



VAJIRAO & REDDY IAS

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For UPSC | IAS | IPS & State Civil Services Aspirants



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2 India-US Trade Breakthrough : The 18% Tariff Deal



Why in News?

In a significant diplomatic move, the United States has slashed the effective tariff on Indian goods to **18%**. This is a massive drop from the previous peak of **50%** (which included heavy punitive duties). The deal signals a major de-escalation of trade friction and reinforces India's position as a vital strategic partner and a key counterweight to China in the Indo-Pacific.

1. Highlights of the Trade Agreement

- **Massive Tariff Cut:** The base reciprocal tariff was lowered from 25% to **18%**. More importantly, the **25% punitive duty**—imposed in August 2025 due to India's Russian oil imports—has been scrapped.
- **Energy Pivot:** India has agreed to significantly reduce its purchase of Russian crude oil, shifting its procurement toward the **US and Venezuela**.
- **Market Access:** India is expected to move toward "zero" tariffs on various US goods, particularly in agriculture (nuts, cotton, soybean oil).
- **"Buy American" Commitment:** India will prioritize US energy, technology, and coal in large-scale industrial and government procurement, potentially worth **USD 500 billion**.

2. Evolution of the Trade Conflict

- **"Tariff King" Tensions:** Historically, the US criticized India's high duties. By mid-2025, the US matched India's rates with a 25% reciprocal tariff.
- **The Russian Factor:** Continued oil trade with Moscow led the US to add a 25% "extra duty" in August 2025, bringing the total to 50%.
- **Thawing Relations:** Before this deal, India made "goodwill" moves by cutting duties on motorcycles and bourbon in the Union Budget and passing the **SHANTI Act, 2025** to open the nuclear sector.

3. Current Trade Profile (FY25)

- **Trade Volume:** Bilateral trade hit a record **USD 132 billion** in FY25, with India enjoying a trade surplus of over USD 40 billion.
- **Major Exports to US:** Electrical machinery, pharmaceuticals, and precious stones.
- **Major Imports from US:** Mineral fuels (oil/gas), machinery, and nuclear reactors.
- **Investment:** The US remains India's **3rd largest investor**. The new '**Mission 500**' initiative aims for USD 500 billion in trade by 2030.

4. Strategic Significance

- ****For India:****restores the competitive edge for Indian textiles and pharma. At 18%, India's tariff rate is now better than Vietnam's (20%) and China's (35%).
- **For US:** Gains a massive customer for its shale oil and LNG. It also opens India's nuclear and defense markets to US firms under the **iCET framework**.
- **Digital Infrastructure:** Tax holidays in India's **Union Budget 2026-27** for data centers will benefit US tech giants like Google and Amazon.

5. Major Challenges

- **Strategic Autonomy:** Reducing Russian oil imports could strain India's long-standing defense ties with Moscow.
- **Transactional Diplomacy:** The "reciprocal" nature of the deal suggests the US now expects a direct economic "payback" for every strategic favor.
- **China Factor:** India remains dependent on China for raw materials (APIs for pharma and Rare Earths). Beijing has already warned of consequences regarding India's pivot to the US.
- **Rural Impact:** Removing tariffs on US agricultural products could lead to distress for Indian farmers who may struggle to compete with subsidized US imports.

6. Way Forward

- **Energy Transition:** Use this shift to accelerate the **National Green Hydrogen Mission** and small modular nuclear reactors (SMRs).
- **Friendshoring:** Leverage the 18% tariff window to move from just "assembling" products to "**Deep Manufacturing**" in India.
- **Calibrated Liberalization:** Avoid "blanket" zero-tariff moves; instead, use product-specific safeguards to protect MSMEs and small farmers.
- **Market Diversification:** While the US deal is vital, India must continue fast-tracking FTAs with the EU, Gulf nations, and East Asian blocs to avoid over-dependence on a single power.



CURRENT EVENTS OF INTERNATIONAL IMPORTANCE

India-Canada Relations: 2026 High-Level Reset



Why in News?

India and Canada have **reset and revitalised** their bilateral relations through high-level meetings in **January 2026**. This marks a new phase of cooperation after a period of diplomatic tension.

1. Key Pillars of the New Partnership

The relationship now focuses on **four strategic pillars** to match Canada's resources with India's massive industrial needs:

- **Nuclear Energy:** Focus on uranium supply and technology.
- **Critical Minerals:** Sourcing raw materials for high-tech manufacturing.
- **Clean Energy:** Moving towards green fuels and solar power.
- **Allied Sectors:** Strengthening agriculture and industrial supply chains.

2. Major Highlights of 2026 Engagements

A. Energy & Climate

- **CIMED Re-launch:** The **Canada-India Ministerial Energy Dialogue** was restarted to focus on oil and gas (LNG/LPG).
- **Green Tech:** Agreement to work together on **Hydrogen production** and sustainable aviation fuels.

B. Food Security (Agriculture)

- **Potash Supply:** Canada provides **25% of India's MOP** (Muriate of Potash), a critical fertilizer.

- **Investment Match:** Canada pledged to match any investment made by Indian partners in its natural resource sector.

C. Critical Minerals & EVs

- **Battery Tech:** Coordination on **Advanced Chemistry Cell (ACC)** manufacturing for Electric Vehicles (EVs).
- **Supply Chain:** Canada will support India's need for **Lithium, Cobalt, and Graphite**—the "fuel" of the future.
- **New Dialogue:** The first **Critical Minerals Annual Dialogue** is set for March 2026 in Toronto.

D. Trade & Economy

- **CEPA Goal:** Aiming to double trade to **USD 50 billion by 2030**.
- **Uranium Deal:** A 10-year uranium supply agreement worth **2.8 billion Canadian dollars** is expected to be finalized soon.

3. Background of India-Canada Relations

- **Historical Link:** Relations began in 1947. India's Constitution even adopted the **Canadian Federal Model** (a strong Central government).
- **Strategic Partnership:** Elevated to this level in **2015**.
- **Trade Status:** In 2024, trade reached **USD 30.9 billion**, with India exporting pharmaceuticals and electronics, while importing fertilizers and wood pulp.
- **Space & Tech:** Collaboration between **ISRO** and the Canadian Space Agency (CSA) has been active since 2005.
- **Diaspora:** Over **1.8 million** people of Indian origin live in Canada, forming a "Living Bridge" between the two nations.

4. Key Challenges

- **The Khalistan Issue:** India is concerned about extremist groups operating from Canada. New Delhi describes Canada's stance as "**permissive vote-bank politics**."

- **Trade Barriers:** High taxes (tariffs) on agricultural products and strict safety regulations (SPS norms) slow down trade.
- **Geopolitical Focus:** While both look at the "Indo-Pacific," Canada focuses more on **human rights**, while India focuses on **maritime security** against China.

5. Way Forward: How to Strengthen Ties?

- **2+2 Dialogue:** Start a high-level meeting between Foreign and Defense Ministers.
- **Security Dialogue:** Create a dedicated desk at the **National Security Advisor (NSA)** level to handle extremism and intelligence sharing.
- **Digital Integration:** Introduce **India's UPI/Digital Public Infrastructure** in Canada for easy payments.
- **Skill Recognition:** Ensure that degrees for doctors and engineers are recognized in both countries to help students and professionals.

6. Geography Focus: Canada

- **Location:** North America; **2nd largest country** in the world.
- **Borders:** Shares the world's longest land border with the **USA**.
- **Capital:** Ottawa.
- **Resources:** World leader in **Uranium, Potash, Nickel, and Diamonds**.
- **Physical Features:** Rocky Mountains, Mackenzie River, and the **Great Lakes** (shared with USA).

Expiry of the New START Treaty :

The End of an Era



Why in News?

The **New Strategic Arms Reduction Treaty (New START)** officially expired on **5 February 2026**. This

marks the end of the last legally binding agreement between the United States and Russia to limit their strategic nuclear arsenals. For the first time since 1972, there are now no legal restrictions on the world's two largest nuclear powers, heightening the risk of a new global arms race.

1. What was the New START Treaty?

- **Context:** START stands for "Strategic Arms Reduction Treaty." **New START** was signed in 2010 by Presidents Obama and Medvedev, entering into force in 2011.
- **Original Duration:** It was originally a 10-year deal, extended for a final five years in 2021.
- **Scope:** It limited **long-range (intercontinental)** nuclear weapons that could strike the opponent's homeland from thousands of miles away.

2. Key Limits and Provisions

The treaty set specific, verifiable limits for both the US and Russia:

- **Deployed Warheads:** Maximum of **1,550** (down nearly two-thirds from the 1991 START-I levels).
- **Deployed Launchers:** 700 (includes ICBMs, SLBMs, and heavy bombers).
- **Total Launchers:** 800 (including non-deployed ones).
- **Verification:** The treaty featured a robust system of **18 on-site inspections** per year and biannual data exchanges.

3. Why did it Expire?

- **Maximum Extension Reached:** The treaty only allowed for a single five-year extension, which was used up in 2021. A new treaty would have required a full ratification process, which was politically impossible in the current climate.
- **Suspension in 2023:** Russia suspended its participation in February 2023 following tensions over the **Ukraine war**. While Russia claimed it would still follow the numerical limits, it stopped allowing inspections and data sharing.

- **Failed Negotiations:** Efforts to negotiate a "Post–New START" framework stalled in 2024–25. The US sought to include **China** in any new deal, while Russia insisted on including **British and French** forces.

4. Global Implications

- **Nuclear Transparency Loss:** The loss of on-site inspections means both sides must now rely on "National Technical Means" (satellites) to guess the other's capabilities, increasing the risk of miscalculation.
- **China's Rise:** China is rapidly expanding its arsenal (estimated at **600 warheads** in 2026). Without a US-Russia framework, there is no pressure on Beijing to join any arms control talks.
- **NPT Review (April 2026):** The expiration comes just before the **Non-Proliferation Treaty (NPT)** Review Conference in New York. Non-nuclear states are expected to heavily criticize the US and Russia for failing their disarmament obligations under Article VI of the NPT.

5. Global Nuclear Landscape (Early 2026)

According to the Federation of American Scientists (FAS):

- **Total Global Warheads:** Approximately **12,321**.
- **The "Big Two":** Russia (**5,459**) and the US (**5,177**) together hold **86%** of the world's nuclear inventory.
- **India's Status:** Ranked 6th globally with **180 warheads**, showing a 20% increase in its stockpile over the last five years.

6. Major International Nuclear Treaties

Treaty	Year	Purpose
NPT	1968	Prevents spread of nuclear weapons; promotes disarmament.
CTBT	1996	Bans all nuclear explosions/tests (Not yet in force).
TPNW	2017	First legally binding treaty to prohibit nuclear weapons entirely.
New START	2011	Limited US-Russia strategic warheads to 1,550 (Expired 2026).

Conclusion

The expiration of New START leaves the world in a "nuclear vacuum." While Russian President Putin proposed in late 2025 that both sides continue to observe the limits voluntarily for one more year, the lack of verification means trust is at an all-time low. As the **Doomsday Clock** remains closer to midnight than ever, the focus shifts to whether a trilateral deal involving China can ever be reached.

India–Malaysia Comprehensive Strategic Partnership: A New Era of Cooperation



Why in News?

In late **February 2026**, the Prime Minister of India paid a landmark official visit to Malaysia. The visit served to operationalize the **India–Malaysia Comprehensive Strategic Partnership (CSP)**, shifting the relationship from a trade-heavy focus to a broad-based strategic alliance. This visit is particularly significant as it comes ahead of **India's 2026 BRICS Chairmanship** and **Malaysia's 2025 ASEAN Chairmanship**.

1. Key Outcomes of the Prime Minister's Visit

Digital, Fintech & Technology:

- **Digital Council:** Launched the **Malaysia–India Digital Council (MIDC)** to collaborate on AI, Cybersecurity, and Digital Public Infrastructure (DPI).
- **Cross-Border Payments:** Formalized the **NIPL (UPI) – PayNet** partnership, enabling low-cost, real-time digital payments between the two nations.
- **Semiconductors:** Established a value-chain partnership focusing on R&D and supply-chain resilience, positioning both nations as global chip-making hubs.

Trade and Economy:

- **Local Currency Settlement:** Operationalized **INR–MYR (Rupee–Ringgit) trade settlement** through cooperation between the RBI and Bank Negara Malaysia to reduce dependency on the US Dollar.
- **Palm Oil Security:** Discussed long-term G2G contracts for palm oil to ensure price stability for India and market security for Malaysia.

Strategic & Global Alliances:

- **BRICS:** Malaysia officially welcomed India's **2026 BRICS Chairmanship**, while India supported Malaysia's status as a **BRICS Partner Country**.
- **Conservation:** Malaysia formally joined the India-led **International Big Cat Alliance (IBCA)**.
- **Defense:** Reaffirmed the co-chairmanship of the **ADMM-Plus Expert Working Group (2024-2027)**.

Cultural and People-to-People Ties:

- **Tamil Heritage:** Operationalized the **Thiruvalluvar Chair** at Universiti Malaya and launched Thiruvalluvar Scholarships.
- **Consular Access:** India announced a new **Consulate General** in Malaysia to better serve the 2.7 million-strong Indian diaspora.

2. Historical and Economic Context

- **Chola Legacy:** Bilateral ties date back to the **9th–13th centuries**, when the Chola Navy established maritime links with the Malay Peninsula, laying the foundation for deep cultural integration.
- **Trade Profile:** Malaysia is India's **3rd largest trading partner in ASEAN**, with bilateral trade reaching approximately **USD 20 billion** in 2024-25.
- **Defense Exercises:** Robust military cooperation continues through exercises like **Harimau Shakti** (Army), **Samudra Lakshmana** (Navy), and **Udara Shakti** (Air Force).

3. Major Challenges and Irritants

- **Trade Imbalance:** India faces a persistent trade deficit, largely due to high-value imports of palm oil, electronics, and crude oil.
- **Geopolitical "China Factor":** China remains Malaysia's largest trading partner and a massive investor in its infrastructure (via the **Belt and Road Initiative**).
- **Diplomatic Sensitivities:** Past friction over comments on Article 370 and the CAA remains a sensitive point, though the current leadership has adopted a more constructive and neutral approach.

4. Way Forward: Strategic Measures

- **Defense Exports:** India is actively pitching the **Tejas LCA** and **BrahMos missiles** to Malaysia as it looks to modernize its defense fleet.
- **Maritime Awareness:** Integrating Malaysia into India's **IFC-IOR (Information Fusion Centre)** grid is vital for monitoring the **Strait of Malacca**, through which 60% of India's trade passes.
- **AITIGA Review:** Accelerating the review of the **ASEAN-India Trade in Goods Agreement** by 2026-27 to create a more balanced trade environment for Indian manufacturers.

India–Greece Strategic Partnership: Bridging the Indo-Pacific and Mediterranean



Why in News?

On **9 February 2026**, the Defence Minister of India held high-level bilateral talks with his Greek counterpart in New Delhi. The meeting culminated in the signing of a **Joint Declaration of Intent (JDI)** to

strengthen defense industrial cooperation. This development marks a qualitative shift in India–Greece relations, transitioning from historical goodwill to a structured, time-bound strategic alliance.

1. Key Highlights of the Bilateral Talks

- **Joint Declaration of Intent (JDI):** A formal commitment to establish a **five-year roadmap** for defense industrial collaboration.
- **Military Cooperation Plan (MCP) 2026:** Both nations exchanged a detailed calendar for the year **2026**, covering joint exercises, personnel training, and high-level institutional interactions.
- **Aatmanirbhar Bharat & Agenda 2030:** The talks focused on aligning India's self-reliance goals with Greece's "**Agenda 2030**" defense reforms, aiming for joint R&D and co-production of military hardware.
- **Maritime Domain Awareness (MDA):** Greece announced the deployment of a **Greek International Liaison Officer** at the **Information Fusion Centre-Indian Ocean Region (IFC-IOR)** in Gurugram, becoming a key partner in monitoring the Indian Ocean.

2. Historical and Strategic Context

- **Ancient Maritime Nations:** Ties date back over 2,500 years, from the era of **Alexander and the Mauryas**. Today, this historical bond is being reimagined as a modern maritime security axis.
- **Strategic Partnership:** Elevated to a "**Strategic Partnership**" in August 2023, the relationship has seen rapid growth, including direct flights between New Delhi and Athens launched in **January 2026**.
- **Diplomatic Reciprocity:** Greece consistently supports India's stance on **Kashmir** and its bid for a permanent **UNSC seat**, while India supports a bi-zonal, bi-communal federation for the **Cyprus issue**.

3. Strategic Significance

- **Gateway to Europe:** Greece acts as the primary European entry point for the **India-Middle East-Europe Economic Corridor (IMEC)**. With direct flights and proposed direct shipping lines, Greek ports like **Piraeus** and **Thessaloniki** are vital for Indian trade.
- **The "Turkey-Pakistan" Counterweight:** Strengthening ties with Greece (Turkey's traditional rival) serves as a strategic response to the growing military nexus between Turkey and Pakistan.
- **Defense Exports:** Greece is emerging as a potential market for Indian defense platforms like the **BrahMos** cruise missiles, **Akash** air defense systems, and **Tejas** LCA components.

4. Challenges to Overcome

- **Economic Depth:** Bilateral trade remains at approximately **USD 2 billion**, far below its potential. The target is to **double this trade by 2030**.
- **The "China Factor":** The significant Chinese stake in the **Port of Piraeus** poses a logistical and security dilemma for India's long-term reliance on the port.
- **Connectivity Gaps:** While air connectivity has improved in 2026, the absence of direct shipping lines still necessitates expensive trans-shipments.

5. Future Roadmap: The "Mediterranean Quad"

- **Migration & Mobility:** The implementation of the **Migration and Mobility Partnership Agreement (MMPA)** in 2026 is expected to facilitate the legal flow of Indian skilled labor into Greece.
- **Blue-Raman Cable:** Plans are underway to link India's digital infrastructure to Europe via a submarine cable system terminating in Greece, bypassing the Suez chokepoint.
- **Minilateralism:** There is potential for an **India-Greece-Cyprus-Israel** (or France) grouping to secure the "Indo-Mediterranean" corridor.

US–Bangladesh "Cotton for Zero-Tariff" Deal: Implications for India



Why in News?

On **9 February 2026**, the United States and Bangladesh signed a landmark **Reciprocal Trade Agreement**. The pact, widely referred to as the "**Cotton for Zero-Tariff**" deal, introduces a mechanism where specified volumes of Bangladeshi apparel can enter the US market at **0% duty**, provided they are manufactured using **US-produced cotton** or man-made fibers (MMF).

This development has caused significant volatility in the Indian textile market, with stocks of major exporters falling by up to **6%**. Indian industry experts warn that the deal could neutralize the competitive advantage India recently secured under the **India–US Interim Trade Agreement (February 2026)**.

1. Key Highlights of the US–Bangladesh Trade Deal

- **General Tariff Reduction:** The general US reciprocal tariff on Bangladeshi goods has been reduced from **20% to 19%**.
- **Zero-Tariff Quota:** A specific volume of textile and apparel exports will receive **0% reciprocal tariff** access.
- **Rule of Origin Conditionality:** This zero-duty benefit is strictly linked to the use of **US raw materials** (Cotton and MMF).
- **Reciprocal Market Access:** In exchange, Bangladesh has committed to purchasing

\$3.5 billion in US agricultural products (including cotton, soy, and wheat) and **\$15 billion** in energy products over the next 15 years.

- **Non-Tariff Liberalization:** Bangladesh will now recognize **US FDA certifications** for pharmaceuticals and **US safety standards** for automobiles, easing entry for American companies.

2. Impact on India's Textile and Apparel Sector

- **Erosion of the "Tariff Edge":** Under the India–US framework signed on **6 February 2026**, India's tariffs were reduced to **18%**. While India's baseline rate remains 1% lower than Bangladesh's (19%), the **0% quota** for Bangladesh creates a massive **18% price disadvantage** for Indian exporters in those specific product lines.
- **Order Diversion:** Global retail giants (e.g., Walmart, Gap) often operate on razor-thin margins. The zero-duty window may incentivize them to shift high-volume orders from Indian hubs like **Tiruppur** and **Surat** to Bangladesh.
- **Loss of the "Cotton Market":** Bangladesh is the world's second-largest cotton importer and has traditionally been the **largest buyer of Indian raw cotton** (often accounting for 70% of India's exports).
- **Domestic Glut:** As Bangladesh shifts its sourcing to the US to avail of the tax benefit, Indian cotton farmers may face a surplus at home, leading to a **crash in domestic cotton prices**.

3. Strategic Measures to Safeguard India's Interests

- **Lobbying for "Cotton Parity":** The Indian government is already in talks to ensure that the final **India–US Bilateral Trade Agreement (BTA)** includes a similar "Cotton Clause." This would allow Indian garments made from US cotton to also enter the US at zero duty, creating a level playing field.
- **ESG Branding (The "Trust" Factor):** India should aggressively market its superior **Environmental, Social, and Governance (ESG)** record. Unlike Bangladesh, which faces

frequent scrutiny over labor rights and factory safety, India can position itself as a "Premium & Ethical" sourcing destination.

- **"Kasturi Cotton Bharat" Scaling:** By using **blockchain traceability** for the Kasturi brand, India can command a premium price for its high-quality, contamination-free cotton that offsets the 18% tariff gap.
- **MMF Value Chain Reform:** Since 70% of global trade is in **Man-Made Fibers (MMF)**, the **GST Council** must resolve the inverted duty structure on polyesters to make Indian synthetics competitive against the US-backed Bangladeshi MMF.
- **Pivot to Technical Textiles:** Shifting production toward high-value segments like **Meditech** (implants), **Mobiltech** (airbags), and **Protech** (fire-retardant gear) where technical specifications matter more to buyers than a 19% tariff.

Conclusion

While the US–Bangladesh deal is a significant headwind, the Indian Commerce Ministry has indicated that the "fine print" of the upcoming **India–US BTA (expected by March 2026)** will likely include reciprocal facilities for Indian exporters using US raw materials. For the long term, India's resilience will depend on moving up the value chain—from being a supplier of raw cotton to a global leader in high-tech and ethically-branded apparel.

The BNP's 2026 Landslide : A New Era in India-Bangladesh Relations



Why in News?

In **February 2026**, the **Bangladesh Nationalist Party (BNP)**, led by **Tarique Rahman**, secured a decisive landslide victory in the general elections. This concludes the transitional period that followed the August 2024 ouster of Sheikh Hasina's Awami League government. India's Prime Minister was among the first global leaders to congratulate Rahman, signaling New Delhi's pragmatic intent to engage with the new administration despite a historically complex relationship.

1. Historical Context: The BNP and India

- **Ideological Shift:** Founded by General Ziaur Rahman, the BNP moved Bangladesh away from its secular founding principles toward a more "Islamic identity," often leaning toward Pakistan and China to balance India's regional influence.
- **The 2001–2006 Friction:** This period is regarded as the nadir of bilateral ties. India frequently accused the BNP-Jamaat coalition of providing "safe havens" to Northeast insurgent groups like **ULFA** and the **NDFB**.
- **The "Golden Chapter" (2009–2024):** Under the Awami League, ties reached new heights with the **2015 Land Boundary Agreement**, a crackdown on anti-India insurgents, and bilateral trade hitting **\$13 billion**.
- **The 2024–2026 Transition:** After the student-led revolution in 2024, an "India Out" sentiment gained traction, fueled by perceptions that New Delhi had been an exclusive patron of the previous "authoritarian" regime.

2. Current Economic and Energy Interdependence

Despite political shifts, the two nations remain deeply linked:

- **Trade Dynamics:** In FY25, total trade stood at **\$13.51 billion**. India remains a critical supplier of fuels, petroleum, and cotton yarn, while Bangladesh is India's largest trading partner in the subcontinent.

- **Energy Security:** Bangladesh currently imports **1,160 MW** of electricity from India. Key projects include the **Maitree Super Thermal Power Plant** (1,320 MW) and the **India-Bangladesh Friendship Pipeline** for high-speed diesel.
- **Connectivity:** Major infrastructure like the **Akhaura–Agartala rail link**, the **Maitri Setu** (connecting Tripura to Ramgarh), and the use of Chittagong and Mongla ports for Indian cargo form the backbone of the "Act East" policy.

3. Emerging Challenges for 2026

- **The Extradition Dilemma:** The BNP government faces domestic pressure to seek the extradition of **Sheikh Hasina** from India to face trials for "crimes against humanity" related to the 2024 uprising.
- **Security & The "Chicken's Neck":** Indian security agencies are concerned that a lapse in vigilance by the new regime could allow Northeast insurgents to regroup or permit Pakistan's ISI to expand its footprint near the sensitive **Siliguri Corridor**.
- **Minority Safety:** Political transitions in Bangladesh have historically seen spikes in violence against **Hindu minorities**. Ensuring their safety is a primary "red line" for the Indian government.
- **The China Factor:** The BNP has traditionally favored a "Look East" policy. Beijing is expected to leverage this change to accelerate **Belt and Road Initiative (BRI)** projects, potentially seeking dual-use (military) access to Bangladeshi ports.

4. Strategic Roadmap: Resetting the Relationship

- **De-hyphenation:** India must broaden its engagement beyond the Awami League, building ties with BNP leadership, student unions, and civil society to shed its "pro-regime" image.
- **CEPA as a Carrot:** As Bangladesh graduates from **Least Developed Country (LDC)** status

in 2026, it will lose preferential Western trade access. India can offer an economic cushion via the **Comprehensive Economic Partnership Agreement (CEPA)**, contingent on security cooperation.

- **Soft Power & Visas:** Easing visa restrictions for the thousands of Bangladeshis who visit India for medical tourism and education can serve as a vital bridge to restore public goodwill.
- **Border Management:** Coordination between the Centre and border states (West Bengal, Assam, Tripura) is essential to manage infiltration and smuggling without politicizing the 4,096 km border.

Conclusion

The 2026 election result is a structural test for India's **Neighbourhood First** policy. While the political landscape has changed, the geography has not. A stable, neutral, and prosperous Bangladesh is non-negotiable for India's internal security and its ambitions in the Indo-Pacific. By establishing clear security boundaries while offering deep economic partnership, India can ensure that this new chapter remains stable.

The 2026 Strait of Hormuz Crisis: A Global Energy Chokepoint Under Pressure



Why in News?

In **February 2026**, Iran announced a rare and temporary closure of parts of the **Strait of Hormuz** to conduct large-scale live-fire naval drills codenamed "**Smart Control of the Strait of Hormuz.**" This

maneuver coincided with the second round of high-stakes indirect nuclear negotiations between Tehran and Washington in **Geneva**. However, following a massive escalation involving U.S. and Israeli military strikes on February 28, the situation transitioned from a "drill" to an **effective blockade**, with traffic in the strait dropping by nearly **70% to 100%** as of early March 2026.

1. Geographical and Strategic Location

- **The Chokepoint:** A narrow maritime passage (only 33 km wide at its narrowest point) located between **Iran** to the north and **Oman and the UAE** to the south.
- **The Only Gate:** It serves as the sole sea passage from the oil-rich **Persian Gulf** to the open ocean (Gulf of Oman and the Arabian Sea).
- **Smart Control:** The 2026 drills utilized **asymmetric warfare** tools, including autonomous drone swarms, precision-guided anti-ship missiles, and electronic warfare units, to demonstrate "total maritime monitoring."

2. Global Energy Security at Stake

- **The 20% Rule:** Approximately **20% of the world's daily oil and gas** supplies (nearly 21 million barrels per day) transit through this strait.
- **Asian Dependency:** Over **80%** of the oil flowing through Hormuz is destined for Asian markets, making China, India, Japan, and South Korea the most vulnerable to price shocks and supply disruptions.
- **LNG Impact:** Beyond crude, the strait is a vital artery for **Liquefied Natural Gas (LNG)**, particularly from Qatar, which is a primary supplier to global markets.

3. Massive Economic Stakes for India

- **Supply Exposure:** Nearly **50% of India's crude oil** and **60% of its natural gas (LNG)** imports pass directly through the Strait of Hormuz. For **LPG**, the dependency is even higher at over **85%**.

- **Strategic Buffer:** As of March 3, 2026, India holds approximately **100 million barrels** of crude oil in commercial and strategic reserves—enough to meet the country's requirements for about **40–45 days** in the event of a total halt.
- **The "Price" of War:** Analysts estimate that every **\$1 increase** in crude prices adds nearly **\$2 billion** to India's annual import bill, posing a significant risk of inflation and a widening trade deficit.

4. Geopolitical Context: 2025–2026 Timeline

- **Failed Diplomacy:** Three rounds of indirect talks in **Muscat and Geneva** (Feb 2026) failed to produce a nuclear breakthrough, leading to increased U.S. military deployment (including the *USS Gerald R. Ford*) in the region.
- **Operational Shift:** In late February 2026, "**Operation Epic Fury**" (U.S.-Israel strikes) targeted Iranian nuclear and military leadership, prompting Iran's Revolutionary Guard (IRGC) to issue VHF radio warnings to all vessels to cease passage.
- **Historical Precedent:** While Iran threatened closure during the **1980s Tanker War** and in 2012, the **2026 "Hormuz Halt"** marks the most significant actual disruption to shipping traffic in the 21st century.

Conclusion

The 2026 crisis in the Strait of Hormuz has transformed from a diplomatic lever into a global economic emergency. For India, the situation highlights a critical need to further diversify its energy basket away from the Persian Gulf. While short-term buffers exist, a prolonged "Hormuz Halt" would require a significant ramp-up in Russian and African imports and potentially the activation of emergency rationing protocols.

India's Foreign Policy in a Fragmented World: Navigating the "Third Pole"



Why in News?

In **February 2026**, during a landmark address in the **Rajya Sabha**, the Prime Minister of India formally acknowledged a fundamental shift in the global landscape. As the post-Cold War "rules-based order" erodes, India is reframing its national identity from a "balancing power" to an independent **"Third Pole."** This transition comes amidst the paralysis of universal institutions like the **UNSC** and **WTO**, necessitating a move toward assertive **multi-alignment** and **technological sovereignty**.

1. Key Facets of the Emerging World Order

- **Institutional Paralysis:** The **UNSC** remains deadlocked by vetoes (Ukraine, Gaza), while the **WTO Appellate Body** is non-functional, leading countries to use "National Security" as a pretext for trade wars.
- **Weaponisation of Interdependence:** Major powers now use control over **semiconductors**, **SWIFT** financial networks, and **energy supply chains** as tools of coercion without firing a single shot.
- **Minilateralism over Multilateralism:** Global governance is shifting toward agile, "small-group" forums like **QUAD**, **AUKUS**, and **I2U2**, which prioritize functional security and tech coordination over universal consensus.
- **Strategic Coercion:** Major economies are adopting "America First" or "China First" policies. For India, this is visible in the "concessions first" approach of the **India-US Interim Trade Agreement**.

2. Evolution of India's Foreign Policy

India's journey has moved through five distinct phases:

1. **Idealism & Non-Alignment (1947–1964):** Focused on decolonization and *Panchsheel*.
2. **Realism & Power Balancing (1964–1991):** Prioritized security (1971 Treaty, Pokhran-I).
3. **Economic Diplomacy (1991–2000):** Post-Cold War focus on *Look East* and LPG reforms.
4. **Multi-Alignment (2000–2014):** India emerged as a global stakeholder (India-US Nuclear Deal).
5. **Assertive Multi-Vector Diplomacy (2014–Present):** A "Vishwa Bandhu" (Friend of the World) approach.
 - **The Dual Balancing Act:** Buying **Russian S-400s** while participating in the **US-led Quad**.
 - **Voice of Global South:** Institutionalizing leadership by inducting the **African Union** into the G20.

3. Strategic Challenges in 2026

- **The China Challenge:** Beyond the **60,000 troops** at the LAC, China has weaponized supply chains (e.g., the **2025 rare earth magnet export halt**) and continues maritime encirclement through the BRI.
- **Neighborhood Volatility:** India's "Neighbourhood First" policy is tested by the **Pakistan-Bangladesh** dynamic and China's aggressive "investment-led diplomacy" in the Maldives and Myanmar.
- **Technology Gap:** While leading in **Digital Public Infrastructure (DPI)**, India remains a "malware detection" hotspot and relies on Western platforms for core AI development.

4. Roadmap: Reframing Policy for "Viksit Bharat 2047"

- **Purpose-Driven Autonomy:** Aligning every diplomatic move with the economic goals of **Viksit Bharat 2047**.
- **De-risking & Friend-shoring:** Prioritizing the **Supply Chain Resilience Initiative (SCRI)** and

the **Pax Silica Initiative** to build semiconductor value chains with trusted partners.

- **Exporting DPI:** Instead of matching China's "chequebook diplomacy," India should export its **Digital Public Infrastructure** (UPI, Aadhaar models) to Africa and SE Asia to build an ecosystem of trust.
- **Pragmatic Regionalism:** Treating relations with neighbors as a pragmatic trade issue—exploring water-sharing or the **Iran-Pakistan-India (IPI) pipeline** to stabilize the region.
- **Repositioning BRICS:** Shifting the bloc from a political body to an **economic cooperation community**, focusing on linking official **Central Bank Digital Currencies (CBDCs)** for cross-border trade.

Conclusion :

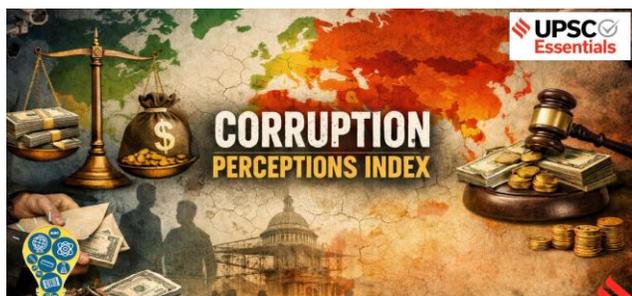
The era of "reactive realism" is over. For India, the current global fragmentation is an opportunity to emerge as a rule-maker rather than a rule-taker. By focusing on domestic industrial strength and leveraging its status as a "Cyber Superpower," India can safeguard its interests in a world where the "Rule of Power" often outweighs the "Rule of Law."



Crux of The Hindu & Indian Express

International Issues

Corruption Perception Index (CPI) 2025



Why in News?

- Transparency International released the **Corruption Perception Index (CPI) 2025**.

- It assessed **182 countries** on the basis of perceived public sector corruption.
- Score range:
 - **0 = Highly Corrupt**
 - **100 = Very Clean**
- The report shows a worrying global decline in corruption control.

What is Corruption Perception Index (CPI)?

- Released annually by **Transparency International (TI)**.
- Measures corruption in the **public sector**.
- Based on expert assessments and opinion surveys.
- It does not measure actual corruption cases. It measures **perception of corruption**.

Key Highlights of CPI 2025

1. Global Performance

- **Global average score: 42** (lowest in more than 10 years).
- **122 out of 182 countries scored below 50.**
→ This shows corruption is a serious global problem.
- Countries scoring above 80 reduced from **12 (10 years ago) to just 5 now**.

Top Performers (Very Clean Countries)

- Denmark (89) – 1st rank (8th time in a row)
- Finland
- Singapore
- New Zealand
- Norway

Worst Performers (Highly Corrupt)

- Somalia (9)
- South Sudan (9)
- Venezuela (10)

Most lowest-ranked countries are conflict-affected or authoritarian regimes.

2. India's 2025 CPI Performance

- India has risen to **91st place** out of **182 countries and territories**.
- It improved by **5 ranks** compared to the previous year (96th).
- **Score increased by 1 point**, from 38 in 2024 to **39 in 2025**.

- This shows a **modest improvement** in perceived public sector integrity.

Comparison with Neighbours

- Bhutan – 71 (Rank 18)
- China – 43 (Rank 76)
- Maldives – 39 (same as India)
- Sri Lanka – 35
- Nepal – 34
- Pakistan – 28
- Bangladesh – 24
- Afghanistan & Myanmar – 16

India performs better than many South Asian countries. But it still needs strong reforms.

3. Democracy vs Corruption

The report clearly shows:

- Full Democracies – Average score 71
- Flawed Democracies – 47
- Authoritarian regimes – 32

Conclusion: **Stronger democratic institutions = Less corruption**

Causes of Corruption (As per Report)

1. Weak Justice System

- Political interference in judicial appointments
- Lack of independence
- Poor funding
- Powerful people escape punishment

When justice system is weak, corruption increases.

2. Undue Political Influence

- Opaque political funding
- No regulation of lobbying
- Conflict of interest
- Influence of rich donors

This leads to **grand corruption** and **state capture** (when institutions serve elites, not people).

3. Shrinking Civic Space

- Restrictions on NGOs
- Censorship
- Violence against journalists

Since 2012, **829 journalists killed globally**, many were investigating corruption. When media and civil society are weak, corruption increases.

4. Weak Public Financial Management

- Poor monitoring of public spending
- Corruption in procurement
- Lack of audit and parliamentary scrutiny
- Patronage networks

Public money gets diverted.

Consequences of Corruption

1. Weak Rule of Law

- Victims do not get justice
- Poor and marginalised suffer more
- Creates cycle of injustice

2. Democratic Decline

- Elections become unfair
- Parliament becomes weak
- Public trust reduces
- Rise of authoritarian tendencies

3. Poor Public Services

- Weak healthcare
- Poor education
- Bad infrastructure
- Unofficial payments act like **regressive tax** (poor pay more burden)

This increases inequality and poverty.

4. Economic and Social Impact

- Reduces investment
- Causes economic instability
- Climate funds get misused
- Leads to protests and political instability

Example: Youth-led protests in Nepal and Madagascar in 2025.

About Transparency International (TI)

- Founded: 1993
- Headquarters: Berlin, Germany
- Nature: Global civil society organisation
- Mission: Fight corruption worldwide

Important Publications

- Corruption Perception Index (CPI)
- Global Corruption Barometer

TI defines corruption as:

“Abuse of entrusted power for private gain.”

Recommendations of CPI 2025

1. Strengthen Justice System

- Independent judiciary
- Transparent appointments
- Adequate funding
- Protection for victims

2. Regulate Political Finance

- Transparency in donations
- Cap on political funding
- Disclosure of lobbying
- Manage conflict of interest

3. Protect Civic Space

- Freedom of expression
- Safety of journalists
- Protection of whistleblowers
- Remove funding restrictions for NGOs

4. Strengthen Financial Oversight

- Strong parliamentary scrutiny
- Independent audits
- Transparent procurement
- Public participation in oversight

5. International Cooperation

- Stop cross-border money laundering
- Seize stolen asset
- Multilateral cooperation

Conclusion

CPI 2025 shows serious global concern. The global average fell to 42. Most countries face corruption challenges. Main reasons are weak institutions, shrinking civic space and political capture. To improve, countries must strengthen democracy, protect the media, ensure judicial independence and increase transparency. Strong institutions are the real solution to corruption.

India Chairs the Kimberley Process (KP) – 2026



What is the News?

- India has assumed the **Chair of the Kimberley Process (KP)** for the year **2026**.

- The KP is a global mechanism to regulate trade in **conflict diamonds**.
- India now has an opportunity to push for **reforms in global diamond governance**.

What is the Kimberley Process (KP)?

