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Current Affairs

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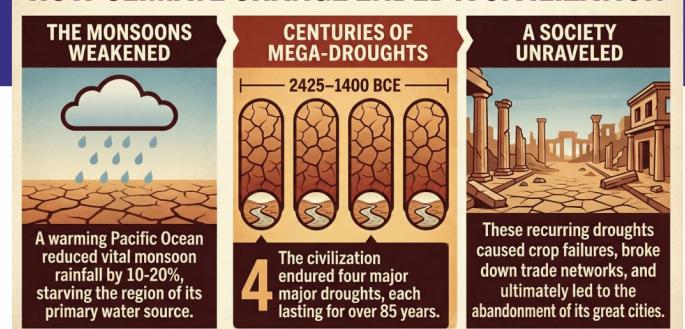
THE KING OF BIRDS: WESTERN TRAGOPAN

DADABHAI NAOROJI: THE ARCHITECT OF INDIAN FREEDOM

EXPOSED THE 'DRAIN OF WEALTH'
Used data to prove how British policies were siphoning resources from India.

FIRST INDIAN IN BRITISH PARLIAMENT
Elected in 1892, championed India's cause from within the heart of the British Empire.

CHAMPIONED 'SWARAJ' (SELF-RULE)
SWARAJ
In 1906, first to officially declare self-rule as the national goal for the Indian National Congress.

MENTORED A GENERATION OF LEADERS
Guided and inspired future stalwarts like Mahatma Gandhi, Bal Gangadhar Tilak, and Gopal Krishna Gokhale.

HOW CLIMATE CHANGE ENDED A CIVILIZATION

THE MONSOONS WEAKENED
A warming Pacific Ocean reduced vital monsoon rainfall by 10-20%, starving the region of its primary water source.

CENTURIES OF MEGA-DROUGHTS
2425–1400 BCE
4 The civilization endured four major major droughts, each lasting for over 85 years.

A SOCIETY UNRAVELED
These recurring droughts caused crop failures, broke down trade networks, and ultimately led to the abandonment of its great cities.

Gist of

THE HINDU

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Kurukshetra A JOURNAL ON RURAL DEVELOPMENT

YOJANA

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INDEX

CURRENT AFFAIRS

Sensex and Nifty Record Highs

Context

India's benchmark indices **Sensex** and **Nifty** are touching fresh record highs. The uptrend is led mainly by a **small group of large-cap heavyweights**, particularly major banks and Reliance Industries. This has triggered concerns about **market concentration** and weak overall market breadth.

About the Indices

1. BSE Sensex

- **Exchange:** Bombay Stock Exchange (BSE)

- **Composition:** 30 established, financially strong companies from key sectors.

- **Base Year & Base Value: 1978–79**, Base Value **100**.

- **Calculation:** Free-Float Market Capitalisation method (weights depend only on publicly tradable shares).

- **Role:** India's **oldest and most tracked index**, representing market performance on the BSE.

2. Nifty 50

- **Exchange:** National Stock Exchange (NSE)

- **Composition:** 50 largest and most liquid companies across major sectors.

- **Base Date & Base Value: 3 November 1995**, Base Value **1000**.

- **Calculation:** Free-Float Market Capitalisation method.

- **Role:** A broad indicator of the Indian equity market, covering diversified sectors and companies.

Stock Exchanges: BSE and NSE

Exchange	Full Name	Established	Key Features
BSE	Bombay Stock Exchange	**1875**	Asia's oldest stock exchange; moved from open-cry to electronic trading with **BOLT** in 1995.
NSE	National Stock Exchange	**1992** (Incorporated)	India's first nationwide, fully electronic exchange; introduced modern **screen-based, order-driven trading** in 1994.

Key Drivers and Concerns of the Current Rally

Drivers of the Surge

- **Global Sentiment:** Expectations of a possible US Federal Reserve rate cut have improved global risk appetite, increasing FII interest in Indian markets.

- **Lower Crude Oil Prices:** Softening oil prices reduce India's import burden, ease inflationary pressure, and strengthen corporate profitability.

- **Earnings Outlook:** Corporate earnings appear to be stabilising, with prospects of double-digit growth in the upcoming financial years.

- **Domestic Flows:** Strong investments from DIIs and steady inflows into mutual funds continue to support markets.

Market Concentration Concerns

- **Narrow Leadership:** The market's record highs are being driven by a **small set of heavyweight stocks**, creating a skewed index performance.

- **Weak Breadth:** Many mid-cap and small-cap stocks remain far below their peaks, despite the Sensex and Nifty hitting all-time highs.
- **Retail Impact:** Retail investors holding overpriced mid-cap and small-cap stocks are experiencing losses, even as headline indices rise, highlighting **concentration risk** and a divergence between index levels and broader market health.

India Revises Earthquake Design Code, 2025 (IS 1893:2025)

Context

India released an updated **Seismic Zonation Map** in November 2025 under the revised **Earthquake Design Code (IS 1893:2025)**. The major highlight is the creation of a new **highest-risk Zone VI**, covering the entire Himalayan arc. This brings a significant shift in the country's seismic preparedness and structural safety framework.

About the Code

The revised earthquake design code issued by the **Bureau of Indian Standards (BIS)** marks a transition from earlier, damage-based assessments to **modern, scientific, data-driven seismic modelling**.

Seismic Zonation Map: The New Zones

Purpose

- Categorises India into zones based on earthquake hazard potential.
- Guides mandatory structural design standards to enhance seismic resilience.

Methodology

The new map is based on **Probabilistic Seismic Hazard Assessment (PSHA)**, which includes:

- Detailed fault modelling and rupture potential
- Ground-shaking behaviour
- Tectonic regime analysis
- Statistical estimates of ground-motion likelihood

New Zones

- **Zone VI** is introduced as the **highest hazard category** (earlier the top zone was Zone V).

- India is now divided into **five zones: II, III, IV, V, VI**.

Key Features of the Revised Zonation

1. New Zone VI Classification

- The entire **Himalayan arc** from **Jammu & Kashmir – Ladakh** to **Arunachal Pradesh** is uniformly placed in **Zone VI**.
- Corrects earlier inconsistencies where some segments were classified under Zone IV or V despite equal tectonic stress.
- Reflects the extreme strain at the **Indian–Eurasian plate boundary**.

2. Increased High-Hazard Coverage

- **61%** of India's land area is now mapped under **moderate to high seismic hazard zones** (previously ~59%).
- This reflects improved scientific modelling of active fault systems.

3. Boundary Town Rule

- Any town/city **located on the boundary between two zones** is automatically placed in the **higher-risk** zone.
- Ensures safety planning based on geological risk rather than administrative borders.

4. Rupture Extension Considered

- The code accounts for the possibility that **major Himalayan faults may rupture southwards**, impacting densely populated foothill regions (e.g., **near Dehradun**).
- Incorporates long-distance ground-shaking effects.

5. Non-Structural Safety Mandate

- Requires anchoring of **non-structural components** such as:
  - Parapets
  - Water tanks
  - False ceilings
  - HVAC units
- Mandatory if their weight exceeds **1% of total building load**, addressing a major cause of injuries during earthquakes.

6. Advanced Geotechnical Checks

The revised code mandates:

- Detailed soil liquefaction assessment
- Site-specific response spectra
- Provisions for structures near active faults
- Design measures for **pulse-like ground motions** commonly occurring close to epicentres

Significance of the Revised Code

1. Enhanced Preparedness

- The adoption of PSHA and Zone VI aligns India's building regulations with **actual tectonic stress**, especially in the Himalayan region.

2. Uniform Risk Assessment

- Uniform classification of the Himalayan belt removes earlier underestimations linked to long-dormant or "locked" fault segments.

3. Improved Infrastructure Resilience

- Mandates retrofitting of **critical facilities**—schools, hospitals, bridges—and ensures newly designed structures must **remain operational after a major earthquake**.

4. Focus on Impact (PEMA Method)

- The updated zoning also incorporates **population density and socioeconomic vulnerability**.
- Ensures that seismic risk assessment reflects not just the hazard, but the **potential human and economic impact**.

3. Jagadguru Madhvacharya and Dvaita Vedanta

Context

Jagadguru Madhvacharya, a seminal 13th-century Indian philosopher, founded the **Dvaita (dualism) school of Vedanta**, offering a distinct alternative to the non-dualism of Adi Shankaracharya and the qualified non-dualism of Ramanujacharya. His teachings reshaped Vaishnavism in South India and continue to influence Hindu philosophical thought.

About Madhvacharya

Background

- **Birth:** Born as *Vāsudeva* in Pajaka village near Udupi, Karnataka.

- **Life:** Entered monastic life at a young age; took the names **Purna Prajna** and later **Ananda Tirtha**.
- **Belief:** Regarded by followers as an **incarnation of Vayu**, the Wind God.
- **Era:** Traditionally dated between **1199–1278 CE** (some traditions place him between **1238–1317 CE**).

Philosophical Orientation

Madhvacharya established **Dvaita Vedanta**, also known as **Tattvavāda** (Doctrine of Reality), advocating a **realist dualistic worldview** that affirms the eternal distinctness of God, souls, and the material universe.

Philosophical Foundations of Dvaita Vedanta

1. Pancha-Bheda (Five Eternal Distinctions)

The core of Dvaita is the doctrine of **five real, eternal differences**, which completely rejects the Advaita idea of ultimate oneness:

1. **God – Soul (Ishvara–Jiva)**
2. **God – Matter (Ishvara–Jada)**
3. **Soul – Matter (Jiva–Jada)**
4. **Soul – Soul (Jiva–Jiva)**
5. **Matter – Matter (Jada–Jada)**

These distinctions form the metaphysical backbone of the Dvaita system, stressing the plurality and independence of realities.

2. Concept of God and Reality

- **Supreme Reality:** *Vishnu/Narayana* is the **only independent entity** (*Svatantra Tattva*), possessing infinite auspicious qualities.
- **Dependent Realities:** Souls (Jivas) and the world (Jagat) are **eternal but dependent** (*Asvatantra Tattva*). They are *real*, not illusory.
- **Personal God:** Madhvacharya's God is **Saguna Brahman**, with attributes and personality—not the attributeless Absolute of Advaita.

3. Liberation (Moksha)

- **Path:** Liberation is achieved primarily through **Bhakti**—devotion filled with love, surrender, and understanding of God's supremacy.

- **Grace: Vishnu's grace** is essential for attaining liberation.
- **Nature of Moksha:** The soul does **not merge** with God; it remains distinct and experiences **eternal bliss in service to God**.

Epistemology (Pramānas)

Madhvacharya accepted **three valid sources of knowledge**:

1. **Pratyaksha (Perception)**
2. **Anumāna (Inference)**
3. **Śabda (Scriptural Testimony)**

Śabda, particularly the Vedas was considered the most authoritative.

Major Contributions and Influence

Institutional and Social Contributions

- **Udupi Krishna Temple:** He installed the iconic deity of Krishna at Udupi and established it as a major spiritual center.
- **Ashta Mathas System:** Founded eight monasteries around the temple, each managing temple services through a rotating system called **Paryaya**.

Literary Contributions

- Authored **37 Sanskrit works**, including commentaries on:
  - **Brahma Sutras (Madhva-Bhashya)**
  - **Bhagavad Gita**
  - **Principal Upanishads**
    These works systematically critique monistic interpretations and offer a comprehensive dualistic theology.

Impact on Bhakti Movement

Madhvacharya's emphasis on **devotion to a personal God**, combined with strict philosophical realism, strengthened Vaishnavite traditions and inspired later Bhakti saints, especially in Karnataka.

Conclusion

Madhvacharya's Dvaita Vedanta presents a clear, dualistic worldview where God, souls, and the universe are eternally distinct and real. His teachings underline **devotion, divine grace, and personal relationship with Vishnu** as the central path to

liberation. His philosophical rigor, institutional reforms at Udupi, and extensive writings cement his place as one of the most influential thinkers in the Vedanta tradition.

Italy Passes Landmark Femicide Law

Context

Italy has passed a landmark law legally recognising **femicide**, the killing of women due to gender, making it punishable with life imprisonment.

About the News

The new legislation establishes femicide as a distinct legal category and mandates stringent penalties, reflecting a critical shift in how Italy addresses gender-based violence.

What is Femicide?

- Femicide refers to the **intentional killing of women** because of their gender, often by intimate partners, family members, or other perpetrators.
- The motive is fundamentally driven by **control, misogyny, or patriarchal norms**.

Key Features of the Law:

- **Gender-Motivated Crime:** The law recognises the violence as rooted in a systemic power imbalance, coercion, and control over women.
- **Three Recognised Categories:** The crime is categorized to reflect the relationship between the victim and the perpetrator:
  - Partner-related
  - Family-related
  - Non-family perpetrators
- **Separate Legal Recognition:** The law acknowledges that **gender identity** forms a central motive behind the crime, warranting separate classification from general homicide.
- **Penalty:** Femicide is punishable with **life imprisonment**.

Significance of Criminalising Femicide

Legal and Policy Impact:

- **Legal Recognition:** It creates an official legal recognition of gender-specific motives and

patterns of violence, enabling specific prosecution strategies.

- **Data Generation:** It helps generate official, disaggregated statistics on gender-based killings, which are crucial for shaping targeted policy responses, prevention programs, and resource allocation.

Societal and Cultural Impact:

- **Public Awareness:** It improves public understanding of the dangerous progression from **toxic masculinity, control, and harassment** to patterns that ultimately lead to gendered killings.

- **Accountability:** The severe penalty reinforces societal condemnation of violence against women and holds perpetrators specifically accountable for gender-based crimes.

Global and Regional Context

International Standard:

- The law aligns with international human rights standards, such as those promoted by the **Istanbul Convention (Council of Europe Convention on preventing and combating violence against women and domestic violence)**, which requires state parties to address gender-based violence comprehensively.

European Trend:

- Italy joins a growing number of countries that have introduced specific legislation or aggravated circumstances for femicide, signalling a regional commitment to tackling this endemic issue.

Conclusion

Italy's new femicide law is a pivotal moment in the fight against gender-based violence, moving beyond general homicide to specifically penalise the killing of women rooted in misogyny and patriarchal control. By legally naming and severely punishing femicide, the state is taking a crucial step toward protecting women and challenging the cultural norms that enable such violence.

Cyclone Ditwah and the North Indian Ocean Naming System

Context

Cyclone **Ditwah** struck Sri Lanka in late November 2025, bringing intense rainfall, floods, and landslides, especially in the central highlands and eastern districts. The name **"Ditwah"** was submitted by **Yemen** to the North Indian Ocean cyclone naming list.

North Indian Ocean Cyclone Naming Convention

1. Purpose and Authority

Purpose

- Ensures clear and uniform communication during cyclone warnings.

- Helps the public, media, and disaster agencies quickly identify storms.

- Enhances preparedness and reduces confusion during severe weather events.

Authority

- Naming and advisories are issued by the **Regional Specialized Meteorological Centre (RSMC), New Delhi**, operated by the **India Meteorological Department (IMD)**.

- The overall system is supervised by the **WMO/ESCAP Panel on Tropical Cyclones (PTC)**.

2. Member Countries and Name List

Establishment

- The naming procedure began in **September 2004**, following a 2000 agreement of the PTC countries.

- **Initial 8 Members**

  Bangladesh, India, Maldives, Myanmar, Oman, Pakistan, Sri Lanka, Thailand.

- **Current 13 Members**

  Later expansions (2016–2018) added five Gulf nations. The present list includes:

  Bangladesh, India, Iran, Maldives, Myanmar, Oman, Pakistan, Qatar, Saudi Arabia, Sri Lanka, Thailand, United Arab Emirates, Yemen.

Name List Structure

- Each member submits **13 names** → Total **169 names**.

- Names are used **sequentially, column-wise**.

- **No rotation of lists** (unlike Atlantic or Pacific basins).
- **No repetition**: Once a name is used, it is permanently retired.

3. Naming Rules

General Criteria

- Must be **neutral**—no political, religious, cultural, or gender associations.
- Should not be **offensive, sensitive, or emotionally harmful**.
- Simple, easy to pronounce, and meaningful.

Technical Requirements

- Maximum **8 letters**.
- Must include a **pronunciation guide**.
- Must be **unique** and not in use by other global RSMCs.

Cyclone Ditwah

- **Contributed by:** Yemen
- **Meaning:** Refers to the **Detwah Lagoon** located on **Socotra Island**, Yemen.
- **Significance:** Detwah Lagoon is an ecologically important coastal habitat, symbolizing Yemen's maritime geography and natural heritage.

Presidential Reference on Gubernatorial Timelines

Context
The Supreme Court Constitution Bench, while examining a Presidential Reference, stated that courts should avoid fixing timelines for Governors on Bills. It noted the Constitution's increasingly "swadeshi" character.

About the News

Background:
• Originates from an earlier ruling prescribing timelines for Governors/President on Bills.
• The Union government sought clarity on whether judiciary can set such deadlines.
• Reference also questions the extent of judicial review before a Bill becomes law.

Court Observations:
• Imposing timelines on constitutional authorities may

exceed judicial powers unless textually supported.
• Issues relate to federal functioning under Articles 200–201.
• Advisory opinion under Article 143 guides but does not override past judgments.

Constitutional Framework on Presidential Reference

Article 143: Enables the President to seek the Supreme Court's opinion on important legal issues.
Article 145: Mandates a minimum five-judge bench to hear such references.

Nature of the Opinion:
• Advisory, not binding, but highly persuasive.
• Does not create precedent.
• Court may decline to answer vague or inappropriate questions.

Judicial Precedents: Major References

• *Delhi Laws Act (1951)*: Defined limits of delegated legislation.
• *Kerala Education Bill (1958)*: Framed harmony between FRs and DPSPs; clarified minority rights.
• *Berubari Union (1960)*: Cession of territory requires constitutional amendment.
• *Presidential Election Reference (1974)*: Election proceeds even if legislatures are dissolved.
• *Special Courts Bill (1978)*: Questions must be precise; courts should avoid legislative intrusion.
• *Third Judges Case (1998)*: Detailed guidelines for collegium appointments.

Current Perspective

Presidential references clarify constitutional ambiguities without adversarial litigation and guide institutional practice.

Challenges

Issues in Current Reference (Arts. 200–201):
• Whether judiciary can set timelines when Constitution is silent.
• Judicial review of gubernatorial/presidential conduct before assent.
• Scope of Article 142 for ensuring constitutional functioning.
• Whether earlier rulings can be revisited in advisory jurisdiction.

Federal Dynamics:
• Increasing Centre–State tensions require clearer constitutional guidance.

Way Forward

Timelines:
 • Any framework must align with constitutional text and prevent indefinite delays.

Balance of Powers:
 • Judiciary must preserve the autonomy of Governors/President while enabling accountability.

Federal Governance:
 • Clear guidelines will reduce friction and improve legislative efficiency.

Conclusion

Article 143 enables resolution of complex constitutional issues outside adversarial courts. Though advisory, these opinions shape federalism, legislation, and appointments. The present reference can strengthen clarity on gubernatorial action, reduce Centre–State friction, and uphold constitutional balance.

Dynamics of the India–US Strategic Partnership

Context

From August 27, 2025, the US imposed a 50% tariff on several imports, affecting key Indian exports like auto parts, electrical machinery, gems, jewellery, and shrimps. India is diversifying toward European and Asian markets.

Overview of the Relationship

A broad strategic partnership shaped by democratic values, rule-based order, defence cooperation, technological collaboration, and expanding economic engagement.

Strategic Pillars:
 • Coordination in strategic, economic, defence, tech, and cultural spheres
 • Regular high-level diplomacy
 • Defence strengthening via LEMOA, COMCASA, joint exercises
 • Trade, FDI, and innovation-driven economic ties

Key Elements of the Partnership

Technology and Innovation

Semiconductors/Critical Supply Chains:
 • Micron establishing a major semiconductor packaging facility in India.
 • Lam Research training 60,000 Indian engineers.
 • India joins Minerals Security Partnership.

 • Epsilon Carbon expands EV-related investments in the US.

Space Cooperation:
 • India signs Artemis Accords.
 • NASA–ISRO developing human spaceflight cooperation and astronaut training for ISS.

Telecom/Emerging Tech:
 • Joint work on Open RAN and 6G.
 • Indo-US Quantum Coordination Mechanism for AI and quantum research.
 • NSF partnerships with Indian institutions.

Defence Partnership

Jet Engines:
 • GE–HAL co-producing F414 engines with significant tech transfer.

Maritime Cooperation:
 • US Navy signs repair agreements with L&T (Chennai) and Mazagon Dock (Mumbai).
 • India to acquire MQ-9B UAVs.

Innovation Ecosystem:
 • INDUS-X boosts defence innovation through startups and academia.

Indo-Pacific Strategic Alignment

 • US participation in India's Indo-Pacific Oceans Initiative.
 • Cooperation through Indian Ocean Dialogue and regional forums.
 • India remains observer in Partners in the Blue Pacific.

Sustainable Development and Health

Climate/Energy:
 • Collaboration under Hydrogen Breakthrough Agenda, Global Biofuels Alliance.
 • Focus on boosting renewable energy investment and battery storage.

Health:
 • AI-driven cancer research with US National Cancer Institute.
 • US–India Cancer Dialogue under Cancer Moonshot.
 • Joint work on diabetes research.

Counterterrorism Efforts

 • Joint commitment against extremism and UN-listed terrorist groups.
 • Condemnation of cross-border terrorism.
 • Pakistan urged to prevent its territory from being used for attacks and ensure accountability for 26/11.

Way Forward

Strengthen multilateral cooperation, deepen counterterrorism coordination, secure resilient supply chains, and advance Indo-Pacific stability through long-term defence, technology, climate, and health collaboration.

Conclusion

The India–US partnership is expanding across defence, technology, energy, and regional security. Sustained cooperation, resilient supply chains, and Indo-Pacific stability remain central to shaping the next phase of this strategic relationship.

Sanchar Saathi App Mandate

Context

The Department of Telecommunications (DoT) has directed that from March 2026 onward, all smartphones sold in India must come pre-installed with the government's Sanchar Saathi application.

About the Initiative

Background:
 • Launched in 2023, Sanchar Saathi was initially created as a portal to help users identify mobile connections linked to their identity and combat scam calls.
 • The mandate aims to protect citizens from counterfeit devices and provide an accessible mechanism for reporting telecom-related misuse.

Government Objective:
 • Prevent circulation of non-genuine handsets.
 • Strengthen user protection through monitoring tools and fraud-reporting mechanisms.

Key Provisions and Features

The Mandate:
 • The Sanchar Saathi app must be pre-installed on all new smartphones sold after March 2026.
 • The app cannot be disabled, removed, or restricted by the user.
 • Phone manufacturers are required to ensure the app remains functional.

User Functionalities:
 • **Device Authenticity Check:** Users can verify whether a phone's IMEI number is genuine, helping detect cloned or illegally altered devices.
 • **Connection Monitoring:** Allows users to view all mobile numbers currently linked to their identity documents (such as Aadhaar).

 • **Lost or Stolen Device Management:** Users can remotely block, freeze, or disable a lost or stolen device and prevent SIM misuse.
 • **Fraud Reporting (Chakshu Portal):** The app integrates the Chakshu portal for reporting suspicious telecom fraud. Reports filed here are not treated as FIRs; separate police complaints are needed for criminal action.

Cess and Surcharge Mechanisms

Context

Cess and Surcharge are additional levies imposed over base taxes to raise Union revenue. They function as "tax on tax," allowing targeted or flexible resource generation without expanding the divisible pool shared with States.

Constitutional Framework on Revenue Sharing

 • Proceeds of both Cess and Surcharge are excluded from State sharing.
 • The 80th Amendment revised Article 270 to exclude these levies from the divisible pool.
 • Enables the Centre to raise extra funds outside Finance Commission transfers.

Key Features of Cess

Purpose and Usage:
 • Levied for a specific purpose only (health, education, security).
 • Revenue is earmarked and must be used exclusively for the stated goal.
 • Examples: Health Cess, Education Cess, Infrastructure Cess.

Application:
 • Imposed on all taxpayers, making it broad-based.

Key Features of Surcharge

Purpose and Usage:
 • Not linked to any specific objective; supports general expenditure.
 • Offers high fiscal flexibility.

Application:
 • Levied on higher-income groups (e.g., above ₹50 lakh).
 • Progressive in nature due to its selective application.

Contextual Application: Taxation of "Sin Goods"

Use of High Taxation:
 • High GST and duties discourage consumption of

tobacco, gutka, liquor, etc.
• Example: 40% GST on select products.

Policy Dilemma:
• These goods impose significant health and social costs.
• Bans encourage black markets and unsafe substitutes.
• High taxes become the preferred deterrent despite inelastic demand.

Conclusion
Cess and Surcharge help the Union raise targeted or flexible revenue while bypassing the divisible pool, shaping fiscal federalism. High taxation on sin goods serves as a practical deterrent balancing public health goals with enforcement challenges.

Heart-Resilient Urban Planning

Context
Rapid and unplanned urbanization is contributing to rising public health risks, particularly **Cardio-Vascular Mortality (CVM)**. CVM is now the leading cause of death in urban India, with rates nearly **double those of rural areas**.

Problem Areas
• **Severe Pollution:** High PM2.5 levels trigger heart disease, hypertension, and stroke.
• **Lack of Green Spaces:** Limited tree cover increases heat stress and elevates cardiovascular risk.
• **Lifestyle Risks:** Urban environments promote sedentary lifestyles, chronic stress, and unhealthy food habits (including repeated use of reheated oils).
• **Unequal Healthcare Access:** Hospital distribution follows **market logic**, concentrating facilities where purchasing power and land value are high rather than in underserved, high-need areas.

Solutions for Heart-Resilient Planning

1. **Active Mobility**
   • Prioritise **walkability** through well-designed, shaded footpaths, cycle lanes, and safe pedestrian crossings.
   • Encourages daily physical activity, reducing hypertension, obesity, and diabetes — key contributors to CVM.

2. **Green Infrastructure**
   • Expand **urban forests, tree-lined streets, and public parks**.
   • Green cover lowers ambient temperature,

reduces pollution exposure, and improves cardiovascular outcomes.

3. **Mixed-Use Development**
   • Integrate residential, commercial, and recreational zones to reduce commute times.
   • Minimises car dependence, lowers emissions, and promotes healthier daily routines through active living.

4. **Healthy Ecosystems**
   • Strengthen **clean, reliable public transport** to reduce pollution and travel stress.
   • Support local markets offering affordable, heart-healthy foods and regulate unsafe practices such as repeated oil reheating.

Conclusion
Heart-resilient urban planning requires transforming cities into healthier, greener, and more equitable environments. By embedding active mobility, green infrastructure, mixed-use layouts, and accessible healthy ecosystems into urban design, India can significantly reduce cardiovascular mortality and build cities that support long-term public health.

Bio-Remediation

Context
Bio-remediation is a sustainable, biology-driven method of cleaning and restoring polluted environments. It uses micro-organisms (bacteria, fungi, algae) and plants to break down or transform toxic substances into harmless byproducts.

A. Applications and Benefits
• Used to remove pollutants such as oil spills, pesticides, plastics, and heavy metals (e.g., arsenic, uranium) from soil and water.
• Microbes can convert hazardous metals into stable, non-toxic forms that do not leach into groundwater or soil.
• It is cost-effective, scalable, and environmentally friendly compared to traditional methods that are expensive, energy-intensive, and often create secondary pollution.

B. Types of Bio-Remediation

Type	Definition	Example/Analogy

In-Situ	Treatment occurs directly at the contaminated site without removing soil/water.	Spraying oil-degrading bacteria on an ocean oil spill. (Comparable to protecting animals in a national park — treating them in their natural habitat.)
Ex-Situ	Contaminated material is removed, treated in a controlled environment, and then returned to its original location.	Cleaning polluted soil in a laboratory or bioreactor. (Comparable to protecting animals in a zoo — treatment in a controlled setting.)

C. Advancements
• Scientists are developing genetically engineered microbes capable of degrading complex pollutants such as plastics, oil residues, and heavy metals that natural organisms cannot efficiently break down.
• These innovations offer powerful tools to address the environmental burden arising from rapid industrialization in India.

Conclusion
Bio-remediation represents a sustainable, economical, and increasingly sophisticated approach to environmental restoration. Its ability to naturally detoxify contaminated ecosystems makes it a vital component of modern waste management and pollution control strategies.

Colombo Security Conclave (CSC)

Context

The Colombo Security Conclave (CSC) has emerged as a pivotal topic in international relations, particularly due to its recent expansion. It represents a critical framework for regional security and strategic cooperation within the Indian Ocean Region (IOR).

About the Initiative

Origin and Revival:

- **Inception (2011):** It began as a Trilateral Maritime Security Cooperation involving India, Sri Lanka, and the Maldives.
- **Revival (2020):** After a period of dormancy caused by geopolitical tensions, the grouping was revived and rebranded in 2020 to address emerging security challenges.

Mechanism:

- The conclave operates at the highest level of security leadership, with **National Security Advisers (NSAs)** of the member countries holding regular meetings to align policies and strategies.

Membership Evolution

The grouping has expanded from a trilateral arrangement to a six-member bloc:

- **Founding Members (2011):** India, Maldives, and Sri Lanka.
- **Expansion Phase:**
  - **Mauritius:** Joined in 2022.
  - **Bangladesh:** Officially joined in 2024.
  - **Seychelles:** The most recent addition, joining in **2025**.

Key Areas of Cooperation

The CSC focuses on five distinct pillars to ensure comprehensive security:

1. **Maritime Safety and Security:** Protecting sea lanes and ensuring freedom of navigation.
2. **Countering Terrorism and Radicalization:** Sharing intelligence to prevent extremist activities.
3. **Combating Transnational Crime:** Tackling issues like narcotics trafficking and human smuggling.
4. **Cyber Security:** Protecting critical infrastructure and digital networks.
5. **Humanitarian Assistance and Disaster Relief (HADR):** Coordinating responses to natural disasters.

Strategic Significance

Geopolitical Balance:

- A primary strategic goal of the CSC is to consolidate India's leadership in the region and counterbalance **China's growing naval presence** and political influence in the Indian Ocean.

Economic Security:

- **Trade Routes:** The IOR is a global economic artery; securing these waters is vital for the uninterrupted flow of global trade.

- **Resource Management:** The region holds vast unexploited marine resources (fishing and minerals). Collaborative management prevents exploitation by extra-regional powers.

Historical Context:

- The strategic value of controlling key island nations in the Indian Ocean was established during World War II, a concept that remains relevant today for maintaining regional stability.

Conclusion

The Colombo Security Conclave has evolved from a limited trilateral discussion into a robust regional security architecture. With the recent induction of Seychelles, the CSC strengthens the "security grid" across the Indian Ocean, promoting a collective response to both traditional military threats and non-traditional challenges like climate disasters and cyber-attacks.

Jal Jeevan Mission (JJM)

Context

The operational effectiveness of the Jal Jeevan Mission (JJM) recently came under scrutiny in Parliament. The government acknowledged significant implementation issues, revealing that **84%** of complaints regarding poor quality of work under the scheme originated from the state of Uttar Pradesh.

About the Scheme

Launch: Launched in **2019**, the mission is a flagship Centrally Sponsored Scheme implemented by the **Ministry of Jal Shakti**.

Objective:

- **'Har Ghar Nal Se Jal':** The primary goal is to provide safe and adequate drinking water through individual household tap connections to all households in rural India.

- **Health Focus:** By ensuring clean water access, the mission aims to combat prevalent waterborne diseases such as diarrhea, cholera, and hepatitis.

Specific Targets:

- **Service Level:** The mission mandates the supply of **55 liters of water per person per day**.

- **Timeline:** The initial deadline for completion was 2024. However, due to various delays, the target has now been revised to **2028**.

Key Features

Implementation Strategy (T.A.P):

- **T (Target):** Coverage of every rural household.

- **A (Area Priority):** Special focus on drought-prone areas, desert areas, Sansad Adarsh Gram Yojana (SAGY) villages, and Aspirational Districts.

- **P (Provide):** Ensuring Functional Household Tap Connections (FHTC) rather than just infrastructure.

Community Participation (Role of Women): The mission emphasizes community-led water management, placing women at the forefront:

- **Governance:** Establishment of Village Water and Sanitation Committees (VWSC) or *Pani Samitis*.

- **Representation:** These committees mandate **50% representation** for women and members of weaker sections.

- **Responsibilities:** Women are trained to test water quality using Field Test Kits (FTKs) and oversee minor maintenance and repairs.

Implementation Challenges

Infrastructure vs. Supply:

- **"Paper" Schemes:** Critics have highlighted instances where schemes are marked complete on paper, or where pipelines and tanks are installed without a connected water source.

- **Quality Control:** The high volume of complaints from specific regions points to gaps in construction quality and monitoring.

Public Health Implications:

- Despite infrastructure growth, the delivery of contaminated water remains a challenge. Recent outbreaks of jaundice and hepatitis (e.g., in Bhopal) highlight the persistent risks associated with compromised water quality.

Conclusion

The Jal Jeevan Mission represents a massive stride toward rural development and public health. However, the gap between "infrastructure creation" and "service delivery" remains a critical hurdle. Meeting the revised 2028 deadline will require a shift in focus from mere pipeline installation to ensuring sustainable, quality water supply and robust community management.

Nuclear Power in Space

Context

In a landmark move for extraterrestrial exploration, the United States has announced its intention to install a compact nuclear reactor on the lunar surface by the early 2030s. This initiative represents the first concerted effort to establish a permanent source of nuclear energy beyond Earth's atmosphere.

About the News

Background: Current space missions rely heavily on solar energy. However, the ambition to establish permanent human settlements on the Moon and Mars has necessitated a shift toward more reliable, high-density energy sources.

Operational Necessity (Why Nuclear?):

- **Limitations of Solar Energy:** Solar power is inconsistent due to long lunar nights (lasting 14 Earth days), pervasive dust storms on Mars, and weak sunlight in polar regions.

- **High Energy Demand:** Human habitats, life-support systems, laboratories, and manufacturing units require stable, uninterrupted power far exceeding the capacity of standard solar arrays.

- **Resource Extraction (ISRU):** In-Situ Resource Utilization (extracting ice, producing oxygen and rocket fuel) is energy-intensive, requiring megawatt-scale power that only nuclear reactors can reliably provide in a small footprint.

Key Applications:

- **Life Support:** Powering thermal controls and communications for survival.

- **Mobility:** Recharging long-range rovers and drilling units.

- **Propulsion:**

  - **Nuclear Thermal Propulsion (NTP):** Heats propellant for rapid transit to Mars, minimizing astronaut radiation exposure.

  - **Nuclear Electric Propulsion (NEP):** Uses electricity to drive ion engines for long-duration cargo missions.

International Legal Framework

Outer Space Treaty (1967):

- Prohibits the placement of nuclear weapons or Weapons of Mass Destruction (WMD) in orbit.

- **Ambiguity:** It permits the use of "peaceful" nuclear reactors, creating a grey area regarding dual-use technologies (propulsion vs. weaponization).

Liability Convention (1972):

- Addresses liability for damage caused by space objects.

- **Limitation:** Offers unclear guidance regarding liability for nuclear accidents that occur beyond Earth's orbit.

Nuclear Non-Proliferation Treaty (NPT):

- Focuses on preventing the spread of nuclear weapons.

- **Gap:** Lacks specific oversight mechanisms for space-based reactors or nuclear propulsion systems.

Regulatory Evolution

UN Principles (1992):

- Established procedural safeguards for the use of nuclear power sources (NPS) in outer space.

- **Scope:** Mandates safety design, pre-launch risk analysis, and emergency reporting.

- **Obsolescence:** These principles focus primarily on power-generation reactors and do not adequately cover modern propulsion technologies.

Challenges

Safety and Environmental Risks:

- **Launch Failures:** Accidents during lift-off or re-entry could disperse radioactive materials, creating transboundary hazards.

- **Contamination:** "Planetary protection" concerns arise regarding nuclear fallout irreversibly altering the pristine environments of the Moon or Mars.

Regulatory Vacuum:

- There is a lack of enforceable international standards governing the disposal of nuclear waste in space.

- Undefined "safety zones" around reactors could lead to de facto territorial claims, violating the non-appropriation principle of the Outer Space Treaty.

Geopolitical Concerns:

- The deployment of nuclear systems may be viewed with suspicion, potentially triggering an arms race or militarization of space among major powers.

Way Forward

Regulatory Updates:

- **Modernize UN Principles:** Incorporate binding standards specifically for NTP and NEP designs, including radiation containment and safety limits.

- **Environmental Protocols:** Establish global rules for the handling of reactor end-of-life and waste disposal to prevent celestial contamination.

Institutional Oversight:

- **Independent Body:** Establish a mechanism similar to the International Atomic Energy Agency (IAEA) to certify reactor designs and verify safety compliance for space missions.

International Cooperation:

- **Transparency:** Nations should engage in joint missions and open data-sharing to reduce mistrust.

- **Responsible Innovation:** Development must balance ambition with strict ethical guidelines and biosafety measures to ensure space remains a domain of peaceful exploration.

Conclusion

The transition to nuclear power is a critical step for sustainable human presence and industrial activity in deep space. However, the current absence of robust global governance poses significant safety and legal risks. A comprehensive, modern regulatory framework is essential to ensure that nuclear technology serves as a tool for exploration rather than a catalyst for conflict or contamination.

Uranium Contamination in Delhi

Context

Recent assessments by the Central Ground Water Board (CGWB) have flagged a concerning rise in uranium concentration within Delhi's groundwater. The data indicates that approximately 13–15% of the tested samples contain uranium levels exceeding safe limits.

About the News

Definition: Uranium contamination describes the presence of uranium, a naturally occurring radioactive heavy metal, in groundwater sources at concentrations that are unsafe for human consumption.

Regulatory Standards: To ensure water safety, regulatory bodies have established specific threshold limits:

- **World Health Organization (WHO):** The guideline value is set at **30 micrograms per litre (µg/L)**.

- **Bureau of Indian Standards (BIS):** Under the revised IS 10500:2012, India aligns with the global benchmark, setting the acceptable limit at **0.03 mg/L (equivalent to 30 µg/L)**.

Causes of Contamination

Agricultural Factors:

- **Fertilizer Runoff:** The excessive application of phosphate fertilizers, which often contain trace amounts of uranium, results in the

gradual leaching of the metal into the soil and underlying aquifers.

Geogenic and Hydrological Factors:

- **Rock-Water Interaction:** Aquifers situated within uranium-bearing geological formations naturally release the metal.

- **Over-extraction:** This process is intensified in deep groundwater zones where over-extraction alters the water chemistry, facilitating higher uranium release.

Anthropogenic Sources:

- **Industrial Discharge:** Improper disposal of industrial waste and effluents contributes to the release of uranium and other heavy metals into the local groundwater systems.

Implications

Public Health Risks:

- **Renal Toxicity:** Chronic ingestion of uranium-contaminated water is primarily linked to kidney damage and impaired renal function.

- **Carcinogenic Risks:** There is an increased likelihood of developing cancers associated with the kidneys and urinary tract.

- **Skeletal Health:** Uranium has the potential to accumulate in bone tissue, which can degrade long-term bone health.

Environmental Impact:

- **Resource Degradation:** Persistent contamination degrades the quality of aquifers, putting further strain on already scarce freshwater resources.

- **Cumulative Pollution:** The survey indicates that uranium presence often coincides with other pollutants, such as nitrates and fluoride, triggering complex cycles of co-contamination.

Conclusion

The detection of elevated uranium levels in Delhi's groundwater presents a significant public health and environmental challenge. With contamination stemming from a mix of agricultural, industrial, and natural factors, the situation demands strict adherence to BIS standards and better management of

groundwater extraction and industrial effluents to protect vital water resources.

Masala Bond

Context

The Enforcement Directorate (ED) has issued show-cause notices to the Chief Minister of Kerala, former officials of the Finance Ministry, and executives of the Kerala Infrastructure Investment Fund Board (KIIFB). The notices pertain to alleged violations of the Foreign Exchange Management Act (FEMA) and Reserve Bank of India (RBI) guidelines regarding KIIFB's issuance of Masala Bonds in 2019.

About the News

Definition: Masala Bonds are debt instruments denominated in Indian Rupees but issued in offshore capital markets. They allow Indian entities to raise funds from overseas investors.

- **Key Distinction:** Unlike standard foreign currency loans, the **currency risk is borne by the investor**, not the issuer.

History:

- **Inception:** The International Finance Corporation (IFC) issued the first Masala Bond in 2014 to raise ₹1,000 crore.

- **Formalisation:** The RBI officially permitted the issuance of rupee-denominated bonds under its regulatory framework in 2015.

Objectives

- **Capital Access:** To enable Indian corporates, Non-Banking Financial Companies (NBFCs), and infrastructure trusts to access global capital pools without currency conversion exposure.

- **Risk Mitigation:** To reduce reliance on External Commercial Borrowings (ECBs) in foreign currencies, thereby shifting the exchange rate risk from the Indian borrower to the foreign investor.

- **Currency Strength:** To deepen the offshore rupee market and aid the internationalisation of the Indian currency.

Key Features

Structure and Risk:

- **Rupee Denominated:** The bonds are priced in INR. Even though they are subscribed to and settled abroad, the redemption is calculated in rupee terms.

- **Risk Allocation:** If the rupee depreciates, the foreign investor absorbs the loss, protecting the Indian issuer's balance sheet.

Operational Guidelines:

- **Eligible Issuers:** Includes Indian corporate entities, NBFCs, Real Estate Investment Trusts (REITs), and Infrastructure Investment Trusts (InvITs).

- **Listing:** These bonds can be listed on major international exchanges, such as the London tock Exchange (LSE) or Singapore Exchange (SGX).

- **Maturity Period:** The minimum maturity period is currently set at **3 years** (reduced from the initial 5 years).

Restrictions on Use:

- Funds raised **cannot** be used for:

  - Real estate activities (excluding affordable housing).

  - Purchase of land.

  - Investing in capital markets.

  - Sectors where Foreign Direct Investment (FDI) is prohibited.

Taxation:

- Interest income is subject to a withholding tax of 5%.

- Capital gains arising from the appreciation of the rupee are exempt from tax.

Benefits

- **For Issuers:** significantly lowers the cost of borrowing compared to domestic markets while eliminating forex volatility risks.

- **For the Economy:** Diversifies funding sources for critical sectors like infrastructure and boosts global confidence in the stability of the Indian Rupee.

Conclusion

Masala Bonds serve as a strategic financial instrument allowing Indian entities to tap into foreign investment without the peril of currency fluctuation. While they are crucial for infrastructure financing, the recent scrutiny highlights the importance of strict compliance with FEMA and RBI regulations to maintain the integrity of cross-border financial flows.

Polygamy in India

Context

The state of Assam has officially enacted the **Assam Prohibition of Polygamy Bill, 2025**. This legislative move makes Assam the second state in the country, following Uttarakhand, to enforce a legal ban on polygamy.

About the News

Definition: Polygamy is a marital practice wherein an individual is married to more than one spouse simultaneously. In the Indian legal landscape, the validity of such marriages is not uniform; it is governed by a complex mix of religious personal laws, state legislations, and tribal customs.

Historical Evolution: While polygamy was historically practiced across various communities, post-independence reforms sought to restrict it. The **Hindu Marriage Act of 1955** was a watershed moment that outlawed bigamy for Hindus. However, Muslim personal law continued to permit the practice, and the Constitution safeguarded the customary practices of tribal communities.

Current Legal Framework

Religious Laws:

- **Hindus, Buddhists, Jains, and Sikhs:** Bigamy is strictly prohibited under the **Hindu Marriage Act, 1955**. Any second marriage contracted while a spouse is living is considered void.

- **Parsis:** Prohibited under the **Parsi Marriage and Divorce Act, 1936**.

- **Christians:** Prohibited under the **Indian Christian Marriage Act, 1872**.

- **Muslims:** Governed by the **Muslim Personal Law (Shariat) Application Act, 1937**, which allows a Muslim man to have up to four wives. Consequently, this is not treated as a criminal offense under Section 82 of the Bharatiya Nyaya Sanhita (BNS).

Regional & Tribal Exceptions:

- **Goa:** Governed by the **Portuguese Civil Code**, which mandates monogamy for all residents. *Note: A historical provision exists allowing a Hindu man a second marriage under specific circumstances (e.g., lack of male heir), but it has been effectively defunct since 1910.*

- **Tribal Communities:** Members of Scheduled Tribes are generally exempt from these marriage laws due to protections under the **Fifth and Sixth Schedules** of the Constitution, allowing their customary laws to prevail.

Recent State-Level Bans

Uttarakhand (UCC 2024):

- The state implemented a ban on bigamy/polygamy as part of its **Uniform Civil Code (UCC)**.

- **Exemption:** The ban applies to all residents *except* those belonging to Scheduled Tribes.

Assam (2025 Bill):

- **Nature of Offence:** Polygamy is now classified as a **cognisable and non-bailable** offence.

- **Penalties:** Offenders face imprisonment ranging from **7 to 10 years**.

- **Civil Consequences:** Individuals convicted under this law are barred from government employment and from contesting elections.

- **Exemption:** Similar to Uttarakhand, tribal areas are exempt from this legislation.

Significance

- **Gender Justice:** The move is framed as a step toward protecting women's rights and ensuring dignity within marriage.

- **Legal Uniformity:** It represents a shift toward uniform legal standards for marriage, challenging the autonomy of personal laws.

- **Precursor to National UCC:** These state laws are viewed as testing grounds for a potential nationwide Uniform Civil Code, sparking debate regarding minority rights and constitutional religious freedoms.

Biological Weapons Convention

Context

To commemorate the half-century milestone of the Biological Weapons Convention (BWC) coming into force, India hosted an international conference in New Delhi titled **"50 Years of BWC: Strengthening Biosecurity for the Global South."**

About the Convention

Definition: The **Biological Weapons Convention (BWC)** stands as the world's first multilateral disarmament treaty to ban an entire category of Weapons of Mass Destruction (WMD). It comprehensively prohibits the development, production, acquisition, transfer, stockpiling, and use of biological and toxin weapons.

Timeline:

- **Opened for Signature:** April 10, 1972 (simultaneously in London, Moscow, and Washington).

- **Entered into Force:** March 26, 1975.

- **India's Status:** India is a founding State Party and remains one of the 189 signatories committed to full compliance.

Key Features

Core Mandate (Articles I–III):

- **Total Ban:** Parties must never develop, stockpile, or use biological agents or toxins for hostile purposes.

- **Disarmament:** It obligates member states to destroy or divert to peaceful purposes any existing stockpiles of such weapons.

International Cooperation (Article X):

- The convention actively promotes the peaceful use of biological science and technology, emphasizing capacity building and assistance for developing nations to prevent disease.

Governance Mechanism:

- **Review Conferences:** Member states meet approximately every five years to review the treaty's operation, update norms, and address new scientific developments.

- **Normative Strength:** The treaty has established a strong global norm; currently, no

state openly acknowledges possessing or seeking biological weapons.

Limitations

The Verification Gap:

- Unlike the Chemical Weapons Convention, the BWC **lacks a formal verification regime**. There is no independent body to inspect facilities or verify compliance.

- **Enforcement:** Enforcement relies on political will rather than legal mechanisms. While Article VI allows for complaints to the UN Security Council, this mechanism is rarely utilized.

- **Historical Violations:** The lack of verification allowed states like the Soviet Union and Iraq to maintain clandestine bioweapons programs in the past.

Significance and Challenges

Emerging Threats:

- Rapid advancements in technology—such as **Artificial Intelligence (AI), synthetic biology, gene editing, and gain-of-function research**—have lowered the barrier for creating biological threats, requiring updated oversight mechanisms.

Focus on the Global South:

- Developing nations are particularly vulnerable due to weaker public health infrastructure, higher disease burdens, and limited biosafety systems. This makes the strengthening of BWC implementation and international aid critical for these regions.

Conclusion

As the primary global bulwark against biological warfare, the BWC remains vital for international security. However, as it enters its next half-century, the treaty must evolve to address the "verification void" and the dual-use risks posed by modern biotechnology to remain effective.

Parana Valles

Context

In a significant advancement for planetary science, researchers have successfully mapped extensive river drainage systems on Mars. This study identified 16 major ancient basins, with **Paraná Valles** emerging as a focal point of the discovery.

About Paraná Valles

Definition: Paraná Valles is a massive ancient fluvial drainage system on Mars. It consists of a complex network of valleys, streams, and sedimentary channels that were carved by flowing liquid water billions of years ago.

Location:

- **Region:** It is situated in the Martian **southern hemisphere** within **Margaritifer Terra**, a region geologically distinct for its abundance of valley networks and water-related landforms.

- **Scale:** The drainage area covers a vast watershed, comparable in size to major river basins found on Earth.

Formation History

- **Hydrological Origin:** The system was formed during an ancient epoch when Mars possessed a warmer and wetter climate.

