protocols during evolving risk scenarios.

### India's Role & Contributions

- **ISRO** conducted imaging and spectroscopic observations of 3I/ATLAS from **Mount Abu Infrared Observatory** between **November 12–15, 2025**.
- **PRL scientists** contributed high-precision data to the IAWN repository for orbit refinement.

- India is leveraging the exercise to advance its emerging **planetary defence roadmap**, including potential future missions for asteroid characterisation and deflection readiness.
- Participation signals intent to formally join the **IAWN** and **Space Mission Planning Advisory Group (SMPAG)**; key UN frameworks for coordinated planetary defence.

### Strategic & Policy Context

- **Indian Space Policy, 2023** identifies space situational awareness (SSA) and planetary defence as emerging priorities for national security and international cooperation.
- **ISRO** aims to develop indigenous capabilities in:
  - Near-Earth Object (NEO) detection and tracking.
  - Mission design for rendezvous/deflection (e.g., asteroid sample-return precursor).
- India's involvement strengthens its profile in **space diplomacy**, particularly with the **EU, US, and Japan**, as seen in recent Luxembourg–India space agreements and potential ESA-linked collaborations.

### Additional Info

- **IAWN Structure:**
  - Coordinated by the UN Office for Outer Space Affairs (UNOOSA).
  - Comprises space agencies, observatories, and scientific bodies across >70 countries.
  - Focuses on *detection, tracking, characterisation, and impact risk communication*.
- **SMPAG:**
  - Mission-planning counterpart to IAWN.
  - Chaired by UNOOSA and NASA; includes ESA, JAXA, CNSA, Roscosmos.
  - India is not yet a formal member but participates in technical working groups.

## ISRO Set to Launch Heaviest US Commercial Satellite 'BlueBird-6' via LVM3

### What's the News?

- The **Indian Space Research Organisation (ISRO)** is scheduled to launch the **BlueBird-6** satellite for the US-based company **AST SpaceMobile**.
- This mission will be executed using the **Launch Vehicle Mark-3 (LVM3)**, marking a significant milestone in India's commercial space sector.
- The launch is facilitated by **NewSpace India Limited (NSIL)**, the commercial arm of the Department of Space, further solidifying India's position in the global heavy-lift launch market.

### BlueBird-6: Mission & Capabilities

- Developed by **AST SpaceMobile Inc.**, a Texas-based firm building a space-based cellular broadband network.



- Designed to enable **direct-to-device mobile broadband** allowing standard mobile phones to access internet in areas with weak or no terrestrial coverage, without specialised hardware.
- Key features:
  - Largest commercial phased-array antenna in LEO:** ~2,400 sq. ft., 3.5× larger than earlier BlueBird satellites.
  - 10× higher data capacity** vs. predecessors.
  - 10,000 MHz bandwidth** per satellite with up to **2,500 adjustable antenna beams** for targeted coverage.
  - Operates on **licensed spectrum**, partnering with existing telecom operators for seamless integration.

### LVM3: India's Heavy-Lift Workhorse

- Three-stage configuration:**
  - S200 solid strap-ons** (204 tonnes propellant each)
  - L110 liquid core stage** (twin Vikas engines)
  - C25 cryogenic upper stage** (indigenous CE-20 engine)
- Capabilities:
  - Payload: up to **8,000 kg to LEO**, **4,000 kg to GTO**
  - Human-rated variant to be used for **Gaganyaan**, India's first crewed mission (planned 2027).
- Previously launched **CMS-03 (4.4 tonnes)**, making BlueBird-6 the heaviest commercial payload launched by ISRO.

### Additional Info

- NewSpace India Limited (NSIL):**
  - Established in **2019** as a Central Public Sector Enterprise (CPSE) under the **Department of Space**.
  - Mandate:** To handle commercial launch services, satellite ownership, and technology transfer to the private industry.
  - It successfully facilitated the **One-Web** launches, earning significant foreign exchange.
- AST SpaceMobile:**
  - A US-based company building the first space-based cellular broadband network.
  - Their technology targets the **"dead zones"** in connectivity, aiming to provide service to standard mobile devices globally.
- Direct-to-Device (D2D) Technology:**
  - A growing field in satellite communications where satellites act as "cell towers in space."
  - Crucial for **disaster management** and providing connectivity in remote or maritime regions where building terrestrial towers is unfeasible.

## India Ranks Third Globally in AI Competitiveness

### What's the News?

- India** has emerged as the **world's third most competitive country in Artificial Intelligence (AI)**, ranking after the **United States** and **China**.
- The ranking is based on the **Global AI Competitiveness / AI Index** published by **Stanford University**, which evaluates countries across multiple AI-related parameters.
- India's improved position reflects rapid progress in **AI research, talent availability, startup activity, and policy support**, strengthening its role in the global AI ecosystem.

### Global AI Index: What Does It Measure?

- The **AI Index** is a comprehensive assessment of a country's AI ecosystem.
- It evaluates performance across key pillars such as:
  - Research & Development** (AI publications, citations)
  - Talent & Skills** (AI workforce, education pipeline)
  - Industry Activity** (startups, private investment)
  - Government Strategy** (policies, national AI plans)
  - Infrastructure** (compute capacity, digital readiness)

### India's Key Strengths in AI

- Large Talent Pool:** India ranks among the top countries in terms of **AI-skilled workforce**, driven by strong **STEM education** and IT services sector.
- Vibrant Startup Ecosystem:** Rapid growth in **AI startups**, especially in health-tech, fintech, agritech, and governance solutions.
- Policy Push:** Government-led initiatives promoting **responsible and inclusive AI**, with focus on public service delivery.
- Cost Advantage:** Competitive costs for AI development and deployment compared to advanced economies.

### Government Initiatives Supporting AI

- IndiaAI Mission:** focuses on building **compute capacity**, datasets, and indigenous AI models.
- National Strategy for Artificial Intelligence:** Anchored around the vision of **"AI for All"**, emphasizing social sectors like healthcare, agriculture, education, and smart mobility.
- Digital Public Infrastructure (DPI):** Platforms like **Aadhaar**, **UPI**, and **DigiLocker** provide large-scale data and use-cases for AI-driven governance.

### Challenges Highlighted

- Compute Infrastructure Gap:** Limited access to high-end **AI chips and supercomputing** compared to the US and China.
- Research Commercialisation:** Need to improve translation of academic research into **scalable products**.

- **Ethical & Regulatory Frameworks:** Balancing innovation with concerns around **data privacy, bias, and accountability**.

## **DHRUV64: India's First Indigenous 1.0 GHz, 64-bit Microprocessor**

### **What's the News?**

- The **Government of India** has unveiled **DHRUV64**, the country's **first fully indigenous 1.0 GHz, 64-bit dual-core microprocessor** developed under the **Microprocessor Development Programme (MDP)**.
- The chip is designed by the **Centre for Development of Advanced Computing (C-DAC)** with support from national semiconductor initiatives.

### **Technical Specifications**

- **Architecture:** RISC-V 64G (RV64IMAFD) instruction set
- **Clock Speed:** 1.0 GHz
- **Cores:** Dual-core
- **Process Node:** 28nm
- **Design & Fabrication:** Fully indigenous

### **Strategic Objectives & Applications**

DHRUV64 is engineered for reliability and sovereignty, targeting critical domains rather than consumer performance:

- **Strategic sectors:** Defence systems, secure communications, mission-critical infrastructure.
- **Commercial & civil use:**
  - **5G infrastructure** and telecom equipment.
  - **Industrial automation** and IoT systems.
  - **Automotive electronics** and embedded controllers.
- Available to **startups, academia, and industry** for prototyping and scaling indigenous solutions.

### **Policy & Ecosystem Integration**

- **DIR-V Programme:**
  - Aims to establish India as a global RISC-V hub for design, research, and productization.
  - Successor chips **Dhanush64** and **Dhanush64+** already in design phase.
- **Open-source advantage:** RISC-V eliminates licensing costs and fosters innovation.
- **Human capital leverage:** India contributes ~20% of global chip design engineers; DHRUV64 aids in upskilling and retaining talent.

### **RISC-V**

- **RISC-V** is an **open-source Instruction Set Architecture (ISA)** based on **Reduced Instruction Set Computer (RISC)** principles.
- It was originally developed at the **University of California, Berkeley** to provide a **license-free alternative** to proprietary ISAs such as **ARM** and **x86**.

### **Key Features**

- **Open-source & royalty-free:** Anyone can **design, modify, and manufacture** processors based on RISC-V without paying licensing fees.
- **Modular architecture:** A small **base instruction set** with optional standard extensions (e.g., integer, floating point, vector, security).
- **Scalable design:** Applicable from **low-power embedded systems** to **high-performance computing**.
- **Vendor-neutral:** Prevents monopoly control and promotes a **competitive semiconductor ecosystem**.

### **In Short:**

- RISC-V is an **ISA**, not a finished processor.
- It is **open-standard**, unlike **ARM (licensed)** and **x86 (proprietary)**.
- Used in **microcontrollers, AI accelerators, IoT devices, and supercomputing research**.

## **Nuclear Energy Mission: Accelerating Clean & Scalable Power**

### **What's the News?**

- The Government of India has operationalised a **Nuclear Energy Mission** aimed at transforming the country's energy portfolio by making **nuclear power a major, sustainable source** of electricity.
- Under this mission, at least **five indigenously designed and developed Small Modular Reactors (SMRs)** are targeted for commissioning by **2033**, backed by a **₹20,000 crore** budgetary allocation.
- The broader objective is to expand nuclear capacity to around **100 GW by 2047**, supporting energy security and long-term environmental goals.
- **Parliament has recently passed a landmark atomic energy bill** opening the **civil nuclear power sector to private participation**, a significant policy shift expected to accelerate investment and deployment.

### **Mission Objectives & Strategic Roadmap**

- **Capacity Expansion Targets:**
  - Achieve **22,480 MW** installed nuclear capacity by 2031–32 (current: ~7,480 MW).
  - Scale up to **100 GW** by 2047 as part of India's **net-zero by 2070** commitment.
- **SMR-Specific Goals (by 2033):**
  - Deploy **≥5 indigenous SMRs**, each with capacity **≤300 MW**.
  - Prioritise **remote/off-grid locations, industrial clusters, and hydrogen production hubs** for SMR siting.
- **R&D & Technology Development:**
  - Fast-track design validation of **Indian SMR prototypes** (e.g., **PWR-based 100–300 MW units** and **HTR/MSR concepts**).
  - Establish dedicated **SMR Test & Integration Facility** under **Department of Atomic Energy (DAE)**.
- **Industrial & Institutional Framework:**

- **NPCIL (Nuclear Power Corporation of India Ltd)** to lead deployment.
- Encourage **public-private partnerships (PPPs)** and collaborations with **DRDO, ISRO, IITs**, and **start-ups** under Make in India.

### Small Modular Reactors (SMRs)

- SMRs are compact nuclear units with modular components that allow **phased deployment, lower upfront costs**, and **enhanced safety features** compared to large reactors.
- SMRs like **BSMR-200** leverage India's existing PHWR expertise (e.g., derived from **IPHWR-220 designs**).

### Nuclear Energy and India

#### What is Nuclear Energy?

- **Nuclear energy** is generated through **nuclear fission**, where heavy atoms like **Uranium-235** or **Plutonium-239** split to release large amounts of energy.
- It provides **base-load electricity** with **very low greenhouse gas emissions**.

#### India's Nuclear Energy Programme

- Guided by **Homi J. Bhabha**, India follows a **Three-Stage Nuclear Power Programme** to utilise its limited uranium and abundant thorium resources.

#### Three-Stage Programme

- **Stage 1:**
  - **Pressurised Heavy Water Reactors (PHWRs)**
  - Uses natural uranium; produces plutonium as by-product.
- **Stage 2:**
  - **Fast Breeder Reactors (FBRs)**
  - Uses plutonium; breeds more fuel.
- **Stage 3:**
  - **Thorium-based reactors** (using Uranium-233)
  - Key to India's long-term energy security.

#### Current Status

- India operates **22+ nuclear reactors** with capacity around **7 GW**.
- Targets **~100 GW nuclear capacity by 2047**.
- Recent push towards **Small Modular Reactors (SMRs)** for:
  - Industrial use
  - Remote areas
  - Faster deployment

### Institutional & Legal Framework

- **Department of Atomic Energy (DAE)** – policy and implementation.
- **Atomic Energy Commission (AEC)** – apex decision-making body.
- **NPCIL** – reactor construction and operation.
- **Atomic Energy Act, 1962** – legal backbone.
- **AERB** – nuclear safety regulation.

### International Dimension

- **India-US Civil Nuclear Deal (2008):**
  - Ended nuclear isolation.
  - Allowed access to global nuclear fuel and technology.
- India is a member of:

- **IAEA**
- **NSG (waiver, not member)**

## NASA's MAVEN Mission and the Loss of Contact with Mars Orbiter

### What's the News?

- **NASA** has **lost contact** with its Mars orbiter **MAVEN**, which has been studying the **Martian atmosphere** and its long-term evolution.
- The spacecraft entered a **safe mode communication blackout**, disrupting data transmission to Earth.
- MAVEN's observations are critical to understanding how **Mars lost much of its atmosphere and surface water**, transforming from a warmer, wetter planet to the cold, arid world seen today.

### The MAVEN Mission?

- **Launch and Arrival:** Launched in **November 2013**, MAVEN reached Mars in **September 2014**, arriving around the same time as India's **Mars Orbiter Mission (Mangalyaan)**.
- **Primary Objective:** To explore the **upper atmosphere, ionosphere**, and interactions with the **solar wind** to determine the history of the loss of the Martian atmosphere.
- **Key Findings:**
  - Identified **solar wind stripping** as a major cause of atmospheric loss.
  - Mapped the **electric currents** in the Martian atmosphere that guide the loss of gas.
  - Discovered that **Mars' magnetic field** (though weak and localized) plays a complex role in atmospheric escape.
- **Extended Role:** Beyond its scientific goals, MAVEN served as a vital **data relay satellite** for NASA's surface rovers, such as **Curiosity** and **Perseverance**.

### Scientific Significance for Mars Evolution

- **Atmospheric Erosion:** MAVEN data proved that the **solar wind**—a stream of charged particles from the Sun erodes the Martian atmosphere at a rate of approximately **100 grams per second**.
- **Transition of Mars:** The mission established that billions of years ago, Mars likely had a **thicker atmosphere** and **liquid water** on its surface, which was subsequently lost due to the lack of a global magnetic field.
- **Comparison with Earth:** By studying how Mars lost its habitability, scientists can better understand the long-term **atmospheric stability** of Earth and other exoplanets.

### Additional Info

- **Mars Atmosphere and Volatile Evolution (MAVEN):**
  - Part of NASA's **Mars Scout Program**.
  - Carried **eight scientific instruments**, including a **Magnetometer, Solar Wind Ion Analyzer**, and **Imaging Ultraviolet Spectrograph**.
- **Comparative Missions:**



- **Mangalyaan (India):** India's first interplanetary mission, which operated from **2014 to 2022**. Both missions collaborated by sharing data on the Martian exosphere.
- **Mars Reconnaissance Orbiter (MRO):** Another NASA satellite focusing on high-resolution imaging of the surface, whereas MAVEN focused on the atmosphere.
- **Space Communication Challenges:**
  - Spacecraft often face hardware degradation due to **solar radiation** and **aging batteries**.
  - Loss of contact usually occurs when the **High-Gain Antenna** can no longer be pointed toward Earth or due to a critical failure in the **onboard computer**.