- The **Kimberley Process (KP)** is an international initiative to prevent trade in **conflict diamonds**.
- Conflict diamonds are rough diamonds used by **rebel or insurgent groups** to fund violence against governments.

Origin

- Initiated in **May 2000** by countries of **southern Africa**.
- In **2003**, the **Kimberley Process Certification Scheme (KPCS)** was created.

Present Structure

- 60 participants representing **86 countries**.
- Covers about **99.8% of global rough diamond production**.

What is the Kimberley Process Certification Scheme (KPCS)?

- It ensures that only **conflict-free rough diamonds** enter the global supply chain.
- Each shipment must carry a **KP certificate** issued by a participant country.
- Trade is allowed only between **certified member countries**.
- Countries must share **accurate statistical data** on diamond production and trade.

India's Position in the Global Diamond Trade

- India is **not a major producer** of rough diamonds.
- However, it imports around **40% of global rough diamond imports** (quantity and value).
- India is the world's leading **cutting and polishing hub**, mainly in:
 - **Surat**
 - **Mumbai**
- India exports polished diamonds to:
 - **China**
 - **Hong Kong**
 - **Israel**
 - **UAE**
 - **USA**

Because of this central role, India has strong influence in the **global diamond value chain**.

Major Diamond Producing Countries

More than **85% of global rough diamond production** comes from:

- **Angola**
- **Botswana**
- **Canada**
- **Congo**
- **Namibia**
- **Russia**

Key Issues in the Kimberley Process :

Narrow Definition of Conflict Diamonds

- Current definition only covers diamonds used by **rebel groups**.
- It does not include:
 - **State-linked violence**
 - **Human rights violations**
 - **Human trafficking**
 - **Environmental damage**
 - **Abuses in artisanal mining**
 - **Illicit trade networks**

This makes the definition limited and outdated.

Decision-Making Challenges

- KP decisions require **consensus**.
- Any country can effectively block a decision.
- This raises questions about whether KP can properly identify and act against conflict diamonds.

Example: Central African Republic (CAR)

- CAR was banned from exporting rough diamonds in **2013**.
- It rejoined in **2024**.
- The embargo led to:
 - Increased **smuggling**
 - Continued violence

This shows that bans without support may worsen problems instead of solving them.

What Can India Do as Chair?

Broaden the Definition Carefully

- Create a **technical working group** to study:
 - Violence
 - Human rights risks
 - Issues beyond rebel funding

- Build global consensus before changing the official definition.

Use Technology for Transparency

India can promote:

- **Digital, tamper-proof KP certificates**
- **Blockchain-based certification system**

Benefits:

- Reduce fraud
- Improve transparency
- Modernise customs and tracking systems

Each shipment could have a **unique, time-stamped digital record**.

Support Producer Countries :

- Establish **regional KP technical hubs** in central and eastern Africa.
- Provide:
 - Training
 - IT support
 - Certification assistance
 - Forensic capacity

This approach makes reforms **collaborative rather than punitive**.

Institutional Reforms :

- Introduce **independent or third-party audits**.
- Ensure full public release of detailed **KP statistics**.
- Strengthen role of **civil society organisations**.

Since KP has a **tripartite structure** (governments + industry + civil society), all three must remain actively involved.

Focus on Africa :

- Diamonds provide **livelihoods** to many African communities.
- India can link KP goals with **Sustainable Development Goals (SDGs)** such as:
 - **Decent Work**
 - **Poverty Reduction**
 - **Responsible Consumption**
- Encourage diamond revenues to support:
 - Health
 - Education
 - Local infrastructure

5. Legal Challenges

Tariffs were challenged by:

- **Small Importing Businesses**
- **12 U.S. States**
- Other affected groups

Court clearly stated: **Emergency powers cannot substitute legislative trade authority.**

6. New Development: 15% Global Tariff Surcharge

- After the IEEPA setback, the administration invoked **Section 122 – Trade Act, 1974.**

Key Features of Section 122:

- Allows **temporary surcharge up to 15%**
- Valid for **150 days**
- Used to address **Balance of Payments issues**

Trump imposed a **15% ad valorem surcharge** on global imports (earlier 10%). It applies to **all countries including India.**

7. Comparison of Tariff Rates

- Under **IEEPA**: Around **22%**
- After Court Verdict (without surcharge): Around **8%**
- New Surcharge: **15%**

India benefits compared to earlier high tariffs. But India loses opportunity for **much lower 8% tariff.**

8. Goods Exempted from 15% Surcharge

Exempted sectors:

- **Strategic and Technology Goods**
- **Critical Minerals and Metals**
- **Energy Products**
- **Aerospace Products**
- **Electronics**
- **Pharmaceuticals**
- **Vehicles and Auto Components**
- **Certain Agricultural Products**

This shows U.S. **Supply Chain Dependence.**

9. Impact on India

Positive

- Tariff reduced from **18–22% to 15%.**

- Relief in sectors like:
 - **Aircraft Parts**
 - **Auto Components**

Negative

- Expected tariff reduction to **8% did not happen.**
- Pressure on:
 - **Engineering Goods**
 - **Textiles**
 - **Chemicals**

India's **Commerce Ministry** is assessing impact.

10. Impact on India–U.S. Trade Deal

- India and the U.S. are negotiating an **Interim Trade Agreement.**
- New tariff situation changes dynamics:
- U.S. signalled India will **continue paying tariffs.**
- U.S. may demand **greater market access.**
- Tariffs used as **negotiation leverage.**

Key issues:

- **Market Access**
- **Rules of Origin**
- **Supply Chain Diversification**

11. Other Tariff Tools Available

Section 301 – Trade Act, 1974

- Used against **Unfair Trade Practices**
- Investigation-based
- Earlier used against India (Digital Services Tax, 2020)

Section 232 – Trade Expansion Act, 1962

- Tariffs on **National Security Grounds**
- Sector-specific (Steel, Aluminium, Automobiles)

India still faces **Section 232 tariffs** on:

- **Steel**
- **Aluminium**
- **Automobiles**
- **Copper Products**

12. Broader Global Impact

For the U.S.

- Strengthens **Judicial Review**
- Limits **Executive Overreach**
- Reinforces **Congressional Authority**

For Global Trade

- Rising **Protectionism**
- Increased **Trade Uncertainty**
- Pressure on **WTO System**
- Risk of **Fragmentation of Global Trade**

Countries affected include **China, Brazil, Indonesia, Vietnam.**

13. Key Challenges

- Frequent policy changes cause **Unpredictability.**
- Temporary tariffs affect **Long-Term Contracts.**
- Rise of **Economic Nationalism.**
- Tension between **Executive and Judiciary.**
- Instability in **Global Supply Chains.**

14. Way Forward

For India

- Speed up **India–U.S. Trade Agreement.**
- Diversify exports (EU, ASEAN, Africa).
- Strengthen **Domestic Manufacturing.**
- Follow **WTO-Consistent Trade Diplomacy.**

For Global Trade

- Promote **Rule-Based Trade System.**
- Reduce **Unilateral Tariff Actions.**
- Strengthen **WTO Reforms.**

Conclusion

The Supreme Court ruling is a major **Constitutional Correction** in the U.S. It clearly states that **Emergency Powers cannot be used for broad economic policy.** However, the new **15% Global Surcharge** shows that tariff tools are still being used under alternative legal provisions. The episode highlights growing **Protectionism, Strategic Trade Weaponisation and Geopolitical Competition** in global trade.

Poland's Exit from Ottawa Convention



1. What Happened?

- **Poland** has decided to withdraw from the **Ottawa Convention (Mine Ban Treaty).**
- Prime Minister **Donald Tusk** announced that Poland wants the ability to quickly deploy **Anti-Personnel Landmines (APLs)** along its **eastern border** if required.
- This decision is linked to rising security concerns from:
 - **Belarus**
 - The Russian enclave of **Kaliningrad**
- The withdrawal process takes **six months** and will be completed by **February 2026.**

2. Why is Poland Taking This Step?

- Poland says the move is necessary for **National Security.**
- It is part of a broader defence initiative called the **“East Shield” Project.**

Aim of East Shield:

- Strengthen **Border Defence**
- Protect **Territorial Integrity**
- Prepare for potential **Military Threats**

Poland believes that the **security situation in Eastern Europe** has worsened due to tensions with **Russia and Belarus.**

3. What Changes After Withdrawal?

After leaving the treaty, Poland can:

- **Produce Anti-Personnel Landmines**
- **Stockpile** them
- **Deploy** them along borders if required

Poland has announced plans to **restart production** of landmines, which had stopped after the **Cold War**. It may also expand **defence cooperation with Ukraine**.

4. What is the Ottawa Convention?

The **Ottawa Convention**, also called the **Mine Ban Treaty**, is an international agreement that:

- Prohibits the **use of Anti-Personnel Landmines**
- Bans their **production and transfer**
- Requires destruction of **stockpiled mines**

It came into force on **March 1, 1999**.

The treaty is of **unlimited duration** and open to all countries.

5. Main Rules of the Treaty

Member countries must:

- Never **use** anti-personnel landmines
- Never **produce, stockpile, or transfer** them
- Destroy stockpiled mines within **4 years**
- Clear mined areas within **10 years**
- Provide **assistance to mine victims**
- Conduct **mine risk education**
- Submit **annual reports**

Countries may request an extension of up to **10 years** if needed.

6. Members of the Treaty

- **164 countries** are States Parties.
- **34 out of 50 former mine-producing countries** have joined.

However, major countries outside the treaty include:

- **China**
- **India**
- **Pakistan**
- **Republic of Korea**
- **Russia**
- **United States**

7. Why Are Landmines Controversial?

Anti-Personnel Landmines:

- Remain active for many years
- Harm **civilians even after conflicts end**

- Create long-term **humanitarian crises**
- Because of these reasons, many countries supported the treaty.
- However, some nations argue that landmines are important for **defence in high-risk border areas**.

8. Implications of Poland's Decision

For Europe

- Reflects rising **security tensions in Eastern Europe**
- Shows fear of possible conflict with **Russia or Belarus**

For International Law

- Weakens the global effort to ban **landmines**
- May encourage other countries to reconsider treaty commitments

For Regional Security

- Could increase **military tension**
- May lead to stronger defence measures along **NATO's eastern border**

Conclusion

- Poland's withdrawal from the **Ottawa Convention** is a major strategic decision driven by **national security concerns**.
- While the treaty focuses on **humanitarian protection**, Poland prioritises **border defence and military preparedness**.

Duterte's ICC Hearing: A Landmark Step for International Justice



Why in News?

In **February 2026**, the **International Criminal Court (ICC)** concluded a high-profile confirmation of

charges hearing for former Philippine President **Rodrigo Duterte**. This follows his dramatic **arrest in March 2025** at Manila's Ninoy Aquino International Airport. The pre-trial hearing, held at **The Hague**, marks the first time an Asian former head of state has faced the ICC's judicial process. The judges will decide by **April 2026** whether the evidence is sufficient to proceed to a full trial for **crimes against humanity**.

1. The Case: The "War on Drugs" and residual Jurisdiction

- **The Charges:** Duterte faces three counts of **crimes against humanity (murder)** linked to extrajudicial killings by the "Davao Death Squad" (2011–2016) and his nationwide "war on drugs" as President (2016–2019).
- **The "Withdrawal" Issue:** Duterte unilaterally withdrew the Philippines from the **Rome Statute** in **March 2018** (effective March 2019). However, the ICC maintains **residual jurisdiction** over all crimes committed while the country was still a member (**November 1, 2011, to March 16, 2019**).
- **Fit for Trial:** After a delay in late 2025 due to health concerns, the court found the 80-year-old former leader **mentally and physically fit** to stand trial in **January 2026**.

2. International Criminal Court (ICC): A "Court of Last Resort"

- **Principle of Complementarity:** The ICC only intervenes when national courts are **unwilling or unable** to prosecute. While the Philippines argued its domestic system was functional, the ICC determined that no "genuine" investigation into the top-level leadership of the drug war had occurred.
- **Jurisdiction:** Prosecutes **individuals**, not states. Its mandate covers four core crimes: **Genocide, Crimes against Humanity, War Crimes, and the Crime of Aggression**.
- **Global Membership:** As of **February 2026**, there are **125 member states**. Notable non-parties include **India, USA, China, and Russia**.

- **Enforcement:** The ICC has **no police force**. Duterte's 2025 arrest was made possible through the cooperation of the **Philippine National Police** and **Interpol**, highlighting the shift in domestic political dynamics under the current administration.

3. ICC vs. ICJ: Key Differences

Aspect	International Criminal Court (ICC)	International Court of Justice (ICJ)
Established	2002 (Rome Statute)	1945 (UN Charter)
Subject	Individuals (e.g., Rodrigo Duterte)	Member States (e.g., South Africa v. Israel)
UN Relationship	Independent, treaty-based body	Principal Judicial Organ of the UN
Purpose	Criminal prosecution & punishment	Resolving legal disputes & advisory opinions
Headquarters	The Hague, Netherlands	The Hague, Netherlands

4. India's Stand on the ICC

India remains one of the major powers that has **not signed** the Rome Statute.

- **Sovereignty Concerns:** India argues that the ICC's jurisdiction over non-member states (via UNSC referral) infringes on **national sovereignty**.
- **Selective Justice:** New Delhi has often echoed the criticism that the ICC focuses disproportionately on leaders from the **Global South**, though the Duterte case is seen by many as a step toward addressing this perceived bias.

Conclusion

The conclusion of the confirmation hearing against Rodrigo Duterte marks a "stress test" for the ICC's legitimacy in Asia. For the victims' families, it

represents a long-awaited path to accountability. For the international community, it reinforces the principle that **withdrawal from a treaty** does not grant immunity for past actions. The world now waits for the judges' decision to see if the first-ever trial of a Southeast Asian leader at The Hague will commence.

India–Israel Relations : A Special Strategic Partnership for the Future



Why in News?

In **late February 2026**, the Indian Prime Minister concluded a historic state visit to Israel, where bilateral ties were elevated to a **“Special Strategic Partnership for Peace, Innovation & Prosperity.”** This elevation represents the highest tier of diplomatic engagement between the two nations. Concurrently, the first round of **India-Israel Free Trade Agreement (FTA)** negotiations successfully concluded in New Delhi (February 23–26), aiming to conclude a comprehensive pact by late 2026.

1. Key Outcomes of the State Visit (February 2026)

Technology & Artificial Intelligence

- **Joint Center of Excellence for Cyber Defense:** A Letter of Intent (LoI) was signed between India's **NCIIPC** and Israel's **INCD** to establish a CoE focused on research, joint R&D, and bolstering digital resilience against emerging threats.
- **AI & Critical Technologies:** Both nations signed an MoU on **Ethical AI** and launched an initiative on **Critical and Emerging Technologies (iCET)**, led by the National Security Advisors of both countries.

- **Geophysical Exploration:** An MoU was signed to utilize Israeli AI and geophysical tech for sustainable mineral exploration in India.

Economic & Digital Integration

- **UPI Integration:** In a major fintech boost, an MoU was signed to link India's **Unified Payments Interface (UPI)** with Israel's payment ecosystem, enabling seamless cross-border remittances and merchant payments.
- **Labour Mobility:** Three separate **Implementation Protocols** were signed to facilitate regulated employment for Indian workers in Israel's construction, manufacturing, and hospitality sectors.

Agriculture & Sustainability

- **IINCA (Innovation Centre for Agriculture):** A joint center established at **ICAR** to advance precision farming and satellite-based irrigation.
- **"Villages of Excellence":** India announced the expansion of this program to integrate high-tech Israeli agri-solutions across more Indian rural clusters.

2. Evolution of the Relationship

- **From Recognition to Realism:** India recognized Israel in **1950** but only established full diplomatic ties in **1992**.
- **De-hyphenation (2017–Present):** Since the PM's 2017 visit, India has independently pursued ties with Israel without letting it be filtered through the lens of the Israel–Palestine conflict.
- **Strategic Shift (2026):** The relationship has moved beyond a "buyer-seller" defense dynamic to a co-development model, deeply embedded in minilateral groups like **I2U2** (India, Israel, USA, UAE) and the **IMEC** corridor.

3. Strategic and Defense Synergy

- **Defense Co-production:** Transitioning to joint R&D, notably with the **Barak-8** missile system. India remains the largest importer of Israeli defense tech, including **Heron drones** and **Phalcon AWACS**.
- **Water Security:** Israeli expertise in desalination and wastewater recycling is currently being deployed across water-scarce regions in **Gujarat and Rajasthan**.

4. Challenges to the Partnership

- **The Iran-Israel Conflict:** India faces a delicate balancing act, maintaining a strategic presence in Iran's **Chabahar Port** while Israel views Iran as its primary existential threat.
- **Regional Instability:** Ongoing conflicts in West Asia threaten the viability of the **IMEC** (India-Middle East-Europe Economic Corridor), which relies on stable transit through Israeli ports like **Haifa**.
- **IPR Issues:** Israel's high-tech economy remains cautious regarding India's **Intellectual Property Rights** regime, which can sometimes bottleneck the transfer of deep technical "source codes."

Conclusion

The 2026 summit signifies a "maturation" of ties where defense is no longer the sole pillar. By integrating India's massive talent pool and digital infrastructure (DPI) with Israel's "Startup Nation" innovation, the two countries are positioning themselves as a central axis of the emerging global technology order.



Indian Polity & Governance

Salman Khan Personality Rights Case: AI and Legal Challenges



Salman Khan Moves Delhi High Court Seeking Protection Of Personality Rights

Why in News?

- The **Delhi High Court** recently issued notices to actor Salman Khan regarding a plea filed by a foreign (China-based) Artificial Intelligence (AI) voice-generation platform.
- The platform is seeking to lift an interim injunction that currently prevents the unauthorized use of the actor's name, image, and voice.
- This case is significant as it is the first instance in India where an AI company has legally challenged a celebrity's personality rights protection, arguing that such restrictions hinder technological innovation and business.

1. Understanding Personality Rights

- **Definition:** These rights protect a person's public identity—including their name, voice, photograph, signature, and even specific mannerisms.
- **Purpose:** They allow individuals (especially celebrities) to control how their identity is used for commercial profit, preventing others from making money off their fame without permission.

- **Two Main Aspects:**
 - **Right of Publicity:** The right to commercially exploit one's own image (similar to a trademark).
 - **Right to Privacy:** The right to prevent the public from seeing or using one's persona without consent.

2. Constitutional and Legal Basis in India

There is no single "Personality Rights Act" in India, but they are protected through various laws:

- **Article 21:** The Supreme Court (in the **Puttaswamy case, 2017**) recognized the right to privacy as a fundamental right. Personality rights are seen as an extension of this.
- **Copyright Act, 1957:** Protects "performers' rights" and grants moral rights to prevent the distortion or misuse of an artist's work.
- **Trademarks Act, 1999:** Section 14 prevents anyone from registering a trademark that falsely suggests a connection with a living person without their consent.
- **IT Act, 2000:** Section 66C deals with identity theft, which can include the misuse of a person's digital identity or electronic signature.

3. Notable Legal Precedents

- **Aishwarya Rai Bachchan Case (2025):** The Delhi High Court passed a landmark order protecting her identity. It specifically restrained the use of AI, deepfakes, and chatbots from using her likeness to mislead the public or create offensive content.
- **Anil Kapoor & Amitabh Bachchan Cases:** These actors previously secured similar "John Doe" orders (orders against unknown defendants) to protect their unique voices and famous dialogues from commercial misuse.

4. The Balancing Act

- **Freedom vs. Protection:** Courts must balance a celebrity's rights with the public's **Freedom of Expression** (Article 19). For example, news

reporting, satire, or parody are generally protected, provided they don't mislead the public into thinking the celebrity is endorsing a product.

- **Foreign Entities:** It is important to note that foreign companies cannot claim the "Freedom of Trade" (Article 19) in Indian courts, as that right is primarily available to Indian citizens.

Menstrual Health Recognized as a Fundamental Right

Top court's directions HT

<ul style="list-style-type: none"> ● Centre to frame national policy on menstrual hygiene management ● Policy must ensure free or subsidised menstrual absorbents for girl students ● States to ensure separate, functional toilets for girls in schools ● Conduct regular sensitisation programmes on menstrual health in schools ● Curriculum should include 	<ul style="list-style-type: none"> ● age-appropriate menstrual health education ● Govts must ensure dignity, privacy and bodily autonomy of menstruating persons in all educational institutions ● Special attention to marginalised and economically weaker sections ● Periodic monitoring and compliance mechanisms must be put in place ● Centre, states to implement the directions within 3 months
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Why in News?

In the landmark case of **Dr. Jaya Thakur v. Government of India & Ors. (2026)**, the Supreme Court of India officially recognized **Menstrual Health and Hygiene (MHH)** as a fundamental right under **Article 21 (Right to Life and Dignity)**. The court issued a **continuing mandamus** to monitor the progress of the Centre and States in providing free sanitary products and functional toilets in schools.

1. Constitutional Basis of the Ruling

- **Article 21 (Dignity and Autonomy):** The Court ruled that lack of MHH facilities leads to stigma and humiliation. Access to hygiene is now viewed as essential for **bodily autonomy** and reproductive health, moving it from a "welfare" issue to a "binding right."

- **Article 14 (Substantive Equality):** The judgment states that ignoring unique biological needs like menstruation leads to "structural exclusion." True equality requires the State to neutralize biological disadvantages so girls can compete equally with boys.
- **Right to Education (RTE):** Under the RTE Act 2009, "free education" now includes removing financial barriers like the cost of sanitary pads. Separate, functional toilets are now a **substantive right**, not just a building guideline.

2. Mandatory Directions Issued by the Court

- **Free Products:** All schools (government and private) must provide **free oxo-biodegradable sanitary napkins** through vending machines.
- **MHM Corners:** Schools must create dedicated spaces stocked with spare uniforms, innerwear, and disposal bags for emergencies.
- **Infrastructure:** Every school must have functional, gender-segregated toilets with constant water supply and soap.
- **Waste Management:** Disposal must follow the **Solid Waste Management Rules 2026** to ensure environmental safety.
- **Male Sensitization:** NCERT and SCERTs must include menstruation in the curriculum to educate boys and male teachers, reducing harassment and stigma.
- **Accountability:** District Education Officers (DEO) must conduct inspections and collect **anonymous feedback** from students to verify the quality of facilities.

3. Significance of "Biological Citizenship"

- **Biological Tax:** The ruling holds the State responsible for the "tax" women pay due to their biology. If a natural process hinders a woman, the State must intervene.

- **Positive Liberty:** This shift ensures the State doesn't just "allow" girls to attend school but actively provides the tools (pads/toilets) that make attendance possible.
- **Ending "Menstrual Poverty":** By addressing the fact that 23% of girls drop out after reaching puberty, the Court has linked hygiene directly to educational survival.

4. Existing Government Initiatives

- **PMBJP (Suvidha Napkins):** Over 16,000 Janaushadhi Kendras sell biodegradable pads at just **1 rupee per pad**.
- **ASHA Network:** Distributes subsidized packs and conducts community meetings to break social taboos.
- **Samagra Shiksha:** Provides funding for vending machines and incinerators in schools across India.
- **Mission Shakti:** Incorporates menstrual health into the broader "Beti Bachao Beti Padhao" framework.

5. Key Implementation Challenges

- **Infrastructure Deficit:** While toilets exist on paper, many lack running water, soap, or regular maintenance.
- **Waste Disposal:** Many schools lack the technical capacity to operate incinerators safely.
- **Logistics:** Scaling the supply of high-quality biodegradable pads to remote rural areas remains a challenge for state budgets.
- **Social Stigma:** Despite policies, menstruation is often still treated as "impure," leading to continued exclusion and embarrassment for students.

6. Way Forward

- **Jal Jeevan Mission:** Connect all school toilets to a 24/7 water supply.
- **SHG Involvement:** Use Self-Help Groups for the local production of eco-friendly napkins to boost rural employment and supply.
- **Privacy-First Design:** Install privacy screens, mirrors, and internal latches in school toilets.
- **DBT Option:** Explore "Pad Credits" or direct cash transfers for families in areas where the physical supply chain is broken.

Legal Protection for Domestic Workers: SC on Code on Wages 2019



Why in News?

The **Supreme Court of India** has urged state governments to develop "suitable mechanisms" to bring **domestic workers** under the umbrella of legal protection. The Court emphasized that states should take a "final call" on providing these workers with the benefits of the **Minimum Wages Act, 1948** and the **Code on Wages, 2019**.

1. What is the Code on Wages, 2019?

The Code on Wages is a major labour reform that simplifies India's complex web of labour laws into a single framework. It aims to ensure fair pay, social justice, and ease of doing business.

- **Simplification:** It reduces the number of rules from 163 to 58 and slashes the number of required forms and registers by nearly 75%.
- **"Single" System:** It introduces a system of **Single Registration, Single License, and Single Return** for employers.
- **Subsumed Laws:** It combines four major acts:
 1. Payment of Wages Act, 1936
 2. Minimum Wages Act, 1948
 3. Payment of Bonus Act, 1965
 4. Equal Remuneration Act, 1976

2. Key Pro-Worker Provisions

- **Universal Minimum Wage:** Every employee in both the **organized and unorganized sectors** now has a statutory right to minimum wages. This expands legal coverage from roughly 30% of workers to **100%**.

- **National Floor Wage:** The Central Government will set a baseline "floor wage." States are legally barred from setting their minimum wages lower than this national baseline.
- **Timely Payments:** Wages must be paid within strict timelines (e.g., monthly wages within 7 days of the following month). If an employee is terminated, they must receive their dues within 2 working days.
- **Working Hours & Overtime:** Standard work is limited to **48 hours a week**. Any overtime must be paid at **double the normal wage rate**.
- **Wage Slips:** Every worker, even in the unorganized sector, must be issued a formal wage slip as proof of payment.

3. Gender Inclusivity and Social Justice

- **Zero Discrimination:** The Code strictly prohibits discrimination based on gender (explicitly including **transgender** persons) in recruitment, wages, or working conditions for similar work.
- **Women in Decision Making:** It mandates that **one-third** of the members of the Central and State Advisory Boards must be women. These boards influence minimum wage fixing and female employment opportunities.

4. Reforms for Employers and Compliance

- **Inspector-cum-Facilitator:** Moves away from the old "Inspector Raj." The new system uses **web-based random inspections** and focuses on helping employers comply with the law rather than just punishing them.
- **Decriminalization:** For first-time offenses that carry only a fine, the law removes the threat of jail time. Employers can settle such cases by paying 50% of the maximum fine (compounding of offenses).
- **Asset Protection:** Safeguards an employer's government deposits from being attached by courts, except when the money is needed to pay employee dues.

5. Origin and Context

- **Recommendations:** Based on the **2nd National Commission on Labour (2002)**.
- **The Four Pillars:** The Code on Wages is one of four new codes designed to modernize Indian labour. The others are:
 - Industrial Relations Code, 2020
 - Code on Social Security, 2020
 - Occupational Safety, Health and Working Conditions Code, 2020

Manipur Constitutional Crisis: Article 174 and Governor's Discretion



Why in News?

The Manipur Congress president has moved the **Manipur High Court** challenging the actions of the Governor leading up to the imposition of **President's Rule** in February 2025. The petitioner alleges that the Governor acted unconstitutionally by cancelling an Assembly session, thereby bypassing mandatory constitutional timelines, and is seeking the dissolution of the current Legislative Assembly.

1. The Six-Month Rule: Article 174(1)

- **The Mandate:** Article 174(1) of the Constitution states that the Governor must summon the House such that **six months shall not intervene** between its last sitting in one session and the date appointed for its first sitting in the next session.
- **The Timeline:** The Manipur Assembly (60 members) last met on **12 August 2024**. According to the six-month rule, the next session had to be convened by **11 February 2025**.

- **The Conflict:** On 9 February 2025, after the Chief Minister resigned, the Governor declared the summoning order "null and void," effectively preventing the House from meeting before the deadline.

2. Core Constitutional Debate

- **Violation of Article 174:** The petitioner argues that by cancelling the session, the Governor caused a direct violation of the mandatory six-month interval.
- **Denial of Floor Test:** It is alleged that the cancellation prevented a "floor test," which is the constitutionally recognized method to determine if a government holds a majority.
- **Misuse of Discretion:** The legal challenge suggests these actions were designed to facilitate the imposition of President's Rule, rather than exploring the possibility of forming an alternative government.
- **Constitutional Tenability:** The petitioner claims that once the six-month deadline passed without a session, the current Assembly became "constitutionally untenable" and must be dissolved.

3. Judicial Observation

The Manipur High Court noted that the case involves a **substantial question of law** regarding the interpretation of Article 174. Given the significance of the issue, the matter has been referred to a **Division Bench** for further hearing.

4. Understanding Article 174

- **Summoning:** The Governor has the power to summon the House to meet at such time and place as they think fit.
- **Prorogation:** The Governor can end a session of the House (prorogue).
- **Dissolution:** The Governor has the power to dissolve the Legislative Assembly.
- **The Frequency Requirement:** The primary duty under this Article is to ensure the legislature meets at least once every six months to maintain democratic accountability.

Appointment of Ad Hoc Judges in Allahabad High Court: Invoking Article 224A



Why in News?

In a major step to reduce judicial pendency, the **Supreme Court Collegium** (on **3 February 2026**) approved the appointment of five retired judges as **ad hoc judges** in the **Allahabad High Court**. This decision follows a resolution by the Collegium, headed by Chief Justice of India **Surya Kant**, to address the staggering backlog of nearly **11.55 lakh cases** in a court currently operating with a significant vacancy of judges.

1. Appointment under Article 224A

Article 224A of the Constitution allows for the temporary appointment of retired High Court judges to help clear arrears.

- **The Process:** The Chief Justice of a High Court, with the **prior consent of the President**, can request a retired judge of that court or any other High Court to sit and act as a judge.
- **The Consent Rule:** No retired judge can be forced to serve; their **personal consent** is mandatory.
- **Status:** While serving, these judges have all the **jurisdiction, powers, and privileges** of a High Court judge. However, they are not considered "permanent judges" of that court.

- **Allowances:** They receive allowances determined by the President, which are usually equivalent to the salary of a permanent judge (minus the pension).

2. The Appointed Judges (2026)

The five retired judges approved for a **two-year tenure** in the Allahabad High Court are:

1. **Justice Mohd. Faiz Alam Khan**
2. **Justice Mohd. Aslam**
3. **Justice Syed Aftab Husain Rizvi**
4. **Justice Renu Agarwal**
5. **Justice Jyotsna Sharma**

3. Judicial Guidelines (Lok Prahari Case & 2025 Relaxations)

In the **Lok Prahari v. Union of India (2021)** case, the Supreme Court set "trigger points" for using this dormant provision. These were further relaxed in **January 2025** to speed up appointments:

- **Current Rules:** High Courts can now recommend ad hoc judges even if their vacancies are **not** more than 20% of the sanctioned strength.
- **Case Type:** Ad hoc judges are primarily tasked with hearing **long-pending criminal appeals**.
- **Composition:** They must sit in a bench headed by a **sitting judge** of the High Court.
- **Cap:** The number of ad hoc judges cannot exceed **10% of the sanctioned strength** (typically 2 to 5 judges per court).

4. Historical Context: A Rare Provision

Article 224A has been invoked very few times in Indian history. Before this 2026 decision, notable instances included:

- **1972:** Justice Suraj Bhan (Madhya Pradesh High Court).
- **1982:** Justice P. Venugopal (Madras High Court).
- **2007:** Justice O.P. Srivastava (Allahabad High Court) to hear the Ayodhya land dispute.

5. Ad Hoc vs. Retired Judges in the Supreme Court

The Constitution provides similar mechanisms for the Supreme Court under different articles:

- **Article 127 (Ad hoc Judges):** If the Supreme Court lacks a quorum, the **CJI** (with President's consent) can request a **sitting High Court judge** (qualified for SC) to act as an ad hoc SC judge.
- **Article 128 (Retired Judges):** The CJI can request a **retired SC judge** or a qualified retired HC judge to sit and act as a judge of the Supreme Court with the President's prior consent.

Summary of Key Articles

Article	Court	Type of Judge Appointed	Authority
Article 127	Supreme Court	Sitting High Court Judge	CJI (with President's Consent)
Article 128	Supreme Court	Retired SC or HC Judge	CJI (with President's Consent)
Article 224A	High Court	Retired HC Judge	HC Chief Justice (with President's Consent)

Telangana Defection Case: SC Mandates Three-Week Deadline



Why in News?

The **Supreme Court of India** has issued a final **three-week deadline** to the Telangana Assembly Speaker to decide on pending disqualification petitions against

several MLAs. The Court warned that any further delay would be treated as a "willful defiance" of its orders, potentially inviting **contempt proceedings**. This follows a series of petitions filed in 2024–25 regarding Bharat Rashtra Samithi (BRS) MLAs who defected to the ruling Congress party.

1. What is the Anti-Defection Law?

Introduced via the **52nd Amendment Act, 1985**, the law added the **Tenth Schedule** to the Constitution to curb "political horse-trading" and the toppling of governments.

● Grounds for Disqualification:

- **Voluntary Exit:** Giving up party membership (can be inferred from behavior, like joining another party's rally).
- **Defying the Whip:** Voting or abstaining against party instructions without prior permission.
- **Independent/Nominated Members:** If an independent joins a party, or if a nominated member joins a party after 6 months of taking their seat.
- **The 91st Amendment (2003):** This removed the "split" exception (where 1/3rd of a party could defect). Now, only a "**merger**" is recognized, requiring **two-thirds** of the legislators to agree to join another party.

2. The Role of the Presiding Officer (Speaker)

The Speaker acts as the sole adjudicator in defection cases.

- **The "Pocket Veto" Problem:** The law specifies no time limit for the Speaker to decide. This often leads to Speakers favoring the ruling party by sitting on petitions for years, effectively allowing defectors to continue as members.
- **Judicial Review:** In the **Kihoto Hollohan (1992)** case, the SC ruled that while the Speaker's decision is final, it is subject to judicial review on grounds of bias or procedural irregularity.

3. Landmark Supreme Court Rulings

- **Keisham Meghachandra Singh Case (2020):** The SC ruled that a Speaker should ideally decide disqualification petitions within **3 months**.
- **Padi Kaushik Reddy v. State of Telangana (2025):** The Court criticized the delay in the current Telangana case, noting that keeping a petition pending while a defector enjoys a cabinet berth is a "travesty of constitutional morality."
- **Tribunal Suggestion:** The Court has repeatedly suggested that Parliament should amend the Constitution to create an **independent tribunal** (headed by retired judges) to decide these cases instead of the Speaker.

4. Criticisms and Challenges

- **Curbing Dissent:** The law forces legislators to follow the "party line" even on non-critical bills, preventing them from representing their constituents' actual views.
- **Neutrality:** Since the Speaker usually belongs to the ruling party, their neutrality is often questioned when the defectors have joined the ruling side.

5. Measures to Strengthen the Law

- **Time-Bound Adjudication:** Fixing a statutory limit (e.g., 90 days) for the Speaker to pass an order.
- **Independent Authority:** Transferring decision-making power to the **Election Commission** or a specialized tribunal, as recommended by the **2nd ARC**.
- **Limiting the "Whip":** Applying the party whip only to "**No-Confidence Motions**" or Money Bills, allowing freedom of vote on other legislative matters.
- **The British Convention:** Encouraging the Speaker to resign from their party upon election to the post to ensure total impartiality.

Conclusion

The Supreme Court's firm stance in the Telangana case highlights a growing judicial impatience with the misuse of the Speaker's office. Reforming the Tenth Schedule is no longer just a legal necessity but a requirement to restore public trust in India's parliamentary democracy.

Frontier Nagaland Territorial Authority (FNTA): A Landmark Peace Accord



Why in News?

In a major breakthrough for North-Eastern internal security, the Union Government, the Nagaland State Government, and the **Eastern Nagaland People's Organisation (ENPO)** signed a historic tripartite agreement in **February 2026**. The accord establishes the **Frontier Nagaland Territorial Authority (FNTA)**, resolving a decade-long demand for a separate state while maintaining the unified geographical identity of Nagaland.

1. Background: The Demand for "Frontier Nagaland"

- **Who is ENPO?** The apex body representing eight recognized Naga tribes (Konyak, Phom, Chang, Khamniungan, Yimkhiung, Sangtam, Tikhir, and Eastern Sumi) across six eastern districts.
- **The Grievance:** Since **2010**, the region has demanded a separate state, citing significant **socio-economic backwardness**, lack of infrastructure, and a feeling of political marginalization compared to the western districts of Nagaland.
- **The Resolution:** Instead of creating a new state, the Centre proposed the FNTA—a model of "**autonomy within the state**"—to

ensure focused development and financial independence.

2. Key Features of the FNTA

- **Jurisdiction:** Covers the six eastern districts: **Tuensang, Mon, Kiphire, Longleng, Noklak, and Shamator.**
- **Administrative Autonomy:** * The FNTA is granted executive and legislative powers over **46 subjects**, including land, agriculture, and rural development.
 - It will function through a **mini-Secretariat** based within the eastern region.
 - A senior officer of the rank of **Additional Chief Secretary** or **Principal Secretary** will head the administration.
- **Financial Independence:** * Funds will be allocated directly based on **population and area.**
 - The Ministry of Home Affairs (MHA) will provide the initial establishment costs to ensure the authority is immediately operational.

3. Constitutional Safeguards

- **Article 371(A):** The agreement explicitly protects **Article 371(A)**, which grants Nagaland special status. This ensures that the state's unique religious practices, customary laws, and land ownership rights remain untouched.
- **Integrity:** The FNTA will operate as a "state within a state," meaning it has legislative powers but remains under the overarching constitutional umbrella of the Nagaland Legislative Assembly.

4. Strategic Significance

- **Dispute-Free Northeast:** This is the **12th major peace agreement** signed in the Northeast since 2019, following pacts with the Bodo, Karbi, and ULFA groups.

- **Operational Readiness:** In **February 2026**, the Nagaland Cabinet formally approved the "Draft Memorandum of Settlement" (MoS), paving the way for the first FNTA elections, expected by late 2026.
- **Security & Development:** By addressing the grievances of the eastern tribes, the government aims to curb local insurgent recruitment and stabilize the sensitive border region near Myanmar.

\Summary of the FNTA Accord

Feature	Details
Model	Territorial Authority (similar to Bodo Territorial Council)
Subjects	46 (Legislative & Executive)
Districts Involved	6 (Tuensang, Mon, Kiphire, Longleng, Noklak, Shamator)
Financial Power	Proportional allocation; MHA support
Cultural Status	Article 371(A) remains fully intact

Census Amendment Bill: Strengthening India's Decennial Tradition



Why in News?

In early **February 2026**, during the Budget Session, a **Private Member's Bill** titled the *Census (Amendment) Bill, 2024* was introduced in the Rajya Sabha by

Kerala MP **Haris Beeran** (IUML). The Bill seeks to amend the **Census Act, 1948**, to make the conduct of a nationwide Census every ten years a **legal mandate** rather than a discretionary administrative practice.