- **Process:** It was created by rainfall-fed surface runoff, erosion, and sediment transport.

- **Flow Path:** Water likely traversed through a series of interconnected valleys and lakes, eventually draining into larger canyon systems or potentially an ancient northern ocean.

Key Features

- **Dendritic Patterns:** The valley network exhibits a branching, tree-like structure (dendritic drainage), which is morphologically similar to river systems on Earth.

- **Basin Size:** The drainage basin exceeds **100,000 square kilometers**, meeting the threshold used to classify "large river systems" on Earth.

- **Geological Evidence:** The site contains distinct streams, canyons, and sedimentary deposits that confirm a history of prolonged water-rock interaction and nutrient transport.

PM Internship Scheme

Context

Announced in the **Union Budget 2024**, the Prime Minister's Internship Scheme aims to bridge the gap between academic learning and industry requirements. It has recently gained attention due to data regarding offer acceptance rates presented in the Lok Sabha.

About the Scheme

Objective:

- **Skill Bridging:** To provide professional training and exposure to youth in environments that match current market demands, addressing the "employability gap" faced by industries.

- **Target:** The scheme aims to skill **1 crore youth** over a period of **5 years** (with an initial target of 20 lakh trainees annually).

Operational Framework:

- **Nodal Ministry:** Ministry of Corporate Affairs (MCA).

- **Partner Companies:** The top **500 companies** in India are expected to participate, providing training facilities and mentorship.

- **Duration:** The internship period is fixed at **12 months (1 year)**.

Financial Structure

Stipend: Interns receive a total monthly stipend of **₹5,000**. The cost-sharing model is as follows:

- **Government Share:** ₹4,500 via Direct Benefit Transfer (DBT).

- **Company Share:** ₹500 (paid from the company's CSR funds).

Additional Grants:

- A one-time incidental grant of **₹6,000** is provided to interns upon joining.

  ### Eligibility Criteria

Inclusions:

- **Age:** Candidates must be between **21 and 24 years** old.

- **Education:** Minimum educational qualification is **Class 10** passed.

- **Income Cap:** Annual family income must not exceed **₹8 lakh**.

- **Employment:** Candidate must not be currently employed full-time.

Exclusions:

- Graduates from premier institutes like **IITs, IIMs, and IISERs**, as well as professional qualification holders (e.g., **CAs, CMAs**), are not eligible.

Implementation Challenges

According to recent data presented in the Lok Sabha:

- **Low Acceptance:** Only **20%** of the internship offers extended by companies have been accepted by candidates.

- **Key Barriers:** Primary reasons for rejection include relocation issues (locations too far), mismatch in job roles, and dissatisfaction with the duration.

Fugitive Economic Offenders (FEO)

Context:

In December 2025, the Union Finance Ministry informed the Lok Sabha that nine declared Fugitive Economic Offenders (FEOs) collectively owe over ₹58,000 crore to public sector banks. While recovery efforts have retrieved approximately ₹19,000 crore, the data highlights the scale of financial burden on state-owned lenders.

About Fugitive Economic Offenders (FEO):

What it is?

A legal designation under the **Fugitive Economic Offenders Act, 2018**, aimed at deterring individuals from fleeing India to evade the legal process for economic crimes. **Criteria for Declaration:**

- **Warrant:** An arrest warrant must have been issued by a special court for a Scheduled Offence.

- **Value Threshold:** The total value of the offence must be at least **₹100 crore**.

- **Fugitive Status:** The individual has either left India to avoid criminal prosecution or, being abroad, refuses to return to face the law. **Key Provisions of the Act:**

- **Declaration Process:** The application is filed by the Director (Enforcement Directorate) in a **Special Court** designated under the

Prevention of Money Laundering Act (PMLA), 2002.

- **Asset Confiscation:** Unlike previous laws, this Act allows for the **confiscation of all properties** belonging to the offender (including benami properties and foreign assets), regardless of whether they are "proceeds of crime."

- **Civil Disentitlement:** Any court or tribunal in India may bar the declared FEO from filing or defending any civil claim, effectively closing legal avenues for them to protect their assets remotely.

Enforcement Mechanism:

- **Nodal Agency:** The **Enforcement Directorate (ED)**, a specialized financial investigation agency under the Department of Revenue, is responsible for implementing the Act.

- **Powers:** The ED conducts investigations, attaches properties, and files applications for the "Fugitive" declaration in the Special Court.

Implications:

- **Asset Recovery:** The Act empowers the government to confiscate and sell assets to recover debts, offering relief to public sector banks (PSBs) burdened by Non-Performing Assets (NPAs).

- **Deterrence:** The threat of losing all assets—not just those linked to the crime—serves as a strong deterrent against high-net-worth individuals fleeing the country.

- **Legal Efficiency:** By disentitling offenders from defending civil suits, the Act speeds up the recovery process which was previously stalled by prolonged litigation.

Conclusion:

The FEO Act, 2018, represents a paradigm shift in India's approach to economic crimes, moving from simple prosecution to aggressive asset recovery. With nearly 33% of the outstanding dues from top offenders already recovered, the law serves as a critical tool for restoring the financial health of India's banking sector.

East African Rift Valley

Context

A recent study utilizing archival magnetic data from the 1960s has provided distinct evidence of active seafloor spreading near the Afar triple junction. The findings confirm that the African continent is in the process of gradually splitting into two separate tectonic plates.

About the East African Rift Valley Definition

It is the largest active continental rift on Earth, extending approximately 3,500 km from the Red Sea to Mozambique. The landscape is defined by steep fault scarps and elongated depressions caused by crustal extension.

Key Features:

- **Distinct Branches:** Comprises the Eastern Rift (Ethiopia–Kenya), known for volcanic activity, and the Western Rift (Uganda–Malawi), characterized by high seismic activity.

- **Tectonic Composition:** Marked by normal faults, deep fissures, active volcanoes (e.g., Erta Ale), and deep lakes (e.g., Lake Tanganyika) formed by crustal subsidence.

- **Afar Triple Junction:** A critical geological meeting point of three rift systems—the Red Sea, Gulf of Aden, and East African rifts—making it a highly dynamic tectonic zone.

- **Divergent Boundary:** Marks the separation zone between the Nubian and Somali plates, with spreading rates estimated at 5–16 mm/year in the northern section.

Mechanism of Formation Mantle Dynamics:

- **Plume Upwelling:** A deep mantle superplume elevates heat flow and buoyancy, causing the lithosphere beneath East Africa to uplift and thermally weaken.

- **Magmatism:** As the crust thins, basaltic volcanism and fissure eruptions fill the widening valley floor.

Structural Evolution:

- **Tensional Forces:** Tectonic forces stretch the brittle crust, creating extensional stress that generates large normal faults.

- **Horst-Graben Architecture:** The extension causes blocks of crust to drop (grabens) while adjacent blocks appear to rise (horsts), forming the trough-like valley structure.

- **Seafloor Spreading:** Progressive divergence is expected to eventually rupture the continental crust, potentially creating a new ocean basin.

Factors Driving the Rift

- **Mantle Superplume:** The upward push from the mantle generates the necessary uplift and magmatic weakening to initiate rifting.

- **Plate Divergence:** The physical movement of the Somali and Nubian plates away from each other (5–16 mm/year) increases extensional strain.

- **Triple Junction Mechanics:** The simultaneous pulling force from three spreading centers at the Afar junction accelerates crustal breakup.

- **Thermal Weakening:** High heat flow and magma intrusions reduce the strength of the crust, facilitating faulting and subsidence.

Implications Geological Consequences:

- **New Ocean Basin:** Eventual separation of the Somali plate from the African mainland will create a new ocean.

- **Seismic Activity:** Continued crustal thinning will sustain high volcanic and earthquake activity across Ethiopia, Kenya, and Tanzania.

- **Hydrological Shifts:** Drainage patterns will alter, creating new basins and expanding lakes like Turkana or Malawi.

- **Geographic Reconfiguration:** Africa will eventually transform into two separate landmasses with new coastlines.

Socio-Economic Impacts:

- **Infrastructure Risks:** Active fissuring and faulting pose threats to roads, agriculture, and settlements, as recently observed in Kenya.

- **Disaster Management:** Nations in the region face increased disaster risks, necessitating robust monitoring and adaptation strategies.

- **Future Trade Routes:** Landlocked nations such as Uganda or Zambia may eventually gain access to the sea, altering long-term trade dynamics.

Conclusion

The East African Rift Valley serves as a live laboratory for understanding continental breakup. While the geographical separation will take millions of years, the immediate seismic and volcanic impacts highlight the dynamic nature of Earth's crust. Understanding these processes is vital for disaster mitigation and resource management in the region.

Child Marriage

Context

Recent parliamentary statistics reveal a sharp escalation in child marriage cases across Madhya Pradesh, marking a 47% rise since 2020. The year 2025 is particularly alarming, with Damoh district emerging as a major hotspot, recording the highest number of cases (538) reported statewide in the last five years.

Understanding Child Marriage Hotspots in Madhya Pradesh

Child marriage hotspots are specific geographic pockets where the prevalence of early marriage is significantly higher than the state average. In Madhya Pradesh, such clusters are concentrated mainly in the Bundelkhand region, the Gwalior – Chambal belt, and several tribal-dominated districts. These areas share common vulnerabilities, persistent poverty, low literacy rates, entrenched social customs, and limited access to welfare schemes & making them more susceptible to the continuation of this harmful practice.

Rising Incidence and Geographic Patterns

- The trajectory of child marriage cases in Madhya Pradesh demonstrates a worrying upward pattern. Despite state-led awareness campaigns and community interventions, the number of cases documented each year has risen steadily. In 2020, 366 incidents were officially recorded; by 2025, the figure had surged to 538.

- At the district level, the surge is even more striking. Damoh district has shown an unprecedented escalation, contributing nearly 21% of all incidents reported in the state in 2025. The district witnessed a dramatic rise from 33 cases in 2024 to 115 in 2025. This

steep increase highlights how deeply ingrained socio-economic challenges continue to undermine child protection norms.

- Furthermore, the concentration of cases in impoverished rural belts underscores a strong relationship between economic deprivation and the perpetuation of early marriage. Regions marked by low household income, limited educational opportunities, and poor infrastructure remain the most vulnerable.

Underlying Drivers of Prevalence

Multiple social, economic, and cultural factors intersect to sustain child marriages in hotspot regions:

1. **Economic Distress**: Severe poverty forces families to view early marriage as a means to reduce financial burden or secure perceived economic stability.

2. **Lack of Education**: Low school enrollment and high dropout rates among girls make them more vulnerable to early marriage arrangements.

3. **Cultural Norms and Patriarchy**: Deep-rooted traditions and patriarchal structures often promote early marriage as a socially accepted practice.

4. **Insufficient Awareness**: Limited understanding of legal provisions and long-term consequences leads communities to continue the practice despite ongoing campaigns.

5. **Weak Institutional Support**: Social protection schemes often fail to reach remote or tribal populations, weakening the deterrent effect against child marriage.

Socio-Economic Implications of Increasing Child Marriages

- The rising trend carries long-term repercussions for both individuals and communities. Child marriage restricts the educational and economic mobility of young girls, reinforcing cycles of poverty. Once married, girls are often forced to leave school, limiting their opportunities for skill development and formal employment. This not only diminishes their economic independence but also affects overall community development.

- The practice deepens gender inequality by confining young girls to domestic roles at an early age. Over time, these limitations produce intergenerational disadvantages as children born to underage mothers often suffer from poor health outcomes and limited educational opportunities, perpetuating the cycle of deprivation.

Health and Safety Risks

- Early marriage exposes young girls to severe health challenges. Adolescent pregnancies significantly increase the risk of maternal mortality due to complications such as anemia, obstructed labor, and infections. The chances of premature births and low birthweight infants also rise.

- Additionally, married minors are more vulnerable to domestic violence. Limited legal awareness, societal pressures, and lack of access to support networks make it difficult for them to seek help or escape abusive situations. These health and safety concerns highlight why child marriage remains a critical public health and human rights issue.

Governance Gaps and Enforcement Challenges

- The steady rise in cases indicates shortcomings in the implementation of the Prohibition of Child Marriage Act (PCMA), 2006. Many local authorities, especially at the district and village levels, lack adequate resources and monitoring systems to identify and prevent early marriages.

- Though helplines, community vigilance committees, and awareness campaigns exist, they often fail to penetrate remote tribal regions or economically distressed belts. Social protection schemes like scholarships, financial assistance, and adolescent health programs also suffer from poor outreach, reducing their effectiveness.

- Furthermore, societal resistance and fear of backlash often discourage officials and community leaders from reporting or stopping child marriages, leading to under-enforcement of laws.

Strategies for Targeted Intervention

Addressing child marriage in hotspot regions requires a multi-dimensional strategy:

1. **Strengthening Legal Enforcement**
   Local administrations need to enhance monitoring mechanisms, ensure swift action under PCMA, and promote community reporting through confidential channels.

2. **Expanding Educational Access**
   Improving school infrastructure, providing transportation, and offering incentives for girls' education can significantly curb dropout rates and delay marriages.

3. **Economic Empowerment of Families**
   Welfare schemes focused on poverty alleviation, skill development, and women's employment must be expanded to vulnerable regions.

4. **Community-Based Awareness Initiatives**
   Partnering with local leaders, NGOs, and women's groups can help change social attitudes and dismantle harmful cultural norms.

5. **Improving Health Infrastructure**
   Strengthening adolescent health services and counseling systems will support young girls and families in understanding the risks associated with early marriage.

6. **Targeted Support for Tribal Regions**
   Tailored interventions addressing cultural diversity, language barriers, and geographical isolation are essential for tribal communities.

Conclusion

The emergence of Damoh as a major child marriage hotspot underscores the urgent need for region-specific, data-driven interventions. The rising numbers reflect deeper socio-economic challenges that go beyond legal provisions. Combating this issue effectively requires a strong combination of enforcement, education, economic support, and community engagement. Only a comprehensive and sustained approach can reverse the trend and ensure that children, especially girls receive the protection, opportunities, and dignity they deserve.

Solar Flares

Context

A powerful X1.9-class solar flare recently erupted from the Sun, as reported by NASA. This intense burst of energy caused a significant shortwave radio blackout across Australia. The event has raised concerns regarding potential future space-weather disturbances, coinciding with the appearance of AR 4294–96, a massive sunspot complex exceeding ten times the size of Earth.

About Solar Flares Definition:

Solar flares are sudden, violent explosions of energy on the Sun's surface. They occur when magnetic energy that has built up in the twisted magnetic fields around sunspots is abruptly released.

Mechanism of Formation:

- **Magnetic Stress:** The Sun's rotation and the movement of solar plasma twist and stress the strong magnetic fields surrounding sunspots, creating a buildup of magnetic tension.

- **Magnetic Reconnection:** When these stressed field lines snap and reconnect, the stored energy is released explosively.

- **Energy Release:** This process heats the surrounding solar plasma to millions of degrees and accelerates charged particles and photons outward at near-light speeds.

- **Relation to CMEs:** Flares often occur in tandem with Coronal Mass Ejections (CMEs), which are massive clouds of solar plasma that can travel through space and disrupt planetary magnetic fields.

Key Features

- **Classification System:** Flares are categorized by their X-ray brightness into classes A, B, C, M, and X. Each letter represents a tenfold increase in energy output.

- **X-Class Intensity:** X-class flares are the most powerful category. They are capable of triggering global radio blackouts, disrupting GPS and navigation systems, and posing radiation hazards to satellites and astronauts.

- **Broad Spectrum Emission:** These explosions emit radiation across the entire electromagnetic spectrum, including radio waves, ultraviolet light, X-rays, and gamma rays.

- **Sunspot Origin:** They typically originate from large, magnetically complex sunspots (like AR 4294–96) where the interaction of magnetic fields is most volatile.

- **Unpredictability:** Flares develop rapidly, often within minutes, making accurate forecasting a significant challenge for space weather agencies.

Implications

- **Communication Breakdown:** High-frequency radio signals used by aviation, maritime operations, and military defense systems can be severely disrupted or blacked out entirely.

- **Space Assets:** The intense radiation can damage sensitive electronics on satellites and spacecraft, and poses health risks to astronauts in orbit.

- **Grid Vulnerability:** If a flare is accompanied by a CME that hits Earth, it can trigger geomagnetic storms. These storms can induce currents in power lines, potentially leading to widespread power grid failures.

Conclusion

The recent X1.9 flare serves as a stark reminder of the Sun's dynamic nature and its direct impact on Earth's technological infrastructure. As solar activity intensifies with the emergence of massive active regions like AR 4294–96, continuous monitoring remains essential to mitigate risks to global communications and power networks.

Opium Poppy Cultivation

Context

A recent report by the United Nations Office on Drugs and Crime (UNODC) reveals a concerning 17% surge in opium poppy cultivation in Myanmar. The total cultivated area has reached a decade-high of 53,100 hectares, driven largely by prolonged conflict, economic instability, and soaring market prices for opium.

About Opium Poppy CultivationDefinition:

The Opium Poppy (*Papaver somniferum*) is a flowering plant grown primarily for its latex-filled capsules. It serves as the primary natural source for essential alkaloids such as morphine, codeine, and thebaine, which are critical for both pharmaceutical and illicit drug markets.

Historical Context in India:

- **Colonial Era:** Production became a government monopoly under the East India Company and later the British Raj, establishing major processing factories in Ghazipur and Patna.

- **Post-Independence:** Since 1950, cultivation and manufacturing have been centrally controlled by the Government of India.

- **Legal Framework:** All operations are strictly regulated under the Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985. India holds the unique distinction of being the only country authorized to produce licit opium gum for medicinal use.

Cultivation Characteristics:

- **Climatic Requirements:** The crop thrives in cool, dry climates with low humidity and well-drained soils, which are essential for developing resin-rich capsules.

- **Crop Cycle:** It is an annual winter crop with a maturity period of approximately 120 days, allowing for systematic state monitoring.

- **Extraction Process:** The green capsules are manually lanced (scored) to release a milky latex containing alkaloids.

- **Harvesting:** Farmers collect the dried latex the following day and submit it to government centers for grading and processing.

Uses of OpiumMedical Applications:

- **Morphine:** A potent analgesic used for severe pain management.

- **Codeine:** Utilized as a cough suppressant and mild pain reliever.

- **Thebaine:** A precursor for manufacturing synthetic opioids.

- **Traditional Medicine:** extensively used in Ayurveda, Unani, and Homeopathy.

Commercial & Culinary:

- **Poppy Seeds:** Harmless seeds used in food preparation and for extracting edible oil.

Illicit Usage:

- **Narcotics:** Raw opium is diverted and processed into heroin and other illegal substances, fueling global drug trafficking.

Issues and Concerns

- **Regional Security:** The production spike in Myanmar creates significant security risks for India's Northeast, particularly due to the proximity of poppy-growing regions like Sagaing and Chin to the Indian border.

- **Organized Crime:** Illicit cultivation is a major funding source for insurgency groups and cross-border smuggling networks.

- **Regulatory Pressure:** India limits legal cultivation to specific tracts in Madhya Pradesh, Rajasthan, and Uttar Pradesh. The rising regional supply increases the burden on enforcement agencies to prevent diversion and enforcing yield criteria.

Conclusion

The dual nature of the opium poppy as a critical pharmaceutical resource and a driver of the illicit drug trade presents a complex challenge. The sharp rise in cultivation in Myanmar highlights the urgent need for robust border security and international cooperation to prevent the resurgence of narco-trafficking while protecting legitimate medical supply chains.

World Summit on Disaster Management (WSDM) 2025

Context

During the World Summit on Disaster Management (WSDM) 2025 held in Dehradun, Union Minister Dr. Jitendra Singh unveiled a comprehensive plan to upgrade Uttarakhand's disaster preparedness. The initiative includes the installation of six new weather radars, 33 observatories, and 142 Automatic Weather Stations (AWS) to bolster the state's early-warning capabilities.

About World Summit on Disaster Management (WSDM) 2025 Definition:

WSDM 2025 served as a premier global forum dedicated to disaster resilience. It convened a diverse group of scientists, policymakers, and industry experts to formulate forward-looking strategies for disaster risk reduction amidst escalating climate challenges.

Key Details:

- **Location:** Dehradun, Uttarakhand (chosen for its ecological significance in the Himalayas).

- **Theme:** "Strengthening International Cooperation for Building Resilient Communities."

- **Core Objective:** To foster international collaboration, exchange scientific knowledge, upgrade early-warning infrastructure, and advocate for resilient development models, specifically tailored for fragile ecosystems like the Himalayas.

Key Features:

- **Infrastructure Expansion:** The summit highlighted the deployment of an expanded network of radars and advanced early-warning systems to monitor weather anomalies in real-time.

- **Focus Areas:** Deliberations centered on hydrometeorological threats, the impacts of climate change, glacier health monitoring, and the prediction of landslides and forest fires.

- **Technological Integration:** Emphasis was placed on "Nowcast" systems capable of delivering precise 3-hour weather forecasts to vulnerable districts.

- **Livelihood Resilience:** Sessions explored the role of agri-startups and technological innovations (including CSIR models) in sustaining Himalayan livelihoods during crises.

Indian state Uttarakhand

Dehradun
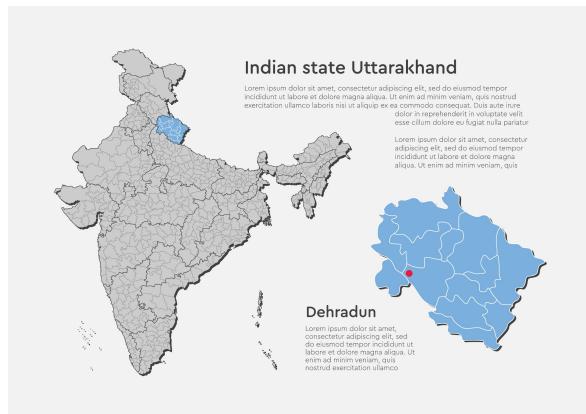
Significance

- **Regional Leadership:** The summit underscores India's growing role as a hub for disaster science and climate resilience in the South Asian region.

- **Local Capacity:** The upgrades will significantly enhance Uttarakhand's ability to predict and manage high-intensity events such

as cloudbursts, Glacial Lake Outburst Floods (GLOFs), and flash floods.

- **Global Alignment:** The initiatives discussed align India's domestic climate adaptation strategies with broader international commitments, such as the Net Zero 2070 goal.

Conclusion

The WSDM 2025 marks a pivotal shift from reactive disaster management to proactive resilience building. by integrating advanced technology with international cooperation, the summit aims to safeguard vulnerable Himalayan communities against the intensifying realities of climate change.

World Soil Day and Urban Soil Health

Context

World Soil Day is celebrated every year on December 5. The 2025 observance focuses on a major environmental challenge facing modern cities, the rapid decline of *urban soil health*, under the theme **"Healthy Soils for Healthy Cities."**

About World Soil Day

Origin and Objective:
- **Initiative:** Founded by the Food and Agriculture Organization (FAO) of the United Nations.
- **Date:** Observed annually on **December 5**.
- **Purpose:** To promote the sustainable management of soil, recognizing its indispensable role in food production, biodiversity conservation, ecological balance, climate regulation, and sustaining life on Earth.

The 2025 Theme: A Shift to Urban Soil

Traditionally, soil conservation efforts prioritize agricultural land and rural ecosystems. The 2025 theme marks a shift toward the **urban landscapes**, highlighting how cities are often built as "concrete jungles" are losing vital soil functions due to:

- **Soil sealing** through concrete, asphalt, and construction
- **Rapid, unplanned urbanization**
- **Industrial contamination**

The theme emphasizes that sustainable cities require **living, functioning soil**, not fully sealed surfaces.

Ecological Services of Urban Soil

Healthy urban soil is an essential part of green infrastructure and performs environmental services that cannot be easily replaced by man-made systems.

1. Water Management and Flood Control

- **Natural Absorption:** Healthy, unsealed soil absorbs large volumes of rainwater, reducing runoff.
- **Flood Prevention:** Absorptive soil mitigates urban flash floods commonly seen in heavily paved cities.
- **Groundwater Recharge:** Soil percolation helps replenish aquifers, preventing over-extraction and the need for deeper borewells.

2. Climate Regulation

- **Carbon Storage:** Urban soils act as carbon sinks and help combat climate change.
- **Cooling Effect:** Vegetated and exposed soil areas reduce urban temperatures through evapotranspiration, countering the **Urban Heat Island (UHI)** effect.

3. Natural Filtration

- Soil traps pollutants and filters contaminants before they reach groundwater or rivers, improving overall water quality.

Social and Health Impacts

- **Mental Well-being:** Access to soil, open spaces, and nature-based areas reduces stress, anxiety, and depression among city residents.
- **Community Health:** Urban agriculture and community gardens improve nutrition, strengthen social ties, and reconnect people with nature.

Way Forward

To build resilient and livable cities, urban planning must place soil health at the center of development strategies.

Urban Soil Restoration:
- De-sealing pavements where possible
- Cleaning and restoring contaminated soils through remediation technologies

Green Infrastructure:
- Integrating parks, rain gardens, bioswales, permeable pavements, and green corridors into city design

Urban Agriculture:
- Encouraging rooftop gardens, kitchen gardens, community farms, and backyard cultivation

Sustainable Land Management:
- Protecting existing open spaces
- Preventing further encroachment by concrete

structures

 • Regulating construction to maintain soil permeability

Conclusion

World Soil Day 2025 underscores that soil is not merely a rural resource, it is a foundational element of **urban sustainability**. Healthy urban soil strengthens a city's resilience to floods, heatwaves, water scarcity, and pollution. By restoring and protecting soil ecosystems, cities can ensure a healthier environment, improved living conditions, and a sustainable future for their growing populations.

Cyber Crime

Context

To counter the rapid rise in cyber fraud, particularly "digital arrest" scams, the Supreme Court has granted the Central Bureau of Investigation (CBI) an unprecedented mandate, giving it a "free hand" to investigate and dismantle these operations. The Court's intervention aims to strengthen national cybercrime enforcement by targeting every layer of the criminal network.

About the News

Key Directives:

 • **Action Against Enablers:** The Court instructed the CBI to identify, investigate, and arrest bankers and financial officials who assist cybercriminals by facilitating fake bank account creation or enabling illicit fund transfers.

 • **Platform Accountability:** Digital intermediaries such as WhatsApp, Facebook, Instagram, and other social media platforms should must fully cooperate with the CBI during investigations without delay.

 • **Integrated Crackdown:** The Court emphasized the need for a comprehensive approach, addressing both technical perpetrators and the financial infrastructure supporting cybercrime.

About the Central Bureau of Investigation (CBI)

Status and Origin:

 • The CBI is **neither a statutory body** nor a **constitutional body**.

 • Its legal authority stems from the **Delhi Special Police Establishment (DSPE) Act, 1946**.

 • It was formally established by a **1963 government resolution** under the Ministry of Home Affairs, later placed under the Ministry of Personnel.

Administrative Structure

 • **Nodal Ministry:** Department of Personnel and Training (DoPT), Ministry of Personnel, Public Grievances and Pensions.

 • **Appointment of Director:** Made by a high-level committee consisting of:
 – Prime Minister (Chairperson)
 – Chief Justice of India or a Supreme Court Judge nominated by the CJI
 – Leader of the Opposition in the Lok Sabha

This mechanism ensures independence from political interference in senior appointments.

Federal Challenges: The Consent Mechanism

Because **police and public order are State List subjects**, the CBI cannot automatically operate within state boundaries.

Section 6 of the DSPE Act:
 • Requires the CBI to obtain **State Government consent** before using its investigative powers in that state.

Types of Consent:
 • **General Consent:**
 – Allows the CBI to investigate cases involving central government officials and certain offences without seeking approval each time.
 – Ensures administrative continuity.

 • **Case-Specific Consent:**
 – Needed when general consent is absent.
 – Requires separate permission for every new case.

Withdrawal of Consent:
 • Several states—such as West Bengal, Kerala, Rajasthan, and Maharashtra—have withdrawn general consent, citing misuse of the CBI for political purposes.
 • As a result, the CBI must seek case-specific approval, slowing investigations and complicating federal coordination.

Conclusion

The Supreme Court's directions mark an important policy shift toward centralised action against cyber fraud. By empowering the CBI to act decisively against financial facilitators and mandating cooperation from digital platforms, the Court has acknowledged the transnational and borderless nature of modern cybercrime. The ruling strengthens India's institutional capacity to respond to digital threats that surpass the investigative capabilities of individual state

police forces, reinforcing the need for a coordinated national strategy.

India–Russia

Context

The arrival of Russian President Vladimir Putin in India for the annual summit, and the warm reception by Prime Minister Narendra Modi, comes at a moment when India–US relations are perceived as strained. The timing and optics of the visit hold major geopolitical significance for India's strategic posture.

About the Visit and Geopolitical Signalling

Background:
The summit is taking place amid a cooling phase in India–US ties, contrasting with earlier periods of close engagement. This occurs despite ongoing preparations for the Quad meeting and diplomatic communication with Washington.

Key Observations:
• **Strategic Message to the West:** The high-profile welcome is viewed as a demonstration of India's strategic autonomy and its unwillingness to reduce engagement with Russia despite Western pressure on issues such as oil imports and defence cooperation.
• **Symbolic Choices:** The use of a Japanese Toyota Fortuner instead of European luxury vehicles was interpreted as a measure to avoid sanctions-linked complications, subtly reinforcing India's neutral positioning in global power rivalries.

Pillars of India–Russia Strategic Partnership

India and Russia continue to describe their partnership as a "Special and Privileged Strategic Partnership." Despite evolving global alignments, the relationship remains anchored in four major areas:

1. Defence and Security Cooperation

• **Legacy Supplier:** Russia continues to be India's largest defence supplier by volume, even as India diversifies towards the US, France, and Israel.
• **Future Acquisitions:** Discussions indicate potential procurement of advanced defence systems, including the next-generation **S-500 air defence system**.
• **Technology Transfer Strength:** Russia remains open to joint development projects and technology transfers, exemplified by the **BrahMos missile system**, in contrast to the restricted technology-sharing approach often seen with Western countries.

2. Energy and Economic Flexibility

• **Energy Security Advantage:** Russia has become India's top crude oil supplier, providing discounted energy supplies crucial for managing inflation and ensuring energy stability.
• **Currency Protection:** Acceptance of payments in local currencies allows India to bypass the US Dollar, preventing additional downward pressure on the Indian Rupee.
• **Credit Support:** Russia extends flexible payment terms, including delayed payment options, which enhances India's economic manoeuvrability.

3. Strategic Autonomy and Sovereignty

• **No Sanctions Leverage:** Unlike the US, which has used threats of sanctions (such as CAATSA) in diplomacy, Russia has never employed punitive economic tools against India.
• **UNSC Backing:** Russia remains a consistent supporter of India's bid for a permanent seat at the UN Security Council.

Challenges to the Partnership

• **China Closeness:** Russia's deepening strategic partnership with China creates long-term concerns for India, particularly given unresolved border issues with Beijing.
• **US Pressure:** Washington continues to push New Delhi to reduce defence and oil ties with Russia, making foreign policy balancing more complex.
• **Diversification Trend:** While Russia remains a significant partner, India is gradually reducing overdependence on Russian oil and weapon systems to avoid geopolitical vulnerabilities.

Way Forward

● **Strategic Balancing:**
India must continue its calibrated approach of engaging major powers without aligning exclusively with any bloc.

● **Defence Innovation:**
Deepened India–Russia joint ventures in defence technology can strengthen domestic defence manufacturing.

● **Energy Cooperation:**
Long-term agreements with Russia for energy supply diversification can help mitigate global price instability.

● **Diplomatic Autonomy:**
Maintaining policy independence remains central to India's foreign policy doctrine, especially amid great-power rivalry.

Conclusion

The India–Russia annual summit underlines the enduring relevance of the strategic partnership, even as global geopolitical currents shift. Amid strained India–US ties and rising China–Russia convergence, New Delhi values Moscow for defence reliability, energy security, and unconditional diplomatic support. The relationship provides India with the strategic space necessary to exercise autonomy, safeguard national interests, and maintain foreign policy flexibility in an increasingly polarised world.

PM-WANI Scheme

Context

In a recent update to Parliament (November 2025), the government highlighted the rapid expansion of the PM-WANI network, noting the successful deployment of over **3.9 lakh Wi-Fi hotspots** across India.

About the Scheme Full Name:

Prime Minister's Wi-Fi Access Network Interface (PM-WANI).

Ministry: Department of Telecommunications (DoT), Ministry of Communications. **Inception:** Approved by the Union Cabinet on **December 9, 2020**.

Objective:

- To elevate wireless internet connectivity in the country to support the **National Digital Communications Policy (NDCP) 2018**.
- To democratize digital access by creating a decentralized network of public Wi-Fi hotspots.

Structural Framework (The Eco-system)

The scheme operates on a comprehensive four-tier architecture:

1. **Public Data Office (PDO):** Small entities (like local *kirana* stores, tea stalls) that establish and maintain the Wi-Fi access points. They do not require a license or registration fee.
2. **Public Data Office Aggregator (PDOA):** Aggregators that perform authorization and accounting functions for the PDOs.
3. **App Provider:** Entities that develop applications to allow users to register, discover WANI-compliant hotspots, and authenticate themselves.

4. **Central Registry:** Maintained by the Centre for Development of Telematics (C-DoT), it records the details of all App Providers, PDOAs, and PDOs.

Key Features Ease of Doing Business:

- **No License Fee:** Local entrepreneurs can set up hotspots without paying license fees or registration charges to the government.
- **Simple Infrastructure:** PDOs are permitted to use regular **Fibre-to-the-Home (FTTH)** broadband connections to serve customers, significantly lowering operational costs.

Connectivity and Utility:

- **Roaming Capabilities:** Users can switch seamlessly between hotspots managed by different aggregators (PDOAs), ensuring continuous connectivity similar to mobile roaming.
- **Mobile Data Offload:** The framework allows telecom service providers to offload mobile data traffic onto these Wi-Fi networks, reducing congestion on mobile towers and improving call quality.

Consumer Protection and Affordability:

- **Privacy:** App Providers can send promotional content to users, but strict protocols require explicit user consent to ensure privacy.
- **Price Capping:** To ensure viability for small operators, TRAI mandates that bandwidth sold to PDOs (up to 200 Mbps) cannot cost more than twice the retail consumer tariff.

Significance

- **Bridging the Digital Divide:** It extends affordable internet access to rural and remote areas where traditional tower-based connectivity is expensive or patchy.
- **Boosting the Gig Economy:** It creates a new class of micro-entrepreneurs (PDOs), allowing small business owners to generate additional income by selling internet access.
- **Enabling Digital India:** Robust last-mile connectivity accelerates the penetration of e-governance, digital payments, telemedicine, and online education in the hinterlands.

Conclusion

PM-WANI acts as a force multiplier for India's digital ambitions. By removing licensing hurdles and leveraging the strength of local communities, it transforms small shopkeepers into internet service providers, ensuring that high-speed connectivity becomes a public good rather than a luxury.

National Commission for Backward Classes (NCBC)

Context

The National Commission for Backward Classes (NCBC) has recommended the removal of 35 communities, mostly belonging to the Muslim population, from the Central OBC list of West Bengal. The recommendation follows a detailed reassessment of the inclusions made in 2014, aiming to ensure that only genuinely Socially and Educationally Backward Classes (SEBCs) are listed for central reservation benefits.

About the News

Key Development:
 • **Scrutiny of OBC Entries:** The NCBC conducted a comprehensive review of the communities added to the OBC list in West Bengal.
 • **Recommendation for Removal:** It advised the exclusion of 35 communities from the Central OBC list to preserve the list's authenticity and align it with constitutional criteria for identifying SEBCs.

Constitutional Framework

Status and Origin:
 • The NCBC began as a statutory body under the NCBC Act, 1993.
 • The 102nd Constitutional Amendment Act, 2018 elevated it to a constitutional body to enhance its authority and independence.

Relevant Articles:
 • **Article 338B:** Defines the composition, duties, powers, and functions of the NCBC.
 • **Article 342A:** Assigns the President the authority to notify SEBCs and empowers Parliament to amend the Central OBC list.

Composition:
 • The Commission comprises **five members**: a Chairperson, a Vice-Chairperson, and three other members.
 • Members are **appointed by the President** by warrant under his hand and seal.

 • They hold a **rank and salary equivalent to a Secretary to the Government of India**.

Mandate and Functions

1. Safeguarding Rights:
 • Investigate and monitor safeguards for SEBCs provided under the Constitution or relevant laws.
 • Examine specific complaints regarding the denial of rights or protection to backward classes.

2. Advisory Role:
 • Advise the Union and State Governments on the planning and implementation of socio-economic development programs for SEBCs.
 • Consultation with the NCBC is **mandatory** for major policy decisions affecting SEBCs.

3. Reporting Mechanism:
 • The Commission submits **annual and special reports** to the President.
 • Reports are laid before Parliament and relevant State Legislatures along with **action taken memorandums**.

Powers of the Commission

- **Civil Court Powers:**
   While conducting investigations or inquiry into complaints, the NCBC holds powers similar to a civil court, including:
   • Summoning individuals and enforcing their attendance.
   • Calling for the discovery and production of documents.
   • Accepting evidence presented through affidavits.

- **List Management Functions:**
   • Advises the Central Government on the **inclusion and exclusion** of communities in the Central OBC list.
   • Under Article 342A, final amendments to the list must be **enacted by Parliament**, after the President's notification.

Conclusion

The transformation of the NCBC into a constitutional authority has significantly empowered it to protect the rights of backward classes. Its recent recommendations for West Bengal reflect its active role in maintaining the accuracy and fairness of the Central OBC list. By ensuring that only eligible and genuinely disadvantaged communities receive reservation benefits, the NCBC reinforces the integrity of India's affirmative action framework.

Parliamentary Disruptions and Declining Efficiency

Context
During the 2025 Winter Session, proceedings in both the Lok Sabha and Rajya Sabha were stalled from the outset due to protests over electoral roll revisions and a reduced sitting schedule. The situation underscored the persistent challenge of legislative paralysis and the growing inability of Parliament to function smoothly.

About the News

Background:
Parliament, established under Article 79 of the Constitution, consists of the President, Rajya Sabha, and Lok Sabha. It is entrusted with lawmaking, budget approval, amending the Constitution, and ensuring executive accountability. Smooth functioning is essential for democratic governance.

Current Observations:
• **Deliberate Disruptions:** Protests, sloganeering, and entry into the Well of the House have become routine tools of political assertion.
• **Reduced Productivity:** The 17th Lok Sabha (2019–24) recorded the lowest working hours of any full-term Lok Sabha since independence, reflecting structural inefficiencies and recurring gridlock.

Constitutional Framework on Parliamentary Functioning

• **Articles 79–122:** Define the composition, powers, privileges, and procedures of Parliament.
• **Articles 80 & 81:** Outline the structure of the Rajya Sabha and Lok Sabha.
• **Article 107:** Requires agreement of both Houses for passage of a Bill.
• **Article 118:** Grants each House authority to frame its own procedural rules.
• **Articles 120–121:** Govern the use of language and restrict debates on judges' conduct.

Trends in Parliamentary Functioning

1. Decline in Working Days
Earlier decades saw 120–130 sittings annually. Recent years have witnessed a fall to 55–70 days, limiting the time available for debate, scrutiny, and accountability.

2. Weakening of Legislative Scrutiny
• **Fast-Tracked Bills:** Laws are frequently passed with limited debate, often amid disorder.
• **Reduced Committee Examination:** The share of Bills referred to standing committees has dropped from 60–70% earlier to less than 30% today.
• **Question Hour Loss:** Adjournments regularly wash out Question Hour, weakening oversight over the executive.

Reasons for Persistent Disruptions

1. Government Approach
• Perceived majoritarian functioning and limited pre-session consultations contribute to Opposition frustration.
• Rapid introduction and passage of Bills without adequate debate heightens tensions.

2. Opposition Strategy
• "Agitation inside Parliament" is increasingly viewed as a legitimate form of protest when grievances are unaddressed or space for debate appears restricted.

3. Structural and Behavioural Factors
• **Trust Deficit:** Breakdown of informal norms and conventions that earlier helped manage political differences.
• **Media Incentives:** Televised disruptions attract public attention, encouraging dramatic protests.
• **Weak Enforcement:** Presiding officers often refrain from using disciplinary powers like suspension, reducing deterrence.

Implications of Disruptions

1. Legislative Deficit
Hasty passage of Bills increases the risk of drafting errors, rights violations, or constitutional infirmities.

2. Accountability Gap
The weakening of Question Hour and debates limits the Opposition's ability to scrutinize government actions.

3. Centralization of Power
Frequent uproar sidelines smaller and regional parties, concentrating legislative influence among dominant political groups.

4. Public Disillusionment
Repeated disorder erodes citizen confidence in parliamentary democracy and raises questions about institutional credibility.

Way Forward

1. Structural Reforms
• **Minimum Sitting Requirement:** A legally mandated parliamentary calendar ensuring 100–120 sittings per year.
• **Opposition Days:** Weekly slots reserved for

Opposition-led discussions, similar to the UK House of Commons model.

2. Procedural Strengthening

• **Mandatory Committee Scrutiny:** Complex or rights-sensitive Bills should be automatically referred to standing committees.

• **Pre-Legislative Consultation:** Formal mechanisms for stakeholder engagement to minimize conflict before Bills reach the floor.

3. Code of Conduct and Enforcement

• Uniform application of penalties for entering the Well, disrupting proceedings, or violating rules.

• Clear, predictable disciplinary frameworks to deter repeated disruptions.

Conclusion

Parliamentary disruptions have become a significant obstacle to meaningful debate and executive accountability. Revitalizing legislative functioning requires a two-fold approach: guaranteeing institutional space for dissent and debate, and enforcing procedural discipline to maintain order. Restoring Parliament's dignity and efficiency is vital to strengthening India's democratic foundations and ensuring that legislative processes remain deliberative, transparent, and accountable.

Goa Nightclub Fire & Urban Fire Safety

Context

A devastating fire at the 'Birch by Romeo Lane' nightclub in Goa has claimed **25 lives**, mostly due to suffocation. The tragedy has reignited the debate on the glaring gaps in urban fire safety implementation and the rampant violation of building codes in India's hospitality sector.

When Regulations Fail: The High Cost of Fire Negligence in India

About the Incident

- **The Event:** A massive fire engulfed an unauthorized nightclub in Arpora, Goa.

- **Primary Cause:** The blaze was triggered by **electric firecrackers** used indoors, which ignited the wooden ceiling.

- **Casualties:** 25 people died, primarily due to **asphyxiation (suffocation)** rather than burns, as victims were trapped in a small, windowless area with no ventilation.

- **Key Negligence Factors:**

  - **Illegal Operations:** The club operated with an **expired license** and was an unauthorized structure.

  - **Safety Violations:** There were **no emergency exit doors**, fire evacuation plans, or proper ventilation, turning the venue into a death trap.

  - **Ignored Norms:** The establishment flagrantly violated the National Building Code (NBC) safety norms.

Regulatory Framework for Fire Safety in India

1. National Building Code (NBC) of India, 2016

- **What it is:** A comprehensive set of guidelines for construction, maintenance, and fire safety, originally introduced in 1970 and revised in 2016.

- **Part 4 (Fire and Life Safety):** Specifically deals with fire prevention, life safety, and fire protection.

- **Key Provisions:**

  - Mandates **automatic fire detection** and alarm systems in high-risk buildings.

  - Specifies requirements for **exits** (width, number, and location) to ensure safe evacuation.

  - classifies buildings based on occupancy (e.g., assembly, industrial, residential) and prescribes specific safety measures for each.

2. Model Building Bye-Laws, 2016

- **Purpose:** Issued by the Ministry of Urban Development to guide states and Union Territories in framing their own building regulations.

- **Focus:** Emphasizes structural safety, disaster management, and streamlined approval processes for building permits.

3. Constitutional Status

- **Fire Services:** It is a **State Subject** (Entry 5 of Schedule XII) and falls under the domain of **Municipalities** (Article 243W of the Constitution).

Challenges & Gaps in Safety

1. **Implementation Deficit:** While the NBC provides robust guidelines, they are **advisory** in nature. States often delay incorporating them into local building bye-laws, leading to weak enforcement.

2. **The "Corruption Nexus":** As highlighted in the Goa incident, systemic corruption allows unauthorized structures to operate without valid Fire No-Objection Certificates (NOCs) or licenses.

3. **Infrastructure Bottlenecks:** Unplanned urbanization has resulted in narrow lanes and congested clusters, making it difficult for fire tenders to reach incident sites promptly.

4. **Resource Scarcity:** According to government data, Indian fire services face a massive shortage of fire stations (over 60% deficit) and firefighting personnel.

5. **Lack of Awareness:** Public spaces often lack clear signage or evacuation drills. In panic situations, occupants are unaware of exit routes.

Recent Concerns

- **Rising Toll:** NCRB data indicates over **7,000 deaths** occur annually in India due to fire incidents, highlighting that Goa is not an isolated case.

- **Hospital Fires:** Recent tragic fires in hospitals (e.g., Delhi, Rajkot) share similar patterns of negligence like blocked exits, dysfunctional equipment, and expired audits.

- **Toxic Materials:** The increasing use of highly flammable synthetic materials (like the foam and wood in the Goa club) in modern interiors accelerates fire spread and toxic smoke generation.

Way Forward

- **Mandatory Compliance:** States must make NBC 2016 guidelines legally binding for all

commercial establishments, with zero tolerance for violations.

- **Third-Party Audits:** Move beyond government inspections to **mandatory annual third-party safety audits** for high-footfall venues like clubs, malls, and hospitals.

- **Tech Integration:** Use **drones** for aerial inspection of unauthorized rooftop structures and IoT-based sensors for real-time fire detection.

- **Accountability:** Establish a clear chain of command where municipal officials are held personally liable for lapsing licenses in their jurisdiction.

- **Public Empowerment:** "Right to Safety" should be empowered by displaying valid Fire NOCs at the entrance of all public venues, allowing citizens to make informed choices.

Conclusion

The Goa tragedy serves as a grim reminder that **safety cannot be a byproduct of compliance; it must be a prerequisite for operation.** To prevent such "man-made disasters," India needs a paradigm shift from reactive firefighting to proactive fire prevention, anchored in strict enforcement and civic responsibility.

Digital Constitutionalism

Context

The government's rapid rollback of its directive mandating the Sanchar Saathi app, following concerns over consent, surveillance, and data misuse has reignited national debate on **digital constitutionalism**.
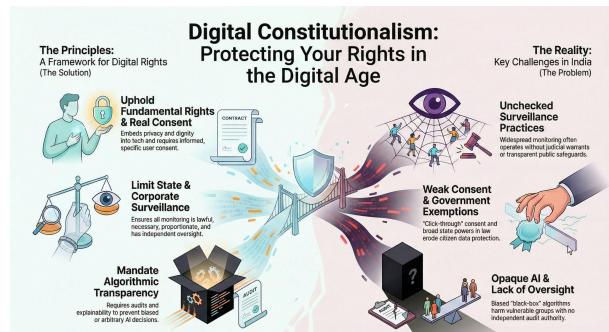
About Digital Constitutionalism

What it is?

Digital constitutionalism refers to the application and extension of core constitutional principles like liberty,

dignity, equality, privacy, due process, proportionality, and rule of law to digital spaces, technologies, and governance systems.

Concept Origin:

- **Global Emergence:** Arose globally as digital platforms began influencing fundamental rights, political participation, and state power.

- **Landmark Rulings:** Gained prominence after key privacy rulings, such as the **2017 Puttaswamy judgment** in India and the **EU's GDPR** (2018), which stressed digital rights, data control, and state accountability.

- **Academic Roots:** Traces back to early concerns about unchecked digital surveillance, algorithmic governance, and platform dominance.

Features of Digital Constitutionalism:

- **Rights-based Governance:** Embeds privacy, dignity, autonomy, and equality into digital systems, ensuring technology aligns with constitutional values.

- **Limits on Surveillance:** Ensures state and corporate monitoring is lawful, necessary, proportionate, and subject to independent oversight.

- **Algorithmic Transparency:** Mandates audits, explainability, and public disclosure of data practices to prevent arbitrary or hidden decision-making.

- **Meaningful Consent:** Requires informed, voluntary, and specific consent mechanisms that give real control over the use of personal data.

- **Anti-discrimination Safeguards:** Ensures AI systems are tested for bias so that digital tools do not reinforce existing socio-economic inequalities (e.g., caste, gender, racial bias).

Laws Governing Digital Rights In India

- **Article 21 – Privacy as a Fundamental Right:** The Puttaswamy (2017) judgment requires all digital intrusions to meet tests of legality, necessity, and proportionality.

- **Digital Personal Data Protection (DPDP) Act, 2023:** Governs data fiduciaries, consent, and storage, but offers **broad exemptions to**

the state, potentially weakening citizen protections.