## ISRO Launches Heaviest-Ever Satellite Bluebird Block-2 via LVM3 Rocket

### What's the News?

- **ISRO** successfully conducted the **LVM3-M6** mission, placing the **Bluebird Block-2** satellite into orbit.
- Weighing approximately **6,100 kg**, it is the heaviest payload ever launched by an Indian rocket from Indian soil.
- The mission was a dedicated commercial launch executed by **NewSpace India Limited (NSIL)**, ISRO's commercial arm, for the US-based company **AST SpaceMobile**.

### LVM3-M6 Mission?

- **Launch Vehicle:** The mission utilized the **LVM3** (Launch Vehicle Mark-3), also known as the "**Baahubali**" rocket for its heavy-lift capabilities.
- **Orbital Placement:** The satellite was injected into a **Low Earth Orbit (LEO)** at a circular altitude of approximately **520 km**.
- **Operational Milestone:** This was the **6th operational flight** of the LVM3, confirming its reliability for future heavy missions.
- **Launch Site:** The rocket lifted off from the **Second Launch Pad** at the **Satish Dhawan Space Centre**, Sriharikota.

### Bluebird Block-2 Satellite?

- **Purpose:** It is a next-generation communications satellite designed to provide **direct-to-mobile** connectivity.
- **Technology:** It enables standard smartphones to access **4G and 5G** voice, video, and data services directly from space without needing specialized ground hardware or satellite phones.
- **Key Feature:** The satellite features a massive **223-square-metre** phased-array antenna, making it the largest commercial communications satellite ever deployed in LEO.
- **Target Reach:** Aims to provide seamless cellular broadband to remote areas, oceans, and regions with limited traditional infrastructure.

## Additional Info

- **LVM3 Technical Configuration:**
  - A three-stage heavy-lift vehicle.
  - **Stage 1:** Two **S200** solid rocket boosters for initial thrust.
  - **Stage 2 (Core):** **L110** liquid-fueled stage powered by two **Vikas engines**.
  - **Stage 3 (Upper):** **C25** cryogenic stage, which is essential for placing heavy payloads into high or precise orbits.
- **Future Upgrades:**
  - **C32 Cryogenic Stage:** ISRO is developing a more powerful cryogenic stage to increase fuel capacity and thrust.
  - **Semi-Cryogenic Engine:** Replacing the second stage with kerosene and liquid oxygen-based engines is expected to increase LEO capacity from **8,000 kg to 10,000 kg**.
- **NewSpace India Limited (NSIL):**
  - Incorporated in **2019** under the **Department of Space**.
  - Primary mandate is to commercially exploit the research and development work of ISRO, including launching foreign satellites and transferring technology to the Indian private sector.

## Indian Astronomers Discover "Alaknanda": An Implausibly Old Spiral Galaxy

### What's the News?

- **Indian astronomers** from the **National Centre for Radio Astrophysics (NCRA-TIFR)** in **Pune** have identified a remarkably mature spiral galaxy named **Alaknanda**.
- The discovery was made using data from NASA's **James Webb Space Telescope (JWST)**, revealing a galaxy that existed when the universe was only **1.5 billion years old**.
- The findings, published in the journal **Astronomy and Astrophysics**, challenge the long-standing hierarchical merger models of galaxy formation, which predicted that the early universe consisted mainly of chaotic and irregular structures.

### The "Alaknanda" Discovery

- **The Research Team:** The discovery was led by **Rashi Jain**, a PhD scholar, and **Yogesh Wadadekar**, a senior scientist at **NCRA-TIFR**.
- **Distance and Age:** The galaxy is located approximately **12 billion light-years** away from Earth, with a **redshift** of about **4.05**.
- **Cosmic Lens:** Astronomers utilised a phenomenon called **gravitational lensing** to observe the galaxy. The gravity of a massive foreground galaxy cluster, **Abell 2744** (also known as **Pandora's Cluster**), acted as a



magnifying glass, doubling the galaxy's brightness and allowing its intricate structure to be resolved.

- **Methodology:** The team analysed images across **21 different filters** to estimate the galaxy's distance, mass, and star-formation history.

### Key Characteristics of Alaknanda

- **Morphology:** It is a "grand-design" spiral galaxy, featuring two perfectly symmetrical and well-defined spiral arms wrapped around a bright central bulge.
- **Stellar Mass:** The galaxy contains roughly **10 billion solar masses** worth of stars.
- **Size:** Its disk spans approximately **30,000 light-years**, which is comparable in scale to the **Milky Way**.
- **Star Formation Rate:** It is a powerhouse of stellar birth, creating stars at a rate of roughly **63 solar masses per year**—about **20 to 30 times faster** than the current Milky Way.
- **Early Maturity:** Half of its stars appear to have formed in a mere **200 million years**, showing a level of structural maturity typically associated with galaxies billions of years older.

### Why it Challenges Cosmic Evolution Theories

- **Rapid Assembly:** Traditional models suggest that stable spiral disks require several billion years to settle. Alaknanda completed this process in less than half that time.
- **Early Stability:** The early universe was thought to be too hot and turbulent for such ordered rotation. The presence of **Alaknanda** suggests that processes like **gas accretion** and **disk settling** can operate much more efficiently than previously modeled.
- **Formation Pathways:** The low light contribution from its central bulge suggests the galaxy likely grew through smooth **cold gas accretion** rather than violent major collisions, which usually result in chaotic, bulge-dominated systems.

### Additional Info

- **Etymology:**
  - The researchers named the galaxy after the **Alaknanda River**, a major headstream of the **Ganga** in the Himalayas.
  - This choice is symbolic, as **Mandakini** (the sister headstream of Alaknanda) is the Hindi name for the **Milky Way**.
- **Redshift (z):**
  - A measure of how much the light from a distant object has been stretched by the expansion of the universe.
  - **Alaknanda's** redshift of  $z \approx 4$  places it among the highest-redshift (and therefore most distant) grand-design spiral galaxies ever identified.
- **James Webb Space Telescope (JWST):**
  - An international collaboration between **NASA**, **ESA**, and **CSA**, it is the most powerful space telescope ever built, designed to peer into the "Cosmic Dawn".

## National Technology Readiness Assessment Framework (NTRAF) Launched

### What's the News?

- The **Principal Scientific Adviser (PSA)** to the Government of India, **Prof. Ajay Kumar Sood**, unveiled the **National Technology Readiness Assessment Framework (NTRAF)** on December 29, 2025.
- Developed in collaboration with the **Confederation of Indian Industry (CII)**, the framework provides a standardized, objective yardstick to measure the maturity of technology projects from laboratory conception to commercial deployment.
- The framework is currently open for **public consultation** until January 31, 2026.

### Objectives & Key Components

- **Operational Backbone:** NTRAF aims to serve as the primary evaluation tool for various **R&D funds** launched under National Missions, ensuring precise resource allocation.
- **Bridging the "Valley of Death":** It specifically targets the gap between **TRL 4 and TRL 7**, where many deep-tech innovations fail due to a lack of funding and perceived technical risks.
- **Nine Technology Readiness Levels (TRL):**
  - **TRL 1–3 (Proof of Concept):** Covers basic research, formulation of the concept, and analytical proof.
  - **TRL 4–6 (Prototype Development):** Involves component validation in laboratory and simulated environments.
  - **TRL 7–9 (Deployment):** Focuses on system demonstration in real-world operational environments and successful mission deployment.
- **Standardized Language:** Establishes a common technical dialect between **academia** (researchers) and **industry** (investors) to replace subjective narratives with objective, evidence-based checklists.

### Why NTRAF Matters for India

- **Low R&D investment:** India's **GERD hovers at ~0.6% of GDP**, with private-sector share at just **~36%** — far below global peers (USA: 3.45% GERD, >70% private).
- **Weak commercialisation:** Strong academic output, but poor lab-to-market conversion due to silos between academia, PSUs, and industry.
- **Strategic autonomy:** Supports **Aatmanirbhar Bharat** by enabling faster scaling of **indigenous deep-tech** in sectors like semiconductors, AI, quantum, and advanced materials.

### Additional Info

- **Sector-Specific Annexures:** The framework includes specialized guidelines for distinct sectors like **Healthcare & Pharmaceuticals** and **Software**, acknowledging their unique development pathways.
- **Anusandhan National Research Foundation (ANRF):**

- Established under the **ANRF Act, 2023** to provide high-level strategic direction for scientific research in India.
- It aims to seed, grow, and promote R&D and foster a culture of research across Indian universities and institutions.

## **PathGennie: AI-Powered Software to Fast-Track Drug Discovery**

### **What's the News?**

- The **Ministry of Science and Technology** has developed a groundbreaking software called **PathGennie** to accelerate the process of drug discovery.
- Developed by researchers at the **Indian Institute of Technology (IIT) Delhi**, this tool uses **Artificial Intelligence (AI)** and machine learning to predict how different drug molecules will interact with human proteins.
- The software aims to reduce the time and high costs associated with traditional laboratory-based drug testing by identifying potential drug candidates digitally.

### **Key Features of PathGennie**

- **Target Identification:** It helps scientists identify specific biological "targets" (like proteins or enzymes) that are responsible for diseases.
- **High-Speed Screening:** The tool can analyze thousands of chemical compounds simultaneously to see which ones are most likely to work against a specific disease.
- **Predictive Accuracy:** PathGennie uses advanced algorithms to predict the **toxicity** and **efficacy** of a drug before it ever reaches a physical lab.
- **User-Friendly Interface:** Designed to be accessible for researchers who may not have extensive coding knowledge, allowing for broader use in the scientific community.

### **Additional Info**

- **Drug Discovery Pipeline:**
  - **Stage 1: Discovery:** Identifying a lead compound.
  - **Stage 2: Pre-clinical:** Testing in cells and animals to ensure safety.
  - **Stage 3: Clinical Trials:** Testing in humans (Phases I, II, and III).
  - **Stage 4: Regulatory Approval:** Review by bodies like the **CDSCO** in India.
- **Ministry of Science & Technology:**
  - It is the nodal ministry for all activities related to science and technology in India, overseeing departments like **DST** (Department of Science and Technology) and **DBT** (Department of Biotechnology).

# Agriculture

## Centre Disburses Over ₹4 Lakh Crore Under PM-KISAN Scheme

### What's the News?

- Union Minister of Agriculture and Farmers' Welfare, **Shivraj Singh Chouhan**, informed the **Lok Sabha** that the Centre has disbursed over **₹4 lakh crore** under the **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)** scheme since its inception.
- The benefit has reached more than **11 crore farmers** across the country through **21 installments**.
- **Uttar Pradesh** has received the highest amount, with over **₹90,000 crore** transferred to beneficiaries in the state.

### PM-KISAN Scheme

- **Objective:**
  - Provide assured income support to landholding farmer families to meet agricultural and household expenses.
  - Reduce dependence on informal credit and supplement farm incomes, especially for **small and marginal farmers (SMFs)**.
- **Financial Support:**
  - ₹6,000 per year per eligible family.
  - Released in **three equal installments** of ₹2,000 each.
- **Coverage & Eligibility:**
  - Initially targeted SMFs with ≤2 hectares of land, but scope later expanded to **all landholding farmers**.
  - Primary criterion: ownership of **cultivable land** as per official land records.
  - Certain exclusions apply (e.g., income tax payers, constitutional post-holders, institutional landholders).
- **Administrative Framework:**
  - **Central Sector Scheme** - 100% funded by the Government of India.
  - Implemented by the **Department of Agriculture, Cooperation & Farmers Welfare**, under the **Ministry of Agriculture and Farmers' Welfare**.

### Additional Info

- **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN):**
  - **Launch:** Launched by the Prime Minister on **February 24, 2019**, from Gorakhpur, Uttar Pradesh (effective retrospectively from **December 1, 2018**).
  - **Type:** It is a **Central Sector Scheme** with **100% funding** from the Government of India.
  - **Eligibility:** All landholding farmer families (Husband, Wife, and Minor Children) subject to exclusion criteria.

### Exclusion Criteria:

- **Institutional Landholders.**
- Farmer families holding **Constitutional Posts** (former/present).
- **Income Tax Payers** in the last assessment year.
- **Professionals** (Doctors, Engineers, Lawyers, CAs, Architects).
- **Pensioners** (Retired) with a monthly pension of **₹10,000 or more**.
- **Implementation Mechanism:**
  - **Identification:** Responsibility of identifying eligible beneficiary farmer families rests with the **State/UT Governments**.
  - **Technology:** **e-KYC** is mandatory for registered farmers. A dedicated **PM-KISAN Portal** and Mobile App manage the database.

## State of Marginal Farmers in India 2025: Report Highlights Cooperative Gaps

### What's the News?

- The **Forum of Enterprises for Equitable Development (FEED)** released the "**State of Marginal Farmers in India 2025**" report on **Kisan Diwas** (December 23).
- The study reveals that **less than 25%** of India's marginal farmers are active members of agricultural cooperatives, despite these farmers making up nearly **60–70%** of all agricultural households.
- The report, launched in collaboration with **NITI Aayog**, examines the functionality of **Primary Agricultural Credit Societies (PACS)** across six states: **Andhra Pradesh, Bihar, Himachal Pradesh, Maharashtra, Tripura, and Uttarakhand**.

### Key Findings of the Report

- **Low Cooperative Penetration:**
  - Only **<25% of marginal farmers** are active members of agricultural cooperatives.
  - In cooperative-linked households:
    - **45%** reported higher income.
    - **~42%** saw improved crop yields.
- **Digital Divide:**
  - Digital tool usage is negligible in several states:
    - **77.8%** of cooperatives in **Tripura** use no digital tools.
    - **25%** in **Bihar** report zero digital adoption.
  - Impact remains informational, not transformational, due to lack of training and integration.
- **Gender Imbalance:**
  - Though **21.25 lakh women** are registered cooperative members, only **3,355 women** serve as directors on cooperative boards nationwide.

## Barriers to Cooperative Engagement

- **Farmer-Level Constraints:**
  - Limited awareness of schemes, bureaucratic processes, travel distance to offices, and low digital literacy.
- **Institutional & Infrastructural Gaps:**
  - Inadequate capital and credit at **Primary Agricultural Credit Societies (PACS)** level (e.g., in **Maharashtra, Uttarakhand**).
  - Shallow digitalisation, poor physical infrastructure, and insufficient trained staff.
- **Gender & Inclusion Gaps:**
  - Cooperatives remain male-dominated, despite women's central role in agrarian households.

## Evolving Role of PACS

PACS are transitioning from credit-only bodies to **multi-service rural hubs**, providing:

- Input supply & marketing support.
  - PDS commodity distribution.
  - Facilitation of digital & public service access.
- States where PACS act as integrated centres show better outcomes for marginal farmers.