1. The Core Argument for Reform

- **Lack of Statutory Mandate:** While India has conducted a Census every ten years since 1881, neither the Constitution nor the current Census Act, 1948, legally requires it to happen at regular intervals.
- **The "Six-Year" Gap:** The 2021 Census was indefinitely postponed due to the COVID-19 pandemic. The Bill argues that this delay has left India with 15-year-old data (from 2011), leading to the exclusion of millions of citizens from food security (NFSA) and other welfare benefits.
- **Effective Social Justice:** The Bill stresses that accurate population and caste data are essential for redrawing electoral boundaries (delimitation) and implementing reservation policies effectively.

2. Status of Census 2027 (The 16th Census)

Parallel to the legislative debate, the Government has officially confirmed the timeline for the next decennial exercise:

- **The Name:** Officially designated as **Census 2027**.
- **Phase 1 (House Listing):** Scheduled to begin on **1 April 2026** and conclude by September 2026. This phase will involve 33 specific questions regarding housing and assets.
- **Phase 2 (Population Enumeration):** To be conducted in **February 2027**, with the reference date being 1 March 2027.
- **Digital Transformation:** For the first time, it will be a **fully digital census**. 3.2 million enumerators will use handheld devices (via the CMMS portal), and citizens will have an option for **self-enumeration**.
- **Caste Enumeration:** In a landmark move, the Cabinet has approved the inclusion of **caste**

enumeration for all citizens for the first time since 1931.

3. Private Member's Bill (PMB) Framework

The Bill serves as a tool for non-ministerial MPs to push for significant policy debates:

- **Who Introduces Them?** Any MP who is not a Minister (from either the ruling party or the opposition).
- **Selection & Debate:** PMBs are typically debated on **Friday afternoons**. Selection for discussion is determined by a ballot.
- **Success Rate:** Passing a PMB is rare. Since 1950, only **14** have become law, with the last one being the *Supreme Court (Enlargement of Criminal Appellate Jurisdiction) Bill, 1968* (passed in 1970).

4. Judicial Context: SC on Caste Data

On **2 February 2026**, the Supreme Court (CJI Surya Kant and Justice Joymalya Bagchi) declined to interfere with the proposed **caste data methodology** for Census 2027. The Court observed that while accurate enumeration is vital for social welfare, the technical design of the Census falls strictly within the **executive's domain**.

Supreme Court Crackdown on "Acting" DGPs: Enforcing Police Reforms



Why in News?

In **February 2026**, the **Supreme Court of India** expressed strong disapproval of the growing "culture" of appointing **acting Directors General of Police (DGPs)**. The Court observed that several

states—including **Telangana, Punjab, Uttar Pradesh, and West Bengal**—are deliberately bypassing the appointment of regular DGPs to maintain political control, directly violating the landmark **Prakash Singh judgment (2006)**.

1. Prakash Singh Judgment (2006): The 7 Directives

The 2006 judgment, based on a PIL by retired IPS officer Prakash Singh, aimed to insulate the police from political interference. The key mandates include:

- **DGP Selection:** States must select the DGP from a panel of the **three senior-most and meritorious officers** shortlisted by the **UPSC**.
- **Fixed Tenure:** A DGP must have a **minimum tenure of two years**, regardless of their date of superannuation.
- **No "Acting" DGPs:** The Court explicitly rejected the concept of ad hoc or acting appointments, as they lack the independence provided by a fixed tenure.
- **Police Establishment Board (PEB):** To decide on transfers and postings of officers below the rank of DGP.
- **Separation of Roles:** Functional separation of **Investigation** and **Law & Order** to ensure speedier probes and better policing.
- **State Security Commission (SSC):** To ensure the government does not exercise unwarranted influence on the police.
- **Police Complaints Authority:** To handle public grievances regarding police misconduct.

2. Current Judicial Observations (2026)

The Bench, led by **Chief Justice Surya Kant**, noted that states are using "acting" appointments as a ploy to choose police chiefs of their own liking, bypassing merit-based empanelment.

- **Telangana Case:** The Court noted that Telangana has not had a regular DGP since **2017**. It granted the UPSC four weeks to finalize a panel for the state.

- **Punjab's Status:** The state has been headed by an acting DGP (**Gaurav Yadav**) since July 2022. Following the SC's nudge, the UPSC formally directed the Punjab government on **18 February 2026** to submit a panel of eligible officers within 10 days.
- **Expanded Powers for UPSC:** The Court has now authorized the **UPSC to take proactive steps**, including writing to states three months before a vacancy arises. If states fail to comply, the UPSC is at liberty to approach the Supreme Court for **contempt proceedings**.

3. The Dual System and Superintendence

- **Constitutional Basis:** Under the **7th Schedule**, 'Police' and 'Public Order' are **State subjects**.
- **The Police Act, 1861:** Section 3 vests the "superintendence" of the force in the State Government.
- **The District Level:** India follows a **Dual System** where authority is shared between the **District Magistrate (DM)** (for general control and executive magistracy) and the **Superintendent of Police (SP)** (for internal administration and operational control).

4. Structural Challenges to Reform

- **Political Control:** Many states have passed their own Police Acts (e.g., Punjab in 2023) specifically to circumvent the UPSC's role in DGP selection, though these often face legal challenges.
- **Merit vs. Seniority:** States often argue they should have the discretion to choose the "best-suited" officer rather than being restricted to the top three recommended by a central body.
- **Officer Careers:** The SC highlighted that ad hoc arrangements deprive many senior and meritorious IPS officers of their legitimate opportunity to head the force.

Admissibility of Questions: The PMO and Parliamentary Oversight



Why in News?

In **February 2026**, a significant procedural debate emerged in the Lok Sabha. The **Prime Minister's Office (PMO)** informed the Lok Sabha Secretariat that questions related to the **PM CARES Fund**, **PMNRF**, and **National Defence Fund (NDF)** are "inadmissible." The PMO argued that since these funds are built on voluntary public contributions and do not draw from the **Consolidated Fund of India**, they fall outside the "primary concern" of the Government of India under **Rule 41** of the House procedures.

1. What is a "Question" in Parliament?

A Question is one of the most effective tools for **Legislative Oversight** over the Executive.

- **Question Hour:** The first hour of every Lok Sabha sitting is dedicated to questions from MPs to Ministers.
- **Types of Questions:**
 - **Starred (*):** Requires an **oral answer**; allows for follow-up (supplementary) questions.
 - **Unstarred:** Requires a **written answer**; no follow-up questions allowed.
 - **Short Notice:** For matters of **urgent public importance**; requires less than 10 days' notice.
 - **To Private Members:** Addressed to an MP (not a Minister) regarding a Bill or Resolution they have introduced.

2. Admissibility and Rule 41

The **Speaker of the Lok Sabha** is the final authority on whether a question is admitted. Under **Rule 41(2)**, a question can be disallowed if:

- **Rule 41(2)(viii):** It relates to matters that are **not primarily the concern** of the Government of India.
- **Rule 41(2)(xvii):** It deals with bodies **not primarily responsible** to the Government of India.
- **Direction 10A:** Rejects questions that are "purely sentimental," relate to individual grievances, or sub-judice matters.

3. The PMO Directive: Constitutional & Procedural Concerns

The PMO's blanket stance has sparked criticism regarding transparency:

- **Preemptive Blocking:** Experts argue that admissibility is traditionally decided on a **case-by-case basis** by the Speaker's office, not via a general directive from the Executive.
- **Executive vs. Legislature:** Critics suggest this undermines the principle of **Parliamentary Accountability**, as these funds carry the Prime Minister's name and involve massive public donations.
- **The "Public Authority" Debate:** While the NDF is under the **RTI Act**, the status of PM CARES and PMNRF remains **sub-judice**, with the government maintaining they are private charitable trusts.

4. Understanding the Three Funds

Fund	Established	Purpose	Funding Source	RTI Status
PM CARES	2020	National emergencies (e.g., COVID-19)	Voluntary Public/CSR	Contested (Sub-judice)
PMNRF	1948	Natural calamities, riots, major accidents	Voluntary Public	Contested (Sub-judice)
NDF	1962	Welfare of Armed Forces & dependents	Voluntary Public	Under RTI Act

5. Conditions for a Valid Question

To be accepted by the Secretariat, a question must:

- Be clearly and precisely expressed.
- Not contain arguments, inferences, or defamatory illustrations.
- Not ask for an expression of opinion or the solution of an abstract legal question.
- Not refer to the character or conduct of any person except in their official capacity.

Conclusion

The standoff between the PMO and the Lok Sabha Secretariat highlights a deeper tension between **administrative privacy** and **democratic transparency**. While the government views these funds as independent trusts, the Parliament's right to "elicit information" remains a cornerstone of India's constitutional checks and balances.

New MHA Protocol: National Song to Precede National Anthem



Why in News?

In **February 2026**, marking the **150th anniversary** of the song's composition, the **Ministry of Home Affairs (MHA)** issued a comprehensive 10-page directive to all States and government bodies. The new protocol mandates that the **National Song (Vande Mataram)** must be played or sung **before** the **National Anthem (Jana Gana Mana)** whenever both are performed at the same event. This order aims to standardize ceremonial practices and eliminate decades of ambiguity regarding the National Song's precedence.

1. The New Protocol: Sequence and Conduct

- **Order of Precedence:** When both are part of an event, the **National Song must be rendered first**, immediately followed by the National Anthem.
- **The "Six-Stanza" Rule:** For the first time, the MHA has mandated the performance of the **complete six stanzas** of *Vande Mataram* at official functions, reversing a 1937 decision to sing only the first two stanzas.
- **Duration:** The official rendition of the six-stanza version is approximately **3 minutes 10 seconds (190 seconds)**.
- **Mandatory Standing:** All persons present must **stand to attention** whenever the official version is played or sung at government events or school assemblies.
- **Cinema Exemption:** Audience members are **not required to stand** if the National Song is played as part of a newsreel, documentary, or film, to avoid disrupting the screening.

2. Occasions for Official Performance

The National Song is now mandatory for several high-level functions:

- **Presidential/Gubernatorial Events:** Upon the arrival and departure of the **President** or **Governor/Lieutenant Governor** at formal State functions.
- **National Broadcasts:** Immediately before and after the President addresses the nation on All India Radio or TV.
- **Flag Ceremonies:** During the unfurling of the National Flag at cultural or ceremonial functions (excluding parades).
- **Band Protocol:** When performed by a band, the song must be preceded by a **roll of drums** (lasting seven paces in slow march) to alert the audience.

3. Role of Educational Institutions

- **Morning Assemblies:** The MHA suggests that the day's work in all schools **may begin with community singing** of the National Song.
- **Popularization:** School authorities are directed to foster respect for national symbols by organizing programs that popularize the full version of *Vande Mataram*.

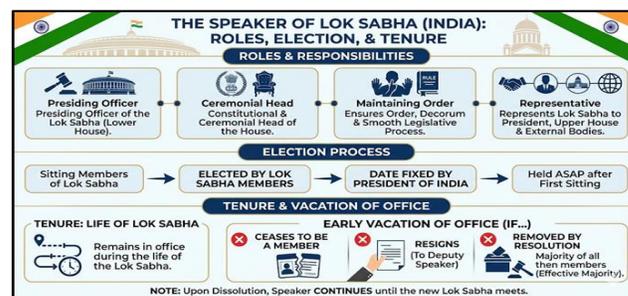
4. Historical Context: Vande Mataram

- **Origin:** Composed by **Bankim Chandra Chatterjee** in **1875**, it was later included in his novel *Anandamath* (1882).
- **Music:** The song was first set to music and sung by **Rabindranath Tagore** at the 1896 Kolkata session of the Indian National Congress.
- **Symbol of Resistance:** It became the rallying cry of the **Swadeshi and anti-partition movement (1905)**.
- **National Status:** On **24 January 1950**, Dr. Rajendra Prasad announced that *Vande Mataram* would be honored equally with the National Anthem due to its historic role in the freedom struggle.

5. Key Facts: Jana Gana Mana (National Anthem)

- **Composition:** Written by **Rabindranath Tagore** in **1911**; it is the first stanza of the poem "*Bharoto Bhagyo Bidhata*".
- **First Rendition:** Sung publicly on **27 December 1911** at the Calcutta Session of the INC.
- **Duration:** The full version is played in approximately **52 seconds**.
- **"Sindh" Ruling:** In 2005, the Supreme Court rejected a petition to remove "Sindh," ruling it refers to a **culture and community**, not just a territory.

Removal of the Lok Sabha Speaker: Constitutional and Procedural Framework



Why in News?

In **February 2026**, the Lok Sabha witnessed a significant political development as over **100 Members of Parliament (MPs)** submitted a formal notice seeking the removal of Speaker **Om Birla**. The notice, submitted to the Secretary-General, alleges "partisan conduct" and a failure to maintain the neutrality of the Chair, specifically citing instances where the **Leader of the Opposition (LoP)** was allegedly denied the floor. This move has triggered the rare constitutional process outlined under **Article 94** of the Constitution.

1. Constitutional Provisions for Removal

The Speaker does not hold office during the "pleasure of the President" but serves at the pleasure of the House. Under **Article 94(c)**, the Speaker may be removed by a resolution passed by a **Majority of all the then members of the House**.

- **Effective Majority:** The resolution requires a majority of the actual membership of the House (Total Strength minus Vacancies). It is not merely a majority of those "present and voting."
- **Article 96 (Non-Presiding):** While a resolution for their removal is under consideration, the Speaker **cannot preside** over the sitting. However, they have the right to speak and take part in the proceedings.
- **Voting Rights:** In this specific session, the Speaker can vote in the **first instance** (as a regular member) but **cannot exercise a casting vote** in the event of a tie.

2. The Procedural Roadmap (Rules 200–203)

The process is strictly governed by the **Rules of Procedure and Conduct of Business in Lok Sabha**:

- **The 14-Day Notice:** A resolution cannot be moved unless at least **14 days' written notice** has been given to the Secretary-General.
- **The "Leave of the House":** After the 14-day period, the presiding officer (usually the Deputy Speaker or a member of the Panel of Chairpersons) reads the notice. The motion is only admitted if at least **50 members** rise in their seats to support it.
- **Discussion Limits:** The debate is strictly confined to the specific charges mentioned in the notice. The resolution must be precise and devoid of ironical or defamatory expressions.
- **Immediate Vacation:** If passed by an Effective Majority, the Speaker must vacate the office **immediately**. (Normally, a Speaker stays in office even after dissolution until the first meeting of the new House, but removal is an exception).

3. Historical Context and Precedents

The removal of a Speaker is an extraordinary event in Indian parliamentary history. Prior to the 2026 notice against Om Birla, such motions were moved only three times:

1. **1954:** Against **G.V. Mavalankar** (The first Speaker).
 2. **1966:** Against **Hukam Singh**.
 3. **1987:** Against **Balram Jakhar**.
- **Outcome:** All three previous attempts **failed** to secure the required majority. To date, no Lok Sabha Speaker has ever been removed from office through a formal resolution.

4. FAQs on Speaker Removal

- **Can the Speaker resign to avoid removal?**
Yes. Under **Article 94(b)**, the Speaker can resign at any time by writing to the **Deputy Speaker**.

- **Who presides during the removal proceedings?**

The **Deputy Speaker** typically presides. If the Deputy Speaker is also under a removal notice, a member from the **Panel of Chairpersons** takes the Chair.

- **What happens if the House is dissolved during the 14-day notice?**

The notice would lapse. The Speaker continues in office until the new Lok Sabha meets, regardless of the pending notice.

- **Is the Speaker's conduct subject to judicial review?**

While the Speaker's decisions inside the House are generally protected, the **Supreme Court (Kihoto Hollohan case)** ruled that the Speaker's actions as a "Tribunal" (e.g., in anti-defection cases) are subject to judicial review. However, the process of removal itself is a domestic parliamentary matter.

Summary of the Removal Process (2026)

Stage	Requirement	Constitutional/Legal Basis
Notice	14 Days (Written)	Article 94 / Rule 200
Admissibility	50 MPs must support	Rule 201
Voting	Effective Majority	Article 94(c)
Speaker's Vote	First instance only (No casting vote)	Article 96
Presiding Officer	Deputy Speaker (Speaker cannot preside)	Article 96

Conclusion

The 2026 notice reflects the heightening of parliamentary friction and the critical importance of the Speaker's role as an impartial arbiter. While historical precedent suggests that such motions rarely succeed, the process serves as a vital

constitutional check, ensuring that the "First Citizen of the Parliament" remains accountable to the collective will of the House.

Judiciary and the Sanctum: The Evolution of the Essential Religious Practices (ERP) Test



Why in News?

In February 2026, two landmark rulings by the Madras High Court—the Thiruparankundram Deepathoon dispute and the Kanchipuram Varadaraja Perumal Temple case—have once again placed the "Essential Religious Practices" (ERP) test at the center of India's constitutional discourse. These rulings emphasize that the State cannot use "potential communal tension" as an excuse to block long-standing rituals and that individual rights under Article 25 must not override the denominational rights of a sect under Article 26.

1. Evolution of Religious Jurisprudence in India

- **Civil Rights Era (Pre-1950):** Disputes were largely seen through the lens of civil law. In *Sankaralinga Nadan v. Raja Rajeswara Dorai (1908)*, the Privy Council decided on temple entry as a matter of civil right and local custom.
- **Legislative Oversight (1927):** The **Hindu Religious Endowments Act** introduced a supervisory role for the government, beginning the process of auditing temple funds.

- **Constitutional Era (Post-1950):** The adoption of **Articles 25 and 26** shifted the focus to "Freedom of Religion," but made these rights subject to **public order, health, and morality.**

2. The Essential Religious Practices (ERP) Test

The ERP test is a judicial doctrine used to determine which aspects of a religion are "integral" and thus protected from State interference.

- **Shirur Mutt Case (1954):** The Supreme Court (SC) ruled that "essentiality" must be determined by the **tenets of the religion itself.**
- **Durgah Committee Case (1961):** The SC cautioned that "superstitious beliefs" or "unessential accretions" are not protected.
- **Ananda Marga Case (2004):** A practice is essential only if its absence **fundamentally alters** the religion.
- **Sabarimala Case (2018):** Established that even "essential" practices cannot violate **Constitutional Morality** (equality, dignity, and liberty).

3. Landmark Rulings of 2026

- **Thiruparankundram Deepathoon:** The Madras High Court held that the administration's duty is to **facilitate rituals**, not block them. It ruled that a long-standing ritual cannot be banned simply to maintain law and order; rather, the State must provide security to ensure the ritual continues.
- **Varadaraja Perumal Temple (Kanchipuram):** The Court upheld the exclusive right of the **Thenkalai sect** to lead hymn recitations (*Adhyapaka Mirasi*). It clarified that while an individual has a right to worship, they cannot disrupt the established ritualistic office of a protected denomination.

4. Constitutional Framework

- **Article 25:** Freedom of conscience and the right to freely profess, practice, and propagate religion (Individual Right).
- **Article 26:** Freedom to manage religious affairs, including owning property and maintaining institutions (Denominational/ Group Right).
- **Article 27 & 28:** Prohibit taxes for promoting specific religions and restrict religious instruction in state-funded schools.

5. Criticisms of the ERP Doctrine

- **Theological Overreach:** Judges are often forced to act as "amateur theologians," interpreting scriptures they may not be trained in.
- **Inconsistency:** Different benches often reach divergent conclusions on what constitutes an "essential" practice, leading to legal uncertainty.
- **Secular Paternalism:** Critics argue the State often "imposes" reforms from above, ignoring the internal autonomy of religious groups.
- **The "Dead Letter" Risk:** When court rulings (like Sabarimala) face massive social resistance, they risk becoming unenforceable, undermining the judiciary's authority.

6. Way Forward: A Rights-Based Approach

- **Principled Distance:** Following the **21st Law Commission (2018)**, the judiciary should intervene only when a practice violates core **human dignity** or equality.
- **Constitutional Literacy:** Training members of **Hindu Religious and Charitable Endowments (HR&CE)** departments to respect sectarian autonomy.

- **Internal Reform:** Encouraging "reform from within" to address gender bias and discrimination, rather than relying solely on judicial mandates.
- **Sectarian Dialogue:** Facilitating communication between rival groups (e.g., *Thenkalai* and *Vadakalai*) to resolve disputes before they reach the courts.

Conclusion

The 2026 rulings signify a "maturation" of religious jurisprudence. By shifting the focus from "what is a ritual" to "how a ritual interacts with the law," the courts are ensuring that the **sanctum remains sacred** while the **Constitution remains supreme**. The goal is not to replace faith with law, but to ensure that faith is practiced within the boundaries of a modern, dignified society.

Substantive Motion in Lok Sabha: A Rare Move Against the Leader of the Opposition



What is a substantive motion? Why Nishikant Dubey has given a notice against Rahul Gandhi



Why in News?

In **February 2026**, a Member of Parliament (MP) filed a notice for a **Substantive Motion** in the Lok Sabha directed against the **Leader of the Opposition (LoP)**. The motion seeks the LoP's disqualification and a

lifetime ban from contesting elections, alleging conduct "prejudicial to national interest." This has sparked a constitutional debate, as Substantive Motions are high-stakes parliamentary tools typically reserved for the conduct of individuals in high constitutional authority.

1. What is a Motion?

In parliamentary practice, a motion is a formal proposal made by a member to elicit a decision or an expression of opinion from the House.

- **The Rule of Decision:** No question can be decided by the House unless it is proposed as a motion and resolved in either the affirmative or the negative.
- **Speaker's Authority:** Under **Rule 186**, the Speaker is the final arbiter of a motion's admissibility. A motion must be restricted to a matter of **recent occurrence** and cannot deal with matters that are **sub-judice** (under court adjudication).

2. The Substantive Motion: A Self-Contained Proposal

A Substantive Motion is a high-level, independent proposal that does not depend on any other motion.

- **Independence:** It is drafted as a self-contained unit to express a clear and final decision of the House.
- **Constitutional Weight:** It is the mandatory procedure for discussing the conduct of high authorities. Examples include:
 - **Impeachment** of the President.
 - **Removal** of Supreme Court or High Court Judges.
 - **No-Confidence Motion** against the Council of Ministers.
 - **Resolution for Removal** of the Speaker or Deputy Speaker.
- **Resolutions:** All resolutions are technically substantive motions because they are complete in themselves.

3. Other Categories of Motions

Other Motions in Indian Parliament	
Privilege Motion	<ul style="list-style-type: none"> It is moved by a member when he feels that a minister has committed a breach of privilege of the House or one or more of its members by withholding facts of a case or by giving wrong or distorted facts. Its purpose is to censure the concerned minister. It can be moved in Rajya Sabha as well as Lok Sabha.
Censure Motion	<ul style="list-style-type: none"> It should state the reasons for its adoption in the Lok Sabha. It can be moved against an individual minister or a group of ministers or the entire council of ministers. It is moved to censure the council of ministers for specific policies and actions. It can be moved only in Lok Sabha.
Call-Attention Motion	<ul style="list-style-type: none"> It is introduced in the Parliament by a member to call the attention of a minister to a matter of urgent public importance, and to seek an authoritative statement from him on that matter. It can be moved in Rajya Sabha as well as Lok Sabha.
Adjournment Motion	<ul style="list-style-type: none"> It is introduced in the Lok Sabha to draw the attention of the House to a definite matter of urgent public importance. It involves an element of censure against the government. It can be moved only in Lok Sabha.
No-Day-Yet-Named Motion	<ul style="list-style-type: none"> It is a motion that has been admitted by the Speaker but no date has been fixed for its discussion. It can be moved in Rajya Sabha as well as Lok Sabha.
No Confidence Motion	<ul style="list-style-type: none"> Article 75 of the Constitution says that the council of ministers shall be collectively responsible to the Lok Sabha. In other words, the Lok Sabha can remove the ministry from office by passing a no-confidence motion. The motion needs the support of 50 members to be admitted. It can be moved only in Lok Sabha.
Cut Motions	<ul style="list-style-type: none"> A cut motion is a special power vested in members of the Lok Sabha to oppose a demand being discussed for specific allocation by the government in the Finance Bill as part of the Demand for Grants. If the motion is adopted, it amounts to a no-confidence vote, and if the government fails to jolt up numbers in the lower House, it is obliged to resign according to the norms of the House. A motion may be moved to reduce the amount of a demand in any of the following ways: <ul style="list-style-type: none"> ○ Policy Cut Motion: It is moved so that the amount of the demand be reduced to Re.1 (represents disapproval of the policy underlying the demand). ○ Economy Cut Motions: It is moved so that the amount of the demand will be reduced by a specified amount. ○ Token Cut Motions: It is moved so that the amount of the demand is reduced by Rs.100 (expresses a specific grievance). It can be moved only in Lok Sabha.

Substitute Motions:

- **Nature:** Moved in substitution of an original motion (e.g., a motion to consider a specific policy).
- **Voting:** If a substitute motion is moved, the House votes *only* on the substitute motion at the end of the debate.
- **Example:** Moving a motion to declare a government policy "unsatisfactory" during a general discussion on foreign or economic policy.

Subsidiary Motions:

- **Nature:** These have no independent meaning and depend entirely on a parent motion or proceeding.

- **Types:**
 - **Ancillary Motions:** Standard methods for moving legislative business forward (e.g., "that the Bill be passed").
 - **Superseding Motions:** Moved to delay or "supersede" the main question (e.g., moving to refer a Bill to a Select Committee instead of passing it).
 - **Amendments:** A form of subsidiary motion used to modify a Bill or another motion to make it more acceptable.

4. Admissibility Criteria (Rule 186)

For the Speaker to admit the recent motion against the LoP, it must satisfy these strict conditions:

- **One Definite Issue:** It must not be a "fishing expedition" but must raise a single, clear point.
- **No Defamation:** It must not contain ironical expressions or defamatory imputations.
- **Government Concern:** The subject must be primarily the concern of the Government of India.
- **Specific Charges:** Like a resolution for removal, the charges in a substantive motion must be precise and clearly expressed.

Conclusion

The use of a Substantive Motion against a Leader of the Opposition is an extraordinary step in Indian parliamentary history. While the Speaker evaluates the "national interest" claims, the move highlights the increasing use of formal procedural tools to settle political scores. Since a Substantive Motion requires an **Effective Majority** for resolutions like removal, the outcome of this motion will depend on the numerical strength and the "leave of the House."

Death Penalty in India: Rising Death Row and the "Appellate Disconnect"



Why in News?

In **February 2026**, a report by the Square Circle Clinic (NALSAR University of Law) revealed a significant trend in India's criminal justice system: the **Supreme Court has not confirmed a single death sentence in the past three years**. Despite this, Sessions Courts awarded **128 death sentences in 2025** alone, leading to a death row population of **574**—the highest since 2016. The report highlights a "procedural crisis" where trial courts frequently ignore mandatory sentencing safeguards.

1. Key Highlights of the 2026 Report

- **High Acquittal Rates:** In 2025, the Supreme Court **acquitted 10 death row prisoners**, the highest in a decade. This suggests that many trial court convictions are based on flawed evidence or procedural errors.
- **The "Disconnect":** While Sessions Courts are prolific in awarding death, High Courts confirmed only **8.31%** of these cases, and the Supreme Court confirmed **0%** over the last three years.
- **Procedural Non-Compliance:** Nearly **95% of death sentences** in 2025 were imposed without mandatory **mitigation reports** (psychological evaluations and prison conduct reports) required by the *Manoj v. State of MP (2022)* ruling.
- **Death Row Phenomenon:** Prisoners spend an average of **over five years** (sometimes a decade) on death row before being exonerated, a delay the Supreme Court has previously termed as "torture."

2. Legal Framework and the "Rarest of Rare" Doctrine

- **Statutory Basis:** The **Bharatiya Nyaya Sanhita (BNS), 2023**, retains the death penalty for 14 categories of crime, including murder, terrorism, and new additions like **mob lynching** and the **rape of a minor**.
- **Bachan Singh v. State of Punjab (1980):** Established the "Rarest of Rare" doctrine. It mandates that death should only be awarded when the alternative (life imprisonment) is "unquestionably foreclosed."
- **Manoj Vs. State of MP (2022):** Made it mandatory for trial courts to consider **Mitigating Circumstances** (age, socio-economic background, possibility of reform) alongside **Aggravating Circumstances** (brutality of the crime).

3. The Debate: Retention vs. Abolition

Arguments For (Retention)	Arguments Against (Abolition)
Retributive Justice: Satisfies the collective conscience for "abhorrent" crimes (e.g., Nirbhaya case).	No Deterrence: The <i>Justice Verma Committee (2013)</i> found no evidence that death prevents crimes like rape.
Deterrence: The fear of death is presumed to prevent heinous acts, though empirical data is lacking.	Judicial Arbitrariness: The "Rarest of Rare" threshold is subjective and varies between judges ("Judicial Lottery").
Moral Closure: Provides finality to the victim's family through proportional punishment.	Irreversibility: In a fallible system, the risk of executing an innocent person is a permanent injustice.
Economic Argument: Avoids the "taxpayer burden" of maintaining high-risk offenders for life.	Socio-Economic Bias: A vast majority of death row prisoners are from poor or marginalized backgrounds with weak legal aid.

4. Global and Regional Trends

- **International Shift:** Most African and American nations have moved toward abolition. The UN consistently pushes for a global moratorium.
- **Asian Retention:** China remains the world's leading executioner. In South Asia, **Nepal and Bhutan** are abolitionist, while India, Pakistan, and Bangladesh retain the practice.
- **The Middle Ground:** Many Indian courts are now opting for "**Life Imprisonment without Remission**" (fixed terms of 25–60 years) as a statutory alternative to execution.

5. Proposed Reforms for 2026 and Beyond

- **Sentencing Council:** Establishing a body to codify standardized guidelines to eliminate judicial subjectivity.
- **Mandatory Mitigation:** Ensuring no death sentence is passed without a comprehensive report from probation officers and mental health experts.
- **Scientific Investigation:** Shifting from "confession-centric" (often coerced) to **forensic-based evidence** to reduce wrongful convictions.
- **Law Commission (262nd Report):** Implementing the recommendation to abolish death for ordinary crimes, retaining it only for **terrorism and waging war** against the state.

Conclusion

The current data reveals a systemic crisis: trial courts are using the death penalty as a "standard" response to brutal crimes, while higher courts are increasingly acting as a "safety valve" to prevent wrongful executions. Moving forward, India must ensure that the "Manoj" guidelines are not just paper requirements but are strictly enforced at the trial stage to prevent the death row population from swelling due to procedural lapses.

Crux of The Hindu & Indian Express

Indian Polity & Governance

Rajya Sabha Biennial Elections 2026: The Council of States in Transition



Why in News?

In **February 2026**, the **Election Commission of India (ECI)** announced the schedule for biennial elections to fill **37 Rajya Sabha seats** falling vacant across **10 States**. These elections are a routine yet vital part of India's parliamentary cycle, ensuring that the "Upper House" remains a permanent body with a rolling membership.

1. Key Facts About the Rajya Sabha

- **The Council of States:** It represents the interests of the States and Union Territories in the Indian Parliament.
- **Constitutional Strength (Article 80):** Fixes the maximum strength at **250**.
 - **238 representatives** from States and UTs.
 - **12 members nominated** by the President for excellence in Art, Literature, Science, and Social Service.
- **Current Composition:** The House currently operates with **245 members**.
- **Tenure and Permanence:** Unlike the Lok Sabha, the Rajya Sabha is **not subject to dissolution**. Members serve a **six-year term**,

with **one-third** of the members retiring every two years.

- **Chairmanship:** The **Vice-President of India** serves as the **Ex-officio Chairperson**.

2. The Election Mechanism

- **Indirect Election:** Members are not elected by the general public but by the **Elected Members of the Legislative Assemblies (MLAs)** of the respective States and UTs.
- **Proportional Representation:** Voting follows the system of **Single Transferable Vote (STV)**. MLAs rank candidates by preference (1, 2, 3, etc.).
- **The Quota System:** A candidate must secure a specific "quota" of first-preference votes to be declared a winner.
- **"Open Ballot" System:** To curb corruption and horse-trading, MLAs belonging to political parties must show their marked ballot to their **party's authorized agent** before casting it. (This does not apply to Independent MLAs).

3. Special Powers of the Rajya Sabha

The Upper House possesses unique authorities that even the Lok Sabha does not:

- **State List Legislation (Article 249):** It can authorize Parliament to make laws on subjects usually reserved for States if it passes a resolution by a **two-thirds majority** in the national interest.
- **All-India Services (Article 312):** It has the exclusive right to initiate the creation of new All-India Services (like the IAS or IPS).
- **Emergency Continuity:** If a Proclamation of Emergency is issued while the Lok Sabha is dissolved, the Rajya Sabha acts as the sole legislative guardian, approving and extending the proclamation.

4. Legal Nuances and Judicial Rulings

- **Anti-Defection Law:** The Supreme Court has ruled that voting against a party whip in Rajya Sabha elections **does not** attract

disqualification under the **10th Schedule**. The party can take internal disciplinary action, but the MLA keeps their seat.

- **No NOTA:** In **2018**, the Supreme Court scrapped the "**None of the Above**" (NOTA) option for Rajya Sabha polls, stating it is incompatible with the principle of proportional representation by means of STV.
- **Domicile Requirement:** Since **2003**, a candidate is no longer required to be a resident of the state they are contesting from; they simply need to be an elector from any parliamentary constituency in India.

Conclusion

The 2026 biennial elections will play a crucial role in determining the balance of power in the Upper House, impacting the government's ability to pass non-money bills and constitutional amendments. As a "Permanent House," the Rajya Sabha ensures that even during times of political transition in the Lok Sabha, the legislative process of the country remains stable and continuous.

Judicial Diversity and Regional Benches: Reforming India's Higher Judiciary



Why in News?

In **February 2026**, Rajya Sabha MP **P. Wilson** introduced the **Constitution (Amendment) Bill, 2026**, a Private Member's Bill seeking to mandate social diversity in higher judicial appointments and establish regional benches of the Supreme Court (SC). This move addresses two long-standing criticisms: the lack of representation for marginalized communities in the "collegium" system and the geographical

barriers that make the Supreme Court in Delhi inaccessible to citizens from southern, eastern, and northeastern states.

1. Key Proposals for Judicial Diversity

- **Proportional Representation:** The Bill mandates that appointments to the Supreme Court and High Courts must reflect the population of **Scheduled Castes (SC), Scheduled Tribes (ST), Other Backward Classes (OBC), religious minorities, and women**.
- **Current Deficit (2018–2024 Data):**
 - **SC/ST/OBC:** Represent only **20%** of higher judicial appointees despite being a majority of the population.
 - **Women:** Representation remains below **15%** (only 106 out of 754 High Court judges as of late 2024).
 - **Minorities:** Religious minorities account for less than **5%** of appointments in the last six years.
- **Binding Timelines:** It proposes a strict **90-day maximum** for the Central government to notify collegium recommendations, preventing "pocket vetoes" of diverse candidates.

2. Regional Benches of the Supreme Court

- **The Four-Bench Model:** The Bill proposes permanent regional appellate benches in **New Delhi, Kolkata, Mumbai, and Chennai**.
- **Jurisdiction:** These benches would handle regular appeals, while matters of **National Constitutional Importance** would remain exclusively with the **Constitution Bench** in New Delhi.
- **Constitutional Basis (Article 130):** The Constitution already allows the Chief Justice of India (CJI), with Presidential approval, to appoint "other places" as seats for the Supreme Court—a provision that has historically remained underutilized.

3. Challenges Hindering Judicial Diversity

- **Opacity & "Uncle Judge" Syndrome:** The Collegium operates without publicly defined criteria, making it susceptible to unconscious bias and nepotism. Reports indicate that many appointees are relatives of former or sitting judges.
- **The "Leaky Pipeline":** While many women enter law schools, systemic barriers (lack of crèches, caregiving roles, and exclusionary male-dominated networks) cause their numbers to drop before reaching seniority for elevation.
- **Geographical Centralization:** Establishing a legal practice in Delhi is financially prohibitive for talented lawyers from distant regions, limiting the "talent pool" for Supreme Court elevations to those already in the capital.

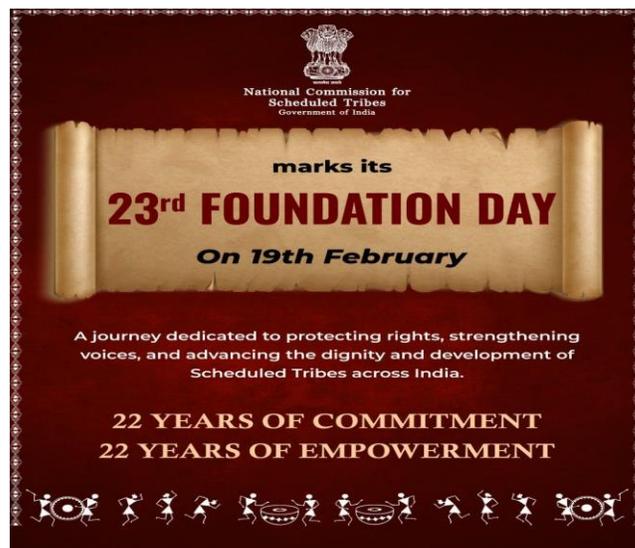
4. Recent Transparency Initiatives (2025–2026)

- **Unprecedented Disclosures:** Under the leadership of **CJI B.R. Gavai** (in late 2025), the Collegium for the first time released consolidated data regarding the **caste and familial background** of candidates recommended for High Courts.
- **Dissent in the Wall:** The system saw rare transparency when **Justice B.V. Nagarathna** (set to be India's first woman CJI in 2027) reportedly dissented against certain recommendations, sparking debates on internal accountability.

Conclusion

Diversity in the judiciary is not merely a "quota" issue but a necessity for **institutional legitimacy**. A representative bench incorporates diverse lived experiences into constitutional interpretation, strengthening public trust. While the Private Member's Bill face a long legislative path, it has successfully revived the conversation on democratizing the "Old Boys' Club" of the Indian judiciary and making justice geographically equitable.

National Commission for Scheduled Tribes: 23rd Foundation Day



Why in News?

On **February 19, 2026**, the Ministry of Tribal Affairs celebrated the **23rd Foundation Day** of the **National Commission for Scheduled Tribes (NCST)** at the Civil Services Officers Institute in New Delhi. Union Minister for Tribal Affairs, **Jual Oram**, served as the Chief Guest, emphasizing the government's commitment to tribal welfare and health, specifically targeting diseases like Sickle Cell Anemia that disproportionately affect tribal regions.

1. Key Highlights of the 23rd Foundation Day (2026)

- **NCST Handbook:** The Union Minister released a comprehensive "**NCST Handbook**" detailing the Commission's functions, legal responsibilities, and operational procedures.
- **Documentary Magazine:** A special magazine was launched documenting the Commission's major interventions and success stories from **July to December 2025**.
- **Empowerment Showcase:** The event showcased critical initiatives in resolving tribal land disputes and protecting the constitutional rights of **Scheduled Tribes (STs)**.
- **Leadership Presence:** The ceremony was attended by MoS for Tribal Affairs **Durgadas**

Uikey and NCST Chairperson **Antar Singh Arya**.