- **IT Act, 2000 & IT Rules 2021/23:** Regulate intermediaries, cybersecurity, and platform liability, though they often prioritize governance over individual rights.

- **Aadhaar Act, 2016:** Governs biometric identity; mandate's purpose limitation after Supreme Court scrutiny to prevent misuse for mass surveillance.

- **No Dedicated Surveillance Law:** Current interception relies on the outdated Telegraph Act (1885) and IT Act (2000), lacking modern judicial oversight and safeguards.

Challenges Associated With Digital Constitutionalism

- **Unchecked Surveillance:** Practices like facial recognition, metadata tracking, and biometric monitoring operate without judicial warrants or transparent safeguards.

- **Weak Consent:** Click-through, uninformed consent models erode user autonomy and enable excessive data collection by the state and private actors.

- **Government Exemptions:** Broad powers under the DPDP Act reduce accountability and allow disproportionate data access without adequate checks.

- **Algorithmic Opacity and Bias:** "Black-box" AI systems produce discriminatory outcomes, disproportionately affecting vulnerable sections like women, minorities, and the poor.

- **Lack of Oversight Institutions:** India currently lacks an independent authority to audit algorithms, monitor surveillance practices, or enforce digital rights.

Way Ahead

- **Enact a Modern Surveillance Law:** Ensure all monitoring requires judicial warrants, proportionality assessments, and independent audits.

- **Establish a Digital Rights Commission:** Empowered to review algorithms, oversee data practices, investigate violations, and issue binding directions.

- **Strengthen DPDP Act:** Narrow state exemptions, enhance user remedies, mandate strict retention limits, and ensure greater transparency.

- **Regulate Algorithms:** Require impact assessments, periodic bias audits, and explainability norms for all high-risk AI systems used in public functions.

- **Expand Digital Literacy:** Enable citizens to understand data rights, identify risks, and effectively challenge digital governance abuses.

Conclusion

As governance becomes increasingly data-driven, constitutional values must anchor digital transformation. Without strong safeguards, surveillance and algorithmic opacity threaten liberty, equality, and democratic accountability. **Digital constitutionalism is essential to ensure that technology remains a tool of empowerment rather than a quiet instrument of control.**

23rd India–Russia Annual Summit

Context

The 23rd India–Russia Annual Summit concluded with a joint statement reaffirming the **Special & Privileged Strategic Partnership**.

INDIA & RUSSIA: BLUEPRINT FOR PARTNERSHIP 2030

About 23rd India–Russia Annual Summit

What it is?

The Annual Summit is the highest-level institutional dialogue between India and Russia, where the Prime Minister and the Russian President review bilateral ties and set strategic directions. The 2025 Summit marked **25 years of the Strategic Partnership** (2000–2025).

Key Outcomes of the Joint Statement:

- **Strategic Partnership Reaffirmed:** Both leaders reiterated commitment to a time-tested, trust-based partnership, emphasizing mutual

respect for core interests and a shared vision for a **multipolar world**.

- **Programme 2030 Adopted:** A comprehensive roadmap was adopted to deepen cooperation in trade, technology, defense, energy, space, nuclear, and connectivity until 2030.

Sector-Specific Agreements:

- **Trade & Payments System:**
  - Push for **USD 100 billion bilateral trade** by 2030.
  - Decision to deepen trade settlement using **national currencies**, ensure interoperability of payment systems, and explore central bank digital currencies.

- **Defence & Military-Technical Cooperation:**
  - Shift toward **joint R&D, co-development, and co-production** under 'Make in India'.
  - Support for spare-part manufacturing in India for Russian-origin equipment.
  - Continued momentum in exercises like **INDRA-2025** and trilateral training.

- **Major Energy Cooperation:**
  - Strengthening ties in oil, gas, LNG, petrochemicals, coal gasification, and long-term fertilizer supply.
  - Agreement to fast-track pending investment issues.

- **Connectivity Corridors:**
  - Commitment to scale up infrastructure for the **International North-South Transport Corridor (INSTC)**, Chennai–Vladivostok Maritime Corridor, and the Northern Sea Route (Arctic).

- **Civil Nuclear & Space Cooperation:**
  - Progress on **Kudankulam NPP** units and discussions on a second nuclear site.
  - Joint collaboration in nuclear fuel cycles, localization, and reactor technology.
  - Enhanced cooperation between **ISRO–Roscosmos**, covering human spaceflight, satellite navigation, and rocket engines.

- **Skilled Mobility:**

- ○ **Skilled Mobility Agreement Signed:** Facilitates regulated mobility of Indian skilled workers to Russia.

Global & Regional Issues:

- **UNSC Support:** Russia reaffirmed support for **India's permanent UNSC seat**.

- **Multilateral Cooperation:** Both sides strengthened cooperation in G20, SCO, BRICS, counter-terrorism, and climate change.

- **Counter-Terrorism:** Strong condemnation of terrorism, referencing the **Pahalgam attack (India)** and the **Crocus City attack (Russia)**.

Conclusion

The 23rd India–Russia Annual Summit reinforced the depth and resilience of the bilateral partnership. With the adoption of *Programme 2030* and new agreements across defence, energy, nuclear, connectivity, and skilled mobility, the summit sets a long-term trajectory for strategic cooperation. Both nations continue to align on key global issues, reaffirming the partnership's relevance in an evolving geopolitical landscape.

Directorate General of Civil Aviation (DGCA)

Context

IndiGo's mass flight cancellations forced the **DGCA** to grant a one-time exemption from the new Flight Duty Time Limitations (FDTL) rules, raising questions about the regulator's authority and decision-making process.

Turbulence Ahead: Key Challenges in India's Aviation Sector

About Directorate General of Civil Aviation (DGCA)

What it is?

The DGCA is India's statutory civil aviation regulator responsible for ensuring aviation safety, airworthiness, and compliance with global standards.

Key Details:

- **Established in:** Originally created in **1927** (as a government organization); became a **statutory body in 2020** under the Aircraft (Amendment) Act.

- **Ministry:** Functions under the **Ministry of Civil Aviation (MoCA)**.

- **Aim:** To promote **safe, efficient, and reliable air transportation** through proactive safety oversight, effective regulation, and alignment with ICAO international standards.

Key Functions of DGCA:

- **Safety Oversight & Regulations:** Frames and enforces Civil Aviation Requirements (CARs); conducts surveillance, audits, and spot checks of airlines, airports, MROs, and training organizations.

- **Aircraft & Airport Certification:** Registers civil aircraft, issues Certificates of Airworthiness, and certifies/inspects aerodromes for safety compliance.

- **Licensing:** Issues licenses to pilots, AMEs, ATCOs, cabin crew, and flight dispatchers; conducts examinations and skill checks.

- **Accident & Incident Investigation:** Investigates incidents and serious incidents (up to 2250 kg AUW) and implements safety management programs.

- **Air Transport Regulation:** Grants Air Operator Certificates (AOC) and regulates domestic/international scheduled and non-scheduled flights.

- **ICAO Coordination:** Ensures Indian aviation rules comply with ICAO standards; participates in USOAP audits and the harmonization of global norms.

- **Training & Dangerous Goods Oversight:** Approves flying schools and simulation centers; certifies operators handling dangerous goods and regulates air navigation services.

Significance of DGCA:

- **Ensures Passenger Safety:** strict oversight of aircraft, crew rest, maintenance, and airport standards.

- **Maintains Operational Discipline:** Keeps airlines compliant with safety rules, training norms, and technical requirements.

- **Balances Safety and Capacity:** As seen in the recent FDTL rollback, it plays a critical role in negotiating between safety norms and operational feasibility.

Challenges of Indian Aviation Sector

1. **High Operational Costs:** Airlines struggle with high Aviation Turbine Fuel (ATF) prices (which are not under GST) and a depreciating Rupee, as lease rentals and maintenance costs are dollar-denominated.

2. **Infrastructure Bottlenecks:** Rapid passenger growth has outpaced infrastructure, leading to severe congestion at metro airports, slot constraints, and airspace management issues.

3. **Supply Chain & Fleet Issues:** Global supply chain disruptions have led to delayed aircraft deliveries and the grounding of fleets due to engine issues (e.g., Pratt & Whitney engine troubles).

4. **Workforce Shortage & Fatigue:** An acute shortage of skilled pilots and cabin crew has led to rostering issues, increased fatigue, and difficulty in adhering to stricter FDTL norms.

5. **Market Concentration (Duopoly):** The sector is increasingly dominated by two major groups (IndiGo and Air India), raising concerns about reduced competition, pricing power, and consumer choice following the collapse of rivals like Go First.

Recent Concerns (2025 Context)

- **Mass Flight Cancellations:** IndiGo's recent operational meltdown, cancelling over 1,000 flights due to crew shortages and new roster rules, forced the government to impose temporary fare caps.

- **Hoax Bomb Threats:** A staggering rise in hoax bomb threats (over 800 reported in 2024-25) has caused frequent diversions, delays, and panic, straining security agencies.

- **Technical Snags & Safety Lapses:** frequent reports of technical glitches (engine shutdowns, cabin smoke) and serious lapses, such as Air India aircraft operating without valid airworthiness certificates.

- **GPS Spoofing:** Recent incidents of GPS spoofing near Delhi and the Middle East have disrupted navigation systems, posing a new technological threat to flight safety.

- **Regulatory "Flip-Flops":** The DGCA's rollback of stricter pilot rest rules (FDTL) under airline pressure has drawn criticism for prioritizing commercial operations over pilot fatigue and safety.

Conclusion

The Indian aviation sector stands at a critical juncture, balancing rapid expansion with the imperative of safety. While the DGCA plays a pivotal role in maintaining global standards, recent operational disruptions and safety concerns highlight the need for a more robust regulatory framework. Strengthening infrastructure, addressing workforce fatigue, and ensuring strict enforcement of safety norms are essential to sustain the sector's growth and restore passenger confidence in the "world's fastest-growing aviation market."

Open Market Operation (OMO) Purchase

Context

The RBI announced a **₹1 trillion OMO purchase** along with a **$5 billion dollar–rupee swap** to inject durable liquidity into the banking system. This move came as the rupee weakened beyond **₹90/$**, driven by persistent foreign portfolio outflows.

How the RBI Controls the Money Supply
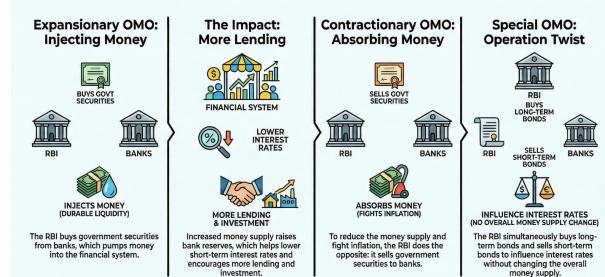
About Open Market Operation (OMO) Purchase

What is an OMO Purchase?

An Open Market Operation (OMO) purchase is a liquidity tool through which the RBI **buys government securities** from banks and financial institutions.

This injects **durable liquidity** into the financial system, increases bank reserves, softens short-term

interest rates, and strengthens monetary policy transmission.

Purpose of OMO Purchases

- **Inject Durable Liquidity:** Ensures banks have long-term funds to support credit growth.

- **Smooth Monetary Transmission:** Helps policy rate changes translate into lower lending rates.

- **Stabilise Money Markets:** Keeps the Weighted Average Call Rate (WACR) aligned with the RBI's policy repo rate.

Types of Open Market Operations

1. Expansionary OMO (Liquidity Injection)

- RBI **buys** government securities.

- Bank reserves rise → interest rates fall → lending and investment increase.

2. Contractionary OMO (Liquidity Absorption)

- RBI **sells** government securities.

- Money supply falls → interest rates rise → inflationary pressures soften.

3. Special OMOs / Operation Twist

- RBI buys **long-term bonds** and sells **short-term bonds** simultaneously.

- Objective: Flatten the yield curve without altering overall system liquidity.

How OMO Purchases Work

1. **Assessment:**
   RBI tracks currency pressures, capital flows, and liquidity deficits in the banking system.

2. **Auction Notification:**
   RBI announces the purchase size (e.g., ₹1 trillion) and maturity of securities via the E-Kuber platform.

3. **Execution:**
   Banks sell government bonds to RBI; RBI credits their accounts.

4. **Impact:**
   System liquidity increases, overnight market rates soften, and government bond yields fall.

Significance of OMO Purchases

Counteracts Foreign Outflows

When foreign investors pull out of India, rupee liquidity tightens. OMO purchases help replenish this shortage.

Stabilises Bond Yields

Prevents a surge in government borrowing costs during high fiscal deficit periods.

Supports Economic Growth

Ensures banks can continue lending to key sectors such as MSMEs, industry, and housing.

Challenges of OMOs in India

1. Inflationary Risks

Excess liquidity injection may fuel demand and stoke inflation if not timed correctly.

2. Yield Curve Distortion

Heavy intervention can artificially suppress long-term yields, reducing true market risk pricing and crowding out private sector debt.

3. Transmission Delays

Banks may not reduce lending rates quickly due to high deposit costs or rigidities such as elevated small savings rates.

4. Sterilisation Costs

If liquidity becomes excessive, RBI must later absorb it via OMO sales or VRRR operations, which involves interest costs.

5. Market Dependency

Regular OMO support can make bond markets excessively reliant on RBI interventions, increasing volatility when support is withdrawn.

Recent Concerns

1. The Liquidity–Currency Dilemma

RBI must sell dollars to defend the rupee (draining liquidity), and then buy bonds via OMOs to restore liquidity. This balancing act is difficult when the rupee is already under pressure.

2. Foreign Portfolio Outflows

Geopolitical tensions and higher global interest rates continue to pull capital out of India, intensifying liquidity shortages.

3. Weak Monetary Transmission

Despite liquidity injections, MSME lending rates remain sticky, raising concerns about the effectiveness of OMOs in the current cycle.

4. Inflation vs Growth Trade-Off

Injecting liquidity supports growth but risks worsening inflation and weakening the currency, limiting the RBI's policy flexibility.

5. Global Financial Volatility

Uncertain US Federal Reserve actions are creating large swings in capital flows, complicating RBI's ability to plan a stable OMO schedule.

Conclusion

The RBI's latest OMO purchase reflects the complex challenge of managing the **"impossible trinity"**, an independent monetary policy, a stable exchange rate, and open capital flows.
 While liquidity infusion is essential to prevent a credit squeeze, the RBI must carefully calibrate its actions to ensure excess liquidity does not reignite inflation or further weaken the rupee, especially in a highly volatile global environment.

Barcelona Convention

Context

At COP24 of the **Barcelona Convention** in Cairo, EU countries and Mediterranean partners adopted strengthened commitments to protect the Mediterranean Sea.

A Pact for the Mediterranean Sea: The Barcelona Convention

About Barcelona Convention

What it is?

The Barcelona Convention is a legally binding **UNEP-led regional environmental agreement** for protecting the Mediterranean Sea against pollution and promoting sustainable coastal and marine management.

Key Details:

- **Adopted in:** 16 February 1976 (originally as the Convention for the Protection of the Mediterranean Sea Against Pollution).

- **Entered into force:** 1978.

- **Amended & Renamed:** In **1995**, it became the Convention for the Protection of the Marine Environment and Coastal Region of the Mediterranean.

- **Aim:**
  - Prevent, reduce, combat, and eliminate pollution from land-based, marine, and atmospheric sources.
  - Promote sustainable development through coordinated regional action.
  - Support Mediterranean states in implementing protocols dealing with **dumping, emergencies, land-based sources, protected areas, offshore pollution, hazardous waste, and coastal zone management.**

About Mediterranean Sea

What it is?

A **semi-enclosed, intercontinental sea** between Europe, Asia, and Africa, covering ~2.5 million km² and accounting for ~0.7% of global ocean area. It is a known biodiversity hotspot and the cradle of ancient civilizations.

Geography & Borders:

- **Neighboring Nations:**
  - **Europe:** Spain, France, Monaco, Italy, Slovenia, Croatia, Montenegro, Albania, Greece.
  - **Asia:** Turkey, Cyprus, Syria, Lebanon, Israel.
  - **Africa:** Egypt, Libya, Tunisia, Algeria, Morocco.

- **Key Connections:**
  - **Atlantic Ocean:** Connected via the **Strait of Gibraltar**.
  - **Black Sea:** Connected via the **Dardanelles–Marmara–Bosporus** system.
  - **Red Sea:** Connected via the **Suez Canal**.

Geological Features:

- Formed by the tectonic convergence of the **African and Eurasian plates**.
- Divided by the **Sicily submarine ridge** into western and eastern basins.
- **Major Basins:** Alborán, Algerian, Tyrrhenian (west); Ionian, Levantine (east).
- **Deepest Point: Calypso Deep** (5,267 m) in the Ionian Sea.
- **Major Islands:** Sicily, Sardinia, Corsica, Crete, Cyprus, Lesbos, and Mallorca.

Challenges of the Mediterranean Region

1. **Pollution Hotspot:** The sea is a semi-enclosed basin with slow water renewal (80-100 years), trapping land-based pollutants, untreated sewage, and agricultural runoff, leading to severe eutrophication.

2. **Plastic Crisis:** It is one of the world's most plastic-polluted seas, with microplastics threatening marine life and entering the human food chain.

3. **Invasive Species ("Lessepsian Migration"):** The widening of the Suez Canal and rising temperatures have allowed hundreds of invasive species (like lionfish and jellyfish) from the Red Sea to decimate native biodiversity.

4. **Overfishing:** More than 75% of fish stocks in the Mediterranean are currently overfished, threatening the livelihoods of coastal communities and the ecological balance.

5. **Mass Tourism Pressure:** The region attracts one-third of global tourism, causing massive coastal urbanization, habitat destruction, and seasonal peaks in waste generation.

Recent Concerns

- **"Mediccanes" & Warming:** The Mediterranean is warming 20% faster than the global average, leading to more frequent "Mediccanes" (Mediterranean Hurricanes) and devastating marine heatwaves.

- **Suez Canal Expansion Risks:** Recent discussions on further expanding the Suez Canal have raised alarms about accelerating the invasion of non-indigenous species, which the Barcelona Convention is struggling to manage.

- **Offshore Drilling:** Tensions over gas exploration rights (e.g., in the Eastern Mediterranean) pose risks of oil spills and conflict, complicating unified environmental governance.

- **Sea Level Rise:** Low-lying deltas, particularly the Nile Delta in Egypt and the Po Delta in Italy, face immediate threats of submersion and salinization due to rising sea levels.

- **Implementation Gaps:** Despite the COP24 commitments in Cairo, enforcement remains weak in non-EU southern shore countries due to lack of funding and political instability.

Conclusion

The Barcelona Convention remains the primary legal framework protecting the "blue heart" of the region. However, the Mediterranean faces an existential triple crisis of **pollution, biodiversity loss, and climate change**. Strengthening the convention requires not just diplomatic agreements, but strict enforcement of "polluter pays" principles and urgent decarbonization of the maritime sector to save this historic sea from becoming a "dead sea."

Prison Manuals and Reforms

Context

The administration of prisons in India faces significant scrutiny following Supreme Court observations regarding the rights of prisoners, particularly those with disabilities. Since "Prisons" fall under the **State List** of the Seventh Schedule, the Union Government can only issue advisory directions, not mandatory instructions, making uniform reform challenging.
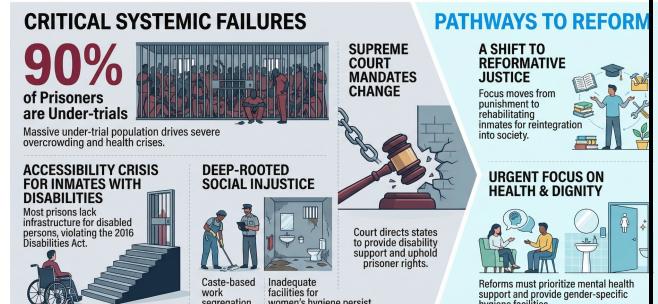
Rights of Persons with Disabilities (Divyang Jan) Accessibility Crisis:

- **Infrastructure Deficit:** Most Indian jails are not designed to accommodate Divyang Jan

(Persons with Disabilities), creating severe physical barriers.

- **Legal Mandate:** The **Rights of Persons with Disabilities Act, 2016** mandates support systems, yet implementation in prisons remains poor.

Judicial Intervention:

- **Supreme Court Directions:** Citing cases like those of **Stan Swamy** and **G.N. Saibaba**, the Court has directed authorities to provide necessary disability-related support.

- **State Negligence:** There are ongoing issues where the State has delayed or denied allowances requested by inmates with serious physical conditions to cope with incarceration.

Major Areas for Reform Structural and Health Issues:

- **Overcrowding:** A critical issue that exacerbates the spread of contagious diseases, including HIV/AIDS.

- **Under-trial Population:** Approximately **90%** of India's prison population consists of under-trials. The Supreme Court reiterates the principle that "bail should be the rule, and jail the exception."

Social Justice Concerns:

- **Caste-Based Segregation:** Several states continue to follow discriminatory colonial manual rules, such as reserving sanitation and cleaning work specifically for Dalit and Adivasi prisoners. Courts have deemed this practice unconstitutional.

- **Gender-Specific Needs:** Reforms are required to address women's hygiene and dignity, specifically the provision of separate washrooms and sanitary pads.

Rehabilitation and Mental Health:

- **Mental Health:** The National Crime Records Bureau (NCRB) highlights mental health as a significant concern among inmates requiring urgent psychiatric support.

- **Reformative Justice:** The justice system aims to shift focus from purely punitive measures to **reformative justice**, helping inmates rehabilitate and reintegrate into society.

Conclusion

Prison reform in India requires a multi-faceted approach, moving beyond confinement to ensure human dignity. Addressing the high volume of under-trials, eliminating caste-based labor, and ensuring accessibility for disabled prisoners are essential steps to align prison administration with constitutional values.

Dhruva Framework

Context

The Department of Posts has proposed the **Dhruva framework**, an initiative designed to revolutionize location tracking and address standardization in India. It aims to create digital references for physical locations, streamlining logistics and governance.

Meet Dhruva: Digitizing India's Addresses
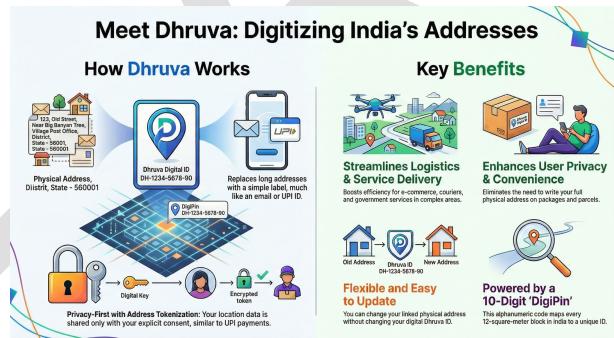
About the News Concept and Mechanism:

- **Full Form:** **D**igital **H**ub for **R**eference and **U**nique **V**irtual **A**ddresses (Dhruva).

- **Core Goal:** To establish a standard for creating and sharing addresses using a simple label, similar to how an email address or UPI ID works, replacing long, complex physical addresses.

- **Technological Basis:** Each virtual address (label) is mapped to exact GPS coordinates, ensuring precise location identification.

Key Components DigiPin Integration:

- The framework utilizes a **10-digit DigiPin**, an alphanumeric code derived from location coordinates.

- **Granularity:** Developed as an open-source system by the India Post, it maps every **12 square meter block** in India to a unique pin.

Data Privacy:

- **Tokenization:** Similar to how UPI tokenizes bank details, Dhruva allows users to "tokenize" their address.
- **Consent-Based:** Data sharing remains strictly consent-based, ensuring user control over who accesses their location details.

Key Benefits Logistics and Governance:

- **Accessibility:** Solves the challenge of locating addresses in unorganized or complex urban/rural layouts.
- **Service Delivery:** Enhances the efficiency of e-commerce (e.g., Amazon), logistics (e.g., Uber), and government service delivery.

User Convenience:

- **Privacy:** Eliminates the need to write full physical addresses on parcels, protecting personal details.
- **Flexibility:** Users can easily edit or change their linked address details without altering the virtual label.

Conclusion

The Dhruva framework represents a significant shift towards digital governance in India. By integrating GPS technology with a user-friendly "address token" system (DigiPin), it aims to solve the perennial problem of unstructured addresses while balancing utility with privacy.

Vande Mataram

Context

The discussion surrounding *Vande Mataram* has intensified due to its 150th anniversary. The Government of India plans a year-long national celebration to commemorate this milestone, sparking fresh debates in Parliament regarding its history and adoption.
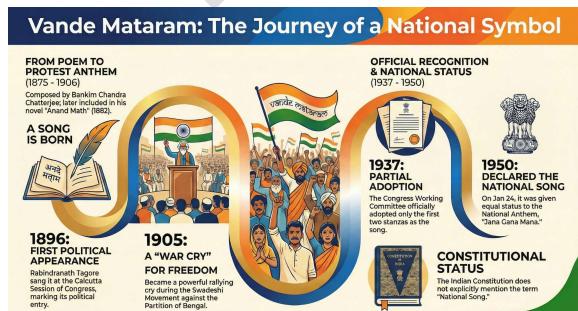
About the News Parliamentary Debate:

- **Opposition Stance:** Questioned the necessity of the extensive debate in the Lok Sabha.
- **Political Allegations:** Concerns were raised that the debate might be politically motivated, potentially targeting upcoming West Bengal elections.
- **Prime Minister's Remark:** Suggested that only the first two stanzas were originally adopted to accommodate religious equations and align with the Muslim League at the time, reflecting a push for secularism.

Composition and Adoption Origins:

- **Composer:** Bankim Chandra Chatterjee.
- **Publication:** First published in *Bangadarshan* on November 7, 1875; later incorporated into the novel *Anand Math* in 1882.
- **Musical Composition:** Rabindranath Tagore provided the music, embedding the song deeply into Indian culture.

National Status:

- **1937 CWC Decision:** The Congress Working Committee adopted only the first two stanzas as the National Song.
- **Official Recognition:** On January 24, 1950, the first President of India announced *Vande Mataram* as the National Song, granting it equal status to the National Anthem (*Jana Gana Mana*).
- **Constitutional Note:** The Indian Constitution does not explicitly mention the term "National Song."

Historical Significance Freedom Struggle Role:

- **1896 Congress Session:** Rabindranath Tagore sang *Vande Mataram* at the Calcutta Session, marking early political recognition.
- **Partition of Bengal (1905):** Became a rallying cry during the anti-partition protests.
- **Swadeshi Movement:** Referred to as a "War Cry" against British rule.
- **Vande Mataram Sampradaya:** Established in October 1905 in Kolkata to foster devotion to the Motherland.

- **Press:** Bipin Chandra Pal launched an English daily newspaper titled *Vande Mataram* in August 1906.

Conclusion

The 150th anniversary of *Vande Mataram* serves as a reminder of its pivotal role in India's freedom struggle, particularly during the Swadeshi Movement. While political debates continue regarding its adoption and stanzas, it remains a potent symbol of Indian culture and nationalism, holding a distinct status alongside the National Anthem.

Student Suicides in India

Context

In the wake of the tragic death of 16-year-old Shourya Patil in Delhi, the issue of student suicides has once again come into focus, highlighting systemic failures in addressing bullying and mental distress in schools. Data from the National Crime Records Bureau (NCRB) reveals a 65% surge in student suicides over the last decade, pointing to a severe gap in institutional mental health protection.

INDIA'S STUDENT SUICIDE CRISIS
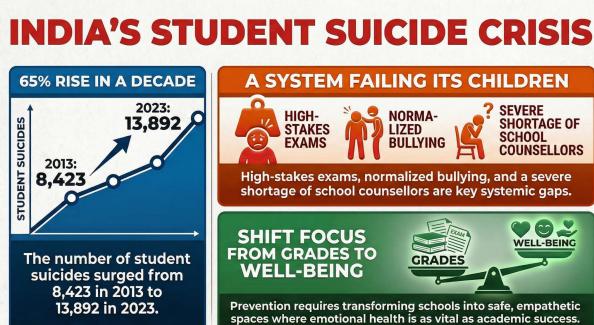
About the News Statistics and Trends:

- **Alarming Increase:** The number of student suicides rose from 8,423 in 2013 to 13,892 in 2023, representing a 65% increase that outpaces the national average for suicide growth.

- **Vulnerable Demographics:** The age bracket of affected children has widened to include 9–17 year-olds, suggesting that stress is pervasive across all school stages.

- **Exam-Related Spikes:** States like Telangana and Uttar Pradesh report clusters of incidents coinciding with exam months, driven by a marks-oriented education culture.

Behavioral Shifts:

- **Post-Pandemic Impact:** Adolescents are displaying lower emotional resilience, increased social withdrawal, and higher screen time usage, exacerbating vulnerabilities.

Institutional & Legal Framework Existing Mandates:

- **Supreme Court Guidelines (2025):** Directs the establishment of helplines, mandatory counselor appointments, and staff sensitization; however, implementation remains weak.

- **Protection Laws:** The Juvenile Justice (JJ) Act and POCSO norms mandate school-level child protection committees to handle grievances and safety audits.

Gaps in Infrastructure (UNICEF 2024):

- **Prevalence vs. Support:** While 23% of schoolchildren exhibit psychiatric symptoms, the ratio of counselors to students is critically low.

- **Resource Deficit:** Most educational institutions lack specific budgets for mental health, safe disclosure spaces, or evidence-based emotional literacy programs.

Factors Driving the Crisis School Environment:

- **Punitive Culture:** Dignity is often eroded by rigid academic expectations, public shaming, and comparison-based ranking systems.

- **Normalization of Bullying:** Exclusion, verbal taunts, and physical teasing are frequently trivialized or ignored despite being severe adverse experiences.

- **Teacher Training:** B.Ed programs currently lack robust mental health modules, leaving teachers ill-equipped for empathetic communication or psychological first aid.

Domestic & Digital Factors:

- **Family Dynamics:** Nuclear family structures and high work pressures have created an emotional vacuum, reducing parental engagement.

- **Digital Overstimulation:** The dopamine loops of social media distort self-image and increase impulsivity, fostering an environment conducive to self-harm.

Challenges Systemic Blind Spots:

- **Warning Signs Ignored:** Indicators such as academic decline, mood swings, and withdrawal are often dismissed as "normal teenage behavior."
- **Medical Gaps:** There is limited access to age-appropriate psychiatric services, leading to untreated trauma, anxiety, and depression.
- **Enforcement Issues:** Despite judicial intervention, regulatory enforcement regarding mental health infrastructure in schools is inadequate.

Way Forward Infrastructure Overhaul:

- **Mandatory Counseling:** Schools with over 100 students must appoint full-time counselors and establish confidential crisis-intervention teams.
- **Helplines:** Integration of dedicated helplines with mandatory follow-up protocols for high-risk cases.

Academic Reform:

- **Holistic Evaluation:** Shift from high-stakes exams to project-based learning and phased assessments.
- **Pressure Management:** Regulate coaching centers, limit homework loads, and introduce "buffer days" around examination schedules.

Capacity Building:

- **Teacher Training:** Institutionalize mental health training in both B.Ed and in-service programs.
- **Emotional Literacy:** Integrate Social and Emotional Learning (SEL) into the curriculum, focusing on conflict resolution, empathy, and stress management.

Stakeholder Engagement:

- **Parental Partnership:** Conduct workshops on digital hygiene and supportive communication to strengthen family-school collaboration.
- **Safety Audits:** Mandate periodic audits on teacher conduct, grievance handling, and safety standards.

Conclusion

The rising trajectory of student suicides is not merely a collection of isolated events but a symptom of a system that pressures rather than nurtures. Preventing future tragedies requires a fundamental structural shift, transforming schools into empathetic, safe spaces where emotional well-being is prioritized alongside academic success.

Border Roads Organisation (BRO)

Context

Marking a significant boost to national defence capabilities, the Defence Minister of India recently inaugurated 125 BRO infrastructure projects worth ₹5,000 crore. This event represents the largest single-day launch of projects in the organisation's history, underscoring the government's push for robust border connectivity.

BRO: Securing & Developing India's Borders

About Border Roads Organisation (BRO) Organizational Profile:

- **Definition:** The BRO serves as the premier road construction executive force under the Ministry of Defence, entrusted with developing and maintaining strategic infrastructure in India's border zones and friendly foreign nations.
- **Establishment:** Founded on May 7, 1960.
- **Headquarters:** New Delhi.
- **Parent Body:** Border Roads Development Board (BRDB).

Core Objectives:

- **Strategic Support:** To fulfill the strategic requirements of the Armed Forces through the delivery of high-quality, time-bound infrastructure.
- **Regional Growth:** To facilitate the socio-economic development of inaccessible and remote border regions.

Operational Mandate Peace-time Role:

- **Infrastructure Development:** Construction and maintenance of operational roads in border areas to ensure year-round connectivity.

- **International Cooperation:** executing strategic projects in friendly foreign countries, including Afghanistan, Bhutan, Myanmar, Tajikistan, and Sri Lanka.

- **Socio-Economic Aid:** uplifting remote terrains by improving accessibility and connectivity for local populations.

War-time Role:

- **Logistical Backbone:** Constructing and maintaining roads essential for troop mobility and logistics supply chains.

- **Route Clearance:** Keeping critical supply lines open by clearing snow, landslides, and avalanches in hostile conditions.

- **Emergency Tasks:** Executing additional infrastructure tasks as directed by the Government to support conflict operations.

Broader Scope and Capabilities Technical & Human Resources:

- **Extreme Engineering:** Specializes in building roads, bridges, and airfields in extreme climatic zones and high-altitude environments.

- **Indigenous Technology:** Utilizes domestic innovations, such as Class-70 modular bridges, to enhance operational speed.

- **Employment Generation:** Employs over 2 lakh local workers, significantly contributing to rural livelihoods in border states.

Disaster Management:

- **First Responders:** Plays a pivotal role in rescue and relief operations during natural calamities like tsunamis, earthquakes, floods, and landslides.

Significance National Security:

- **Strategic Mobility:** Enhances military responsiveness and mobility along sensitive borders with China and Pakistan, particularly in high-altitude sectors.

Economic & Geopolitical Impact:

- **Connectivity:** Boosts trade, tourism, and local development, integrating remote areas with the national mainstream.

- **Infrastructure Diplomacy:** Strengthens India's geopolitical influence and neighborhood outreach through development partnerships in surrounding nations.

Conclusion

The Border Roads Organisation stands as a pillar of India's comprehensive defence strategy. By balancing the immediate logistical needs of the Armed Forces with the long-term socio-economic development of border regions, the BRO ensures that India's frontiers are both secure and connected.

Hindu Rate of Growth

Context

The Prime Minister recently criticized the phrase "Hindu rate of growth," labeling it as a colonial and communal tag that unfairly associates India's past economic

UNDERSTANDING INDIA'S "HINDU RATE OF GROWTH"

THE PROBLEM: **THREE DECADES OF STAGNATION** (1950s-1980s)

A GROWTH RATE OF **JUST 3.5-4%**
For 30 years, India's annual GDP growth was stuck at this low rate.

MAIN CAUSE: THE **"LICENSE-PERMIT-QUOTA RAJ"**
A restrictive system of state control stifled private enterprise and foreign investment.

LAGGING BEHIND THE **"EAST ASIAN MIRACLE"**
EAST ASIAN MIRACLE: 7-10% (e.g., South Korea, Taiwan)

THE SOLUTION: **THE TURNAROUND**

THE BREAKOUT **BEGAN IN THE 1980s**
The shift away from low growth started *before* the well-known 1991 reforms.

GROWTH **ACCELERATED TO NEARLY 6%**
Pro-business reforms and gradual deregulation pushed the growth rate to 5.6-5.8%.

5.6-5.8% GROWTH

About Hindu Rate of Growth Definition and Origin:

- **What it means:** The term describes a prolonged period of low annual GDP growth, approximately 3.5% to 4%, that characterized the Indian economy from the 1950s through the 1980s.

- **Nature of the term:** It refers strictly to long-run real GDP trends and does not imply any technical relationship between religion and economic behavior.

- **Origin:** The term was coined by economist **Raj Krishna** of the Delhi School of Economics in the late 1970s (widely cited as 1978).

Key Features of the Era

- **Persistent Stagnation:** For three decades, India's GDP growth remained stuck at the 3.5–4% mark. Due to high population growth

during this period, the actual rise in per capita income was minimal.

- **Insularity to Shocks:** Economists noted that this growth rate was surprisingly stable or "entrenched", regardless of external or internal shocks, including wars, droughts, famines, or changes in political leadership.

- **The "License Raj" Factor:** The stagnation is largely attributed to the "License-Permit-Quota Raj", a highly restrictive system characterized by industrial licensing, import substitution, high tariffs, and a lack of private enterprise freedom.

- **State-Dominated Model:** The economy was "mixed" but heavily tilted toward state control over core industries, financial credit, and trade, which stifled market competition and foreign investment.

Comparative & Historical Context Global Contrast:

- **East Asian Miracle:** While India languished at ~3.5% growth, peer economies in East Asia (such as South Korea and Taiwan) surged ahead with growth rates of 7–10%, highlighting India's relative underperformance during the post-colonial era.

The Turnaround:

- **Pre-1991 Shift:** Contrary to popular belief, the break from the "Hindu rate of growth" began before the 1991 liberalization. Studies indicate that growth accelerated to roughly 5.6–5.8% in the 1980s, driven by pro-business reforms and gradual deregulation.

Conclusion

The "Hindu rate of growth" serves as a historical economic marker representing the limitations of India's early central planning and inward-looking policies. Its usage today often sparks debate on whether it reflects cultural determinism or simply describes a bygone era of policy-induced stagnation.

Sudden Stratospheric Warming (SSW) Event

Context

Meteorologists have issued warnings regarding a potential Sudden Stratospheric Warming (SSW) event in December 2025. This phenomenon threatens to disrupt the polar vortex, potentially funneling unusually frigid Arctic air into parts of the United States.

Anatomy of a Polar Vortex Disruption

THE 4-STEP PROCESS OF AN SSW EVENT

1 **ATMOSPHERIC WAVES INTERFERE** Large atmospheric waves (Rossby waves) rise into the stratosphere, disturbing the polar vortex.

2 **THE VORTEX WEAKENS** These waves "break," causing the vortex's strong westerly winds to slow or even reverse.

3 **THE STRATOSPHERE HEATS RAPIDLY** As the vortex collapses, air sinks and compresses, warming by up to 50°C.

4 **ARCTIC AIR SPILLS SOUTHWARD** The disrupted vortex drifts or spills, releasing frigid air into the mid-latitudes.

KEY FEATURES OF AN SSW

Up to 50°C Warming Stratospheric temperatures can increase dramatically in just a few days during an event.

Delayed Impact Effects on surface weather are not immediate, usually appearing 1-3 weeks later.

Not a Guaranteed Freeze Not all SSW events result in major cold outbreaks at the surface.

About Sudden Stratospheric Warming (SSW)
Definition:

- **What it is:** An SSW is a weather phenomenon characterized by a rapid temperature rise, sometimes jumping by up to 50°C, within the stratosphere (approximately 10–50 km above Earth's surface).

- **Primary Effect:** It destabilizes the **polar vortex**, the band of strong westerly winds that typically circles the Arctic, often leading to significant weather anomalies at ground level.

Mechanism: How it Occurs

- **Polar Vortex Formation:** During winter, strong westerly winds tighten around the Arctic, creating a "stratospheric polar vortex" that effectively traps freezing air high above the pole.

- **Interference by Rossby Waves:** Large atmospheric disturbances known as Rossby waves rise from the lower atmosphere (troposphere) into the stratosphere, transferring energy that disturbs the vortex's stability.

- **Wave Breaking:** Similar to ocean waves crashing, these atmospheric waves "break" against the vortex. This can weaken or even reverse the direction of the westerly winds, throwing the polar wind system into chaos.

- **Rapid Compression & Warming:** As the weakened system collapses, cold stratospheric air descends rapidly. As it sinks, it compresses and heats up intensely—causing the sudden temperature spike that defines the event.

- **Displacement:** The disrupted vortex may split or drift southward, allowing trapped Arctic air

to spill into mid-latitudes, triggering cold outbreaks in North America, Europe, or Asia.

Key Features

- **Drastic Warming:** Stratospheric temperatures can increase by up to 50°C in just a few days.

- **Wind Reversal:** The typical westerly winds often slow down or reverse to become easterlies.

- **Lag Effect:** The impact on surface weather is not immediate; effects usually manifest **1–3 weeks** after the stratospheric event.

- **Irregularity:** SSW events do not occur every winter, and not every event guarantees a major impact on surface weather.

Implications Weather Impacts:

- **Cold Snaps:** Can unleash sudden, severe cold waves, snowstorms, and prolonged freezing conditions across North America and Europe.

- **Atmospheric Blocking:** May alter storm tracks and establish high-pressure "blocks" over the North Atlantic, leading to stagnant weather patterns.

Forecasting Challenges:

- **Predictability:** Accurate predictions are difficult beyond a 7–10 day window.

- **Uncertainty:** Meteorological models often struggle to pinpoint exactly where the displaced pocket of Arctic air will land.

Conclusion

While Sudden Stratospheric Warming originates high in the atmosphere, its potential to reverse wind patterns and displace polar air makes it a critical driver of severe winter weather in the Northern Hemisphere. Monitoring these events is essential for preparing for potential cold air outbreaks in mid-latitude regions.

Dadabhai Naoroji

Context

In 2025, India commemorates the 200th birth anniversary of Dadabhai Naoroji. The celebrations honor his enduring legacy as a pioneering nationalist leader, a profound economic thinker, and one of the founding architects of the Indian freedom struggle.

DADABHAI NAOROJI: THE ARCHITECT OF INDIAN FREEDOM
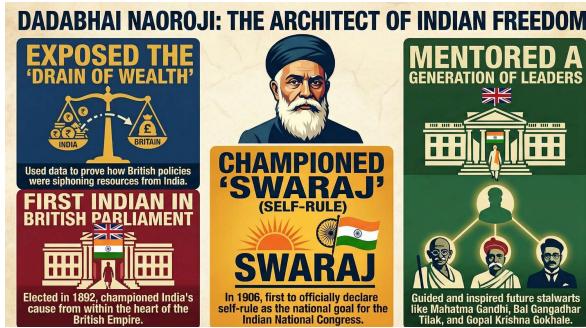
About Dadabhai NaorojiProfile:

- **Who he was:** Dadabhai Naoroji (1825–1917) was a scholar, social reformer, and the first Indian to become a Member of the British Parliament.

- **Early Life:** Born on September 4, 1825, into a Parsi family in Bombay (some records suggest Navsari).

- **Education:** He was a standout student at the Elphinstone Institute and later became the **first Indian Professor** at Elphinstone College, teaching Mathematics and Natural Philosophy.

Economic Contributions: The Drain Theory

- **The Theory:** Naoroji systematically dismantled the colonial narrative by propounding the **"Drain of Wealth" theory**. He demonstrated how Britain was draining India's resources through administrative salaries, pensions, remittances, and unequal trade practices.

- **Key Works:** Authored the seminal book *Poverty and Un-British Rule in India* and *Poverty of India*.

- **Impact:** His advocacy led to the establishment of the **Welby Commission (1895)** to investigate Indian expenditure. He served as a member of this commission, laying the intellectual foundation for Swadeshi and fiscal self-reliance.

Political Journey

- **Parliamentary Pioneer:** In 1892, he became the **first Indian MP** in the British House of Commons, elected from Central Finsbury on a Liberal Party ticket.

- **Congress Leadership:** A founding member of the **Indian National Congress (INC)**, he served as its President three times (1886, 1893, and 1906).

- **The Call for Swaraj:** Presiding over the historic 1906 Calcutta Session, he was the first to officially adopt **"Swaraj"** (self-rule) as the national goal of the Congress.
- **Unifying Figure:** He acted as a bridge between the Moderates and Extremists and mentored future stalwarts like Gopal Krishna Gokhale, Bal Gangadhar Tilak, and Mahatma Gandhi.

Social & Institutional Reforms

- **Social Reform:** He was a staunch advocate for **women's education** and co-founded the *Rahnumai Mazdayasan Sabha* (1851) to reform the Parsi community.
- **Journalism:** Founded the Gujarati newspaper *Rast Goftar* ("The Truth Teller") to champion social progress.
- **Education:** Along with Jyotiba Phule, he submitted recommendations to the **Hunter Commission (1882)** advocating for compulsory primary education.
- **Global Advocacy:** Established the **London Indian Society (1865)** and the **East India Association (1866)** to internationalize Indian grievances and garner support in Britain.

Unique Facts

- **Titles:** Revered globally as the **"Grand Old Man of India"** and the **"Unofficial Ambassador of India."**
- **Academic Firsts:** He taught Gujarati at University College London, breaking early academic barriers for Indians abroad.
- **Data-Driven:** He was among the first to use statistical data to scientifically analyze and prove the extent of poverty in India.

Conclusion

Dadabhai Naoroji was not just a politician but the intellectual father of Indian nationalism. By exposing the economic exploitation of colonial rule and demanding self-government within constitutional frameworks, he prepared the ground upon which the struggle for India's independence was eventually fought and won.

Mental Health

Context

Mental health has emerged as a critical global concern, affecting individuals across all stages of life, from teenagers and students to working professionals and the elderly. The rising prevalence of issues like loneliness and anxiety highlights the urgent need for systemic intervention.

About Mental Health

Scope: Mental health is not limited to specific demographics; it impacts:

- **Teenagers/Students:** Facing academic and peer pressure.
- **Working Professionals:** Dealing with career isolation and financial stress.
- **Elderly:** Often suffering from isolation and loneliness.
- **Parents:** Managing familial and societal expectations.

Major Causes:

- **Societal & Academic Pressure:** High expectations regarding marks, career success, and social standing.
- **Digital Influence:** Excessive use of **social media** contributes to depression, anxiety, and the **Fear of Missing Out (FOMO)**.
- **Personal Factors:** Relationship issues (breakups, marital stress), overthinking, and biological/psychological predispositions.
- **Socio-Economic Factors:** Financial pressure, social crises, economic discrimination, and cultural loss.

Challenges in Addressing Mental Health

Ignorance and Stigma: A major barrier is the lack of identification of mental health as a legitimate medical issue. Symptoms are often dismissed as "drama," or the individual is stigmatized with labels like "mad."

Infrastructure & Access Gap:

- **Shortage of Professionals:** There is a severe lack of trained doctors and psychiatrists.
- **Treatment Gap:** Approximately **60% to 70%** of people suffering from mental health issues do not receive adequate care due to affordability or lack of facilities.

Lack of Resilience Training: The current education and social systems fail to train individuals in essential life skills, such as **handling failure**, dealing with criticism, and navigating complex social interactions.

Way Forward

Institutional Support:

- **Workforce:** Urgently increase the number of trained mental health professionals.
- **Support Systems:** Establish permanent mental health consultants in **schools, colleges, and workplaces**.

Social & Cultural Shift:

- **Open Conversations:** Normalize discussions about mental wellness within families and social circles to break the stigma.
- **Capacity Building:** Focus on training individuals to build emotional resilience against failure and criticism.

Lifestyle Integration:

- Promote **physical activity and Yoga** as essential tools for maintaining mental equilibrium.

Conclusion

Addressing the mental health crisis requires a dual approach: building robust medical infrastructure and fostering a compassionate society that treats mental health with the same seriousness as physical health. Prioritizing wellness over winning is the first step toward a healthier society.

Right to Health and Health Facilities

Context

The core challenge surrounding the Right to Health in India is the rapid commercialization of healthcare facilities coupled with insufficient public spending. This duality has created significant barriers to equitable access for the general population.

Challenges in India's Health Sector

Access and Affordability Gap: There is a critical mismatch between the demand and supply of doctors and diagnostic centers.

- **Regional Disparity:** Health facilities are not uniformly accessible, often forcing patients to travel **100–150 km** for serious medical treatment.

Commercialization & Privatization: The government's willingness to step back has encouraged privatization.

- **Profit vs. Care:** Private hospitals often prioritize profit over patient care, making facilities unaffordable for the masses.

High Out-of-Pocket Expenditure (OOPE): India continues to have one of the highest rates of OOPE globally.

- **Major Costs:** The bulk of patient spending goes toward medicines, diagnostic tests (often prescribed unnecessarily), and travel expenses.

Low Financial Allocation: India's financial commitment to public health is among the lowest in the world.

- **Budget Share:** Only about **2% of the Union Budget** is allocated to health services.
- **Per Capita Spending:** The annual per capita public spending on health is merely **$25**.

Medicine Costs:

- **Price Control:** Over **80% of medicines** in India remain outside price control mechanisms.
- **Market Issues:** This leads to high retail markups, unethical marketing practices, and the proliferation of irrational drug combinations.

Government Schemes vs. Infrastructure

Ayushman Bharat Yojana: The government supports health access through schemes like Ayushman Bharat, which provides **₹5 lakh per family per year** for secondary and tertiary care hospitalization.