## Additional Info

- **Marginal Farmer Definition:**
  - Cultivators who own or operate less than **one hectare** (approx. 2.5 acres) of land.
  - They account for **65.4%** of total cultivators but hold only **24%** of the total cultivable land area.
- **Primary Agricultural Credit Societies (PACS):**
  - Grassroots-level institutions providing short-term credit and agricultural inputs.
  - Under the **New National Cooperation Policy 2025**, PACS are being positioned as multi-service centers for rural transformation.
- **Recommended Reforms:**
  - **Sahkar Shakti-Sakha/Sakhi Model:** A "farmer-first" approach using local cadres to improve outreach.
  - **DPI and Cooperative Stack:** Development of **Digital Public Infrastructure** to increase transparency and reduce bureaucratic hurdles.
- **Constitutional Links:**
  - **Article 43B:** Directive Principle of State Policy (DPSP) promoting the voluntary formation, autonomous functioning, and professional management of **cooperative societies**.
  - **97th Constitutional Amendment:** Added co-operatives to the list of **Fundamental Rights** under **Article 19(1)(c)**.



# Important Days

## International Day of Persons with Disabilities 2025

### What's the News?

On **December 3, 2025**, India observed the **International Day of Persons with Disabilities (IDPD)** with President Droupadi Murmu presenting the **National Awards for the Empowerment of Persons with Disabilities 2025**, recognizing outstanding contributions by individuals and institutions toward inclusion and accessibility.

### IDPD 2025: Theme & Global Priority

- **UN-WHO Theme:** “*Inclusive Financing for Sustainable Development*” - emphasizing that **equitable financing mechanisms** are critical to closing access gaps in health, education, transport, and digital services.
- Recognises that **persons with disabilities are 2–4× more vulnerable** during disasters and health emergencies - linking DRR and healthcare inclusion to IDPD goals.

### India's Domestic Framework & Progress

- **Rights of Persons with Disabilities (RPwD) Act, 2016:**
  - Expanded disability coverage from **7 to 21 categories**, including *acid attack victims, dwarfism, Parkinson's, thalassemia, sickle cell disease, and specific learning disabilities*.
  - Mandates **5% reservation in government jobs** and **5% seats in higher education** for persons with **≥40% benchmark disabilities**.
- **Sugamya Bharat Abhiyan (Accessible India Campaign):**
  - **1,671 government buildings** across 50 cities audited for accessibility; **1,630 retrofitted** with ramps, signage, toilets, etc.
  - **90 airports** made accessible; **12 equipped with Ambulifts**.
  - Digital accessibility: Web audit phase-II underway; **OTT accessibility guidelines** notified in April 2025.

### Policy Gaps & Forward Agenda

- **Implementation challenges:**
  - Low awareness of RPwD entitlements in rural & tribal areas.
  - Inconsistent enforcement of building by-laws (NBC 2016 Part 3).
  - Limited availability of certified sign language interpreters and assistive devices.
- **Way forward:**
  - Scale up **Universal Design** in infrastructure (AMRUT 2.0, PMAY-U).
  - Integrate disability disaggregation in **NFHS, NSSO, and SECC datasets** for evidence-based policymaking.

- Leverage **UDID (Unique Disability ID) portal** for targeted delivery (6.2 crore+ enrolled as of 2025).

### Additional Info

- **Constitutional Linkages:**
  - **Article 41:** Directive Principle obligating the State to provide public assistance in cases of disability.
  - **Article 21:** Right to life interpreted to include right to *dignity, autonomy, and inclusive participation* (*Rajive Raturi v. UOI*, 2016).
- **International Commitments:**
  - India ratified **UN Convention on the Rights of Persons with Disabilities (UNCRPD)** in 2007.
  - Supports **SDG 10 (Reduced Inequalities)** and **SDG 11 (Inclusive Cities)**.
- **Key Schemes:**
  - **Deendayal Disabled Rehabilitation Scheme (DDRS):** Capacity-building for NGOs
  - **ADIP Scheme:** Subsidy for assistive devices (₹1.28 lakh crore allocated in 2025–26)
  - **National Fellowship for PwDs:** For M.Phil / Ph.D. pursuits

## International Cheetah Day 2025

### What's the News?

- International Cheetah Day is observed globally to raise awareness about the plight of the cheetah and promote its conservation.
- On this occasion, the Government of India reaffirmed its commitment to restoring the cheetah population under Project Cheetah.
- India's cheetah population now stands at **32**, of which **21 are India-born cubs**; a notable success for the reintroduction effort.

### Project Cheetah & Reintroduction Progress

- **Background**
  - The cheetah, once native to India, went extinct in the wild in 1952.
  - In 2022, under Project Cheetah, eight south-east African cheetahs (five females, three males) were flown from Namibia and released into a quarantined enclosure at Kuno National Park (Madhya Pradesh).
- **Recent Milestones**
  - By late 2025, India recorded successful births: a female born in India named Mukhi gave birth to five cubs; a landmark indicating adaptation to Indian conditions.
  - Population numbers have risen: 32 cheetahs now recorded, with over two-thirds born in India.

- The project is expanding: new habitats beyond Kuno, including parts of Madhya Pradesh and Gujarat, have been identified for future reintroduction.
- **Conservation & Ecosystem Restoration**
  - Project Cheetah aims to re-establish cheetah populations in their historical range and restore degraded grassland and open-forest ecosystems.
  - Rewilding helps revive biodiversity, balance predator-prey dynamics, and supports ecological health of grasslands.

### Additional Info

- **About International Cheetah Day**
  - Instituted in 2010 by Cheetah Conservation Fund (CCF), to mark the birthday of a cheetah cub named Khayam; raised by its founder.
  - Observed annually on **4 December** to highlight conservation needs of cheetahs, the fastest land animals on Earth.
- **Scientific & Habitat Considerations**
  - Cheetahs require **grassland, scrubland or open-forest ecosystems** with adequate prey base; a major reason for selecting Kuno and similar habitats.
  - The reintroduction involves careful **habitat suitability, prey density assessments, and long-term monitoring** to ensure viability.
- **Global Context**
  - Globally, wild cheetah numbers remain low (under 7,000), confined to fragmented pockets mostly in Africa — making India's successful reintroduction an example of large-scale conservation ambition.

## International Civil Aviation Day

### What's the News?

- International Civil Aviation Day is observed globally on **7 December** to highlight the importance of international civil aviation in global connectivity, economic development and cooperation.
- The day recognizes the role of International Civil Aviation Organization (ICAO) in establishing and guiding international civil aviation standards, safety, security, and sustainability.
- The theme for 2025 continues as “**Safe Skies and a Sustainable Future for All**”, emphasizing safe, inclusive, sustainable and accessible air transport worldwide.

### ICAO Council: Structure & India's Role

- **Composition:** 36-member governing body of the **International Civil Aviation Organization (ICAO)**, elected triennially by the ICAO Assembly (193 member states).
- **Part II Seats:** Reserved for “**States of major importance in air transport**”; India, Germany, Brazil, Japan, and others fall in this category.

### India's Contributions:

- Founding signatory of the **1944 Chicago Convention** that established ICAO.
- Strong advocate for **No Country Left Behind (NCLB)** initiative, supporting capacity-building in developing nations.
- Promoting **green aviation technologies**, drone regulation frameworks, and regional air connectivity (e.g., **UDAN** as a model for inclusive access).

### Historical & Institutional Context

- **Chicago Convention (1944):** Signed by 54 nations on December 7, laying the foundation for rules of airspace, aircraft registration, safety, and sovereignty; ratified by India in 1947.
- **UN Recognition:** December 7 formally declared **International Civil Aviation Day** by UNGA Resolution **A/RES/51/33** in 1996, proposed by Canada and backed by ICAO.

## International Anti-Corruption Day 2025

### What's the News?

- The United Nations commemorated **International Anti-Corruption Day 2025** on **December 9** with the theme “**Uniting with Youth Against Corruption: Shaping Tomorrow's Integrity**”.
- The theme underscores youth as critical agents of change in building transparent, accountable institutions and calls for intergenerational collaboration to strengthen anti-corruption frameworks globally and in India.

### Global & National Significance

- **Youth as Integrity Leaders:**
  - With **1.9 billion young people worldwide**, the campaign emphasizes their potential to drive integrity through education, digital tools (e.g., AI, blockchain, reporting apps), and community-level advocacy.
  - Youth-led innovation can improve transparency, facilitate anonymous reporting, and challenge corrupt practices in public service delivery.
- **India's Anti-Corruption Landscape:**
  - **Legal Framework:**
    - **Prevention of Corruption Act, 1988:** Defines offences & penalises public servants.
    - **Bharatiya Nyaya Sanhita (BNS), 2023:** Replaces IPC; modernises punishment for bribery & misconduct.
    - **Lokpal and Lokayuktas Act, 2013:** Establishes independent ombudsmen for central & state-level complaints.
    - **Whistle Blowers Protection Act, 2014:** Shields individuals reporting corruption (pending full operationalisation).

- **Supporting Laws:**
  - **Prevention of Money Laundering Act (PMLA), 2002**
  - **Benami Transactions (Prohibition) Act, 1988**
  - **Black Money Act, 2015**
- **Accountability Metrics:**
  - In the **2024 Corruption Perceptions Index (CPI)**, India ranked **96th out of 180 countries** with a score of **38/100** - down from **93rd (score 39)** in 2023.

### Additional Info

- **International Context:**
  - **UNCAC (UN Convention Against Corruption):** Adopted in 2003; enforced from December 2005; India ratified it in 2011.
  - **Upcoming Global Event:** The **11th Conference of States Parties to UNCAC** will be held in **Doha, Qatar (December 15–19, 2025)**.
- **Constitutional Anchors:**
  - **Article 51(c):** Promotes international law & treaty obligations (incl. UNCAC).
  - **Article 39(b) & (c):** Directive Principles calling for equitable resource distribution & prevention of wealth concentration.
  - **Right to Information Act, 2005:** Statutory embodiment of transparency under **Article 19(1)(a)** (freedom of speech & expression).
- **Institutional Mechanisms in India:**
  - **Central Vigilance Commission (CVC):** Apex body for vigilance matters.
  - **Central Bureau of Investigation (CBI):** Investigates major corruption cases.
  - **National e-Governance Plan & Digital India:** Reduce interface-based corruption via process automation.
- **United Nations Convention against Corruption (UNCAC):**
  - Adopted by the UN General Assembly on **October 31, 2003**.
  - It is the only legally binding universal anti-corruption instrument.
  - Covers five main areas: preventive measures, criminalization/law enforcement, international cooperation, asset recovery, and technical assistance.

## World Human Rights Day 2025: “Human Rights: Our Everyday Essentials”

### What’s the News?

- **Human Rights Day** was observed globally on **December 10, 2025**, marking the anniversary of the adoption of the **Universal Declaration of Human Rights (UDHR)** by the UN in 1948.

- The **United Nations** designated the theme for 2025 as **“Human Rights: Our Everyday Essentials”**, emphasising that rights are not abstract legal concepts but tangible necessities like food, shelter, and safety.
- In India, the **National Human Rights Commission (NHRC)** organised a commemorative function at **Bharat Mandapam, New Delhi**, where President **Droupadi Murmu** served as the Chief Guest.

### 2025 Theme: “Our Everyday Essentials”

- **Objective:** The theme aims to reconnect people with human rights by demonstrating how they underpin ordinary, daily experiences. It seeks to bridge the gap between global principles and personal realities.
- **Three Core Pillars:**
  - **Positive:** Rights represent more than just protection from harm; they are the foundation of joy, well-being, and opportunity.
  - **Essential:** In a volatile world, rights (such as safety and freedom of expression) serve as the “everyday constants” and bedrock of stability.
  - **Attainable:** Rights are realised through small, daily choices—treating others with respect and challenging unfairness—not just through court verdicts.
- **Global Context:** UN High Commissioner for Human Rights **Volker Türk** highlighted that amidst global turbulence, access to essentials must be viewed as a **right**, not a function of wealth.

### India Celebrations & Highlights

- **President’s Address:**
  - President Murmu described universal human rights as the “bedrock of a just, equitable, and compassionate society.”
  - She invoked the philosophy of **Antyodaya** (ensuring rights for the last person in the line) as central to inclusive development.
  - Highlighted the **4 Labour Codes** (wages, social security, industrial relations, safety) as transformative reforms ensuring the dignity of the workforce.
- **NHRC Initiatives:**
  - A new **NHRC Mobile App** was launched to facilitate easy complaint filing and real-time tracking of cases.
  - A National Conference was held on the theme **“Ensuring Everyday Essentials: Public Services and Dignity for All”**.
  - NHRC Chairperson **Justice V. Ramasubramanian** emphasised that human rights must be elevated to the level of “human values” to be truly effective.

### Additional Info

- **Universal Declaration of Human Rights (UDHR):**
  - Adopted by the **UN General Assembly** on **December 10, 1948**, in Paris.
  - It is the most translated document in the world and established the first global standard for fundamental human rights.

- **National Human Rights Commission (NHRC) of India:**
  - **Status:** Statutory body established under the **Protection of Human Rights Act (PHRA), 1993**.
  - **Composition:** A Chairperson (retired Chief Justice or Judge of the Supreme Court) and other members.
  - **Mandate:** To inquire into violations of human rights, visit jails, and review safeguards provided by the Constitution.
- **Constitutional Provisions (India):**
  - **Preamble:** Secures "Justice, Liberty, Equality, and Fraternity."
  - **Part III (Fundamental Rights):** Justiciable rights including **Article 14** (Equality), **Article 19** (Freedom of Speech), and **Article 21** (Right to Life and Personal Liberty).
  - **Part IV (Directive Principles):** Non-justiciable guidelines for the state to secure a social order for the promotion of welfare (e.g., **Article 39** on livelihood, **Article 43** on living wages).

## International Animal Rights Day 2025: Global Call for Interspecies Justice

### What's the News?

- **International Animal Rights Day (IARD)** was observed globally on **December 10, 2025**, coinciding with **Human Rights Day** to highlight the shared principle that all sentient beings deserve dignity and protection.
- Advocates worldwide used the occasion to call for the adoption of a **Universal Declaration of Animal Rights (UDAR)**, aiming to end **speciesism**—the assumption of human superiority leading to the exploitation of other species.
- The 2025 observance emphasised recognising animals not merely as property but as **sentient beings** capable of feeling pain, joy, and fear, urging a shift from "animal welfare" (better treatment) to "animal rights" (freedom from exploitation).

### International Animal Rights Day: Origins & Objectives

- **Established in 1998** by the animal rights group **Uncaged**, on the **50th anniversary** of the **Universal Declaration of Human Rights (UDHR)**.
- **Core Principles:**
  - Animals experience **pain, joy, fear**, and suffering; scientifically established as sentient.
  - Human rights frameworks should inspire protections for non-human animals.
  - Opposes animal use in **testing, factory farming, entertainment, and illegal trade**.
- **Global Advocacy Focus Areas:**
  - Ban on **cosmetic testing** on animals (e.g., EU 2013 regulation).

- **Sentience recognition** in law (e.g., **EU Lisbon Treaty, 2009**).
- Criminalization of **extreme cruelty** (e.g., **US PACT Act, 2019**).