2. **National Commission for Scheduled Tribes (NCST)**

- **Establishment:** A constitutional body created by the **89th Constitutional Amendment Act, 2003**. It formally came into existence on **February 19, 2004**, after the bifurcation of the erstwhile joint Commission for SCs and STs.
- **Constitutional Mandate:** Governed by **Article 338-A** of the Constitution.
- **Composition:** * **Chairperson:** Rank of a Union Cabinet Minister.
 - **Vice-Chairperson:** Rank of a Minister of State.
 - **Three Members:** Rank of Secretary to the Government of India (at least one must be a woman).
- **Tenure:** Members serve a **3-year term** and are limited to a maximum of **two terms**.

3. **Powers and Functions**

- **Civil Court Powers:** While investigating matters or inquiring into complaints, the NCST has all the powers of a **civil court**, including summoning persons and requiring the production of documents.
- **Protective Monitoring:** Investigates all matters relating to safeguards provided for STs under the Constitution or any other law.
- **Policy Advisory:** Participates in and advises on the planning process of socio-economic development for STs.
- **Special Reports:** In addition to an **Annual Report**, the Commission can submit special reports to the **President** regarding the implementation of safeguards.
- **Additional Functions (2005 Order):** Includes protection of rights over **Minor Forest Produce (MFP)**, water and mineral resources, and ensuring the implementation of the **PESA Act, 1996**.

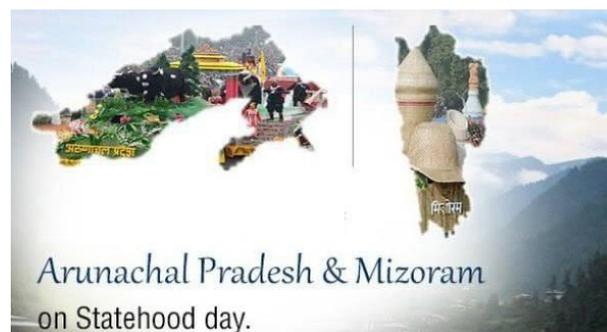
4. **Constitutional Safeguards for Scheduled Tribes**

- **Article 342:** The President, after consultation with the Governor, specifies tribes as "Scheduled Tribes."
- **Fifth Schedule:** Deals with the administration and control of **Scheduled Areas** and STs in states other than Assam, Meghalaya, Tripura, and Mizoram.
- **Sixth Schedule:** Provides for **Autonomous District Councils (ADCs)** in the four northeastern states mentioned above to protect tribal culture and land.
- **Article 164:** Provides for a **Minister for Tribal Welfare** in states like Chhattisgarh, Jharkhand, Madhya Pradesh, and Odisha.

Conclusion

The 23rd Foundation Day marks over two decades of the NCST serving as a watchdog for tribal interests. By releasing the "NCST Handbook" in 2026, the Commission aims to bridge the information gap between the state and the 10.4 crore tribal citizens of India, ensuring that constitutional safeguards are not just "rights on paper" but lived realities.

Statehood Day of Arunachal Pradesh and Mizoram: Celebrating 40 Years of Progress



Why in News?

On **February 20, 2026**, the Prime Minister of India and national leaders extended warm greetings to the people of **Arunachal Pradesh** and **Mizoram** on their **Statehood Day**. This day marks the 40th anniversary of both states attaining full statehood within the Indian Union in **1987**. The celebrations in 2026

underscored themes of "Viksit Bharat" and the strategic importance of the Northeast under the **Act East Policy**.

1. Arunachal Pradesh: The Land of the Rising Sun

- **Attainment of Statehood:** Became the **24th state** of India on **February 20, 1987**, under the **55th Constitutional Amendment Act, 1986**.
- **2026 Celebration Highlights:** * **Decade of Hydropower:** Chief Minister Pema Khandu announced that **2025–2035** would be observed as the "Decade of Hydropower," aiming to make the sector the cornerstone of the state's economic future.
 - **Connectivity Milestones:** Leaders highlighted the success of the **Sela Tunnel** and **Donyi Polo Airport** in transforming regional accessibility.
 - **Vibrant Villages:** The **Kibithu** village (India's easternmost settlement) was celebrated as a "first village" under the **Vibrant Villages Programme**.
- **Historical Evolution:** Originally known as the **North-East Frontier Agency (NEFA)**, it was designated a Union Territory in 1972 before achieving full statehood.

2. Mizoram: The Land of the Highlanders

- **Attainment of Statehood:** Became the **23rd state** of India on **February 20, 1987**, following the **53rd Constitutional Amendment Act, 1986**.
- **2026 Celebration Highlights:**
 - **Full Literacy Milestone:** Mizoram was celebrated for being declared **India's first fully literate state** in May 2025, with a staggering literacy rate of **98.20%**.
 - **Railway Integration:** The recent opening of the **Bairabi-Sairang New Railway Line** was lauded for putting Aizawl on the national railway map.

- **Ginger Capital:** The state reaffirmed its status as the "**Ginger Capital of India**" due to its massive export-quality production.

- **Historical Evolution:** Following the **Mizoram Peace Accord (1986)**, the state transitioned from a period of insurgency to becoming one of India's most peaceful and socially disciplined regions.

3. Constitutional and Strategic Significance

- **Special Provisions:** Both states enjoy protections under **Article 371** to preserve their unique tribal cultures, land rights, and customary laws.
- **Border Security:** Sharing borders with **China, Bhutan, Myanmar, and Bangladesh**, these states are critical to India's national security and "Act East" trade corridors.
- **Ek Bharat Shreshtha Bharat:** In 2026, several "joint celebrations" were held in states like Uttarakhand and Delhi to foster cultural exchange between the Himalayas and the Northeast.

Conclusion

The 2026 Statehood Day celebrations reflect the successful integration of regional aspirations with national development goals. From being "remote frontiers," Arunachal Pradesh and Mizoram have emerged as leaders in **renewable energy** and **literacy**, respectively. As India moves toward 2047, these two states remain vital "sentinels" of the Northeast, blending ancient tribal heritage with modern infrastructure.

Freedom of Speech for MPs : Privilege, Immunity, and the Ethics of Debate



Why in News?

During the **Budget Session of Parliament 2026**, the frequent **expunction** of speeches by the Chair has triggered a national debate on the boundaries of **Parliamentary Privilege**. While **Article 105** provides a protective umbrella for lawmakers to speak without fear of legal reprisal, recent controversies regarding "unparliamentary language" and the landmark **Sita Soren (2024)** judgment have redefined the limits of this absolute immunity.

1. Constitutional Protections: The Shield of Article 105

- **Article 105(1) (Freedom of Speech):** Grants MPs the right to speak freely within the House. Unlike the general freedom of speech under **Article 19(1)(a)**, which is subject to "reasonable restrictions," the speech of an MP in Parliament is a specialized privilege essential for executive accountability.
- **Article 105(2) (Legal Immunity):** Provides **absolute immunity** from any civil or criminal proceedings in any court for anything said or any vote given in the House. This ensures that an MP cannot be sued for defamation for statements made during a debate.
- **Extension to Non-Members:** This immunity also covers the **Attorney General of India** and Union Ministers who may not be members of that specific House but are constitutionally entitled to participate.

2. Rules of Procedure: The "Internal Censors"

The freedom of speech in Parliament is "absolute" against the courts, but it is **not "unbridled"** within the House. It is regulated by the Speaker (Lok Sabha) and Chairman (Rajya Sabha):

- **Expunction (Rule 380):** The Speaker has the sole discretion to remove words from the official record that are deemed **defamatory, indecent, or unparliamentary**. Once expunged, these words cannot be reported by the media.
- **Article 121 (Judicial Shield):** MPs are strictly prohibited from discussing the **conduct of**

Supreme Court or High Court judges, except during a formal impeachment motion.

- **Sub Judge & Personal Allegations:** MPs cannot discuss matters currently under trial in courts, nor can they make incriminatory allegations against individuals without giving **prior notice** to the Speaker.

3. Evolutionary Jurisprudence: Key SC Judgments

The Supreme Court has played a critical role in balancing "Privilege" with "Accountability":

- **P.V. Narasimha Rao Case (1998):** Originally held that MPs had immunity even from **bribery charges** if the bribe was linked to their speech or vote.
- **Sita Soren v. Union of India (2024):** In a historic reversal, a 7-judge bench ruled that **bribery is not protected** under Article 105 or 194. The Court held that the offense of bribery is complete the moment the money is accepted, and it is not essential to the "collective functioning" of the House.
- **Kaushal Kishor Case (2023):** Clarified that a Minister's personal statement cannot be attributed to the Government unless officially endorsed, emphasizing individual accountability.

4. Challenges in 2026: The "Expunction" Controversy

- **Defining "Unparliamentary":** The list of prohibited words has grown, leading to claims by the Opposition that "legitimate criticism" of the executive is being suppressed under the guise of maintaining decorum.
- **Media Reporting:** In the digital age, expunged remarks often go viral on social media before the official record is edited, creating a conflict between **parliamentary rules and digital reality**.
- **Privilege vs. Discipline:** The **Committee of Privileges** is increasingly being used to examine "disorderly conduct," raising questions about whether disciplinary actions are becoming politically motivated.

Conclusion

The 2026 Budget Session highlights a delicate transition: Parliament is moving from an era of "absolute protection" to one of "**functional accountability**." While the immunity under Article 105 remains vital to prevent judicial overreach into legislative business, the **Sita Soren judgment** has sent a clear message that criminal acts like bribery cannot hide behind the veil of privilege. The future of Indian parliamentary democracy depends on maintaining this balance—where speech is free, but the "purity of the House" is non-negotiable.

The Independence of the Election Commission : Navigating Neutrality and Reforms



Why in News?

In **March 2026**, the **Election Commission of India (ECI)** faces intense scrutiny over the integrity of the electoral process. The **Special Intensive Revision (SIR)** of voter rolls—particularly in **Bihar**, where nearly **65 lakh voters** were reportedly deleted—has triggered allegations of selective disenfranchisement. In an unprecedented move, an **Opposition alliance** moved a resolution in Parliament to remove the **Chief Election Commissioner (CEC)**, citing concerns over institutional neutrality and the protection of the adult franchise under **Article 326**.

1. Core Concerns Regarding ECI Independence

- **The Appointment Shift:** The **Chief Election Commissioner and Other Election Commissioners Act, 2023**, replaced the **CJI** in the selection committee with a **Union**

Cabinet Minister. Critics argue this gives the Executive a **2:1 majority**, potentially compromising the "collegium" spirit intended by the **Anoop Baranwal (2023)** judgment.

- **Security of Tenure Disparity:** While the **CEC** is protected by a removal process equivalent to a **Supreme Court Judge**, the two **Election Commissioners (ECs)** can be removed by the President solely on the **recommendation of the CEC**. This hierarchy makes the ECs vulnerable to executive influence.
- **Financial "Voted" Status:** Unlike the **CAG** or the **Supreme Court**, the **ECI's** budget is **not "charged"** on the **Consolidated Fund of India**. It is a "voted" expenditure, theoretically allowing the government of the day to exert financial pressure.
- **Voter Roll Integrity:** The **SIR** exercise to "weed out foreigners" has been criticized for lacks of transparency. Allegations suggest that arbitrary deletions by **Booth Level Officers (BLOs)** have disproportionately impacted minority communities and the marginalized.
- **Post-Retirement Sinecures:** The absence of a "cooling-off" period for retiring Commissioners raises fears of **conflict of interest**, where officials might seek government-appointed roles like Governorships after their tenure.

2. Constitutional Framework and Safeguards

- **Article 324:** Vests the **superintendence, direction, and control** of all elections to Parliament and State Legislatures in the Election Commission.
- **Article 324(5):** Provides the **CEC** with **security of tenure**; their service conditions cannot be altered to their disadvantage after appointment.
- **Article 326:** Guarantees the **Right to Vote (Adult Suffrage)**, which the **ECI** is constitutionally mandated to protect.

- **Plenary Powers:** Under the **Mohinder Singh Gill (1978)** ruling, the ECI holds "plenary powers" to act where the law is silent to ensure free and fair elections.

3. Landmark Judicial Interpretations

- **T.N. Seshan v. Union of India (1995):** Established that the ECI is a **multi-member body** where the CEC is "first among equals," ensuring collective decision-making.
- **Sita Soren v. Union of India (2024):** While primarily about bribery, it reinforced the principle that **electoral integrity** is part of the **Basic Structure** of the Constitution.
- **Anoop Baranwal Case (2023):** Highlighted that a "pure" selection process is vital for the ECI's independence, leading to the temporary inclusion of the CJ in the selection panel.

4. Proposed Measures for Strengthening the ECI

- **Constitutional Parity:** Amending Article 324 to provide **ECs the same removal protection** as the CEC to eliminate the internal hierarchy.
- **Financial Autonomy:** Making the ECI's administrative expenses "**charged**" on the Consolidated Fund of India, similar to other independent constitutional bodies.
- **Statutory Model Code of Conduct:** Giving the **MCC** legal backing to ensure the ECI has the "teeth" to penalize high-profile violators regardless of political stature.
- **Voter Audit Transparency:** Mandating longer preservation of **CCTV and webcasting footage** (at least 180 days) and statistically significant **VVPAT cross-verification** to rebuild public trust.
- **Cooling-off Period:** Instituting a **mandatory 2-year bar** on any government appointments for retiring Commissioners to ensure their impartiality remains untainted by future prospects.

Conclusion:

The 2026 voter roll crisis is a reminder that the "independence" of the ECI is not just a legal status but a functional necessity. To maintain the "Basic Structure" of free and fair elections, the ECI must not only *be* neutral but also *appear* neutral. Implementing parity in tenure and financial autonomy will be critical steps in ensuring that the Commission remains the "unbiased umpire" of Indian democracy.

Kerala to Keralam : Aligning Constitutional Name with Native Identity



Why in News?

In **late February 2026**, the Union Cabinet approved the proposal to officially change the name of the State of **Kerala** to "**Keralam**." This move follows a unanimous **2024 resolution** by the Kerala Legislative Assembly and initiates the formal process under **Article 3** of the Constitution. On **February 24, 2026**, the Prime Minister noted that this decision reflects the "will of the people" and strengthens the connection with the state's cultural heritage.

1. Constitutional Procedure for Renaming a State

The renaming follows a specific legal sequence mandated by the Indian Constitution:

- **Article 3 (Parliamentary Power):** Parliament has the exclusive authority to alter the name, area, or boundaries of any state.
- **Presidential Referral:** Following the Cabinet's nod, the President of India refers the **Kerala (Alteration of Name) Bill, 2026** to the Kerala Legislative Assembly to seek its views.
- **Simple Majority:** Once the state's views are received, the Bill is introduced in Parliament

(with prior Presidential recommendation). It requires only a **simple majority** in both Houses to pass.

- **First Schedule Amendment:** Upon receiving Presidential assent, the name change is formally recorded by amending the **First Schedule**, which lists the names and territories of all States and Union Territories.

2. The Origins of 'Keralam'

- **Etymological Roots:** Scholars like Herman Gundert suggest "Keralam" evolved from "Cheram" or "Cheralam." The root word "cher" means "to join," and "alam" translates to "region" or "land."
- **Ancient Evidence:** The earliest historical reference appears in **Emperor Ashoka's Rock Edict II (257 BCE)**, where the region is identified as "Keralaputra," linked to the Chera dynasty.
- **Linguistic Reorganization (1956):** On **November 1, 1956** (Kerala Piravi Day), the state was formed on linguistic lines. However, while the native name remained "Keralam," the Constitution recorded the anglicized version "Kerala." This Bill aims to correct that 70-year-old linguistic discrepancy.

3. Strategic and Cultural Significance

- **Linguistic Consistency:** The Kerala Assembly requested the change to "Keralam" not just in the First Schedule, but across all **22 languages** in the **Eighth Schedule**, ensuring total consistency in official records.
- **Cooperative Federalism:** The process demonstrates a successful collaboration between a State-led initiative and Central approval, balancing regional identity with national legal frameworks.
- **Historical Precedents:** This change mirrors previous successful renamings, such as **Orissa to Odisha (2011)** and **Uttaranchal to Uttarakhand (2007)**.

Conclusion

The transition to "Keralam" marks the fulfillment of a long-standing aspiration rooted in the **Aikya Kerala Movement** of the 1920s. By moving from "Kerala" to "Keralam," the state is reclaiming its native nomenclature on the national stage. The next step involves the formal referral of the Bill to the State Legislature before its final introduction in the upcoming session of Parliament.

Supreme Court on Hate Speech and Hate Crimes: Safeguarding Constitutional Fraternity



Why in News?

In **February 2026**, the **Supreme Court of India** addressed a series of petitions seeking a special legal framework to recognize and penalize hate-based offenses. The Court expressed deep concern over the "digital amplification" of divisive rhetoric and the lack of a standalone statute for hate crimes. It urged a "duty of restraint" among public officials, emphasizing that identity-based violence and discriminatory speech are not merely law-and-order issues but direct threats to the **Constitutional values of Equality and Fraternity**.

1. Defining the Challenge: Hate Speech vs. Hate Crime

- **Hate Speech:** As per the **267th Law Commission Report (2017)**, it refers to words or actions intended to incite hatred against specific groups based on race, religion, gender, or sexual orientation.
 - **Constitutional Balance:** While **Article 19(1)(a)** protects free speech, **Article**

19(2) allows "reasonable restrictions" to maintain public order and dignity.

- **Hate Crime:** Bias-motivated violence where the victim is targeted because of their identity. While the **Bharatiya Nyaya Sanhita (BNS), 2023**, penalizes "mob lynching," India still lacks a specific legal definition for "Hate Crime" as a separate category of offense.

2. *Current Legal Landscape and Judicial Precedents*

- **Statutory Provisions:** * **BNS, 2023:** Penalizes promoting enmity between different groups.
 - **Representation of the People Act, 1951:** Disqualifies candidates for promoting communal disharmony.
 - **SC/ST (Prevention of Atrocities) Act, 1989:** Provides a model for identity-based protection by punishing insults and humiliation.
- **Key Judgments:**
 - **Shaheen Abdulla v. UOI (2022):** Directed police to take **suo motu action** against hate speech without waiting for a formal complaint.
 - **Tehseen S. Poonawalla v. UOI (2018):** Issued guidelines for the appointment of **District Nodal Officers** to prevent lynchings.
 - **Shreya Singhal v. UOI (2015):** Struck down Section 66A of the IT Act to prevent the misuse of "vague" restrictions on free speech.

3. *Major Hurdles in Enforcement*

- **The "Intent" Difficulty:** Prosecutors face an immense evidentiary challenge in proving that a crime was motivated specifically by "bias" or "malice" rather than a general dispute.
- **Enforcement Gap:** *Suo motu* registration of FIRs remains "patchy," with lower-level police officials often hesitant to act when influential political figures are involved.

- **The Digital Multiplier:** Algorithmic bias on social media platforms often prioritizes "outrage" and "sensationalism," causing hateful content to go viral before law enforcement can intervene.
- **Electoral Profitability:** The Supreme Court noted that exclusionary narratives are often used as tools for "electoral mobilization," making hate a politically profitable commodity.

4. *Statistics and the "Data Blind Spot"*

- **NCRB Challenges:** The **National Crime Records Bureau (NCRB)** has historically faced difficulties in categorizing "lynchings" or "hate-motivated killings" separately, often clubbing them under "murder" or "rioting."
- **Acquittal Rates:** Cases involving "promoting enmity" (Sec 153A) have high acquittal rates due to poor forensic collection and witness intimidation in communally sensitive areas.

5. *Proposed Measures for 2026*

- **Standalone Statute:** Enacting a specific "Hate Crimes Act" to remove the ambiguity currently found in the BNS.
- **Constitutional Tort Liability:** Allowing victims to claim civil damages from the State when public officials fail to prevent or actively participate in hate speech.
- **24-Hour Digital Takedown:** Under the **IT Rules 2026**, establishing a priority channel for the immediate removal of inflammatory content to stop "viral contagion."
- **Fast-Track "Hate Courts":** Designating specialized courts to conclude trials for identity-based violence within **6 months**.
- **Community First Responders:** Institutionalizing diverse "Peace Committees" at the ward level to de-escalate tensions before they turn into physical violence.

Summary of Hate Speech Governance (2026)

Feature	Current Status	Proposed Reform
Legal Definition	Vague / Fragmented	Codified "Hate Crime" Statute
Police Action	Complaint-driven (mostly)	Mandatory Suo Motu FIRs
Social Media	Reactive Takedown	24-Hour Proactive Removal
Accountability	Individual Liability	Constitutional Tort (State Liability)
Data Tracking	Not specific in NCRB	Dedicated "Bias-Crime" Category

Conclusion

The 2026 Supreme Court intervention signals that the "right to be free from hate" is increasingly being viewed as a subset of the **Right to Life (Article 21)**. Bridging the gap between the Court's high-level mandates and the ground-level enforcement by local police remains the final frontier. As the Court noted, fraternity is not just a preamble goal but a "legal necessity" for a stable democracy.



Indian Society & Social Justice

India's First National Guidelines on Disaster Victim Identification (DVI)



Why in News?

The **National Disaster Management Authority (NDMA)** has launched the country's first-ever national guidelines and Standard Operating Procedures (SOPs) for **Disaster Victim Identification (DVI)**. Released on the 25th anniversary of the **2001 Gujarat earthquake**, the document titled "*National Disaster Management Guidelines on Comprehensive Disaster Victim Identification and Management*" aims to ensure that human remains are identified scientifically and handed over with dignity.

1. The Need for Standardized DVI

The urgency for these guidelines arose from past tragedies like the Air India crash in Ahmedabad, flash floods in Uttarakhand, and industrial explosions where traditional identification methods failed.

- **Limitations of the Past:** Rapid decomposition due to India's climate, fragmented remains, and lack of trained manpower often led to legal and emotional delays for families.
- **Humanitarian Mandate:** The guidelines establish the "**dignity of the dead**" as a legal and ethical necessity, ensuring families receive proper closure.

2. The Four-Stage Identification Protocol

To prevent mix-ups and ensure accuracy, the NDMA has mandated a systematic four-step process:

- **Systematic Recovery:** Professional retrieval of remains from the disaster site.

- **Post-Mortem (PM) Data Collection:** Recording fingerprints, DNA, dental records, and physical markers from the remains.
- **Ante-Mortem (AM) Data Collection:** Gathering medical/dental history and physical descriptions from families.
- **Reconciliation:** Scientific matching of PM and AM data to confirm identity before the body is released.

3. Key Provisions and New Technologies

- **National Dental Data Registry:** A landmark recommendation to create a dental database. Since teeth and jaws are highly durable, they are often the only way to identify victims in fire or high-impact accidents.
- **Forensic Odontology & Archaeology:** Using dental records and archaeological techniques to identify remains even years after an event.
- **Avoidance of Mass Autopsies:** The guidelines advise against physical autopsies for every victim in mass casualty events to speed up the process.
- **Cultural Sensitivity:** Mandates respect for community customs and the provision of professional counseling for grieving families.
- **Interpol Standards:** The guidelines are adapted from INTERPOL's global DVI standards but customized for Indian conditions.

4. Major Challenges in India

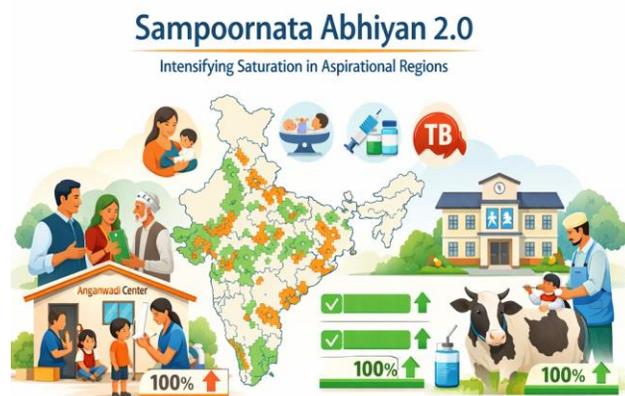
- **Rapid Decomposition:** High humidity and heat in India can make visual identification impossible within just a few hours.
- **Remains Condition:** Fire or explosions often leave remains charred or fragmented, complicating DNA and fingerprint collection.
- **Infrastructure Gaps:** There is a persistent shortage of cold-chain transport and modern mortuary space in many states.

- **Data Scarcity:** The current lack of centralized medical or dental records makes "matching" a difficult task.

5. Way Forward: Strengthening the Framework

- **Digital Public Infrastructure:** Linking the **Ayushman Bharat Health Account (ABHA)** with dental scans could provide a real-time "Ante-Mortem" database.
- **Rapid DNA Machines:** Deploying portable units that generate DNA profiles in **90 minutes** at the disaster site to reduce the agonizing wait for families.
- **Digital Footprints:** Leveraging data from smartwatches and mobile phones for preliminary identification.
- **Blockchain for Chain of Custody:** Using a blockchain ledger to ensure that forensic samples and records are tamper-proof and legally admissible.
- **Training Specialized Teams:** Establishing state-level forensic teams trained specifically for complex scenarios like landslides where no passenger manifests exist.

Sampoornata Abhiyan 2.0 : Accelerating Development Saturation



Why in News?

NITI Aayog has launched **Sampoornata Abhiyan 2.0**, a high-intensity, three-month campaign running from **28 January to 14 April 2026**. This initiative is designed to achieve **100% saturation** (full coverage) of critical development indicators in India's most

underserved regions, building on the success of the first phase launched in 2024.

1. Scope of the Campaign

The campaign operates in two distinct tiers of the **Aspirational Districts and Blocks Programme**:

- **Aspirational Districts:** Targets 112 districts nationwide with **5 specific Key Performance Indicators (KPIs)**.
- **Aspirational Blocks:** Targets 513 blocks across 329 districts with **6 specific KPIs**.

2. Key Performance Indicators (KPIs)

A. For Aspirational Blocks (6 KPIs)

- **Supplementary Nutrition:** Children (6 months to 6 years) regularly receiving nutrition under the ICDS program.
- **Growth Monitoring:** Measurement efficiency of all children enrolled at Anganwadi Centres.
- **Anganwadi Facilities:** Percentage of centers with functional **toilets**.
- **Clean Water:** Percentage of centers with functional **drinking water** facilities.
- **Girls' Education:** Schools with adequate and functional girls' toilet facilities.
- **Animal Health:** Bovine animals vaccinated against **Foot and Mouth Disease (FMD)**.

B. For Aspirational Districts (5 KPIs)

- **Birth Weight:** Proportion of live babies with their weight recorded at birth.
- **TB Detection:** Tuberculosis case notification rate in both public and private institutions.
- **Health Outreach:** Conduct of at least one **Village/Urban Health Sanitation & Nutrition Day (VHSND/UHSND)** per month.
- **School Sanitation:** Schools with functional girls' toilets.
- **Livestock Protection:** Overall percentage of animals vaccinated.

3. Implementation and Monitoring

- **Time-Bound Action:** Each district and block must prepare a **three-month action plan** with monthly progress reviews.
- **Behavior Change:** Extensive grassroots awareness campaigns (like Gram Sabhas and Nukkad Nataks) are used to encourage community participation.
- **Field Monitoring:** District-level officers conduct regular field visits to verify data and address implementation bottlenecks.
- **Institutional Synergy:** NITI Aayog works in tandem with Central Ministries and State Governments to ensure the **"last-mile" delivery** of services.

4. ADP vs. ABP: A Quick Comparison

Feature	Aspirational Districts Programme (ADP)	Aspirational Blocks Programme (ABP)
Launched	January 2018	January 2023
Coverage	112 Districts	513 Blocks (across 329 Districts)
Objective	Rapidly transform backward districts	Saturate essential services at the block level
Themes	5 (Health, Education, Agri, Finance, Infra)	5 (Health, Education, Agri, Basic Infra, Social)
Total Indicators	49	40

5. Significance of the "Saturation" Approach

- **Antyodaya Philosophy:** By aiming for 100% coverage, the program ensures no eligible beneficiary is left behind in India's most remote areas.
- **Outcome-Oriented:** Moves the focus from merely "spending funds" to achieving tangible results on the ground.
- **Competitive Federalism:** Real-time monthly rankings foster a spirit of healthy competition and learning between different regions.

Sacred Groves : Tribal Traditions and Modern Governance Conflicts



Why in News?

In early 2026, communal tensions flared in **Kapena village, Odisha**, between tribal communities and the Christian minority. The dispute centered on the **Blessing Youth Mission Church**, which had coexisted near a **tribal sacred grove** for 18 years. Tensions escalated in January and February 2026, leading to the locking of the church and the denial of a Christian burial for a 14-year-old boy, as tribal leaders claimed the church's presence interfered with the sanctity of their upcoming **Mati Maa yagna (havan)**.

1. What are Sacred Groves?

Sacred groves are patches of virgin or near-natural forest protected by local communities due to their deep religious and cultural significance.

- **Community Custodianship:** They are preserved through traditional beliefs rather than formal laws. They are often dedicated to local deities, nature spirits, or ancestors.
- **Global Terminology:** India is home to approximately **100,000 to 150,000** such groves. They are known by various local names:
 - **Sarna** (Jharkhand/Bihar)
 - **Devrai** (Maharashtra)
 - **Devarakadu** (Karnataka)
 - **Kavu** (Kerala)
 - **Law Kyntang** (Meghalaya)
 - **Oran** (Rajasthan)

2. Ecological and Cultural Significance

- **Biodiversity Refuges:** Often called the "secret wizards of conservation," these groves preserve rare plant species that have disappeared from surrounding areas.
- **Water & Soil:** They act as micro-catchments, maintaining high water quality (often meeting WHO potable standards) and preventing soil erosion.
- **Spiritual Foundation:** Rooted in **animism** and nature worship, these groves represent the ancient human philosophy of coexistence with all creatures.

3. The Legal Conflict: FRA vs. WLPA

The governance of sacred groves in India faces a "dual-law" challenge:

- **Forest Rights Act (FRA), 2006:** Recognizes groves as '**Community Forest Resources.**' It empowers the **Gram Sabha** as the supreme authority to manage and protect them independent of the Forest Department.
- **Wildlife (Protection) Act (WLPA), 1972:** Allows states to declare these areas as '**Community Reserves.**'
- **The Conflict:** When a grove is declared a Community Reserve under WLPA, it comes under the control of the **Forest Department**, which critics argue undermines the democratic autonomy granted to the Gram Sabha under the FRA.

4. Modern Challenges and Threats

- **Communal Friction:** As seen in Kapena, shifting religious demographics can lead to disputes over the use of land surrounding these sensitive sites.
- **Urbanisation:** Industrial projects and road expansions often threaten the physical boundaries of these groves.
- **Generational Gap:** A declining interest in traditional rituals among younger generations is leading to the

"desacralization" and eventual degradation of many sites.

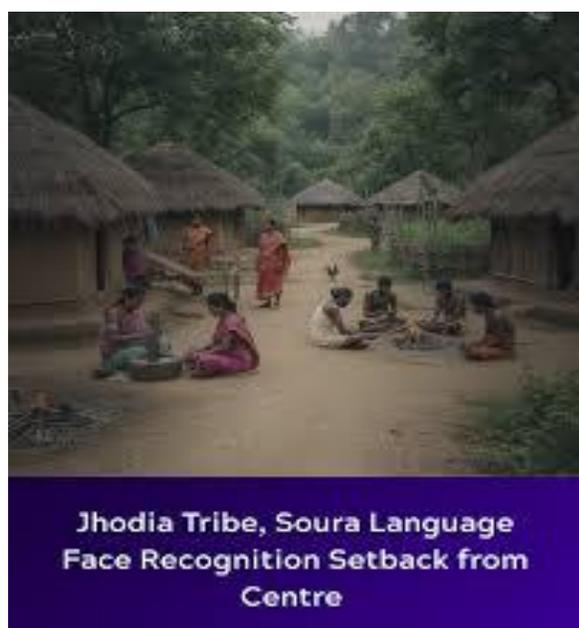
5. Global Recognition

- **OECMs:** Sacred groves are increasingly recognized as **Other Effective Area-based Conservation Measures (OECMs)**.
- **IUCN Green List:** Their preservation aligns with the **IUCN Green List Standard**, which emphasizes that conservation must respect and preserve cultural values.

Summary of Governance Models

Feature	FRA, 2006 (Community Forest Resource)	WLPA, 1972 (Community Reserve)
Control	Gram Sabha (People-led)	Forest Department (State-led)
Philosophy	Traditional rights and autonomy	Managed conservation
Legal Status	Statutory right over ancestral land	State-notified protection zone

Jhodia Tribe and Sora Language: Recognition Challenges in Odisha



Why in News?

In February 2026, the Union Ministry of Tribal Affairs informed the Lok Sabha that the proposal to include the **Jhodia community** in the Scheduled Tribe (ST) list of Odisha was not supported by the **Office of the Registrar General of India (ORGI)**. Simultaneously, the demand for including the **Sora language** in the Eighth Schedule of the Constitution remains pending, with the Centre citing a lack of fixed criteria for such inclusions.

1. The Jhodia Community Controversy

- **Identity Dispute:** The Jhodia (or Jhodia Paraja) community primarily resides in the Koraput, Rayagada, and Kalahandi districts. Historically, they were treated as a **synonym of the Paroja tribe** (listed at S.No. 55 of Odisha's ST list) and enjoyed ST benefits until 1997.
- **Current Status:** Following a 1997 clarification, they were excluded from ST benefits. The Odisha government has repeatedly proposed their re-inclusion as a synonym, but the ORGI has referred the matter back to the state, requesting additional ethnographic evidence.
- **Socio-Economic Profile:** The community remains highly marginalized, depending on subsistence agriculture and forest produce. They face significant "educational and economic deprivation" due to their geographical isolation.

2. Sora (Sora) Language and Script

- **Linguistic Roots:** Spoken by the Saora tribe (one of the Particularly Vulnerable Tribal Groups or PVTGs), the language belongs to the **Austroasiatic (Munda)** family.
- **The Sorang Sompeng Script:** * Developed in 1936 by Mangei Gomango.
 - It is a unique, indigenous writing system with 24 letters named after deities in the Sora pantheon.

- It holds immense religious and cultural value, used primarily in the rites of the *Matar Banom* (neo-animist) movement.

- **Eighth Schedule Demand:** Despite its distinct script and rich heritage, Soura is not officially recognized in the Eighth Schedule. This limits its use in formal education, government examinations, and institutional preservation.

3. Legal and Institutional Hurdles

- **ST Inclusion Process:** A proposal must be recommended by the State Government (with an ethnographic report), then examined by the **ORGI**, and finally by the **National Commission for Scheduled Tribes (NCST)** before being presented to Parliament.
- **Eighth Schedule Ambiguity:** The Government noted that there is no fixed timeline or criteria for language inclusion. Two high-level committees—the **Pahwa Committee (1996)** and the **Sitakant Mohapatra Committee (2003)**—failed to establish a definitive framework for what qualifies a "dialect" to become a "language."

4. Key Statistics and Context (2026)

- **Eighth Schedule Status:** Currently contains **22 languages**. There are demands for 38 more, including Soura, Ho, and Mundari.
- **Linguistic Empowerment:** In a related move (February 2026), the Government celebrated the **centenary of the Ol Chiki script** (used for the Santhali language), illustrating the path that Soura activists hope to follow for Sorang Sompeng.

Conclusion

The dual setback for the Jhodia community and the Soura language highlights the rigorous (and often slow) ethnographic and linguistic standards required for constitutional recognition in India. For the Saora people, the preservation of the Sorang Sompeng script remains a vital tool for maintaining their unique identity amidst modern cultural shifts.

India's Aviation Sector: Balancing Rapid Growth with Structural Fragility



Why in News?

In **February 2026**, India's civil aviation sector continues to grapple with the aftermath of a turbulent **2025**, which saw **19 safety violation notices** issued by the DGCA and frequent operational disruptions. While the industry is expanding at a record pace, recent systemic failures have prompted the Ministry of Civil Aviation to move beyond "crisis management" toward long-term structural reforms under the new **Bharatiya Vayuyan Adhiniyam, 2024**.

1. Current Status of the Sector (2026)

- **Global Standing:** India remains the **3rd-largest domestic aviation market** globally. While it handles **4.2% of global traffic**, its fleet size is still only **2.4%** of the global total, indicating a massive "density gap."
- **Infrastructure Boom:** Operational airports have surged from **74 (2014)** to **163 (2025)**, with a target of **350–400 airports by 2047**.
- **Legislative Shift:** The **Bharatiya Vayuyan Adhiniyam, 2024** has officially replaced the 90-year-old Aircraft Act of 1934, modernizing licensing, appeals, and manufacturing regulations to align with **ICAO standards**.
- **Economic Impact:** The sector now supports over **7.7 million jobs** and contributes **1.5% to India's GDP**.

2. Core Structural Challenges

- **The Duopoly Risk:** A staggering **90% of the market** is controlled by two groups: **IndiGo (63–65%)** and **Air India Group (27–28%)**. This concentration means a single technical glitch

at one airline can paralyze national connectivity.

- **Pilot & Skill Bottleneck:** India relies on expensive stopgap measures, including **236 temporary foreign pilot approvals** in 2025, due to a domestic shortage of simulators and "type-rating" facilities.
- **Thin Reserve Margins:** Unlike the global standard of **20–25% spare crew capacity**, Indian carriers operate at near-maximum utilization. This leaves zero "shock absorption" for weather delays or technical snags.
- **Regulatory Vacancies:** Nearly **50% of technical posts** in the **Directorate General of Civil Aviation (DGCA)** remain vacant, leading to ad-hoc enforcement rather than consistent oversight.
- **Financial Volatility:** High **Aviation Turbine Fuel (ATF)** prices, coupled with dollar-linked lease payments, keep profit margins razor-thin despite record passenger loads.

3. Regional Expansion: The New Entrants

To break the duopoly and enhance last-mile connectivity, the government granted NOCs to three new carriers in late 2025:

- **Shankh Air:** Planned as the first scheduled airline from **Uttar Pradesh**, focusing on the **Noida International Airport** hub.
- **AI Hind Air & FlyExpress:** Targeting underserved routes in **Kochi and Telangana** to leverage the growing demand in Tier-2 and Tier-3 cities.
- **UDAN Impact:** By 2025, **625 routes** have been operationalized, significantly boosting connectivity in the North-East and Himalayan regions.

4. Roadmap for a Resilient Aviation Ecosystem

- **Institutional Strengthening:** Filling DGCA vacancies and transitioning to **risk-based supervision** to ensure safety isn't compromised by growth.

- **Training Indigenization:** Expanding domestic flight training organizations (FTOs) to eliminate reliance on foreign pilots and overseas simulator facilities.
- **Capacity Norms:** Implementing mandatory **minimum spare crew thresholds** to prevent network-wide collapses during peak seasons.
- **Fuel Policy Reform:** Pushing for the inclusion of **ATF under GST** to rationalize taxes and lower the operating cost base for airlines.
- **Strategic Slot Allocation:** Ensuring that new regional players get preferential take-off and landing slots at congested "Tier-1" airports to remain competitive.

Conclusion

The future of Indian aviation lies in moving from "fastest-growing" to "most resilient." While the scale of expansion is impressive, the sector's long-term survival depends on filling regulatory gaps and diversifying the market beyond its current duopoly. For India to reach its goal of **1.1 billion passengers by 2040**, structural stability must take precedence over mere ticket sales.

Maharashtra Tribal Farmers' Long March: Demanding Forest and Land Rights



Why in News?