Infrastructure Deficit: Despite this financial cover, funds often flow into private hospitals because **World Class Government Hospitals** are lacking at the district level. The absence of robust public infrastructure forces reliance on the private sector.

Way Forward

Universal Coverage & Infrastructure:

- **Universal Health Coverage (UHC)** needs to be aggressively expanded.
- **Health infrastructure** must be built rapidly and processes streamlined to reduce bottlenecks.

Workforce & Regulation:

- **Medical Workforce:** There is an urgent need to increase the number of doctors and health professionals.
- **Price Regulation:** Costs for medical tests and diagnostics should be regulated to prevent exploitation.

Policy Measures:

- **Price Ceilings:** Implementing price caps on private hospitals could be considered, though care must be taken not to disincentivize private investment in underserved areas.
- **Focus on Equality:** Prioritizing universal access to both health and education is crucial for achieving societal equality.

Technology:

- **Digital Health:** Leveraging solutions like **AI** and online primary care can significantly bridge the access gap in remote areas.

Conclusion

While government schemes provide financial protection, the Right to Health cannot be fully realized without addressing structural deficits. Strengthening public health infrastructure and regulating commercial practices are essential to ensure healthcare is a service, not just a commodity.

Removal of a High Court Judge

Context

The topic is currently in the news after the India Alliance brought a resolution seeking the removal of Madras High Court Judge, **Justice G.R. Swaminathan**.

About Removal of a High Court Judge

Terminology: While often colloquially referred to as "impeachment," the Constitution of India does not use this word for judges. It specifically uses the term **"removal."**

Conditions for Removal: A judge can be removed only on two specific grounds:

1. **Proven Misbehavior**
2. **Proven Incapacity**

Authority:

- **Uniform Process:** The removal process is identical for both High Court and Supreme Court judges.
- **Parliamentary Exclusive:** Only the Parliament of India is authorized to remove a judge; **State Legislatures have no role** in this process.

The Removal Process

1. Initiation of Motion: The removal motion must be signed by a specific number of members before being introduced:

- **100 members** in the Lok Sabha.
- **50 members** in the Rajya Sabha.

2. Role of Presiding Officer: The resolution is submitted to the **Speaker** (if in Lok Sabha) or the **Chairperson** (if in Rajya Sabha).

- **Discretion:** The presiding officer has the authority to either **accept or reject** the resolution.
- **No Accountability:** They are not obligated to provide reasoning if they choose to reject it.

3. Inquiry: If the motion is accepted, an inquiry is initiated under the **Judges Inquiry Act, 1968** (this procedure is statutory, not Constitutional). A **three-member committee** is constituted to conduct a thorough investigation into the charges.

4. Voting in Parliament: If the committee finds the judge guilty, the resolution returns to Parliament for voting. It must be passed by a **Special Majority** in both houses.

- **Special Majority Definition:**
  - **(A) Absolute Majority:** More than 50% of the total strength of the House (e.g., 273 if total strength is 545).
  - **(B) Two-thirds Majority:** At least 2/3rds of members present and voting.

5. Final Step: Once passed by the Special Majority in both houses, the **President of India** signs the order, and the judge is officially removed.

Historical Note

To date, **no judge has been successfully removed** in India. This highlights the rigorous and difficult nature of the removal process designed to protect judicial independence.

Conclusion

The removal mechanism is a critical constitutional safeguard, balancing judicial accountability with independence. While the process involves legislative initiation, the strict requirements for inquiry and voting ensure that removal occurs only in cases of proven misconduct or incapacity.

Citizenship Amendment Act (CAA)

Context

The Citizenship Amendment Act (CAA) is currently in the news following the Supreme Court's advice that citizenship under this act should be provided only after rigorous scrutiny, emphasizing that the process is not automatic.

About the Citizenship Amendment Act (CAA)

- **Background:** previously, the **Citizenship Act of 1955** explicitly stated that illegal migrants were prohibited from applying for Indian citizenship.

- **Key Change (CAA 2019):** The CAA, 2019, amended this provision to make specific religious minorities from three neighboring countries like **Bangladesh, Afghanistan, and Pakistan**, eligible for citizenship, effectively decriminalizing their status as illegal migrants for the purpose of citizenship application.

Key Provisions

Eligible Groups: The act provides exemptions for six specific communities who faced religious persecution:

- **Hindu**
- **Sikh**
- **Buddhist**
- **Jain**
- **Parsi**
- **Christian**

Eligibility Criteria:

- **Origin:** Applicants must prove they originated from Pakistan, Afghanistan, or Bangladesh using relevant documentation.

- **Cut-off Date:** They must have arrived in India on or before **December 31, 2014**.

- **Legal Protections:** Eligible applicants are exempted from criminal cases, deportation, or punishment related to their illegal entry or stay.

Process & Scrutiny

Verification Mechanism: Citizenship is **not automatic**. Applicants must undergo a detailed process including:

- **Scrutiny:** Thorough examination of claims.

- **Background Checks:** Security and legal verifications.

- **Document Verification:** Proof of country of origin and date of entry is mandatory.

Conclusion

The CAA represents a significant shift in India's citizenship framework by prioritizing relief for persecuted minorities from neighboring nations. However, the Supreme Court's recent observations underscore that while the act provides a pathway to citizenship, it maintains strict adherence to legal scrutiny and verification procedures.

Global Summit on Traditional Medicine

Context

In December 2025, India officially commenced the countdown to the 2nd WHO Global Summit on Traditional Medicine. The event is scheduled to be held from December 17–19, 2025, at Bharat Mandapam, New Delhi.

THE FUTURE OF HEALTH: GLOBAL SUMMIT ON TRADITIONAL MEDICINE
LANDMARK GLOBAL SUMMIT
Hosted by WHO & India in New Delhi. Dec 17–19, 2025.
SCIENCE MEETS ANCIENT WISDOM
Prioritizes Scientific Validation & Evidence-Based Integration.
100+ COUNTRIES PARTICIPATING
Delegations: Health Ministers, Scientists & Industry Leaders.
SHAPING FUTURE HEALTHCARE
The primary goal is to create a roadmap for integrating traditional medicine into national healthcare systems.

About the News

Event Overview: This is a high-level global health summit convened by the World Health Organization (WHO) aimed at advancing traditional, complementary, and integrative medicine through policy collaboration and scientific validation.

Hosting and Support:

- **Co-Hosts:** The event is co-hosted by the WHO and the Ministry of Ayush, Government of India.
- **Institutional Support:** It is supported by the WHO Global Traditional Medicine Centre (GTMC) in Jamnagar, Gujarat.

Theme (2025): "Restoring balance: The science and practice of health and well-being."

Key Features of the Summit

- **Evidence-Based Integration:** The summit prioritizes the scientific validation of traditional medicine. This includes establishing quality benchmarks, regulatory frameworks, and conducting robust clinical trials.
- **Digital Health & Innovation:** Showcases will include AI-driven pharmacopeias, digital repositories of traditional knowledge, and comprehensive biodiversity mapping for medicinal plants.
- **Global Participation:** Delegations from over 100 countries are expected, comprising Health Ministers, policymakers, scientists, industry leaders, and practitioners of Indigenous medicine.
- **Biodiversity & Sustainability:** Discussions will focus on the sustainable sourcing of medicinal plants and the conservation of diverse systems such as Ayurveda, Siddha, Unani, Sowa-Rigpa, and Homeopathy.

Significance of the Summit

- **Bolstering Soft Power:** The summit positions India as a global leader in the domain of traditional medicine, building upon the international success of Yoga and the rising credibility of Ayurveda.
- **Strengthening Collaboration:** It enhances the strategic role of the WHO-GTMC in Jamnagar, reflecting increasing global confidence in India's traditional knowledge systems.
- **Health System Integration:** The event serves as a catalyst for countries to incorporate traditional medicine into Universal Health Coverage (UHC), primary healthcare, and public health initiatives.

Way Forward

- **Policy Harmonisation:** The primary goal is to create a decade-long roadmap that ensures safe, equitable, and evidence-based traditional medicine is integrated into national healthcare systems.
- **Research & Development:** Continued investment in scientific research is essential to bridge the gap between traditional wisdom and modern medical standards.

Conclusion

The 2nd WHO Global Summit represents a crucial step in harmonizing ancient wisdom with modern science. By fostering global cooperation and emphasizing evidence-based practices, the summit aims to institutionalize traditional medicine as a vital component of holistic global health.

Brain–Computer Interface (BCI)

Context

India is actively exploring neurotechnology and **Brain–Computer Interfaces (BCIs)** as strategic tools to drive healthcare innovation, economic growth, and technological leadership, keeping pace with global advancements led by the U.S., China, and Europe.
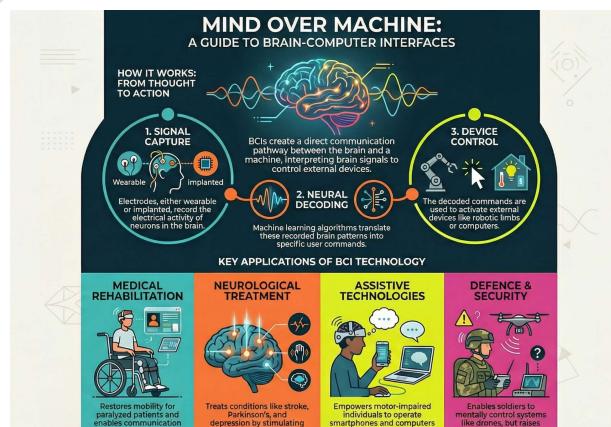
About Brain–Computer Interface (BCI)

- **Definition:** A BCI is a system that interprets brain signals and converts them into digital commands to control external devices such as computers, robotic limbs, or wheelchairs.
- **Core Function:** It establishes a **two-way communication channel** between the brain and machines. This technology is designed to aid in the restoration of lost biological

functions or to enable entirely new capabilities.

How It Works

- **Signal Capture:** Electrodes (which can be invasive implants or non-invasive wearables) record the electrical activity generated by neurons.

- **Neural Decoding: Machine learning algorithms** translate these recorded patterns into specific user intentions (e.g., selecting a letter or moving an arm).

- **Device Control:** The decoded signals are used to activate external devices, ranging from robotic limbs and speech synthesizers to drones and smart-home systems.

- **Feedback Loop:** The system employs continuous decoding to improve accuracy over time, facilitating real-time brain-machine interaction.

Key Features

- **Direct Brain–Machine Link:** It effectively bypasses damaged nerve or muscle pathways, making it a critical technology for paralyzed patients.

- **Versatility:** Options range from implantable electrodes offering high precision to wearable **EEG devices** for safer, everyday use.

- **Real-Time Response:** The integration of AI accelerates signal decoding, allowing for fast and naturalistic control.

- **Bidirectional Capability:** Emerging BCI technologies can also stimulate the brain to restore function or treat specific disorders.

Applications

- **Medical Rehabilitation:** BCIs help restore mobility in paralyzed patients using robotic limbs. They also enable "locked-in" patients to communicate through neural spellers or gaze-based typing.

- **Neurological Treatment:** The technology is used to treat conditions like **stroke, Parkinson's, and depression** by stimulating targeted brain regions, potentially reducing long-term reliance on conventional medication.

- **Assistive Technologies:** BCIs empower motor-impaired individuals to operate smartphones and computers via thought-driven commands, significantly boosting independence.

- **Defence & Security:** In the defence sector, BCIs could enable soldiers to control drone swarms or communication systems mentally. However, this application raises serious ethical, legal, and security risks.

Conclusion

Brain–Computer Interfaces represent a paradigm shift in bridging the gap between biological intelligence and artificial systems. While they offer revolutionary potential in healthcare and assistive technology, their strategic implementation in sectors like defence requires careful navigation of ethical and safety standards.

Senna spectabilis

Context

Tamil Nadu has launched one of India's largest **invasive-species eradication drives**, targeting the complete removal of *Senna spectabilis* from all forest divisions by March 2026.

THE SILENT INVADER: SENNA SPECTABILIS

AN INVASIVE ALIEN SPECIES — Originally from South & Central America, this fast-growing tree aggressively takes over native forest areas.

THREATENS FORESTS & WILDLIFE — It forms dense thickets, suppressing native plants and reducing food for animals like elephants and deer.

INCREASES FOREST FIRE RISK — The build-up of its dry leaves and branches provides extra fuel for forest fires.

ERADICATION DRIVE LAUNCHED — Tamil Nadu is now working to completely remove this invasive tree from all its forests by 2026.

About Senna spectabilis

Definition: *Senna spectabilis* is a fast-growing, yellow-flowering tree belonging to the legume family (Fabaceae). While widely planted as an ornamental and shade tree, it is now recognized as a **highly invasive alien species** in India, Africa, and parts of Asia.

Origin & Distribution:

- **Native to:** South & Central America (Brazil, Argentina, Paraguay, Bolivia, Peru, Venezuela).

- **In India:** It has aggressively invaded ecosystems in the **Nilgiris, Mudumalai, Sathyamangalam, Anaikatty**, and other parts of the Western Ghats.

Habitat:

- Thrives in **dry to moist deciduous forests**, disturbed woodlands, savannahs, and well-drained soils.

- Prefers **full sunlight**, adapts well to poor soils, and spreads easily through prolific seed production.

Key Characteristics

- **Growth:** Grows 7–18 m tall, developing a dense, spreading crown that forms thick canopies.

- **Appearance:** Features bright **yellow flowers** and long **dehiscent pods** (15–30 cm) containing numerous hard-coated seeds.

- **Behavior:** Leaves exhibit **nyctinasty** (they close at night and open at dawn).

- **Traditional Uses:** Used for fuelwood, ornamental planting, shade, and making small implements.

- **IUCN Status:** Classified as **Least Concern**.

Ecological Implications

- **Biodiversity Threat:** It suppresses **native vegetation** by forming dense monocultures, effectively reducing overall forest biodiversity.

- **Wildlife Impact:** The tree limits **fodder availability** for herbivores like elephants and deer, which can alter wildlife movement patterns.

- **Fire Risk:** The accumulation of dry biomass raises the risk of **forest fires**.

- **Regeneration Issues:** It delays natural **forest regeneration**, threatening the long-term resilience of the ecosystem.

Conclusion

The aggressive spread of *Senna spectabilis* poses a significant threat to the biodiversity and stability of India's forest ecosystems. Tamil Nadu's eradication drive represents a critical step in restoring the ecological balance of the Western Ghats.

Unified Payments Interface (UPI)

Context

The International Monetary Fund (IMF) has officially recognized India's **Unified Payments Interface (UPI)** as the world's largest real-time retail payment system by transaction volume. UPI now accounts for **49% of all global real-time digital payments**, placing it far ahead of major economies like Brazil, Thailand, and China.

About Unified Payments Interface (UPI)

Definition: UPI is India's instant, real-time, interoperable payments system that enables bank-to-bank transfers using a mobile phone. It is operated by the **NPCI (National Payments Corporation of India)** and regulated by the **Reserve Bank of India (RBI)**.

Origin:

- **Conceptualization:** Designed by NPCI to unify fragmented payment systems under a single interoperable platform.

- **Launch:** It was launched as a pilot in **April 2016** by the then RBI Governor **Raghuram Rajan**.

Key Features

- **Real-time Payments:** Facilitates money transfers in under 5 seconds, available 24×7.

- **Interoperability:** Works seamlessly across different banks, apps, **QR codes**, and merchants.

- **Low-cost / Zero MDR:** Ensures mass adoption among small businesses and consumers by minimizing transaction costs.

- **Scalable Architecture:** Designed to handle billions of transactions per month without system failure.

- **Versatility:** Supports diverse functions including P2P (Person-to-Person), P2M (Person-to-Merchant), autopay, credit lines on UPI, RuPay linkage, and international acceptance.

Global Share & IMF Recognition

IMF Recognition: The IMF's report, *"Growing Retail Digital Payments – The Value of Interoperability,"* lists UPI as the **world's largest retail fast-payment system**.

Global Statistics (ACI Worldwide - Prime Time for Real-Time 2024):

- **UPI Share: 49%** of global real-time transactions.
- **Volume: 129.3 billion** transactions.

Global Comparison: UPI significantly outperforms other major systems:

- **Brazil (Pix):** 14%
- **Thailand (PromptPay):** 8%
- **China (UnionPay/WeChat/Alipay):** 6%

Conclusion

This recognition by the IMF cements India's position as the **undisputed global leader** in fast payments. The massive scale and adoption of UPI demonstrate the success of India's digital public infrastructure in democratizing financial access.

Artificial Intelligence (AI) and Royalties

Context

As Generative AI models continue to expand, a significant debate has emerged regarding intellectual property. The core conflict lies between AI developers who use vast amounts of online data to train their models and content creators who receive no compensation for the use of their work.

The Issue

- **Data Scraping:** AI models (such as LLMs powering chatbots) systematically "scrape" or harvest text, images, and code from the internet to train their algorithms.
- **Lack of Compensation:** Currently, the creators of this original content—authors, artists, and publishers—are not compensated when their data is used to generate AI responses or create new content.

Government Proposal

- **Regulatory Framework:** The government is currently drafting a policy framework intended to compel AI companies to pay **royalties or copyright fees** for the data they consume.
- **Objective:** To ensure fair remuneration for content creators whose digital assets fuel the intelligence of these systems.

Challenges

- **Enforcement Complexity:** It is technically difficult to attribute specific AI outputs to specific pieces of training data, making the calculation of fair royalties extremely complex.
- **Litigation Risks:** Implementing such a framework could trigger a deluge of lawsuits as stakeholders dispute ownership, usage, and valuation.
- **Industry Stance:** The technology sector largely opposes these measures, often citing "fair use" doctrines and arguing that such fees could stifle innovation and development.

Way Forward

- **Hybrid Licensing Models:** Establish a tiered system where data use for academic research remains open, but commercial applications require negotiated licenses or subscription-based access to data repositories.
- **Technological Attribution:** Invest in technologies like **watermarking** and metadata standards (e.g., C2PA) that allow AI systems to automatically recognize and credit original sources, facilitating accurate royalty distribution.
- **Global Harmonization:** India should collaborate with international bodies like the G20 and WIPO to create standardized global norms, ensuring that AI regulation does not drive tech investment to jurisdictions with looser copyright laws.

Conclusion

Balancing the explosive growth of AI with the economic rights of human creators is critical for the future of the digital economy. While enforcing royalties presents technical hurdles, a fair compensation model is essential to ensure that the

human creativity feeding these algorithms continues to thrive.

PLI Scheme and WTO Dispute

Context

A significant trade friction has emerged between India and China, with Beijing filing a formal complaint at the **World Trade Organization (WTO)**. The dispute centers on India's flagship industrial policy, raising questions about international trade norms and domestic manufacturing incentives.

INDIA VS. CHINA: THE WTO MANUFACTURING SHOWDOWN

CHINA CHALLENGES INDIA AT WTO VS **BOOSTING "MADE IN INDIA"**

Beijing claims the PLI scheme is an unfair "Import Substitution Subsidy" that violates global trade rules.

Launched in 2020, the PLI scheme offers financial incentives to companies to scale up domestic manufacturing.

THE IMPACT — ₹1.88 LAKH CRORE INVESTMENT
The scheme has successfully attracted significant investment across 14 key sectors.

THE JOBS — 12 LAKH JOBS CREATED
The initiative is credited with generating substantial employment in the manufacturing sector.

About the Dispute The Allegation:

- **Core Argument:** China contends that India's **Production Linked Incentive (PLI)** scheme violates established WTO regulations.

- **Import Substitution:** Beijing argues that the scheme acts as an "Import Substitution Subsidy." They claim it unfairly subsidizes domestic production to replace Chinese imports, a practice they assert causes market disruption and breaches WTO rules on fair trade.

About PLI Scheme Launch and Origin:

- **Timeline:** The scheme was introduced in **2020**.

- **Geopolitical Context:** It was rolled out shortly after the **Galwan Valley incident**, signaling a strategic move to reduce economic dependency on foreign nations, particularly China.

Mechanism:

- **Incentive Structure:** The government offers financial incentives to companies based on their **incremental sales** from products manufactured in domestic units.

- **Target:** It encourages companies to scale up local production of goods ranging from electronics (ACs, phones) to critical components (solar PV modules).

Objectives:

- **Manufacturing Hub:** To transform India into a global design and manufacturing hub.

- **Economic Impact:** To generate employment (create jobs), boost exports, reduce the import bill, and check currency depreciation.

Status Current Impact:

- **Coverage:** The scheme is currently active across **14 key sectors**.

- **Financials:** It has attracted investments worth approximately **₹1.88 lakh crore**.

- **Employment:** The initiative is credited with generating roughly **12 lakh jobs** in the manufacturing sector.

Way Forward

- **Legal Defence Strategy:** India must vigorously defend the PLI scheme by demonstrating that the incentives are based on **production outcomes** rather than a legal requirement to use domestic goods over imported ones (local content requirements), thereby distinguishing it from prohibited subsidies.

- **Policy Adaptation:** The government should consider gradually shifting incentives towards **Research & Development (R&D)** and infrastructure development. These areas generally fall under WTO's "Green Box" subsidies and are less likely to attract litigation than direct production support.

- **Global Coalitions:** As other major economies like the US (CHIPS Act) and EU implement similar industrial policies, India should collaborate with these nations to push for a modernization of WTO rules that accommodates the new reality of supply chain resilience and strategic autonomy.

Conclusion

The WTO dispute highlights the complex friction between open global trade rules and national economic security. While the PLI scheme has been a catalyst for India's manufacturing revival, its long-term success

will depend on navigating these legal challenges while ensuring that domestic industries become globally competitive without perpetual state support.

Diwali Added to UNESCO Intangible Cultural Heritage List

Context

In a landmark decision for Indian culture, **Diwali (Deepavali)** has been officially inscribed on **UNESCO's Representative List of the Intangible Cultural Heritage of Humanity**. This recognition underscores the festival's profound cultural resonance and global footprint.

Reasoning for Inclusion

- **Living Heritage:** UNESCO recognized Diwali not merely as a festival, but as a dynamic cultural heritage transmitted from generation to generation.

- **Social Cohesion:** The celebration is pivotal in promoting social inclusion and connecting diverse communities.

- **Support for Craftsmanship:** It plays a vital role in sustaining traditional handicrafts, specifically the artisanal production of **earthen lamps (diyas)** and decorations.

- **Identity:** The festival stands as a symbol of identity and continuity for millions of people.

Background on UNESCO List

- **Inception:** The Representative List was established in **2008** to protect and raise awareness about intangible cultural heritage worldwide.

- **India's Legacy:** India has a strong presence on the list with diverse entries ranging from performing arts to ancient rituals.

Previous Indian Inclusions	Category	Elements
Traditions & Rituals	Intangible Cultural Heritage	Vedic Chanting; Ramlila; Ramman (Garhwal); Buddhist Chanting (Ladakh); Kumbh Mela; Durga Puja; Garba (Gujarat)
Performing Arts	Intangible Cultural Heritage	Kutiyattam (Sanskrit theatre); Mudiyettu (Kerala); Kalbelia (Rajasthan); Chhau dance; Sankirtana (Manipur)
Knowledge & Skills	Intangible Cultural Heritage	Thatheras (Punjab brass/copper craft); Yoga; Navroz

Significance

- **Global Validation:** This inclusion serves as an international validation of Diwali as a distinct cultural asset.

- **Awareness:** While the status does not provide direct financial aid, it significantly boosts global visibility and encourages the preservation of the traditions associated with the festival.

The Unit – Pilot Gold-Backed Digital Trade Currency

Context

Amidst growing discussions on global financial alternatives, experts and reports speculate that the **BRICS nations** may soon introduce a pilot digital trade currency named **"The Unit."** While no official declaration has been made, the initiative represents a significant potential shift in cross-border settlements.

MEET 'THE UNIT': THE BRICS DIGITAL CURRENCY

About the News Concept:

- "The Unit" is a proposed **digital, blockchain-based currency** designed specifically for settling trade between BRICS nations.

- It is backed by a combination of physical gold and the national currencies of member states.

Origin and Development:

- **Developer:** The pilot is being developed by the **International Research Institute for Advanced Systems (IRIAS)**.

- **Support:** It reportedly enjoys informal backing from BRICS member nations.

Primary Objectives:

- **De-dollarisation:** To diminish global reliance on the US Dollar for international trade.

- **Stability:** To offer a neutral, stable settlement instrument anchored in tangible assets.

- **Financial Architecture:** To construct an alternative financial infrastructure tailored for the **Global South**.

Operational Mechanism Asset Composition:

- **40% Gold:** The currency's core value is anchored in physical gold.

- **60% Currency Basket:** The remaining value is derived from a basket of BRICS national currencies.

- This hybrid approach ensures stability while diversifying risk across the five major emerging economies.

Valuation and Technology:

- **Daily Recalibration:** The price of "The Unit" is updated daily to reflect real-time fluctuations in gold rates and currency values.

- **Blockchain Infrastructure:** Transactions utilize the **Cardano blockchain** (permissioned

ledger), ensuring that settlements are secure, traceable, and tamper-proof.

Scope of Use:

- **Settlement Only:** It is not intended to replace national currencies. Instead, it functions exclusively as a tool for **cross-border trade settlement**, leaving domestic monetary policies unaffected.

Key Features Stability and Security:

- **Gold Anchor:** Pegging the currency to gold shields it from the volatility often associated with fiat currencies and external economic shocks.

- **Blockchain Transparency:** The use of distributed ledger technology ensures all transactions are immutable and fully auditable, fostering trust among members.

Governance and Sovereignty:

- **AI-Led Governance:** The **Unit Foundation** utilizes Artificial Intelligence to manage the system, minimizing political bias and ensuring rules-based decision-making.

- **Reserve Sovereignty:** Participating nations retain custody of their gold reserves domestically, avoiding the geopolitical risks associated with pooling gold in offshore locations.

Market Impact:

- **Enhanced Liquidity:** By actively utilizing gold for trade settlement rather than leaving it idle in storage, the system deepens the liquidity of the global gold market.

Significance Geopolitical Shift:

- Represents a decisive move toward **de-dollarisation**, offering a viable non-Western option for international settlements.

Economic Cooperation:

- Strengthens the role of BRICS in driving **global monetary reform** and enhances South-South economic cooperation.

Scalability:

- If successfully implemented, it has the potential to become the world's first large-scale, gold-backed digital settlement ecosystem.

Conclusion

The potential introduction of "The Unit" marks a strategic evolution in the BRICS economic agenda. By leveraging blockchain technology and the intrinsic value of gold, the initiative seeks to create a resilient, decentralized trade mechanism that reduces dependency on traditional fiat currencies.

CITES & CoP20 Summit

Context

Marking a significant milestone in global conservation, the **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)** celebrated its 50th anniversary during the **CoP20 summit** in Samarkand, Uzbekistan. The conference focused on species protection, sustainable livelihoods, and governance of the wildlife trade.

CITES AT 50: KEY WILDLIFE SUMMIT OUTCOMES
Global Wildlife Protection Decisions from the CoP20 Summit in Samarkand, Uzbekistan.

About 50 Years of CITES Definition:

- **CITES** is a legally binding multilateral treaty dedicated to ensuring that the international trade of wild animals and plants does not threaten their survival.

History & Timeline:

- **Origins:** Conceptualized by the **IUCN** in 1963.
- **Finalisation:** The text was finalized in Washington D.C. in **1973**.
- **Enforcement:** Officially entered into force on **July 1, 1975**.
- **Global Reach:** currently has **185 Parties** (as of 2025), ranking it among the largest conservation agreements globally.

Core Mechanism:

- Operates through a system of permits and certificates regulated by three distinct

Appendices (I, II, and III), which classify species based on their risk of extinction.

Key Functions:

- **Regulation:** Controls cross-border wildlife trade through strict documentation.
- **Protection:** Assigns protection levels to species corresponding to their biological status.
- **Enforcement & Cooperation:** Coordinates global efforts to combat illegal wildlife trafficking and promotes scientific assessment for sustainable usage.

About 2025 CITES Summit (CoP20) Overview:

- The **20th Conference of the Parties (CoP20)** is the supreme decision-making body of the convention, convening every 2–3 years to shape global policy.

Host & Significance:

- **Location:** Samarkand, Uzbekistan.
- **Milestone:** This was the **first CoP held in Central Asia**, coinciding with the treaty's 50th anniversary.

Major Outcomes Species Additions & Uplisting (Increased Protection):

- **Total Additions:** 77 new species were added to the CITES Appendices.
- **Marine Life:** Several sharks and rays, including the **oceanic whitetip**, **whale shark**, and all species of **manta and devil rays**, were moved to **Appendix I** (trade banned).
- **Reptiles: Galápagos land iguanas** (3 species), marine iguanas, and African reptiles like **Home's hinge-back tortoise** were uplisted to Appendix I.

Conservation Successes (Downlisting):

- **Saiga Antelope:** Reflecting successful conservation in **Kazakhstan**, this species was removed from Appendix II, allowing for flexible export regulations.
- **Guadalupe Fur Seal:** Native to **Mexico**, this species was moved from Appendix I to Appendix II due to population recovery.

India's Role Diplomatic Stance:

- India successfully blocked the **European Union's proposal** to list **Guggul** (*Commiphora wightii*) in Appendix II.
- **Reasoning:** India argued there was a lack of sufficient scientific assessment to warrant the listing at this stage.
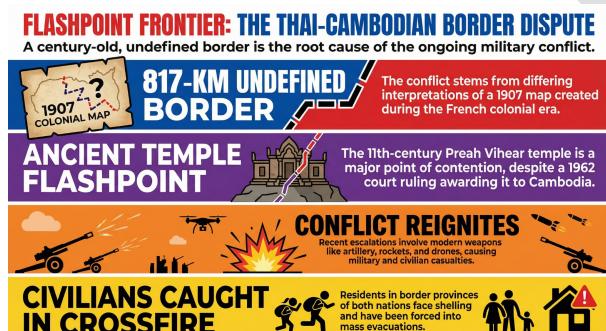
Conclusion

The CoP20 summit reaffirmed the global commitment to biodiversity. By balancing strict protection for threatened species (like sharks) with the recognition of conservation successes (like the Saiga antelope), CITES continues to evolve as a dynamic tool for sustainable development and wildlife preservation.

Thailand–Cambodia Border Tension

Context

Fresh hostilities have erupted along the **Thailand–Cambodia border**, characterized by the use of artillery, rockets, drones, and airstrikes. The renewed conflict has resulted in rising casualties among both military personnel and civilians, raising alarm over regional stability.

FLASHPOINT FRONTIER: THE THAI-CAMBODIAN BORDER DISPUTE
A century-old, undefined border is the root cause of the ongoing military conflict.

817-KM UNDEFINED BORDER — The conflict stems from differing interpretations of a 1907 map created during the French colonial era.

ANCIENT TEMPLE FLASHPOINT — The 11th-century Preah Vihear temple is a major point of contention, despite a 1962 court ruling awarding it to Cambodia.

CONFLICT REIGNITES — Recent escalations involve modern weapons like artillery, rockets, and drones, causing military and civilian casualties.

CIVILIANS CAUGHT IN CROSSFIRE — Residents in border provinces of both nations face shelling and have been forced into mass evacuations.

About the Conflict Nature of the Dispute:

- **Undefined Boundary:** The conflict centers on an **817-kilometer undemarcated frontier**.
- **Sovereignty Claims:** Both nations assert sovereignty over specific stretches of land, particularly around ancient temple complexes and densely forested highlands.
- **Root Cause:** The disagreement stems from differing interpretations of colonial-era maps.

Historical Background Colonial Legacy (1907):

- The border was originally delineated by **France** (then the colonial protector of Cambodia) in 1907.

- **Thailand (formerly Siam)** has historically contested sections of this map, specifically areas involving high ground and cultural heritage sites.

Preah Vihear Temple Saga:

- **1962 ICJ Ruling:** The **International Court of Justice (ICJ)** awarded the 11th-century Preah Vihear temple to Cambodia. However, Thailand continued to dispute the ownership of the 4.6 square kilometers of scrubland surrounding it.
- **2013 Clarification:** The ICJ reaffirmed Cambodia's sovereignty over the promontory and the land adjacent to the temple, ordering Thailand to withdraw its forces. Bangkok has periodically questioned the practical scope of this judgment.

History of Violence:

- **2008–2011 Clashes:** The region saw severe armed conflict, culminating in a deadly artillery exchange in 2011 near **Preah Vihear** and other temples. The fighting resulted in numerous deaths and the displacement of thousands of villagers.
- **2025 Escalation:** Tensions spiked again following skirmishes in **May 2025** that led to the death of a Thai soldier. This triggered strict border closures, trade bans, and the current military escalation.

Places and Areas Under Tension Preah Vihear Region:

- **Strategic Flashpoint:** The **UNESCO World Heritage** temple sits atop a cliff in the Dângrêk Mountains, making it a symbolic and strategic prize for both sides.
- **Geography:** The area includes significant natural features like the **Preah Nimith Waterfall** on the Mekong River, which serves as a major waterway in the province.

Affected Thai Provinces:

- **Key Areas: Surin, Buri Ram, Sa Kaeo, Sisaket, and Trat**.
- **Impact:** Residents in these border provinces face shelling and cross-border fire, leading to mass evacuations into temporary shelters.

Affected Cambodian Provinces:

- **Key Areas: Oddar Meanchey, Preah Vihear, Banteay Meanchey, Battambang, Pailin, and Koh Kong**.
- **Impact:** Adjacent districts are suffering from infrastructure damage, internal displacement, and civilian casualties.

Conclusion

The resurgence of violence along the Thailand–Cambodia border highlights the volatility of unresolved territorial disputes in Southeast Asia. While international rulings have attempted to settle ownership, the implementation on the ground remains fragile, necessitating renewed diplomatic dialogue to prevent a wider regional conflict.

Education Cost in India

Context

Rising unaffordability of education in India and the widening divide it creates between rich and poor households. Education, though a fundamental right, is increasingly becoming a costly commodity rather than an accessible public good.
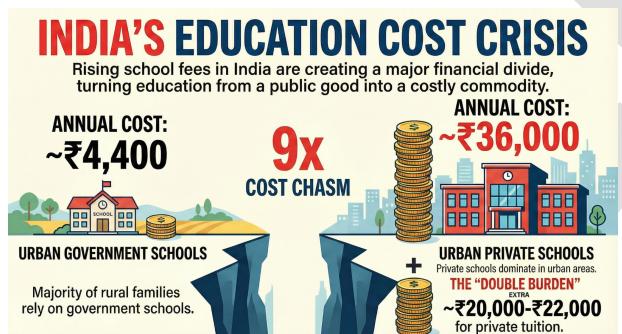
Constitutional and Policy Background

Article 21A:
 Guarantees the Right to Free and Compulsory Education for all children aged 6–14 years, operationalized through the **RTE Act, 2009**.

NEP 2020:
 Seeks universalisation of education from ages **3 to 18** by 2030, focusing on **Access, Equity, Quality, Affordability, and Accountability**.

Current Scenario and Statistics

Enrollment Trends (National Average)

• Government Schools: **55.9%** (dominant in rural India)

 • Private Unaided Schools: **31.9%** (dominant in urban

areas)
 • Private Aided Schools: **11.3%**

Urban–Rural Divide

Urban households prefer private schools, while rural families rely primarily on government schools.

Gender Gap

Parents choose private schools more often for **boys (34%)** than for **girls (29%)**, reflecting socio-cultural biases.

Dropout and Shifts

In Classes 11–12, many students migrate from costly private schools to government schools as annual fees of **₹20,000–₹50,000** become unsustainable.

The Cost Crisis (The "Double Burden")

The financial burden on households has created a clear cost gradient:

School Type (Annual Avg. Household Expenditure)	Rural (₹)	Urban (₹)	Difference (Rural → Urban Private Unaided)
Government Schools	2,801$	4,374$	Almost 8-fold Increase
Private Unaided Schools	22,919$	35,798$	

Fee Disparity

Urban private unaided schools (~₹36,000 annually) cost almost **nine times more** than government schools (~₹4,400). This widens inequality and strains the budgets of lower- and middle-income families.

Private Tuitions: The Second Burden

Despite high private school fees, many students take additional coaching due to:
 • Poor classroom teaching quality
 • Fear of exam underperformance
 • Competitive exam pressure

Tuition expenses in Classes 11–12 often reach **₹20,000–₹22,000 annually**, creating a non-negotiable financial load.

Result: Education is increasingly treated as a **purchased service**, excluding disadvantaged groups and reducing upward social mobility.

Way Forward

1. Strengthen Government Schools

• Increase public spending to meet the **6% of GDP** benchmark
• Upgrade infrastructure, teacher training, and monitoring
• Make government schools the preferred choice for quality education

2. Strict Regulation of Private School Fees

• Enforce state Fee Regulation Acts
• Prevent arbitrary fee hikes and unjustified charges

3. Expand Targeted Scholarships

• Strengthen delivery of scholarships for SC/ST/OBC/EWS
• Offset the twin burden of school fees and tuitions

4. Reduce Dependence on Private Tuitions

• Reform assessments per NEP 2020
• Enforce bans on teachers offering private tuitions
• Improve in-school academic support

Conclusion

The escalating cost of schooling, compounded by widespread dependence on private tuitions, erodes the constitutional guarantee of free and compulsory education under Article 21A. The vision of NEP 2020 is universal, equitable, and high-quality education which requires robust public investment, systemic reforms, and strict regulation of private institutions. Ensuring that education remains accessible and affordable, rather than aspirational and exclusive, is essential for strengthening social justice and enabling true economic mobility in India.

Narco Tests

Context

The Supreme Court of India set aside a Patna High Court order regarding the **Amlesh Kumar vs. State of Bihar** case (2025). The High Court had erroneously accepted a proposal to conduct narco-analysis tests on all accused during a bail hearing, prompting the Supreme Court to reaffirm fundamental constitutional rights.

FORCED NARCO TESTS: UNCONSTITUTIONAL

WHAT IS A NARCO TEST?
An investigative technique using **drugs** like Sodium Pentothal to put a subject in a semi-conscious state to get information.

Ruled Unconstitutional & Illegal
The Supreme Court has prohibited the involuntary (**forced**) use of narco tests on any accused person.

VIOLATES RIGHT AGAINST SELF-INCRIMINATION (ARTICLE 20(3))	VIOLATES RIGHT TO LIFE & LIBERTY (ARTICLE 21)
Compels person to be witness against themselves.	Infringes on mental privacy and bodily integrity.

What is a Narco Test?

A narco-analysis test is an investigative technique that involves injecting psychoactive drugs, typically **Sodium Pentothal** (a barbiturate), into the body. The drug lowers the subject's inhibitions and places them in a hypnotic or semi-conscious trance, supposedly making them more likely to reveal information.

The Ruling: Amlesh Kumar vs. State of Bihar (2025)

- **Decision:** The Supreme Court ruled that **involuntary (forced) Narco tests are unconstitutional**.

- **Action:** The Court set aside the Patna High Court's order, stating that a court cannot order or approve such an invasive test, especially during a bail hearing, which has a limited scope.

- **Precedent Reaffirmed:** The judgment strongly reaffirmed the landmark 2010 **Selvi vs. State of Karnataka** ruling, which prohibited the forced administration of narco-analysis, polygraph, and brain mapping tests.

Constitutional Violations Identified

Forced Narco tests violate the core guarantees of fundamental rights:

1. **Article 20(3): Protection against Self-Incrimination.** A person cannot be compelled to be a witness against themselves (*Nemo Tenetur Seipsum Accusare*). Since the subject lacks conscious control over their responses, a forced test amounts to testimonial compulsion.

2. **Article 21: Right to Life and Personal Liberty.** Forced tests violate **mental privacy**, **bodily integrity**, and **personal autonomy**. Any procedure restraining liberty must satisfy the requirement of 'substantive due process' (fair, just, and reasonable).

3. **Golden Triangle:** Forced tests violate the combined framework of **Articles 14 (Equality), 19 (Freedom), and 21 (Life)**, which ensures constitutional liberties are protected against arbitrary state action.

Admissibility & Procedure

- **Voluntary Only:** A test is permissible **only if the accused consents voluntarily**. This consent must be:
  - Free and informed.
  - Recorded before a **Judicial Magistrate**.
  - Accompanied by access to legal counsel and medical safeguards.

- **No Absolute Right:** The Court clarified that an accused does **not have an absolute or indefeasible right** to demand a narco-test for their defense. Such a request can only be considered by the trial court at the appropriate stage (when leading defence evidence) and is subject to the court's careful assessment.

- **Evidentiary Value:**
  - Results of a narco test are **not standalone admissible evidence** (they cannot directly establish guilt).
  - They are considered weak evidence because the subject lacks conscious control.
  - Only information/facts *discovered subsequently* based on the voluntary test may be admissible under Section 27 of the Indian Evidence Act, but this information must also be **corroborated** by independent evidence.

Conclusion

The Supreme Court's ruling in *Amlesh Kumar vs. State of Bihar* is a timely and significant reaffirmation of fundamental rights in the face of increasingly invasive investigative demands. It reiterates that **constitutional protection of dignity and liberty cannot be compromised** for the sake of investigative convenience, cementing the principle established in the *Selvi* judgment regarding the limited and conditional use of narco-analysis in India's criminal justice system.

Western Tragopan (Jujurana)

Context

A captive-breeding programme at Sarahan Pheasantry, Himachal Pradesh, has successfully stabilised the Western Tragopan population, giving conservationists fresh hope. This programme is central to the conservation of this rare Himalayan pheasant.

THE KING OF BIRDS: WESTERN TRAGOPAN

CLASSIFIED AS VULNERABLE
It is the state bird of Himachal Pradesh and is highly sensitive to habitat disturbance.

ONLY 3,000–9,500 REMAIN
The entire global population of mature individuals forms a single, fragile sub-population.

HIGHEST LEGAL PROTECTION
It is listed under Schedule I of India's Wildlife Protection Act, 1972.

LIVES IN HIGH-ALTITUDE FORESTS
Found in dense Himalayan forests between 2,400 and 3,600 meters.

About Western Tragopan

What it is?

The **Western Tragopan** (*Tragopan melanocephalus*), also called **Jujurana** or "king of birds", is one of the world's **rarest pheasants** and the state bird of Himachal Pradesh. It is a flagship species of the Western Himalayas, known for its striking plumage and ecological sensitivity.

Key Characteristics

- **Male:** Velvet-black head, **crimson breast**, numerous fine white spots, and colourful blue–orange **facial wattles** (lappets) and fleshy horns used in elaborate mating displays.

- **Female:** Brown, camouflaged, smaller; immature males resemble females.

- **Behaviour:** Ground-dwelling, shy, and active at dawn/dusk.

- **Diet & Breeding:** Feeds on berries, seeds, buds, shoots, and insects. Breeds during **May–June**, laying 3–5 eggs in concealed nests.

Habitat

- **Altitude:** Found between **2,400–3,600 m** (moving higher in summer) in moist temperate Himalayan and subalpine forests.

- **Preferred Cover:** Prefers dense undergrowth, **ringal bamboo** (dwarf bamboo), rhododendron thickets, and conifer forests, reflecting a high sensitivity to habitat disturbance.

- **Key Strongholds: Great Himalayan National Park (GHNP)**, Kazinag, Limber (J&K), and pockets in Uttarakhand and northern Pakistan.

Conservation Status

- **IUCN Red List:** Listed as **Vulnerable** (VU).

- **Population:** Only an estimated **3,000–9,500 mature individuals** remain globally, all forming a single fragile sub-population.

- **Indian Protection:** Listed under **Schedule I** of the Wildlife Protection Act, 1972 (highest legal protection).

- **CITES:** Listed in **Appendix I** (to prevent commercial international trade).

Conservation Efforts and Threats

Captive Breeding Success

- The **Sarahan Pheasantry** in Himachal Pradesh runs the only successful captive-breeding programme for this species worldwide.

- **Key Achievements:** First captive births in 1993, with a major breakthrough in 2005. The current captive population stands at over 40 individuals, retaining high genetic diversity from its founders.

- **Goal:** The programme provides an **"insurance policy"** against extinction and aims to support future reintroduction into the wild.

Threats to Survival

- **Habitat Loss & Fragmentation:** Due to infrastructure expansion, livestock grazing, deforestation, and fuelwood collection.

- **Climate Change: Shrinking moist temperate zones** and climate variability disrupt the synchronization between breeding time and the availability of insect food for chicks, reducing survival rates.

- **Anthropogenic Disturbances:** Poaching for meat and plumage, and collection of minor forest produce (like medicinal herbs) in core habitats.

Significance

- **Indicator Species:** The Western Tragopan acts as an **indicator species** of high-altitude

forest health; its survival reflects the integrity of the Western Himalayan ecosystem.

- **Cultural Symbol:** It is the official state bird of Himachal Pradesh, linking its conservation directly to the region's cultural heritage.

- **Integrated Conservation:** Long-term survival depends on balancing the success of *ex-situ* (captive breeding) measures with strengthened *in-situ* (habitat protection) efforts, along with community involvement.

Shilp Didi Programme

Context

The Union Textiles Secretary announced that the **Shilp Didi Programme** has significantly boosted women artisans' income, with some earning over ₹5 lakh. The initiative is part of the government's focus on empowering women artisans, strengthening village economies, and promoting the 'Lakhpati Didi' vision.

About Shilp Didi Programme

What it is?

A government initiative to **economically empower women artisans ("Shilp Didis")** by providing them with comprehensive support across the value chain:

1. **Training & Skill Upgradation**

2. **Digital Literacy & Business Skills**

3. **Market Access** (both physical and digital)

Key Details

- **Launched In:** 2024 (A 100-day pilot phase began in June 2024).

- **Implemented By:** Ministry of Textiles, through the Office of the Development Commissioner (Handicrafts).

- **Aim:** To make women artisans **financially independent**, improve their **design and**

business skills, and help them leverage modern marketing and entrepreneurship tools, thereby generating employment for others.

Key Features

The programme provides a 360-degree support system for the artisans .

- **Capacity Building & Training:**
  - **E-training modules** focusing on entrepreneurship development, regulatory compliance, social media utilisation, and e-commerce onboarding.
  - Capacity-building through **National Handicrafts Development Programme (NHDP)** clusters, often involving support from the Development Commissioner (Handicrafts).
- **Market Linkages:**
  - **E-commerce integration** for nationwide and global visibility and sales (e.g., through platforms like IndieHaat).
  - **Physical Marketing Opportunities** via **Shilp Didi Mahotsav** (like the one held at Dilli Haat, INA), craft fairs, and curated exhibitions for direct buyer interaction and export orders.
- **Scope:**
  - Baseline inclusion of **100 women artisans** (**Shilp Didis**) from 72 districts across 23 states in the pilot phase.
  - Covers **30 diverse handicrafts** including textiles, pottery, metal crafts, embroidery, and jewellery design, reflecting India's rich craft heritage.

Significance

- **Economic Empowerment:** Provides sustainable livelihoods and significantly boosts rural/non-farm incomes, supporting the broader goal of creating 'Lakhpati Didis'.
- **Micro-Entrepreneurship:** Strengthens micro-entrepreneurship among women, enabling them to become job creators and community leaders.
- **Digital Inclusion:** Enhances **digital inclusion** as artisans learn to use social media and e-commerce to expand their markets far beyond

local boundaries, leading to increased exports and customer base.

- **Cultural Preservation:** Supports the preservation of India's traditional craft heritage by linking skills with modern market demands.

Conclusion

The **Shilp Didi Programme** has proven to be a **transformative movement** that goes beyond financial support, actively building an ecosystem for women's craft-based entrepreneurship. By integrating traditional skills with modern marketing and digital technology, the initiative successfully strengthens village economies and propels Indian handmade traditions from local to global markets. This model of empowerment is central to the vision of **Atmanirbhar Bharat** and is crucial for achieving the goal of **Viksit Bharat** by establishing women as self-reliant creators, employers, and community leaders.

Planetary-Defense Exercise on 3I/ATLAS

Context

Europe has begun the world's largest planetary-defence drill to track and analyse the rapidly approaching interstellar object **3I/ATLAS**. The live global campaign is being conducted from **27 November 2025 to 27 January 2026**, marking an unprecedented international effort in preparedness for near-Earth threats.

About the Planetary-Defense Exercise on 3I/ATLAS

What it is

The **3I/ATLAS planetary-defence exercise** is the most extensive global simulation ever undertaken to assess humanity's capability to detect, track, and respond to potential impact threats. It centres on **Comet 3I/ATLAS (C/2025 N1)**, the **third confirmed interstellar object**, notable for its unusual, non-gravitational and physics-defying behaviour.

Launched By

The drill is a joint international effort coordinated by:
 • ESA (European Space Agency)
 • NASA (National Aeronautics and Space Administration)
 • UN-IAWN (International Asteroid Warning Network)
 • SMPAG (Space Mission Planning Advisory Group)

Aim

• To test global preparedness for high-velocity celestial objects by examining detection capability, early-warning systems, orbital-tracking networks, emergency decision-making, and public communication.
 • To identify gaps in multilateral cooperation, data-sharing, and psychological readiness in the event of a real planetary emergency.