### Animal Welfare in India: Legal Framework & 2025 Developments

- **Primary Legislation:**
  - **Prevention of Cruelty to Animals (PCA) Act, 1960:**
    - Defines cruelty under **Section 11** (e.g., beating, overloading, inadequate shelter).
    - Penalty remains outdated: **₹10–₹50 for first offence**, ₹50–₹100 for repeat offence.
    - **Section 3** imposes duty of care on owners and custodians.
- **2025 Reforms & State-Level Actions:**
  - **Bharatiya Nyaya Sanhita (BNS), 2023:**
    - Effective from **July 1, 2024**, replacing the IPC.
    - Contains **enabling provisions** for penalizing animal cruelty, though specifics on sentencing remain under interpretation.
    - *Note:* BNS does *not* explicitly criminalize **bestiality** or sexual abuse of animals.
  - **State Amendments:**
    - **Kerala Amendment Bill, 2025** and **Punjab Amendment Act, 2025** signal sub-national momentum to tighten enforcement and penalties.

### Additional Info

- **Universal Declaration of Animal Rights (UDAR):**
  - Originally proclaimed in **Paris (1978)** at UNESCO headquarters.
  - **Key Articles:**
    - All animals are born with an equal claim on life and the same rights to existence.
    - No animal shall be ill-treated or subject to cruel acts.
- **Speciesism:** A term coined by **Richard Ryder** in 1970, referring to discrimination against those who do not belong to a certain species (analogous to racism or sexism).
- **Difference from World Animal Day:**
  - **World Animal Day (October 4):** Focuses broadly on welfare and celebration (Feast of St. Francis of Assisi).
  - **International Animal Rights Day (December 10):** Focuses specifically on the philosophical and legal *rights* of animals.



# Nobel Prize Day 2025: Ceremony on December 10 Honours Global Champions of Knowledge and Peace

## What's the News?

- The **2025 Nobel Prize award ceremony** was held on **December 10**, marking the **death anniversary of Alfred Nobel**, in accordance with his will.
- Six laureates (or groups) were honoured across five traditional categories and one memorial prize:
  - **Physics**: John Clarke (UK), Michel Devoret (France), John Martinis (USA)
  - **Chemistry**: Susumu Kitagawa (Japan), Richard Robson (UK/Australia), Omar M. Yaghi (Jordan/USA)
  - **Physiology or Medicine**: Mary E. Brunkow, Fred Ramsdell (USA), Shimon Sakaguchi (Japan)
  - **Literature**: László Krasznahorkai (Hungary)
  - **Economic Sciences**: Joel Mokyr (USA)
  - **Peace**: **María Corina Machado** (Venezuela), represented by her daughter Ana Corina Machado at the Oslo ceremony

## Why December 10?

- Alfred Nobel (1833–1896), Swedish chemist and inventor of dynamite, bequeathed the bulk of his fortune to establish prizes for those who “conferred the greatest benefit to humankind”.
- His will, signed in **1895**, specified:
  - Prizes in **Physics, Chemistry, Medicine, Literature, and Peace**.
  - Awards to be conferred on **December 10**, the anniversary of his death (December 10, 1896).
- The **Sveriges Riksbank Prize in Economic Sciences** (1969) follows the same protocol.

## Ceremony Traditions & Protocols

- **Stockholm Ceremony (Sweden)**:
  - Prizes for **Physics, Chemistry, Physiology or Medicine, Literature, and Economic Sciences** are presented here.
  - The **King of Sweden** hands over the diploma and medal to the laureates.
  - Followed by a grand banquet at the **Stockholm City Hall**.
- **Oslo Ceremony (Norway)**:
  - The **Nobel Peace Prize** is the only award presented in Oslo, as per Alfred Nobel's specific wish.
  - It is presented by the **Chairman of the Norwegian Nobel Committee** in the presence of the **King of Norway**.
- **Components of the Prize**: Each laureate receives a **Nobel Diploma**, a **Nobel Medal**, and a document confirming the **cash prize** amount.

## Indian Laureates in Focus: Peace Category

- **Mother Teresa (1979)**:

- She was the **first Indian citizen** to receive the Nobel Peace Prize.
- Awarded for her humanitarian work helping the "poorest of the poor" through the **Missionaries of Charity** in Kolkata.

- **Kailash Satyarthi (2014)**:

- Shared the prize with Pakistan's **Malala Yousafzai**.
- Honoured for his "struggle against the suppression of children and young people" and for the right of all children to education through his movement, **Bachpan Bachao Andolan**.

## Additional Info

- **The Categories**:

- Original 5 (1895 Will): Physics, Chemistry, Medicine, Literature, Peace.
- Added later (1968): **Sveriges Riksbank Prize in Economic Sciences** in Memory of Alfred Nobel (often called the Nobel Prize in Economics).

- **Selection Bodies**:

- **Royal Swedish Academy of Sciences**: Physics, Chemistry, Economics.
- **Nobel Assembly at Karolinska Institutet**: Physiology or Medicine.
- **Swedish Academy**: Literature.
- **Norwegian Nobel Committee**: Peace (members appointed by the Norwegian Parliament).

- **First Indian Laureate**: **Rabindranath Tagore** was the first Indian (and Asian) to win the Nobel Prize (**Literature, 1913**) for his collection *Gitanjali*.

## Vijay Diwas: Commemorating India's Victory in the 1971 War

### What's the News?

- **Vijay Diwas** is observed annually to commemorate **India's decisive victory over Pakistan in the 1971 war**, which led to the **liberation of Bangladesh**.
- The day honours the **sacrifice, courage, and strategic leadership** of the **Indian Armed Forces**, and pays tribute to war veterans and martyrs.

### Historical Background

- **Electoral Conflict (1970)**: The Awami League won a majority in Pakistan's elections, but the transfer of power was blocked, leading to mass agitation in East Pakistan.
- **Operation Searchlight (1971)**: The Pakistan Army launched a violent crackdown on March 25, 1971, causing approximately **10 million refugees** to flee into India, creating a massive humanitarian crisis.
- **Mukti Bahini**: India provided sanctuary, training, and logistics to the *Mukti Bahini* (Bengali resistance forces).

### Key Events of the 1971 War

- **Trigger (Dec 3, 1971)**: The war formally began after Pakistan launched pre-emptive air strikes (**Operation Chengiz Khan**) on Indian airfields.

- **Indian Offensive:**
  - **Air Superiority:** The Indian Air Force neutralized East Pakistan's air capabilities.
  - **Naval Blockade:** The Indian Navy (involving **INS Vikrant**) isolated East Pakistan in the Bay of Bengal.
  - **Karachi Strikes:** Operations **Trident** and **Python** by the Indian Navy destroyed fuel storage and shipping capabilities in Karachi.
- **The Surrender (Dec 16, 1971):** Within 13 days, the Indian Army encircled Dhaka. The Pakistani Eastern Command surrendered, marking the end of the war.

### Outcomes and Significance

- **Birth of Bangladesh:** East Pakistan was liberated and became the sovereign nation of Bangladesh.
- **Mass Surrender:** Approximately **93,000 Pakistani soldiers** and personnel surrendered, noted as one of the largest capitulations since World War II.
- **Simla Agreement (1972):** The victory paved the way for the Simla Agreement, shaping future diplomatic relations between India and Pakistan.

## International Migrants Day 2025: "My Great Story: Cultures and Development"

### What's the News?

- **International Migrants Day** is observed annually on **December 18** to recognize the social and economic contributions of migrants and advocate for their human rights.
- The day serves as a global call to ensure that migration is **safe, orderly, and regular**, protecting millions of people on the move from exploitation and violence.
- The **International Organization for Migration (IOM)** and the **United Nations (UN)** lead the observance to highlight the challenges of internal and international displacement driven by conflict, climate change, and economic necessity.

### The 2025 Theme?

- The official theme for 2025 is **"My Great Story: Cultures and Development"**.
- It emphasizes how human mobility acts as a catalyst for **economic growth**, enriches cultures, and helps communities adapt to global changes.
- The narrative shift aims to move beyond viewing migrants solely as labor units, instead recognizing them as **rights-bearing individuals** and agents of social change.

### Global Migration Trends?

- **Scale:** There are approximately **304 million international migrants** globally, representing **3.7%** of the world's population.
- **Demographics:** Women constitute nearly **48%** of the global migrant population, while approximately **two-thirds** of all international migrants are labor migrants.

- **Remittances:** Financial transfers to low- and middle-income countries are projected to reach a record **USD 685 billion** in 2025, providing a critical lifeline for millions of families.
- **Displacement:** By the end of 2024, the world hosted an estimated **43.7 million refugees** and millions of asylum-seekers.

### India's Migration Landscape?

- **Top Source:** India remains the leading source of international migrants, with **225,000 Indians** acquiring citizenship in **OECD countries** recently—the highest among all nationalities.
- **Skill-Driven:** Migration from India is increasingly dominated by **healthcare and technology professionals**; India provides the highest number of foreign-trained doctors and nurses to advanced economies.
- **Student Mobility:** Indian students represent **14%** of all international tertiary-level students in OECD nations, second only to China.
- **Challenges:** Despite statutory ceilings like the **Emigration Act, 1983**, many Indian workers pay high recruitment costs due to unregulated sub-agent networks.

### Additional Info

- **Historical Context:**
  - **1990:** The UN General Assembly (UNGA) adopted the **International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families** on December 18.
  - **2000:** The UNGA officially designated December 18 as International Migrants Day via **Resolution 55/93**.
- **Global Frameworks:**
  - **Global Compact for Migration (GCM):** The first intergovernmentally negotiated agreement covering all dimensions of international migration.
  - **SDG Targets:**
    - **Target 10.7:** Facilitate orderly, safe, and responsible migration.
    - **Target 10.c:** Reduce the transaction costs of migrant remittances to less than **3%**.
- **Institutional Mechanisms:**
  - **International Organization for Migration (IOM):** Established in 1951, it is the leading intergovernmental organization in the field of migration.

## Minorities Rights Day 2025: Upholding Constitutional Safeguards and Inclusivity

### What's the News?

- **Minorities Rights Day** is observed annually on **December 18** in India to safeguard the rights of religious, linguistic, and ethnic minority communities.

- The day commemorates the **United Nations** adoption of the **Declaration on the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities** in 1992.
- The primary objective is to raise awareness about the challenges faced by minorities and to ensure their equal participation in the nation's socio-economic and cultural landscape.

### Who are the Notified Minorities?

- Under the **National Commission for Minorities Act, 1992**, the Government of India has officially recognized **six religious minority communities**.
  - **Muslims, Christians, Sikhs, Buddhists, and Parsis** (Zoroastrians).
  - **Jains** were added to this list as the sixth community in 2014.
- According to the **2011 Census**, these minority communities constitute approximately **19.3%** of India's total population.
- While the Union Government notifies religious minorities, **Linguistic Minorities** are identified on a state-by-state basis.

### Constitutional Safeguards?

- The Indian Constitution provides several specific protections to ensure the dignity and development of minority groups:
  - **Article 29:** Grants any section of citizens with a distinct language, script, or culture the right to conserve the same.
  - **Article 30:** Empowers religious and linguistic minorities to establish and administer educational institutions of their choice.
  - **Article 350B:** Mandates the appointment of a **Special Officer for Linguistic Minorities** by the President to investigate and report on safeguards for linguistic groups.
  - **Article 25 to 28:** Guarantees the **Right to Freedom of Religion**, allowing individuals to profess, practice, and propagate their faith.

### Additional Info

- **National Commission for Minorities (NCM):**
  - A **statutory body** established to monitor the implementation of safeguards provided in the Constitution and laws.
  - It consists of a Chairperson, a Vice-Chairperson, and five members, all nominated by the Central Government from among the minority communities.
- **Key Government Initiatives:**
  - **Ministry of Minority Affairs:** Created in **2006** as the nodal agency for the overall policy, planning, and coordination of regulatory and development programs for minority communities.
  - **PM's New 15-Point Programme:** Focuses on enhancing opportunities for education, ensuring an equitable share in economic activities, and improving living conditions.

- **Scholarship Schemes:** Includes Pre-Matric, Post-Matric, and Merit-cum-Means scholarships specifically for minority students to reduce the dropout rate.
- **Global Context:**
  - The **UN Declaration of 1992** emphasizes that the protection of minorities is essential to the political and social stability of states in which they live.

## National Mathematics Day 2025: Honoring the Legacy of Srinivasa Ramanujan

### What's the News?

- **National Mathematics Day** was observed across India on **December 22** to commemorate the **138th birth anniversary** of the legendary mathematician **Srinivasa Ramanujan**.
- The day aims to raise awareness about the importance of mathematics in **scientific progress, technology**, and daily life while honoring India's rich mathematical heritage.
- The **Government of India** formally designated this day in **2011** during the 125th birth anniversary celebrations of Ramanujan to inspire students and researchers.

### Who Was Srinivasa Ramanujan?

- Self-taught mathematical genius from India with seminal work in:
  - **Number theory**
  - **Partition functions**
  - **Modular forms**
  - **Infinite series**
- Known for concepts such as:
  - **Ramanujan Prime**
  - **Ramanujan Tau Function**
  - **Mock theta functions**
- His work continues to influence **modern mathematics, physics, and computer science**.

### Contributions of Srinivasa Ramanujan?

- **Mathematical Analysis and Number Theory:** Despite having no formal training, Ramanujan independently compiled nearly **3,900 results**, many of which were original and far ahead of their time.
- **Infinite Series for Pi:** In 1914, he discovered a formula for the infinite series of  $\pi$ , which now forms the base of various algorithms used in modern computing.
- **Hardy-Ramanujan Number (1729):** Known as the "Taxicab Number," it is the smallest number that can be expressed as the sum of **two cubes in two different ways** ( $1729=1^3+12^3=9^3+10^3$ ).
- **The Circle Method:** Developed in collaboration with **G.H. Hardy**, this technique is fundamental to modern analytic number theory and used to calculate the **partition of numbers**.
- **Mock Theta Functions:** His final discovery before death, these functions now provide the mathematical

framework for understanding **black hole physics** and quantum states.

### SASTRA Ramanujan Prize 2025?

- **Winner:** The 2025 SASTRA Ramanujan Prize was awarded to **Dr. Alexander Smith** of **Northwestern University, USA**.
- **Significance:** He was recognized for breakthrough contributions to long-standing problems in **number theory**, specifically involving **congruent number problems**.
- **Award Criteria:**
  - Established in **2005**, the prize carries a cash award of **\$10,000**.
  - It is given annually to individuals aged **32 and below**, honoring the age at which Ramanujan passed away.
  - The work must be in areas influenced by Ramanujan's broad mathematical legacy.

## National Consumer Rights Day 2025: Empowering the Indian Consumer

### What's the News?

- **National Consumer Rights Day** (also known as **Bharatiya Grahak Diwas**) was observed across India on **December 24, 2024**.
- This day marks the anniversary of the **Consumer Protection Act, 1986**, which received Presidential assent on this date to protect consumers against market exploitation.