In **January and February 2026**, Maharashtra witnessed a series of massive "Long Marches" organized by tribal farmers and forest dwellers. Thousands of protesters, primarily from the **Palghar, Nashik, and Ahilyanagar** districts, marched to demand the effective implementation of the **Forest**

Rights Act (FRA), 2006, and the recognition of land titles. These protests, led by the **All India Kisan Sabha (AIKS)** and **CPI(M)**, highlighted the persistent gap between legal provisions and ground-level execution in tribal-dominated Scheduled Areas.

1. Historical Context: From Colonial Injustice to Post-Independence Gaps

- **Colonial Era:** The **Indian Forest Act, 1878**, introduced the doctrine of "**Eminent Domain**," declaring forests as state property. Traditional inhabitants were labeled "encroachers," and "Forest Villages" were created to provide forced labor for timber extraction.
- **Post-Independence:** Many forest areas were declared state property during the integration of princely states without verifying existing settlements. Laws like the **Wildlife (Protection) Act, 1972**, often led to the forceful eviction of tribes to establish sanctuaries.
- **FRA 2006:** This landmark act was designed to "correct the historical injustice" by recognizing the rights of **Forest Dwelling Scheduled Tribes (FDST)** and **Other Traditional Forest Dwellers (OTFD)**.

2. Key Demands of the 2026 Protests

- **Vesting of Land Titles:** Issuance of land records for forest land cultivated by tribals (up to **4 hectares**) and the regularisation of "encroached" land.
- **Review of Rejected Claims:** Re-examination of over **11,000 pending and rejected claims** in districts like Palghar and Nashik.
- **Water and Irrigation:** Construction of check dams on west-flowing rivers and ensuring that water from dams (like **Bhandardara**) is prioritized for tribal farmers.
- **Infrastructure and Welfare:** Cancellation of the **Smart Meter** scheme (due to inflated bills), implementation of the **Jal Jeevan Mission**, and opposition to large projects like the **Wadhvan Port**.

- **Labor and Wages:** Reinstatement of **MGNREGA** works and salary hikes for **ASHA** and **Anganwadi** workers.

3. Major Implementation Challenges

- **Bureaucratic Resistance:** The Forest Department often resists the recognition of **Community Forest Rights (CFRs)**, which allow Gram Sabhas to manage and protect forest resources.
- **High Rejection Rates:** Nationally, nearly **36% of claims** were rejected by December 2025, often citing a lack of evidence or the "3-generation" rule for OTFDs.
- **Digital Divide:** The use of software like **VanMitra** has faced hurdles in remote areas with poor connectivity and low literacy, leading to errors in claim filing.
- **Marginalization of Gram Sabhas:** Despite being the statutory authority to initiate claims, local village assemblies are often sidelined during the final verification by district committees.

4. Outcome and Government Assurances (2026)

Following the sustained marches, the Maharashtra government reached several agreements with the protesters:

- **Time-Bound Action:** The administration promised to resolve all pending FRA claims by **April 30, 2026**.
- **Physical Inspection:** Officials will conduct on-ground inspections where farmers received less land than they were actually cultivating.
- **Temple and Inam Lands:** The state agreed to draft a new law to register **temple and inam lands** in the names of the actual tillers.
- **Wage Hikes:** Approvals were granted for salary hikes for health attendants (₹2,000) and school nutrition workers (₹1,000).

Conclusion

The 2026 tribal long marches underscore that for the Forest Rights Act to be truly transformative, it must shift from a mere "land regularisation" scheme to a

comprehensive **livelihood and conservation framework**. Strengthening the **Gram Sabha**, ensuring digital accessibility, and linking land titles with irrigation and MSP are essential steps to translate these hard-won legal rights into socio-economic empowerment for India's forest communities.

Freebies Vs. Genuine Welfare: The Supreme Court's Warning on Populism



Why in News?

In **February 2026**, the **Supreme Court (SC)** expressed deep concern over the escalating trend of "competitive populism," where political parties announce unconditional freebies and direct cash transfers to woo voters. While hearing a **PIL in late 2025**, the SC warned that pre-election doles—ranging from free electricity to monthly cash kits—are creating a "class of parasites" and hindering national development. The Court has reignited the debate on whether such measures constitute a "bribe" to the electorate or a necessary fulfillment of the **Directive Principles of State Policy (DPSP)**.

1. Defining Freebies vs. Welfare

- **Freebies:** Short-term, populist measures (e.g., free TVs, laptops, or utility waivers) designed for immediate voter appeal. They are often **unproductive, unsustainable**, and create a **culture of dependency**.
- **Welfare Schemes:** Structured, long-term interventions (e.g., PDS, Mid-Day Meals, or Healthcare) aimed at **human capital formation** and sustainable poverty reduction.
- **The "Merit Good" Distinction:** The RBI and NITI Aayog distinguish "merit goods" like education and health (which have high

multiplier effects) from "non-merit" freebies that merely boost consumption without improving long-term productivity.

2. Legal and Institutional Stance

- **Supreme Court:** * **S. Subramaniam Balaji Case (2013):** Initially ruled that freebies fall under legislative policy and are not "corrupt practices."
 - **2025-26 Stance:** Shifted to a more critical view, suggesting that free ration and money discourage work and drain the exchequer.
- **Election Commission (ECI):** While manifestos aren't "corrupt practices" under the **RPA, 1951**, the ECI's Model Code of Conduct advises parties to avoid promises that vitiate the "purity of elections."
- **RBI & Finance Commission:** Warn that state-level freebies are "crowding out" infrastructure spending. The **Gross Fiscal Deficit** of states rose to **3.2% in FY25**, largely due to populist spending.

3. The Economic Impact: A Growing Burden

- **Fiscal Strain:** According to the **Economic Survey 2025–26**, unconditional cash transfers cost states approximately **₹1.7 lakh crore in FY26**.
- **Opportunity Cost:** Funds diverted to free electricity or loan waivers are funds *not* spent on building schools, hospitals, or rural roads.
- **Dependency Ratio:** For some female casual laborers, cash transfers now form up to **24% of monthly income**, raising fears of a "non-productive" population similar to the economic collapse seen in **Venezuela** in the early 2000s.

4. The Benefits: When "Freebies" Work

- **Historical Success:** Many national programs started as state "freebies." Tamil Nadu's **Mid-Day Meal (1956)** and Telangana's **Rythu Bandhu** (precursor to PM-KISAN) are now global benchmarks for welfare.

- **Social Mobility:** NITI Aayog notes that distributing **bicycles to schoolgirls** in Bihar significantly reduced dropout rates.
- **Empowerment:** Free bus passes for women in states like Karnataka and Tamil Nadu have increased **Female Labour Force Participation (FLFP)** by making commutes affordable.

Freebies vs. Welfare: Key Differences (2026)

Aspect	Freebies	Welfare Policies
Objective	Electoral Gains / Appeasement	Human Capital Formation
Time Horizon	Short-term / Pre-election	Long-term / Institutional
Targeting	Often Universal (Wasteful)	Targeted (Vulnerable groups)
Fiscal Impact	High Debt / High Deficit	High Multiplier / Productive
Examples	Free Smartphones, Utility waivers	PDS, Nutrition, Education

5. Proposed Reforms to Curb Populism

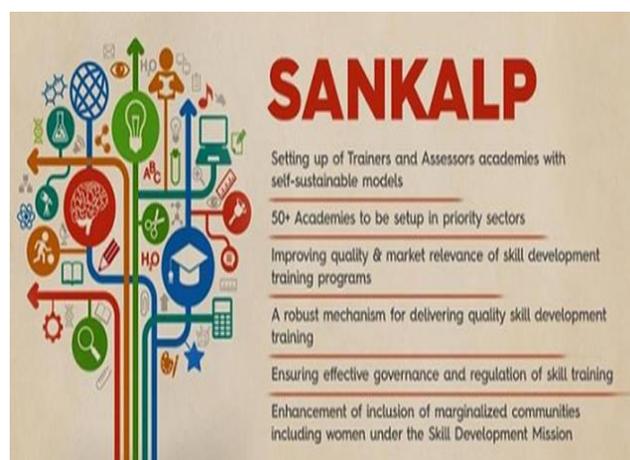
- **Codified Definitions:** Establishing clear criteria to separate "merit goods" (health/education) from "populist doles."
- **Budgetary Discipline:** Strengthening the **FRBM Act, 2003**, to track **off-budget borrowings** used by states to fund freebies.
- **Sunset Clauses:** Mandating that every subsidy scheme must have a defined end-date and a periodic review of its effectiveness.
- **Conditional Transfers:** Adopting global models like **Brazil's Bolsa Familia**, where cash is linked to **verifiable actions** like 85% school attendance or mandatory vaccinations.

- **Transparency:** Requiring parties to disclose the **funding source** for every manifesto promise.

Conclusion

The 2026 debate is a structural test for India's democracy. While the state must provide a safety net for the poor, it must not do so at the cost of the future. The path forward lies in transitioning from "consumption-based doles" to "capability-building welfare," ensuring that the government empowers citizens to earn their own livelihood rather than keeping them perpetually dependent on the state.

SANKALP Scheme : PAC Raises Concerns Over Underutilization of Funds



Why in News?

In **early 2026**, the **Public Accounts Committee (PAC)** of Parliament expressed serious concern over the slow implementation and planning gaps in the **SANKALP** scheme. Based on a **CAG report**, the committee noted that the scheme utilized only **44% of its allocated funds**. Specifically, a large portion of the **World Bank assistance** remained unspent, highlighting a significant "weakness in financial planning and absorption capacity" at both the central and state levels.

1. What is the SANKALP Scheme?

- **Full Form:** Skill Acquisition and Knowledge Awareness for Livelihood Promotion.
- **Launch:** January 2018 by the **Ministry of Skill Development and Entrepreneurship (MSDE)**.

- **Nature:** A **Centrally Sponsored Scheme** designed to operationalize the **National Skill Development Mission (NSDM)**.
- **Objective:** Unlike schemes that focus on direct training, SANKALP focuses on **institutional strengthening**—improving the "system" that delivers short-term vocational training.
- **Funding:** Approved with a budget of **4,455 crore**, largely funded by a **World Bank loan of 3,300 crore**.
- **Revised Timeline:** The original deadline of March 2023 was extended to **March 2024**, yet financial targets remain unmet as per the latest PAC observations.

2. Core Pillars of SANKALP

- **Institutional Strengthening:** Building the capacity of **District Skill Committees (DSCs)**. A key initiative under this is the **Mahatma Gandhi National Fellowship (MGNF)**, which embeds young professionals at the district level to help plan local skill development.
- **Quality Assurance:** Universalizing the **National Skills Qualification Framework (NSQF)** and ensuring that trainers across the country meet a standardized quality benchmark.
- **Inclusion:** Creating targeted interventions to increase the participation of **women, SC/ST communities, and Persons with Disabilities (PwD)** in the workforce.
- **Market Connectivity:** Linking skill training with local market demands to ensure that "certified" workers actually find "livelihood" opportunities.

3. Key Achievements and Outcomes

- **District-Level Planning:** Empowered over **700 DSCs** to transition from "centralized planning" to "demand-driven implementation" under the **PMKVY** (Pradhan Mantri Kaushal Vikas Yojana).

- **Skill India Digital:** Funded the development of the **Skill India Digital Hub**, a unified platform that aggregates data on all skilling activities across India.
- **Recognition of Prior Learning (RPL):** Successfully promoted the certification of informal workers at the **Gram Panchayat** level, recognizing skills acquired through experience rather than formal schooling.

4. Challenges Identified by the PAC & CAG

- **Financial Under-absorption:** The failure to spend **56% of the funds** has delayed the scaling of crucial quality-assurance infrastructure.
- **Delayed State Contributions:** Many states failed to provide their "matching grants" on time, leading to a bottleneck in the release of World Bank tranches.
- **Monitoring Gaps:** Inadequate real-time monitoring of the "outcome" of the MGNF fellows and DSC initiatives in several low-skill-intensity districts.

Conclusion

While SANKALP has successfully laid the groundwork for decentralized skill planning through the MGNF and the Skill India Portal, the PAC's 2026 report serves as a wake-up call. To ensure that India's "demographic dividend" does not become a "demographic burden," the MSDE must address the structural bottlenecks in fund absorption. Strengthening the financial accountability of District Skill Committees is essential to ensuring that international loans are converted into local livelihoods.

NEST Project : Revolutionizing the North East as a Tech & Innovation Hub



Why in News?

In early 2026, the **Ministry of Development of North Eastern Region (MDoNER)** officially greenlit the **North Eastern Science & Technology Cluster (NEST)** project. Sanctioned through the **North Eastern Council (NEC)**, this ambitious initiative aims to bridge the gap between academic research and commercial entrepreneurship in the Northeast. By creating a self-sustaining innovation ecosystem, NEST seeks to transform the region's natural resources and human capital into high-tech value chains.

1. Key Features of the NEST Project

- **Nodal Agency:** Implementation is led by **IIT Guwahati (IIT-G)**, leveraging its technical expertise as the region's premier institute.
- **Duration:** A **5-year** structured roadmap (2026–2031) to establish and scale the cluster.
- **Hub and Spoke Model:** * **The Hub:** IIT Guwahati serves as the central command for research and funding.
 - **The Spokes:** A network of **NITs (Agartala, Meghalaya, etc.)**, **IIM Shillong**, and **Tezpur University** to ensure specialized development across all eight states.
- **Core Components:** Focuses on establishing **Tinkering Labs**, facilitating **Technology Transfer**, and providing "lab-to-market" support for local startups.

2. The Four Thematic Verticals

The project is strategically divided into four high-impact sectors:

1. **Innovation Hub on Grassroot Technologies:** Scaling traditional knowledge and local inventions into viable commercial products.
2. **Technology Hub for Semiconductor and AI:** Aligning with the *India Semiconductor Mission* to build a workforce skilled in VLSI design and AI applications.
3. **CoE for Bamboo-Based Technology:** Utilizing the "Green Gold" of the Northeast for

industrial applications, structural engineering, and sustainable entrepreneurship.

4. **Biodegradable & Ecofriendly Plastics:** Researching alternatives to single-use plastics using indigenous bio-polymers to protect the region's fragile ecology.

3. North Eastern Council (NEC): The Developmental Anchor

- **About:** A **statutory advisory body** created under the **North Eastern Council Act, 1971**. It acts as the regional planning body for the eight states (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura).
- **Headquarters:** Shillong, Meghalaya.
- **Administrative Control:** Functions under **MDoNER**.
- **Composition:**
 - **Chairman:** The **Union Home Minister** (Ex-officio).
 - **Vice-Chairman:** Minister of State (IC), MDoNER.
 - **Members:** Governors and Chief Ministers of all eight states, plus three members nominated by the **President**.

4. Strategic Significance for 2026

- **Act East Policy:** NEST positions the Northeast not just as a "gateway" but as a "production hub" for Southeast Asian markets.
- **Reversing Brain Drain:** By providing world-class incubation facilities at home, the project aims to retain local talent.
- **Climate Resilience:** The focus on bamboo and biodegradable plastics aligns with India's **Net Zero** commitments and sustainable development goals.

Conclusion

The NEST project marks a shift from "grant-based development" to "innovation-led growth" in the North Eastern Region. By integrating the technical

proWess of IIT Guwahati with the grassroots potential of the eight member states, the NEC is building a future-ready workforce. Success in 2026 will be measured by how effectively the project converts the region's vast natural biodiversity into a sustainable technological advantage.

UNESCO State of the Education Report 2025: Prioritizing Mother-Tongue Learning



Why in News?

In **February 2026**, following the observation of **International Mother Language Day (21st February)**, UNESCO's 7th "State of the Education Report for India 2025" has gained significant traction. Titled ***Bhasha Matters: Mother Tongue and Multilingual Education***, the report highlights a critical learning crisis: **44% of Indian children** face a "language mismatch," where the medium of instruction in school differs from the language spoken at home. The report serves as a roadmap to transition the vision of **NEP 2020** from policy to classroom reality.

1. International Mother Language Day 2026

- **Theme 2026:** "Youth Voices on Multilingual Education."
- **History:** Declared by UNESCO in 1999 to honor the 1952 **Language Movement in Dhaka**, where students sacrificed their lives for the recognition of the Bangla language.
- **The Global Crisis:** The UN warns that **one language disappears every two weeks**, leading to the irreversible loss of cultural and intellectual heritage.

2. Key Findings of the UNESCO SoER 2025

- **The Learning Gap:** Nearly **half of India's primary students** struggle with foundational literacy because they are taught in a "foreign" regional or global language (like English or a dominant state language) before mastering their mother tongue.
- **Odisha as a Role Model:** The report lauds Odisha's **Multilingual Education (MLE)** program, which now covers **21 tribal languages** (including Saora, Kui, and Santali), supporting nearly **90,000 children**.
- **Digital Innovation:** Platforms like **DIKSHA** and initiatives such as **A14Bharat** are being used to create local-language content, helping document endangered languages and providing teachers with multilingual resources.
- **Economic vs. Pedagogical Needs:** While globalization pushes for English, the report emphasizes that **cognitive flexibility** is actually higher in children who have a strong foundation in their mother tongue.

3. Constitutional and Legal Framework

- **Article 350A:** Directs states to provide adequate facilities for instruction in the **mother tongue at the primary stage** for linguistic minority groups.
- **Article 29:** Protects the right of any section of citizens to conserve their distinct **language, script, or culture**.
- **Eighth Schedule:** Recognizes **22 official languages**; however, India is home to **1,369 mother tongues**, many of which remain excluded from formal education.
- **NEP 2020:** Mandates the home language/mother tongue as the medium of instruction until at least **Grade 5**.

4. Challenges in Implementation

- **The "English Elite" Monopoly:** A rigid social hierarchy places English at the top, leading to the marginalization of indigenous and tribal languages.
- **Material Scarcity:** A lack of standardized textbooks and digital tools in minoritized languages, especially those without a written script.
- **Premature Transition:** Students are often forced to switch to English or a regional language too early (before Grade 3), leading to high **dropout rates** among tribal (Adivasi) communities.

5. Recommendations: The Path to 2030

- **National Mission for MTB-MLE:** Establish a high-level mission to coordinate between the Ministry of Education and Tribal Research Institutes.
- **Inclusive Tech:** Invest in **AI-based translation** and Indian Sign Language (ISL) to reach the "last mile" learner.
- **Teacher Deployment:** Revamp recruitment to prioritize **multilingual competence**, ensuring teachers in tribal pockets are fluent in the local dialect.
- **Language Mapping:** Conduct systematic mapping of classroom languages to better align teacher deployment with student needs.

Conclusion

The UNESCO SoER 2025 makes it clear: for India to achieve **SDG 4 (Quality Education)**, "Bhasha" must become a bridge rather than a barrier. Moving away from a colonial-era monolingual mindset toward **Mother-Tongue-Based Multilingual Education (MTB-MLE)** is not just a cultural necessity but a pedagogical urgency to solve India's foundational learning crisis.

Crux of The Hindu & Indian Express

Indian Society & Social Justice

10.5 Lakh Government Servants Trained under Rashtriya Karmayogi Large Scale Jan Seva Programme



What is the News?

- The **Capacity Building Commission (CBC)** has completed **Phase-II** of the **Rashtriya Karmayogi Large Scale Jan Seva Programme**.
- Around **10.5 lakh government servants** have been trained across India.
- The information was shared by the **Ministry of Personnel, Public Grievances and Pensions**.

About Rashtriya Karmayogi Large Scale Jan Seva Programme

- It is a **national behavioural transformation programme** for **civil servants**.
- It is launched by the **Capacity Building Commission (CBC)** under the broader framework of **Mission Karmayogi**.

Main Aim

- To promote:
 - **Seva Bhav** (spirit of service)
 - **Svadharm** (duty aligned with personal purpose)

- The goal is to strengthen **citizen-centric governance**.

Objectives of the Programme

- Improve the **quality of service delivery**.
- Enhance **responsiveness** of government officials.
- Promote **collaboration across departments**.
- Increase **engagement and satisfaction** among officers.
- Build a governance culture focused on **public service**.

Key Features of Phase-II

- It was an **interactive behavioural training programme**.
- Training focused on:
 - Practical learning
 - Activity-based methods
 - Adult-learning principles

Trainer Network Created

- **822 Lead Trainers** were developed.
- More than **16,000 Master Trainers** were trained.

This created a strong national training network for future capacity building.

What is Capacity Building Commission (CBC)?

- CBC is the **executive body of Mission Karmayogi**.
- It focuses on **civil service reforms through capacity building**.

Role of CBC

- Develops **competency-based learning systems**.
- Strengthens **human resource foundations** of the government.
- Promotes:
 - Citizen-centric governance
 - Transparency
 - Accountability
 - Future readiness

- Encourages a culture of **lifelong learning** in public administration.
- Designs frameworks and sets standards for training.

SWAVALAMBINI Scheme



What is the News?

- The **Ministry of Skill Development and Entrepreneurship (MSDE)** launched the **Swavalambini – Women Entrepreneurship Programme** in **February 2025**.
- It is currently running as a **pilot project**.
- The programme is being implemented in selected **Higher Education Institutions (HEIs)**.
- The information was shared in the **Lok Sabha** by **Shri Jayant Chaudhary**, Minister of State (Independent Charge), MSDE.

About Swavalambini Scheme

- Swavalambini is a **Women Entrepreneurship Programme**.
- It aims to promote **entrepreneurship among female students**.
- The goal is to help young women move from **business idea (ideation)** to **successful enterprise creation**.
- The programme is implemented by:
 - **National Institute for Entrepreneurship and Small Business Development (NIESBUD), Noida**
 - **Indian Institute of Entrepreneurship (IIE), Guwahati**

- NITI Aayog's Women Entrepreneurship Platform (WEP) is the knowledge partner.

Objectives of the Scheme

- Develop an **entrepreneurial mindset** among female students.
- Provide awareness about:
 - Government **schemes**
 - Financial support
 - Market access
 - Business networks
- Help women choose **entrepreneurship as a career**.

Target Group

- Total target: **1200 female students** from HEIs and Universities.

Step 1: Entrepreneurship Awareness Programme (EAP)

- 1200 students attend the **Entrepreneurship Awareness Programme (EAP)**.
- Purpose: Basic understanding of entrepreneurship.
- Total trained so far: **1,110 students**.

Step 2: Entrepreneurship Development Programme (EDP)

- From EAP participants, **600 students** are selected.
- They undergo the **Entrepreneurship Development Programme (EDP)**.
- EDP provides intensive training in:
 - Business skills
 - Access to finance
 - Market linkages
 - Legal and compliance support
 - Business services
 - Networking
- Total trained so far: **302 students**.

Step 3: Mentorship & Handholding

- 21 weeks of **mentorship and handholding support**.

- Industry leaders and successful entrepreneurs guide participants.
- Focus is on converting ideas into **sustainable enterprises**.

Faculty Development Programme (FDP)

- To ensure long-term impact, a **Faculty Development Programme (FDP)** is included.
- Faculty members receive **5-day training**.
- Aim: Enable teachers to mentor future women entrepreneurs.
- Target: **75 faculty members**
- Total trained: **75 faculty members**

State-wise Implementation (as on 29 January 2026)

States covered under pilot project:

- Assam
- Meghalaya
- Mizoram
- Uttar Pradesh
- Telangana

Programme-wise Total Trained

- FDP: 75
- EAP: 1,110
- EDP: 302

Note: In some states, EDP is still under implementation.

Financial Allocation

- Total funds allocated: **₹40,46,016**
- Funds released so far: **₹10,11,504**
- Funds given to:
 - NIESBUD
 - IIE

Monitoring and Expansion

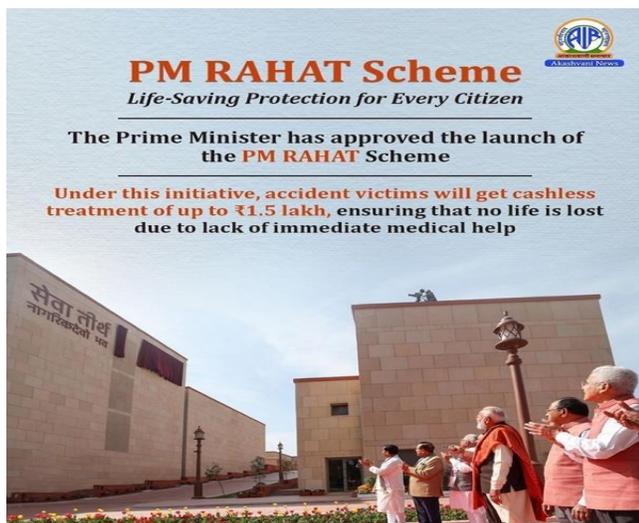
- MSDE oversees execution and monitoring.
- NITI Aayog:
 - Organizes workshops
 - Provides mentoring support
 - Facilitates seed funding

- Recognizes entrepreneurs through **Award To Reward (ATR)** initiative
- Currently, the scheme is in **pilot phase**.
- No proposal at present to expand it to **Andhra Pradesh**.
- A strong **monitoring and evaluation mechanism** is in place at the Ministry level.

Why is Swavalambini Important?

- Promotes **women empowerment through entrepreneurship**.
- Encourages **self-reliance (Atmanirbhar Bharat)**.
- Strengthens **skill development ecosystem**.
- Focuses on structured training + mentorship model.
- Supports inclusive growth by targeting **female students in HEIs**.

Government Launches PM RAHAT Scheme (2026)



- **Full Form** – Prime Minister Road Accident Victim Hospitalization and Assured Treatment Scheme
- **Launched on** – 14 February 2026

1. Background

- India faces a very high number of road accidents every year. Many people die because they do not get treatment on time.

- Studies show:
 - Around **50% deaths can be prevented**
 - If victim reaches hospital within the **Golden Hour** (first 1 hour)
- So the government started **PM RAHAT** to save lives.

2. Objective of PM RAHAT

Main aim is simple:

- No accident victim should die due to lack of money.
- Immediate hospital treatment must be given.
- Strong emergency system must be created.

It shows a **citizen-first approach** and focus on service and compassion.

3. Key Features of the Scheme

(A) Cashless Treatment

- Every eligible road accident victim will get **Cashless treatment up to ₹1.5 lakh**
- Coverage period: **7 days from the date of accident**
- Applicable on **any category of road**

This means the victim or family does not need to pay money at hospital.

(B) Stabilization Treatment

- For non-life-threatening cases → treatment up to **24 hours**
- For life-threatening cases → treatment up to **48 hours**
- Subject to police authentication through digital system

This ensures emergency care is not delayed.

(C) Golden Hour Focus

- The scheme gives importance to the **Golden Hour**.
- Integration with **Emergency Response Support System (ERSS) – 112 Helpline**
- Anyone can call:
 - Road accident victim
 - Rah-Veer (Good Samaritan)

- Any person present at accident site

They can:

- Get details of nearest designated hospital
- Ask for ambulance help

This improves coordination between:

- Police
- Ambulance services
- Hospitals

4. Technology-Based Implementation

PM RAHAT uses a digital system.

It integrates:

1. **eDAR (Electronic Detailed Accident Report)**
– Ministry of Road Transport and Highways
2. **TMS 2.0 (Transaction Management System)**
– National Health Authority

Process Flow

Accident Reporting → Hospital Admission → Police Authentication → Treatment → Claim Processing → Payment

Police confirmation timeline:

- 24 hours (non-life-threatening)
- 48 hours (life-threatening)

This ensures:

- Transparency
- Accountability
- No delay in emergency care

5. Funding Mechanism

Payment to hospitals will be made through:

(A) Motor Vehicle Accident Fund (MVAF)

If offending vehicle is insured:

- Payment from contributions of **General Insurance Companies**

If vehicle is uninsured or Hit & Run case:

- Payment from **Government of India budget allocation**

Claim Settlement

- State Health Agency will approve claim
- Payment to hospital within **10 days**

This gives financial certainty to hospitals.

6. Grievance Redressal Mechanism

If there is any complaint:

- Grievance Redressal Officer will handle it.
- Officer will be nominated by the **District Road Safety Committee**
- Committee is chaired by:
 - District Collector /
 - District Magistrate /
 - Deputy Commissioner

This ensures district-level accountability.

7. Significance

- Reduces preventable deaths
- Encourages Good Samaritans
- Removes financial burden
- Strengthens emergency ecosystem
- Improves hospital accountability

It is a major step towards:

“No life lost due to lack of immediate medical care.”

Cabinet Approves Urban Challenge Fund (UCF) – 2026



- Recently, The Union Cabinet chaired by the Prime Minister, Shri Narendra Modi approved the launch of the **Urban Challenge Fund (UCF)** with a total **Central Assistance (CA)** of Rs. **One lakh crore**.
- CA will cover **25% of the project cost**, subject to **raising minimum 50% of the project cost from market**.
- This will lead to a **total investment of Rs. Four lakh crore in urban sector in next five years**

- Marking a paradigm shift in India's urban development approach **from grant- based financing to market-linked**, reform-driven and outcome-oriented infrastructure creation.

1. Why Urban Challenge Fund?

- India's cities are growing fast.
- They need better roads, water, transport, housing and planning.

So government launched UCF to:

- Attract private investment
- Improve urban governance
- Make cities climate-resilient
- Boost economic growth

It will lead to around **₹4 lakh crore total investment** in 5 years.

2. Funding Pattern

Very important for exams.

- Centre will give **25% of project cost**
- Minimum **50% must be raised from market**

Market sources include:

- Municipal Bonds
- Bank Loans
- Public-Private Partnerships (PPP)

Remaining amount can be from:

- States
- UTs
- Urban Local Bodies (ULBs)

This ensures cities become financially strong.

3. Key Features

(A) Challenge-Based Selection

Projects will be selected through competition.

Only proposals which are:

- High impact
- Reform-oriented
- Sustainable

will get funding. Funding linked with:

- Milestones
- Reforms

- Clear outcomes

No reform → No further funds.

(B) Strong Reform Focus

Reforms in:

1. Urban Governance
2. Financial systems
3. Operational efficiency
4. Urban Planning

Paperless monitoring through single digital portal of Ministry of Housing and Urban Affairs.

(C) Private Sector Participation

- Structured risk-sharing system
- Service delivery benchmarking
- PPP encouraged

Goal → Make ULBs a **bankable asset class**

4. ₹5,000 Crore Credit Repayment Guarantee Scheme

Special support for:

- Northeastern States
- Hilly States
- Small ULBs (<1 lakh population)

Guarantee Details

For first-time loan:

- Central guarantee up to ₹7 crore OR 70% of loan (whichever lower)

For second loan (after successful repayment):

- ₹7 crore OR 50% of loan (whichever lower)

This will help:

- Small cities access market finance
- Improve creditworthiness

Supports projects of:

- Minimum ₹20 crore (first time)
- ₹28 crore (subsequent)

5. Project Verticals (Very Important)

(1) Cities as Growth Hubs

- Identify economic nodes
- Transit-oriented development
- Greenfield and semi-greenfield projects
- Urban mobility

- Infrastructure for competitiveness

(2) Creative Redevelopment of Cities

- Renewal of CBDs
- Heritage area development
- Brownfield regeneration
- Climate resilience
- Disaster mitigation
- Decongestion in hilly & NE cities

(3) Water and Sanitation

- Water supply improvement
- Sewerage & stormwater systems
- Rurban infrastructure
- Solid waste management
- Legacy waste treatment
- Focus on Swachhata

6. Coverage of the Fund

Eligible cities:

- All cities with population **10 lakh+**
- All State & UT capitals
- Industrial cities with population **1 lakh+**

Also:

- All ULBs in NE & Hilly States
- Smaller ULBs (<1 lakh) under Guarantee Scheme

In principle, almost all cities covered.

7. Reform-Linked Funding Framework

Funding tied to reforms like:

- Governance & digital reforms
- Financial & credit reforms
- Service delivery efficiency
- Transit-oriented development
- Green infrastructure
- KPIs with third-party verification
- Sustainable O&M systems

8. Outcome Orientation

Projects will be judged on:

- Economic growth
- Job creation

- Private investment
- Revenue mobilization
- Safety
- Inclusiveness
- Cleanliness
- Climate impact

This makes it **result-based funding**.

Target of 6 Crore 'Lakhpati Didis' Under DAY-NRLM



1. Why in News?

- Union Rural Development Minister **Shri Shivraj Singh Chouhan** chaired a review meeting of the **Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM)**.
- He directed officials to work on a **war footing** to achieve the revised target of creating **6 crore 'Lakhpati Didis'**.

2. What is 'Lakhpati Didi'?

- A **'Lakhpati Didi'** is a woman member of a **Self-Help Group (SHG)** who earns at least **₹1 lakh per year** through sustainable livelihood activities.
- The aim is to make **rural women financially independent and self-reliant**.

3. New Target and Action Plan

- Target: **6 crore Lakhpati Didis**
- To achieve this, at least **10 crore women** must be linked to **Financial Inclusion Initiatives**

The Minister instructed officials to:

- Prepare a **Concrete and Time-Bound Action Plan**
- Strengthen **Coordination with State Governments**
- Ensure **Faster Implementation**

4. Importance of Financial Inclusion

Financial inclusion is the backbone of **Women Empowerment**.

It includes:

- **Bank Linkages**
- **Access to Credit**
- **Insurance Coverage**
- **Financial Literacy**

When women join the **Formal Financial System**, they can:

- **Start Small Enterprises**
- **Increase Savings**
- **Become Economically Independent**

5. Proper Use of Funds

The Minister directed:

- Effective utilisation of the **Allocated Budget**
- Special focus on **Low-Performing States**
- Provide guidance where funds are **Under-Utilised**

Goal: Achieve targets within the **Stipulated Timeline**.

6. About DAY–NRLM

The **Deendayal Antyodaya Yojana – National Rural Livelihoods Mission** aims to reduce poverty by promoting:

- **Self-Employment**
- **Strong Community Institutions**

It works through four key components:

1. **Institutional Building and Capacity Development**
2. **Social Inclusion and Social Development**
3. **Financial Inclusion**
4. **Livelihood Promotion**

The mission focuses on strengthening **Self-Help Groups (SHGs)**.

7. Achievements So Far

- Around **₹1.5 lakh crore** provided through **Bank Linkage Programme**

- About **5 crore individuals** connected to **Financial Literacy Programmes**
- Nearly **7 crore people** covered under **Insurance and Social Security Schemes**

These achievements show strong progress in **Rural Livelihood Enhancement**.

8. Government's Commitment

The Minister emphasized that success is not just about numbers but about:

- Improving **Income Levels**
- Enhancing **Quality of Life**
- Building **Long-Term Economic Empowerment**

The mission supports the vision of an **Atmanirbhar Rural Economy**.

Conclusion

The government aims to create **6 crore Lakhpati Didis** under **DAY–NRLM** by expanding **Financial Inclusion and Livelihood Opportunities**. With better planning, strong **Centre-State Coordination**, and continuous monitoring, the mission can significantly transform the **economic status of rural women** and promote **Inclusive Growth in India**.



Economic Survey 2025–26 : Charting the Path to Viksit Bharat @2047



Why in News?

The **Economic Survey 2025–26** has been released, providing a comprehensive roadmap for India's economy. It moves away from short-term survival tactics toward a long-term strategy of "strategic sobriety" and institutional building. The goal is to navigate global challenges like supply chain shifts, AI disruption, and climate change to achieve the vision of a developed India (**Viksit Bharat**) by 2047.

1. Macroeconomic Strategy: Sobriety and Indispensability

- **Strategic Sobriety:** Instead of being overly pessimistic about global volatility, India is advised to maintain a calm, balanced, and steady policy stance.
- **From Resilience to Indispensability:** India aims to move beyond just "surviving" global shocks. The goal is to become **strategically indispensable**—a nation that others rely on for value, capability, and stability.
- **The "Marathon and Sprint" Metaphor:** India must manage short-term economic shocks (the sprint) while never losing focus on long-term structural growth (the marathon).
- **Fiscal Credibility:** The government is focusing on **Capital Formation** (building assets) and human capital rather than just simple deficit cutting.

2. Governance: From 'Ruler's Raj' to 'Citizen's Raj'

- **State as an Enabler:** A major shift in philosophy where the government moves from being a "controller" to a "facilitator," empowering citizens and businesses.
- **The Entrepreneurial State:** Moving away from "low-value policing" and heavy compliance toward coordination and problem-solving.
- **Trust-based Compliance:** Replacing strict, inspection-heavy controls with systems based on trust to make doing business easier.

- **Delayed Gratification:** The Survey emphasizes choosing **Śreya** (enduring long-term good) over **Preya** (temporary comfort) to build national strength.

3. Industry, Manufacturing, and Trade

- **Strategic Indigenisation:** Instead of a blanket ban on imports, India is adopting a **Tiered Framework**. It focuses on making things locally only where strategic risk is high or it makes clear economic sense.
- **Servicification of Manufacturing:** Using services (like software and design) to add more value to manufactured goods.
- **Geostrategic Globalisation:** Moving beyond "China Plus One" toward **Friendshoring**—building supply chains with politically aligned nations.
- **Orange Economy:** Recognizing the **creative sector** (arts, entertainment, media) as a new engine for economic growth.

4. Technology and Artificial Intelligence

- **Bottom-up AI Strategy:** Unlike Western models, India is focusing on **Frugal AI**—resource-efficient solutions tailored to local needs and practical applications.
- **AI as a Public Good:** The **AI-OS Initiative** proposes that AI infrastructure should be treated like UPI or Aadhaar—open and accessible to all.
- **Physical-Digital Fusion:** Using digital layers (like GatiShakti) to make physical infrastructure (roads and ports) more efficient.

5. Agriculture and Rural Development

- **Correcting Nutrient Imbalance:** The Survey flags the distorted use of fertilizers (N:P:K ratio is currently 10.9:4.1:1, far from the ideal 4:2:1) and calls for a focus on soil health.
- **Lab to Land:** Bridging the gap between scientific research and actual farming practices to boost productivity.

- **Social Capital:** Using community networks, like Self-Help Groups (SHGs), to create better livelihood opportunities.

6. Urbanisation and Infrastructure

- **Agglomeration Economies:** Leveraging the benefits of cities where clustering leads to innovation and lower costs.
- **8-80 Philosophy:** Designing cities that are safe and accessible for everyone, from an 8-year-old child to an 80-year-old senior.
- **Dead Capital:** Reforming land-use laws to ensure that urban land doesn't stay locked up and unproductive.

7. Environment and Climate Change

- **Adaptation-led Development:** Shifting the focus from just "cutting emissions" to "building resilience" against heatwaves and floods.
- **Greenium:** Taking advantage of lower interest rates (**Green Bonds**) for environment-friendly projects.
- **Circular Economy:** Promoting a "recycle and recover" model instead of the traditional "take-make-dispose" approach.

8. Social Sector: Health and Education

- **The Double Burden:** India is fighting both infectious diseases and a rise in lifestyle diseases (NCDs) like obesity.
- **Ultra-Processed Foods (UPF):** The Survey identifies these as a major health risk requiring strict regulation.
- **Pink Tax:** Highlighting the extra costs women face for safety and products, which can limit their participation in the workforce.

9. Finance and Banking

- **Credible Consolidation:** Reducing the fiscal deficit while keeping government investment (Capex) high.
- **QE Infinity Trap:** A warning against the global trend of prolonged "easy money" policies which can distort market prices.