How the Drill Works

1. Tracking 3I/ATLAS

Ground-based observatories and space-borne sensors monitor the comet's **speed, brightness, and trajectory** in real time. The object's rapid movement and unstable behaviour add significant analytical complexity.

2. Analysing Trajectory Shifts

Scientists look for micro-deviations caused by gravitational interactions or solar radiation. Continuous updates refine orbital models to assess whether even slight changes could shift the comet's distance from Earth.

3. Calculating Impact Probabilities

Thousands of simulations test a wide range of uncertainties. These runs determine whether the interstellar object is likely to remain at a safe distance or if it could intersect Earth's orbit.

4. Running Global Response Scenarios

Simulated options include:
 • Space-based **deflection missions** (e.g., DART-style kinetic impactors)
 • **Civil-defence mobilisation**
 • **Evacuation modelling** for worst-case scenarios
 These stress-test the operational readiness of space and disaster-management agencies.

5. Testing International Coordination

The exercise evaluates how fast and effectively agencies such as **NASA, ESA, ISRO, CNSA, JAXA**, and **UN-IAWN** share data, issue alerts, and take collective decisions during high-uncertainty events.

Key Features

• Uses a real, fast-moving interstellar object travelling at **~16–60 km/s**, providing unmatched scientific realism.
 • Includes orbital-prediction drills, anomaly-response protocols, and planetary-defence modelling.
 • Integrates **public-communication and misinformation-management** modules to assess psychological preparedness.
 • Involves military space commands and national disaster agencies for whole-of-government coordination.
 • Encourages geopolitical engagement, enabling nations including India, the U.S., and China to accelerate deployment of deep-space monitoring systems such as **infrared surveillance satellites**.

Significance

• Enhances global readiness for genuine asteroid or comet threats, an emerging planetary-security priority.
 • Reveals structural gaps in global emergency communication, including the absence of a unified public-guidance system for space anomalies.
 • The comet's unpredictable behaviour accelerates innovation in **surveillance, modelling, and defence technologies**, pushing planetary-defence capabilities ahead of existing timelines.

Generative AI & Copyright

Context

The Government released the Working Paper on Generative AI & Copyright – One Nation, One License, One Payment, proposing India's first structured model for regulating AI training on copyrighted works. It aims to balance creator rights and AI innovation, following rising disputes like ANI vs OpenAI (Delhi HC, 2024–25) over unauthorized training on Indian content.

AI Trains, Creators Get Paid: India's New Copyright Model

THE PROBLEM: Unlicensed AI Training

AI Uses Indian Content for Free

Generative AI models scrape Indian books, articles, films, and music without permission or payment, undermining creator rights.

THE SOLUTION: One Nation, One License, One Payment

A Blanket License for AI

AI developers can legally train on all lawfully accessed copyrighted works without needing individual permissions.

Creators Receive Royalties

Copyright holders get paid for their work's use through a statutory royalty system.

A Central Body to Manage Payments

A new government-designated collective (CRCAT) will collect license fees from AI firms and distribute them to creators.

About Generative AI & Copyright – One Nation, One License, One Payment

What is the Issue?

- **Unlicensed use of Indian creative content for AI training:** GenAI models scrape Indian books, articles, films, music, and news without permission, undermining creator rights and violating Section 14 protections.

    - *Eg:* ANI alleged OpenAI used its news content for training ChatGPT without consent, triggering Delhi HC proceedings.

- **Lack of clarity on applicability of copyright law to GenAI training:** India's Copyright Act has no explicit Text & Data Mining (TDM) exception, creating ambiguity on whether large-scale scraping is permissible.

    - *Eg:* Section 52 exceptions do not cover commercial AI training, leaving foreign AI developers operating in a legal grey zone.

- **No mechanism for creators to receive compensation from AI usage:** Indian writers, artists, musicians, and journalists gain nothing even though their works significantly improve AI model accuracy and quality.

    - *Eg:* India's informal music industry employing 1.4 crore people earns zero royalties despite models using their songs for training.

- **Risk of cultural dilution & decline of indigenous creative sectors:** AI outputs may replace or overshadow Indian folk art, local music, and regional storytelling traditions, eroding cultural diversity.

- **Unequal bargaining power between big-tech AI firms and Indian creators:** Large foreign AI companies monetise Indian datasets while individual creators lack negotiation capacity or legal tools to protect rights.

Key Concerns Identified by the Working Group

- **Whether AI training constitutes reproduction and thus copyright infringement:** AI training requires copying, storing, and transforming large volumes of works, which may trigger infringement under Section 14.

- **Whether the 'fair dealing' exception can legally cover GenAI training:** Fair dealing is narrowly defined for private research, criticism, or reporting—not for commercial AI model training at an industrial scale.

    - *Eg:* Commercial LLM developers cannot invoke Section 52(1)(a), as training is revenue-driven and not "personal use".

- **Disadvantage & exploitation risk for small and independent creators:** Opt-out or negotiated licensing frameworks disproportionately favour big publishers, leaving small creators unprotected.

- **Heavy transparency burden on AI developers if disclosure is mandated:** Requiring detailed dataset disclosures could slow AI advancement, especially for start-ups lacking compliance capacity.

- **Threat of poor-quality or biased datasets if creators withhold works:** Excessive opt-outs may shrink datasets, increasing bias and hallucination risks in India-focused AI systems.

Need for India to Balance Copyright & AI Framework

- **Protect India's rapidly growing creative and cultural economy:** Creative industries contribute billions to GDP and sustain livelihoods across entertainment, design, folk, and digital media sectors.

- **Foster AI innovation aligned with IndiaAI Mission goals:** Balanced rules ensure that AI developers, especially Indian start-ups which have predictable, lawful access to high-quality datasets.

- **Prevent decline of human creativity and preserve cultural diversity:** If AI freely mines creative works without reward, long-

term incentives for creators weaken, risking cultural hollowing.

- **Ensure fair revenue-sharing for Indian creators whose works train AI:** AI firms earn from Indian users; creators deserve statutory royalties to maintain creative ecosystems.

- **Support Indian startups & MSMEs with low-cost, low-friction AI licensing:** A predictable licensing regime reduces transaction costs and enables small players to innovate without legal uncertainty.

Recommendations of the Working Committee

- **Introduce a Mandatory Blanket License for AI Training:** AI developers may train on all lawfully accessed copyrighted works without individual permissions, ensuring wide dataset access.
  - *Eg:* Indian LLMs (Sarvam, Gan AI, Soket) can legally train on diverse Indian content across languages and formats.

- **Statutory Royalty Payments to Copyright Holders:** Creators will receive compensation proportional to AI revenues, ensuring long-term sustenance of the creative economy.

- **Establish the "Copyright Royalties Collective for AI Training (CRCAT)":** A central, government-designated body to collect licence fees and distribute royalties to members and non-members alike.

- **Create a Government-Appointed Royalty Rate-Setting Committee:** Ensures transparency, fairness, periodic review, and **judicial oversight** of royalty rates to protect both creators and developers.

- **Provide a Single-Window, Low-Burden Licensing & Compliance System:** One licence $\to$ one payment $\to$ nationwide applicability to reduce friction, especially for smaller AI players.
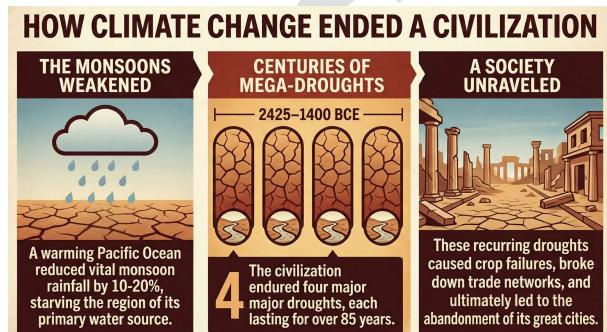
Conclusion

India stands at a critical intersection where AI growth and creative rights must advance together. The "One Nation, One License, One Payment" model proposes a fair, innovation-friendly, creator-protective solution. If adopted, it can make India a global leader by building

an AI ecosystem rooted in fairness, cultural respect, and technological strength.

Decline of Indus Valley Civilisation

Context

A new multi-proxy paleoclimate study has claimed that the **Indus Valley Civilisation** (IVC) declined due to centuries-long recurring droughts, not a single catastrophic event.

HOW CLIMATE CHANGE ENDED A CIVILIZATION

THE MONSOONS WEAKENED — A warming Pacific Ocean reduced vital monsoon rainfall by 10-20%, starving the region of its primary water source.

CENTURIES OF MEGA-DROUGHTS — 2425–1400 BCE — The civilization endured four major major droughts, each lasting for over 85 years.

A SOCIETY UNRAVELED — These recurring droughts caused crop failures, broke down trade networks, and ultimately led to the abandonment of its great cities.

About Decline of Indus Valley Civilisation

What it is?

- The **Indus Valley Civilisation** (3300–1300 BCE), also called **Harappan Civilisation**, was one of the world's earliest urban cultures spread across present-day Pakistan and northwest India.

- It originated along the Indus and Ghaggar-Hakra (Sarasvati) river systems, evolving into a sophisticated Bronze Age civilisation known for cities like Harappa, Mohenjo-Daro, Rakhigarhi, and **Dholavira**.

Features of Indus Valley Civilisation

- **Art & Craft:** Highly developed craftsmanship in bead-making, pottery, terracotta figurines, shell–copper–bronze artefacts, and the iconic "Dancing Girl" and "Priest-King" sculptures.

- **Architecture & Urban Planning:** World-class urban design with grid-pattern streets, multi-storey brick houses, citadels, granaries, and advanced drainage with covered sewerage and soak pits.

- **Script & Literature:** Used a still-undeciphered pictographic script found on seals, tablets, and pottery; no surviving textual literature, but inscriptions show a complex symbolic system.

- **Economy:** A diversified economy based on agriculture (wheat, barley, cotton), craft industries, internal trade, and long-distance trade with Mesopotamia, Oman, and Iran (evident from seals, weights, and boats).

- **Society & Governance:** Urban society with standardised weights, uniform architecture, and planned layouts, implying an efficient civic authority; evidence suggests a largely peaceful, egalitarian society with little social stratification.

Decline of the Indus Valley Civilisation

New Evidence from 2025 Study

- **Decline was gradual, triggered by four major mega-droughts (2425–1400 BCE):**

  - The study identifies **four prolonged drought phases**, each lasting **over 85 years**, with the most severe one peaking around **1733 BCE** for nearly 164 years.

  - These droughts did not occur once but in cycles, creating **centuries of hydrological instability**, which progressively weakened agriculture, trade, and urban functioning.

- **Weakening monsoons due to warming of the tropical Pacific:**

  - Climate records show that the tropical Pacific shifted from a **cool, La Niña-like phase** (3000–2500 BCE) to a **warmer, El Niño-like phase**.

  - This directly **reduced monsoon rainfall by 10–20%**, drastically lowering water availability for fields, reservoirs, and rivers.

- **Hydrological changes: rivers shrank and soils dried up:**

  - The study combines lake cores, cave stalagmites, and climate models to show that rivers like the **Sutlej-Ghaggar system**, Beas, and many tributaries experienced **reduced flows**.

  - Soil moisture declined, leading to **desiccation**, salinity build-up, and reduced crop yields — especially in areas away from the Indus River.

- **Impact on agriculture and food systems:**

  - Crop failures increased, forcing Harappans to **shift from water-intensive crops (wheat, barley)** to drought-resistant ones like **millets**.

  - Agricultural stress weakened the surplus system that supported large urban centres.

- **Breakdown of long-distance trade and economic networks:**

  - Lower river levels made river navigation difficult, reducing connectivity to **Mesopotamia**, the primary trade partner.

  - Reduced rainfall and shrinking lakes also made overland routes riskier.

  - This decline in external trade undermined urban jobs (bead makers, potters, metalworkers), destabilising the economic base.

Other Classical Theories

- **Changes in River Systems (Indus & Ghaggar-Hakra shifts):**

  - Tectonic movement altered the courses of key rivers.

  - The **Ghaggar-Hakra (Sarasvati)** dried gradually, leading to the abandonment of major settlements like **Kalibangan** and **Banawali**.

  - The Indus River occasionally **flooded massively**, depositing silt and destroying fields, while later shifting away from some cities.

- **Collapse of Mesopotamian Trade Network:**

  - Around 2000 BCE, Mesopotamia faced internal political turmoil (Akkadian collapse, Ur III decline).

  - As Mesopotamian trade weakened, demand for **Harappan goods (beads, cotton textiles, metals)** fell sharply.

  - Reduced trade cut off a crucial economic pillar of urban Harappan life, contributing to industrial decline.

- **Urban Overcrowding and Declining Civic Maintenance:**

  - Archaeology shows that many cities became **densely crowded**, with houses built over older streets and structures.

- The once-pristine drainage systems became **clogged and poorly maintained**, signalling administrative weakening.
- Public buildings like the **Great Bath** were built over or lost importance.

- **No Evidence of Large-Scale Invasion or Warfare:**
  - Earlier theories proposed "Aryan invasion" based on Rig Veda references, but archaeology contradicts this:
    - No mass graves indicating war.
    - No burnt cities or weapons of destruction.
    - Harappan society overall shows **little militarisation**.
  - Most scholars now agree that invasion did **not** cause the collapse.

Significance of Indus Valley Civilisation

- Gave India its first planned cities, **sanitation systems**, and urban governance models.
- Demonstrated advanced hydrology, craft specialisation, maritime trade, and agricultural adaptation.
- Offers lessons for today on water management, climate resilience, and decentralised settlement planning.
- Its peaceful culture and standardised systems highlight early forms of civil administration, trade regulation, and environmental adaptation.

Conclusion

The new scientific findings show that the Indus collapse was not a mystery or a myth but a slow climatic tragedy worsened by **fragile governance** and economic stress. Yet the civilisation's adaptability for nearly two millennia underscores its resilience and sophistication. As today's world faces climate extremes, the Indus story serves as a powerful reminder that environmental shifts can reshape even the greatest urban cultures.

The Natyashastra

Context

During the 20th Session of UNESCO's Intergovernmental Committee for Safeguarding **Intangible Cultural Heritage (ICH)** in New Delhi, the Indira Gandhi National Centre for the Arts (IGNCA) held a scholarly event focused on the principles of the Natyashastra.

About Natyashastra

What it is?

The *Natyashastra* is the foundational Sanskrit scholarly work detailing the science of dramatic presentation (*natya*), expressive movement (*nritya* and *nritta*), musical composition (*sangita*), aesthetic theory, and all aspects of stagecraft within the Indian tradition. It is highly revered as the **Natya Veda (The Fifth Veda)**, designed to impart moral, artistic, and social values to all societal segments through the medium of performance.

Authored by: Bharata Muni.

Language: The text is composed in **Classical Sanskrit**, predominantly in the **śloka (couplet) form**, with some sections of prose added in later versions.

History and Composition:

- **Dating:** Its composition is generally placed within the period of **c. 200 BCE – 200 CE**, according to scholarly agreement.
- **Evolution:** The text represents the final written compilation of a much older **oral tradition** of performance.
- **Commentary:** The most significant and authoritative classical interpretation is the *Abhinavabharati* by Abhinavagupta (c. **10th–11th century CE**).
- The original text is believed to have contained 36,000 *shlokas* and was later condensed to the current 6,000 *shlokas*.
- It arose from a request by the gods to Lord Brahma to create an accessible form of knowledge and entertainment for all people.

Key Features of the Text

- **Structure:** The entire volume is organized into **36 main chapters** (with some versions specifying 37 chapters).
- **Scope:** It functions as an exhaustive manual, encompassing the **full production cycle** of any theatrical presentation.

- **Rasa Theory (Central Principle):** It details the concept of aesthetic flavor (*Rasa*) achieved through the corresponding emotional state (*Bhava*). The core *rasas* are *Shringara*, *Hasya*, *Karuna*, *Raudra*, *Veera*, *Bhayanaka*, *Bibhatsa*, *Adbhuta* (with *Shanta* later included).

- **Four-Fold Acting Tools (*Abhinaya*):** It defines four essential methods of dramatic communication: *Angika* (physical expression), *Vachika* (vocal delivery), *Aharya* (external aids like costume/props), and *Sattvika* (psychological/inner emotion).

- **Dramaturgy & Stagecraft:** It covers narrative structure, performer roles, different dramatic styles, the architecture of the theatre space, make-up, and directorial notes, serving as a complete technical guide.

- **Dance & Gesture Codification:** The text meticulously outlines standardized gestures (*mudras/hastas*), postures, facial and eye movements, and foundational movements called *karanas*, which are essential for formalized training.

- **Integration of Arts:** It views performance as a comprehensive **synthesis** of rhythm, music, movement, and emotional portrayal, making artistic theory and practical application inherently linked.

- It defines the theatre space (*Natya Mandapa*) in three architectural styles: *Vikrista* (oblong), *Caturasra* (square), and *Tryasra* (triangular).

- It outlines the concept of the "Model Spectator" (*Rasika*), describing the sensitive and cultivated person necessary to fully receive and appreciate the aesthetic experience (*Rasa*).

Significance

- **Civilisational Foundation:** This treatise provides the fundamental aesthetic and theoretical structure for the entire Indian classical performing arts tradition, including dance, theatrical practice, music education, and art theory.

- **Cultural Continuity:** It acts as a bridge, enabling artists to re-interpret and refresh traditional forms for modern consumption and training while preserving the core tenets of the art form.

- Its influence extended far beyond India, significantly impacting the cultural traditions and performance arts of **Southeast Asian nations** like Thailand, particularly in the use of *mudras* and epic storytelling.

- The text is considered a philosophical work, aiming not merely at entertainment but at the spiritual elevation of the audience into a higher, **transcendent state** of experience.

Conclusion

The **Natyashastra** remains the definitive text for Indian classical arts, providing a holistic framework of aesthetics, drama, and movement. Its Rasa theory and Abhinaya principles ensure the cultural and spiritual continuity of performance traditions across generations.

Right to Disconnect Bill, 2025

Context

The **Right to Disconnect Bill, 2025** introduced, has reignited the debate on work–life balance and employee well-being in India's digital work culture.

About Right to Disconnect Bill, 2025

What it is?

The Bill seeks to grant employees a **statutory right to disengage from work-related communications** outside agreed working hours, thereby protecting personal time in an era of constant digital connectivity and remote work.

Key Features of the Bill

- **Legal Right to Disconnect:** Section 7 guarantees every employee the right to ignore work-related calls, emails, or messages after contractual work hours without fear of disciplinary action.

- **Defined 'Out-of-Work Hours':** Clearly defines time beyond agreed work schedules, reducing ambiguity and employer overreach.

- **Employees' Welfare Authority:** Establishes a central authority to oversee implementation, protect employee dignity, and promote work–life balance.

- **Negotiation Charter:** Mandates employer–employee charters specifying out-of-work

communication protocols and mutually agreed exceptions.

- **Overtime Compensation:** Section 11 provides overtime pay at normal wage rates if employees voluntarily respond after hours.

- **Digital Well-being Measures:** Requires awareness programmes, counselling services, and **Digital Detox Centres**, especially for remote work environments.

- **Penalties for Non-compliance:** Imposes a financial penalty of **1% of total employee remuneration** on violating organisations, acting as a strong deterrent.

Need for Such a Law in India:

- **Always-on Work Culture:** The spread of smartphones, remote work, and digital platforms has dissolved fixed work hours, making employees perpetually accessible and eroding clear boundaries between professional and personal life.

- **Mental Health Concerns:** Extended digital availability has led to rising cases of burnout, anxiety, and work-induced stress, particularly among young professionals and gig workers lacking institutional safeguards.

- **Power Asymmetry at Workplaces:** Employees often hesitate to ignore after-hours communication due to hierarchical pressures, performance appraisals, and job insecurity, resulting in involuntary overtime and silent exploitation.

- **Global Legislative Precedent:** Countries such as France, Belgium, Ireland, and Australia have legally recognised the right to disconnect, demonstrating its feasibility as a labour-rights protection in modern economies.

- **Productivity over Presenteeism:** The law encourages a shift from measuring work by hours logged to outcomes delivered, improving efficiency, innovation, and long-term employee engagement.

Challenges Associated

- **Diverse Work Models:** India's economy spans manufacturing, IT, gig work, and global services, making uniform regulation difficult for sectors requiring time-zone coordination or emergency responsiveness.

- **Enforcement Difficulties:** Monitoring informal digital communications such as WhatsApp messages or late-night calls poses practical and evidentiary challenges for regulators.

- **SME Compliance Burden:** Small and medium enterprises may face difficulties in framing charters, maintaining compliance records, and absorbing potential financial penalties.

- **Risk of Regulatory Rigidity:** Overly strict provisions could limit operational flexibility during peak business cycles, emergencies, or client-driven deadlines.

- **Private Member's Bill Limitation:** Without government sponsorship, private member's bills rarely become law, restricting immediate legislative impact despite policy relevance.

Way Ahead

- **Phased and Sector-Specific Adoption:** Introduce differentiated norms based on sectoral needs, allowing flexibility for global teams while protecting routine employees from digital overreach.

- **Tripartite Dialogue Mechanism:** Structured consultations among government, employers, and worker representatives can help create balanced, enforceable, and context-sensitive norms.

- **Soft-Law Approach Initially:** Guidelines under existing labour codes can test feasibility and acceptance before formal statutory backing.

- **Behavioural and Cultural Change:** Awareness campaigns must promote responsible digital communication norms among managers and employees alike.

- **Integration with Labour and Health Policies:** Link the right to disconnect with occupational health, mental well-being, and productivity frameworks for holistic workforce protection.

Conclusion

The Right to Disconnect Bill, 2025 reflects the evolving realities of India's digital workforce and the growing need to protect mental well-being. While legislative and practical challenges remain, the Bill has

sparked a vital conversation on humane, sustainable work cultures. Balancing flexibility with dignity at work will be key to future labour governance in India.

Cabinet Approves 100% FDI in Insurance

Context

The Union Cabinet has approved a proposal to raise the **Foreign Direct Investment (FDI) limit** in insurance companies from 74% to **100%**. This change is set to be implemented through the **Insurance Laws (Amendment) Bill, 2025**.

What is FDI?

Foreign Direct Investment (FDI) is when a **non-resident investor** acquires an equity stake (of **10% or more**) in an Indian company. This investment signifies a lasting interest and grants the non-resident investor some degree of control or management influence.

In the context of the insurance sector, **100% FDI means a foreign insurer can now hold full ownership** in an Indian insurance company, subject to Indian regulatory conditions.

How FDI Works in India?

Foreign investors infuse capital into Indian companies through various methods:

- Subscription to shares (via MoA, preferential allotment, rights/bonus issue, private placement).
- Mergers, demergers, and amalgamations.
- Share purchase from existing residents.
- Conversion of convertible instruments/notes, swap of instruments, etc.

FDI is regulated under **FEMA**, sectoral caps, pricing guidelines, entry routes, and conditions laid down by the Government/RBI.

Two FDI Routes in India:

FDI Route	Prior Approval	Conditions
Automatic Route	No prior Government or RBI approval required.	Investment must comply with sectoral caps, FEMA rules, SEBI/RBI norms, etc. Investor only needs to report and file prescribed forms.
Government Route	Prior **Government approval** is mandatory.	Application is made through the **Foreign Investment Facilitation Portal (FIFP)**. Approval may carry specific conditions (lock-in, reporting, security conditions, etc.).

Prohibited Sectors under FDI:

FDI is strictly **not allowed** in several sectors, including:

- Lottery business, including online lotteries.
- Gambling and betting, including casinos.
- Chit funds (except some NRI/OCI non-repatriation cases).
- Nidhi companies.
- Trading in Transferable Development Rights (TDRs).
- Real estate business and construction of farmhouses.
- Manufacturing of cigarettes, cigars, cigarillos of tobacco/substitutes.
- Sectors not open to private investment (e.g., atomic energy, certain railway operations).
- Technology collaboration (brand/franchise/management) is also prohibited in lottery and gambling/betting.

Progressive FDI Liberalisation in Insurance:

The FDI limit in the insurance sector has been progressively liberalized over the years:

- **2015:** FDI cap raised from **26% to 49%**.
- **2021:** FDI cap raised from **49% to 74%**, with safeguards concerning Indian management and control.
- **2025 (proposed):** FDI cap is to be raised to **100%**. This change will require amendments in the Insurance Laws (Amendment) Bill, 2025, and changes in the LIC Act, 1956, the IRDA Act, 1999, and the Insurance Act, 1938.

Conclusion

The move to 100% FDI in the insurance sector is the culmination of a decade-long liberalization process. This landmark decision aims to attract significant global capital, boost competition, and enhance insurance penetration across India.

Policy for Auction of Coal Linkage for Seamless, Efficient & Transparent Utilisation (CoalSETU)

Context

The Union Cabinet has approved the creation of a new **CoalSETU window** under the Non-Regulated Sector (NRS) Linkage Policy, enabling long-term coal linkages for any industrial use and exports.

About Policy for Auction of Coal Linkage for Seamless, Efficient & Transparent Utilisation (CoalSETU)

What it is?

CoalSETU is a **new auction-based coal linkage window** under the Non-Regulated Sector (NRS) Linkage Policy, allowing **any domestic industrial buyer** to secure long-term coal linkages for own use or export (up to 50%), except resale within India.

Ministry: Ministry of Coal, Government of India

Aim of the Policy:

- To ensure transparent, seamless, and efficient utilisation of domestic coal resources.
- To promote ease of doing business and reduce dependence on coal imports.
- To boost the availability of washed coal and support export opportunities.

Key Features

1. New CoalSETU Window in NRS Policy (2016):

- Allows **any industrial consumer** to participate in coal linkage auctions.
- Existing NRS auctions (for cement, sponge iron, steel, aluminium, and CPPs) will continue.
- These existing users may also bid in the CoalSETU window.

2. No End-Use Restrictions:

- Coal can be used for **own consumption, washing, or export (up to 50%)**.
- **Coking coal is excluded** from this window.
- **Traders are barred** from bidding to prevent speculative hoarding.

3. Export Flexibility:

- Companies may export up to **50% of allotted coal**.
- Washed coal is allowed for export.
- Coal can be shared across **group companies** as per operational needs.

4. Boost to Washery Operators:

- Encourages the growth of private washeries.
- Improves domestic supply of washed, cleaner coal.
- May reduce import dependence and improve export viability.

5. Alignment with Coal Sector Reforms:

- Complements the **2020 reform** allowing commercial mining without end-use restrictions.
- Strengthens the fair, market-driven allocation of mineral resources.

Significance of the Policy:

- **Promotes Transparent & Competitive Allocation:** Auction-based linkages ensure fair market access and remove closed-door allocations.
- **Reduces Import Dependence:** By expanding domestic access and improving washed coal availability, industries can reduce reliance on costly imports.
- **Supports Industrial Growth:** Provides long-term assured coal supply to small, medium, and new industries previously excluded.

Conclusion

The CoalSETU policy is a significant step toward marketizing coal allocation in the Non-Regulated Sector. By promoting auction-based linkages with export flexibility and encouraging washed coal supply, it aims to enhance domestic industrial competitiveness and reduce import dependency, aligning with broader coal sector reforms.

Sustainable Harnessing of Advancement of Nuclear Energy for Transforming India (SHANTI Bill)

Context

The Union Cabinet has approved the **Atomic Energy Bill, 2025**, branded as the SHANTI Bill, marking the biggest reform in India's nuclear sector since 1962. The Bill is a pivotal shift in policy, moving from a decades-old state-dominated model to one that encourages private and global investment.

About the SHANTI Bill (Atomic Energy Bill, 2025)

What it is?

A comprehensive nuclear-sector reform bill replacing fragmented laws and modernising India's nuclear governance, safety, liability, and industry participation framework. It seeks to open up the highly restricted civil nuclear power sector for private participation.

Ministry: Introduced by the **Department of Atomic Energy (DAE)** under the direct charge of the Prime Minister; regulatory reforms involve creating an **independent** nuclear safety authority.

Law Governing Nuclear Energy Currently: India's nuclear sector is presently overseen primarily by:

- **Atomic Energy Act, 1962:** This act strictly prohibited private players from operating nuclear plants, citing national security and safety concerns. The Central Government had significant control over the production, development, use, and disposal of atomic energy.

- **Civil Liability for Nuclear Damage Act, 2010 (CLND Act):** This act has been criticized for placing heavy and ambiguous liability burdens on suppliers, which acts as a deterrent for foreign vendors.

Aim: To enable large-scale nuclear expansion, attract private and global investment, modernise regulatory oversight, reform liability rules, and accelerate India's path to **100 GW of nuclear power by 2047**. It is essential for India's long-term decarbonisation strategy and energy security.

Key Provisions (Features)

- **Opening the Nuclear Value Chain to Private Players:** Allows private sector entry in exploration of atomic minerals, fuel fabrication, equipment manufacturing, and potentially plant operations. The Bill allows private companies up to **49% minority equity** in nuclear power projects.

- **Unified Legal Framework:** Consolidates outdated laws into a streamlined licensing, safety, compliance, and operations structure. The Bill aims to repeal both the Atomic Energy Act, 1962, and the Civil Liability for Nuclear Damage Act, 2010.

- **Reformed Nuclear Liability Architecture:** The framework is designed to align with global norms.

  - It includes clear delineation of operator–supplier responsibilities.

  - It introduces insurance-backed liability caps.

  - The government will provide backstopping beyond a defined threshold.

  - The maximum liability for each nuclear incident shall be the rupee equivalent of three hundred million Special Drawing Rights (SDRs) or higher, as determined by the Central Government.

- **Independent Nuclear Safety Authority:** A new regulator will be created to ensure transparent, professional, and globally benchmarked safety oversight.

- **Dedicated Nuclear Tribunal:** A specialised mechanism will be established to settle liability and contractual disputes efficiently.

- **Boost to Small Modular Reactors (SMRs):** The Bill supports R&D and deployment of SMRs for industrial and grid-scale decarbonisation.

Significance

- **Ends State Monopoly:** Breaks over 60 years of state monopoly, enabling private innovation and investment.

- **Critical for Energy Targets:** It is critical for achieving the **100 GW nuclear capacity goal by 2047** and India's **net-zero by 2070** target.

- **Strengthens Energy Security:** Positions nuclear power as a central pillar of India's long-term decarbonisation strategy, reducing

dependence on fossil fuels and stabilising the energy mix.

- **Addresses Grid Stability:** Nuclear energy offers reliable baseload power, which is essential given the intermittency of rapidly expanding renewable energy sources.

Conclusion

The SHANTI Bill marks a historic shift, dismantling a 60-year state monopoly. By reforming liability and attracting private capital, the Bill is critical to achieving 100 GW nuclear capacity by 2047. If implemented with robust safety oversight, this reform can firmly establish nuclear energy as a cornerstone of India's net-zero and energy security goals.

Centre of Choice Facility for PwBD Candidates

Context

UPSC has introduced a new 'Centre of Choice' facility, ensuring that all Persons with Benchmark Disabilities (PwBD) candidates receive their preferred exam centre.

About the News

What it is? A new UPSC initiative guaranteeing that every PwBD applicant is allotted the exam centre they select in their application form, irrespective of capacity constraints.

Aim: To ensure exam accessibility, convenience, and dignity for PwBD candidates.

Key Features:

- **Guaranteed Preferred Centre:** All PwBD candidates are guaranteed their preferred centre.

- **Irrespective of Capacity:** Centres will be available to PwBD candidates even after capacity limits are reached for other candidates.

- **Additional Capacity:** UPSC will create additional capacity where required, ensuring no PwBD applicant is denied their choice.

- **Data-Driven Reform:** The reform is based on a 5-year analysis of overcrowded centres such as Delhi, Patna, Lucknow, and Cuttack.

Significance

The new initiative is significant as it:

- **Strengthens Inclusive Policy:** It strengthens inclusive examination policy and aligns with rights under the **Rights of Persons with Disabilities (RPwD) Act, 2016**.

- **Reduces Barriers:** It reduces cost, travel burden, and physical barriers for disabled candidates.

- **Enhances Equity:** It enhances equity, fairness, and provides a level playing field in India's premier examinations.

- **Model Institution:** It reaffirms UPSC's role as a model institution for accessible governance.

Conclusion

The 'Centre of Choice' facility is a proactive, data-driven reform by UPSC that demonstrates commitment to the principles of accessibility and non-discrimination enshrined in the RPwD Act, 2016, setting a benchmark for inclusive governance in public examinations.

Nitrofurans

Context

In **December 2025**, a major food safety controversy erupted in India after laboratory reports and social media exposes flagged the presence of **Nitrofurans**, a class of antibiotics banned worldwide in food-producing animals specially in eggs sold by popular premium brands and unbranded local suppliers.

About the News

Background:

Nitrofurans are synthetic broad-spectrum antibiotics (e.g., Furazolidone, Nitrofurazone) once used in poultry to prevent diseases like Salmonella. Due to their persistent residues and health risks, they have been banned for animal use in the EU since 1993 and the US since 1991.

Key Developments:

- **The "Eggoz" Controversy:** The issue gained national traction after a viral lab-test report from the platform "Trustified" alleged traces of **AOZ** (a nitrofuran metabolite) in samples from Eggoz Nutrition.

- **Regulatory Response:** On **December 15, 2025**, the **FSSAI** (Food Safety and Standards

Authority of India) ordered an immediate nationwide drive to collect egg samples from both branded and unbranded sources for testing at 10 national laboratories.

- **Industry Stance:** Companies have shared NABL-accredited reports claiming their products are **BLQ** (Below Limit of Quantification), but experts note that even trace levels (under 1.0 µg/kg) signal illegal usage during the bird's production cycle.

Why Nitrofurans are Banned

- **Carcinogenic Risk:** Studies in rodents have shown that long-term exposure to nitrofuran metabolites can cause genetic damage and increase the risk of **liver, kidney, and ovarian tumors**.

- **Genotoxicity:** Unlike some antibiotics that flush out of the system, nitrofuran metabolites (like AOZ and SEM) bind to animal tissues and persist for weeks, even after cooking.

- **Neurotoxicity:** High or chronic exposure is linked to peripheral neuritis (nerve damage), causing numbness, tingling, and muscle weakness in hands and feet.

- **Antimicrobial Resistance (AMR):** Illegal use in farming contributes to "superbugs," making essential human medicines less effective.

Comparison: Legal vs. Banned Antibiotics (FSSAI 2025)

Category	Banned (Effective April 2025)	Allowed (with Tolerance Limits)
Examples	**Nitrofurans**, Chloramphenicol, Colistin	Amoxicillin, Penicillin G, Gentamicin
Risk Level	High (Carcinogenic/Genotoxic)	Moderate (Risk of Resistance)
Reason for Use	Cheap, treats wide range of infections	Targeted treatment of specific illnesses

Enforcement	Zero Tolerance	Mandatory Withdrawal Periods

Broader Context: The "Adulteration Crisis"

The egg safety drive is part of a wider FSSAI crackdown in 2025 against chemical misuse in the food chain:

- **Dairy:** Detection of detergents and urea in milk.

- **Synthetic Food:** "Fake paneer" made from palm oil and sulfuric acid.

- **Confectionery:** Banning of harmful dyes (e.g., Rhodamine-B) in cotton candy and kebabs.

- **Healthcare Link:** Oncologists in India have increasingly linked this "chemical cocktail" in daily food to the rising incidence of early-onset cancers.

Way Forward

- **Stricter Farm Audits:** Shift from testing final products (eggs) to auditing poultry feed and farm practices to catch illegal usage at the source.

- **The "Clean Label" Certification:** Consumers are moving toward "Antibiotic-Free" certified eggs, which require rigorous 3rd-party validation.

- **Consumer Awareness:** FSSAI recommends the **"Float Test"** for freshness, though it warns that physical tests cannot detect antibiotic residues; only lab testing is effective.

- **Traceability:** Using blockchain or QR codes on egg cartons to track the batch back to the specific poultry farm.

Conclusion

The Nitrofurans row serves as a wake-up call for India's poultry industry. While brands defend their "Safe" labels, the FSSAI's intervention marks a critical step toward ensuring that "Viksit Bharat" also means a "Swasth Bharat" (Healthy India) with a food chain free from carcinogens.

Organ Donation Trends in India (2025)

Context

In **August 2025**, during the 15th Indian Organ Donation Day, the Union Health Ministry highlighted a "record-breaking" year for transplants while simultaneously addressing a deep-seated **gender imbalance**. While India has reached the global rank of **3rd in total transplants**, the disparity between who "gives" and who "receives" remains a critical socio-economic concern.

About the News

Current Status (2024–25):

- **Total Transplants:** India performed a record **18,911 transplants** in 2024 (up from ~5,000 in 2013).

- **Waiting List:** As of **December 2025**, over **82,285 patients** are on the national transplant waitlist.

- **The "Gender Gap":** Decadal data (2013–2023) and recent 2024 reports reveal that approximately **80% of living donors are women**, while nearly **80% of recipients are men**.

State-wise Willingness & Performance:

- **Delhi:** Leads in total kidney and liver transplants; reports show **27% of women** are willing to donate compared to **16% of men**.

- **Odisha:** Recently recognized as an "Emerging State," notably showing the **highest level of willingness among men** nationally.

- **Southern States:** Telangana, Tamil Nadu, and Karnataka continue to lead in **deceased (cadaveric) donations**, contributing over 70% of the national total.

Why the Gender Gap? (The "Breadwinner" Paradox)

- **Social Conditioning:** Women (mothers, wives, and sisters) are culturally conditioned to be the "nurturers" and "caregivers," often viewing donation as a moral obligation rather than a medical choice.

- **Economic Vulnerability:** Men are traditionally viewed as the primary "breadwinners." Families hesitate to allow men to undergo surgery due to fear of income loss, making women the "expendable" donors.

- **Recipient Bias:** Women waiting for organs are often not prioritized by families; statistics show women wait longer on lists and have higher mortality rates while waiting.

- **Medical Factors:** Lifestyle-related organ failure (due to alcohol or tobacco) is statistically higher in men, driving up their demand for recipients.

Regulatory & Institutional Framework

- **THOTA (1994/2011):** The *Transplantation of Human Organs and Tissues Act* regulates removal, storage, and transplantation.

  - **2011 Amendment:** Expanded the definition of "near relatives" to include grandparents and grandchildren and introduced the concept of **Swap Donation**.

- **NOTTO (National Organ and Tissue Transplant Organization):** The apex body managing the national registry and procurement.

- **Recent 2023–2025 Reforms:**

  - **One Nation, One Policy:** Removed the "State Domicile" requirement, allowing patients to register in any state.

  - **No Age Bar:** Scrapped the upper age limit (formerly 65) for deceased donor registrations.

  - **Priority for Women:** NOTTO issued an advisory to give priority points to women patients to correct the gender skew.

Comparison: Living vs. Deceased Donation (2024-25)

Category	Living Donors	Deceased (Cadaveric) Donors
Volume	~15,000+ (High reliance)	~1,128 (Critically low)
Gender Bias	Extremely high (80% Female)	More gender-balanced
Key States	Delhi, UP,	Tamil Nadu,

	Maharashtra	Telangana, Gujarat
Major Organs	Kidney, Liver (partial)	Heart, Lungs, Pancreas, Kidneys

Way Forward

- **Shift to Deceased Donation:** Reducing reliance on living donors is the only structural way to end the pressure on women.

- **Gender-Sensitive Policies:** Implementing NOTTO's "priority points" for women recipients across all states.

- **Awareness Campaigns:** The **"Angdaan–Jeevan Sanjeevani Abhiyan"** (2025) targets rural households to dispel myths about brain death and religious taboos.

- **Insurance Coverage:** Affordable insurance for organ transplant donors to mitigate the "loss of income" fear for breadwinners.

Conclusion

While India's surgical capability is world-class, its organ donation ecosystem reflects a "silent crisis" of gender inequality. Moving from a system where "she gives and he receives" to a robust, deceased-donor-led model is essential for an equitable and modern healthcare system.

Trade Deficit

Context

In **November 2025**, India's **overall trade deficit (goods + services)** narrowed sharply to **USD 6.64 billion**, a significant improvement from **USD 17.06 billion in November 2024**. This contraction was driven by a **record surge in merchandise exports** and a **sharp decline in gold imports** after the festive-season peak.

About the News

Background

- A **trade deficit** arises when the **value of imports exceeds exports**.

- India's trade deficit had widened in **October 2025** due to festive demand and record gold imports.

- **November 2025 marked a five-month low** in the merchandise trade gap, reflecting export resilience despite weak global demand and trade protectionism.

Key Data Highlights (November 2025)

Merchandise Trade

- **Exports:**
  - **USD 38.13 billion**, the **highest for any November in the last decade**
  - **19.4% year-on-year growth**

- **Imports:**

  - **USD 62.66 billion**, marginally lower than **USD 63.87 billion** in November 2024

- **Merchandise Trade Deficit:**
  - **USD 24.53 billion**

Gold Imports

- Declined by **~60% YoY** to **USD 4 billion**

- Reasons:

  - Gold prices crossed **₹1.35 lakh per 10 grams**

  - Cooling of demand after the festive season

Services Trade

- **Services exports: USD 35.86 billion**

- Continued strong surplus in **IT, business services, and consulting**, helping offset the merchandise deficit.

Key Concepts and Formulae

- **Trade Balance (BoT)** = Total Exports − Total Imports

- **Merchandise Trade Deficit:** Gap only in physical goods

- **Overall Trade Deficit:** Includes **goods + services**

- **Current Account Deficit (CAD):**

  - Trade deficit is the **largest component**

  - Despite November improvement, **Q3 FY26 CAD may widen** due to the October spike

October vs. November 2025: A Comparison

Indicator	October 2025	November 2025	Trend
Merchandise Deficit	USD 41.68 bn	USD 24.53 bn	Sharp narrowing
Gold Imports	USD 14.72 bn (record)	USD 4.00 bn	73% MoM fall
Export Growth	−11.8%	+19.4%	Strong rebound
Exports to US	USD 6.31 bn	USD 6.98 bn	Recovery despite tariffs

Key Implications

1. Export Resilience

- Despite **50% US tariffs imposed since August 2025**, Indian exports to the US grew **22.6% YoY**.
- Indicates:
  - Absorption of costs by exporters, or
  - Shift toward **tariff-resilient sectors** such as pharmaceuticals and electronics.

2. Currency Stability

- A narrowing trade deficit **reduces pressure on the Indian Rupee (INR)** by lowering demand for foreign exchange.
- Supports RBI's external sector stability objectives.

3. Structural Shift in Exports

- Strong growth in:
  - **Engineering goods (+24%)**
  - **Electronic goods (+39%)**
- Signals India's deeper integration into **global value chains**, beyond traditional commodity exports.

Way Forward

1. Export Diversification

- Strengthen the **Export Promotion Mission (EPM)**.
- Reduce dependence on **US and China** by expanding exports to **EU and GCC markets**.

2. Value-Chain Expansion

- Move from exporting **raw materials** (e.g., iron ore, which grew 70%) to **finished steel and engineering products**.
- Focus on **productivity-driven and value-added trade**.

3. Strategic Trade Negotiations

- Use export rebound as leverage in **India–US trade negotiations** to push for tariff rationalization or reversals.

Conclusion

The sharp contraction in India's **November 2025 trade deficit** provides timely relief to the external sector. While the fall in gold imports reflects a seasonal correction, the **record-high merchandise exports highlight the growing competitiveness of Indian manufacturing**, even in a high-tariff and uncertain global environment. Sustaining this momentum will depend on **export diversification, value addition, and strategic trade diplomacy**.

India–ADB $2.2 Billion Loan Agreements

Context

In **December 2025**, the Government of India and the **Asian Development Bank (ADB)** signed five major loan agreements totaling over **$2.2 billion**. This significant financing package is designed to support India's national flagship programs in skilling, clean energy, and healthcare, alongside critical infrastructure projects in **Assam, Tamil Nadu, and Meghalaya**.

About the News

Background:

The agreements were signed by Saurabh Singh (Deputy Secretary, Department of Economic Affairs) and Aarti Mehra (Officer-in-Charge, ADB India). The package aligns with the Country Partnership Strategy (2023–2027), which focuses on structural transformation and climate-resilient growth.

Key Features of the Agreements:

- **Skilling & Employability ($846 million):**
  - Supports the **PM-SETU** (Pradhan Mantri Skilling and Employability Transformation) program.

- Modernization of **650 Industrial Training Institutes (ITIs)** across 12 states.
- Upgrading 5 National Skill Training Institutes into **Centres of Excellence**.
- Target: Improving employability for **1.3 million youth** in sectors like EV mobility and renewable energy.

- **Rooftop Solar Expansion ($650 million):**
  - Financing for the **PM Surya Ghar: Muft Bijli Yojana**.
  - Goal: Expanding solar access to **10 million households** by 2027.
  - Focus: Providing **collateral-free, low-interest loans** for middle and low-income groups.

- **Assam Healthcare Augmentation ($398.8 million):**
  - Focuses on **tertiary healthcare** in Assam.
  - Upgrading medical colleges in **Guwahati, Dibrugarh, and Silchar**.
  - Strengthening medical education under the **Srimanta Sankaradeva University of Health Sciences**.

- **Chennai Metro Rail Project ($240 million):**
  - Tranche 2 funding for three new metro corridors.
  - Includes **18 new stations** with universal access and climate-resilient features.

- **Meghalaya Sustainable Livelihoods ($77 million):**
  - Focuses on **ecotourism** and climate-smart agriculture.
  - Benefiting over **8,000 local and indigenous community members**, specifically women.

About the Asian Development Bank (ADB)

- **Established:** 19 December 1966.
- **Headquarters:** Manila, Philippines.
- **Members:** 69 countries (India is a founding member).
- **India's Position:** India is currently the **largest recipient** of ADB's sovereign lending, accounting for nearly **14%** of its total commitments.
- **Strategic Vision:** Aligned with **Viksit Bharat @2047**, ADB aims to eradicate extreme poverty while promoting inclusive and sustainable development.

Significance of the Partnership

Aspect	Impact of 2025 Agreements
Human Capital	Shifts vocational training from traditional trades to **high-tech manufacturing** and green jobs.
Energy Security	Reduces dependence on the grid by incentivizing **residential solar** through decentralized financing.
Urban Mobility	Addresses "Last Mile" connectivity in Chennai through **multimodal interchange** upgrades.
Regional Equity	Targets the **North East (Assam & Meghalaya)** to bridge the healthcare and tourism infrastructure gap.

Way Forward

- **Execution Monitoring:** Implementing **Real-time MIS dashboards** (as seen in the G-RaM G Bill) to ensure zero leakages in solar subsidies.
- **Private Capital Mobilization:** Leveraging the **Urban Challenge Fund** to attract private investors into metro and waste management projects.
- **Gender-Inclusive Skilling:** Ensuring at least **30% of the 1.3 million** targeted youth for skilling are women, particularly in the renewable energy sector.

Conclusion

The $2.2 billion package marks a transition in ADB's role from a traditional "infrastructure lender" to a "knowledge and transformation partner." By focusing on rooftop solar and high-end skilling, the partnership directly supports India's **Nationally Determined**

Contributions (NDCs) and its journey toward a developed economy by 2047.

India–Oman Bilateral Relations

Context

In **December 2025**, Prime Minister **Narendra Modi** visited the **Sultanate of Oman** as part of a three-nation tour (Jordan, Oman, and Ethiopia). The visit coincided with **70 years of India–Oman diplomatic relations** and took place amid heightened instability in West Asia, underscoring Oman's role as a **"stabilizing bridge"** in the region.

About the News

Background

- India and Oman established **diplomatic relations in 1955**, making Oman one of India's **oldest partners in the Gulf**.
- The relationship was elevated to a **Strategic Partnership in 2008**.
- Oman has consistently followed a foreign policy of **neutrality, moderation, and dialogue**, maintaining balanced ties even during periods of intense regional polarization.

Key Highlights of the 2025 Visit

1. Comprehensive Economic Partnership Agreement (CEPA)

- India and Oman are close to finalizing a **CEPA**, expected to eliminate or reduce tariffs on **around 98% of Indian goods**.
- The agreement aims to expand trade in **services, MSMEs, pharmaceuticals, IT, and logistics**, moving bilateral trade toward a **rules-based framework**.

2. Strategic Access to Port of Duqm

- Strengthening the **2018 logistics agreement** for the **Port of Duqm**, granting the Indian Navy a vital facility for **refuelling, maintenance, and turnaround**.
- Duqm enhances India's operational reach in the **Western Indian Ocean**, especially near the **Strait of Hormuz**.