### History and Significance

- **The 1986 Milestone:** The **Consumer Protection Act (COPRA)** was enacted in 1986 to provide a simpler and quicker redressal mechanism for consumer grievances.
- **Legal Evolution:** To address modern challenges like misleading advertisements and e-commerce frauds, the government replaced the old law with the **Consumer Protection Act, 2019**.
- **Objective:** The primary goal is to educate the public about their rights and responsibilities, ensuring they are not cheated by unfair trade practices or defective goods.

### The Six Fundamental Consumer Rights

Under the Indian legal framework, every consumer is entitled to six basic rights:

- **Right to Safety:** Protection against the marketing of goods and services that are hazardous to life and property.
- **Right to Information:** To be informed about the quality, quantity, potency, purity, standard, and price of goods or services.
- **Right to Choose:** Assurance, wherever possible, of access to a variety of goods and services at competitive prices.

- **Right to be Heard:** Assurance that consumers' interests will receive due consideration at appropriate forums.
- **Right to Seek Redressal:** Seeking settlement against unfair trade practices or unscrupulous exploitation.
- **Right to Consumer Awareness:** The right to acquire knowledge and skills to be an informed consumer throughout life.

### Additional Info

- **Redressal Mechanism:**
  - India follows a **three-tier quasi-judicial machinery** for consumer disputes:
    - **District Consumer Disputes Redressal Commission (DCDR)**.
    - **State Consumer Disputes Redressal Commission (SCDR)**.
    - **National Consumer Disputes Redressal Commission (NCDRC)**.
- **Key Agencies:**
  - **Central Consumer Protection Authority (CCPA):** Established under the 2019 Act to regulate matters relating to violation of consumer rights and false advertisements.
  - **Department of Consumer Affairs:** The nodal central government department for consumer welfare.
- **Jago Grahak Jago:** A multi-media awareness campaign launched by the Government of India to create consumer awareness through slogans and advertisements.
- **World Consumer Rights Day:** While India celebrates National Consumer Day on **December 24**, the global **World Consumer Rights Day** is observed annually on **March 15**.



# State Affairs

## Assam Assembly Passes Bill to Ban Polygamy: Strict Penalties and Jail Terms

### What's the News?

- The **Assam Legislative Assembly** has passed the **Assam Prohibition of Polygamy Bill, 2025**, making it the second state after Uttarakhand to legislate specifically against the practice.
- The Bill declares polygamous marriages **void** and imposes stringent punitive measures, including jail terms and fines, to enforce monogamy as the legal norm.
- Chief Minister **Himanta Biswa Sarma** termed the legislation a "historic step for women's rights" and linked it to the broader agenda of implementing a **Uniform Civil Code (UCC)**.

### Key Provisions of the Bill

- **Definition & Criminalisation:**
  - The Bill defines polygamy as contracting a marriage while a previous marriage is still valid.
  - It makes polygamy a **cognizable and non-bailable offence**.
- **Penalties:**
  - **Offenders:** Imprisonment up to **7 years** and a fine.
  - **Concealment:** If a person conceals a prior marriage from the new spouse, the jail term extends up to **10 years**.
  - **Abettors:** Religious clerics (Qazis/Priests), village heads, or family members who participate in or solemnize such marriages face up to **2 years** in jail and fines.
- **Exemptions:**
  - The law **excludes Scheduled Tribes (STs)** and areas under the **Sixth Schedule** (e.g., Bodoland, Karbi Anglong) to protect their constitutional privileges and customary laws.
- **Disqualifications:**
  - Convicts are barred from **government jobs** and **contesting elections** (Panchayat/Municipal).

### Polygamy in India: Status & Data

- **Current Trends (NFHS-5 Data):**
  - The prevalence of polygamy in India has declined to **1.4%** (2019-21) from 1.9% (2005-06).
  - **Religion-wise:** The rate is highest among **Christians (2.1%)**, followed by **Muslims (1.9%)** and **Hindus (1.3%)**.
  - **Tribal Prevalence:** The practice is most common among **Scheduled Tribes (2.4%)**, with high rates in northeastern states like **Meghalaya (6.1%)**.
  - **Assam Context:** The state had a polygamy rate of **2.4%**, higher than the national average.

### Legal Conflict:

- While the **Hindu Marriage Act, 1955** bans bigamy for Hindus, Sikhs, Jains, and Buddhists, the **Muslim Personal Law (Shariat) Application Act, 1937** allows Muslim men up to four wives.
- The new Assam law overrides these personal laws within the state, similar to the **Uttarakhand UCC**.

### Additional Info

#### Constitutional Context:

- **Article 25:** Guarantees freedom of practice and propagation of religion but is subject to **public order, morality, and health**.
- **Article 44:** Directive Principle urging the state to secure a **Uniform Civil Code** for citizens.

#### Supreme Court Views:

- In *Khursheed Ahmad Khan v. State of UP* (2015), the SC ruled that polygamy is **not an integral part of Islam** and can be regulated by the state.

#### Justice Rumi Phookan Committee:

- The Assam government formed this committee to examine the legislative competence of the state assembly to ban polygamy. It concluded that the state can enact such a law with **Presidential assent**.

## Rajasthan Becomes First State to Fully Digitise Voter Rolls Under SIR-2026

### What's the News?

- Rajasthan has become the **first state in India** to achieve **100% digitisation of its electoral rolls** under the **Special Intensive Revision (SIR)-2026**, a nationwide voter list update drive led by the **Election Commission of India (ECI)**.
- The state has also completed over **97% voter mapping**, significantly simplifying verification and reducing document submission burden for voters.
- The **draft electoral roll** will be published on **December 16, 2025**, followed by a window for **claims and objections**.

### Special Intensive Revision (SIR)-2026

#### Purpose:

- Ensure **inclusion of all eligible citizens**, especially marginalised, migrant, and first-time voters (e.g., newly turned 18-year-olds).
- Purify rolls by removing **duplicates, deceased entries, and non-residents**.
- Achieve **geo-tagged, verified, digitised voter data** for accuracy and transparency.

#### Implementation Framework:

- **Door-to-door enumeration** by **Booth Level Officers (BLOs)** using **enumeration forms** and **BLONet mobile app**.
- **Multi-layer verification**: BLOs (local govt/semi-govt staff, familiar with electors) → Supervisors → District Election Officers.
- **SIR Phase-II** launched on November 4, 2025 across 12 states/UTs, including Rajasthan.
- **Timeline & Scale**:
  - SIR-2026 aligns with upcoming **state assembly elections** and **2029 Lok Sabha polls**.
  - Rajasthan's achievement sets a benchmark for other states in **data integrity** and **operational efficiency**.

### Additional Info

- **Constitutional & Legal Anchors**:
  - **Article 324**: Grants ECI superintendence, direction, and control over electoral rolls and elections.
  - **Representation of the People Act, 1950 (Sections 13–16)**: Mandates periodic revision of rolls and empowers ECI to conduct special revisions.
- **Technological Enablers**:
  - **National Electoral Roll Purification & Authentication Programme (NERPAP)**: Aadhaar-seeded deduplication.
  - **GIS-based mapping**: Links electors to polling stations and households for spatial accuracy.
  - **e-Patrika & e-EPIC**: Digital EPIC generation and dissemination.
- **Significance for Governance**:
  - Strengthens **electoral integrity** and **inclusive democracy** by reducing exclusion/inclusion errors.
  - Facilitates **targeted welfare delivery** and **civic engagement** through reliable voter databases.
  - Supports **Election Commission's Vision 2026** - "100% verified, authenticated, and digital-ready electoral roll".

## India's First PPP Model Medical Colleges Launched in Madhya Pradesh

### What's the News?

- Union Health Minister **J.P. Nadda** and Madhya Pradesh Chief Minister **Dr. Mohan Yadav** laid the foundation stone for India's first medical colleges under the **Public-Private Partnership (PPP)** model.
- The project was inaugurated in the tribal-dominated districts of **Dhar** and **Betul** in Madhya Pradesh.

### PPP Model Medical Colleges in Tribal Districts Overview:

- **Four medical colleges** planned under the PPP model in **Dhar, Betul, Katni, and Panna** districts, linked with existing district hospitals to strengthen service delivery and medical education.

- Foundation stones have been laid in **Dhar** and **Betul**, signalling commencement of construction and development.

### Key Features:

- Project sites provided by the State Government (often on concessional terms) with the **private partner responsible for construction, infrastructure, and operations**.
- District hospitals will be **upgraded to meet National Medical Commission (NMC) norms**, ensuring integrated healthcare service delivery.
- Colleges will offer **MBBS and allied health programs**, expanding educational opportunities for local students.

### Policy Significance:

- PPP model aims to **leverage private sector efficiency and capital** while maintaining public oversight of health services in tribal and remote regions.
- Supports national goals of **increasing healthcare human resources** and reducing regional disparities in access to medical education.

### Additional Info

- **NITI Aayog Guidelines**:
  - The **Model Concession Agreement** developed by **NITI Aayog** allows for the augmentation of district hospitals into teaching hospitals with private investment.
  - It typically includes a **Viability Gap Funding (VGF)** provision, where the government can provide up to 40% of the capital cost for social sector infrastructure.
- **Constitutional and Policy Context**:
  - **Health is a State Subject** (List II, Entry 6), but the **Central Government** provides support through Centrally Sponsored Schemes (CSS) and regulatory frameworks like the **National Medical Commission (NMC) Act**.
  - **Article 47**: Directs the State to regard the improvement of public health as among its primary duties.
- **Current Medical Education Landscape**:
  - Since 2014, the number of medical colleges in India has increased from 387 to **819**, with MBBS seats growing from 51,000 to over **1.28 lakh**.
  - The government aims to add another **75,000 seats** by 2029.

## Hansi Declared as 23rd District of Haryana

### What's the News?

- **Hansi** has been officially declared as the **23rd district** of **Haryana**.
- The announcement was made by Chief Minister **Nayab Singh Saini**, fulfilling a long-standing demand of the local residents.

- Previously a subdivision within the **Hisar** district, Hansi is expected to receive a formal government notification regarding its new status within a week.

### Administration and Geography of Hansi

- **Status Transition:** Hansi was earlier one of the largest subdivisions in Haryana and had been functioning as a **Police District** since 2016, a unique status that preceded its full elevation to a district.
- **Parent District:** The new district is being carved out of **Hisar**, which was one of the largest districts in the state by area.
- **Connectivity:** Strategically located on **National Highway 9 (NH-9)**, Hansi serves as a major transit point between Delhi and Sirsa, making it a significant commercial hub.
- **Infrastructure:** With the district status, Hansi will now have its own **Deputy Commissioner (DC)** and **Superintendent of Police (SP)**, along with dedicated district-level judicial and administrative offices.

### Historical and Cultural Significance

- **Ancient Heritage:** Hansi is one of the oldest towns in Haryana, with historical records suggesting it was a prominent seat of power for the **Chauhan dynasty**.
- **Archaeological Importance:** The **Asigarh Fort** (also known as Prithviraj Chauhan's Fort) is a major landmark in the city, reflecting its medieval strategic importance.
- **British Era:** During the late 18th century, the Irish adventurer **George Thomas** established Hansi as his capital, further cementing its historical footprint.

### Additional Info

- **Creation of New Districts:**
  - Under **Section 5 of the Land Revenue Act**, state governments in India have the power to create new districts or alter the boundaries of existing ones.
  - This is typically done through an executive order or a notification in the **Official Gazette**.
- **Haryana's District Timeline:**
  - Haryana was created in **1966** with only 7 districts.
  - Before Hansi, the 22nd district to be formed was **Charkhi Dadri** in 2016.

# Defence

## INDIA STRENGTHENS SEA-BASED DEFENCE & NAVAL SELF-RELIANCE

### What's the News?

- **INS Aridhaman**, India's **third indigenously built nuclear-powered ballistic missile submarine (SSBN)**, has entered final trials and is set for commissioning soon, as confirmed by Navy Chief Admiral Dinesh K. Tripathi.
- **INS Taragiri**, the **fourth stealth frigate** of the **Nilgiri-class (Project 17A)** and third built by Mazagon Dock Shipbuilders Ltd (MDL), was delivered to the Indian Navy on **November 28, 2025**.

### INS Aridhaman

- **Class & Role:** Third **Arihant-class SSBN**, designed for **assured second-strike capability** under India's *no-first-use* nuclear doctrine.
- **Displacement & Dimensions:**
  - 7,000 tonnes submerged (up from ~6,000 tonnes for INS Arihant).
  - Length: ~130 m; Beam: 11–15 m; Draft: 9.5–10 m.
- **Propulsion & Reactor:**
  - Powered by an **indigenous 83 MW Compact Light Water Reactor (CLWR)** developed by **Bhabha Atomic Research Centre (BARC)**.
  - Submerged speed: up to **24 knots**; near-unlimited endurance.
  - Enhanced stealth features include **reduced acoustic signature**.
- **Armament:**
  - **Four vertical launch tubes**, capable of carrying:
    - Up to **24 K-15 Sagarika SLBMs** (750 km range)
    - Or **K-4 SLBMs** (3,500 km range) — significantly extending deterrence reach.
- **Strategic Significance:**
  - Will enable India's first **minimum credible triad rotation** — one SSBN on patrol, one in refit, one in reserve — ensuring **continuous at-sea deterrence (CASD)**.
  - Part of the **Advanced Technology Vessel (ATV) Project**, with **>90% indigenous content**.

### INS Taragiri

- **Class & Programme:** Fourth of seven **Project 17A frigates**, designed by the **Warship Design Bureau (WDB)** and built by **MDL**.
- **Capabilities:**
  - **Multi-mission stealth platform** with integrated combat systems:
    - **BrahMos supersonic cruise missiles**

- **MFSTAR AESA radar + MRSAM** point-defence system
- Anti-submarine: torpedoes, rockets, and hull-mounted sonar
- Close-in weapon systems: 30 mm and 12.7 mm guns
- **CODOG propulsion** (Combined Diesel or Gas) with **Controllable Pitch Propellers (CPP)** and **Integrated Platform Management System (IPMS)**.
- **Indigenisation & Economic Impact:**
  - **75% indigenous content**, involving **>200 MSMEs**.
  - Generated **~4,000 direct** and **>10,000 indirect jobs**.
  - Build time reduced to **81 months** (vs. 93 for lead ship *Nilgiri*).

## Defence Minister Dedicates 125 BRO Infrastructure Projects to the Nation

### What's the News?

- Defence Minister **Rajnath Singh** dedicated **125 infrastructure projects** constructed by the **Border Roads Organisation (BRO)** to the nation.
- The projects, valued at approximately **₹5,000 crore**, were inaugurated from **Leh, Ladakh**, marking the highest number of projects launched by the BRO in a single day.
- The inauguration also included the virtual unveiling of the **Galwan War Memorial** in Eastern Ladakh to honor the soldiers who sacrificed their lives in the 2020 clashes.