- **NUDGE:** Using data-driven, non-intrusive methods to encourage people to comply with taxes voluntarily.

Consumer Confidence in India: Growth, Trends, and Underlying Stresses



Why in News?

Following major policy reforms—such as lower income tax rates and a rationalised GST—consumption remains the bedrock of India's economic growth. While consumer confidence has shown a strong rebound, underlying pressures like household debt and income inequality persist beneath the surface.

1. Factors Supporting Recent Consumer Confidence

- **Disinflation & GST Impact:** GST rate cuts helped push retail inflation to a record low of 0.25% in October 2025. This made goods cheaper, leading to a surge in demand during the 2025 festival season.
- **Rural Wage Rebound:** Real rural wages (adjusted for inflation) grew by 4.1% in Q1 of 2025-26 after being stagnant for three years. This was largely due to a sharp drop in rural inflation to 2.4%.
- **Urban Wage Growth:** Staff costs of listed companies—a proxy for urban wages—showed real growth of 5.7% in mid-2025, aided by low urban inflation (2.1%).
- **Monetary Policy Transmission:** The 125 basis points of interest rate cuts by the RBI in 2025 are still working through the economy, continuing to support consumer demand.

2. *Measuring Sentiment: RBI's Survey Framework*

The RBI uses two primary tools to understand how households feel about the economy:

- **Consumer Confidence Survey (CCS):** An urban-focused, bi-monthly survey covering 13–19 major cities (like Delhi, Mumbai, and Bengaluru).
- **Rural Consumer Confidence Survey (RCCS):** A newer, more inclusive survey targeting rural and semi-urban households across 31 states and UTs.
- **Key Parameters:** These surveys track sentiments on the general economic situation, employment, price levels, household income, and spending plans.

3. *Major Concerns and Structural Stresses*

- **Rising Household Debt:** Financial liabilities rose significantly compared to pre-pandemic levels. Between 2009 and 2023, personal bank debt grew 2.9 times, while industrial wages grew only 1.9 times, straining household balance sheets.
- **Unsustainable Income Growth:** Much of the "real" wage growth is due to falling inflation (deflation in some sectors) rather than a strong rise in actual salaries. If food prices stay too low, farmers' incomes may drop, eventually hurting demand.
- **K-Shaped Recovery:** India is witnessing an uneven recovery where affluent households drive spending on premium goods, while lower- and middle-income groups face stagnant purchasing power.
- **Eroding Savings:** Household net financial assets reached a multi-decade low of 4.9% of GDP in 2022-23, raising questions about the long-term sustainability of debt-financed consumption.

4. *Way Forward: Ensuring Sustainable Growth*

- **Boost Secure Incomes:** Shift focus toward labor-intensive sectors and strengthen

agricultural supply chains beyond just MSP to ensure genuine income growth.

- **Rebuild Financial Buffers:** Encourage financial savings and enforce strict norms on unsecured "risky" loans to prevent a debt trap for households.
- **Price Predictability:** Maintain stable inflation and transparent tax policies (GST and Direct Taxes) to allow households to plan long-term spending.
- **Inclusive Infrastructure:** Bridge the rural-urban divide by supporting MSMEs and investing in infrastructure that connects smaller towns to global markets.
- **Human Capital Investment:** Balance government spending between physical infrastructure (roads/rail) and human capital (health/education) to ensure future productivity.

Conclusion

While low inflation and tax reforms have provided a short-term boost to consumption, long-term stability depends on addressing rising debt and uneven income growth. Sustainable confidence will require structural reforms that prioritize secure jobs, inclusive growth, and the rebuilding of household savings.

India Imposes Minimum Import Price (MIP) on Key Antibiotic Raw Materials

WHAT IS PENICILLIN G

PENICILLIN G is the active pharmaceutical ingredient (API) used in several common antibiotics. An API is the main ingredient of a drug responsible for bringing about its desired effects. Like many other APIs, Penicillin G was phased out of production in India after cheaper Chinese products flooded the market. The last plant to stop production of the antibiotic was Torrent Pharma in Ahmedabad.

ACCORDING TO the United States government's National Library of Medicine, Penicillin G is a narrow spectrum antibiotic used for the treatment of several serious bacterial infections such as pneumonia, meningitis, gonorrhoea, syphilis, etc. Due to poor oral absorption, Penicillin G is generally administered intravenously or intramuscularly. Penicillin G may have some side effects in some patients.

Why in News?

The Union government, through a Directorate General of Foreign Trade (DGFT) notification on 29

January 2026, has imposed a **Minimum Import Price (MIP)** on three critical pharmaceutical raw materials: **Penicillin G**, **6-APA**, and **Amoxicillin**. This move is designed to regulate the flow of cheap imports and protect the domestic pharmaceutical industry.

1. Countering Import Dependence

- **The "China" Factor:** India currently relies on China for approximately **70%** of its raw materials (APIs and intermediates), valued at 10–12 billion dollars. In some antibiotic categories, this dependence is as high as 80–90%.
- **Combating Dumping:** The MIP acts as a "price shield" to prevent foreign manufacturers (primarily Chinese) from selling these inputs at predatory, low prices that undercut Indian producers and threaten the viability of local investments.

2. Details of the MIP Restrictions

The government has set specific floor prices per kilogram. Any imports below these rates are now classified as "Restricted":

- **Penicillin G-Potassium:** 2,216 per kg.
- **6-APA (6-Aminopenicillanic Acid):** 3,405 per kg.
- **Amoxicillin Trihydrate:** 2,733 per kg.

Duration & Scope:

- These restrictions will remain in effect for **one year** (until January 2027).
- **Exemptions:** The MIP does **not** apply to 100% Export Oriented Units (EOUs), Special Economic Zone (SEZ) units, or imports under "Advance Authorisation," provided these materials are used for exports and not sold in the domestic market.

3. Support for Domestic Manufacturing (PLI Linkage)

- **PLI Scheme:** This measure is a major win for companies like **Aurobindo Pharma**, which

have invested thousands of crores under the government's Production Linked Incentive (PLI) scheme to manufacture these specific APIs domestically.

- **Economic Viability:** By setting a floor price, the government ensures that new Indian factories can remain profitable even if international prices crash. For example, Penicillin G prices fell to 13.5 dollars/kg in late 2025, while domestic profitability requires a level closer to 25 dollars/kg.

4. Scientific Focus: Penicillin G (Benzylpenicillin)

- **Nature:** It is a **narrow-spectrum antibiotic** used to treat specific bacterial infections like syphilis, meningitis, and respiratory tract infections.
- **Administration:** It has poor oral absorption (destroyed by stomach acid), so it is typically administered **intravenously (IV)** or **intramuscularly (IM)**.
- **Mechanism:** It works by inhibiting the biosynthesis of the bacterial cell wall, making the bacteria unstable and causing them to die.
- **Precursor Role:** Penicillin G is a "Key Starting Material" (KSM). For instance, **6-APA** is derived from it, which is then used to synthesize other vital antibiotics like **Amoxicillin**.

5. Balancing Affordability and Security

- **Healthcare Security:** Reducing dependence on a single country for life-saving antibiotics is seen as a matter of national security to prevent supply chain shocks.
- **Price Control:** Since most medicines made from these inputs are already under government price control, officials expect that the impact on the final cost for patients will be minimal.

16th Finance Commission (2026–31): A Shift Toward Performance-Based Federalism

Criteria for Distribution of Central Taxes among States

Criteria	15 th FC (2021-26)	16 th FC (2026-31)
Income Distance	45%	42.5%
Population (2011)	15%	17.5%
Demographic Performance	12.5%	10%
Area	15%	10%
Forest	10%	10%
Tax and Fiscal Efforts	2.5%	-
Contribution to GDP	-	10%
Total	100%	100%

Sources: Reports of the 15th and 16th Finance Commissions.

Why in News?

The **16th Finance Commission (16th FC)**, chaired by **Arvind Panagariya**, has submitted its report for the award period **2026-31**. Tabled alongside the **Union Budget 2026-27**, the recommendations mark a major transition from "entitlement-based" transfers to a "compliance-driven" model, emphasizing economic contribution and fiscal discipline.

1. Vertical Devolution (Center to States)

- **Tax Share:** The states' share in the central divisible pool of taxes is retained at **41%**, the same level as the 15th FC.
- **Divisible Pool:** This includes gross central taxes but excludes cesses, surcharges, and collection costs, which remain with the Center.

2. Horizontal Devolution (Between States)

The 16th FC has revised the formula for how the 41% pot is divided among states, introducing a significant reward for economic output:

- **Income Distance (42.5%):** Higher share for states with lower per-capita income to ensure equity.
- **Population (17.5%):** Based on the **2011 Census** to reflect actual expenditure needs.
- **Contribution to GDP (10%):** A **new criterion** that rewards states contributing more to the national economy, replacing the old "tax effort" parameter.

- **Forest & Ecology (10%):** Now includes **open forests** (unlike the 15th FC) and rewards states that increased forest cover between 2015 and 2023.
- **Demographic Performance (10%):** Rewards states with lower population growth between 1971 and 2011.
- **Area (10%):** Based on the physical size of the state.

3. Grants-in-Aid (Total: Rs 9.47 Lakh Crore)

The Commission has overhauled the grant structure, discontinuing revenue deficit and sector-specific grants in favor of local body and disaster support:

- **Local Body Grants (Rs 8 Lakh Crore):** Split between **Rural (Rs 4.4 lakh cr)** and **Urban (Rs 3.6 lakh cr)**.
 - **Tied vs. Untied:** 80% is basic (half of which is tied to water/sanitation) and 20% is performance-based.
 - **Entry Conditions:** States must audit accounts and timely constitute State Finance Commissions to receive funds.
- **Urbanisation Premium:** A one-time grant of **Rs 10,000 crore** to help merge peri-urban villages into cities.
- **Disaster Management: Rs 2.04 lakh crore** allocated for relief and management (SDRF/SDMF).

4. Major Fiscal & Structural Recommendations

- **Deficit Targets:** Recommended the Center reduce its fiscal deficit to **3.5% by 2030-31** and capped state deficits at **3% of GSDP**.
- **Off-Budget Borrowing:** Called for an immediate end to off-budget borrowings; all such liabilities must be included in the formal fiscal deficit.

- **Subsidy Rationalisation:** Warned against "unconditional cash transfers" (which rose from 3% to 20.2% of subsidy spending since 2018). It recommends clear exclusion criteria for beneficiaries.
- **Power Reforms:** Encourages states to privatize DISCOMs to manage legacy debt.
- **Inactive PSEs:** Recommended the closure of 308 inactive State Public Sector Enterprises.

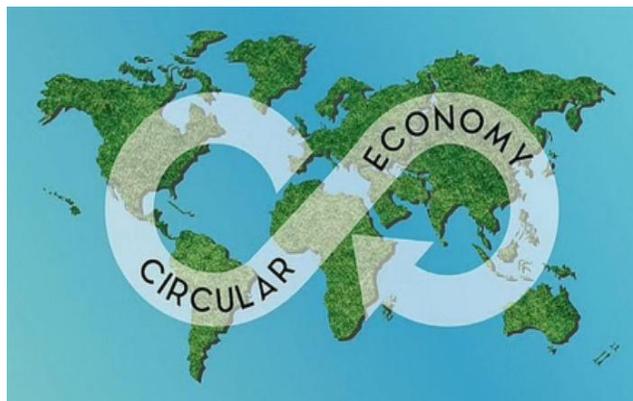
5. Key Concerns

- **Vertical Stagnation:** States are disappointed that their share remained at 41% despite demands for 50%, especially as cesses/surcharges continue to shrink the divisible pool.
- **Southern State Grievances:** While Tamil Nadu saw a minor rise, southern states generally feel penalized for successful population control as the formula shifts weight toward total population and GDP.
- **Revenue Deficit Impact:** The scrapping of Revenue Deficit grants may severely hit Himalayan and Hill states that have structural financial disadvantages.
- **Autonomy:** Increased "tied" grants and strict borrowing caps are seen by some as an "over-centralisation" of fiscal power.

6. Way Forward for Fiscal Federalism

- **Capping Surcharges:** Experts suggest legislation to cap cesses at 10% of gross tax revenue to protect the states' share.
- **Floor Guarantee:** Implementing a "Floor Guarantee" to ensure no state receives less in absolute terms than they did under the 15th FC.
- **Inter-State Council:** Activating the Inter-State Council for "Real-time Federalism" to resolve grant delays and fiscal disputes without going to court.

NITI Aayog Reports: Driving India's Circular Economy in Mobility



Why in News?

NITI Aayog recently released three major thematic reports focused on the **Circular Economy** during the International Material Recycling Conference (IMRC) in Jaipur. These reports provide a strategic roadmap for managing **End-of-Life Vehicles (ELVs), Waste Tyres, E-waste, and Lithium-ion Batteries**, aiming to turn India's growing waste challenges into economic opportunities.

1. The Challenge of Mobility Waste

A. End-of-Life Vehicles (ELVs)

- **Rapid Volume Growth:** The number of ELVs is projected to skyrocket from 23 million in 2025 to **50 million by 2030**.
- **EV Impact:** Electric vehicle sales are rising sharply (targeting 30% of total sales by 2030), which will eventually create a massive volume of complex battery and vehicle waste.
- **Infrastructure Gaps:** India lacks sufficient Automated Testing Stations (ATS) and Registered Vehicle Scrapping Facilities (RVSFs), leading to the dominance of unsafe, informal dismantling.

B. Waste Tyres

- **Traceability Issues:** The tyre recycling sector is fragmented, lacks clear standards, and suffers from poor tracking.
- **Underutilized Value:** Instead of high-value recycling (like recovering Carbon Black), tyre

waste is often "downcycled," losing its potential as a resource for green jobs and import substitution.

C. E-waste and Lithium-Ion Batteries

- **Projected Surge:** E-waste is expected to more than double from 6.19 million metric tons in 2024 to **14 million metric tons by 2030**.
- **Battery Demand:** Demand for Lithium-ion batteries is set to reach 248 GWh by 2035, making recycling essential for **critical mineral security**.
- **Informal Risks:** Unsafe recycling methods in the informal sector cause severe pollution and health hazards.

2. Understanding the Circular Economy

- **The Model:** Unlike the traditional "take-make-dispose" linear economy, the Circular Economy focuses on the **6 Rs:** Reduce, Reuse, Recycle, Refurbish, Recover, and Repair.
- **Resource Security:** India has 18% of the world's population but only 7% of its mineral resources. A circular model helps reduce dependence on imported raw materials.
- **Urban Rejuvenation:** India has over 2,100 dumpsites locking up 10,000 hectares of land. Circular processing can reclaim this land for housing and infrastructure.

3. Strategic Recommendations by NITI Aayog

For Vehicles (ELVs):

- **Formalization:** Integrate informal dismantlers into the formal system through technical assistance and one-time liability waivers.
- **Strict Deregistration:** Link vehicle cancellation strictly to a **Certificate of Deposit (CoD)** to ensure they are scrapped properly.

For Tyres:

- **Standardization:** Set national standards for Tyre Pyrolysis Oil (TPO) and recovered Carbon Black to encourage their use in industrial applications.

- **GST Rationalization:** Simplify tax and HSN codes for recycled tyre products to boost market demand.

For E-waste & Batteries:

- **Expanded EPR:** Extend **Extended Producer Responsibility (EPR)** to cover more high-value and critical minerals.
- **Shared Facilities:** Establish modern, shared recycling hubs and update BIS standards to mandate purity benchmarks for recycled battery metals.

4. Supporting Initiatives in India

- **Swachh Bharat Mission:** Focuses on overall waste management.
- **E-Waste Management Rules 2022:** Provides the legal framework for electronic waste.
- **Mission LiFE:** Encourages lifestyle changes for environmental conservation.
- **Global Alliance (GACERE):** India is a key member of this global group promoting resource efficiency.

Conclusion

India's waste crisis is evolving into a resource and economic challenge. By shifting toward a circular economy, the country can mitigate climate impact, reduce import bills for critical minerals, and create over **1 crore man-days of employment**, aligning development with sustainability goals.

Revised Startup Recognition Framework: Focus on Deep Tech and Cooperatives



Why in News?

In February 2026, as the **Startup India** initiative enters its second decade, the **Department for Promotion of Industry and Internal Trade (DPIIT)** notified a revised framework for recognizing startups. The update addresses structural shifts in the ecosystem, specifically targeting the low representation of **Deep Tech** ventures (which made up only about 10% of recognized startups in 2024) and the need for longer innovation cycles.

1. Introduction of the "Deep Tech Startup" Category

For the first time, the government has created a formal sub-category for Deep Tech startups to support ventures with long gestation periods and high R&D intensity.

- **Definition:** Entities working on solutions based on new scientific or engineering knowledge with significant technical uncertainty.
- **Expanded Eligibility:** * **Age Limit:** Extended to **20 years** from the date of incorporation (compared to 10 years for regular startups).
 - **Turnover Limit:** Raised to **300 crore** (compared to 200 crore for regular startups).
- **Core Requirements:** High R&D expenditure relative to revenue/funding and ownership (or ongoing creation) of novel **Intellectual Property (IP)**.
- **Asset Restriction:** These startups are barred from investing in non-core assets (e.g., luxury vehicles, real estate) during their recognition period to ensure funds focus on innovation.

2. General Startup Recognition Reforms

- **Turnover Limit Doubled:** The turnover ceiling for general startup recognition has been increased from 100 crore to **200 crore**.
- **Age Limit:** Remains at **10 years** from incorporation for non-deep tech entities.

- **Cooperative Societies:** For the first time, **Multi-State Cooperative Societies** and **State/UT Cooperative Societies** are eligible for startup recognition, aiming to drive innovation in agriculture and rural sectors.

3. Support Pillars and Funding

- **RDI Fund (1 Lakh Crore):** The **Anusandhan National Research Foundation (ANRF)** acts as the custodian of this fund, which will invest in emerging technologies. A portion is specifically earmarked for Deep Tech startups through financial institutions.
- **Tax Benefits:** Startups continue to be eligible for income tax exemptions under **Section 80-IAC**, though the turnover limit for this specific tax holiday remains at **100 crore** (subject to certification by the Inter-Ministerial Board).
- **Safety Measures:** To prevent misuse, entities formed by splitting or reconstructing an existing business are strictly excluded. Speculative or non-productive investments are also prohibited.

4. Impact of the Startup India Initiative (2016–2026)

- **Scale:** India now hosts over **2 lakh** recognized startups, making it one of the largest ecosystems globally.
- **Unicorns:** The number of startups valued at over \$1 billion has surged to over **120**.
- **Inclusivity:** Nearly **50%** of startups now originate from Tier-II and Tier-III cities, and over **45%** have at least one woman director.

Summary of Recognition Criteria (2026)

Feature	Regular Startup	Deep Tech Startup
Max Age	10 Years	20 Years
Turnover Limit	200 Crore	300 Crore
Key Focus	Innovation & Scalability	R&D Intensity & Novel IP
Eligible Entities	Pvt Ltd, LLP, Partnership, Cooperatives	Pvt Ltd, LLP, Partnership, Cooperatives

Chemical Parks : New Plug-and-Play Hubs for Industrial Growth



Why in News?

The **Union Budget 2026–27** has announced India's first-ever dedicated budgetary support for chemical park infrastructure. The government has proposed a **₹600 crore** scheme to support States in establishing **three dedicated Chemical Parks** through a competitive, challenge-based selection process.

1. What are Chemical Parks?

- **Concept:** These are planned industrial clusters designed specifically for chemical and petrochemical manufacturing, where multiple units operate together.
- **Plug-and-Play Model:** The parks offer ready industrial land with pre-installed utilities, allowing companies to start production quickly without worrying about primary infrastructure.
- **Shared Infrastructure:** Units within the park share common facilities such as:
 - **Central Effluent Treatment Plants (CETPs)** and hazardous waste management.
 - Common pipelines, steam, and demineralized water supply.
 - Shared testing laboratories and logistics support.

2. Strategic Objectives

- **Self-Reliance (Atmanirbharta):** By boosting domestic production, India aims to reduce its heavy reliance on imports, particularly for specialty and bulk chemicals.
- **Global Competitiveness:** The cluster model provides **economies of scale**, lowering the

overall cost of production and logistics for Indian manufacturers.

- **Sustainability:** Shared environmental compliance facilities ensure that even smaller units can meet strict green standards effectively.

3. India's Position in the Global Market

- **GDP Contribution:** The chemical industry is a cornerstone of Indian manufacturing, contributing approximately **7% to the national GDP**.
- **Global Ranking:** India currently ranks **sixth globally** and **third in Asia** in chemical production.
- **Key Consumer Base:** The industry provides vital raw materials to essential sectors like agriculture (fertilizers/pesticides), pharmaceuticals, textiles, and automobiles.

4. Related Cluster-Based Initiatives

The new Chemical Parks scheme builds on the success of existing industrial models:

Scheme	Focus Area	Status/Locations
PCPIRS	Large-scale integrated petroleum and chemical regions.	Dahej (Gujarat), Visakhapatnam (AP), Paradeep (Odisha).
Bulk Drug Parks	Dedicated zones for Active Pharmaceutical Ingredients (APIs).	Gujarat, Himachal Pradesh, Andhra Pradesh.
Plastic Parks	Clusters for plastic processing and recycling.	10 approved across states like MP, Odisha, and Tamil Nadu.

5. Environmental Synergy

The Budget also proposed **₹20,000 crore** over the next five years for **Carbon Capture, Utilisation and Storage (CCUS)** technology. These technologies are expected to be piloted within the new Chemical Parks to help the industry transition toward "net-zero" and sustainable manufacturing practices.

RBI Reforms : MSME Credit Boost and Digital Fraud Safety



Why in News?

In its latest Monetary Policy review on **February 6, 2026**, the **Reserve Bank of India (RBI)** kept the repo rate unchanged at **5.25%** but announced a suite of transformative measures. These focus on doubling collateral-free credit for MSMEs, strengthening the cooperative banking sector, and introducing a landmark compensation framework for victims of digital fraud.

1. Major Credit Stimulus Measures

Doubling Collateral-Free Loans for MSMEs:

- **The Change:** The limit for collateral-free loans to **Micro and Small Enterprises (MSEs)** has been doubled from **10 lakh to 20 lakh**.
- **Effective Date:** This applies to all loans sanctioned or renewed on or after **April 1, 2026**.
- **Extended Flexibility:** Banks may allow collateral-free loans up to **25 lakh** based on the borrower's good track record and internal bank policies.
- **Scope:** It covers units under the **Pradhan Mantri Mudra Yojana (PMMY)** and the **Prime Minister's Employment Generation Programme (PMEGP)**.

Lending to REITs:

- **New Facility:** Commercial banks are now permitted to extend finance directly to listed **Real Estate Investment Trusts (REITs)**, a facility previously restricted to InvITs.

- **Prudential Cap:** The aggregate credit exposure of all banks to a REIT is capped at **49% of the REIT's asset value**.
- **Impact:** This move aligns REITs with other equity-like instruments, reducing their cost of capital and potentially increasing dividends for retail investors.

2. Strengthening Consumer Protection

Digital Fraud Compensation Framework:

- **Key Provision:** RBI has proposed a framework to compensate victims of **small-value digital frauds** (up to **25,000**) for their first-ever loss.
- **"No Questions Asked":** Crucially, compensation will be provided even if the customer accidentally shared an **OTP**, as long as the fraud was unintended.
- **Funding:** The payouts will be funded using the **Deposit Education and Awareness (DEA) Fund**, which currently holds substantial surplus income from unclaimed deposits.
- **Cost Sharing:** Under the proposed 85:15 model, the RBI/Bank will cover 85% of the loss (capped at 25,000), while the customer bears the remaining 15%.

Curbing Mis-selling and Recovery Harassment:

- **Third-Party Products:** New guidelines will mandate that insurance or mutual funds sold at bank counters must be suitable for the customer's risk appetite.
- **Recovery Agents:** The RBI is harmonizing rules for **loan recovery agents** across all regulated entities to end coercive practices and ensure fair conduct.

3. 'Mission SAKSHAM' for Urban Cooperative Banks (UCBs)

- **The Mission:** **Sahakari Bank Kshamta Nirman** is a massive capacity-building initiative launched to modernize UCBs.
- **Scale:** It aims to train and certify **1.40 lakh participants** from the cooperative sector in regional languages, focusing on compliance, technology, and risk management.

- **Unsecured Lending:** RBI has also proposed to double the aggregate ceiling for **unsecured advances** in UCBs from 10% to **20% of total assets**, providing them more operational flexibility.

REITs vs. InvITs: A Quick Comparison

Aspect	REITs (Real Estate)	InvITs (Infrastructure)
Asset Type	Commercial offices, Malls, Hotels.	Roads, Power lines, Data centers.
Revenue Source	Rental income & Lease payments.	Tolls, Tariffs, & User fees.
Portfolio Rule	Min. 80% in revenue-generating properties.	Min. 80% in revenue-generating infra.
Leverage Limit	Debt capped at 49% of asset value.	Debt allowed up to ~70% of asset value.

Conclusion

The 2026 reforms mark a shift from purely managing inflation to proactively securing the "last mile" of the economy. By shielding small digital users from fraud and opening formal credit lines for MSMEs, the RBI is building a more resilient and consumer-centric financial ecosystem for **Viksit Bharat**.

Capital Goods Sector : The Engine of India's ₹12.2 Lakh Crore Capex Push



Why in News?

The **Union Budget 2026–27** has positioned the capital goods sector as the "backbone" of India's

manufacturing ambitions. With a record public capital expenditure (Capex) of **₹12.2 lakh crore**, the government aims to create a massive "crowding-in" effect for private investment, specifically targeting high-precision machinery, container manufacturing, and critical mineral processing.

1. Key Budgetary Announcements (2026-27)

Massive Infrastructure Outlay:

- **₹12.2 Lakh Crore Capex:** A significant jump to accelerate infrastructure-led growth. Government outlay has risen **4.2 times** since FY18, reflecting a shift toward investment-led expansion rather than just consumption.

New Manufacturing Schemes:

- **Container Manufacturing Scheme (₹10,000 Crore):** A five-year plan to build a globally competitive ecosystem for shipping containers, aimed at reducing logistics costs and supporting export growth.
- **Hi-Tech Tool Rooms:** CPSEs (Central Public Sector Enterprises) will establish digitally enabled tool rooms to provide MSMEs with affordable design, testing, and high-precision manufacturing services.
- **Construction Equipment Scheme:** A new framework to promote domestic manufacturing of advanced machinery like tunnel-boring machines and heavy earthmovers.

Fiscal & Tax Incentives:

- **Bonded Zone Exemptions:** A five-year income tax exemption for non-resident entities supplying capital goods to "toll manufacturers" and electronics units in bonded zones (effective until 2030–31).
- **Green Energy Customs Relief:** Extension of customs duty exemptions on capital goods used for **Lithium-ion cell manufacturing** and **critical mineral processing** to secure the EV and battery supply chain.

2. Significance of the Capital Goods Sector

- **Economic Multiplier:** Public capex in this sector has a high multiplier effect, estimated at **2.5 to 3.5 times** the initial investment.
- **Technological Backbone:** It provides the "mother machinery" for automobiles, textiles, electronics, and heavy industries.
- **Energy Transition:** Essential for producing solar panels, wind turbines, and the specialized equipment needed for India's **Net Zero 2070** goals.

3. Existing Initiatives

- **National Capital Goods Policy (2016):** The guiding roadmap to increase total production and exports.
- **Capital Goods Scheme (Phase II):** Focuses on industry-academia collaboration to develop indigenous technology and common engineering facility centers.
- **PLI Schemes:** Large-scale incentives in 14 sectors create a direct demand for advanced capital goods and automation.

4. Challenges Facing the Sector

- **Inverted Duty Structure:** In many cases, raw materials attract higher import duties than finished machines, making domestic manufacturing less competitive than imports.
- **R&D Gap:** India still relies on imports for high-precision components due to low private-sector investment in research and development.
- **Logistics Costs:** High inland transport costs for "Over-Dimensional Cargo" (ODC) impact the global competitiveness of heavy machinery.
- **MSME Fragmentation:** Small units lack the scale to invest in expensive international certifications and advanced testing labs.

5. The Path to "Atmanirbhar" Capital Goods

- **Shared Infrastructure:** Expanding **Common Engineering Facility Centres** so MSMEs can

access expensive high-end machinery on a pay-per-use basis.

- **Reducing Cost of Capital:** Providing easier credit and tax breaks to lower the upfront burden of acquiring global advanced technologies.
- **Logistics Resilience:** Developing domestic container manufacturing to insulate Indian exporters from global shipping disruptions and high container lease rates.

Conclusion

The 2026 budget transforms the capital goods sector from a mere supplier into a strategic pillar of **Viksit Bharat**. By linking higher capex with targeted schemes for containers and high-tech tools, India is building the structural capacity to "Make for the World" while ensuring its domestic supply chains remain resilient.

NITI Aayog: Scenarios Towards Viksit Bharat and Net Zero 2070



Why in News?

On **9–10 February 2026**, NITI Aayog released a landmark series of **11 reports** titled "**Scenarios Towards Viksit Bharat and Net Zero.**" Developed by **10 Inter-Ministerial Working Groups**, this is India's first government-led, integrated assessment to map how the country can achieve a **USD 30 trillion economy by 2047** while fulfilling its pledge to reach **Net Zero emissions by 2070**.

1. Macroeconomic and Social Transformation

- **GDP & Investment:** India's GDP is projected to surge from **USD 4.18 trillion (2025)** to **USD 30 trillion (2047)**. This requires the economy to shift from being "**Consumption-Led**" to

"Investment-Driven," with investment shares in GDP rising significantly.

- **Green Employment:** The transition is expected to add **7 million green jobs** in the energy sector by 2050.
- **Just Transition:** Over **150 districts** currently dependent on coal face "profound restructuring." Nearly **17 million workers** in fossil-fuel-linked sectors will require reskilling and social protection.
- **Urbanization:** Urban population share will rise from 37% (2023) to **51% by 2047** and **65% by 2070**.

2. Energy Transition and Power Sector

- **Electrification:** The share of electricity in final energy demand will triple from **21% (2025) to 60% (2070)**, driven by EVs, induction cooking, and industrial heat pumps.
- **Renewable Energy:** Solar and wind capacity must scale from ~164 GW (2025) to over **6,000 GW by 2070**.
- **Nuclear Pillar:** Targeted to scale from 8 GW to over **300 GW by 2070** to provide stable baseload power.
- **Coal Pathway:** While energy intensity will drop, India's **coal consumption will continue to rise until 2047** to ensure energy security during the growth phase, eventually dropping to a 14% share by 2070 (mitigated by CCUS).

3. Sectoral Insights: Buildings and Waste

- **Future-Proofing Buildings:** Approximately **86% of the building floor space** that will exist in 2070 is **yet to be built**.
- **Cooling Demand:** Air conditioner penetration is projected to jump from **10% to over 80%** by 2070, necessitating strict energy-efficient building codes to avoid "heat stress lock-in."
- **Circular Waste:** The reports target **100% door-to-door solid waste collection** and

wastewater treatment by **2047**, transforming waste into resources like Bio-CNG and compost.

4. Critical Minerals and Supply Chains

- **Mineral Shift:** Energy security risks are moving from "fuel supply" to "mineral supply." Demand for **Critical Energy Transition Minerals (CETMs)** like Lithium, Copper, and Cobalt will rise by **51%**.
- **Strategic Sourcing:** India faces near-total import dependence for Lithium and Nickel. Strategies include overseas asset acquisition via **KABIL** and scaling domestic circularity (recycling).

5. Financing the ₹2,000 Lakh Crore Transition

- **Investment Need:** Achieving Net Zero requires a cumulative investment of **USD 22.7 trillion (~₹1,900–2,000 lakh crore)** by 2070.
- **Financing Gap:** An annual requirement of **USD 500 billion** exists, with a projected aggregate financing gap of **USD 6.5 trillion**.
- **External Capital:** Reliance on international capital (FDI/concessional finance) must rise from **17% to 42%** to bridge the gap.

Key Strategies for Viksit Bharat

- **Mission LiFE:** Prioritizing behavioral change to moderate energy demand through sustainable lifestyles.
- **CCUS & Hydrogen:** Rapidly de-risking nascent technologies like **Carbon Capture** and **Green Hydrogen** for "hard-to-abate" sectors like Steel and Cement.
- **Climate Finance Taxonomy:** Establishing a unified framework and a **National Green Finance Institution** to anchor global investments.
- **District Mineral Foundations (DMF):** Utilizing existing funds to finance the "Just Transition" for workers in coal-rich regions.

Conclusion

NITI Aayog's "11 Reports" serve as a lighthouse for the Global South, demonstrating that rapid economic expansion and deep decarbonization can coexist. By treating the Net Zero transition as a human-centric development project rather than just a technical one, India aims to build an "Indian Development Model" rooted in resource efficiency, circularity, and climate justice.



Crux of The Hindu & Indian Express



Union Budget 2026–27

Presented By :

- Union Minister for Finance and Corporate Affairs, Nirmala Sitharaman, presented the Union Budget for 2026–27 on 1 February 2026.
- The presentation occurred on the dual auspicious occasion of Magha Purnima and the 649th birth anniversary of Guru Ravidas.
- This marked a historic milestone as Sitharaman presented her 9th consecutive budget and the first-ever to be delivered on a Sunday.
- This Budget is the first Union Budget prepared in Kartavya Bhawan.

Union Budget: Concept, Constitutional Basis, and Evolution :

Significance of the Union Budget

- Every year, the presentation of the Union Budget marks one of the most consequential moments in India's governance calendar.
- The Budget is not merely a statement of accounts, but a comprehensive expression

of the Government's economic priorities, fiscal strategy, and policy direction for the coming year.

- Through the Union Budget, the State decides how resources will be raised, where they will be spent, and what economic path the country will pursue.
- It reflects the Government's approach towards growth, welfare, infrastructure development, and fiscal discipline.

Union Budget 2026: Context

- As per established practice, the Budget followed the release of the Economic Survey.
- The proposals in the Budget are closely aligned with the assessment, trends, and themes highlighted in the Economic Survey.

What is the Union Budget? (Constitutional Meaning)

Annual Financial Statement

- In constitutional terms, the Union Budget is referred to as the Annual Financial Statement.
- This is provided under Article 112 of the Constitution of India.
- It contains a statement of the estimated receipts and expenditure of the Government of India for a financial year.

Structure of the Budget

The Budget is divided into three main funds:

1. Consolidated Fund of India
2. Contingency Fund of India
3. Public Account of India

Use of the Term "Budget"

- Interestingly, the word "Budget" does not appear anywhere in the Constitution of India.
- Despite this, the Budget performs one of the most critical constitutional functions,

which is to seek Parliament's approval for taxation and expenditure.

- Therefore, the Budget is constitutionally indispensable, even though the term itself is **non-constitutional**.

Practical Significance of the Union Budget

- In practical terms, the Union Budget reflects:
 - The **Government's development priorities**
 - Its **assessment of economic challenges and opportunities**
 - Its approach towards **economic growth, social welfare, and infrastructure**
 - Its commitment to **fiscal discipline and macroeconomic stability**
 - Its vision for **resource mobilisation and allocation**
- The Union Budget is prepared by the **Department of Economic Affairs** under the **Ministry of Finance**.

Brief History of the Budget in India

Colonial Period

- India's budgetary tradition dates back to the **British colonial period**.
- The **first budget in India** was presented on **7th April 1860**.
- It was presented by **James Wilson**, who was the **first Finance Member of the Viceroy's Council**.

Post-Independence Period

- After Independence, the **first budget of independent India** was presented on **26th November 1947**.
- It was presented by **R. K. Shanmukham Chetty**, India's first Finance Minister.

Evolution of the Budget

- Over time, the Union Budget has evolved from a **narrow fiscal document** into a

comprehensive policy instrument.

- Today, it plays a central role in shaping **India's economic transformation and social development**.
- Despite this evolution, the Constitution continues to refer to it only as the **Annual Financial Statement**

Constitutional Provisions Related to the Union Budget

Article 110 – Money Bill

- **Article 110** defines what constitutes a **Money Bill**.
- It includes provisions related to **taxation, government borrowing, and custody of the Consolidated Fund of India**.
- The **Finance Bill**, which accompanies the Budget, is typically a **Money Bill**.

Article 112 – Annual Financial Statement

- **Article 112** is the **core constitutional provision** related to the Union Budget.
- It mandates that the **President shall lay before both Houses of Parliament** the Annual Financial Statement.
- This statement includes **estimated receipts and expenditures** for the financial year.

Article 113 – Procedure with Respect to Estimates

- **Article 113** operationalises the estimates presented under Article 112.
- It makes a distinction between:
 - **Charged expenditure**, which is **non-votable**, and
 - **Voted expenditure**, which requires approval of the **Lok Sabha**.

Article 114 – Appropriation Bills

- **Article 114** states that **no money can be withdrawn from the Consolidated Fund of India** without the passage of an **Appropriation Act**.
- This gives **legal authority** to the

Government to spend money approved by Parliament.

Article 115 – Supplementary, Additional, or Excess Grants

- **Article 115** allows the Government to seek **Supplementary Grants**.
- These are required when:
 - The amount authorised is found to be **insufficient**, or
 - A **new service** not originally included in the Budget arises during the year.

Article 116 – Vote on Account

- **Article 116** allows the **Lok Sabha** to grant a **Vote on Account**.
- This enables the Government to meet expenditure for a **part of the financial year**, usually **two months**, pending passage of the full Budget.
- It ensures **continuity of government functioning**.

Article 117 – Financial Bills

- **Article 117** deals with **Financial Bills**.
- Category I Financial Bills contain elements of a Money Bill but are **not Money Bills**.
- Such Bills:
 - Can be introduced only with **Presidential recommendation**, and
 - Involve the **Rajya Sabha**, unlike pure Money Bills.

Article 265 – Taxes by Authority of Law

- **Article 265** lays down a fundamental constitutional principle.
- It states that **no tax shall be levied or collected except by authority of law**.
- This ensures that **executive action alone cannot impose taxes**.

Article 266 – Consolidated Fund and Public Account

- **Article 266** establishes:

- The **Consolidated Fund of India**, which includes all government revenues, and
- The **Public Account of India**, which includes funds like **Provident Funds and savings deposits**.

- Most Budgetary transactions are routed through the **Consolidated Fund**.

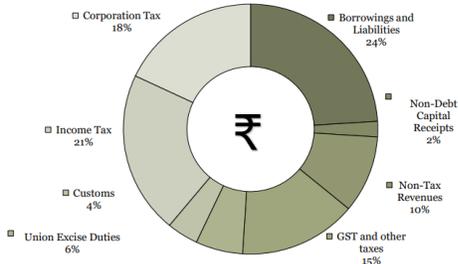
Article 267 – Contingency Fund

- **Article 267** provides for the **Contingency Fund of India**.
- The fund is placed at the **disposal of the President**.
- It is used to meet **unforeseen expenditure**, pending approval by Parliament.