3. Green Energy and Energy Transition

- Launch of a **joint roadmap for Green Hydrogen and Green Ammonia**, combining:

  - Oman's abundant **solar and wind potential**, and
  - India's expertise in **electrolysers, engineering, and project execution**.

4. Digital Public Infrastructure (DPI)

- Expansion of **RuPay–UPI linkages (launched in 2022)** to enable seamless **cross-border digital payments**.
- Directly benefits the **675,000-strong Indian diaspora** in Oman.

5. Knowledge and Education Corridor

- Discussions on establishing **offshore campuses of IITs and IIMs** in Oman.
- Aims to deepen cooperation in **higher education, skilling, and knowledge services**.

Key Sectors of Cooperation

1. Defence and Maritime Security

- Oman is the **first Gulf country** to conduct **tri-service military exercises** with India:

  - **Naseem Al Bahr** – Naval exercise
  - **Al Najah** – Army exercise
  - **Eastern Bridge** – Air Force exercise

- **Port of Duqm** acts as a strategic enabler for:

  - Anti-piracy operations
  - Humanitarian Assistance and Disaster Relief (HADR)
  - Maritime domain awareness near the Strait of Hormuz

2. Trade, Investment, and Economic Cooperation

- **Bilateral trade** reached **USD 10.61 billion in FY 2024–25**, though still heavily commodity-driven.
- The **Oman–India Joint Investment Fund (OIJIF)** has deployed over **USD 600 million** in Indian infrastructure, logistics, and industrial sectors.
- Over **6,000 joint ventures** operate across both countries, with Indian investments concentrated in the **Sohar and Salalah Free Zones**.

Evolution of the Partnership: A Comparison

Aspect	Traditional Focus (Pre-2018)	Emerging Strategic Focus (2025)
Primary Driver	Hydrocarbons & remittances	Technology, fintech, green energy
Trade Model	Ad-hoc commercial links	Rules-based framework (CEPA)
Security Role	Friendly port calls	Operational logistics hub (Duqm)
Connectivity	Maritime shipping lanes	IMEC & digital payment rails (UPI/RuPay)

Key Challenges

1. **Regional Volatility**

   ○ Conflicts in West Asia, including the **Red Sea crisis**, threaten maritime trade routes and investor confidence.

2. **Trade Concentration**

   ○ Over **70% of India's imports from Oman** are still limited to **petroleum and urea**, making trade vulnerable to price fluctuations.

3. **Geopolitical Sensitivities**

   ○ Rising **Chinese naval presence in the Indian Ocean Region (IOR)** increases strategic competition, making logistics arrangements like Duqm geopolitically sensitive.

4. **Omanisation Policy**

   ○ Domestic labor policies prioritizing local employment may affect **low-skill Indian workers**, necessitating a shift toward **high-skill migration**.

Way Forward

- **Fast-track CEPA Implementation**: Prioritize early-harvest measures in **MSMEs,** pharmaceuticals, and standards harmonization.

- **Deepen Maritime Cooperation**: Move from exercises to **coordinated patrols, intelligence sharing**, and protection of **undersea critical infrastructure**.

- **Green Hydrogen Ecosystem**: Develop a **Green Energy Corridor**, enabling Indian firms to manufacture electrolysers in Oman for global markets.

- **Institutionalize Skill Mobility**: Align India's vocational training ecosystem with **Oman Vision 2040**, ensuring the diaspora remains a high-value "living bridge".

Conclusion

The India–Oman relationship has evolved from a civilizational and energy-based partnership into a **high-utility strategic collaboration**. By advancing **CEPA**, strengthening **maritime access at Duqm**, and expanding cooperation in **digital infrastructure and green energy**, both countries are future-proofing their ties against regional instability while offering a scalable model for India's broader engagement with the **Gulf Cooperation Council (GCC)**.

Viksit Bharat–Guarantee for Rozgar and Ajeevika Mission (Gramin) Bill, 2025

Context

In late 2025, the Union government proposed the **Viksit Bharat–Guarantee for Rozgar and Ajeevika Mission (Gramin) Bill, 2025 (VB-G RaM G)**. This legislative move aims to replace the two-decade-old MGNREGA framework, shifting the focus from mere distress relief to long-term productivity and rural infrastructure.

About the News

Background:

The MGNREGA (2005) served as a safety net for millions, but evolving economic conditions and the vision of "Viksit Bharat @2047" necessitated a modern overhaul. The new Bill seeks to align rural labor with climate resilience and durable asset creation.

Key Features of the Bill:

- **Enhanced Employment Guarantee:** Increases assured workdays from **100 to 125 days** per household, boosting potential rural earnings by approximately 25%.

- **Four Priority Asset Sectors:** Focuses strictly on water security, core rural infrastructure, livelihood infrastructure, and climate-resilient works to prevent "fragmented" or temporary projects.

- **Revised Funding Model:** Shifts to a **60:40 Centre-State** sharing ratio for most states (90:10 for NE/Himalayan states), aiming to increase state-level accountability.

- **Digital Governance:** Codifies mandatory biometric attendance, AI-based fraud detection, and GPS/geotagging for all projects.

- **Agricultural Safeguards:** Includes a **60-day optional pause** during peak sowing and harvesting seasons to ensure farm labor availability and stabilize wages.

- **Normative Funding:** Allocations are determined by objective parameters rather than being purely demand-driven, intended to provide budget predictability.

Comparison: MGNREGA vs. VB-G RaM G

Aspect	MGNREGA (2005)	VB-G RaM G Bill (2025)
Nature	Demand-driven legal right	Normative, budget-linked guarantee
Workdays	100 days	125 days
Funding	~90:10 Centre–State	60:40 (most states)
Work Scope	Broad and often fragmented	4 focused priority sectors
Technology	Supportive/Optional	Mandatory and Codified
Implementation	Universal rural coverage	Areas notified by the Centre

Need for the Reform

- **Economic Shift:** Rural poverty dropped significantly from **25.7% (2011-12) to ~4.9% (2023-24)**, signaling a transition from "survival" needs to "productivity" needs.

- **Asset Quality:** Previous reports indicated sub-standard works and misappropriation (approx. ₹193 crore in 2024-25), requiring tighter oversight.

- **Climate Resilience:** India's rural landscape faces increasing heat stress and floods, necessitating specialized climate-adaptive infrastructure.

- **Fiscal Discipline:** Move from volatile demand-based budgeting to a more predictable planning cycle between the Centre and States.

Challenges

- **Dilution of Rights:** Moving to "normative" or capped allocations might restrict employment during unexpected economic shocks.

- **Fiscal Burden:** Poorer states may struggle to meet the **40% funding requirement**, potentially leading to a development gap.

- **Digital Exclusion:** Heavy reliance on biometrics and apps can disadvantage elderly, tribal, or technologically marginalized workers in remote areas.

- **Centralization:** Increased Central control over "notified areas" may dilute the autonomy of Gram Sabhas guaranteed under the 73rd Amendment.

Way Forward

- **Hybrid Funding:** Maintain a contingency window to revert to a demand-driven model during disasters or pandemics.

- **Human Fallback:** Ensure manual/offline alternatives are available when digital systems fail to prevent worker exclusion.

- **Capacity Building:** Provide additional fiscal support or technical handholding for states with lower revenue bases.

- **Social Audits:** Empower local communities to conduct binding audits and ensure time-bound grievance redressal.

Conclusion

The VB-G RaM G Bill represents a strategic pivot toward asset-led rural transformation. While the increase to 125 days and the focus on climate resilience are progressive, the success of the reform hinges on balancing fiscal efficiency with the fundamental right to work.

Migrant Workers & The Overseas Mobility (Facilitation and Welfare) Bill, 2025

Context

In late 2025, the Ministry of External Affairs (MEA) introduced the **Overseas Mobility (Facilitation and Welfare) Bill, 2025**, intended to replace the nearly 40-year-old **Emigration Act of 1983**. This new legislative framework aims to modernize the regulation of Indian workers abroad, reflecting the shift from a restrictive "clearance" regime to a digital "facilitation" model.

Government Stance: Objectives of the Bill

- **Facilitator Role:** The government aims to position itself as a facilitator of global labor mobility, viewing the export of skilled and semi-skilled workforce as a strategy to manage domestic unemployment and boost foreign remittances.

- **Digitization & Data:** Proposal to establish a **centralized data portal** for the mandatory registration of all emigrants, aimed at creating a "real-time" map of the Indian diaspora to assist in crisis management.

- **Overseas Mobility and Welfare Council:** A new high-level body intended to bring convergence between different ministries (MEA, Home Affairs, Labour) to streamline policy for migrant welfare.

- **Safe & Orderly Migration:** The bill seeks to institutionalize "safe migration pathways" through government-to-government (G2G) agreements, reducing the reliance on unorganized private recruiters.

Key Features and Changes

Feature	Emigration Act, 1983	Overseas Mobility Bill, 2025
Primary Focus	Regulatory "Clearance" (ECR)	Facilitation and Welfare Tracking
Registration	Required mainly for low-skilled (ECR) workers	Mandatory for all categories of emigrants
Recruitment	Regulated through Protectors of Emigrants (PoE)	Focus on "Accredited Recruitment Agencies" and digital tracking
Grievance Redress	Manual, embassy-led process	Integrated digital platform for complaint filing

Critique and Concerns

- **Shift in Identity:** Critics argue the bill shifts the state's role from a **"parental protector"** (Parens Patriae) to a mere **"travel facilitator."** By focusing on "mobility," the state may be diluting its legal obligation to safeguard workers from exploitative labor contracts.

- **Dilution of Penalties:** Human rights groups have flagged that the 2025 Bill reportedly offers weaker penalties for crimes against women and children compared to the 2021 draft, potentially emboldening traffickers.

- **Regulatory "Middlemen":** The bill is seen as "silent" on the strict regulation of sub-agents or "middlemen." These unregulated actors are often responsible for debt bondage and high recruitment fees that trap workers in "slavery-like" conditions.

- **Lack of Rehabilitation:** There are no clear statutory provisions for the **reintegration of returning migrants**. During crises (like pandemics or regional conflicts), workers often return to India with no financial safety net or skill-matching support.

- **Worker Vulnerability:** The legislation does not explicitly address common abuses like **passport confiscation** and **wage theft**, which remain rampant in the "Kafala" system areas of the Gulf and Southeast Asia.

Way Forward

- **Strengthening Legal Aid:** Incorporate a dedicated "Legal Defence Fund" for Indian workers facing litigation in foreign courts.

- **Mandatory Pre-Departure Training:** Standardize skill-upgrading and rights-awareness training to prevent workers from being misled by fraudulent recruiters.

- **Reintegration Policy:** Develop a "National Reintegration Framework" to help returnees utilize their foreign-earned skills in the domestic market.

- **Bilateral Labor Agreements (BLAs):** Ensure that facilitate-oriented laws are backed by strong BLAs that mandate host countries to respect Indian workers' fundamental human rights.

Conclusion

While the **Overseas Mobility Bill, 2025** is a necessary update to a colonial-era regulatory mindset, it must not sacrifice worker protection at the altar of economic facilitation. A truly "Viksit Bharat" must ensure that its most vulnerable exports, its labor are treated with dignity and protected by a robust legal umbrella that follows them across borders.

100% FDI in the Insurance Sector

Context

In December 2025, the Indian Parliament passed the **'Sabka Bima, Sabki Raksha' (Amendment of Insurance Laws) Bill, 2025**. A highlight of this landmark reform is the increase in the Foreign Direct Investment (FDI) limit from 74% to **100%**, signaling a major shift toward full liberalization of the insurance sector.

Evolution of FDI Limits

The insurance sector has transitioned from a state-controlled monopoly to an open, globalized market over the last few decades:

- **Pre-liberalization:** Complete state monopoly (e.g., LIC and GIC).

- **2000:** Sector opened to private players with a **26%** FDI cap.

- **2015:** FDI limit raised to **49%** under the automatic route.

- **2021:** Limit increased to **74%**, allowing foreign majority ownership.

- **2025:** Full liberalization to **100%** ownership enabled by the 2025 Amendment Act.

Need for Reform

- **Capital Intensive Nature:** Insurance is a "long-gestation" business, often requiring 7–10 years of consistent capital infusion before reaching profitability. Global "patient capital" is better suited for this timeline.

- **Low Penetration:** India's insurance penetration (premiums as a % of GDP) stands at **3.7%**, significantly lower than the global average of **7%**.

- **Protection Gap:** The mortality protection gap in India remains high, and many citizens are under-insured against health and life risks.

- **Infrastructure Needs:** Insurance funds act as long-term "patient capital" that can be channeled into national infrastructure projects.

Benefits of 100% FDI

- **Increased Competition:** Allowing 100% ownership makes it easier for global giants to enter India without the "mammoth task" of finding a domestic partner.

- **Lower Premiums:** Enhanced competition is expected to drive down premium costs, making insurance more affordable for the middle and lower-income classes.

- **Job Creation:** Since the hike to 74%, jobs in the sector have nearly tripled; 100% FDI is expected to further boost employment for agents, staff, and tech professionals.

- **Technology & Innovation:** Inflow of global best practices in AI-driven underwriting, personalized policy design, and faster digital claim settlements.

- **Support for "Insurance for All by 2047":** Aligns with the national vision to provide a safety net for every Indian citizen by the centenary of independence.

Key Provisions of the 2025 Amendment

Aside from the FDI hike, the Bill introduced several structural changes:

- **Composite Licensing Omitted:** Interestingly, the final Bill *did not* include the proposed "composite license," meaning life and general insurance still require separate entities.

- **LIC Autonomy:** The **Life Insurance Corporation Act, 1956** was amended to give the LIC board greater operational freedom to open zonal offices and manage staffing without constant government clearance.

- **Reinsurance Easing:** Reduced the minimum Net Owned Fund (NOF) requirement for foreign reinsurance branches from **₹5,000 crore to ₹1,000 crore** to invite more global risk-bearers.

Challenges & Safeguards

Challenge	Government Safeguard / Response
Capital Flight	Condition that companies must **invest the entire premium collected within India**.
Predatory Pricing	Enhanced **IRDAI powers** to regulate commissions and prevent "sharks" from wiping out smaller players.
Management Control	Guidelines maintain that certain key leadership positions must be accountable to Indian laws.
Data Privacy	Strict mandates that **customer data must be stored and secured** within India; no third-party sharing without consent.

Conclusion

The move to 100% FDI is a "watershed moment" for the Indian financial landscape. While it addresses the critical supply-side constraint of capital, its ultimate success will depend on the **IRDAI's** ability to balance the commercial interests of global investors with the welfare of Indian policyholders. By 2047, this reform aims to transform insurance from a "tax-saving tool" into a fundamental pillar of social security.

Param Vir Chakra (PVC)

Context

On **Vijay Diwas (December 16), 2025**, President Droupadi Murmu inaugurated the **'Param Vir Dirgha'** at Rashtrapati Bhavan. This gallery features the portraits of all 21 Param Vir Chakra (PVC) awardees, replacing the portraits of British Aide-de-Camps (ADCs) as a symbolic move to shed colonial legacies and honor national heroes.

About the Param Vir Chakra (PVC)

The **Param Vir Chakra** (literally "Wheel of the Ultimate Brave") is India's highest military decoration for gallantry. It is awarded for the most conspicuous bravery or self-sacrifice in the presence of the enemy during wartime.

Key Features:

- **Instituted:** January 26, 1950 (with retrospective effect from August 15, 1947).

- **Eligibility:** All ranks of the Army, Navy, Air Force, and other lawfully constituted forces.

- **Posthumous Award:** Can be awarded posthumously; 14 of the 21 awards to date were conferred after the recipient's martyrdom.

- **Precedence:** In the Indian order of precedence, the PVC is second only to the **Bharat Ratna**.

Design and Symbolism

The medal was designed by **Savitri Khanolkar** (born Eve Yvonne Maday de Maros), a Swiss-born designer who married an Indian Army officer.

- **Obverse:** A circular bronze disc with the **National Emblem** in the center, surrounded by four replicas of **Indra's Vajra**.

- **Symbolism of the Vajra:** It represents the sacrifice of **Rishi Dadhichi**, who gave his bones to the Gods to fashion a weapon (the Vajra) to defeat evil, symbolizing supreme sacrifice and strength.

- **Reverse:** The words "Param Vir Chakra" are embossed in both Hindi and English, separated by two lotus flowers.

- **Ribbon:** A plain purple-colored ribbon.

Awardees and Milestones

- **First Recipient:** Major Somnath Sharma (Posthumous, 1947 Indo-Pak War).

- **Only Air Force Recipient:** Flying Officer Nirmal Jit Singh Sekhon (1971 War).

- **Living Recipients:** Currently, three living recipients are Subedar Major (Hony Capt) Yogendra Singh Yadav, Subedar Sanjay Kumar, and Subedar Major Bana Singh.

- **Total Count:** As of 2025, there have been **21 recipients** in total across various conflicts including the 1947-48 Kashmir War, 1962 Sino-Indian War, 1965 and 1971 Indo-Pak Wars, and the 1999 Kargil War.

Aide-de-Camp (ADC): The Replaced Legacy

Prior to the 2025 inauguration, the gallery corridors displayed portraits of British **Aide-de-Camps**.

- **Definition:** An ADC is a personal military assistant to high-ranking officials such as the President, Governors, or Service Chiefs.

- **Role:** They act as a liaison between the dignitary and military/civil authorities, managing protocol, security, and official engagements.

- **Significance of Change:** Moving from British ADCs to PVC awardees marks a shift toward celebrating indigenous military excellence and the "unconquerable spirit" of Indian defenders.

Conclusion

The creation of the **Param Vir Dirgha** is a significant milestone in India's cultural and military history. By centering the supreme sacrifices of the 21 Param Virs within the highest office of the land, the state reaffirms its commitment to honoring those who defended the nation's sovereignty at the ultimate cost.

The Tianjin Declaration (2025)

Context

At the **20th anniversary summit of the Shanghai Cooperation Organisation (SCO)** held in Tianjin, China (August 2025), India joined other member states in endorsing the **Tianjin Declaration**. This milestone document outlines a collective roadmap for the grouping, with a specific and groundbreaking focus on **Artificial Intelligence (AI) governance** and regional digital sovereignty.

About the Tianjin Declaration

The Tianjin Declaration serves as the central political outcome of the 2025 SCO Council of Heads of State. It defines the SCO's strategic vision for the next decade, balancing traditional security concerns with emerging technological challenges.

Key Outcomes and AI Framework:

- **AI Rights and Equality:** Asserted that all nations have "equal rights" to develop and utilize AI, rejecting any monopolistic control over the technology.

- **Global Alignment:** Directly aligned the SCO's goals with the **UN General Assembly resolution (A/RES/79/322)** regarding AI capacity building for sustainable development.

- **Risk Mitigation:** Committed to building AI systems that are safe, transparent, inclusive, and accountable. Members agreed to fight the use of AI for spreading misinformation, deepfakes, and radicalization.

- **Regional AI Centre:** Officially welcomed the establishment of the **Regional Artificial Intelligence Centre in Dushanbe, Tajikistan**, to serve as a hub for Central Asian digital integration.

- **Roadmap for 2035:** Approved the **SCO Development Strategy until 2035**, which integrates AI and the digital economy into the core pillars of regional cooperation.

Shanghai Cooperation Organisation (SCO)

The SCO is a permanent intergovernmental international organization that has evolved from a security-focused bloc into a comprehensive regional partnership representing roughly **40% of the world's population**.

Structural Overview:

- **Established:** June 15, 2001 (Successor to the "Shanghai Five").

- **Headquarters:** * Secretariat: Beijing, China.
  - **RATS (Regional Anti-Terrorist Structure):** Tashkent, Uzbekistan.

- **Member States (10):** India, China, Russia, Pakistan, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Iran, and Belarus (joined 2024).

- **New "Partner" Status:** In 2025, the SCO simplified its structure by merging "Observer" and "Dialogue Partner" into a single **"SCO**

Partner" category, welcoming **Laos** as the newest partner.

Governance Bodies:

1. **Council of Heads of State (CHS):** The supreme decision-making body that meets annually.

2. **Council of Heads of Government (CHG):** Focuses on economic, trade, and budgetary issues.

3. **Council of Foreign Ministers:** Prepares for the CHS meetings and handles international coordination.

Significance for India

- **Anti-Terrorism Focus:** India successfully pushed for the declaration to explicitly condemn the **April 2025 Pahalgam terror attack**, reinforcing the SCO's mandate to combat cross-border terrorism without "double standards."

- **Technological Leadership:** India's endorsement of the AI framework aligns with its **"AI for All"** mission and the **IndiaAI Governance Guidelines (2025)**, positioning India as a bridge between Global South needs and advanced tech standards.

- **Strategic Balancing:** PM Modi's visit to Tianjin (his first to China in seven years) highlighted India's use of the SCO platform to maintain regional dialogue despite bilateral friction.

Conclusion

The Tianjin Declaration marks the SCO's transition into a **"techno-security"** organization. By championing AI governance and establishing long-term development strategies until 2035, the SCO is attempting to create an alternative multilateral model that emphasizes sovereignty and digital inclusivity. For India, the declaration remains a vital tool for ensuring regional stability and securing its interests in the Eurasian heartland.

India–Jordan Joint Statement (2025)

Context

In December 2025, Prime Minister Narendra Modi's two-day visit to Amman, Jordan, marked the **75th**

anniversary of diplomatic relations between the two nations. This was the first full-fledged bilateral visit by an Indian Prime Minister to Jordan in 37 years, culminating in a forward-looking roadmap to elevate the partnership into a long-term economic and geopolitical alliance.

About the India–Jordan Joint Statement (2025)

Key Highlights and Outcomes:

- **Political Cooperation:** * Commitment to regular high-level interactions and political consultations.
  - The **5th round of Political Consultations** is scheduled to be held in **New Delhi**.

- **Trade and Economy:** * Current bilateral trade is valued at **$2.3 billion** (2024); India is Jordan's 3rd largest trading partner.
  - PM Modi proposed an ambitious target to double trade to **$5 billion** within five years.
  - Announcement to convene the **11th Trade & Economic Joint Committee** in early 2026.

- **Digital & Technology Partnership:** * Signed a **Letter of Intent** to share India's **Digital Public Infrastructure (DPI)** (e.g., UPI, Aadhaar, DigiLocker).
  - Proposed collaboration between Jordan's digital payment systems and India's **UPI**.
  - Expansion of the **India–Jordan IT Centre of Excellence** at Al Hussein Technical University.

- **Capacity Building:** * Increased **ITEC** (Indian Technical and Economic Cooperation) training slots for Jordan from **35 to 50** annually.

- **Health & Agriculture:** * Focused on **telemedicine**, training of health professionals, and pharmaceutical manufacturing.
  - Continued collaboration in the **fertilizer sector** (specifically phosphates and potash) to secure India's food security.

- **Water & Green Cooperation:** * MoU on **Water Resources Management:** Focuses on water-saving technologies, aquifer management, and rainwater harvesting in water-scarce Jordan.

- **MoU on Renewable Energy:** Joint research and technical cooperation in **green hydrogen** and grid integration.
- **Cultural & Heritage Ties:** * Signed the **Cultural Exchange Programme (2025–2029)**.
  - **Petra–Ellora Twinning:** A landmark agreement to boost tourism, heritage conservation, and academic exchange between these two iconic archaeological sites.
- **Multilateral Convergence:** * Jordan expressed willingness to join Indian-led global initiatives: **International Solar Alliance (ISA)**, **Coalition for Disaster Resilient Infrastructure (CDRI)**, and the **Global Biofuels Alliance (GBA)**.

Significance

- **Strategic Geography:** Jordan's location and its network of **Free Trade Agreements (FTAs)** provide Indian companies with a strategic gateway to reach markets in West Asia, Africa, and Europe.
- **Regional Stability:** Both nations reaffirmed a clear stance against **terrorism and radicalization**, with PM Modi praising King Abdullah II as a "voice of moderation" in the Islamic world.
- **Global South Leadership:** Jordan's interest in joining Indian-led multilateral platforms reinforces India's role as a leader in shaping issue-based coalitions for the Global South.

Conclusion

The 2025 Joint Statement marks a strategic pivot in India–Jordan relations, moving beyond a traditional buyer-seller dynamic in the fertilizer sector toward a multi-dimensional partnership. By integrating **Digital Public Infrastructure**, **Green Energy**, and **Heritage Tourism**, both nations are leveraging their respective strengths, India's technological prowess and Jordan's strategic location to ensure regional stability and economic resilience. As both countries celebrate 75 years of ties, this roadmap ensures that Jordan remains a vital anchor in India's **"Link West"** policy, bridging South Asia with the Mediterranean and beyond.

From Red Corridor to Naxal-Free Bharat

Context

In late 2025, India has moved closer to achieving a "Naxal-free Bharat." Left-Wing Extremism (LWE) affected districts have seen a drastic reduction from 126 in 2014 to just 11 in 2025, with only 3 districts remaining in the "most-affected" category.

About the News

Trends in Naxalism (2014–2025):

- **Territorial Contraction:** Maoist influence has shrunk significantly, dismantling the core "Red Corridor." Most-affected districts dropped from 36 to 3.
- **Decline in Violence:** Violent incidents decreased by 53%, while civilian and security force deaths fell by 70% and 73% respectively compared to the 2004–2014 period.
- **Cadre Attrition:** 2025 marked a peak in operations with 317 insurgents neutralized, over 800 arrested, and approximately 2,000 surrendered.
- **Governance Expansion:** The collapse of parallel Maoist systems was driven by the expansion of roads, telecom, and permanent policing in former "jungle sanctuaries."

Historical Evolution of Naxalism

- **Origin (1967):** Emerged from the Naxalbari uprising in West Bengal. Driven by Charu Mazumdar's "land to the tiller" ideology, it converted agrarian class conflict into armed mobilization.
- **Expansion (1980s–2000s):** Spread into the "Fifth Schedule" tribal belts. Exploited weak administration, land alienation, and forest grievances. The 2004 formation of CPI (Maoist) unified various factions.
- **Peak and Decline (2005–2014):** Maoists established "liberated zones," but coordinated state action began shrinking these safe havens.
- **Decisive Rollback (2014 onwards):** A unified security-development strategy utilized permanent camps and infrastructure to break recruitment networks in strongholds like Bastar and Dandakaranya.

Framework to Counter Left-Wing Extremism

Constitutional & Governance Measures:

- **Fifth Schedule:** Provides special governance for Scheduled Areas via Governor powers and Tribal Advisory Councils to prevent land alienation.

- **PESA Act, 1996:** Empowers Gram Sabhas with local resource control to deepen self-rule.

- **Forest Rights Act (FRA), 2006:** Corrects historical injustices by recognizing individual and community forest rights.

Development & Welfare Initiatives:

- **Infrastructure Saturation:** Road and telecom connectivity reduces isolation and allows for faster emergency responses.

- **Financial Inclusion:** Banking access facilitates Direct Benefit Transfer (DBT) and cuts off insurgent extortion channels.

- **Skill Push:** Education and local employability provide youth with alternatives to insurgent networks.

Security & Enforcement:

- **Fortified Policing:** Permanent forward presence prevents re-occupation by Maoist cadres.

- **Financial Choking:** Seizures disrupt the "insurgency ecosystem" including arms procurement and urban networks.

- **Surrender Policy:** Incentives and security guarantees convert active cadres into stakeholders of peace.

Challenges

- **Governance Deficits:** In some interiors, the state is still perceived through a security lens rather than service delivery (health, education, and courts).

- **Implementation Gaps:** Bypassing Gram Sabha consent in mining belts or weak enforcement of the FRA can trigger fresh distrust and mobilization.

- **Socio-Economic Vulnerability:** Poverty and displacement around mineral corridors keep communities susceptible to insurgent narratives.

- **Ideological Residue:** While territorial control has faded, digital propaganda and "urban support" networks remain a tool for potential reorganization.

Way Forward

- **Governance-led Consolidation:** Transition from security patrols to justice delivery, utilizing fast-track courts and tribal health cadres.

- **Deepening Local Self-Rule:** Ensure meaningful devolution of power to Gram Sabhas to block the space for parallel "people's courts."

- **Administrative Indigenisation:** Scale models like the "Bastariya Battalion" to recruit locals into police and revenue services, improving cultural sensitivity.

- **Rights Protection:** Ensure Gram Sabha consent is mandatory and auditable for all projects to prevent fresh alienation.

Conclusion

India has successfully broken the military backbone of Naxalism through a calibrated mix of security and development. The final phase of eradication requires shifting focus toward tribal empowerment and justice delivery, ensuring that constitutional promises become a lived reality in the country's most remote areas.

Achievements of the Department of Biotechnology (DBT) in 2025

Context

In late 2025, the Department of Biotechnology (DBT) released its Year-Ender report, highlighting a transformative year where biotechnology emerged as a primary pillar of India's economic, health, and agricultural strategy. With the bio-economy surpassing significant milestones, 2025 marked a decisive shift toward high-performance biomanufacturing and genomic sovereignty.

About the Department of Biotechnology (DBT)

The DBT, under the Ministry of Science & Technology, is India's nodal agency for policy, funding, and regulation in the biotech sector. Its mandate covers health, agriculture, industry, and frontier sciences, aligning with national missions like **Atmanirbhar Bharat** and **Viksit Bharat 2047**.

Key Achievements in 2025

1. Bio-Economy & Global Standing

- **Massive Growth:** India's bio-economy grew **16-fold** in a decade, rising from **$10 billion (2014)** to **$150+ billion (2024)**, targeting **$300 billion by 2030**.

- **Global Ranking:** India ranks **12th globally** in biotechnology and **3rd in the Asia-Pacific** region, maintaining the world's largest vaccine manufacturing capacity.

2. National Biofoundry & BioE3 Policy

- **Infrastructure:** Launched the **National Biofoundry Network** with six specialized hubs.

- **Biomanufacturing:** Implemented the **BioE3 Policy** (Economy, Employment, and Environment), focusing on high-value areas like:
  - Smart proteins and precision biotherapeutics.
  - Climate-resilient agriculture and carbon capture.
  - Space and marine biotechnology.

3. Genomic Sovereignty: GenomeIndia Project

- **Data Milestone:** Launched the **Indian Genomic Data Set**, featuring **10,000 whole genome sequences** made accessible for global research.

- **Digital Portals:** Operationalized the **FeED** and **Indian Biological Data Centre (IBDC)** portals to streamline biological data sharing.

4. Breakthroughs in Space Biotechnology

- **Axiom-4 Mission:** Conducted India's first human muscle stem-cell experiment on the International Space Station (ISS).

- **Sustainability:** Validated the growth of microalgae and cyanobacteria in microgravity, essential for oxygen and food in long-duration space missions.

5. Health and Biopharma Innovations

- **National Biopharma Mission:** Successfully delivered indigenous MRI scanners, biosimilars, and vaccines (ZyCoV-D and Corbevax).

- **TB-Mukt Bharat:** Sequenced **18,000 MTB isolates** using AI to map drug resistance, enhancing tuberculosis treatment protocols.

6. Agricultural Advances

- **Gene-Edited Rice:** Developed rice with the **DEP1 gene**, offering a **20% higher yield**.

- **Climate Resilience:** Introduced drought-resistant rice ('Arun') and **CRISPR-edited mustard** (transgene-free) with high nutritional content.

Ecosystem & Infrastructure

- **Startup Support:** Expanded to **75 BioNEST Centres** and **19 E-YUVA Centres**, supporting over **3,000 startups** and **1,300+ IP filings**.

- **Research Platforms:** Enabled nationwide access to advanced equipment (Cryo-EM, Stem-cell imaging) through the **DBT-SAHAJ** shared research portal.

- **Animal Research:** Commissioned a state-of-the-art **Animal BSL-3 Facility** for Non-Human Primates to bolster infectious disease research.

Major Initiatives Launched in 2025

- **D.E.S.I.G.N for BioE3:** A new challenge to empower youth innovators in biomanufacturing.

- **DBT–IndiaAI MoU:** A strategic partnership to integrate artificial intelligence with biotechnological research.

- **Regulatory Reform:** Issued new **Guidelines on Genetically Engineered Plants (Stacked Events), 2025**, to simplify the approval process for multi-trait crops.

Significance

- **Strategic Growth Engine:** Positions biotech as a driver for economy, health security, and climate resilience.

- **Technological Sovereignty:** Reduces dependence on imports for vaccines, APIs, and high-end diagnostic equipment.

- **Global Leadership:** Establishes India as a hub for affordable innovation and South-South scientific cooperation.

Conclusion

The year 2025 was a turning point for India's biotech ecosystem. By anchoring innovation to national priorities ranging from deep-sea and space biotech to food security, the DBT has ensured that biotechnology remains a fundamental pillar in the journey toward a **Viksit Bharat by 2047**.

India–Oman CEPA

Context

In 2025, India and Oman officially signed a **Comprehensive Economic Partnership Agreement (CEPA)**. This landmark deal represents India's second major trade pact in the West Asian region, following the 2022 agreement with the UAE, and signifies a deepening of bilateral economic and strategic ties.

About the News

Background: The India–Oman CEPA is a holistic agreement designed to eliminate trade barriers and enhance cooperation across goods, services, and investments. It marks Oman's first bilateral trade agreement since its 2006 FTA with the United States.

Key Features of the Agreement:

- **Tariff Elimination:** Oman has removed customs duties on **98.08%** of its tariff lines, covering nearly **99.38%** of Indian exports.

- **Service Sector Liberalization:** Access granted to **127 service sub-sectors**, including high-value areas like IT, R&D, healthcare, and education.

- **Professional Mobility (Mode 4):** Significant increase in the quota for intra-corporate transferees (from 20% to 50%) and extended stays for contractual suppliers.

- **Investment & Ownership:** Indian companies are permitted **100% foreign direct investment (FDI)** in major service sectors within Oman.

- **Pharma & Wellness:** Accelerated approval processes for Indian pharmaceuticals and a global-first commitment to traditional **AYUSH** medicines across all modes of trade.

Strategic Significance: India's West Asia Strategy

- **Market Diversification:** Reduces dependence on Western markets (US/EU) where Indian exports increasingly face carbon-linked barriers like the Carbon Border Adjustment Mechanism (CBAM).

- **Oman as a Gateway:** Strategic proximity to the **Strait of Hormuz** and ports like Duqm and Sohar allow India to use Oman as a re-export hub for East Africa and the wider Gulf.

- **Energy Security:** Ensures a stable supply of LNG, crude oil, and fertilizers, which are critical for India's energy and agricultural stability.

- **GCC Leverage:** While broader India–GCC (Gulf Cooperation Council) talks remain stalled, bilateral pacts with the UAE and Oman provide India a firm competitive foothold in the region.

Challenges

- **Market Scale:** Oman's domestic market is relatively small (annual imports ~USD 40 billion), which may cap the ceiling for direct export growth.

- **Quality & Standards:** Indian exporters face pressure to upgrade packaging and branding to meet the premium preferences of Gulf consumers.

- **Geopolitical Risks:** Ongoing volatility in the Red Sea and broader West Asia can lead to sudden spikes in freight and insurance costs.

- **Implementation Gaps:** Non-tariff barriers (NTBs) and potential delays in professional visa processing could dilute the intended benefits of Mode 4 mobility.

Way Forward

- **Logistics Hub Development:** Capitalize on the **Duqm port** for industrial cooperation, positioning it as a redistribution center for Indian goods.

- **Value-Addition:** Shift the export profile from raw materials to finished, high-value goods like processed jewelry and specialized engineering products.

- **Mutual Recognition:** Fast-track agreements to recognize professional qualifications (doctors, architects, engineers) to maximize service sector gains.

- **Policy Integration:** Align the benefits of the CEPA with domestic initiatives like the

Production Linked Incentive (PLI) scheme to boost manufacturing exports.

Conclusion

The India–Oman CEPA is a vital pillar of India's "Look West" economic policy. By balancing tariff-free access with deep commitments to service mobility, the pact offers a resilient alternative to traditional Western trade routes. If implemented effectively, it will transform Oman into a strategic economic bridge connecting Indian industry to the markets of the Middle East and Africa.

Artificial Intelligence in the Judiciary: India's Digital Leap

Context

In December 2025, the Union Ministry of Law and Justice informed Parliament that AI-based tools are being integrated into the **e-Courts Phase-III** project (with an outlay of **₹7,210 crore**). The focus is on using technology to enhance administrative efficiency, reduce case pendency, and improve access to justice while ensuring AI serves only as a support system and not a replacement for human judges.

About Artificial Intelligence in the Judiciary

What it is?

It refers to the integration of technologies like **Machine Learning (ML)**, **Natural Language Processing (NLP)**, and **Optical Character Recognition (OCR)** into the judicial workflow.

- **Primary Role:** Decision-support, case-flow management, and automated transcription.
- **Secondary Role:** Improving citizen-facing services through chatbots and multilingual translation.

Key Initiatives Taken:

- **LegRAA (Legal Research Analysis Assistant):** Developed by the NIC, this tool assists judges in document analysis, identifying legal precedents, and summarizing complex case files.
- **SUPACE (Supreme Court Portal for Assistance in Court Efficiency):** An experimental AI portal that collects and analyzes relevant facts and laws, making them

available to judges to accelerate the decision-making process.

- **SUVAS (Supreme Court Vidhik Anuvaad Software):** An AI-powered translation tool that has already translated over **31,000 judgments** into regional Indian languages to bridge the linguistic divide.
- **Digital Courts 2.1:** A specialized application for judges that features **SHRUTI** (AI speech-to-text for dictating orders) and **PANINI** (integrated translation).
- **Defect Identification Tool:** Developed in collaboration with **IIT Madras**, this ML tool helps the Supreme Court Registry automatically identify defects in electronic filings.

Benefits of AI Integration

- **Efficiency & Speed:** Automates routine tasks like scheduling, document verification, and metadata extraction, allowing judges to focus on core legal reasoning.
- **Reducing Backlog:** AI-driven "predictive analytics" can identify potential bottlenecks in case-flow and suggest prioritization for time-sensitive matters.
- **Transparency:** Live transcription (as seen in Constitution Bench hearings) and digital evidence recording through **Nyaya Shruti** ensure an auditable and transparent record of proceedings.
- **Accessibility:** Multilingual judgment portals allow common citizens to read court orders in their native languages.

Challenges and Ethical Concerns

- **Algorithmic Bias:** Since AI is trained on historical data, it may inadvertently perpetuate existing societal or legal biases, leading to "disparate treatment."
- **Hallucinations & Accuracy:** Generative AI can sometimes create "fictitious" precedents or legal citations (hallucinations), necessitating strict human verification.
- **Privacy & Security:** Handling sensitive legal data requires robust frameworks under the **Digital Personal Data Protection (DPDP) Act, 2023**.

- **Lack of Transparency:** The "black box" nature of some AI models makes it difficult for litigants to understand the rationale behind a tech-supported recommendation.
- **Judicial Independence:** There are concerns that over-reliance on AI "predictions" could influence a judge's independent discretion.

Way Forward

- **Phased Roadmap:** The government has allocated **₹53.57 crore** specifically for "Future Technological Advancements" to ensure a controlled and secure pilot-based rollout.
- **Human-in-the-Loop:** Developing a regulatory framework where AI outputs are always subject to final human oversight and manual verification.
- **Capacity Building:** Specialized training for judges, lawyers, and court staff to understand both the capabilities and the ethical limitations of AI tools.
- **Standardized Guidelines:** Formulation of uniform operational rules by High Courts to govern the use of AI in local jurisdictions.

Conclusion

The integration of AI into the Indian judiciary is a transformative step toward a "Viksit Bharat" by 2047. While the technology offers a potent solution to the crisis of case pendency, its deployment must remain "human-centric"—ensuring that the "soul of justice" remains in human hands while the "machinery of justice" is powered by AI.

Regional Rural Banks (RRBs)

Context

On **December 18, 2025**, the Government of India and **NABARD** unveiled a common logo for all Regional Rural Banks (RRBs) under the **"One RRB, One Logo"** initiative. This rebranding follows a massive consolidation drive aimed at creating a unified and modern brand identity for rural banking institutions.

About the New RRB Logo

What it is?

A single, standardized logo adopted by all **28 RRBs** currently operating across India. This replaces the disparate logos previously used by individual banks,

fostering a cohesive national presence similar to major public sector banks.

Key Features and Symbolism:

- **Upward Arrow (Progress):** Signifies the continuous growth, development, and economic advancement of India's rural sectors.
- **Hands (Nurturing):** Embodies the spirit of care, support, and the "helping hand" extended to rural communities.
- **Flame (Enlightenment):** Represents warmth, knowledge, and the empowerment of rural populations through financial literacy.
- **Core Colors: * Dark Blue:** Symbolizes trust, stability, and professional financial services.
  - **Green:** Represents life, agriculture, and the overarching mission of rural growth.

Regional Rural Banks (RRBs)

What they are?

RRBs are specialized commercial banks established to cater specifically to the credit needs of agriculture, trade, and other productive activities in rural and semi-urban areas. They combine the **"local feel"** of cooperatives with the **"business acumen"** of commercial banks.

- **Established:** October 2, 1975 (First bank: **Prathama Bank**, Moradabad).
- **Ownership Structure: * Central Government:** 50%
  - **State Government:** 15%
  - **Sponsor Bank:** 35%
- **Regulatory Body:** RBI and NABARD (Supervision).

Evolution and Consolidation

The RRB sector has undergone significant structural reforms to improve scale and financial viability:

1. **Phase I to III (2005–2021):** The number of RRBs was reduced from 196 to 43 through sponsor-bank-wise and state-wise mergers.
2. **Phase IV (2025):** Under the **"One State, One RRB"** policy, the Ministry of Finance consolidated **26 RRBs across 11 States/UTs** (effective May 1, 2025).

3. **Current Status:** As of late 2025, there are **28 RRBs** operating through a network of over 22,000 branches covering 700 districts.

Key Functions

- **Institutional Credit:** Serving small/marginal farmers, agricultural laborers, artisans, and SHGs.
- **Financial Inclusion:** Acting as a primary channel for **Direct Benefit Transfer (DBT)** delivery and government schemes like PM-Kisan.
- **Rural Livelihoods:** Supporting MSMEs and non-farm rural entrepreneurs to diversify the rural economy.

Conclusion

The "One RRB, One Logo" initiative is more than a design change; it is a strategic move to boost customer confidence and visibility. By unifying 28 entities under a single brand, the government aims to transform RRBs into digitally-enabled, robust financial institutions that act as the backbone of rural India's $5 trillion economy goal.

Indian Railways

Context

In a strategic move to address mounting operational costs, the Ministry of Railways announced a calibrated fare hike in 2025. This adjustment aims to balance the social obligation of affordable travel with the fiscal necessity of modernization and infrastructure development.

About the News

- **Fare Revision Structure:**
  - **Ordinary Class:** No increase for journeys up to 215 km, protecting short-distance commuters.
  - **Long Distance:** For journeys exceeding 25 km, a marginal increase of 0.01 paise per km is implemented.
  - **Class-based Variation:** AC classes see an increase of 0.02 paise/km, while non-AC classes are adjusted by 0.01 paise/km.
- **Economic Rationale:** The hike is designed to improve the **Operating Ratio (OR)**, which has historically remained high (often near

98%), leaving little surplus for capital reinvestment.

Core Concept: Operating Ratio (OR)

The Operating Ratio is the most critical metric for assessing the financial health of the Railways.

- **Definition:** It represents the ratio of working expenses to gross earnings.
- **Interpretation:** It indicates how much the Railways must spend to earn ₹100.
  - *Example:* An OR of 95 means the Railways spend 95 paise to earn ₹1.
  - **Goal:** A lower OR (e.g., 80) is desirable as it indicates higher efficiency and more funds available for safety and expansion.

Structural Challenges

Issue	Description
Passenger Subsidy	Passenger fares are kept artificially low for social welfare, leading to a massive operational deficit.
Cross-Subsidization	Profits earned from high **Freight (Goods)** tariffs are used to cover the losses in the passenger segment.
Logistics Shift	High freight rates and delays in goods trains have caused a significant shift of cargo from Rail to Road (trucks).
Fixed Costs	A large portion of revenue is consumed by "committed liabilities" such as pensions, salaries, and fuel.

Proposed Reforms & Modernization

- **Dedicated Freight Corridors (DFC):** Constructing separate, high-speed tracks exclusively for goods trains to ensure "on-time" delivery and reclaim market share from road transport.
- **Public-Private Partnership (PPP):** Inviting private players to operate specialized services,

such as the **"Bharat Gaurav Yatra"** for religious and heritage tourism.

- **Station Redevelopment:** Transforming major stations into "Railopolis" hubs with world-class amenities and commercial spaces.

- **Green Energy:** Aiming for **Net Zero Carbon Emission** by 2030 through electrification and solar power integration.

The Money Multiplier Effect

Government investment in Railway infrastructure (Capital Expenditure) acts as a massive economic catalyst:

1. **Direct Impact:** Creates immediate jobs in construction, engineering, and manufacturing.

2. **Indirect Impact:** Boosts the steel, cement, and power industries.

3. **Efficiency:** Better connectivity reduces the overall "Logistics Cost" of the Indian economy (currently ~13-14% of GDP), making Indian exports more competitive.

Conclusion

The structural reform of Indian Railways is a transition from a "Service-only" model to a "Sustainability-led" model. By focusing on the Operating Ratio and Freight efficiency, the Railways aim to remain the lifeline of the nation while becoming a driver of the ₹5 Trillion economy.

India-Bangladesh Relations

Context

In late 2024 and throughout 2025, India-Bangladesh relations entered a period of significant volatility following the ousting of the Sheikh Hasina government. The Ministry of External Affairs (MEA) has issued multiple statements expressing grave concern over targeted violence against minorities and the resulting instability impacting regional security.

About the News

- **Political Shift:** Following a coup and the subsequent arrival of former PM Sheikh Hasina in India, Bangladesh saw widespread protests and a vacuum in traditional governance structures.

- **Human Rights Concerns:** Reports emerged of extreme violence against local leaders and

minority communities. High-profile incidents, including the public hanging and burning of individuals (e.g., the "Das ji" incident), triggered diplomatic friction and public outrage in India.

- **Security Threats:**
  - **Siliguri Corridor:** Instability poses a direct threat to the "Chicken's Neck," the narrow strip of land connecting mainland India to the North East.

  - **Insurgency & Separatism:** Concerns have risen regarding potential demands for separate maps and the resurgence of anti-India insurgent groups operating near the borders of Assam and Arunachal Pradesh.

Strategic and Constitutional Framework

- **Neighborhood First Policy:** Bangladesh is traditionally the cornerstone of India's policy to prioritize immediate neighbors for regional stability and economic integration.

- **Act East Policy:** Bangladesh serves as the essential gateway for India to connect with Southeast Asia and the wider Indo-Pacific.

- **Security Cooperation:** Historical cooperation in counter-terrorism and the handover of insurgents has been a pillar of the bilateral relationship which currently faces uncertainty.

Key Areas of Conflict

Issue	Description
River Water Sharing	Long-standing disputes over the **Teesta River** and management of the **Brahmaputra**, affecting agriculture and ecology in West Bengal and Bangladesh.
Border Management	Challenges regarding the **4,096 km border**, including incomplete fencing, cattle smuggling, and illegal migration.
Minority Rights	Increasing communal tensions in Bangladesh leading to diplomatic protests from New Delhi regarding the safety of Hindus and other

	minorities.
Strategic Encroachment	Concerns over third-party (China) influence in infrastructure projects and naval presence in the Bay of Bengal.

Regional Integration: BIMSTEC vs. SAARC

- **BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation):** Comprising 7 members, this has become the primary vehicle for cooperation as **SAARC** remains dormant due to Indo-Pak tensions.
- **Connectivity:** Projects like the **Agartala-Akhaura rail link** and the use of Chittagong/Mongla ports are vital for the economic development of India's Landlocked North East.

Challenges

- **Historical Paradox:** Despite India's pivotal role in the **1971 Liberation War**, anti-India sentiments often fluctuate in Bangladesh based on internal political leanings (pro-India AL vs. nationalist BNP/Jamaat).
- **Internal Security:** Porous borders facilitate the entry of illegal immigrants and extremist elements, complicating the NRC/CAA discourse within Indian domestic politics.
- **Geopolitical Competition:** Bangladesh's "Indo-Pacific Strategy" balances between Indian security needs and Chinese economic investments.

Way Forward

- **Diplomatic Engagement:** Maintain communication with the interim/new leadership in Dhaka to ensure that Bangladeshi soil is not used for anti-India activities.
- **Border Infrastructure:** Accelerate the completion of the "Smart Border" project using thermal imaging and high-tech surveillance to curb illegal crossings.
- **Water Diplomacy:** Move toward a basin-wide management approach for transboundary rivers to depoliticize water-sharing.

- **Institutional Strengthening:** Leverage **BIMSTEC** to foster regional value chains that make economic cooperation indispensable regardless of the regime in power.