### Infrastructure & Projects

- **Project Composition:** The 125 projects comprise **28 roads, 93 bridges, and 4 miscellaneous strategic works**.
- **Geographical Spread:** These projects span **seven states** and **two Union Territories**:
  - **States:** Arunachal Pradesh, Sikkim, Himachal Pradesh, Uttarakhand, Rajasthan, West Bengal, and Mizoram.
  - **UTs:** Ladakh and Jammu & Kashmir.
- **Shyok Tunnel (Key Highlight):**
  - A **920-meter-long** cut-and-cover tunnel on the strategic **Darbuk-Shyok-Daulat Beg Oldie (DS-DBO)** road in Ladakh.
  - **Significance:** Provides **all-weather connectivity** to the critical Sub-Sector North (SSN), ensuring rapid troop deployment and logistics even during harsh winters.
- **Connectivity in North East:**



- In **Arunachal Pradesh**, key bridges were inaugurated in the **Siang Valley** and **Shi-Yomi districts** (under Project Brahmark) to boost defence logistics and local tourism.
- **Mizoram** received critical bridges (like Tuichanglui) under **Project Pushpak** to connect remote areas along the **Indo-Myanmar border**.

### Additional Info

- **Border Roads Organisation (BRO):**
  - Operates under the **Ministry of Defence**.
  - **Mission:** Develops and maintains road networks in India's border areas and friendly neighboring countries.
  - **Key Projects:** **Project Himank** (Ladakh), **Project Vartak** (Arunachal), **Project Pushpak** (Mizoram).
- **Related Government Initiatives:**
  - **Viksit Bharat:** The infrastructure push is framed as a step towards a developed India by 2047, ensuring that border areas are not "buffer zones" but fully integrated parts of the nation.
  - **Aatmanirbhar Bharat:** Usage of indigenous technologies like **Class-70 modular bridges** in these projects.

## Indian Navy to Commission First Indigenous Diving Support Craft 'DSC A20'

### What's the News?

- The **Indian Navy** is set to commission **DSC A20**, the first vessel of the indigenously designed and constructed **Diving Support Craft (DSC)**.
- The commissioning ceremony will take place at **Kochi**, under the aegis of the **Southern Naval Command**, with **Vice Admiral Sameer Saxena** (Flag Officer Commanding-in-Chief, Southern Naval Command) presiding over the event.
- This vessel is the **first of five** such crafts being built, marking a significant step in enhancing India's **underwater support capabilities** through domestic manufacturing.

### DSC A20: Capabilities & Design

- **Builder:** **Titagarh Rail Systems Limited (TRSL)**, Kolkata.
- **Displacement:** **~300 tonnes** (medium-sized coastal craft).
- **Hull Design:** **Catamaran hull form**, offering:
  - Superior stability and seakeeping in rough seas.
  - Larger usable deck area for equipment handling.
- **Specialised Systems:**
  - **State-of-the-art diving systems**, compliant with **Indian Register of Shipping (IRS)** Naval Rules & Regulations.
  - Integrated recompression chamber, launch & recovery systems for divers/ROVs.

- Underwater inspection and light salvage tools.
- **Validation:** Underwent **hydrodynamic analysis and model basin testing** at the **Naval Science and Technological Laboratory (NSTL)**, Visakhapatnam.

### Operational Roles & Significance

- **Primary Role:** The DSC A20 is purpose-built for diving operations in **coastal waters** and harbours.
- **Mission Profiles:**
  - **Underwater repair and maintenance** of ships and harbor infrastructure.
  - **Salvage assistance** and recovery operations.
  - **Underwater inspection** and patrol.
- **Strategic Impact:** The induction strengthens the Navy's ability to conduct sustained diving operations near the coast, reducing reliance on larger, blue-water assets for routine harbor tasks.
- **Self-Reliance:** It serves as a testament to the '**Make in India**' initiative, showcasing successful collaboration between the Navy, private industry (TRSL), and research bodies (NSTL).

### Additional Info

- **Diving Support Craft (DSC) Project:**
  - The contract for **five DSCs** was signed between the Ministry of Defence and **Titagarh Wagons Ltd (now TRSL)** in February 2021.
  - These vessels are intended to replace existing, aging diving support assets.
- **Titagarh Rail Systems Limited (TRSL):**
  - Originally a major player in **railway rolling stock** (freight wagons, metro coaches).
  - This project marks its successful entry and delivery in the **warship building** domain.
- **Southern Naval Command:**
  - Headquartered in **Kochi, Kerala**.
  - It is the **Training Command** of the Indian Navy, responsible for the training of officers and sailors.

## Exercise Desert Cyclone II: India-UAE Joint Military Exercise

### What's the News?

- **Exercise Desert Cyclone II**, a bilateral military exercise between **India and the United Arab Emirates (UAE)**, is underway focusing on **urban warfare training and interoperability** between the two armed forces.
- The exercise aims to enhance **operational coordination**, share best practices, and strengthen **strategic defense cooperation** in complex urban combat scenarios. (PIB)

### Overview of Exercise Desert Cyclone II

- **\*Participating Countries**
  - **India**
  - **United Arab Emirates (UAE)**
- **Focus Areas**
  - **Urban warfare skills**

- Joint operational planning
- Tactical manoeuvres in built-up areas
- Coordination among combined arms units
- **Military Units Involved**
  - Infantry and mechanised formations
  - Combat support elements
  - Observers and planners from both armies
- **Key Activities**
  - Simulated urban combat drills
  - Live-firing exercises
  - Tactical decision-making exercises
  - Inter-unit communication drills

## India-UAE Relations in 2025

- **India and the United Arab Emirates (UAE)** share a **comprehensive strategic partnership** rooted in strong economic ties, defence cooperation, cultural links, and people-to-people interactions.
- In 2025, bilateral relations have deepened across **trade, energy, security, culture, and multilateral engagement**.

## Key Dimensions of the Relationship

### 1. Strategic & Defence Cooperation

- India and the UAE conduct **joint military exercises**, such as **Exercise Desert Cyclone II**, enhancing interoperability and urban warfare capabilities of both armies.
- Defence ties include **training exchanges, port calls, and maritime security collaboration** in the **Indian Ocean Region**.

### 2. Economic & Trade Links

- UAE is among India's **top trading partners** and a major source of **energy imports**.
- Bilateral trade spans **hydrocarbons, petrochemicals, gems & jewellery, agriculture, and services**.
- Both countries are exploring **investment partnerships** in infrastructure, technology, and renewable energy.

### 3. Energy & Investment Cooperation

- UAE supports India's **energy security** through **crude oil supplies** and investments in **refining and petrochemicals**.
- Joint ventures and sovereign investments target **strategic sectors** including logistics, technology, and clean energy.

### 4. People-to-People & Diaspora

- A **large Indian diaspora** in the UAE contributes to the economy and remittances.
- Cultural exchanges and labour mobility frameworks enhance social linkages.

### 5. Multilateral & Regional Engagement

- Both countries cooperate in **global forums** on issues such as climate change, sustainable development, and counterterrorism.
- Shared interests in **regional stability**, especially in **West Asia and the Indian Ocean**.

## Successful Maiden Flight Test of Pinaka Long Range Guided Rocket (LRGR 120)

### What's the News?

- The **Defence Research and Development Organisation (DRDO)** successfully conducted the maiden flight test of the **Pinaka Long Range Guided Rocket (LRGR 120)** at the **Integrated Test Range (ITR)** in **Chandipur, Odisha**.
- The rocket reached its maximum strike range of **120 km**, demonstrating all planned in-flight manoeuvres and hitting its target with **"textbook precision"**.
- The successful test coincided with the **Defence Acquisition Council (DAC)** granting **Acceptance of Necessity (AoN)** for defence procurement worth **₹79,000 crore**, which includes these long-range guided rockets for the **Indian Army**.

### What is Pinaka LRGR-120?

- An indigenously developed, **precision-guided rocket** variant of the **Pinaka Multi-Barrel Rocket Launch System (MBRL)**.
- Designed to enhance long-range artillery capabilities with minimal collateral damage.
- **Developed by:**
  - **Armament Research & Development Establishment (ARDE)** (lead)
  - In association with **High Energy Materials Research Laboratory (HEMRL)**
  - Supported by **Defence Research & Development Laboratory (DRDL)** and **Research Centre Imarat (RCI)**.

### Key Features

- **Range: 120 km** - a major increase over earlier Pinaka variants (40–75 km).
- **Precision Guidance:** Achieved direct hit on target with high accuracy, leveraging onboard guidance and control systems.
- **Launcher Compatibility:** Fired from the **in-service Pinaka launcher**, enabling seamless integration and *multi-variant firing capability* (e.g., standard, guided, extended-range) from a single platform.
- **In-flight Manoeuvrability:** Validated via full-trajectory tracking by ITR instruments.

### Additional Info

- **Development Team:**
  - Designed by the Pune-based **Armament Research and Development Establishment (ARDE)**.
  - Developed in association with **High Energy Materials Research Laboratory (HEMRL)**.
  - Technical support provided by **Defence Research and Development Laboratory (DRDL)** and **Research Centre Imarat (RCI)**.
- **Pinaka Evolution:**
  - **Pinaka Mk-I:** Unguided version with a range of ~40 km.
  - **Pinaka Mk-II / Guided:** Range of 60–90 km.

- **LRGR 120:** Precision-guided version with a 120 km range.
- **Operational Details:**
  - The **Pinaka Multi-Barrel Rocket Launcher (MBRL)** can fire a full salvo of **12 rockets** in approximately **44 seconds**.
  - One battery consists of six launch vehicles, capable of neutralizing an area of **1 km x 1 km**.
- **Historical Context:**
  - The **Pinaka** system was first used effectively during the **1999 Kargil War** while still in the development phase.
  - It was developed as an indigenous alternative to the Russian '**Grad**' multi-barrel rocket systems.

- **K-15 (Sagarika):** Short-range SLBM (750 km), already operational.
- **K-5 and K-6:** Future variants under development with ranges expected to exceed 5,000 km and 6,000 km respectively.
- **SSBN vs SSN:**
  - **SSBN:** Nuclear-powered ballistic missile submarine (e.g., **INS Arighaat**) designed for strategic deterrence.
  - **SSN:** Nuclear-powered attack submarine designed for hunter-killer missions against other ships and submarines.

## **India Successfully Tests K-4 Nuclear Missile from INS Arighaat**

### **What's the News?**

- India successfully test-fired the **K-4 Submarine-Launched Ballistic Missile (SLBM)** from the nuclear-powered submarine **INS Arighaat** off the coast of **Odisha**.
- The missile, which has a strike range of **3,500 km**, was tested in a "user configuration," demonstrating its operational readiness and high accuracy.
- This test marks a significant milestone as it is the first time the **K-4** has been launched from **INS Arighaat**, India's second **Arihant-class** nuclear-powered ballistic missile submarine (SSBN).

### **What is the K-4 Missile?**

- A **nuclear-capable, intermediate-range, two-stage solid-fuel SLBM** developed by the **Defence Research and Development Organisation (DRDO)** under the legacy of the **Integrated Guided Missile Development Programme (IGMDP)**.
- Named in honour of **Dr. APJ Abdul Kalam** ('K' series).
- Key specifications 348:
  - **Range:** ~3,500 km
  - **Length:** ~12 metres
  - **Weight:** ~17 tonnes
  - **Payload capacity:** 1–2 tonnes (nuclear warhead)
  - **Launch method:** Cold launch via ejection from submerged silo, ignition after surfacing.

### **Additional Info**

- **INS Arighaat:**
  - Commissioned in August 2024, it is the second submarine of the **Arihant-class**.
  - It is slightly more advanced and can carry more missiles than its predecessor, **INS Arihant**.
- **The 'K' Missile Family:**
  - Named after former President **Dr. APJ Abdul Kalam**.

# International Relations

## India Re-Elected to UNESCO Executive Board for 2025-29 Term

### What's the News?

- **India** has been re-elected to the **UNESCO Executive Board** for the **2025–2029** term, securing a decisive victory that reflects the international community's confidence in its leadership.
- The re-election allows India to continue playing a pivotal role in shaping global policies on **education, culture, science, and communication**.
- This achievement underscores India's commitment to **multilateralism** and its vision of **inclusive, human-centric development** on the global stage.

### Highlights of the Election

- **Electoral Group:** India was re-elected from **Group IV** (Asia and the Pacific).
- **Voting Support:** India secured **163 votes**, demonstrating strong diplomatic support among member states.
- **Other Elected Members:** Alongside India, other nations elected from the Asia-Pacific group include **Malaysia (167 votes)**, **Kyrgyzstan (163)**, **China (162)**, **Thailand (161)**, and **Japan (159)**.
- **Term Duration:** The new term will span four years, from **2025 to 2029**.

### What is the UNESCO Executive Board?

- One of **three constitutional organs** of UNESCO, alongside the **General Conference** and the **Secretariat**.
- **Composition:** 58 Member States, elected for **four-year terms** by the General Conference through regional groupings to ensure equitable representation.
- **Headquarters:** Paris, France.

### Key Functions & Powers

- **Approves UNESCO's programme and budget** submitted by the Director-General.
- **Prepares agenda and recommendations** for the General Conference.
- **Supervises implementation** of adopted programmes and ensures decisions are executed.
- Advises on **appointment of the Director-General** and **admission of new Member States**.
- Convenes **international conferences** on education, science, and culture.

### Additional Info

- **UNESCO (United Nations Educational, Scientific and Cultural Organization):**
  - **Founded:** 1945.
  - **Headquarters:** Paris, France.
  - **Mission:** To contribute to peace and security by promoting international collaboration through education, science, and culture.
  - **Key Initiatives:** World Heritage Sites, Biosphere Reserves, Creative Cities Network.

### India & UNESCO:

- India has been a founding member of UNESCO (ratified constitution in 1946).
- Home to **43 World Heritage Sites** (as of late 2024/early 2025 data).
- Active participant in the **Intangible Cultural Heritage** lists (e.g., Yoga, Kumbh Mela, Durga Puja).

## Seventh UN Environment Assembly (UNEA-7) Kicks Off in Nairobi

### What's the News?

- The **Seventh Session of the United Nations Environment Assembly (UNEA-7)** has commenced at the **UN Environment Programme (UNEP)** headquarters in **Nairobi, Kenya**.
- Running from **December 8–12, 2025**, the assembly brings together representatives from **193 Member States** under the theme "**Advancing sustainable solutions for a resilient planet**".
- The session aims to address the "**Triple Planetary Crisis**" - climate change, nature/biodiversity loss, and pollution; through collective global action and new policy frameworks.

### UNEA-7: Mandate & Significance

- Highest global decision-making body on the environment, established after **Rio+20 (2012)** to elevate environmental governance to parity with peace and development forums.
- Since 2014, previous six sessions have adopted **105 resolutions**, including landmark ones on plastic pollution and illegal wildlife trade.
- **2025 Theme:** "*Strengthening environmental action for a resilient, peaceful, and sustainable planet*" - aiming to align global efforts with climate, biodiversity, and pollution goals.

### Draft Resolutions Under Consideration

- **Safe, Responsible, and Sustainable Use of Artificial Intelligence:** Focus on assessing AI's environmental footprint and integrating sustainability in its life-cycle.
- **Glacier Conservation & Cryosphere Protection:** Addressing accelerated melting and water security risks.
- **Sargassum Seaweed Management:** Tackling unprecedented blooms affecting coasts of West Africa and the Caribbean.
- **Coral Reef Resilience:** Promoting ecosystem-based adaptation and restoration.
- **Strengthening UNEP's Nairobi Headquarters:** Enhancing its role as the global environmental hub.