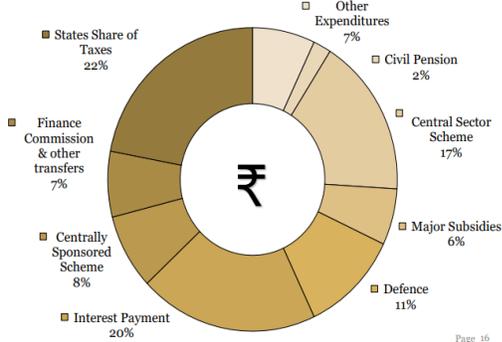
Revised Estimates (RE) 2025-26 and Budget Estimates (BE) 2026-27

Fiscal Item	RE 2025-26	BE 2026-27
Non-debt Receipts	₹34.0 lakh crore	₹36.5 lakh crore
Centre's Net Tax Receipts	₹26.7 lakh crore	₹28.7 lakh crore
Total Expenditure	₹49.6 lakh crore	₹53.5 lakh crore
Capital Expenditure	₹11.0 lakh crore	₹12.2 lakh crore
Fiscal Deficit	4.4% of GDP	4.3% of GDP
Debt-to-GDP Ratio	56.1%	55.6%
Net Market Borrowings		₹11.7 lakh crore
Gross Market Borrowings		₹17.2 lakh crore

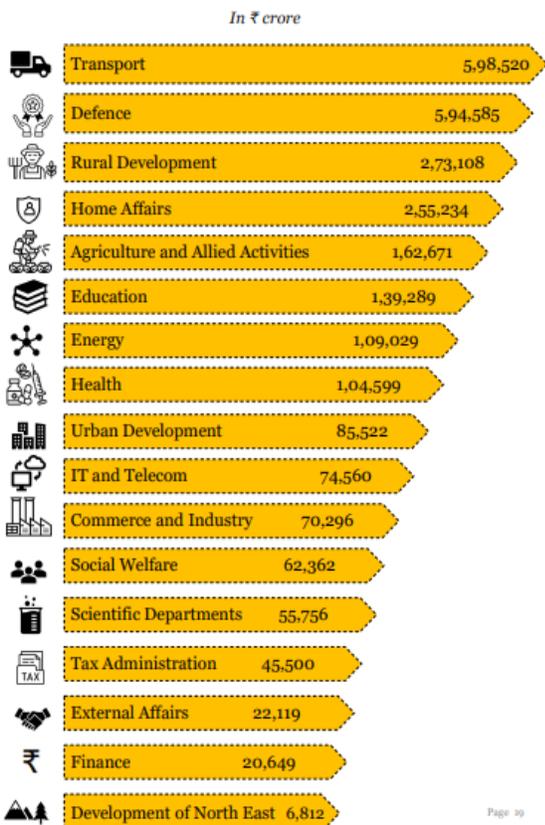
Rupee Comes From



Rupee Goes To



Expenditure of Major Items



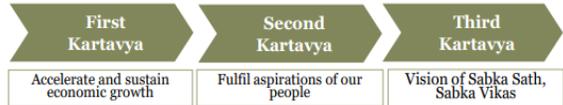
PART – A

Vision and Philosophy of the Budget:

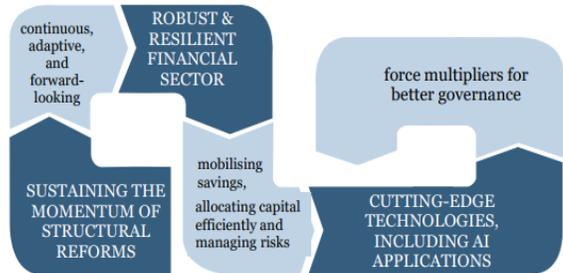
Yuva Shakti-driven Budget

Government's 'Sankalp'

To focus on poor, underprivileged and disadvantaged



- Enhancing productivity and competitiveness
- Building resilience to volatile global dynamics
- Build people's capacity
- Making them strong partners in India's path to prosperity
- Ensure that every family, community, region and sector has access to resources, amenities and opportunities for meaningful participation



- The Budget is inspired by the philosophy of **three Kartavya (duties)**.
- It is a **Yuva Shakti-driven Budget**, reflecting the Government's **Sankalp** to prioritise the **poor, underprivileged, and disadvantaged**.
- The Budget aims to take India towards **Viksit Bharat** by **balancing ambition with inclusion**.
- India will continue to remain **deeply integrated with global markets**, expand **exports**, and attract **stable long-term capital**, despite global uncertainties.

3 Kartavya Explained :

1st Kartavya: Accelerating and Sustaining Economic Growth

- The first kartavya focuses on **accelerating and sustaining economic growth**.
- It seeks to enhance **productivity and competitiveness**.
- It also aims to build **resilience against volatile global economic dynamics**.

2nd Kartavya: Fulfilling Aspirations and Building Capacity

- The second kartavya focuses on **fulfilling the aspirations of people**.

- It aims to build **human capacity**, making citizens **strong partners in India's prosperity journey**.

3rd Kartavya: Sabka Sath, Sabka Vikas

- The third kartavya aligns with the vision of **Sabka Sath, Sabka Vikas**.
- It ensures that **every family, community, region, and sector** gets access to **resources, amenities, and opportunities** for meaningful participation.

Global and Reform Background :

- The Finance Minister highlighted that the global environment is currently challenging.
- **Global trade and multilateralism** are under strain.
- **Access to resources and global supply chains** is increasingly disrupted.
- **New technologies** are transforming production systems and sharply increasing demand for **water, energy, and critical minerals**.
- After the Prime Minister's announcement on **Independence Day 2025**, over **350 reforms** have been implemented.
- These reforms include **GST simplification, notification of Labour Codes, and rationalisation of mandatory Quality Control Orders**.
- **High-Level Committees** have been constituted, and the Centre is working with States on **deregulation and compliance reduction**

First Kartavya: 6 Major Interventions

1. Scaling up Manufacturing in Strategic and Frontier Sectors :

Biopharma SHAKTI:

- **Biopharma SHAKTI (Strategy for Healthcare Advancement through Knowledge, Technology and Innovation)** has been announced with an outlay of **₹10,000 crore over five years**.

- The objective is to develop India as a **global biopharma manufacturing hub for biologics and biosimilars**.
- A **biopharma-focused network** will be created with **three new NIPERs** and **upgradation of seven existing NIPERs**.
- A network of **over 1,000 accredited India Clinical Trial sites** will be established.
- The **Central Drugs Standard Control Organisation (CDSCO)** will be strengthened through a **dedicated scientific review cadre** to meet **global approval timelines**.

India Semiconductor Mission (ISM) 2.0 :

- **ISM 2.0** will be launched to produce **semiconductor equipment and materials**.
- It will promote **full-stack Indian IP design** and strengthen **semiconductor supply chains**.
- Industry-led **research and training centres** will be created to develop **skilled manpower**.

Electronics and Critical Minerals :

- The outlay under the **Electronics Components Manufacturing Scheme** has been increased to **₹40,000 crore**.
- **Dedicated Rare Earth Corridors** will be established in **Odisha, Kerala, Andhra Pradesh, and Tamil Nadu** to support mining, processing, research, and manufacturing.
- A scheme will support States in establishing **three Chemical Parks** through a **challenge-based, cluster-oriented, plug-and-play model**.

Capital Goods and Construction Equipment :

- **Hi-Tech Tool Rooms** will be established by **CPSEs at two locations** as **digitally enabled automated service bureaus**.
- A **Construction and Infrastructure Equipment (CIE) Scheme** will strengthen domestic manufacturing of **high-value and technologically advanced equipment**.
- A **Container Manufacturing Scheme** with a budgetary allocation of **over ₹10,000 crore**

for five years will create a globally competitive ecosystem.

Textile Sector Integrated Programme :

- An **Integrated Textile Programme** has been announced for the labour-intensive textile sector.
- The **National Fibre Scheme** will promote self-reliance in **silk, wool, jute, man-made fibres, and new-age fibres**.
- The **Textile Expansion and Employment Scheme** will modernise traditional clusters through **machinery support, technology upgradation, and testing facilities**.
- **Mega Textile Parks** will be set up in challenge mode with a focus on **technical textiles**.
- The **Mahatma Gandhi Gram Swaraj Initiative** will strengthen **khadi, handloom, and handicrafts** and support branding, skilling, and quality improvement.

2. Rejuvenating Legacy Industrial Sectors :

- A scheme has been announced to revive **200 legacy industrial clusters**.
- The focus is on improving **cost competitiveness, efficiency, and infrastructure and technology upgradation**.

3. Creating Champion MSMEs and Supporting Micro Enterprises :

- A dedicated **₹10,000 crore SME Growth Fund** will be introduced to create **Champion MSMEs**.
- The **Self-Reliant India Fund** will receive an additional **₹2,000 crore** to support micro enterprises.
- Professional institutions such as **ICAI, ICSI, and ICMAI** will design **short-term modular courses** to develop **Corporate Mitras**, especially in **Tier-II and Tier-III towns**.

4. Delivering a Powerful Push to Infrastructure :

- **Public capital expenditure** has increased from **₹2 lakh crore in FY 2014–15 to ₹11.2 lakh crore in BE 2025–26**.

- For **FY 2026–27**, capital expenditure has been raised to **₹12.2 lakh crore**.
- An **Infrastructure Risk Guarantee Fund** will be established to reduce risks for private developers.
- CPSE real estate assets will be monetised through **dedicated REITs**.

Green Cargo and Logistics :

- New **Dedicated Freight Corridors** will connect **Dankuni (East) to Surat (West)**.
- **Twenty National Waterways** will be operationalised over five years, starting with **NW-5 in Odisha, connecting Talcher, Angul, Kalinga Nagar, Paradeep, and Dhamra**.
- **Regional Centres of Excellence** will train manpower for waterways.
- A **ship repair ecosystem** will be developed at **Varanasi and Patna**.
- A **Coastal Cargo Promotion Scheme** will increase inland and coastal shipping share from **6% to 12% by 2047**.
- A **Seaplane VGF Scheme** will promote tourism and last-mile connectivity.

5. Ensuring Long-Term Energy Security :

- An outlay of **₹20,000 crore over five years** has been announced for **Carbon Capture, Utilisation and Storage (CCUS)** technologies.

6. Developing City Economic Regions (CERs) :

- An allocation of **₹5,000 crore per City Economic Region over five years** has been announced.
- Funding will follow a **challenge-based, reform-linked, and results-based financing mechanism**.
- **Seven High-Speed Rail Corridors** will be developed as **growth connectors**:
 - Mumbai–Pune
 - Pune–Hyderabad
 - Hyderabad–Bengaluru
 - Hyderabad–Chennai
 - Chennai–Bengaluru

- Delhi–Varanasi
- Varanasi–Siliguri
- A **High-Level Committee on Banking for Viksit Bharat** will review the banking sector.
- **Power Finance Corporation** and **Rural Electrification Corporation** will be restructured.
- A review of **FEMA (Non-Debt Instruments) Rules** will be undertaken.
- Municipal bonds will receive an incentive of **₹100 crore** for issuances above **₹1,000 crore**.

Second Kartavya: Fulfilling Aspirations and Building Capacity

- Close to **25 crore people** have exited **multidimensional poverty** over the last decade.
- **Five Regional Medical Hubs** will promote **medical tourism** with AYUSH centres and rehabilitation facilities.
- A **loan-linked capital subsidy scheme** will support the creation of **over 20,000 veterinary professionals**.
- The **AVGC sector**, projected to need **2 million professionals by 2030**, will be supported through labs in **15,000 schools and 500 colleges**.
- **One girls' hostel** will be established in **every district** in STEM institutions.
- The **National Council for Hotel Management and Catering Technology** will be upgraded to a **National Institute of Hospitality**.
- A pilot scheme will upskill **10,000 tourist guides** through a **12-week hybrid course with an IIM**.
- A **Khelo India Mission** will transform the sports sector over the next decade.

Third Kartavya: Sabka Sath, Sabka Vikas

- **Bharat-VISTAAR**, a **multilingual AI-based tool**, will integrate **AgriStack and ICAR** to support farmers.
- **SHE Marts** will be set up as **community-owned retail outlets**.

- **NIMHANS-2** will be established, and institutes in **Ranchi and Tezpur** will be upgraded.
- An **East Coast Industrial Corridor** with a node at **Durgapur** will be developed.
- **Five tourism destinations, 4,000 e-buses, and a Buddhist Circuit Scheme** in the North-East will be implemented.

Fiscal Consolidation

- The **debt-to-GDP ratio** is estimated at **55.6% in BE 2026–27**, compared to **56.1% in RE 2025–26**.
- The **fiscal deficit** is estimated at **4.3% of GDP in BE 2026–27**.

PART – B : Union Budget 2026–27 (Taxation Reforms)

6. Fiscal matters

16th Finance Commission

- The Government has accepted the recommendation of the Commission to retain the vertical share of devolution at 41%.
- Provision **₹1.4 lakh crore** to the States for the FY 27 as Finance Commission Grants. These include Rural and Urban Local Body and Disaster Management Grants.

Fiscal Consolidation

- Central Government will target reaching a debt-to-GDP ratio of **50±1 percent by 2030**.
- The debt-to-GDP ratio is estimated to be **55.6 percent of GDP in BE 2026-27**, compared to **56.1 percent of GDP in RE 2025-26**.
- In RE 2025-26, the fiscal deficit has been estimated at par with BE of 2025-26 at **4.4 percent of GDP**. In line with the new fiscal prudence path of debt consolidation, the fiscal deficit in BE 2026-27 is estimated to be **4.3 percent of GDP**.

- **PART-B** of the Union Budget 2026–27 focuses on **Direct Taxes, Indirect Taxes, Customs reforms, Tax administration, Ease of Living, and Ease of Doing Business**.
- The reforms aim to **simplify tax laws, reduce litigation, improve compliance, and enhance India's attractiveness for global investment**, while protecting honest taxpayers.

DIRECT TAXES

New Income Tax Act, 2025

- The **New Income Tax Act, 2025** will come into effect from **April 2026**.
- The Act aims to create a **simpler, clearer, and citizen-friendly tax law**.

- **Simplified Income Tax Rules and Forms** will be notified shortly.
- The **new forms** are redesigned to ensure **easy compliance for ordinary citizens**, especially small taxpayers.

Ease of Living for Taxpayers

Income Tax Exemptions

- **Interest awarded by the Motor Accident Claims Tribunal (MACT)** to a natural person will be **fully exempt from Income Tax**.
- Any **Tax Deducted at Source (TDS)** on such interest income will be **removed**.

TCS Rationalisation

- The **Tax Collected at Source (TCS)** rate on **overseas tour program packages** has been reduced to **2 percent**, from the earlier range of **5 percent and 20 percent**, without any threshold limit.
- The **TCS rate under the Liberalised Remittance Scheme (LRS)** for **education and medical purposes** has been reduced from **5 percent to 2 percent**.

TDS Reforms

- The **supply of manpower services** will now be treated as **payment to contractors** for TDS purposes.
- TDS on such manpower services will be levied at **1 percent or 2 percent only**, benefiting labour-intensive sectors.
- A **rule-based automated system** will allow small taxpayers to obtain **lower or nil TDS certificates** without approaching the assessing officer.

Return Filing Reforms

- The **time limit for revising income tax returns** has been extended from **31st December to 31st March**, subject to payment of a **nominal fee**.
- The **timeline for filing tax returns** will be **staggered** to reduce system congestion.

- A **single-window filing facility** will be introduced through **depositories for Form 15G and Form 15H**.
- For **property transactions involving NRIs**, the requirement of a **Tax Deduction Account Number (TAN)** will be replaced with a **PAN-based challan of the resident buyer**.

Foreign Asset Disclosure Scheme

- A **one-time 6-month foreign asset disclosure scheme** will be introduced.
- The scheme will apply to **students, young professionals, tech employees, relocated NRIs, and small taxpayers**.
- It will allow disclosure of **foreign income or assets below a specified threshold** without harsh penalties.

Rationalisation of Penalty and Prosecution

- **Assessment and penalty proceedings** will be **integrated into a single common order**, reducing multiplicity of proceedings.
- The **pre-deposit requirement** for filing appeals will be reduced from **20 percent to 10 percent**, calculated only on **core tax demand**.
- Taxpayers will be allowed to **update returns even after reassessment proceedings** have begun, by paying an **additional 10 percent tax**.
- **Immunity from penalty and prosecution** will be extended from cases of **under-reporting to misreporting of income**, subject to payment of **100 percent additional tax**.
- The **prosecution framework** under the Income Tax Act will be **rationalised**.
- **Non-production of books of account, and TDS defaults where payment is made in kind**, will be **decriminalised**.
- **Non-disclosure of non-immovable foreign assets** with an aggregate value of **less than ₹20 lakh** will be granted **immunity from prosecution**, with **retrospective effect from 1 October 2024**.

Taxation of Cooperatives

- The existing **deduction available to primary cooperative societies** supplying **milk, oilseeds, fruits, or vegetables** will be **extended** to include **cattle feed and cotton seed** produced by members.
- **Inter-cooperative society dividend income** will be allowed as a **deduction under the new tax regime**, to the extent it is distributed to members.
- **Dividend income received by a notified national cooperative federation** will be **exempt from tax for three years**, for investments made up to **31 January 2026**, provided the dividend is further distributed to member cooperatives.

Supporting the IT Sector as India's Growth Engine

- **Software development services, IT-enabled services, Knowledge Process Outsourcing (KPO), and contract R&D services** will be **clubbed into a single category** called **Information Technology Services**.
- A **uniform safe harbour margin of 15.5 percent** will apply to this category.
- The **threshold for availing safe harbour** will be increased from **₹300 crore to ₹2,000 crore**.
- **Safe harbour approval** will be granted through an **automated, rule-driven process**.
- Once opted, the **safe harbour can be continued for five consecutive years**.
- The **Unilateral Advanced Pricing Agreement (APA)** process for IT services will be **fast-tracked**, with an effort to conclude within **two years**, extendable by **six months**.
- The facility of **modified returns** available to an entity entering into an APA will be **extended to its associated entities**.

Attracting Global Business and Investment

- Any **foreign company providing cloud services globally using Indian data centres** will be granted a **tax holiday till 2047**.
- A **safe harbour margin of 15 percent on cost** will apply where data centre services are provided by a **related entity**.
- A **safe harbour regime** will apply to **non-residents for component warehousing in bonded warehouses**, with a profit margin of **2 percent of invoice value**, resulting in an effective tax of about **0.7 percent**.
- **Non-residents supplying capital goods, equipment, or tooling** to toll manufacturers in **bonded zones** will receive **income tax exemption for five years**.
- **Non-resident experts** will receive **exemption on global (non-India sourced) income** for a **stay period of five years** under notified schemes.
- All **non-residents paying tax on a presumptive basis** will be **exempt from Minimum Alternate Tax (MAT)**.

Tax Administration Reforms

- A **Joint Committee of the Ministry of Corporate Affairs and the Central Board of Direct Taxes (CBDT)** will be constituted.
- The committee will integrate **Income Computation and Disclosure Standards (ICDS)** into **Indian Accounting Standards (IndAS)**.
- From **tax year 2027–28**, **separate accounting under ICDS** will be **eliminated**.
- The **definition of "accountant"** under **Safe Harbour Rules** will be **rationalised**.

Other Direct Tax Proposals

- **Buyback of shares** for all shareholders will be taxed as **Capital Gains**.
- **Promoters** will pay an additional buyback tax, resulting in an effective rate of **22 percent for corporate promoters** and **30 percent for non-corporate promoters**.

- The **TCS rate on alcoholic liquor, scrap, and minerals** will be rationalised to **2 percent**.
- The **TCS rate on tendu leaves** will be reduced from **5 percent to 2 percent**.
- **Securities Transaction Tax (STT) on futures** will increase from **0.02 percent to 0.05 percent**.
- STT on **options premium and exercise of options** will increase to **0.15 percent**.
- **MAT credit set-off** will be allowed **only under the new tax regime**, limited to **one-fourth of tax liability**.
- **MAT will become a final tax**, with the rate reduced from **15 percent to 14 percent**, and **no further credit accumulation from 1 April 2026**.

INDIRECT TAXES

Objectives of Indirect Tax Reforms

- Indirect tax proposals aim to **simplify tariff structure, support domestic manufacturing, promote exports, and correct inverted duty structures**.

Rationalisation of Customs Duties

Marine, Leather, and Textile Sectors

- Duty-free import of inputs for seafood processing will increase from **1 percent to 3 percent of FOB value**.
- Duty-free import of specified inputs will be allowed for **leather and synthetic footwear exports**.

Energy Transition and Security

- **Basic Customs Duty (BCD) exemption** on capital goods for **Lithium-Ion cell manufacturing** will be extended.
- BCD on **sodium antimonate for solar glass manufacturing** will be exempted.

Nuclear Power

- BCD exemption for imports required for **Nuclear Power Projects** will be extended till **2035**.

Critical Minerals

- BCD on capital goods required for **processing of critical minerals** will be exempted.

Biogas Blended CNG

- The **entire value of biogas** will be excluded while calculating **Central Excise duty on biogas-blended CNG**.

Civil and Defence Aviation

- BCD exemption will apply to **components and parts for aircraft manufacturing**.
- Raw materials for **aircraft MRO activities in the defence sector** will also be exempted.

Electronics

- BCD exemption will apply to **specified parts used in microwave oven manufacturing**.

Special Economic Zones (SEZs)

- A **one-time concessional duty window** will allow eligible SEZ units to sell to the **Domestic Tariff Area (DTA)**, subject to export-linked limits.

Ease of Living (Customs)

- Import duty on **personal use goods** will be reduced from **20 percent to 10 percent**.
- **17 drugs and medicines** will receive full BCD exemption.
- **Seven additional rare diseases** will qualify for **duty-free personal imports** of drugs and FSMP.

Customs Process Simplification and Trust-Based Systems

- Customs procedures will move towards **minimal intervention**.
- **Duty deferral period** for **Tier-2 and Tier-3 AEOs** will increase from **15 days to 30 days**.
- **Advance ruling validity** will increase from **3 years to 5 years**.
- **Trusted importers** will receive **automatic clearance notifications**.
- Customs warehousing will shift to a **warehouse operator-centric model** with **electronic tracking and risk-based audits**.

Ease of Doing Business and Trade Facilitation

- Cargo clearances will be processed through a **single digital window**.
- Processes covering **food, drugs, plant, animal, and wildlife products** will be integrated by **April 2026**.
- The **Customs Integrated System (CIS)** will be rolled out in **two years**.
- **AI-based non-intrusive scanning** will be expanded to **scan every container at major ports**.

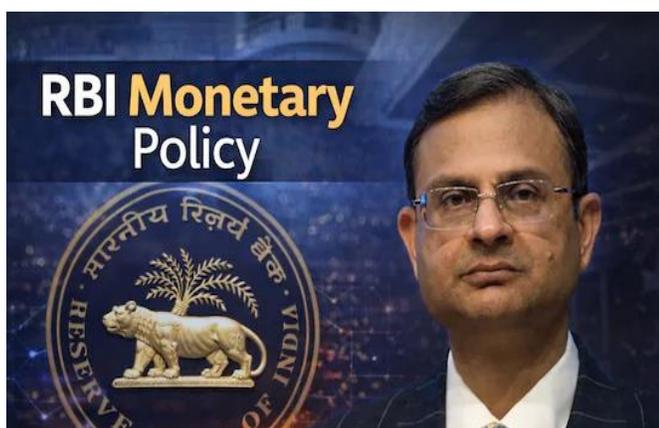
New Export Opportunities

- **Fish catch in India's EEZ or high seas** will be made **duty-free**.
- Landing fish at foreign ports will be treated as **export of goods**.
- The **₹10 lakh per consignment cap on courier exports** will be **fully removed** to support **MSMEs, artisans, and startups**.

Ease of Living for Travellers and Taxpayers

- **Baggage clearance rules** will be revised to enhance **duty-free allowances**.
- **Honest taxpayers** will be allowed to **settle disputes by paying an additional amount in lieu of penalty**.

RBI Monetary Policy 2026 – Repo Rate Unchanged at 5.25%



- **In February 2026**, The Reserve Bank of India (RBI) has kept the repo rate unchanged at **5.25%** in its latest monetary policy announcement.

- The decision was taken by the Monetary Policy Committee (MPC), chaired by RBI Governor **Sanjay Malhotra**.
- The RBI decided not to change the rate because inflation is currently under control at around 2.1%. The central bank wants to support economic growth while also keeping prices stable.

What Is Repo Rate?

- Repo rate is the interest rate at which the **Reserve Bank of India** lends short-term money to commercial banks.
- **Simple Meaning**
 - When banks need money for a short time, they borrow from RBI by giving government securities as security.
 - The interest charged on this borrowing is called the repo rate.

Why It Is Important

Repo rate helps RBI to:

- Control inflation
- Manage money supply
- Control credit flow
- Support economic growth

Any change in repo rate directly affects:

- Loan interest rates
- EMI amounts
- Business investment
- Overall economic activity

Impact of Repo Rate on Indian Economy

When Repo Rate Is Reduced

If RBI reduces repo rate, the following happens:

- Loans become cheaper.
- Home loans, car loans, and business loans have lower interest rates.
- People spend more.
- Companies invest more.

- Small businesses and farmers get easier access to credit.
- More money circulates in the economy.
- Economic growth increases.

This step is usually taken when growth is slow.

When Repo Rate Is Increased

If RBI increases repo rate:

- Loans become expensive.
- EMI increases.
- Spending reduces.
- Inflation is controlled.
- Credit growth slows down.
- Foreign investors may invest more due to higher returns.
- Savings in banks increase.
- Rupee may strengthen.

This step is usually taken when inflation is high.

About the Monetary Policy Committee (MPC)

The Monetary Policy Committee (MPC) is a six-member body of RBI.

Its main role is to decide:

- Repo rate
- Reverse repo rate
- Policy stance

Its main objective is:

- Maintain price stability
- Support economic growth

The MPC meets at least four times a year.

Members of MPC

1. Governor of RBI – Chairperson
2. Deputy Governor in charge of monetary policy – Member
3. One RBI official nominated by Central Board – Member
4. 3 external experts nominated by Government of India – Members

This structure ensures balance between government and RBI in decision-making.

Review of NAFED to Strengthen MSP Procurement and Pulses Self-Reliance



1. What Happened?

- Union Agriculture Minister **Shri Shivraj Singh Chouhan** held a detailed review meeting of **NAFED (National Agricultural Cooperative Marketing Federation of India Ltd.)**.
- The meeting focused on:
- **Procurement of Pulses and Oilseeds**
- Ensuring farmers receive full **Minimum Support Price (MSP)**
- Strengthening the **Government Procurement System**

The Minister directed officials to make **MSP procurement more robust, transparent and time-bound**.

2. What is NAFED?

NAFED is a government-supported **cooperative organization**.

Its key roles:

- Procure crops at **MSP**
- Stabilise **Market Prices**
- Support farmers under various **Government Schemes**

It plays a crucial role in **Pulses and Oilseeds Procurement**.

3. Focus Areas of the Meeting

The review covered:

- **Price Support Scheme (PSS)**
- **Price Stabilisation Fund (PSF)**
- **Ongoing Procurement Operations**
- **Operational Challenges**

The Minister stressed improving **efficiency** and making the system more **farmer-friendly**.

4. Strengthening MSP Procurement

The Minister emphasised:

- Procurement must be **time-bound**
- **Timely Payments** to farmers
- Well-equipped **Procurement Centres**
- Clear communication of **Procurement Schedule and Procedures**

Goal: Build **Farmers' Trust** in the MSP system.

5. Special Focus on Pulses

Priority crops:

- **Tur (Arhar)**
- **Urad**
- **Masoor**

Reason:

- Pulses are essential for **Nutritional Security**
- India still depends on **Pulses Imports**
- Higher domestic production will reduce **Import Dependence**

6. Self-Reliance in Pulses Mission (Proposed 6-Year Plan)

The government is planning a **6-year mission** for pulses.

Main objectives:

- Increase **Domestic Pulses Production**
- Ensure **Assured MSP Procurement**
- Reduce **Imports**
- Increase **Farmers' Income**
- Stabilise **Market Prices**

Aim: Make India **Atmanirbhar** in Pulses.

7. Measures Under the Mission

Key strategies:

- Improve **Agronomic Practices**
- Provide **High-Quality Seeds**
- Offer **Technical Support**
- Strengthen **Marketing and Procurement Systems**
- Improve **Storage Infrastructure**

8. Reducing Role of Middlemen

The Minister stressed direct linkage of farmers with the **Government Procurement System**.

This will

- Reduce dependence on **Middlemen**
- Ensure **Fair Prices**
- Improve **Income Security**

Strong **Centre-State Coordination** was also emphasized.

9. Importance of Storage and Planning

The Minister highlighted:

- Need for proper **Storage Facilities**
- Procurement aligned with **Production Estimates**
- Timely purchases during **Peak Arrival Season**

This helps:

- Reduce **Price Volatility**
- Protect both **Farmers and Consumers**

10. Role of NAFED Going Forward

NAFED must:

- Function with greater **Efficiency**
- Ensure **Transparency**
- Regularly **Monitor Operations**
- Resolve **Field-Level Issues Quickly**

Large-scale **MSP Operations** require strong supervision.

Corporate Bond Market Reforms: De-risking India's Banking Sector



Why in News?

In **February 2026**, the **Union Budget 2026-27** introduced a suite of structural reforms to deepen India's corporate bond market. The government aim

is to transition the economy from its current "bank-led" debt model to a "market-linked" model. By creating a robust secondary market for corporate debt, the reforms seek to relieve **Indian banks**, which currently shoulder nearly **60-65%** of all non-financial corporate risk—a burden that has necessitated over **3.2 lakh crore** in public recapitalization since 2017.

1. Key Reforms in Union Budget 2026-27

- **Market-Making Framework:** Establishes "Designated Intermediaries" mandated to provide continuous **two-way quotes** (buy and sell) to ensure liquidity. These players will get preferential access to funding and bond-index derivatives.
- **Total-Return Swaps (TRS):** Introduces synthetic instruments that allow investors to gain exposure to a bond's interest and price changes without owning the physical asset, effectively aiding **risk hedging**.
- **Infrastructure Risk Guarantee Fund:** A specialized fund providing **partial credit guarantees** to lenders during the high-risk "construction phase" of infrastructure projects to improve bankability.
- **CPSE Asset Monetisation via REITs:** Accelerates capital recycling by unlocking the vast, underutilized real estate of **Central Public Sector Enterprises (CPSEs)** through dedicated Real Estate Investment Trusts.
- **Bond-Index Derivatives:** Broadens the market by allowing trading on corporate bond indices, providing a macro tool for institutional investors to manage interest rate risks.

2. The Problem: Structural Overburden of Banks

- **Asset-Liability Mismatch:** Banks use **short-term deposits** (1-5 years) to fund **long-term infrastructure** (15-20 years), creating systemic vulnerability.
- **Fiscal Dependency:** Private-sector credit losses frequently migrate to the public balance sheet, requiring massive taxpayer-funded bank bailouts.

- **Lending Bottlenecks:** Capital "locked" in long-term corporate loans reduces the credit available for **SMEs, exporters**, and retail borrowers.
- **Monetary Distortion:** Burdened banks are slower to pass on RBI rate cuts or hikes, impairing the efficiency of India's monetary policy transmission.

3. Current Status of the Bond Market (2025-26)

- **Growth:** The market has grown at a 12% CAGR, reaching **53.6 trillion** in FY2025.
- **The "Shallow" Reality:** At **15-16% of GDP**, India lags significantly behind the US (80%), South Korea (79%), and China (45-50%).
- **Private Placement Dominance:** Over **98%** of bonds are issued via private placement to institutional "buy-and-hold" investors, leaving the secondary market with a dismal turnover ratio of **0.3**.
- **Retail Exclusion:** Individual investors account for **less than 2%** of the market, which is currently dominated by AAA-rated blue-chip borrowers.

4. Future Roadmap and "Next Steps"

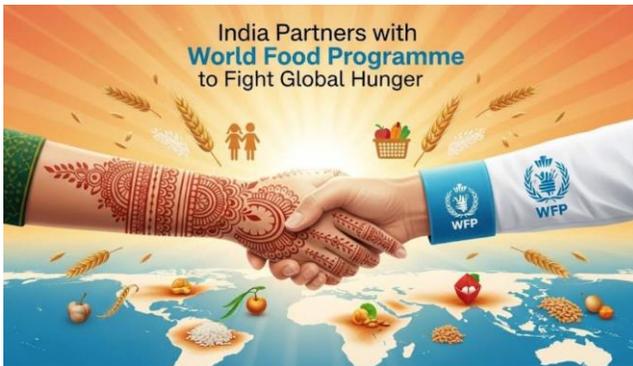
To reach the potential target of **120 trillion by 2030**, experts suggest:

- **Corporate Bond Repo Market:** Establishing a centrally cleared repo market to let holders use bonds as collateral for short-term cash, turning "dead" assets into liquid ones.
- **"Greenium" Incentives:** Offering lower listing fees or reserve requirement relaxations for banks investing in **ESG/Green Bonds**.
- **Bond-Only Mandates:** Requiring that **20-30%** of any new mega-infrastructure project's debt must be raised through public bonds rather than bank loans.
- **Retail Savings Certificates:** Creating tax-saving products linked to diversified corporate bond pools to channel household savings away from traditional fixed deposits.

Conclusion

Budget 2026 recognizes that a USD 5 trillion (and eventually USD 30 trillion) economy cannot run on the steam of commercial banks alone. By fostering a "Total Return" culture and providing credit guarantees, India is finally building the specialized financial plumbing required to fund long-term growth without risking periodic banking crises.

India–WFP Partnership : Exporting Food Security to the World



Why in News?

In February 2026, the Food Corporation of India (FCI) and the United Nations World Food Programme (WFP) signed a landmark Memorandum of Understanding (MoU) to streamline the supply of Indian rice for global humanitarian relief. This agreement formalizes India's role as a "Global Food Hub," ensuring that its surplus agricultural produce directly supports international efforts to combat acute hunger and malnutrition in conflict and disaster zones.

1. Key Features of the MoU (2026)

- **Supply Volume:** Enables the FCI to supply **200,000 metric tonnes of rice** (with up to 25% broken grains) specifically for WFP's global operations.
- **Duration:** The agreement is valid for **5 years**, with a provision for extension by mutual consent.
- **Strategic Intent:** By partnering with the WFP, India is transitioning from "bilateral aid" to a systematic "multilateral contribution" model,

exporting nutrition and dignity to the world's most vulnerable populations.

- **Logistics:** The MoU establishes standardized protocols for quality testing, packaging, and timely delivery at Indian ports to ensure rapid deployment during global food crises.

2. World Food Programme (WFP): A Global Guardian

- **Establishment:** Founded in **1961** by the UN General Assembly and the Food and Agriculture Organization (FAO).
- **Dual Mandate:** 1. **Emergency Relief:** Providing immediate food assistance during wars, famines, and natural disasters. 2. **Long-term Stability:** Building resilient food systems to break the cycle of hunger and poverty.
- **Nobel Recognition:** Awarded the **Nobel Peace Prize in 2020** for its role in preventing the use of starvation as a weapon of war and for acting as a stabilizing force in conflict zones.

3. India–WFP Collaboration: Innovative Initiatives

India has become a laboratory for WFP's technological innovations, which are now being exported to other developing nations:

- **Grain ATMs (Annapurta):** Automated multi-commodity grain dispensing machines that ensure 24/7 access to food grains with 99.9% precision.
- **Fortified Rice Rollout:** Massive collaboration to integrate micro-nutrients (Iron, Folic Acid, Vitamin B12) into the public distribution system to combat "hidden hunger."
- **Smart Warehousing:** Using IoT-based real-time monitoring to reduce post-harvest losses in FCI godowns.
- **Mobile Storage Units (Flospans):** Rapid-install, weather-resistant storage tents for use in remote or disaster-hit areas.

- **Jan Poshan Kendra:** Transforming Fair Price Shops into nutrition hubs that offer a diverse range of fortified products.

4. India's Emerging Role in Global Food Diplomacy

- **The "Global South" Voice:** India is leveraging its G20 "Deccan High-Level Principles on Food Security" to advocate for the needs of developing nations.
- **Surplus Management:** With record buffer stocks in 2025-26, India is using its surplus to stabilize global rice prices while fulfilling its humanitarian obligations.
- **Pathogen-Free Supply:** Stringent quality checks under the new MoU ensure that Indian rice meets the highest international phytosanitary standards required by the UN.

Conclusion

The 2026 MoU marks a coming-of-age for India's food diplomacy. By pledging 2 lakh tonnes of rice to the WFP, India is demonstrating that its path to becoming a **Viksit Bharat** is inextricably linked to global welfare. As the "World's Pharmacy" becomes the "World's Food Basket," this partnership ensures that Indian grains reach the plates of those who need them most, reinforcing India's image as a responsible and compassionate global power.

Export Promotion Mission (EPM) : Empowering MSMEs for Global Markets

EXPORT PROMOTION MISSION:
Empowering MSMEs for Global Markets

NIRYAT PROTSAHAN Driving Trade Finance Access	NIRYAT DISHA Expanding Holistic Market Access
<ul style="list-style-type: none"> ➤ Bridging trade finance gap with timely, affordable and diversified credit instruments ➤ Interest subvention, collateral guarantee, credit enhancement, and risk-sharing ➤ Alternative trade finance models to strengthen cash flows 	<ul style="list-style-type: none"> ➤ Addressing non-financial trade barriers ➤ Strengthening the global presence of Indian goods and services ➤ Facilitating compliance with global standards, international quality norms ➤ Expanding strategic market access ➤ Promoting access to overseas warehousing facilities

Why in News?

In **February 2026**, the Ministry of Commerce & Industry launched **7 new interventions** under the **Export Promotion Mission (EPM)**, taking the total number of operational interventions to **10 out of 11**. This flagship program, originally announced in the Union Budget 2025–26, is designed to reduce the cost of capital, simplify global compliance, and mitigate logistical disadvantages for Indian **Micro, Small, and Medium Enterprises (MSMEs)**.

1. The 7 New Interventions (Launched February 2026)

Financial Enablers (Niryat Protsahan)

- **Export Factoring Support:** Provides immediate liquidity by allowing MSMEs to sell their foreign invoices to a specialized "factor."
 - **Benefit:** 2.75% interest subvention on factoring costs.
 - **Cap:** ₹50 lakh per MSME annually.
- **Credit Assistance for E-Commerce Exporters:** Supports digital retail exports through two facilities.
 - **Direct E-Commerce Credit:** Up to ₹50 lakh with **90% guarantee coverage**.
 - **Overseas Inventory Credit:** Up to ₹5 crore with **75% guarantee coverage** to help maintain ready-to-ship stock abroad.
- **Support for Emerging Export Opportunities:** Enables access to high-risk international markets through shared-risk and credit instruments, boosting exporter confidence in new geographies.

Non-Financial Enablers (Niryat Disha)

- **TRACE (Trade Regulations, Accreditation & Compliance Enablement):** Assists in meeting international **Testing, Inspection, and Certification (TIC)** standards.
 - **Reimbursement:** 60% to 75% of eligible expenses, capped at ₹25 lakh annually.