Conclusion

The relationship between India and Bangladesh is currently at a crossroads. While historical and cultural ties are deep, the immediate focus must remain on safeguarding the "Chicken's Neck" corridor and ensuring the protection of minorities. A stable, secular, and friendly Bangladesh is not just a diplomatic preference but a necessity for India's internal security and its "Act East" ambitions.

Corporate Social Responsibility (CSR)

Context

In a landmark judgment delivered in August 2025, the **Supreme Court of India** held that Corporate Social Responsibility (CSR) is not merely a statutory compliance requirement but has a clear constitutional foundation. The Court ruled that environmental protection is an intrinsic obligation flowing from **Article 51A(g)**, the Fundamental Duty of every citizen and institution to protect and improve the natural environment. Consequently, CSR expenditure on environmental protection was declared not a matter of corporate charity, but a mandatory contribution towards safeguarding the nation's ecological health.

About the News

Definition of CSR

Corporate Social Responsibility (CSR) refers to a management and governance approach in which companies consciously integrate social, environmental, and ethical concerns into their business operations and stakeholder interactions. The objective is to ensure that economic growth occurs alongside social equity and environmental sustainability.

Legislative Background

India became the first country in the world to legally mandate CSR spending through the Companies Act, 2013, under **Section 135**. Initially, CSR followed a relatively flexible "comply or explain" framework. Over time, this evolved into a stricter "comply or penalize" regime, under which failure to spend prescribed CSR amounts attracts statutory consequences, including mandatory transfers of

unspent funds to designated accounts or government funds.

Eligibility and Mandatory Spending (Section 135)

CSR provisions apply to every company, including foreign companies operating in India, that meets any one of the following criteria in the immediately preceding financial year:

- **Net worth:** ₹500 crore or more
- **Turnover:** ₹1,000 crore or more
- **Net profit:** ₹5 crore or more

Spending Requirement

Eligible companies are required to spend **at least 2%** of their average net profits of the three immediately preceding financial years on CSR activities.

Key Features of CSR in India

CSR Committee

Companies must constitute a Board-level CSR Committee comprising at least three directors, including at least one independent director. The committee formulates the CSR policy, recommends expenditure, and monitors implementation.

Schedule VII Activities

CSR spending is restricted to activities listed under Schedule VII, which include:

- Eradication of hunger, poverty, and malnutrition
- Promotion of education and gender equality
- Environmental sustainability, ecological balance, and biodiversity conservation
- Protection of national heritage, art, culture, and promotion of rural sports

Following the 2025 judgment, environmental sustainability has gained heightened constitutional significance within this framework.

Disclosure Norms

Companies are required to disclose detailed information on CSR policies, projects, and expenditure in their Board's Report and on their official websites, enhancing transparency and public accountability.

Treatment of Unspent CSR Funds

- **Unspent amounts for ongoing projects:** Must be transferred to a dedicated "Unspent CSR Account" within 30 days of the end of

the financial year and utilized within the prescribed timeframe.

- **Other unspent amounts:** Must be transferred within six months of the financial year-end to funds specified under Schedule VII, such as the **PM CARES Fund**.

This mechanism ensures that CSR resources are not indefinitely withheld or diverted from their intended social purpose.

Significance of the Supreme Court Ruling

Constitutionalization of CSR

By explicitly linking CSR, particularly environmental CSR to Article 51A(g), the Court elevated corporate environmental responsibility from a voluntary or welfare-oriented activity to a constitutional obligation.

Ecological Justice

The ruling reinforces the principle that corporations, which extract and utilize natural resources for profit, carry a non-negotiable responsibility to restore ecological balance, protect biodiversity, and prevent environmental degradation.

Enhanced Accountability

The judgment discourages selective CSR spending that prioritizes visibility over impact. Companies are now constitutionally encouraged to adopt a balanced CSR portfolio that meaningfully addresses environmental concerns alongside social development.

Challenges and Way Forward

Impact Assessment

Since 2021, companies with CSR obligations of ₹10 crore or more are required to undertake independent impact assessments. Expanding this requirement to smaller CSR projects could significantly improve the quality and effectiveness of CSR expenditure.

Geographic Concentration

CSR spending remains concentrated in industrialized states such as Maharashtra, Gujarat, and Karnataka. A forward-looking approach involves incentivizing CSR investment in Aspirational Districts and ecologically sensitive regions, particularly in the North-East.

Preventing Greenwashing

Regulatory oversight must ensure that environmental CSR initiatives result in tangible ecological outcomes rather than superficial compliance or branding exercises.

Conclusion

The Supreme Court's 2025 ruling fundamentally reshapes the relationship between Indian industry and the environment. By grounding CSR in constitutional duty, it ensures that corporate growth is aligned with environmental sustainability and social equity. This jurisprudential shift strengthens India's commitment to sustainable development and supports the broader national vision of achieving inclusive prosperity on the path towards **Viksit Bharat 2047**, without compromising ecological integrity.

NPS Exit & Withdrawal (Amendment) Regulations, 2025

Context

In December 2025, the **Pension Fund Regulatory and Development Authority (PFRDA)** notified significant amendments to the National Pension System (NPS) exit and withdrawal norms. These changes are designed to provide greater liquidity, flexibility, and control to subscribers, particularly those in the non-government sector.

Key Features of the 2025 Amendment

1. Higher Lump Sum Withdrawal (Non-Government Sector):

- **Withdrawal Limit:** Non-government subscribers can now withdraw up to **80% of their accumulated corpus** as a lump sum (up from the earlier 60%).

- **Mandatory Annuity:** The compulsory purchase of an annuity has been reduced from **40% to 20%**.

- **Government Subscribers:** The existing **60:40 ratio** (60% lump sum and 40% annuity) continues for government employees.

2. Corpus-Based Flexibility: The mandatory annuity requirement now varies based on the total accumulated pension wealth:

- **Corpus ≤ ₹8 Lakh:** 100% lump sum withdrawal is permitted; annuity is optional.

- **Corpus ₹8 Lakh – ₹12 Lakh:** Subscribers can withdraw up to **₹6 lakh** as a lump sum, with the balance available for annuity or systematic unit redemption (SUR) over at least 6 years.

- **Corpus > ₹12 Lakh:** Mandatory 20% annuity for non-govt (40% for govt), with the remainder available as lump sum or SUR.

3. Enhanced Exit Deferment:

- Subscribers can now defer their lump sum withdrawal or annuity purchase up to the **age of 85 years** (previously 75 years). This allows the corpus to remain invested and grow longer if immediate liquidity is not required.

4. Loans Against NPS:

- For the first time, subscribers are permitted to take **loans from regulated financial institutions** by pledging their NPS corpus. The loan amount is limited to **25% of the subscriber's own contributions**.

5. Partial Withdrawal Clarifications:

- **Purpose:** Broadened to include any medical treatment/hospitalization for self or family and one-time house construction.

- **Frequency:** Partial withdrawals are allowed up to 4 times before age 60 (with a 4-year gap) and every 3 years after age 60 if the subscriber continues the account.

6. Missing Subscriber Provision:

- Nominees are entitled to an **interim relief of 20%** of the corpus if a subscriber is missing. The balance is settled after the legal presumption of death as per the *Bharatiya Sakshya Adhiniyam, 2023*.

About National Pension System (NPS)

- **Nature:** A market-linked, defined-contribution retirement scheme.

- **Eligibility:** Open to all Indian citizens (18–70 years), including NRIs and corporate employees.

- **Structure:**
  - **Tier I:** Mandatory retirement account with tax benefits and restricted withdrawals.
  - **Tier II:** Voluntary savings account with high liquidity and no withdrawal restrictions.

- **Tax Status:** Currently, 60% of the lump sum withdrawal is tax-exempt. With the increase to 80%, further clarity from tax authorities is expected regarding the additional 20%.

Conclusion

The 2025 amendments mark a shift from a rigid "one-size-fits-all" model to a highly personalized retirement tool. By lowering annuity compulsions and raising the investment age to 85, PFRDA has effectively positioned NPS as a competitive alternative to other long-term investment assets. This "NPS 2.0" framework balances the need for an immediate cash cushion at retirement with long-term pension security.

Fog: Types, Formation, and Impacts

Context

In late 2025, the **India Meteorological Department (IMD)** issued a **Red Alert** for dense to very dense fog over Uttar Pradesh and several parts of North and East India, highlighting the seasonal severity of this phenomenon.

About the News

Definition: Fog is a meteorological phenomenon where tiny water droplets or ice crystals remain suspended in the air near the Earth's surface. Technically, it is defined by a **reduction in horizontal visibility to below 1 km** due to the scattering of light by these particles.

How Fog is Formed? Fog formation occurs when the air becomes saturated (reaches 100% relative humidity). This happens through two primary paths:

1. **Cooling:** The air temperature falls to its **dew point**.

2. **Moistening:** The moisture content in the air increases until it can no longer hold the water vapor.

- **Favorable Conditions:** Calm winds, high humidity, long winter nights, and **temperature inversions** (where warm air traps cold air near the ground).

Types of Fog

Fog is classified based on the physical process that leads to its formation:

- **Radiation Fog:** Forms on clear, calm nights as the ground loses heat through radiation, cooling the air immediately above it. It typically "burns off" after sunrise.

- **Advection Fog:** Occurs when warm, moist air moves horizontally over a significantly colder surface (like snow or cold ocean currents).

- **Valley Fog:** Cold, dense air sinks into valleys due to gravity, becoming trapped and cooling further to form dense, persistent fog.

- **Upslope Fog:** Created when moist air is forced up a mountain slope, cooling adiabatically as it rises.

- **Freezing Fog:** Consists of supercooled liquid droplets that freeze immediately upon contact with any solid surface, creating "rime" or ice coatings.

- **Evaporation (Steam) Fog:** Forms when cold air moves over warm water; the water evaporates into the cold air, saturating it instantly.

- **Hail Fog:** A rare, patchy fog occurring after hailstorms as melting hail rapidly cools the moist air near the surface.

Impacts on Local Weather and Society

1. **Transport Disruption:** Near-zero visibility is the leading cause of massive delays and accidents in road, rail, and aviation sectors.

2. **Temperature Suppression:** Dense fog reflects incoming solar radiation, preventing the ground from warming and leading to "Cold Day" conditions.

3. **Health & Air Quality:** Fog acts as a lid, trapping particulate matter (PM2.5) and pollutants near the ground, creating **Smog** (Smoke + Fog), which exacerbates respiratory illnesses.

Way Forward & Mitigation

- **Technological Integration:** Improving **CAT-III Landing Systems** at airports and installing **fog-pass devices** in trains to navigate low-visibility zones.

- **Early Warning Systems:** Enhancing IMD's satellite-based "Nowcasting" to provide real-time alerts to commuters.

- **Public Safety:** Implementation of automated speed-limit signs on expressways during "Red Alert" periods to prevent pile-ups.

Conclusion

While fog is a natural atmospheric process, its interaction with anthropogenic pollution (Smog) and the modern transport network makes it a significant socio-economic hazard. Robust forecasting and

technology-driven infrastructure are essential to mitigating its impact on India's winter connectivity.

Building a Strong Defence Industrial Base in India

Context

The debate on establishing a robust **Defence Industrial Base (DIB)** has intensified as India sets ambitious targets to achieve **₹3 lakh crore in defence production** and **₹50,000 crore in defence exports by 2029**, amidst rising geopolitical instability and global supply-chain vulnerabilities.

About India's Defence Industrial Base

Definition: A Defence Industrial Base is a comprehensive ecosystem comprising public and private firms, MSMEs, R&D laboratories (like DRDO), testing infrastructure, and supply chains capable of designing, manufacturing, maintaining, and exporting defence platforms and advanced technologies.

Key Trends and Data:

- **Production Milestones:** India achieved its highest-ever defence production of **₹1.54 lakh crore in FY 2024–25**.

- **Indigenous Growth:** Production value rose to **₹1,27,434 crore in FY 2023–24**, marking a **174% increase** since 2014–15.

- **Export Surge:** A record **₹23,622 crore** exported in FY 2024–25 to over **100 nations**.

- **Ecosystem Depth:** Supported by **16,000 MSMEs** and **462 companies** holding 788 industrial licenses.

- **Private Sector Participation:** Now accounts for approximately **23% share** of total production.

Necessity of an Indigenous Defence Industrial Base (IDIB)

1. **Strategic Autonomy:** Insulates national security from foreign sanctions and "push-button vetoes" during conflicts.

   - *Example:* The **BrahMos Missile System** ensures India retains full operational control without external interference.

2. **Operational Readiness:** Enables rapid repairs and contextual modifications for specific terrains.

   - *Example:* During the **Ladakh standoff**, HAL rapidly adapted **LCA Tejas and ALH Dhruv** for extreme high-altitude conditions.

3. **Economic Multiplier:** Catalyzes high-skill employment and innovation in aerospace, electronics, and metallurgy.

   - *Example:* **Defence Industrial Corridors** in UP and Tamil Nadu have attracted majors like Tata Advanced Systems and L&T.

4. **Geopolitical Leverage:** Transforms industrial capability into diplomatic influence and security partnerships.

   - *Example:* Exporting BrahMos to the **Philippines (2024)** shifted India's role from an importer to a regional security provider.

Government Initiatives

- **Procurement Reforms:** Defence Acquisition Procedure (DAP) 2020 prioritizes **Buy (Indian-IDDM)** categories.

- **Corporatization:** Transforming the Ordnance Factory Board (OFB) into seven Defence Public Sector Undertakings (DPSUs) to improve efficiency.

- **FDI Liberalization:** Allowed up to **74% through the automatic route** and up to 100% via government approval.

- **Innovation Ecosystem:** Launch of **iDEX (Innovations for Defence Excellence)** and the Technology Development Fund (TDF) to link startups with military needs.

- **Infrastructure:** Development of dedicated **Defence Industrial Corridors** in Uttar Pradesh and Tamil Nadu.

Challenges

- **Regulatory Complexity:** Overlapping approvals for technology transfers and joint ventures slow down project execution.

- **Testing Bottlenecks:** Lengthy multi-terrain trials and limited infrastructure delay the induction of indigenous systems (e.g.,

ATAGS artillery underwent six years of trials).

- **Financing Constraints:** High working capital needs and long order cycles make credit access difficult for MSMEs and drone startups.

- **R&D-to-Production Gap:** Difficulties in scaling successful prototypes into mass-produced, reliable systems (e.g., the **Nishant UAV** challenges).

- **Demand Uncertainty:** Frequent cancellations or re-tendering discourage long-term private investment in specialized infrastructure.

Way Forward

1. **Single-Window Agency:** Establish a professionally run agency to fast-track export licensing and coordination.

2. **Long-Term Roadmap:** Provide 10–15 year predictable procurement pipelines to encourage private capital investment.

3. **Re-orienting DRDO:** Limit DRDO to frontier research while empowering the private industry to handle large-scale manufacturing.

4. **Specialized Finance:** Introduce credit guarantees and sovereign lines of credit specifically for defence MSMEs.

5. **Global Standards:** Align testing and certification with international norms to shorten trial periods and boost export acceptance.

6. **Ease of Business:** Simplify compliance and ensure time-bound payments to sustain the cash flow of startups.

Conclusion

A strong defence industrial base serves as both India's **shield and springboard**, protecting sovereignty while fueling innovation-led growth. While production and export trajectories are positive, deep-rooted reforms in finance, testing, and demand certainty are essential. Achieving **Atmanirbharta** in defence is a vital pillar for the vision of **Viksit Bharat 2047** and India's global strategic credibility.

Right to Disconnect & Private Member Bill

Context

In December 2025, Member of Parliament **Supriya Sule** introduced the **"Right to Disconnect Bill, 2025"** in the Lok Sabha. The bill aims to establish a legal framework for employees to disengage from work-related communications outside of their designated working hours, seeking to address the growing issue of digital burnout.

About the Right to Disconnect Bill

Definition:

The "Right to Disconnect" is the entitlement of an employee to not engage in work-related electronic communications (calls, emails, WhatsApp) during non-work hours, without fear of disciplinary action or professional disadvantage.

Key Provisions:

- **Refusal to Respond:** Employees are not obligated to reply to calls or messages after office hours or on holidays.

- **Employees' Welfare Authority:** The bill proposes a statutory body to oversee compliance, issue guidelines, and monitor digital overwork.

- **Mandatory Negotiation:** Companies with **more than 10 employees** must formally negotiate after-hours communication protocols with their staff or unions.

- **Overtime Compensation:** If an employee chooses to work beyond official hours by mutual consent, they must be paid **overtime wages** at the normal rate.

- **Penalties:** Employers violating the act could face a penalty of **1% of the total remuneration** paid to their employees.

Need for the Bill in 2025

- **Blurring Boundaries:** The rise of remote and hybrid work models has created an "always-on" culture where work and personal life are indistinguishable.

- **Health & Productivity:** Constant "telepressure" (the urge to check notifications) leads to sleep deprivation, anxiety, and burnout.

- **Global Precedents:** Australia enacted its Right to Disconnect law in **2024**. Other countries like **France (2017)**, Spain, and Portugal already have similar protections.

- **Tragic Reminders:** The bill gains urgency following high-profile cases of employee deaths linked to "extreme work stress" in the corporate sector.

Challenges in the Indian Context

Challenge	Description
Hustle Culture	Strong social and competitive pressure to be available 24/7 to prove dedication, especially in startups.
Informal Sector	Over **80%** of India's workforce is in the informal sector where written contracts and defined hours are rare.
Global Operations	Many Indian firms serve international clients in different time zones, making a strict 9-to-5 "disconnect" difficult.
Economic Growth	Critics argue that such laws might reduce the flexibility and responsiveness that give Indian service industries a global edge.

Understanding the Private Member Bill

Legislative Background:

A Private Member Bill is a legislative proposal introduced by any MP who is not a Minister. While they are crucial for highlighting gaps in the legal framework, they face significant hurdles.

- **Voting Days:** These bills are typically discussed only on **Fridays**.
- **Success Rate:** Since Independence, only **14** Private Member Bills have ever become law.
- **Last Successful Bill:** The last one passed was the **Supreme Court (Enlargement of Criminal Appellate Jurisdiction) Bill, 1968**, which became an Act in **1970**.
- **Drafting:** Unlike government bills drafted by ministries, Private Member Bills are drafted by the MP themselves.

Conclusion

The Right to Disconnect Bill, 2025, reflects a critical shift toward prioritizing mental health and the **"Right to Life" (Article 21)** in the digital age. Even if it does not become law immediately, its introduction forces a national conversation on humane work conditions and the limits of digital intrusion.

India-New Zealand Free Trade Agreement (FTA)

Context

On **December 22, 2025**, India and New Zealand officially announced the conclusion of their landmark Free Trade Agreement (FTA). Negotiated in a record-breaking **nine months**, it stands as one of India's fastest-concluded trade deals with a developed nation. The agreement aims to transition the relationship from "cricket and curry" to a deep-rooted economic and strategic partnership.

About the News

The Agreement:

Officially referred to as a comprehensive, balanced, and "people-centric" pact, the FTA covers 20 chapters ranging from trade in goods and services to digital cooperation, sustainability, and traditional knowledge.

Key Provisions:

- **Goods & Tariffs: * New Zealand's Commitment:** Will provide **zero-duty access for 100% of Indian exports** immediately upon entry into force.
  - **India's Commitment:** Will liberalize tariffs on **70% of its tariff lines**, covering approximately **95%** of bilateral trade value.
- **Sensitive Exclusions:** India has strictly protected its domestic interests by placing **Dairy (milk, butter, cheese)**, sugar, rice, wheat, and certain vegetables on the **exclusion list** (no duty concessions).
- **Agricultural Quotas:** A "middle path" was found for high-value items like **Kiwifruit, Apples, and Manuka Honey**, which will have reduced duties but are managed through **Tariff Rate Quotas (TRQ)** and Minimum Import Prices (MIP) to protect local farmers.
- **Workforce & Student Mobility:**
  - **Professional Visas:** A new "Temporary Employment Entry Visa" for **5,000 Indian**

professionals (IT, engineers, healthcare, and traditional roles like Yoga instructors and Chefs).

- ○ **Student Rights:** No numerical caps on Indian students; post-study work visas for up to **3 years for STEM graduates** and **4 years for PhD scholars**.
- ○ **Working Holiday:** 1,000 "Work and Holiday" visas for Indian youth aged 18-30.

Strategic Objectives

Objective	Detail
Trade Doubling	Aiming to reach **$5 billion** in total bilateral trade within the next five years.
Investment Push	New Zealand has committed to facilitating **$20 billion** in investments into India over 15 years.
Supply Chain Resilience	Part of India's strategy to integrate with Indo-Pacific partners and provide a "China-plus-one" alternative.
AYUSH Recognition	For the first time, New Zealand has signed an annex to facilitate trade in **Ayurveda and traditional medicine**.

Challenges and Outlook

- ● **Dairy Sensitivity:** In New Zealand, the exclusion of the dairy sector has faced political criticism from some parties who labeled it a "bad deal" for Kiwi farmers.
- ● **Competitive Pressure:** Indian MSMEs in the engineering and leather sectors must modernize to compete with high-quality New Zealand standards as trade volumes rise.
- ● **Implementation:** The agreement is expected to be formally signed in the **first half of 2026** following domestic legal scrubbing in both countries.

Conclusion

The India-New Zealand FTA is a "new generation" trade pact that prioritizes **services, mobility, and investment** over simple commodity exchange. By safeguarding the dairy sector while opening doors for the Indian workforce, the agreement balances domestic economic sensitivities with global growth aspirations.

Bhima River

Context

In late 2025, an interstate water-sharing dispute escalated between **Karnataka** and **Maharashtra** over the waters of the Bhima River. Karnataka formally urged the **Central Water Commission** (CWC) to intervene, alleging that Maharashtra is utilising water far beyond its authorised share. Karnataka leaders further claimed that water from the Bhima is being diverted into the Sina River through unauthorised tunnels, adversely affecting districts such as Kalaburagi, Vijayapura, and Yadgir.

About the Bhima River

River System

The **Bhima River** is the largest and most significant **left-bank tributary of the Krishna River**. A perennial river, it functions as a critical lifeline for the drought-prone regions of the Deccan Plateau.

Key Geographic Features

- ● **Origin:** Near the Bhimashankar hills of the Western Ghats (Sahyadris) in Pune district, Maharashtra.
- ● **Alternative Name:** Known locally as the **Chandrabhaga River**, especially at Pandharpur, due to its crescent-shaped course.
- ● **Length & Course:** Flows southeast for about **861 km** through Maharashtra, Karnataka, and Telangana.

- **Confluence:** Joins the **Krishna River** at the Karnataka–Telangana border, north of Raichur. Notably, the Bhima is longer than the Krishna at their confluence point.

Tributaries and Basin Characteristics

The Bhima basin covers approximately **70,614 sq km**, with nearly **75%** of the catchment lying in Maharashtra.

Bank	Major Tributaries
Left Bank	Sina, Nira, Ghod, Vel, Bori
Right Bank	Indrayani, Mula–Mutha, Pavana, Man, Bhogavati, Kagna (Karnataka)

Major Dams and Infrastructure

- **Ujjani Dam (Bhima Dam):** The largest and terminal dam on the river in Maharashtra, forming the Yashwant Sagar reservoir.
- **Chas Kaman Dam:** The most upstream dam on the Bhima river proper.
- **Khadakwasla & Mulshi Dams:** Located on the Mula–Mutha system, supplying water and hydropower to the Pune metropolitan region.

The 2025 Water Dispute

Core Allegations

- **Excess Utilisation:** Karnataka alleges Maharashtra is using nearly **200 TMC** of water against an allocation of **95 TMC** under the **Bachawat Commission** (KWDT-I).
- **Sina River Diversion:** A contentious **21 km tunnel** allegedly interlinks the Bhima and Sina rivers without mandatory CWC clearance.
- **Downstream Impact:** Northern Karnataka faces summer water scarcity and sudden monsoon flooding due to abrupt dam releases upstream.

Significance of the Bhima River

- **Agriculture:** Sustains extensive sugarcane belts and rainfed crops such as jowar and bajra across Maharashtra and Karnataka.
- **Socio-Cultural Importance:**
  - Source region hosts the **Bhimashankar Jyotirlinga**, one of the 12 Jyotirlingas of Lord Shiva.

- The **Vitthal Temple Pandharpur** on its banks attracts millions of pilgrims annually.
- **Ecology:** The **Bhimashankar Wildlife Sanctuary** safeguards the Indian Giant Squirrel (Shekru), Maharashtra's state animal.

Way Forward

- **CWC Technical Audit:** Joint inspection to verify actual water utilisation and assess the legality of diversion structures.
- **Automation & Transparency:** Installation of telemetric flow meters at interstate borders for real-time monitoring.
- **Cropping Pattern Rationalisation:** Gradual shift away from water-intensive sugarcane towards less water-demanding crops to reduce basin stress.

Conclusion

The Bhima River dispute highlights the growing stress on India's interstate rivers under climate variability and competing developmental demands. Sustainable resolution will require **transparent data-sharing, strict adherence to tribunal allocations, and basin-level planning**, ensuring that upstream utilisation does not compromise downstream water security.

National Maritime Heritage Complex (NMHC) at Lothal

Context

In December 2025, India and the Netherlands signed a landmark Memorandum of Understanding (MoU) to collaborate on the development of the **National Maritime Heritage Complex (NMHC)** in Lothal, Gujarat. This partnership connects India's flagship maritime project with the world-renowned **National Maritime Museum in Amsterdam** to bring global expertise in curation and conservation to Indian shores.

About the NMHC at Lothal

What it is?

The NMHC is an under-construction, world-class destination developed by the **Ministry of Ports, Shipping and Waterways (MoPSW)** under the **Sagarmala Programme**. Spanning **400 acres**, it is envisioned as the world's largest maritime museum

complex, dedicated to showcasing India's 5,000-year-old seafaring history.

Key Features & Layout:

- **14 Themed Galleries:** Covering periods from the Harappan era to the modern Indian Navy.

- **Iconic Structures:** Features the **world's tallest Lighthouse Museum** (over 75 meters) and a 5D dome theatre.

- **Innovative Transport:** India's first **e-transport destination**, using electric buggies, segways, and boats to move visitors within the complex.

- **Theme Parks:** Four specialized parks focusing on Naval history, Climate Change, Monuments, and Adventure.

- **Recreation of History:** The complex will feature life-sized recreations of the ancient cities of **Lothal** and **Dholavira**.

About Lothal: The Ancient Port

Historical Significance: Lothal (meaning "Mound of the Dead" in Gujarati) was a vital trade hub of the **Indus Valley Civilization (IVC)**, flourishing around **2400 BCE**. It was excavated in 1957 by S.R. Rao of the Archaeological Survey of India (ASI).

The World's Oldest Dockyard:

- **Engineering Marvel:** A trapezoidal basin made of kiln-burnt bricks, designed to harness the tides of the Gulf of Khambhat to float ships.

- **Trade Links:** Evidence (like Persian Gulf seals) suggests direct maritime trade with **Mesopotamia**, **Egypt**, and **Persia**.

- **Town Planning:** Divided into a **Citadel** (Upper Town) and a **Lower Town**, featuring a sophisticated drainage system and a massive warehouse for storing trade goods.

India-Netherlands Collaboration (2025 MoU)

The partnership with the Netherlands is a strategic move to elevate the NMHC to international standards:

- **Expertise Exchange:** Collaboration on museum design, digital curation, and the conservation of maritime artifacts.

- **Joint Research:** Collaborative studies on shared maritime histories and ancient navigation techniques.

- **Global Profile:** Aimed at making the NMHC a premier global tourist destination, similar to the iconic maritime museums in Europe.

Way Forward

- **Phase 1 Completion:** Construction of the primary museum building and the initial five galleries is expected to be completed and opened to the public by **late 2025/early 2026**.

- **Viksit Bharat 2047:** The project is a key pillar of India's vision to reclaim its status as a global maritime power and promote "Heritage Tourism."

- **Inclusive Access:** The government plans to ensure affordable access for students and local communities to promote "maritime consciousness" among the youth.

Conclusion

The NMHC at Lothal is more than just a museum; it is a bridge between India's glorious past as a "Pioneer Seafarer" and its future aspirations. By combining ancient Harappan engineering logic with modern Dutch museum expertise, the complex will serve as a global beacon for maritime heritage and cultural diplomacy.

Save Aravalli Campaign

Context

In late 2025, the **Supreme Court of India** formally accepted a uniform definition of the Aravalli Hills based on recommendations of a central committee. The ruling limits strict protection to landforms rising **≥100 metres above local relief**. This has triggered the #SaveAravalli movement, as citizens, scientists, and conservationists argue that such a threshold excludes **over 90%** of the ecologically vital Aravalli landscape.

About the Campaign

Save Aravalli is a grassroots and expert-led environmental movement opposing what it terms **"scientific reductionism"**—the attempt to define a complex mountain ecosystem solely by height. The campaign demands a **functional, landscape-based definition** that protects low-lying ridges which are geologically integral to the ~2-billion-year-old **Aravalli Range**.

Key Judicial Directions (November 2025)

- **Uniform Definition:** An "Aravalli Hill" is any landform rising ≥**100 m** from local relief.

- **Range Classification:** Clusters of such hills within **500 m** constitute an "Aravalli Range."

- **Sustainable Mining Plan:** The **Indian Council of Forestry Research and Education** (ICFRE) was directed to prepare a **Management Plan for Sustainable Mining (MPSM)**.

- **Freeze on Leases:** No new mining leases until the MPSM is finalised.

- **Inviolate Areas Protected:** Tiger Reserves and Eco-Sensitive Zones remain off-limits, irrespective of the 100 m rule.

Core Issues Raised by the Movement

1. **Massive Exclusion:** Forest Survey of India mapping shows **12,081** hills, of which only **1,048 (~8.7%)** meet the 100 m criterion, leaving the majority unprotected.

2. **Mining Vulnerability:** Low-lying ridges, earlier shielded, could now face legal quarrying, accelerating losses already observed in Rajasthan and Haryana.

3. **Hydrological Collapse:** The Aravallis recharge aquifers supplying ~**20 lakh litres/ha/year**; flattening ridges risks drying wells across the water-stressed NCR.

4. **Desertification Risk:** Even **10–30 m** ridges act as effective windbreaks against Thar sands; their removal could push desertification into fertile plains.

5. **Wildlife Fragmentation:** Low-elevation scrub functions as migration corridors for species like leopards and hyenas; height-only rules risk creating "ecological islands."

Significance of the Aravalli Range for North India

Role	Importance
Climate Shield	Moderates temperatures and influences rainfall across Gujarat–Delhi.
Pollution Sink	Blocks dust storms; reduces PM_{10} loads in the Indo-Gangetic plains.
Water Security	Primary recharge zone for fractured rock aquifers of Gurgaon, Faridabad, and Delhi.
Geological Heritage	Among the world's oldest fold systems, predating the Himalayas.

Way Forward

- **Landscape-Level Protection:** Replace height thresholds with **landscape ecology**, protecting features by function (recharge zones, corridors, windbreaks).

- **Comprehensive Mapping:** High-resolution satellite mapping to designate all ridges, regardless of height as **Critical Ecological Zones**.

- **Aravalli Green Wall:** Strengthen the 5-km buffer initiative to restore ~**26 million hectares by 2030**.

- **Judicial Review:** Apply a **purposive interpretation of Article 48A** (State's duty to protect the environment) to include all Aravalli features within legal protection.

Conclusion

The **Save Aravalli** campaign argues that ecological value lies in **function, not altitude**. While the Court's definition aims at administrative clarity and curbing illegal mining, a narrow height-based rule risks a **"death by definition"** for most of the range, threatening North India's water security, climate resilience, and biodiversity.

Reforming the Fertiliser Subsidy in India

Context

Amid wide-ranging economic reforms, economists and policy experts in late 2025 have called for an urgent restructuring of India's fertiliser subsidy regime. The government faces a dual challenge: containing a large and volatile fiscal burden while arresting severe soil health degradation caused by decades of imbalanced nutrient application.

About the Issue

The Mechanism

India's fertiliser subsidy operates through price controls and compensation to manufacturers. Companies are reimbursed for the gap between the high cost of production or imports and the low, government-mandated Maximum Retail Price (MRP) paid by farmers. This mechanism, especially for urea has ensured affordability and widespread access to critical inputs.

Current Trends (FY26)

- **Fiscal Magnitude:** The fertiliser subsidy is the second-largest item in the Union Budget (after food), projected to range between ₹1.67 lakh crore and ₹2 lakh crore in FY26.

- **Urea Dominance:** Urea alone accounts for nearly two-thirds of total subsidy outgo, with its price fixed at about ₹242 per 45-kg bag.

- **Import Vulnerability:** India depends heavily on imports, around 78% of natural gas (for urea), 90% of phosphatic fertilisers, and 100% of potash which exposing the subsidy bill to global price shocks.

- **Nutrient Imbalance:** Artificially cheap urea has distorted fertiliser use. The national N:P:K ratio has skewed to about 10.9:4.4:1, far from the agronomically ideal 4:2:1.

Why the Subsidy Remains Essential

- **Food Security:** The subsidy underpinned the Green Revolution and enabled self-sufficiency in food grains.

- **Support to Marginal Farmers:** With over 85% of farmers operating small holdings, subsidies buffer incomes against volatile global energy prices.

- **Price Stability:** Low input costs help prevent cost-push inflation and stabilize cereal prices.

- **Climate Risk Mitigation:** In years of erratic monsoons, subsidised inputs reduce production risk and income uncertainty.

Challenges of the Current Regime

Challenge	Description & Evidence
Low Efficiency	Only ~35–40% of applied nitrogen is absorbed by crops; the rest is lost to the environment.
Environmental Harm	Excess urea causes nitrate leaching into groundwater, linked to methemoglobinemia (Blue Baby Syndrome).
Soil Degradation	Excess nitrogen depletes Soil Organic Carbon (SOC), which has fallen from ~1% to ~0.3% in some regions over seven decades.
Fiscal Strain	The subsidy bill is highly sensitive to global shocks (e.g., gas price spikes, geopolitical conflicts).
Leakages	An estimated 20–25% of subsidised urea is diverted to non-agricultural uses (e.g., plywood, glass).

Way Forward: Restructuring for 2025 and Beyond

1. **Bring Urea under Nutrient-Based Subsidy (NBS):** Align urea pricing with phosphorus and potassium to correct price signals and encourage balanced fertilisation.

2. **DBT 2.0:** Shift from manufacturer-centric subsidies to direct income support to farmers' bank accounts, on the lines of **PM-KISAN**, improving targeting and transparency.

3. **Leverage Agri Stack:** Use digital land records, crop data, and satellite imagery to cap subsidised quantities based on land size and crop requirements.

4. **Promote Alternatives:** Scale up Nano Urea, bio-fertilisers, and organic manures. The 2025–26 budget has initiated this with a dedicated (though modest) allocation for organic inputs.

5. **Precision Farming:** Strengthen Soil Health Cards and advisory services so fertilisers are applied only where needed, reducing waste and runoff.

Conclusion

Reforming the fertiliser subsidy is not about withdrawing support, but about making it **smarter, greener, and fairer**. By correcting distorted price signals, tightening targeting, and promoting

sustainable alternatives, India can contain fiscal costs, restore soil health, and secure long-term agricultural sustainability without compromising food security.

Southern Ocean Carbon Anomaly

Context

In late 2025, new research published in *Nature Climate Change* identified an unexpected "anomaly" in the Southern Ocean. Contrary to long-standing climate model predictions that the ocean would weaken as a carbon sink and begin releasing CO_2, the Southern Ocean has actually intensified its carbon absorption since the early 2000s.

About the News

The Concept:

The Southern Ocean carbon anomaly describes the ocean's continued ability to act as a massive "carbon sink" despite global warming. Traditional models suggested that strengthening winds would churn up deep, carbon-rich waters, causing them to release CO_2 into the atmosphere; however, the opposite has occurred.

Mechanism of the Anomaly:

- **Westerly Winds & Upwelling:** Warming temperatures intensify winds, pulling deep, carbon-heavy water toward the surface.

- **Freshwater "Lid":** Accelerated Antarctic ice melt and increased rainfall add buoyant freshwater to the surface.

- **Vertical Stratification:** This light freshwater layer creates a "lid" or barrier, preventing the deep, carbon-rich water from making contact with the air.

- **Subsurface Trapping:** Upwelled waters remain trapped approximately **100–200m** below the surface, blocking the exchange of gases and allowing the surface to continue absorbing atmospheric CO_2.

Factors Driving the Anomaly

The deviation from scientific expectations is attributed to several physical and data-related factors:

- **Surface Freshening:** Reduced salinity from glacial melt makes the top layer of the ocean lighter and more resistant to mixing.

- **Small-Scale Physics:** Ocean "eddies" (circular currents) and ice-shelf cavity dynamics play a massive role in stratification but are often too small for coarse climate models to track accurately.

- **Model Limitations:** Older climate simulations underrepresented the impact of freshwater inputs and fine-scale ocean physics.

- **Observational Gaps:** Historically, sparse data from the remote Southern Ocean during winter months led to incomplete validations of climate behavior.

Implications

Category	Impact
Climate Buffer	The anomaly has temporarily slowed global warming by keeping more CO_2 out of the atmosphere.
Risk of Reversal	There is a high risk of "outgassing"; if surface stratification thins or collapses, stored deep carbon could be released rapidly.
Scientific Refinement	Highlights an urgent need to integrate freshwater dynamics and ocean chemistry into future climate models.
Policy Strategy	Reinforces that natural sinks are unpredictable and cannot replace the necessity of direct emission reductions.

Way Forward

- **Enhanced Monitoring:** Establish year-round, autonomous observation systems in polar regions to detect shifts in stratification in real-time.

- **Model Integration:** Update global climate simulations to better resolve small-scale eddies and Antarctic meltwater patterns.

- **Vulnerability Assessment:** Conduct research into the "tipping point" at which the Southern

Ocean might transition from a carbon ally to a climate amplifier.

- **Global Policy Shift:** Ensure international climate targets account for the potential volatility of natural carbon sinks like the Southern Ocean.

Conclusion

The Southern Ocean carbon anomaly serves as a reminder that Earth's systems can temporarily defy scientific projections, but these natural buffers are not permanent. While freshwater stratification currently masks deeper vulnerabilities, the potential for a sudden reversal underscores the critical need for sustained observation and aggressive global emission cuts.

Rashtriya Prerana Sthal (National Inspiration Site)

Context

On **December 25, 2025**, Prime Minister Narendra Modi inaugurated the **Rashtriya Prerana Sthal** in Lucknow, Uttar Pradesh. The inauguration coincided with **Good Governance Day** and the **101st Birth Anniversary** of former Prime Minister **Atal Bihari Vajpayee**.

About the Site

Urban Rejuvenation & Land Reclamation:

- **Former Landfill:** The memorial is a prime example of urban rejuvenation, having been developed on a 65-acre site that was previously a sprawling **garbage dump** containing nearly 6.5 lakh metric tonnes of waste.
- **Green Transformation:** Approximately 50,000 trees were planted using the **Miyawaki technique**, transforming the former landfill into a lush green zone.
- **Location:** Situated in the Vasant Kunj (Basant Kunj) Yojana area on Hardoi Road, near the banks of the **Gomti River**.

Architectural Symbolism:

- **Lotus Shape:** The museum and the overall masterplan are designed in the shape of a **blossoming lotus**, symbolizing purity and resilience.

- **Monumental Scale:** The site features the **tallest statues** ever installed in a Lucknow memorial, weighing nearly 42 tonnes each.

Key Features

1. The Three Iconic Statues

The heart of the complex features three majestic **65-foot-tall bronze statues**.

- **Atal Bihari Vajpayee:** Celebrated as the architect of modern "Good Governance" (Sushasan), democratic values, and successful coalition politics.
- **Deendayal Upadhyaya:** Known for his philosophy of **"Integral Humanism"** and **"Antyodaya"** (serving the last person in the queue).
- **Syama Prasad Mookerjee:** Founder of the Bharatiya Jana Sangh, remembered for his advocacy for national unity and the full integration of Jammu & Kashmir.

2. Lotus-Shaped Digital Museum

- **Scale:** A state-of-the-art museum covering approximately 98,000 square feet (6,300 sqm).
- **Immersive Technology:** Houses five galleries using **AI-driven digital displays**, projection mapping, and immersive technologies to showcase India's national journey.
- **Galleries:** Dedicated sections explore the formation of the Jana Sangh, the 1975 Emergency, and the milestones of "New India."

3. Public Amenities

- **Capacity:** Includes a **3,000-seater amphitheater** and a rally ground capable of holding over 2 lakh people.
- **Other Facilities:** A meditation hall, yoga center, library, multipurpose halls, and three helipads.

Significance

- **Preserving Political Legacy:** The site serves as a permanent national asset to honor the pioneers of the BJP-RSS ideology, providing a grand space for tributes on birth and death anniversaries.
- **Ecological Milestone:** The project demonstrates how neglected urban

"wastelands" (garbage dumps) can be successfully converted into major cultural and educational landmarks.

- **Inspirational Hub:** Designed to foster leadership values and national service among the youth and future generations.

Kimberley Process (KP)

Context

India is set to assume the **Chairmanship of the Kimberley Process (KP)** from **1 January 2026**, following a consensus-building tenure as Vice-Chair in 2025. This will be **India's third chairmanship**, after 2008 and 2019, underlining its growing leadership role in global diamond governance.

About the Kimberley Process (KP)

Definition

- **Launch:** 2003, pursuant to a **UN-backed international initiative**
- **Nature:** International certification scheme for rough diamonds
- **Core Objective:** Eliminate the trade in **"Conflict Diamonds"** from the global supply chain

Conflict Diamonds

- Rough diamonds used by **rebel groups or their allies**
- Purpose: Financing armed conflicts to **undermine legitimate governments**

Tripartite Structure

- **Governments**
- **Diamond Industry**
- **Civil Society**
  This unique model ensures **shared responsibility, oversight, and credibility**.

Operational Mechanism

1. Certification System

- Every export of rough diamonds must carry a **Kimberley Process Certificate (KPC)**
- Certifies that the diamonds are **conflict-free**

2. Trade Controls

- KP members are prohibited from trading rough diamonds with **non-participants**

3. Global Coverage

- **60 participants** (representing **86 countries**, with the EU as a single entity)
- Covers **~99.8% of global rough diamond trade**

India's Role & Strategic Importance

India is a **global hub of the diamond value chain**, processing nearly **90% of the world's cut and polished diamonds**, primarily in **Surat, Gujarat**.

Why India's Chairmanship Matters

- India sits at the **intersection of production, processing, trade, and consumption**
- Enhances India's credibility as a **norm-setter in ethical global trade**

India's Leadership Priorities as KP Chair

1. Digital Transformation

- Push for **digital KP certificates**
- Adoption of **blockchain-based traceability** to modernize diamond tracking

2. Governance & Compliance

- Strengthening **rule-based compliance mechanisms**
- Restoring KP's credibility amid geopolitical disruptions

3. Transparency & Monitoring

- Data-driven oversight to prevent **leakage of conflict diamonds** into legal markets

4. Consumer Trust

- Reinforcing global confidence in **ethically sourced natural diamonds**
- Countering misinformation and ethical concerns in consumer markets

Key Challenges

1. Redefinition of "Conflict Diamonds"

- Growing demand to expand the definition to include:
  - Human rights violations
  - Environmental degradation
  - Violence by state or quasi-state actors

- Raises concerns about **scope creep vs. enforceability**

2. Geopolitical Tensions

- Disputes over **Russian-mined diamonds** (≈30% of global supply)

- Allegations regarding indirect financing of the Ukraine war

- Risk of **politicization of the KP framework**

3. Lab-Grown vs. Natural Diamonds

- Lab-grown diamonds marketed as **more ethical and sustainable**

- Creates branding and market challenges for the natural diamond industry

- Raises questions of **consumer disclosure and certification standards**

Facts

- **Major Producers:** Russia, Botswana (Jwaneng mine), Canada, Angola

- **Geological Source:** Diamonds occur mainly in **kimberlite pipes**, ancient volcanic formations

- **Economic Scale:** KP has regulated trade worth **~USD 13.5 billion** since inception

Conclusion

India's upcoming chairmanship of the Kimberley Process comes at a **critical inflection point**, marked by geopolitical tensions, ethical debates, and technological disruption. By prioritizing **digital traceability, transparency, and balanced reform**, India has the opportunity to **revitalize the KP**, preserve its relevance, and strengthen trust in the global diamond trade.

NATGRID–NPR Linkage

Context

The Government of India is integrating the **National Intelligence Grid (NATGRID)** with the **National Population Register (NPR)** to create a unified intelligence-sharing architecture. The objective is to strengthen India's **internal security, counter-terrorism, and law-enforcement capabilities** through advanced data integration.

Objectives of the Linkage

1. Enhanced Counter-Terrorism Capability

- Enables intelligence agencies to **correlate demographic data with real-time intelligence inputs**.

- Improves detection of sleeper cells, radical networks, and cross-border terror linkages.

2. Comprehensive Suspect Profiling

- Allows agencies such as the **National Investigation Agency (NIA)** to access:

  - Family linkages

  - Address history

  - Migration and residency patterns

- Facilitates **network-based investigations rather than isolated profiling**.

3. Pre-emptive and Preventive Policing

- Supports intelligence-led policing by enabling **pre-FIR investigations**.

- Helps in identifying potential threats before crimes materialize.

Significance of the Integration

1. Dismantling Organised Crime & Terror Networks

- Enables **family-tree mapping and cross-identification** of suspects.

- Effective against:

  - Terror modules

  - Drug trafficking syndicates

  - Human trafficking and organized crime networks

2. 360-Degree Threat Assessment

- Combines **static demographic data** with **dynamic intelligence feeds**.

- Enhances accuracy in risk profiling and reduces intelligence blind spots.

3. Improved Inter-Agency Coordination

- Eliminates data silos among intelligence and enforcement agencies.

- Strengthens a **whole-of-government approach** to internal security.

Key Components of the Linkage

1. National Intelligence Grid (NATGRID)

- **Genesis:** Conceptualized after the **2008 Mumbai terror attacks (26/11)** to address intelligence coordination failures.
- **Administrative Control:** Operates under the **Ministry of Home Affairs**.
- **Operational Status:** Fully operational since 2024.
- **Access Framework:**
  - Secure, role-based access
  - Available only to authorized intelligence and law-enforcement agencies
- **Technology Backbone:**
  - Uses **"Gandiv" technology** (named after Arjuna's bow)
  - Integrates:
    - Facial recognition
    - Big data analytics
    - Pattern recognition tools

2. National Population Register (NPR)

- **Scope:**
  - A comprehensive database of demographic (and limited biometric) details of Indian residents
  - Covers approximately **119 crore individuals**
- **Data Collection:**
  - First collected in 2010
  - Updated in 2015
- **Current Relevance:**
  - Though the Census (due in 2021) is now targeted for 2027, existing NPR data is being leveraged for intelligence integration.

Challenges and Concerns

1. Privacy and Surveillance Risks

- Integration of population databases with intelligence platforms raises concerns regarding:
  - **Right to Privacy** (as recognized in *Puttaswamy judgment*)
  - Potential for **mass surveillance**

2. Data Security Vulnerabilities

- Centralized databases become **high-value cyber targets**.
- Risks of:
  - Data breaches
  - Unauthorized access
  - Foreign cyber intrusion

3. Legal and Institutional Gaps

- Absence of a **comprehensive data protection law** increases apprehensions.
- Need for:
  - Clear purpose limitation
  - Independent oversight
  - Accountability mechanisms to prevent misuse

Conclusion

The integration of NATGRID with NPR marks a **significant technological leap in India's internal security architecture**. By leveraging **Gandiv-enabled analytics**, the state aims to stay ahead of increasingly sophisticated terror and crime networks. However, the long-term legitimacy and effectiveness of this framework will depend on **balancing national security imperatives with constitutional safeguards for privacy, transparency, and accountability**.

Samudra Pratap

Context

The **Indian Coast Guard** achieved a major milestone in maritime environmental protection with the induction of **Samudra Pratap**. It is **India's first indigenously designed and built Pollution Control Vessel (PCV)**, marking a significant advance in domestic shipbuilding, ecological security, and maritime disaster response.

About 'Samudra Pratap'

- **Definition:**
  Samudra Pratap is a specialized vessel commissioned for marine environmental protection, oil-spill response, chemical pollution control, and maritime firefighting.
- **Fleet Status:**
  It is the **largest vessel in the current Indian**

Coast Guard fleet and the **first of its kind designed and constructed indigenously**.

- **Manufacturer:**
  Built by **Goa Shipyard Limited** under a two-ship PCV project for the Coast Guard.

Key Technical Specifications

- **Length:** 114.5 metres
- **Breadth:** 16.5 metres
- **Displacement:** 4,170 tonnes
- **Operational Capability:** Long-range endurance and high-seas pollution response within India's EEZ and beyond.