### UNEP Medium-Term Strategy (2026–2030)

The MTS outlines six priority areas:

- **Climate stability**



- **Thriving biodiversity**
  - **Zero pollution**
  - **Resilient land and ecosystems**
  - **Sustainable resource use and circular consumption**
  - **Strengthened environmental governance**
- Adoption remains contentious due to geopolitical divides and funding shortfalls.

### Additional Info

- **The "Triple Planetary Crisis":**
  - A framework used by the UN to describe the three interlinked issues humanity faces:
    1. **Climate Change:** Increasing global temperatures.
    2. **Biodiversity Loss:** Extinction of species and degradation of ecosystems.
    3. **Pollution & Waste:** Air, land, and water contamination (including plastics).
- **Constitutional Context (India):**
  - **Article 48A (DPSP):** Mandates the State to protect and improve the environment and safeguard forests and wildlife.
  - **Article 51A(g) (Fundamental Duties):** Makes it a duty of every citizen to protect and improve the natural environment, including forests, lakes, rivers, and wildlife.
- **Key Organization:**
  - **UNEP (United Nations Environment Programme):** Headquartered in **Nairobi, Kenya**, it acts as the secretariat for UNEA and is the leading global environmental authority.

## Cabinet Approves India-Oman Free Trade Agreement Ahead of PM's Visit

### What's the News?

- The **Union Cabinet**, chaired by Prime Minister **Narendra Modi**, has approved the signing and ratification of the **Comprehensive Economic Partnership Agreement (CEPA)** between **India and Oman**.
- This approval comes just days before the Prime Minister's scheduled visit to the Gulf nation, following a similar clearance by **Oman's Shura Council** (Parliament).
- The pact aims to significantly boost bilateral trade and investment, marking India's **second free trade agreement** with a **Gulf Cooperation Council (GCC)** country, after the **UAE**.

### Features of the CEPA

- **Tariff Liberalisation:**
  - Oman to grant **up to 98% tariff-free access** to Indian goods, eliminating or reducing duties averaging **5%**, with current rates ranging **0–100%**.
  - Over **98% of Indian exports** expected to benefit from duty elimination/reduction under the pact.
- **Sectoral Coverage:**
  - Key Indian export sectors: **petroleum products, chemicals, textiles, gems & jewellery,**

**engineering goods, electronics, pharmaceuticals, and agri-food products.**

- Services and investment liberalisation included, with mutual commitments to **fair rules of origin** to prevent third-country dumping.
- **Trade Facilitation Measures:**
  - **Five-year multiple-entry 'India Business Card' visas** for executives of firms investing above **US\$1 million**, issued within **15 days**.
  - Streamlined customs procedures and digital documentation protocols.

### Bilateral Trade Snapshot (FY 2024–25)

- **Total trade: US\$10.61 billion** (↑18.6% YoY)
  - Indian exports: **US\$4.06 billion**
  - Indian imports: **US\$6.55 billion**
- **Trade deficit: ~US\$2.5 billion**, primarily driven by crude oil and LNG imports.
- Top Indian exports: refined petroleum, machinery, iron & steel, organic chemicals.
- Top imports from Oman: crude oil, LNG, fertilisers, minerals.

### Negotiation & Implementation Timeline

- Negotiations launched in **November 2023**.
- Text finalised and negotiations concluded in **mid-2025**.
- Cabinet approval granted on **December 12, 2025**.
- Agreement expected to be **signed on December 17–18, 2025**, during PM Modi's visit.

## US Launches "Pax Silica" Initiative; India Excluded from New Critical Mineral & AI Pact

### What's the News?

- The **United States** has launched a new nine-nation strategic alliance titled **"Pax Silica"** to secure global supply chains for **semiconductors, artificial intelligence (AI), and critical minerals**.
- The initiative aims to reduce global reliance on **China** for high-tech components. However, **India has been excluded** from the founding group, despite its status as a key US strategic partner and a member of the **Quad**.
- The alliance was unveiled at the inaugural Pax Silica Summit in **Washington, D.C.**, attended by the US and eight other partner nations.

### What is the "Pax Silica" Initiative?

- **Meaning:** The term combines **"Pax"** (Latin for peace/stability) and **"Silica"** (referring to Silicon, the base material for chips). It frames **technological dominance** in chips and AI as central to future global stability, serving as a counter-narrative to **"Pax Sinica"** (Chinese dominance).
- **Core Objective:** To create a **"trusted technology ecosystem"** where member nations coordinate on:
  - **Critical Minerals:** Securing access to rare earth elements essential for tech.

- **Semiconductors:** diverse and resilient chip manufacturing capabilities.
- **AI Infrastructure:** Protecting sensitive data and AI models from “countries of concern” (implicitly China).
- **Member Nations:** The founding members are the **US, Japan, South Korea, Singapore, the Netherlands, the United Kingdom, Israel, the UAE, and Australia.**
  - *Note:* These countries represent key “choke-points” in the tech supply chain (e.g., Dutch lithography machines, Australian minerals, US/UK design, Taiwan’s manufacturing capacity as a guest).

### Why was India Excluded?

Despite India's “**Initiative on Critical and Emerging Technology (iCET)**” with the US, it was left out due to several potential factors:

- **Capability Gap:** The initiative focuses on nations that **currently possess** advanced capabilities in the high-end value chain (e.g., advanced chip manufacturing or massive mineral processing). India is seen primarily as a **market** and **chip designer** rather than a manufacturing hub *at this stage*.
- **Trade & Regulatory Tensions:** Reports suggest friction in **US-India trade negotiations**, particularly regarding **data flows, tariffs**, and India's hesitation to open sectors like **agriculture** and **e-commerce** to US firms.
- **Labor & Standards:** The US often links such exclusive high-standard pacts with strict **labor and environmental standards**, which India sometimes finds restrictive.

### Additional Info

- **Strategic Implications for India:**
  - **Missed Opportunity:** Exclusion limits India’s immediate access to high-level coordination on **next-gen chip supply chains**.
  - **China Factor:** The group aims to counter China, which controls **~60-70%** of global rare earth processing. India’s exclusion might slow its own efforts to decouple from Chinese inputs.
- **Guest Participants:** While not full members, **Taiwan**, the **European Union**, and **Canada** participated as guests.
- **Related US-India Mechanisms:**
  - **iCET:** The main bilateral framework for tech co-operation (Space, AI, Defense).
  - **Minerals Security Partnership (MSP):** A US-led group that **India has joined**, focusing purely on critical minerals rather than the broader “AI + Chip” scope of Pax Silica.

## India–ADB Loan Agreements for Development Projects

### What’s the News?

- The **Government of India** and the **Asian Development Bank (ADB)** signed **five loan agreements** totaling **over USD 2.2 billion** to support key development initiatives across sectors such as **skilling, renewable energy, healthcare, urban transport, and ecotourism**.

### Key Projects & Loan Breakdown

- **Skill Development (\$846 Million):**
  - Funds the **Pradhan Mantri Skilling and Employability Transformation (PM-SETU)** through the Upgraded Industrial Training Institutes (ITIs) Programme.
  - **Objective:** Modernize **650 ITIs** across **12 states** and upgrade **5 National Skill Training Institutes** into centers of excellence to create a future-ready workforce.
- **Renewable Energy (\$650 Million):**
  - Allocated for the **Accelerating Affordable and Inclusive Rooftop Solar Systems Development Programme**.
  - **Objective:** Support the **Pradhan Mantri Surya Ghar: Muft Bijli Yojana** to facilitate rooftop solar adoption for **10 million households** by 2027.
- **Healthcare in Assam (\$398.8 Million):**
  - Funds the **Assam State Tertiary Health Care Augmentation Project**.
  - **Objective:** Modernize medical colleges in **Guwahati, Dibrugarh, and Silchar**, developing them into centers of excellence under the Srimanta Sankaradeva University of Health Sciences.
- **Chennai Metro Expansion (\$240 Million):**
  - Supports the second tranche of the **Chennai Metro Rail Investment Project**.
  - **Objective:** Develop **20 km** of elevated and underground corridors and construct **18 new stations** with climate-resilient features.
- **Meghalaya Ecotourism (\$77 Million):**
  - Funds the **Integrated Ecotourism and Sustainable Agri-based Livelihood Development Project**.
  - **Objective:** Promote nature-based tourism and climate-smart farming, benefiting **8,000 beneficiaries** including indigenous communities.

### Additional Info

- **Asian Development Bank (ADB):**
  - **Headquarters:** Manila, Philippines.
  - **Role:** A regional development bank established in **1966** to promote social and economic development in Asia.
  - **India:** A founding member and the bank's **fourth-largest shareholder**.
- **Pradhan Mantri Surya Ghar: Muft Bijli Yojana:**

- Launched to provide **free electricity** (up to 300 units) to 1 crore households via rooftop solar panels.
- **Subsidies:** Covers up to 60% of the cost for 2kW systems and 40% for systems between 2-3kW.

## **India and Oman Sign Landmark Comprehensive Economic Partnership Agreement (CEPA)**

### **What's the News?**

- **India and Oman** have officially signed a **Comprehensive Economic Partnership Agreement (CEPA)** to significantly deepen bilateral economic engagement.
- This landmark agreement marks **Oman's** first bilateral trade deal with any country since 2006 and **India's** second CEPA with a **Gulf Cooperation Council (GCC)** member after the **UAE**.
- The pact aims to eliminate or reduce customs duties on the majority of goods, liberalize services trade, and enhance the mobility of professionals.
- It is expected to boost **Indian exports** by at least **\$2 billion** in the near term and strengthen supply chain resilience in the **Gulf region**.

### **Provisions of the CEPA**

- **Tariff Liberalisation:**
  - Oman grants duty-free access on **98.08% of its tariff lines**, covering **99.38% of India's exports by value**.
  - India offers liberalised tariffs on **77.79% of its tariff lines**, covering **94.81% of imports from Oman**.
- **Coverage of Indian Exports to Oman (2024–25):**
  - Total: **\$4.06 billion**
  - Top categories:
    - Petroleum products: **35.1%**
    - Processed minerals: **9.2%**
    - Aircraft & parts: **4.3%**
    - Cosmetics & toiletries: **3.6%**
    - Basmati rice: **3.6%***(Top 5 categories = ~55% of exports).*
- **Coverage of Indian Imports from Oman (2024–25):**
  - Total: **\$6.5 billion**
  - Top categories:
    - Crude oil & petroleum gases: **38%**
    - Mineral/chemical fertilisers: **16.3%**
    - Acyclic alcohols: **6.6%**
    - Ammonia: **5.8%***(Top 4 categories = ~66% of imports).*

### **Boost to Labour-Intensive Sectors**

The CEPA provides **full tariff elimination** for key employment-generating sectors, strengthening **MSMEs**, **artisans**, and **women-led enterprises**:

- **Gems & jewellery**
- **Textiles**

- **Leather & footwear**
- **Sports goods**
- **Plastics & furniture**
- **Agricultural products**
- **Engineering products**
- **Pharmaceuticals & medical devices**
- **Automobiles.**

India has retained safeguards for sensitive items, including:

- Dairy, tea, coffee, rubber, tobacco
- Gold & silver bullion, jewellery
- Scrap of base metals.

### **Services Sector Opportunities**

Oman has made **unprecedented commitments** across **127 sub-sectors**, including:

- **IT & computer-related services**
- **Business & professional services**
- **Audio-visual, R&D, education**
- **Health & medical services.**

Additional benefits:

- **100% FDI** allowed for Indian companies in major services sectors via commercial presence.
- Expected to unlock high-value jobs and deepen commercial engagement.

### **Enhanced Mobility for Indian Professionals (Mode 4)**

For the first time, Oman has offered substantial **Mode 4 (movement of natural persons)** commitments 35:

- **Intra-Corporate Transferees (ICT)** quota increased from **20% to 50%**.
- **Contractual Service Suppliers (CSS)** stay extended from **90 days to 2 years**, with potential **2-year extension**.
- Liberal entry/stay for professionals in:
  - Accountancy & taxation
  - Architecture
  - Medical & allied services.

### **Additional Info**

- **Institutional Mechanisms:**
  - **Oman-India Joint Investment Fund (OIJIF):** A **50:50 joint venture** between the **State Bank of India** and the **Oman Investment Authority**, which has facilitated multi-tranche investments in Indian projects.
  - **OMIFCO:** A flagship **\$969 million** joint venture fertilizer plant in **Oman** that significantly supports **India's urea** requirements.
- **Diaspora and Remittances:**
  - Approximately **6.75 lakh Indian nationals** reside in **Oman**, contributing nearly **\$2 billion** in annual remittances to **India**.



## India and the Netherlands Establish Joint Trade and Investment Committee (JTIC)

### What's the News?

- **India** and the **Netherlands** have formally established the **Joint Trade and Investment Committee (JTIC)** to deepen bilateral economic engagement and address barriers to trade and investment.
- The decision was formalized through a **Memorandum of Understanding (MoU)** signed between the **Ministry of Commerce and Industry** (India) and the **Ministry of Foreign Affairs** (Netherlands).
- The announcement coincided with the visit of Dutch Foreign Minister **David van Weel** to India, following high-level discussions aimed at strengthening strategic cooperation in emerging sectors.

### Joint Trade and Investment Committee (JTIC)

- **Purpose:** Institutional mechanism for **regular dialogue** on trade and investment matters.
- **Functions:**
  - Review the **bilateral trade relationship** and investment flows.
  - Promote **two-way investments** and address **trade barriers**.
  - Facilitate cooperation across sectors of **mutual interest**.
- **Meetings:**
  - Annual meetings alternately hosted in **India and the Netherlands**.
  - Co-chaired by senior officials from both countries.

### Significance of Indo-Dutch Trade

- **Trade Statistics:** Total bilateral trade reached **\$27.78 billion** in FY25, with India maintaining a substantial trade surplus of **\$17.769 billion**.
- **Export Gateway:** The Netherlands is India's **largest merchandise export destination** in Europe, serving as a critical gateway for Indian goods into the European Union (EU).
- **Investment Partnership:** The Netherlands ranks as India's **4th largest foreign investor**, with cumulative Foreign Direct Investment (FDI) exceeding **\$53 billion** as of March 2025.
- **Key Exports:** Major Indian exports to the Netherlands include **petroleum products**, electronics, engineering goods, and organic chemicals.

### Additional Info

- **Strategic MoUs:**
  - Alongside the JTIC, both nations have advanced cooperation in **Semiconductors**, **Digital Technologies**, and **Green Shipping**.
  - An agreement was noted for the development of the **National Maritime Heritage Complex** at Lothal, Gujarat.
- **Sectoral Focus:** The "WAH" agenda—**Water, Agriculture, and Health**—remains a cornerstone of the partnership, including a new agreement in the **pharmaceutical and medical device** sectors.

- **Policy Link:** This initiative aligns with India's broader strategy to diversify its range of trading partners and strengthen economic ties with EU member states ahead of decisive free trade talks.