Major Technological Features

1. Advanced Navigation

- First ICG vessel equipped with **Dynamic Positioning System (DP-1)**
- Enables precise station-keeping during sensitive oil-spill and pollution-control operations.

2. Pollution Response Systems

- Oil fingerprinting machine (source identification)
- Viscous oil recovery equipment
- Oil spill detection systems
- Onboard pollution control laboratory

3. Firefighting Capability

- Certified with **FiFi-2 / FFV-2 notation**
- High-capacity external firefighting system
- Capable of combating large ship fires and offshore industrial fires (oil rigs, terminals).

4. Combat & Self-Defence Systems

- One **30 mm CRN-91 gun**
- Two **12.7 mm remote-controlled guns**
- Integrated with modern fire-control and surveillance systems.

5. Indigenous Systems Integration

- Integrated Bridge System (IBS)
- Automated Power Management System
- Integrated Platform Management System

- Reinforces **Atmanirbhar Bharat** in defence shipbuilding.

Significance of Induction

Ecological Security

- Enhances India's preparedness to respond to:
  - Oil spills
  - Chemical leakages
  - Maritime ecological disasters
- Critical for protecting **marine biodiversity and coastal livelihoods**.

Strategic Autonomy

- Demonstrates India's capability to design and build **complex, mission-specific vessels domestically**
- Reduces dependence on foreign shipyards and technologies.

Industrial & Offshore Safety

- Strengthens emergency response for offshore oil and gas installations
- Improves disaster mitigation capacity in busy sea lanes and ports.

Conclusion

The commissioning of *Samudra Pratap* represents a **transformational leap in India's maritime environmental governance**. By integrating advanced pollution-response equipment, firefighting systems, and indigenous navigation and combat technologies, the vessel significantly strengthens India's ability to safeguard its vast coastline, Exclusive Economic Zone, and marine ecosystems against industrial and environmental threats.

Caste Panchayat Diktat: Smartphone Ban for Women

Context

A caste panchayat of the **Jat community** in the Jalore district of Rajasthan issued a social decree banning the use of smartphones by married women. The diktat is set to be implemented starting **Republic Day (January 26, 2026)** across 15 villages within the Sundhamata Patti region.

About the News

The Decree:

- **Prohibited Groups:** Married women and daughters-in-law are strictly forbidden from using camera-enabled smartphones in public or social gatherings.

- **Permissible Usage:** Women are restricted to basic keypad phones; exceptions are only granted to young girls for educational purposes within the home.

- **Enforcement:** The panchayat has threatened financial penalties for those who violate these "social discipline" rules.

Underlying Causes:

- **Patriarchal Social Control:** Efforts to regulate female autonomy and mobility under the guise of maintaining traditional social order.

- **Moral Policing:** A fear of lost surveillance over women and the perceived threat that social media poses to "family honor".

- **Selective Digital Anxiety:** While citing concerns over children's eyesight and "mobile addiction," the restrictions exclusively target women, not men.

Constitutional and Legal Implications

The diktat directly conflicts with several fundamental protections guaranteed by the Constitution of India:

- **Violation of Fundamental Rights:**

  - **Article 14:** Discriminates based on gender by imposing rules that do not apply to men.

  - **Article 19(1)(a):** Infringes upon the right to freedom of speech and expression by restricting communication tools.

  - **Article 21:** Compromises the right to life, personal liberty, and individual dignity.

- **Challenge to Constitutional Morality:** Such extra-constitutional bodies arrogate to themselves the power of law-making and law-enforcing agencies, which is strictly prohibited.

Judicial Precedents on Extra-Constitutional Diktats

The Indian judiciary has consistently ruled against the legality of such community-imposed bans:

- **Shakti Vahini v. Union of India (2018):** The Supreme Court declared that "assertion of choice is an insegregable facet of liberty and dignity" and labeled interference by Khaps as "absolutely illegal".

- **Arumugam Servai v. State of Tamil Nadu:** The Court noted that self-proclaimed "caste lords" who encourage atrocities or interfere with personal choices must be "ruthlessly stamped out".

- **State Duty:** The Court has mandated that State Governments must identify villages where such assemblies occur and take preventive, remedial, and punitive measures against participants.

Way Forward

- **Administrative Intervention:** District authorities and police must ensure that these diktats are not enforced and provide security to those who choose to defy them.

- **Digital Literacy & Sensitization:** Countering "digital anxiety" through inclusive community awareness programs rather than gender-based restrictions.

- **Judicial Oversight:** Continued vigilance by courts to ensure that customary practices do not override the fundamental rights of individual citizens.

Conclusion

The ban on smartphones for women in Jalore represents a regressive attempt to enforce patriarchal norms through extra-constitutional means. Upholding **Constitutional Morality** over community diktats is essential to ensuring that individual liberty remains protected against the "chilling effect" of feudal-minded social controls.

Integrating Artificial Intelligence in Education

Context

At the **National Conclave on AI Evolution (AI Mahakumbh)**, the Vice President of India emphasized that Artificial Intelligence (AI) must be deeply integrated into both school and higher-education curricula. The objective is to equip Indian students with future-ready skills and align the national education framework with global technological shifts.

About the News

Definition:

AI in education involves the strategic deployment of machine learning, data analytics, and intelligent systems to augment teaching, learning, assessment, and governance while maintaining strict human oversight.

Current Trends and Data:

- **Rapid Adoption:** Over **80% of students** in premier Indian higher-education institutions currently utilize AI tools for research and learning support.

- **Policy Framework:** The **National Education Policy (NEP) 2020** and the **"AI for Science"** initiative serve as the primary drivers for digital and AI-enabled pedagogy.

- **Global Alignment:** Organizations such as **UNESCO and the OECD** have identified AI as a critical accelerator for achieving **SDG-4 (Quality Education)** by 2030.

Strategic Importance for India

- **Addressing Demographic Scale:** With over **250 million learners**, India requires AI to move beyond "one-size-fits-all" teaching.
  - *Example:* The **DIKSHA** platform utilizes AI recommendation engines to provide customized learning paths across diverse state boards.

- **Mitigating Teacher Shortages:** AI supports educators in aspirational and rural districts where the student-teacher ratio is skewed.
  - *Example:* **Uttar Pradesh's SwiftChat AI** assists para-teachers with automated lesson planning and real-time doubt resolution.

- **Bridging the Skill Gap:** Transitioning from rote memorization to analytical thinking.
  - *Example:* **Atal Tinkering Labs** have integrated AI modules to foster computational thinking in secondary schools.

- **Promoting Equity:** Overcoming linguistic and regional barriers to quality content.
  - *Example:* **IIT Madras's AI4Bharat** translates complex STEM materials into regional languages like Tamil and Marathi.

Key Transformations Enabled by AI

Feature	Impact on Education
Personalized Learning	Systems like **Embibe** analyze performance to create targeted remedial practices for competitive exams (JEE/NEET).
Teacher Empowerment	**CBSE's AI portals** automate objective assessments, allowing teachers to focus on student mentorship.
Research & Collaboration	Tools like **Bhashini** enable multilingual academic research by breaking down language barriers.
Smart Governance	**Gujarat's Vidya Samiksha Kendra** uses predictive analytics to identify and prevent potential school dropouts.
Employability	The **AICTE NEAT** platform maps student skill sets directly to high-growth sectors like semiconductors and EVs.

Core Principles (UNESCO Framework)

- **Human-Centricity:** AI must assist and augment teachers, never replacing human moral authority or pedagogic judgment.

- **Inclusion:** Prioritizing access for marginalized groups and students with disabilities.

- **Ethics & Transparency:** Implementation must include safeguards against algorithmic bias and misinformation.

- **Data Sovereignty:** Protecting learner privacy through secure, consent-based data frameworks.

Challenges

- **The Digital Divide:** Bandwidth-intensive platforms remain inaccessible in remote regions, such as Himalayan villages.

- **Cognitive Over-dependence:** Risk of students losing critical reasoning skills by relying on Generative AI (e.g., ChatGPT) for creative assignments.

- **Algorithmic Bias:** Many models are trained on Western datasets, leading to inaccuracies in interpreting Indian regional accents or cultural contexts.

- **Privacy Risks:** Concerns regarding the commercial exploitation of minor students' data by private EdTech firms.

Way Forward

- **Curriculum Integration:** Expanding **CBSE's initiative** to introduce AI as a formal skill subject starting from Grade 6.

- **Nationwide Upskilling:** Updating **NISHTHA modules** to train teachers in the ethical and practical application of AI in classrooms.

- **The "Phygital" Model:** Combining AI-driven digital content with human-led ethical guidance and reflection.

- **Regulatory Oversight:** Establishing a **National AI Regulatory Body** for EdTech to ensure algorithmic transparency and data protection.

- **Sovereign AI:** Developing indigenous Large Language Models (LLMs) trained on all 22 Scheduled Indian languages through initiatives like **Bhashini**.

Conclusion

The integration of Artificial Intelligence represents a paradigm shift from rote learning to a learner-centric model. By anchoring technology in ethics and inclusion, India can utilize AI as a force multiplier to achieve the vision of a **Viksit Bharat**, ensuring that the educational system remains equitable, innovative, and future-proof.

Protection of the Aravali Range

Context

The Supreme Court of India stayed its own previous order that had attempted to define the Aravalis using a specific height threshold (100 meters). This decision follows widespread environmental concerns that such a narrow definition would exclude nearly **90% of the**

range from protective status, inadvertently greenlighting large-scale legal mining and construction in ecologically sensitive zones.

About the News

- **Background:** The legal battle centers on defining what constitutes a "hill" or "mountain" in the Aravali region to determine where mining and development are prohibited.

- **Court Observations:**
  - A strict 100-meter height criterion is insufficient to capture the geological and ecological complexity of the range.
  - The court emphasized that definitions must prioritize environmental conservation over industrial expansion.

- **Immediate Action:** The previous "range and height" definition has been paused to prevent irreparable damage to the hills while a more comprehensive ecological criterion is established.

Geographical and Ecological Framework

Geographical Facts:

- **Ancient Heritage:** Recognized as one of the world's oldest fold mountain systems, dating back to the Proterozoic era.

- **Extent:** Spans approximately 692 km across four states: **Gujarat, Rajasthan, Haryana, and Delhi**.

- **Highest Point:** Guru Shikhar (1,722m) in Mount Abu, Rajasthan.

Ecological Significance:

- **Desertification Buffer:** Acts as a vital climatic barrier, checking the eastward expansion of the Thar Desert toward the Indo-Gangetic plains.

- **Green Lungs:** Provides the primary carbon sink and oxygen source for the National Capital Region (NCR) and Northwest India.

- **Hydrological Hub:** Serves as a critical groundwater recharge zone for water-stressed regions and significantly influences local rainfall patterns.

Challenges

- **Illegal Mining:** Persistent extraction of stones and minerals for the construction industry despite various bans.

- **Urban Encroachment:** Rapid urbanization, including the development of luxury homestays and residential complexes, leading to habitat fragmentation.

- **Deforestation:** Loss of native vegetation cover has contributed to rising temperatures and intensified heat waves in Northern India.

- **Legal Ambiguity:** The lack of a uniform, scientifically-backed definition for "Aravali" has allowed developers to exploit loopholes in land-use classifications.

Way Forward

- **Scientific Mapping:** * Utilize satellite imagery and geological surveys to create a comprehensive map of the range that ignores arbitrary height limits.

- **Strict Enforcement:**

  - Strengthen the implementation of the Forest (Conservation) Act to ensure no non-forest activity occurs without rigorous environmental impact assessments.

- **Restoration Projects:**

  - Scale up the "Aravali Green Wall Project" to create a 5km buffer zone of afforestation around the range.

- **Sustainable Policy:**

  - Balance the need for local livelihoods (like sustainable tourism) with the mandatory protection of the ridge's core ecological functions.

Conclusion

The Supreme Court's decision to revisit the definition of the Aravalis is a crucial victory for environmental jurisprudence. Protecting this ancient range is not merely about preserving a landscape, but about ensuring the ecological security, water safety, and climate resilience of Northwest India.

Index of Industrial Production (IIP)

Context

The **Index of Industrial Production (IIP)** is a key high-frequency macroeconomic indicator that captures short-term changes in the volume of industrial production in India. In late 2025, the **Ministry of Statistics and Programme Implementation (MoSPI)** confirmed that a **new IIP series with base year 2022–23** will be released in **May 2026**. The revision aims to reflect post-pandemic structural changes and the emergence of new industries such as **digital manufacturing** and **electric vehicles**.

About the Indicator

Definition

A composite index that measures growth in production volume across the industrial sector, acting as a real-time proxy for industrial performance.

Significance

- **Policy Tool:** Used by the **Reserve Bank of India** and the Ministry of Finance for monetary and fiscal policy decisions.

- **GDP Input:** Forms a core input for estimating **Quarterly Gross Value Added (GVA)** of the manufacturing sector.

- **Economic Barometer:** Signals trends in employment generation, capacity utilisation, and capital investment.

Key Features of IIP

- **Publishing Authority:** Compiled and released monthly by the **National Statistical Office (NSO)** under MoSPI.

- **Release Lag:** Approximately **six weeks** (e.g., November data released in mid-January).

- **Base Year:**

  - Current: **2011–12 = 100**

  - Proposed: **2022–23** (from May 2026), to capture GST-era reforms and Covid-19-induced structural shifts.

Classification of IIP

1. Sectoral Classification

- **Manufacturing:** 77.63%

- **Mining:** 14.37%

- **Electricity:** 7.99%

2. Use-Based Classification

- **Primary Goods:** 34.05%

- **Intermediate Goods:** 17.22%
- **Consumer Non-Durables:** 15.33%
- **Infrastructure / Construction Goods:** 12.34%
- **Consumer Durables:** 12.84%
- **Capital Goods:** 8.22%

Index of Eight Core Industries (ICI)

The **Index of Eight Core Industries (ICI)** tracks performance of critical infrastructure sectors that act as inputs for the broader industrial economy.

- **Weight in IIP:** 40.27%
- **Data Release Authority:** Office of the Economic Adviser, **Department for Promotion of Industry and Internal Trade (DPIIT)**, Ministry of Commerce and Industry.

Eight Core Sectors (by descending weight):

1. Refinery Products (~28.04%)
2. Electricity (~19.85%)
3. Steel (~17.92%)
4. Coal (~10.33%)
5. Crude Oil (~8.98%)
6. Natural Gas (~6.88%)
7. Cement (~5.37%)
8. Fertilisers (~2.63%)

Way Forward

- **Digital Integration:** Proposed inclusion of a **Service Output Index** by 2026 to complement IIP and capture digital services and tourism.
- **Methodological Upgrade:** Alignment with **System of National Accounts (SNA) 2025** for improved global comparability.
- **Real-time Data Use:** Leveraging **GSTN filings** to enhance accuracy and timeliness of production estimates.

Conclusion

The IIP functions as India's **industrial pulse**, offering policymakers and investors a timely snapshot of economic momentum. The upcoming **2026 revision** is expected to make the index more representative of contemporary production realities, ensuring its continued relevance in a rapidly transforming industrial and digital economy.

Defence Acquisition Council (DAC)

Context

On **29 December 2025**, the **Defence Acquisition Council (DAC)**, chaired by **Rajnath Singh**, accorded **Acceptance of Necessity (AoN)** for capital acquisition proposals worth ~**₹79,000 crore**. This final DAC meeting of the calendar year placed strong emphasis on **indigenous combat capability**, **counter-drone systems**, and **long-range precision weapons**, in line with the **Atmanirbhar Bharat** vision.

About the Council

- **Nature:** Executive body constituted in **2001** on the recommendations of the **Group of Ministers (GoM)** after the **1999 Kargil War**. *Not a constitutional or statutory body.*
- **Role:** Apex decision-making authority for **capital procurement** of weapons, platforms, and equipment for the **Indian Armed Forces** under the **Ministry of Defence**.
- **Chairman:** Union Defence Minister.
- **Composition:**
  - Minister of State for Defence
  - **Chief of Defence Staff (CDS)**
  - Chiefs of Army, Navy, and Air Force
  - Director General, Indian Coast Guard
  - Defence Secretary & Secretary (Defence Production)
  - Chairman, **Defence Research and Development Organisation (DRDO)**

Recent Approvals (December 2025)

Army

- **Pinaka MBRL (Long-Range Guided Rockets):** Enhanced range, accuracy, and deep-strike capability.
- **Counter-Drone Systems:** Integrated Drone Detection and Interdiction System (IDD&IS) Mk-II for protection of critical assets.
- **Loiter Munition Systems:** Precision engagement of time-sensitive tactical targets.

Air Force

- **Astra Mk-II Missiles:** Advanced **Beyond-Visual-Range (BVR)** air-to-air missiles enabling standoff combat.

- **SPICE-1000 Kits:** Precision guidance kits converting conventional bombs into long-range smart munitions.

Navy

- **HALE RPAS (Leasing):** High-Altitude Long-Endurance drones for maritime surveillance and ISR.

- **Software Defined Radios (HF SDR Manpacks):** Secure, long-range naval communications.

Procurement Framework (Priority Order)

1. **Buy (Indian-IDDM):** Indigenously Designed, Developed & Manufactured (highest priority).

2. **Buy (Indian):** Direct purchase from Indian vendors.

3. **Buy & Make (Indian):** Initial import followed by indigenous production with **Transfer of Technology (ToT)**.

4. **Make:** End-to-end indigenous R&D, development, and production.

Challenges

- **Technology Complexity:** Rapid evolution in drones, EW, and AI requires frequent updating of **Services Qualitative Requirements (SQRs)**.

- **Time Lag:** Significant delays often persist between **AoN** and final contract signing.

Way Forward

- **Year of Reforms (2025):** Streamlining procedures, compressing timelines, and reducing bureaucratic layers.

- **Deepening Indigenisation:** Greater reliance on **Buy (Indian-IDDM)** to curb import dependence and strengthen domestic defence industry.

Conclusion

The December 2025 DAC approvals reflect a decisive shift toward **precision strike**, **unmanned systems**, and **indigenous capability development**. By prioritising domestic design and manufacturing, the DAC strengthens India's defence preparedness while insulating military modernisation from external supply-chain vulnerabilities and evolving regional security threats.

Gandikota Canyon

Context

In late **2025**, Gandikota Canyon has emerged as a focal point for sustainable tourism in South India. Despite being a site of immense geological and historical value, it remains relatively "offbeat." Recent initiatives by the **Andhra Pradesh Tourism Development Corporation (APTDC)** aim to upgrade its infrastructure, including camping facilities and heritage trails, to position it as a world-class destination.

About Gandikota Canyon

Known as the **"Grand Canyon of India,"** Gandikota is a stunning river gorge formed by the **Penna (Pennar) River** cutting through the **Erramala Hills**.

- **Location:** Kadapa (YSR) district, Andhra Pradesh.

- **Geographical Setting:** The canyon is part of the **Cuddapah Basin**, a Proterozoic sedimentary basin famous for its unique rock formations.

- **The "Gandi":** The name is derived from the Telugu word *Gandi* (gorge) and *Kota* (fort).

Geological and Natural Features

- **Formation:** Carved over millions of years by the erosive action of the Penna River against hard **Gandikota Quartzite** and **red sandstone**.

- **Dimensions:** The gorge is approximately **200–300 meters wide** and features sheer cliffs that rise nearly **100 meters** from the riverbed.

- **Landscape:** The rugged, layered rock faces glow in shades of orange and red during sunrise and sunset, closely resembling the Arizona Grand Canyon in the USA.

- **Proximity to Belum Caves:** Located just **60 km** away, these are the second-largest caves in the Indian subcontinent, formed by the erosion of black limestone.

Historical and Architectural Heritage

The canyon is inseparable from the **Gandikota Fort**, a massive 12th-century stronghold perched on the edge of the cliffs.

- **Founded:** By **Kaka Raja** (a subordinate of the Western Chalukyas) in **1123 CE**.

- **The Pemmasani Nayaks:** The fort reached its zenith under this dynasty, who ruled for over 300 years and were prominent commanders in the **Vijayanagara Empire**.

- **Architectural Diversity:** The fort complex is a rare example of Indo-Islamic synthesis, housing:

  ○ **Hindu Temples:** The **Madhavaraya Temple** (16th century) and **Ranganatha Swamy Temple**, known for their intricate Vijayanagara-style carvings.

  ○ **Islamic Structures:** The **Jamia Masjid**, built during the Qutub Shahi period, featuring two elegant minarets.

  ○ **Civil Infrastructure:** A large vaulted **granary**, a **magazine** (ammunition store), and the **Rayalacheruvu** (a tank with perennial springs).

- **Literary Connection:** The famous Telugu poet and social reformer **Yogi Vemana** is believed to have lived in the Gandikota region for a time.

Tourism and Adventure (2025 Updates)

- **Adventure Sports:** The canyon has become a hub for **kayaking** on the Penna River, **rock climbing**, and **rappelling** on the quartzite cliffs.

- **Camping:** Official and private campsites now offer "luxury under the stars" experiences on the canyon rim.

- **Best Time to Visit:** September to February, when the weather is pleasant and the river has sufficient water flow (regulated by the **Gandikota Dam**).

Conclusion

Gandikota is a rare intersection of deep geological time and diverse human history. While its natural beauty is its primary draw, the silent ruins of the fort tell a story of regional power and cultural exchange. Strategic development of this site is essential to preserve its heritage while providing economic opportunities to the local community.

Alaknanda Galaxy

Context

Indian astronomers from **National Centre for Radio Astrophysics (NCRA–TIFR), Pune** announced the discovery of **Alaknanda**, a massive **grand-design spiral galaxy** observed just **1.5 billion years after the Big Bang**. Identified using data from the **James Webb Space Telescope (JWST)**, the galaxy's ordered structure directly challenges the conventional **bottom-up (hierarchical)** model, which predicts that early galaxies should be irregular and clumpy rather than well-organized.

About Alaknanda

Alaknanda is a **fully developed spiral galaxy** in the universe's infancy, strikingly similar in morphology to the **Milky Way**.

- **Discovery Team:** Led by **Rashi Jain** and **Yogesh Wadadekar** (NCRA–TIFR)

- **Redshift:** $z \approx 4.05$ (light travel time ~**12 billion years**)

- **Naming:** After the Himalayan **Alaknanda River**, paired conceptually with **Mandakini**—a Hindi name for the Milky Way

- **Observations:** Detected in the **UNCOVER** survey using gravitational lensing by **Abell 2744** (Pandora's Cluster)

Key Features and Morphology

- **Structural Maturity:** Clear **central bulge**, **rotating disk**, and **two symmetric spiral arms**—rare at such high redshift

- **Size:** ~**30,000 light-years** across (≈ one-third of today's Milky Way)

- **Star Formation:** ~**63 solar masses/year**, **20–30×** the Milky Way's current rate

- **Stellar Assembly:** ~**10 billion solar masses** in stars; **50%** formed in a rapid ~**200 million-year** burst

- **Active Regions:** Distinct **"beads-on-a-string"** pattern of star-forming clumps along the spiral arms

Scientific Significance

- **Challenges Hierarchical Models:** Standard theories require several billion years to form stable spiral disks. Alaknanda demonstrates that **rapid disk formation**, possibly via **cold gas accretion** or **early mergers**, was feasible much earlier.

- **Early Order in the Cosmos:** Shows that the early universe could produce **highly ordered, stable structures** well before the traditionally defined **Cosmic Dawn** timeframe.

- **Power of JWST:** Infrared sensitivity enables resolution of **fine spiral features** at extreme distances—beyond the reach of earlier observatories like Hubble.

Conclusion

The discovery of **Alaknanda** is a **landmark achievement** for high-redshift astronomy led by Indian scientists. It compels a **rethink of the cosmic timeline** for galaxy maturation and implies that the conditions for **complex galactic and potentially planetary environments** may have emerged **significantly earlier** than previously believed.

Industrial Hemp

Context

In December 2025, **Himachal Pradesh** officially launched the **'Green to Gold'** initiative to legalise and regulate the cultivation of **industrial hemp**. This policy shift aims to transform hemp from a "wild weed" into a high-value industrial resource, positioning the state as a leader in India's growing **bio-economy**.

About Industrial Hemp

Industrial hemp is a versatile, non-intoxicating variety of the *Cannabis sativa* plant. It is scientifically distinguished from marijuana by its chemical composition.

- **The 0.3% Rule:** The defining characteristic is a **Tetrahydrocannabinol (THC)** content of **less than 0.3%**. This low threshold ensures the plant has no psychoactive effects and is unsuitable for drug use.

- **Himalayan Legacy:** For decades, cannabis has grown wild in Himachal's valleys (Kullu, Mandi, Chamba). The new policy transitions

this resource from illicit trade to a **legal, scientific framework**.

Key Characteristics & Environmental Benefits

- **Climate Resilience:** Requires **50% less water** than cotton and thrives in marginal or degraded soils.

- **Rapid Growth:** Boasts a short harvest cycle of **70–140 days**, allowing for efficient land use.

- **Carbon Sequestration:** Absorbs more CO_2 than it emits during growth, making it a **carbon-negative** crop.

- **Soil Health:** Its deep roots prevent soil erosion and naturally suppress weeds, reducing the need for chemical herbicides.

- **Wildlife Conflict Solution:** In Himachal, farmers are adopting hemp because it is not typically targeted by monkeys and other wildlife that often destroy traditional food crops.

Diverse Applications

Industrial hemp is often called the "crop of 25,000 uses." Major applications include:

- **Sustainable Construction:** Used to make **Hempcrete**, a carbon-negative building material that offers superior insulation and is pest-resistant.

- **Textiles & Apparel:** Produces a strong, antibacterial, and UV-resistant fiber that serves as a durable alternative to cotton.

- **Pharmaceuticals & Wellness:** Hemp seeds and oils are processed into Ayurvedic medicines, nutraceuticals, and CBD-based pain management products.

- **Bio-Industries:** Used as a feedstock for **bioplastics**, biodegradable packaging, and biofuels like biodiesel and ethanol.

- **Cosmetics:** Rich in omega fatty acids, hemp seed oil is a key ingredient in high-end personal care products.

Economic Outlook

- **Revenue Projections:** Regulated cultivation is expected to generate **₹1,000 crore to ₹2,000 crore** annually for Himachal Pradesh.

- **Institutional Support:** State universities like **CSK HPKV (Palampur)** are leading research to develop high-yield, low-THC seed varieties tailored for the Himalayan climate.

- **Self-Reliance:** The initiative aligns with the goal of making Himachal a **self-reliant state by 2027**.

Conclusion

The legalisation of industrial hemp represents a pragmatic shift toward sustainable agriculture. By strictly regulating THC levels, Himachal Pradesh is decoupling the plant from its "narcotic" image and embracing its potential as a "Himalayan Gold" to boost rural incomes, support startups, and meet global climate commitments.

Passenger Assistance Control Room (PACR)

Context

The **Ministry of Civil Aviation (MoCA)** operationalized a permanent, **24x7 Passenger Assistance Control Room (PACR)** at Udaan Bhawan, New Delhi. The facility was established following a period of significant flight disruptions, including an "IndiGo schedule collapse" and dense winter fog, to institutionalize a faster and more systematic grievance redressal mechanism.

About the PACR

The PACR is an integrated, technology-driven command center designed to provide real-time coordination between government regulators and private aviation stakeholders.

- **Ministry:** Ministry of Civil Aviation (MoCA).

- **Location: Udaan Bhawan**, Safdarjung Airport area, New Delhi.

- **Operating Model:** 24x7 operations staffed by officials from MoCA, the **Directorate General of Civil Aviation (DGCA)**, the **Airports Authority of India (AAI)**, and representatives from all major Indian airlines.

- **Vision:** Anchored in the "Passenger First" principle, aimed at shifting from ad-hoc interventions to a structured crisis-response framework.

Key Features and Workflow

- **Integrated Stakeholder Hub:** Officials and airline representatives work "under one roof," allowing for on-the-spot resolution of issues that previously required long email chains or inter-departmental delays.

- **Omni-channel Intake:** The control room monitors grievances from the **AirSewa portal**, emails, telephone calls, and social media platforms.

- **Real-time Monitoring:** Data-driven dashboards provide live visibility into grievance categories (e.g., flight delays, refunds, baggage issues), response timelines, and specific stakeholder actions.

- **Shift-based Operations:** Functions through six teams working in three shifts, ensuring 29 to 35 personnel are active at any given time to monitor aviation operations nationwide.

- **Compliance:** Ensures all grievances are handled strictly in accordance with the **Passenger Charter** provisions.

Performance and Impact (as of Dec 2025)

- **Total Grievances Resolved:** Over **13,000–14,000** cases resolved since becoming operational on December 3, 2025.

- **Direct Interventions:** More than **500 call-based interventions** where officials proactively contacted distressed passengers to provide updates or facilitate assistance.

- **Resolution Target:** Most grievances, particularly those related to baggage and onboard service, are targeted for resolution within **72 hours**.

Significance

- **Crisis Management:** Provides a unified response mechanism for seasonal disruptions like fog-induced delays or technical outages.

- **Accountability:** Physical presence of airline staff in a government-monitored room creates immediate accountability for service failures.

- **Passenger Confidence:** Reduces the "uncertainty gap" for flyers by ensuring they are updated by the teams handling their complaints rather than having to repeatedly chase airlines.

Conclusion

The establishment of the PACR marks a shift toward proactive governance in India's aviation sector. By converging technology, regulatory oversight, and airline operations, the Ministry aims to minimize passenger distress and uphold service standards in one of the world's fastest-growing aviation markets.

140th Foundation Day of the Indian National Congress (INC)

Context

On **28 December 2025**, the **Indian National Congress (INC)** marked its **140th Foundation Day**, commemorating one of the longest continuous journeys of a democratic political party in the world. The occasion was observed with a **national flag-hoisting ceremony** at the party headquarters, **Indira Bhawan, New Delhi**, led by **Mallikarjun Kharge**, along with senior leaders **Sonia Gandhi** and **Rahul Gandhi**.

About the Indian National Congress (INC)

The INC is among the **oldest and largest democratic political parties** globally. It functioned as the **principal platform of India's freedom struggle** and remained the **dominant political force** in the decades following Independence.

- **Founded:** 28 December 1885
- **First Session:** Gokuldas Tejpal Sanskrit College, Bombay (now Mumbai)
- **Founder: Allan Octavian Hume**, a retired British civil servant
- **First President: Womesh Chandra Bonnerjee**
- **Original Participation:** 72 delegates, mainly lawyers, journalists, and social reformers

Historical Evolution of the INC

The evolution of the INC broadly mirrors India's political transformation:

1. Moderate Phase (1885–1905)
Focused on constitutional reforms, petitions, and dialogue within the British system. Prominent leaders included **Dadabhai Naoroji** and **Pherozeshah Mehta**.

2. Extremist Phase (1905–1919)
Triggered by the **Partition of Bengal (1905)**, this phase saw assertive nationalism under the Lal–Bal–Pal

trio, demanding **Swaraj** and promoting **Swadeshi and boycott**.

3. Gandhian Era (1919–1947)
Under **Mahatma Gandhi**, the INC transformed into a mass movement rooted in **Ahimsa (non-violence)**. Major movements included **Non-Cooperation**, **Civil Disobedience**, and **Quit India (1942)**.

4. Post-Independence Phase (1947–Present)
The INC shifted focus to **nation-building, secularism, democracy, and social justice**, particularly under leaders such as **Jawaharlal Nehru** and **Indira Gandhi**.

Key Historical Milestones

- **1907 – Surat Split:** Division between Moderates and Extremists over political methods
- **1916 – Lucknow Pact:** Reunification of INC factions and alliance with the Muslim League
- **1924 – Belgaum Session:** Only INC session presided over by **Mahatma Gandhi**
- **1929 – Lahore Session:** Under **Jawaharlal Nehru**, adoption of **Purna Swaraj (Complete Independence)**
- **1931 – Karachi Session:** Resolution on **Fundamental Rights** and the **National Economic Programme**

Contemporary Significance (2025)

During the 140th Foundation Day, the INC leadership highlighted three central pillars:

- **Ideological Assertion:** Emphasis on the idea that *Congress represents an ideology*, rooted in secularism and constitutionalism
- **Social Justice Agenda:** Renewed focus on caste census, employment guarantees, and welfare of marginalized sections
- **Institutional Protection:** Commitment to safeguarding democratic institutions such as the judiciary, media, and election processes

Conclusion

The **140-year journey of the Indian National Congress** is inseparable from the history of modern India itself. From an elite political forum in 1885 to a mass-based freedom movement and later a governing party, the INC has profoundly shaped India's democratic ethos. As it enters its **141st year**, the party

stands at a critical crossroads, seeking to reconcile its historic legacy with the challenges of a rapidly evolving and competitive political landscape.

India's Research Deficit

Context

India's chronic research and development (R&D) deficit has returned to the policy spotlight in **2025**. Despite India emerging as the **world's fourth-largest economy**, its **R&D expenditure remains stagnant at around 0.64% of GDP**, far below global peers. This persistent *innovation gap* is underscored by the fact that **single global corporations such as Huawei** spend more on R&D annually than the entire Indian economy.

India's Research Deficit

India's research deficit represents a **systemic inability to translate its vast human capital into high-end technological and intellectual property (IP) outcomes**.

Key Global Comparisons (2025):

- **R&D Spending Intensity (% of GDP):**
  - India: ~0.64%
  - China: ~2.4%
  - United States: ~3.5%
  - Israel: ~5.4%
- **Researcher Density:**
  - India: ~255 researchers per million population
  - Global Average: ~1,198
  - South Korea: ~7,980
- **Innovation Outcomes:**
  - India ranks **38th** in the **Global Innovation Index (GII) 2025**, but only **64th in Business Sophistication**, highlighting weak conversion of R&D inputs into market-ready outputs.

The Funding Structure Problem

- In advanced economies, **over 70% of R&D is driven by the private sector**.
- In India, the structure is inverted:
  - **Government share:** ~64%

- **Private sector share:** ~36%
  This limits scale, risk-taking, and commercialization.

The Real Cost of the Deficit

1. Strategic Vulnerability
 Despite the **₹1.6 lakh crore Semiconductor Mission**, India still lacks a **commercial sub-28 nm mega fabrication plant**, creating continued dependence on imports for advanced logic chips.

2. Technological Dependence
 Although around **65% of defence equipment is domestically produced**, critical technologies remain imported. A prime example is the continued reliance on **General Electric F404 aero-engines** for the Tejas Mk-1A, reflecting decades of underinvestment in indigenous aero-engine R&D.

3. Brain Drain
 In **2024–25**, nearly **7.6 lakh Indian students** went abroad for higher education. A **35% surge in AI and renewable-energy PhDs overseas** indicates insufficient deep-tech research infrastructure at home.

4. Contextual Research Gaps
 Global climate models failed to anticipate the **47°C Delhi heat events (2024–25)**, exposing India's dependence on external datasets. This has necessitated **Mission Mausam** to build **indigenous, localized climate and weather forecasting models**.

Recent Policy Initiatives

- **Anusandhan National Research Foundation (ANRF):**
   Created to streamline and scale public research funding, with a planned **outlay of ₹50,000 crore over five years**.
- **₹1 lakh crore Research, Development & Innovation (RDI) Fund (2024):**
   Designed to provide **long-term, low-interest finance** for private-sector R&D in deep-tech and frontier domains.
- **Mission-Mode Programmes:**
   Focused push through the **National Quantum Mission**, **AI Mission**, and **Green Hydrogen Mission** to build full innovation ecosystems.

Structural Challenges

- **Private Sector Risk Aversion:** Preference for incremental innovation over high-risk, frontier research.

- **"Valley of Death" Syndrome:** Weak academia–industry linkage; over **80% of patents from smaller institutions remain unlicensed**.

- **Funding Delays:** Bureaucratic lags mean schemes like **SERB-SURE** often take **8–12 months** to disburse funds, disrupting research continuity.

- **Quality of Patents:** India is the **6th-largest patent filer**, but many filings are low-impact and do not translate into breakthrough technologies.

Way Forward: Roadmap to 2030

- **Raise R&D Spending to 2% of GDP**, with at least **50% contribution from the private sector**.

- **University Transformation:** Shift universities from teaching-centric institutions to **research-driven engines**, expand PhD fellowships, and attract global faculty.

- **Technology Transfer Offices (TTOs):** Establish professional TTOs in all major universities to commercialize research outputs.

- **Talent Retention:** Provide globally competitive compensation, mobility grants, and research autonomy to curb brain drain and brain waste.

Conclusion

India's research deficit is **not a talent deficit but a structural failure**. Achieving **Viksit Bharat @2047** requires moving beyond assembly-led growth to an **IP-driven, innovation-first economy**. Closing the R&D gap is essential for **technological sovereignty, strategic autonomy, and long-term economic leadership**.

Child Marriage in India

Context

Despite 18 years of the **Prohibition of Child Marriage Act (PCMA), 2006**, states like Andhra Pradesh continue to report a high incidence of child marriage. This persistence underscores a significant gap between legislative intent and the prevailing social and economic realities on the ground.

About the News

- **Definition:** Child marriage is a formal or informal union where at least one party is under **18 years of age**. It is recognized as a violation of fundamental children's rights, including health, education, and protection.

- **Current Trends:**
  - **Prevalence:** Approximately **16% of girls** aged 15–19 are married. While rates dropped from 47% (2005–06) to roughly 23–27% (NFHS-5), the pace of decline remains slow.
  - **Global Standing:** India accounts for nearly **1.5 million child marriages annually**, the highest absolute number globally.
  - **Regional Hotspots:** High incidence persists in Bihar, West Bengal, Rajasthan, Andhra Pradesh, and Madhya Pradesh.

Legal and Historical Framework

- **Evolution of Reform: * Social Movements:** Early pioneers like Raja Ram Mohan Roy and Ishwar Chandra Vidyasagar identified child marriage as a core social evil.
  - **Sarda Act (1929):** The first legislative attempt to fix a minimum age, though it suffered from weak enforcement.

- **Current Law (PCMA, 2006):**
  - Declares child marriages **voidable** at the option of the minor.
  - Introduces stringent penalties for those performing or abetting such marriages.
  - Mandates the appointment of **Child Marriage Prohibition Officers (CMPOs)**.

- **Global Alignment:** India aims to eliminate the practice by **2030**, aligning with **Sustainable Development Goal 5 (Gender Equality)** through initiatives like *Bal Vivah-Mukt Bharat*.

Drivers and Challenges

Reasons for Persistence:

- **Economic Distress:** Poor households often view early marriage as a "social protection" mechanism and a way to reduce the financial burden of care.

- **Educational Gaps:** School dropouts—driven by distance, safety concerns, or costs—drastically increase the vulnerability of girls.

- **Gender Norms:** Deep-rooted patriarchal beliefs prioritize "family honor" and view girls as *paraya dhan* (someone else's property).

- **Lack of Awareness:** Limited understanding of the health risks and legal penalties associated with the PCMA.

Key Challenges:

- **Weak Enforcement:** Low conviction rates and a high pendency of cases in courts dilute the law's deterrent effect.

- **Family Complicity:** Marriages often occur with the full support of the community and family, making timely intervention difficult.

- **Institutional Gaps:** Many CMPOs hold additional charges, leading to a lack of specialized focus on rescue and rehabilitation.

- **Health Impacts:** Adolescent motherhood leads to higher maternal mortality, anemia, and low birth-weight infants.

Way Forward

- **Education-First Strategy:** Implement conditional cash transfers tied to secondary school completion to delay marriage and expand life choices.

- **Economic Empowerment:** Provide vocational and life-skills training through upgraded **Anganwadi centers** to reduce poverty-driven decisions.

- **Community Ownership:** Engage Panchayats, faith leaders, and youth groups to create "Child Marriage-Free" village declarations.

- **Strengthened Enforcement:** Utilize digital reporting and dedicated police units to ensure swift FIR registration and accountability.

- **Integrated Support:** Link legal protection with health and nutrition programs, utilizing platforms like **Nari Adalats** for community mediation.

Conclusion

Child marriage is a complex symptom of poverty, gender inequality, and systemic neglect rather than a simple legal violation. Safeguarding children's rights

requires a shift beyond legislation toward a comprehensive ecosystem of education, economic security, and community-led social change to break the intergenerational cycle of deprivation.

State of Marginal Farmers in India 2025

Context

Released on **Kisan Diwas (December 23, 2025)** by the **Forum of Enterprises for Equitable Development (FEED)**, the "State of Marginal Farmers in India 2025" report highlights a critical institutional gap: less than **25% of India's marginal farmers** are currently linked to agricultural cooperatives.

About the Report

The report provides an empirical assessment of how **Primary Agricultural Credit Societies (PACS)** and other cooperatives serve marginal farmers—those holding less than **1 hectare** of land.

Key Trends and Findings:

- **Structural Exclusion:** While marginal farmers constitute **60–70% of India's agricultural households**, their participation in cooperatives remains alarmingly low (under 25%).

- **Regional Disparities:** Institutional reach is notably weak in states like **Bihar, Tripura, and Himachal Pradesh**, where state capacity and infrastructure are lagging.

- **Barriers to Entry:** Access is restricted by complex membership rules, geographical distance to PACS centers, and deep-seated **caste and gender-based exclusion**.

- **The Digital Divide:** Digital tool adoption is critically low; for instance, **77.8% of cooperatives in Tripura** reported zero digital tool usage. Skill gaps are most pronounced among women and elderly farmers.

- **Leadership Gap:** Despite over 21 lakh women being members, only **3,355 women** hold director-level positions nationwide, indicating a lack of genuine decision-making power.

Impact of Cooperative Inclusion

The report underscores that when marginal farmers *are* successfully integrated into cooperatives, the results are transformative:

- **Income Gains:** 45% of linked farmers reported an increase in annual income.

- **Livelihood Security:** Nearly 49% experienced improved food and financial security.

- **Credit Access:** Inclusion shifts farmers away from exploitative informal credit markets toward regulated, low-interest institutional credit.

Challenges in the Current Framework

- **Inadequate Capitalization:** Many PACS lack the necessary funds to meet the credit demands of a large number of marginal farmers.

- **Informal Market Reliance:** Due to the "exclusion by design" in formal cooperatives, marginal farmers remain trapped in cycles of debt with local moneylenders.

- **Symbolic Inclusion:** Gender representation remains "on paper" only, with women rarely influencing the financial or operational strategies of the societies.

Way Forward

- **Inclusive Membership Reform:** Simplify the bylaws and documentation required for marginal and landless farmers to join PACS.

- **Digital Literacy Campaigns:** Targeted training for women and elderly farmers to bridge the technology gap in digital cooperative banking.

- **Gender-Focused Leadership:** Implement quotas or incentives to ensure women move from "membership" to "leadership" roles within cooperative boards.

- **Strengthening PACS:** Recapitalize local societies and expand their service offerings beyond credit to include processing and marketing support.

Conclusion

The **State of Marginal Farmers in India 2025** report serves as a wake-up call for policymakers. While cooperatives have the potential to be the backbone of rural prosperity, their current "elite capture" and structural barriers prevent India's most vulnerable food producers from reaping the benefits. Genuine inclusion

is not just a social necessity but an economic imperative for India's agricultural stability.

Communist Party of India (CPI)

Context

The **Communist Party of India (CPI)** has completed **100 years** of its existence, marking a century of organized communist politics in India. From a clandestine anti-imperialist movement under colonial rule, the CPI evolved into a significant participant in India's parliamentary democracy.

About the CPI

The CPI is among India's oldest political parties, firmly rooted in **Marxist ideology**. It seeks to represent the interests of workers, peasants, and marginalized sections through a combination of **mass movements** and **electoral politics**.

- **Established:** 26 December 1925, at the Kanpur (Cawnpore) Communist Conference

- **Historical Note:** An émigré communist group was formed earlier in **Tashkent (1920)** under **M. N. Roy**, leading to debate on the party's "true" origin.

- **Aims (Historical):**
  - Complete independence from British imperialism (pre-1947)
  - Socialization of the means of production and distribution
  - Creation of an egalitarian, class-less society

Associated Mass Organizations

- **All India Trade Union Congress (AITUC)** – Labour wing

- **All India Kisan Sabha (AIKS)** – Peasant wing

Historical Evolution

- **1920s–1930s: Era of Repression**
  Influenced by the **Russian Revolution (1917)**, the CPI faced severe colonial repression. The British attempted to dismantle the movement through cases like the **Kanpur Conspiracy Case (1924)** and the **Meerut Conspiracy Case (1929)**.

- **1940s: Agrarian Militancy**
  The party led major peasant struggles, notably the **Tebhaga Movement** in Bengal and the armed **Telangana Rebellion** against the Nizam.

- **Post-Independence: Parliamentary Turn**
  After 1947, the CPI embraced parliamentary politics. It emerged as the **largest opposition** in the first Lok Sabha. In **1957**, it formed the **world's first democratically elected communist government** in Kerala under **E. M. S. Namboodiripad**.

- **1964: The Great Split**
  Ideological disagreements, sharpened by differing views on the Indian bourgeoisie and the **Sino-Soviet split** which led to a division and the formation of the **Communist Party of India (Marxist)**.

Key Leaders

- **M. N. Roy** – Founder of the Tashkent group; first Indian leader in the Comintern

- **S. A. Dange** – Founding leader at Kanpur; pioneer of the Indian trade union movement

- **P. C. Joshi** – General Secretary in the 1940s; advocate of the United Front strategy

- **E. M. S. Namboodiripad** – Led the first non-Congress government; theorist on the National Question

- **Muzaffar Ahmad** – Built the party's base in Bengal, especially among peasants

Ideology and Strategy

- **Ideological Base:** Historical materialism and class struggle

- **Dual Strategy:** Combines extra-parliamentary mass struggles (strikes, protests) with participation in parliamentary democracy

- **Internationalism with Indian Adaptation:** While inspired by global socialist movements, the CPI sought to adapt Marxism to Indian socio-economic realities

Conclusion

The centenary of the CPI reflects its transformation from a banned revolutionary organization to an integral part of India's democratic framework. Although its **electoral influence has declined** in recent decades, the CPI's enduring impact on **land reforms, labour rights, and social justice discourse** secures its place in modern Indian political history.

Somaliland

Context

In **December 2025**, Israel became the first UN member state to formally recognize **Somaliland** as an independent sovereign state. This historic diplomatic move, signed by Prime Minister Benjamin Netanyahu and President Abdirahman Mohamed Abdullahi, has triggered sharp opposition from **Somalia**, the **African Union (AU)**, and several regional powers.

About Somaliland

- **What it is?**

  - A self-declared independent state in the **Horn of Africa** that separated unilaterally from Somalia in 1991 following the collapse of the central government and a brutal civil war.

  - It operates as a *de facto* state with its own democratic government, currency (**Somaliland Shilling**), passport, and security forces.

- **Location:**

  - Situated along the southern coast of the **Gulf of Aden**.

  - **Bordering nations:** Djibouti to the northwest, Ethiopia to the west and south, and Somalia (Puntland region) to the east.

  - It largely corresponds to the borders of the **former British Somaliland** protectorate.

Historical Evolution

- **1888–1960:** Established as a **British Protectorate**.

- **1960:** Briefly gained independence for five days (recognized by 35 countries, including Israel) before voluntarily merging with **Italian Somaliland** to form the Somali Republic.

- **1991:** Following the overthrow of dictator Siad Barre, Somaliland declared its independence, citing the failure of the 1960 union.

- **2001:** A constitutional referendum saw over **97% of the population** vote in favor of independence.

- **2025: Israel's recognition** marks a turning point, potentially paving the way for further international legitimacy through the framework of the **Abraham Accords**.

The 2025 Recognition Agreement

- **Nature of the Deal:** A mutual declaration of recognition including the establishment of full diplomatic relations, the opening of embassies, and the appointment of ambassadors.

- **Strategic Interests: * Anti-Houthi Operations:** Somaliland's proximity to the Bab al-Mandab chokepoint and Yemen offers Israel a strategic forward base for monitoring Houthi rebels.

  - **Abraham Accords:** Somaliland has expressed intent to join the Accords, strengthening Israel's ties with Muslim-majority partners.

- **Economic Cooperation:** Planned partnerships in agriculture, technology, health, and maritime trade through the **Port of Berbera**.

Challenges and Reactions

- **Somalia's Opposition:** Mogadishu considers the recognition a "deliberate attack" on its sovereignty and territorial integrity.

- **Regional Friction:** The African Union, Egypt, and Turkey have condemned the move, warning it could destabilize the Horn of Africa and set a "dangerous precedent" for secessionist movements.

- **International Stance:** Most of the international community (including the UN) officially continues to recognize Somaliland as part of Somalia, though many maintain unofficial "liaison offices" in Hargeisa.

Conclusion

Israel's recognition of Somaliland is a major geopolitical shift that ends decades of total diplomatic isolation for the territory. While it validates Somaliland's 34 years of stable self-governance, it also places the region at the center of a complex power struggle involving Middle Eastern interests, African sovereignty, and Red Sea security.