## IMF Approves \$206 Million Emergency Funding for Cyclone-Hit Sri Lanka

### What's the News?

- The **Executive Board of the International Monetary Fund (IMF)** has approved approximately **\$206 million** (SDR 150.5 million) in emergency financial assistance for **Sri Lanka**.
- The funding is provided under the **Rapid Financing Instrument (RFI)** to address urgent balance-of-payments and fiscal pressures caused by the catastrophic **Cyclone Ditrwah**, which struck the island nation on **November 17**.
- The disaster resulted in significant loss of life, with **643 deaths** reported, and caused widespread destruction to infrastructure, agriculture, and livelihoods.
- Due to the need to assess the cyclone's impact, the **Fifth Review** of Sri Lanka's existing **\$2.9 billion Extended Fund Facility (EFF)** has been deferred to early **2026**.

### Rapid Financing Instrument (RFI)

- **Purpose:** A financial facility of the **IMF** that provides **rapid, short-term financial assistance** to member countries facing urgent **balance-of-payments needs** due to crises such as **natural disasters**, external shocks, or economic instability.
- **Key Features:**
  - **Single, rapid disbursement** of funds to meet immediate financing gaps.
  - **No extensive conditionality** or long-term programme review requirements.
  - **Access limits** may vary based on the nature of the shock; in disaster cases, higher quota access is allowed.
  - **Repayment terms** typically span **3¼ to 5 years** with interest linked to standard IMF rates.
- **Contrast with Extended Fund Facility (EFF):**
  - RFI is **emergency-oriented** with minimal conditions.
  - EFF involves **structured economic reform programmes** and periodic reviews.

### Impact and Recovery Measures

- **Funding Utilization:** The **\$206 million** (equivalent to 26% of Sri Lanka's quota) will act as crucial budget support for humanitarian relief, restoration of essential services, and repairs to macro-critical infrastructure.
- **Domestic Allocation:** Separate from the IMF aid, the **Sri Lankan Parliament** approved a supplementary estimate of **LKR 500 billion** (approx. **\$1.64 billion**) to restore livelihoods affected by the disaster.



- **Accountability Standards:** The IMF emphasized that all emergency spending must comply with the **Public Financial Management Act**, supported by enhanced monitoring and regular public reporting to ensure transparency.
- **Sectoral Damage:** Early assessments indicate a short-term slowdown in economic activity, particularly in **agriculture** and **tourism**, which are vital to the nation's growth.

### Additional Info

- **Extended Fund Facility (EFF):**
  - Sri Lanka entered a **48-month EFF** arrangement in **March 2023** following its first-ever sovereign default.
  - The program requires "hard reforms" focused on revenue-based fiscal consolidation and rebuilding foreign exchange reserves.
- **Multilateral Support:**
  - **World Bank:** Reallocating **\$120 million** from ongoing projects for disaster recovery.
  - **Asian Development Bank (ADB):** Approved a **\$200 million** loan for water management initiatives post-cyclone.

## China Challenges India's ICT Tariffs and Solar Subsidies at the WTO

### What's the News?

- **China** has formally initiated a dispute against **India** at the **World Trade Organization (WTO)**, challenging New Delhi's tariff treatment and subsidy measures in strategic sectors.
- The complaint specifically targets India's **Information and Communication Technology (ICT)** products and policy support for the **solar manufacturing** industry.
- This move initiates a request for **consultations**, which is the first formal step in the WTO's rules-based dispute settlement process.
- The filing follows a separate complaint lodged by **Beijing** in **October 2025** regarding India's subsidies for electric vehicles and battery production.

### China's WTO Complaint: Core Issues

#### Objective of the Complaint:

- China has **requested WTO consultations** with India, which is the **mandatory first step** in the WTO dispute settlement process to resolve disagreements before escalating to a formal panel.
- The complaint focuses on **tariffs on ICT products**, including potentially high duties on imports, and **support measures (subsidies/incentives)** for **solar cells and solar modules** that China alleges distort trade.

#### Legal Grounds Cited by China:

- **Alleged violations of WTO rules**, including:
  - **National Treatment Principle** - requires WTO members to treat imported and domestic products equally.

- **Subsidies and Countervailing Measures Agreement** - prohibits certain subsidies that distort trade.
- **General Agreement on Tariffs and Trade (GATT) 1994** — governs tariffs and trade practices.

### China's Position:

- Claims India's **tariffs and incentive conditions** (e.g., local content requirements under incentives) **discriminate against Chinese-origin goods** and harm China's exporters.
- Argues the measures amount to **import-substitution subsidies**, which are prohibited under WTO norms.

### Additional Info

- **WTO Dispute Settlement Procedure:**
  - **Consultation Period:** Disputing members have **60 days** to find a negotiated solution; if failed, the complainant may request an independent **dispute settlement panel** to adjudicate.
  - **Appellate Crisis:** While panels continue to function, the **Appellate Body** has been stalled since **December 2019** due to blocked appointments, complicating final legal reviews.
- **Trade Dynamics (2024-25):**
  - **Trade Deficit:** India's trade deficit with **China** reached **\$99.2 billion** in the last fiscal year.
  - **Import-Export Trends:** Imports from China grew by **11.5%** to **\$113.5 billion**, while India's exports to China contracted by **14.5%** to **\$14.3 billion**.
- **Legal Framework:**
  - **GATT 1994:** The general international agreement governing trade in goods.
  - **SCM Agreement:** The **Agreement on Subsidies and Countervailing Measures** which regulates the use of subsidies.
  - **TRIMs Agreement:** The **Agreement on Trade-Related Investment Measures** which prohibits measures that restrict trade or distort competition.

## India Announces \$450 Million Relief Package for Sri Lanka's Post-Cyclone Recovery

### What's the News?

- External Affairs Minister **S. Jaishankar** announced a **\$450 million** relief and recovery package for **Sri Lanka** during his visit to Colombo.
- The package is aimed at supporting the island nation's recovery from the devastating impact of **Cyclone Dityah**, which caused widespread damage to infrastructure and livelihoods.
- During the visit, the Minister met with top Sri Lankan leadership, including the President and Prime Minister,

to reaffirm India's commitment to its **"Neighbourhood First"** policy.

### Components of the Relief Package

- **Infrastructure Rehabilitation:** A significant portion of the aid is dedicated to the restoration of critical infrastructure, including damaged power grids, roads, and bridges.
- **Housing Support:** The package includes a component for rebuilding homes destroyed by the cyclone, particularly in the most affected coastal and northern regions.
- **Health and Humanitarian Aid:** India will provide essential medicines, medical supplies, and food assistance to support communities facing immediate shortages.
- **Livelihood Assistance:** Funds are earmarked for the recovery of the agricultural and fisheries sectors, which were severely hit by the storm surges and heavy rainfall.

### Additional Info

- **Cyclone Ditwah:**
  - A severe cyclonic storm that tracked across the Bay of Bengal, making landfall on Sri Lanka's eastern coast before moving towards southern India.
  - It resulted in significant casualties and displaced thousands of people across the island.
- **India-Sri Lanka Economic Ties:**
  - India remains Sri Lanka's largest trading partner and one of the largest contributors to **Foreign Direct Investment (FDI)** in the country.
  - Under the **"Neighbourhood First"** policy, India has previously provided over \$4 billion in financial assistance to Sri Lanka during its 2022 economic crisis.
- **SAGAR Vision:**
  - The aid aligns with India's vision of **Security and Growth for All in the Region (SAGAR)**, emphasizing collective action and maritime co-operation.

# International

## Australia Enforces World's First Social Media Ban for Under-16s

### What's the News?

- **Australia** has officially implemented its landmark legislation, the **Online Safety Amendment (Social Media Minimum Age) Act 2024**, which came into full effect in **December 2025**.
- The law makes Australia the **first country in the world** to impose a strict ban on children under the age of **16** from holding social media accounts.
- Major tech giants, including **Meta (Instagram, Facebook)**, **TikTok**, **Snapchat**, and **X (formerly Twitter)**, are now legally required to block underage users or face massive fines.

### Provisions of the Law

#### 1. Liability on Platforms, Not Parents

- The legislation places the **onus entirely on social media platforms** to enforce the ban.
- There are **no penalties for children** who bypass the rules or for their **parents**; the focus is solely on regulating the tech companies.

#### 2. Strict Penalties

- Platforms that fail to take "reasonable steps" to prevent under-16s from creating accounts face civil penalties of up to **AUD 49.5 million** (approx. ₹270 crore).

#### 3. Exemptions

- The ban focuses on platforms where "social interaction" is the primary purpose.
- **Exempt Services** include:
  - **Messaging apps** (e.g., WhatsApp) to ensure family communication.
  - **Online gaming platforms** (e.g., Roblox) and educational tools (e.g., Google Classroom).
  - Health and mental support services (e.g., Kids Helpline).

### Rationale & Privacy Concerns

- **Mental Health Focus:** The Australian government argued that social media harms children's mental health, citing issues like body image anxiety, cyberbullying, and exposure to misogynistic content.
- **Privacy Protections:** To address privacy concerns regarding age verification (e.g., uploading IDs), the law mandates that any data collected for age checks must be **destroyed** immediately after verification and cannot be used for commercial purposes.

### Additional Info

- **Comparison with India:**
  - Unlike Australia's "hard ban," India's **Digital Personal Data Protection (DPDP) Act, 2023** focuses on "**verifiable parental consent**" for users under **18**.
  - In India, platforms must not track behavioral monitoring or target ads at children, but they do

not strictly bar access if parental consent is provided.

- **Global Precedent:**

- This move is seen as a "test case" for other nations. Countries like the **UK** and **France** have considered similar age-gating measures but faced challenges with implementation and privacy.
- The "Brussels Effect" suggests that strict regulations in one major market (like the EU or now Australia) often force global tech platforms to standardize stricter safety norms worldwide.

## US Launches Operation Hawkeye Strike Against ISIS in Syria

### What's the News?

- The **U.S. Central Command (CENTCOM)** has launched **Operation Hawkeye Strike**, a series of large-scale, precision airstrikes against **ISIS** targets across **Syria**.
- The operation targeted over **70 ISIS locations**, including training camps, command and control centers, and weapons storage facilities, to disrupt the group's ability to plan and execute attacks.
- These strikes were described as **retaliatory** and defensive, following recent attacks on U.S. and coalition personnel in the region.
- U.S. Defense Secretary **Pete Hegseth** stated that the mission aims to ensure the **enduring defeat** of **ISIS** and protect national security interests.

### Operation Hawkeye Strike Details

- **Scale and Scope:** The operation involved a mix of U.S. Air Force and Navy assets, including **F-15E Strike Eagles**, **F-16 Fighting Falcons**, and **unmanned aerial vehicles (UAVs)**.
- **Target Selection:** Targets were identified through months of intelligence gathering, focusing on nodes that support **ISIS** recruitment, finance, and logistics.
- **Geographic Focus:** Strikes were concentrated in central and eastern Syria, areas where **ISIS** remnants have attempted to regroup in the vacuum of the ongoing Syrian conflict.
- **Casualty Assessment:** While CENTCOM confirmed significant damage to **ISIS** infrastructure, damage assessments are ongoing to determine the number of militants neutralized; no civilian casualties have been reported thus far.

### Context and Rationale

- **Rise in ISIS Activity:**
  - **ISIS** has resurged in parts of Syria and Iraq, increasing **attacks against security forces and civilians**.

- The region remains a volatile theatre with competing local and foreign actors.
- **Protection of Forces:**
  - The strikes were described as **retaliatory** and aimed at preventing further attacks on **US and coalition personnel** deployed in the region to counter ISIS and support local security partners.

### Additional Info

- **U.S. Central Command (CENTCOM):** One of the eleven unified combatant commands of the U.S. Department of Defense, responsible for the **Middle East, Central Asia**, and parts of **South Asia**.
- **ISIS in Syria:** Despite losing its physical territory in 2019, ISIS operates as an **insurgency**, utilizing desert hideouts (the Badiya) to launch hit-and-run attacks.
- **Legal Authority:** The U.S. conducts these operations under the **2001 Authorization for Use of Military Force (AUMF)** and the inherent right of self-defense under the **UN Charter**.
- **Regional Dynamics:** The strikes occur amidst a complex security landscape involving various actors, including the **Syrian government, Russia, Turkey, and Iran-backed militias**.

## Israel Becomes First UN Member to Recognize Somaliland's Independence

### What's the News?

- **Israel** officially recognized **Somaliland** as a sovereign and independent state, becoming the first **United Nations** member to do so.
- The decision was formalized through a joint declaration of mutual recognition signed by Israeli Prime Minister **Benjamin Netanyahu**, Foreign Minister **Gideon Sa'ar**, and Somaliland's President **Abdirahman Mohamed Abdullahi**.
- In a significant diplomatic shift, **Somaliland** announced its firm intention to accede to the **Abraham Accords**, aiming to foster regional peace and stability.
- Following Israel's announcement, **South Sudan** reportedly became the second country to officially recognize the breakaway region.

### Strategic Significance & Cooperation

- **Abraham Accords Integration:** Prime Minister **Netanyahu** stated that the recognition is aligned with the spirit of the **Abraham Accords**, looking to expand the framework into the Horn of Africa.
- **Maritime Security:** The recognition grants Israel a strategic foothold near the **Bab el-Mandeb Strait** and the **Gulf of Aden**, enhancing its ability to monitor **Houthi** activity and protect commercial shipping lanes.
- **Economic & Technical Partnership:** Israel plans to initiate immediate cooperation in sectors including **agriculture, health, technology, and water resilience**.

- **Port of Berbera:** Analysts highlight the strategic value of the **Port of Berbera**, which already hosts a **UAE** military base and serves as a vital alternative maritime outlet for landlocked **Ethiopia**.

### Global and Regional Backlash

- **Somalia's Reaction:** The Federal Government of **Somalia** condemned the move as an "unlawful step" and a "deliberate attack" on its sovereignty and territorial integrity.
- **African Union (AU):** The **AU** firmly rejected the recognition, warning that it sets a dangerous precedent for secessionist movements across the continent.
- **Middle Eastern Opposition:** **Egypt, Turkey**, and the **Arab League** condemned the decision, describing it as interference in Somalia's domestic affairs that could destabilize the Horn of Africa.
- **International Stance:** The **European Union** and the **United States** reaffirmed their support for Somalia's territorial integrity, with the U.S. stating it has no immediate plans to follow Israel's lead.

### Additional Info

- **Historical Context:**
  - **Somaliland** declared independence from **Somalia** in **1991** following a civil war.
  - Despite operating as a de facto state with its own **government, currency, and army**, it had lacked formal recognition from any UN member state for over three decades.
- **Geopolitical Interests:**
  - **China** has expressed strong opposition to the move, viewing it as a threat to maritime navigation and regional power balances where it holds influence, such as in **Djibouti**.
  - **Taiwan**, itself a territory with limited international recognition, welcomed Israel's decision.
- **Legal and Institutional Framework:**
  - **UN Charter:** Opponents cite the charter's emphasis on the **territorial integrity** of member states.
  - **Constitutional Precedent:** Most African nations adhere to the **African Union** principle of maintaining colonial-era borders to prevent widespread secessionism.