- **FLOW (Facilitating Logistics, Overseas Warehousing & Fulfilment):** Supports setting up **overseas warehousing** and e-commerce hubs.
 - **Benefit:** Up to 30% of project costs for a maximum of 3 years.
- **LIFT (Logistics Interventions for Freight & Transport):** Targets **low-export intensity districts** and landlocked/hilly regions to level the playing field.
 - **Reimbursement:** Up to 30% of eligible freight costs, capped at ₹20 lakh per year.
- **INSIGHT (Integrated Support for Trade Intelligence & Facilitation):** Focuses on district-level capacity building and trade intelligence.
 - **Funding:** Up to 50% for private projects and 100% for government-led proposals.

2. What is the Export Promotion Mission?

- **Objective:** To consolidate fragmented support schemes into a single, **digitally monitored framework** to enhance the global competitiveness of MSMEs and labor-intensive sectors.
- **Timeline & Outlay:** Spans **6 years** (FY 2025–26 to FY 2030–31) with a total financial outlay of **₹25,060 crore**.
- **Governance:** Anchored by the **Department of Commerce**; the **Directorate General of Foreign Trade (DGFT)** serves as the nodal implementing agency.
- **Integrated Sub-Schemes:**
 - **Niryat Protsahan:** Focuses on affordable trade finance, interest subvention, and credit guarantees.
 - **Niryat Disha:** Focuses on market readiness, quality compliance, logistics, and branding.

3. Strategic Significance

- **FTA Utilization:** With India's growing network of **Free Trade Agreements**, nearly 70% of global GDP is now accessible. The EPM ensures MSMEs have the "financial muscle" and "compliance readiness" to actually utilize these deals.
- **Digital-First Approach:** All applications and disbursements are handled via a paperless, integrated portal, reducing delays and transaction costs.
- **Inclusivity:** By focusing on **Districts as Export Hubs**, the mission aims to broaden India's export base beyond traditional industrial clusters to interior and remote regions.

Conclusion

The 2026 expansion of the Export Promotion Mission marks a shift from "generic incentives" to "structured ecosystem support." By addressing the specific "pain points" of e-commerce, quality certification, and logistics, the government is positioning MSMEs to move from being local players to global competitors.

RBI Draft Guidelines : Reforming the Lead Bank Scheme (2026)



Why in News?

In **February 2026**, the **Reserve Bank of India (RBI)** released draft guidelines to overhaul the **Lead Bank Scheme (LBS)**, a 57-year-old framework for district-level credit planning. Following a policy announcement on **February 6, 2026**, the draft (released February 13) aims to "modernize and fine-tune" the scheme's objectives to align with the

National Strategy for Financial Inclusion 2025–30. Stakeholders have been invited to submit feedback by **March 6, 2026.**

1. Key Proposals in the 2026 Draft

- **Strengthening Institutional Hubs:** Focuses on empowering the **State Level Bankers' Committees (SLBCs)** and **Lead District Manager (LDM) offices** with better infrastructure and dedicated staff to act as true "coordination anchors."
- **Revised Credit-Deposit (CD) Ratio Benchmarks:**
 - Banks are required to achieve a **60% CD Ratio** for their rural and semi-urban branches combined at an all-India level.
 - Districts with a **CD Ratio below 40%** will face intense monitoring via **Special Sub-Committees (SSCs).**
- **Bottom-Up Planning:** The guidelines mandate a more granular approach, where credit potential is estimated at the **block level** to ensure that tailored credit plans reach local MSMEs and farmers.
- **Infrastructure Advocacy:** For the first time, SLBC Convenor Banks are explicitly encouraged to flag "impeders" like **poor digital connectivity, road access, and power supply** to state governments that hinder financial inclusion.

2. The Lead Bank Scheme (LBS) Framework

- **Origin (1969):** Launched following the **Gadgil Study Group** and **Nariman Committee** reports to operationalize "social banking" after bank nationalization.
- **Core Unit:** The **District** is the basic unit of planning.
- **Lead Bank Designation:** The RBI designates a specific commercial bank (usually a Public Sector Bank) in each district to coordinate efforts between credit institutions and government agencies.

- **Service Area Approach (SAA):** Introduced in **1989**, it assigns a cluster of villages to a specific bank branch to prevent overlapping and ensure every rural pocket is covered.

3. Three-Tier Structure of LBS (2026)

Level	Committee / Forum	Role
State Level	SLBC / UTLBC	Apex body; strategic policy coordination with State Govt.
District Level	DCC & DLRC	Intermediate level; reviews the District Credit Plan (DCP).
Block Level	BLBC	Base level; handles field-level coordination and credit programs.

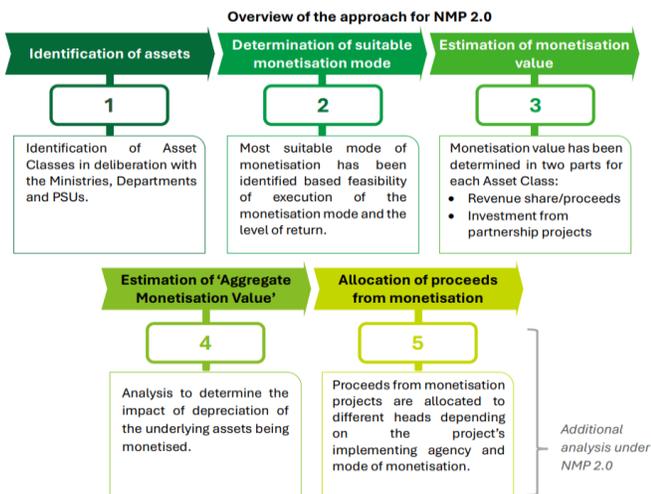
4. Strategic Objectives of the Revamp

- **Financial Inclusion 2.0:** Moving beyond just "opening accounts" to deepening **digital payment adoption** and **MSME credit penetration.**
- **Regional Balance:** Preventing credit concentration in metropolitan areas and ensuring that deposits mobilized in rural regions are "re-invested" locally as loans.
- **Capacity Building:** Mandating regular training for LDMs and government officials to handle complex modern banking products like **Green Finance** and **Agri-Tech** loans.

Conclusion

The 2026 draft marks a significant evolution from the "branch-expansion" focus of the 1970s to a "digital-inclusion" focus for the 2020s. By making SLBCs more assertive and LDMs more operational, the RBI is turning the Lead Bank Scheme into a proactive developmental tool rather than just a reporting mechanism. Successful implementation will depend on how effectively the "infrastructure gaps" flagged by banks are addressed by state governments.

National Monetisation Pipeline 2.0 (NMP 2.0): Unlocking Bharat's Asset Potential



Why in News?

In early 2026, the Union Minister for Finance launched the **National Monetisation Pipeline 2.0 (NMP 2.0)**, a strategic follow-up to the successful first phase. Developed by **NITI Aayog**, this version operationalizes the **Asset Monetisation Plan 2025–30** as outlined in the **Union Budget 2025–26**. While NMP 1.0 achieved nearly **90%** of its **6 lakh crore** target, NMP 2.0 scales the ambition to create a transparent, medium-term roadmap for global and domestic investors.

1. The Core Philosophy: "Asset Recycling"

- **The Concept:** NMP 2.0 is built on the principle of **Asset Recycling**. The government leases out "brownfield" (existing/operational) public assets to the private sector for a fixed period.
- **Capital Reinvestment:** The unlocked capital is not used for general spending but is mandated for **CAPEX (Capital Expenditure)** to build new "greenfield" infrastructure.
- **Ownership vs. Operation:** The government retains **ultimate ownership** of the assets; only the rights to operate, maintain, and generate revenue are transferred to the private partner.

2. Key Features of NMP 2.0 (2025–2030)

- **Aggressive Targets:** The pipeline estimates a total potential of **16.72 lakh crore**—nearly **2.6 times higher** than NMP 1.0.
- **Private Investment Component:** Out of the total, **5.8 lakh crore** is expected specifically from direct private investment in project maintenance and upgrades.
- **Monitoring Mechanism:** Progress is tracked by the **Core Group of Secretaries on Asset Monetisation (CGAM)**, chaired by the **Cabinet Secretary**, ensuring inter-ministerial coordination.
- **Monetisation Instruments:**
 - **InvITs (Infrastructure Investment Trusts):** Allowing retail and institutional investors to invest in infrastructure.
 - **PPP Concessions:** Long-term Operate-Maintain-Transfer (OMT) contracts.
 - **Toll-Operate-Transfer (TOT):** Primarily for the roads sector.

3. Sectoral Breakdown and Revenue Allocation

The pipeline spans across core infrastructure ministries:

- **Roads & Railways:** Remains the largest contributors, focusing on national highways and station redevelopment.
- **Power & Telecom:** Involves transmission lines and tower assets.
- **Mining & Coal:** Revenue from royalties flows into the **State Consolidated Fund**, directly benefiting state governments.
- **Other Sectors:** Includes Oil & Gas pipelines, Civil Aviation (Airport leasing), and Ports.

4. Economic Vision for Viksit Bharat

- **Zero Budgetary Outgo:** Infrastructure expansion is funded by existing assets rather than increasing the fiscal deficit or relying on taxpayer money.

- **Operational Efficiency:** Leverages private sector expertise to manage public assets, leading to better maintenance and service delivery for citizens.
- **Investor Visibility:** Provides a **five-year clear roadmap**, allowing pension funds and sovereign wealth funds to plan long-term "patient capital" investments in India.

Conclusion

NMP 2.0 marks the transition of asset monetisation from a "pilot initiative" to a "core economic strategy." By nearly tripling the target value of the previous phase, the government is signaling its confidence in the Indian infrastructure story. Success will hinge on the transparency of the bidding process and the ability of the CGAM to resolve regulatory bottlenecks across the diverse sectors in the pipeline.

Tourism in Union Budget 2026-27: Transforming India into a Global Destination



Why in News?

Tourism has emerged as a cornerstone of the **Union Budget 2026-27**, with the government positioning the sector as a strategic engine for **Viksit Bharat**. According to the **India Tourism Data Compendium 2025**, the sector supports over **13% of total employment**. To capitalize on this, the 2026 budget introduces targeted "niche" circuits and large-scale conservation-led tourism initiatives to boost foreign arrivals beyond the **10 million** mark.

1. New Strategic Initiatives (Budget 2026-27)

- **Northeast Buddhist Circuits:** A specialized scheme to develop pilgrimage infrastructure across **Arunachal Pradesh, Sikkim, and**

Assam, including high-tech interpretation centers and seamless last-mile connectivity.

- **Eco-Trails & Nature Corridors:** Development of sustainable mountain trails in the **Western Ghats (Podhigai Malai)** and **Eastern Ghats (Araku Valley)**, alongside **Turtle Trails** in Odisha and Karnataka to promote responsible coastal tourism.
- **Global Big Cat Summit 2026:** India will host heads of state from **95 range countries** to showcase its success in conserving **five major big cats** (Tiger, Lion, Leopard, Snow Leopard, Cheetah) and to formalize a global wildlife tourism framework.
- **National Institute of Hospitality:** Upgrading the NCHMCT, Noida, into a premier national institute to bridge the **skill gap** in luxury and boutique hospitality.
- **Purvodaya Tourism Hubs:** Integrated development of five major destinations across Bihar, Jharkhand, West Bengal, Odisha, and Andhra Pradesh, supported by **4,000 new electric buses** for green regional connectivity.

2. Medical and Heritage Tourism 2.0

- **Regional Medical Hubs:** Establishment of **five specialized hubs** integrating world-class healthcare with **AYUSH** centers to reclaim India's position as a leader in Medical Value Travel (MVT).
- **Archaeological Destinations:** 15 iconic sites, including **Lothal (Gujarat)** and **Rakhigarhi (Haryana)**, are being transformed into "experiential cultural destinations" with immersive digital storytelling and on-site museums.
- **Tourist Guide Upskilling:** A hybrid pilot program to certify **10,000 guides** in 20 iconic destinations, focusing on digital literacy and foreign language proficiency.

3. Critical Challenges in the Sector

- **The "Value" Gap:** While Thailand attracts **35 million** tourists, India struggles at **10 million**.

High costs and perceived safety issues drive even domestic travelers to spend nearly **\$33 billion annually** on overseas holidays.

- **Infrastructure Strain:** Popular hubs like **Goa** (1.1 crore tourists) and the **Char Dham** route are facing "overtourism," leading to beach erosion, waste management crises, and traffic congestion.
- **Marketing Budget Cuts:** A significant reduction in overseas promotion funds (from ₹33 crore to ~₹3 crore in the previous cycle) has limited India's ability to compete with aggressive campaigns from Vietnam and Malaysia.

4. Roadmap for Sustainable Growth

- **"Tourism-Ready" Certification:** Implementing a mandatory state-level accreditation for destinations based on **cleanliness, safety, and accessibility** benchmarks.
- **Green Key Incentives:** Providing tax breaks and marketing support for hotels and homestays that achieve national **green certification** for water and waste neutrality.
- **Agri-Tourism Integration:** Leveraging the **Paryatan Mitra** scheme to connect rural farmstays with urban travelers, ensuring that tourism revenue flows directly into the hands of local farmers and tribal communities.

Conclusion

The Union Budget 2026-27 signals a shift from "volume-based" to "value-based" tourism. By focusing on specialized circuits like the Northeast Buddhist trail and the Global Big Cat Summit, India is carving out a unique niche in the global market. However, the long-term success of these projects will depend on overcoming the **last-mile connectivity** hurdles and ensuring that "Iconic Destinations" do not crumble under the weight of unplanned overtourism.

RailTech and e-RCT : Digital Transformation of Indian Railways



Why in News?

In **late February 2026**, the Ministry of Railways unveiled the **RailTech Policy** and the complete **digitization of the Railway Claims Tribunal (e-RCT)**. These represent **Reform Number Three** and **Reform Number Four** under the flagship "**52 Reforms in 52 Weeks**" initiative. The reforms are designed to systematically induct advanced technology into operations and simplify the legal process for passengers and litigants.

1. RailTech Policy: A Gateway for Startups and Innovation

The RailTech Policy aims to move away from rigid, multi-stage vendor selection and create a transparent, innovation-friendly ecosystem.

- **RailTech Portal:** A 24/7 digital single-window platform for innovators, startups, and research institutions to submit technological solutions directly to the Railways.
- **Funding & Support:**
 - **Grants:** Prototype development grants have been **doubled**, and scale-up grants have been increased **more than 3 times**.
 - **Cost-Sharing:** Railways will fund up to **50% of development costs** for viable technologies.
- **Priority Innovation Areas:** * **AI-based Safety:** Elephant Intrusion Detection System (EIDS), fire detection in coaches, and coach cleaning monitoring.

- **Infrastructure:** Drone-based broken rail detection, rail stress monitoring, and obstruction detection in fog.
- **Operations:** Sensor-based load calculation for parcel vans and solar panels on coaches.
- **Scalability:** Successful pilots in one division will lead to substantial, long-term orders for network-wide implementation.

2. e-RCT Digitization: "Justice from Anywhere"

The **Railway Claims Tribunal (RCT)**, a quasi-judicial body with **23 benches** across India, is undergoing an AI-enabled digital transformation to handle claims related to accidents, loss of goods, and fare refunds.

- **Paperless Courts:** The system connects all 23 benches on a single platform, enabling digital exchange of pleadings, notices, and judgements.
- **Core Modules:**
 1. **E-Filing:** 24/7 online filing from any location with instant SMS/email alerts.
 2. **Case Information System (CIS):** A centralized database for real-time case tracking from registration to final disposal.
 3. **Document Management System (DMS):** Secure, digitally signed storage of all legal records with disaster recovery safeguards.
- **Citizen Benefits:** Aggrieved passengers can now file claims from their destination or home, eliminating jurisdictional confusion. Hybrid hearings (physical + virtual) will reduce travel costs and legal delays.

3. "52 Reforms in 52 Weeks" Initiative

Launched in **January 2026**, this time-bound program commits to implementing **one major structural reform every week** throughout the year.

- **Vision:** To modernize the national transporter through AI integration, safety

upgrades, and improved passenger experience.

● Progress to Date (Early March 2026):

- **Reform 1:** Continuous end-to-end cleaning of general coaches.
- **Reform 2:** Expansion of **Gati Shakti Cargo Terminals** to 500+ hubs.
- **Reform 3:** RailTech Policy & Portal.
- **Reform 4:** e-RCT Digitization.

Conclusion

The dual launch of RailTech and e-RCT signals a shift toward a **"Technology-First"** and **"Citizen-Centric"** railway administration. By incentivizing startups and digitizing judicial procedures, the Ministry is addressing long-standing bottlenecks in safety and justice delivery. If successful, the e-RCT model is expected to be adopted by other central tribunals.



Science & Technology

National Leprosy Day 2026 : Efforts to Eradicate Hansen's Disease



Why in News?

On the occasion of National Leprosy Day (observed on the final Sunday of January), the Ministry of Health and Family Welfare organized a large-scale Information, Education and Communication (IEC) campaign. The initiative focused on spreading awareness, encouraging early diagnosis, and fighting the social stigma linked to the disease.

1. Understanding Leprosy

- **The Cause:** It is a long-term infectious ailment triggered by the bacterium *Mycobacterium leprae*.
- **Impact:** The infection mainly targets the skin and peripheral nerves.
- **How it Spreads:** It is transmitted through respiratory droplets when an untreated person sneezes or coughs.
- **Treatment:** It is completely curable using Multidrug Therapy (MDT), which is supplied free of cost globally by the WHO.

2. India's Journey Toward Elimination

- **The 2005 Milestone:** India reached "elimination status" (defined as a prevalence rate of less than 1 case per 10,000 people) in 2005 and has kept it since.
- **Current Status:** As of 2025, the national Prevalence Rate (PR) stands at 0.57, showing steady progress.

3. Primary Symptoms and Complications

- **Early Detection:** Look for reddish or pale skin patches that have lost the sense of touch or pain.
- **Nerve Damage:** Swollen or thickened nerves can lead to muscle weakness, numbness, and physical disabilities such as "claw hand" or "foot drop."
- **Severe Cases:** If neglected, the disease can cause facial nodules, loss of eyebrows, and persistent nasal bleeding.

4. Evolution of India's Health Policy

- **Shift in Focus:** India originally launched the National Leprosy Control Programme (NLCP) in 1954-55.

- **Eradication Goal:** In 1983, the government moved to the National Leprosy Eradication Programme (NLEP), a strategy that was instrumental in meeting the 2005 elimination target.

5. Future Strategy: The Roadmap to 2030

- **National Strategic Plan (NSP) 2023-2027:** This plan aims to rebuild efforts that were slowed down during the Covid-19 pandemic.
- **The 2030 Vision:** The ultimate objective is to completely stop the transmission of leprosy by 2030.
- **Immediate Target:** A specific roadmap is in place to interrupt the chain of transmission by the year 2027.
- **Global Alignment:** This plan is part of the larger WHO Global Leprosy Strategy and the roadmap for Neglected Tropical Diseases (NTDs).

Electronics Components Manufacturing Scheme (ECMS): India's Tech Leap



Why in News?

The **Union Budget 2026–27** has massively increased the funding for the **Electronics Components Manufacturing Scheme (ECMS)** to **Rs 40,000 crore**. This move is part of India's ambitious strategy to build a **USD 500-billion** domestic electronics ecosystem by 2030–31 and establish the country as a global technology hub.

1. What is the Electronics Components Manufacturing Scheme (ECMS)?

Launched in April 2025 by the Ministry of Electronics and Information Technology (MeitY), the scheme

aims to make India self-reliant in electronics by attracting both domestic and global investments.

- **Incentive Model:** It offers a mix of **Capex-linked** (capital expenditure), **Turnover-linked**, or **Hybrid** fiscal incentives. To boost employment, a portion of these incentives is tied to job creation.
- **Priority Basis:** Benefits are provided on a **first-come, first-served** basis to companies that are ready to start production early.
- **Timeline:** The scheme has a **six-year tenure**. The Capex incentive is available for five years, while the Turnover incentive includes a one-year preparation (gestation) period.

2. Target Areas: Building the "Heart" of Electronics

The scheme focuses on the components that make up nearly **90% of the Bill of Materials (BoM)** for products like smartphones:

- **Sub-assemblies:** Camera modules, display units, and vibrator motors.
- **Bare Components:** Multi-layer PCBs, resistors, capacitors, and various sensors.
- **Capital Equipment:** The high-tech machinery used inside electronics factories.

3. Projected Economic Impact

- **Massive Investment:** By December 2025, the scheme attracted **Rs 1.15 lakh crore** in commitments—double the original target.
- **Production & Jobs:** It is expected to generate **Rs 10.34 lakh crore** in output over six years and create **1.41 lakh direct jobs**, plus several lakh indirect opportunities.
- **Semiconductor Synergy:** ECMS works alongside the **India Semiconductor Mission (ISM) 2.0** to create a complete ecosystem including materials, equipment, and advanced packaging.

4. India's Growth as an Export Powerhouse

- **Rapid Rise:** According to the **Economic Survey 2025–26**, electronics is now India's

third-largest and fastest-growing export category (up from 7th in 2021–22).

- **Current Status:** In the first half of FY26, exports reached **USD 22.2 billion**, putting the sector on track to become India's second-largest export item.
- **Production Milestone:** Domestic production has jumped six-fold in a decade, from Rs 1.9 lakh crore in 2014–15 to **Rs 11.3 lakh crore** in 2024–25.
- **Mobile Hub:** India is now the **world's second-largest mobile phone manufacturer**, with a 28-fold increase in production over the last 10 years.

5. The Supporting Policy Pillar

- **PLI Scheme:** Nearly **70% of the USD 4 billion FDI** in electronics since 2020 has come through the Production Linked Incentive (PLI) beneficiaries.
- **SPECS:** Provides a **25% financial incentive** on capital expenditure specifically for high-value components.
- **Modified EMC 2.0:** Focuses on building high-quality infrastructure clusters for manufacturers.
- **Budget 2026-27 Boost:** The government has announced **Customs Duty exemptions** for microwave oven inputs and **Surcharge exemptions** for electronic toy parts to lower production costs.

Sodium-ion Batteries: India's Path to Energy Autonomy



Why in News?

As India pushes for 100% electric mobility by 2030, its heavy reliance on **lithium-ion batteries**—which depend on scarce minerals like lithium and cobalt—poses a major supply chain risk. In early **2026**, **Sodium-ion Batteries (SiBs)** have officially emerged as a "strategic complement" to lithium, with mass production scaling globally and major Indian firms like **Reliance Industries** and **KPIT Technologies** beginning commercial operations.

1. What are Sodium-ion Batteries?

Sodium-ion batteries function similarly to lithium-ion batteries but use **sodium** (found in common sea salt and soda ash) as the charge carrier.

- **Abundant Material:** Sodium is the 6th most abundant element on Earth, making it nearly **80 times cheaper** to source than lithium.
- **Rapid Charging:** Advanced Indian prototypes (like those from **JNCASR**) have demonstrated an **80% charge in just 6 minutes**.
- **Safety & Durability:** They are non-flammable and can be discharged to **0 Volts** for safe transportation, unlike lithium batteries which carry a fire risk during transit.

2. Strategic Significance for India

- **Import Substitution:** India imports nearly 70% of its battery raw materials from China. Sodium-ion technology allows India to use domestic resources, insulating the economy from geopolitical shocks.
- **Mass Market Suitability:** While slightly heavier than lithium batteries, sodium batteries are perfect for India's price-sensitive **two-wheeler and three-wheeler** segments, as well as for **grid storage** (storing solar and wind power).
- **Supply Chain Resilience:** They use **aluminum** instead of expensive copper as current collectors, further lowering the "Bill of Materials" (BoM) by nearly **25–30%**.

3. Key Developments (2025–26)

- **Reliance Giga-Factory:** Reliance Industries is on track to start its **40 GWh battery gigafactory** in Jamnagar in 2026. While starting with LFP (Lithium Iron Phosphate), the company is fast-tracking the commercialization of **Sodium-ion** technology through its subsidiary **Faradion**.
- **KPIT-Trentar Commercialization:** In February 2026, **KPIT Technologies** transferred its sodium-ion tech to **Trentar Energy Solutions** to set up a **3 GWh** manufacturing facility, targeting public transport and UPS backups.
- **Pax Silica Declaration:** In February 2026, India signed this international initiative to counter China's dominance in critical minerals, explicitly identifying sodium-ion as a key technology for "resource democratization."

4. Challenges in Scaling

- **Energy Density:** Sodium ions are larger and heavier than lithium ions, meaning a sodium battery currently provides less "range" for the same weight (approx. 160 Wh/kg vs. 250+ Wh/kg for lithium).
- **Hard Carbon Anodes:** Sodium batteries require "hard carbon" for the anode, which is still in the early stages of commercial production.
- **Manufacturing Sensitivity:** Sodium cells are highly sensitive to moisture, requiring expensive "dry rooms" during the factory assembly process.

5. Innovative "India-Specific" Solutions

- **"Farm-to-Battery" Strategy:** Using agricultural waste (like rice husk or coconut shells) to produce **Hard Carbon**. This could solve the **stubble burning (parali)** crisis while creating a domestic supply of anode materials.
- **Desert Clusters:** Building factories in low-humidity regions like **Rajasthan or Kutch** to

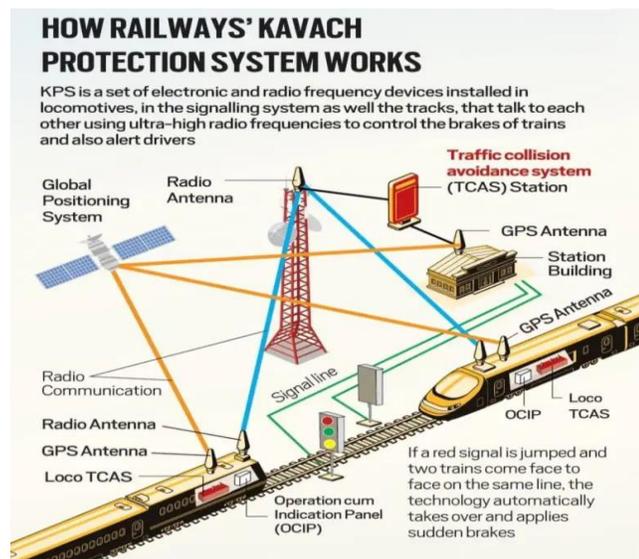
naturally reduce the cost of keeping manufacturing environments dry.

- **Hybrid Battery Packs:** A new "Dual Chemistry" approach where a vehicle uses sodium-ion for regular cruising and a small lithium-ion segment for high-speed bursts.

Conclusion

Sodium-ion batteries represent more than a technology shift; they are a tool for **Atmanirbharta (Self-reliance)**. By leveraging the **PLI Scheme for Advanced Chemistry Cells**, India is positioning itself as a global hub for this "salt-to-power" revolution, securing its energy future for **Viksit Bharat @2047**.

Kavach 4.0: Record-Breaking Milestone in Rail Safety



Why in News?

In a massive boost to railway safety, Indian Railways commissioned a record **472.3 route kilometres (RKm)** of **Kavach Version 4.0** in a single day on **30 January 2026**. This achievement represents the highest-ever rollout of the indigenous Automatic Train Protection (ATP) system in a single day and month, surpassing the previous record of 324 RKm.

1. Expansion of Kavach 4.0 Coverage

The latest commissioning spans critical high-density corridors across three railway zones, bringing the total footprint of Version 4.0 to **1,306.3 route kilometres** across five zones.

- **Western Railway (344 km):** Covers the vital **Vadodara–Surat–Virar** section of the Delhi–Mumbai route. The *Dadar–Bhuj Sayajinagri Express* became the first Kavach-equipped train to operate from Mumbai.
- **Northern Railway (35 km):** Installed on the **Tuglakabad Junction Cabin–Palwal** section, a high-traffic stretch connecting the national capital with western India.
- **East Central Railway (93.3 km):** Active on the **Manpur–Sarmatanr** section of the Delhi–Howrah trunk route. A successful head-on collision test was conducted here using the *Sasaram Intercity Express*, where the system automatically applied brakes to prevent an accident.

2. What is Kavach Version 4.0?

Kavach (meaning "Armour") is India's indigenously developed ATP system, designed to eliminate accidents caused by human error.

- **Evolution:** Originally developed in 2012 as the *Train Collision Avoidance System (TCAS)*, Version 4.0 is the most advanced iteration, optimized for India's diverse and high-density multi-line network.
- **SIL-4 Certification:** It complies with **Safety Integrity Level-4**, the highest global standard for railway safety, where the probability of error is as low as **1 in 10,000 years**.
- **Technology Stack:** The system integrates **GPS**, **RFID tags** (placed on tracks), and **UHF/Radio communication** to provide real-time monitoring and fail-safe logic.

3. Key Safety and Operational Functions

- **Collision Avoidance:** Automatically applies brakes to prevent head-on, rear-end, and side-on collisions between two Kavach-equipped trains.
- **Anti-SPAD (Signal Passing at Danger):** Prevents a train from jumping a red signal by taking over the braking system if the loco pilot fails to respond.

- **Overspeeding Control:** Continuously monitors the train's speed against the sectional limit and automatically reduces speed if the limit is exceeded.
- **Adverse Weather Support:** Assists loco pilots during thick fog or heavy rain by providing a real-time in-cab display of signal aspects, removing the need for visual sighting.
- **Level Crossing Alerts:** Automatically triggers the train's whistle when approaching a level crossing gate.

4. Strategic Implementation Goals

- **Mission Raftar:** Kavach is a prerequisite for increasing train speeds to **160 kmph** on the Delhi–Mumbai and Delhi–Howrah corridors.
- **Cost-Efficiency:** Recognized as one of the most cost-effective ATP systems globally, with trackside installation costing approximately **50 lakh per km** (compared to over 2 crore per km for European systems).
- **Target 2026:** Work is progressing rapidly on the **Vadodara–Nagda** section (expected by March 2026) and the **Virar–Mumbai Central** section (targeted for September 2026).

Summary of Progress (February 2026)

Feature	Latest Status
Total Kavach 4.0 Coverage	1,306.3 Route Kilometres
Total Global Kavach (All versions)	Over 2,200 Route Kilometres
Single-Day Record	472.3 Rkm (30 Jan 2026)
Safety Standard	SIL-4 (Global Benchmark)

Supreme Court Ban on Stem Cell Therapy for Autism : Regulating Regenerative Medicine



Why in News?

On **30 January 2026**, the **Supreme Court of India** delivered a landmark judgment in *Yash Charitable Trust v. Union of India*, prohibiting the use of **stem cell therapy (SCT)** as a routine clinical treatment for **Autism Spectrum Disorder (ASD)**. The Court ruled that such therapy can only be administered within the strict framework of **approved clinical trials** and directed the Union Government to establish a dedicated regulatory authority to oversee stem cell research nationwide.

1. What are Stem Cells?

Stem cells are the body's raw materials—unspecialized cells from which all other specialized cells with dedicated functions are generated.

- **Key Properties:** They can **self-renew** (make more of themselves) and **differentiate** (turn into specialized cells like muscle, bone, or brain cells).
- **Types:**
 - **Embryonic Stem Cells:** Pluripotent cells from early-stage embryos that can become any cell type.
 - **Tissue-Specific (Adult) Stem Cells:** Multipotent cells found in specific tissues (e.g., bone marrow) that replace damaged cells in that organ.
 - **Induced Pluripotent Stem Cells (iPSCs):** Lab-engineered adult cells that behave like embryonic stem cells.

2. Key Directives of the Supreme Court Judgement

- **The Verdict:** Administering stem cell therapy for autism outside of research settings is **unethical** and constitutes **medical malpractice**.
- **Informed Consent vs. Evidence:** The Court held that "informed consent" is invalid if based on unproven scientific claims. Since there is a "dearth of evidence" for SCT in autism, doctors cannot provide the "adequate information" required for valid consent.
- **No Right to Unproven Treatment:** Patient autonomy does not give a person the right to demand scientifically unverified or unsafe medical interventions.
- **Professional Accountability:** Doctors who continue to market or provide SCT as a "cure" for autism may face professional misconduct proceedings, including the **cancellation of their medical registration**.
- **Continuity of Care:** To protect patients already undergoing treatment, the Court directed the **Ministry of Health** and **AIIMS** to propose a solution for transitioning these individuals into formal clinical trials rather than stopping treatment abruptly.

3. Regulatory Framework in India

- **National Guidelines for Stem Cell Research (2025):** Jointly issued by the **ICMR** and **DBT**, these guidelines mandate that all stem cell research must be registered with the **National Apex Committee (NAC-SCRT)**.
- **Approved Indications:** Currently, the only widely approved stem cell therapy in India is **Hematopoietic Stem Cell Transplantation (HSCT)** for certain blood cancers and disorders (e.g., Leukemia, Thalassemia).
- **New Drugs and Clinical Trial Rules, 2019:** Categorizes stem cells as "drugs," meaning their use in any new condition requires a rigorous multi-phase clinical trial process.

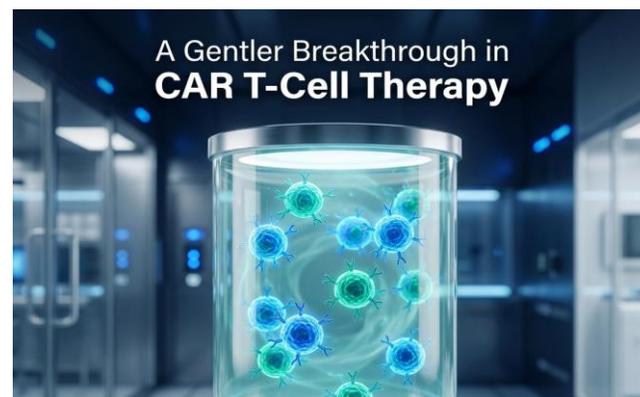
4. Autism Spectrum Disorder (ASD)

- **Nature:** A complex neurodevelopmental condition affecting social interaction and communication. It is a **lifelong condition**, not a "disease" to be "cured."
- **Evidence-Based Care:** The standard of care involves early behavioral interventions, speech therapy, and occupational therapy, which help individuals manage symptoms and improve quality of life.
- **The "Cure" Myth:** The Court noted that private clinics were exploiting the vulnerability of parents by touting SCT as a miraculous cure, often charging **lakhs of rupees per injection** without any proven benefit.

5. Significance of the Ruling

- **Curbing Predatory Commercialization:** It draws a firm line between legitimate scientific research and the exploitative marketing of experimental therapies.
- **Global Precedent:** The ruling sets a benchmark for how judiciaries can protect patients in the rapidly evolving field of regenerative medicine.
- **Institutional Gatekeeping:** By demanding a **dedicated regulatory authority**, the Court aim to fix the "regulatory vacuum" that allowed unproven stem cell centers to flourish.

IIT Bombay Innovation: Breakthrough in CAR T-cell Recovery



Why in News?

A recent study by IIT Bombay, published in the journal *Biomaterials Science*, has unveiled a "gentler" and more efficient method for recovering lab-grown T-cells. This process innovation is a major step forward for **CAR T-cell therapy** in India, promising to make advanced cancer treatments more reliable and significantly more affordable.

1. Understanding T-cells and CAR T-cell Therapy

- **T-cells:** A type of white blood cell that serves as the immune system's primary defense, patrolling the body to identify and kill abnormal or infected cells.
- **CAR T-cell Therapy:** A personalized form of immunotherapy where a patient's T-cells are extracted and genetically modified in a lab to produce **Chimeric Antigen Receptors (CARs)**. These receptors act like GPS trackers, enabling the T-cells to pinpoint and destroy specific cancer cells.
- **NexCAR19:** Developed by IIT Bombay, Tata Memorial Centre, and ImmunoACT, this became **India's first indigenous CAR T-cell therapy** in 2023. It is currently the world's most affordable version of this treatment.

2. The Challenge: The "Grip" of 3D Scaffolds

To prepare T-cells for therapy, scientists grow them in **3D scaffolds** that mimic the human body's natural environment.

- **The Problem:** T-cells grip these fibrous scaffolds so tightly that retrieving them becomes difficult.
- **Traditional Failure:** Standard methods use harsh enzymes like **Trypsin**. These enzymes effectively "strip" the cells, damaging their outer membranes and vital proteins, which often kills the cells or makes them ineffective for treatment.

3. The Solution: The "Accutase" Advantage

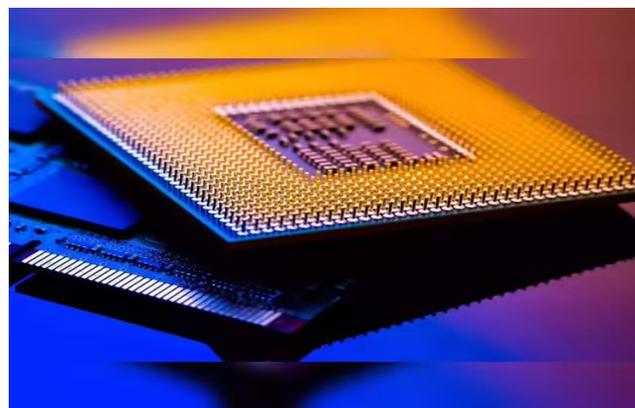
The IIT Bombay research team discovered that switching to a gentler enzyme called **Accutase** solves the recovery bottleneck.

- **Gentle Detachment:** Accutase releases the T-cells from the 3D scaffold without harming the delicate outer membrane or stripping away essential receptors.
- **Superior Results:** Cells recovered via Accutase showed:
 - **Higher Survival Rates:** More viable cells are available for the patient.
 - **Preserved Function:** The cells retain their ability to form healthy clusters and attack cancer.
 - **Better Potency:** The therapy is more likely to be successful once the cells are re-infused into the patient.

4. Strategic Significance for India

- **Cost Reduction:** Global CAR T-cell treatments can cost **3-4 crore**. By minimizing the waste of expensive lab-grown cells, India can maintain its lead in providing this therapy at a fraction of that cost (**30-40 lakh**).
- **Process Innovation:** This study marks India's transition from being a manufacturer of generic drugs to a leader in **novel process innovation** for complex biotechnologies.
- **Scale and Reliability:** A consistent supply of healthy, high-quality T-cells ensures that specialized centers like **Tata Memorial** can treat more patients with higher success rates.

India Semiconductor Mission (ISM) 2.0: Scaling the Silicon Dream



Why in News?

The **Union Budget 2026–27** has officially launched **India Semiconductor Mission (ISM) 2.0**. While ISM 1.0 (launched in 2021) focused on attracting mega-fabs and establishing a baseline ecosystem, Phase 2.0 marks a strategic shift toward **technological depth**, specialized raw materials, and indigenous Intellectual Property (IP). The government has allocated **₹1,000 crore** for FY 2026–27 specifically for this phase, alongside **₹8,000 crore** for the modified ecosystem development programme.

1. Key Pillars of ISM 2.0

- **Component & Material Ecosystem:** Shifting focus to the "back-end" of manufacturing by incentivizing the domestic production of **semiconductor gases, high-purity chemicals, and specialized equipment** to reduce 100% import reliance.
- **Full-Stack IP Development:** Encouraging Indian firms to own the **Intellectual Property (IP)** for chip designs, ensuring that the "brain" of the chip is Indian-owned and secure.
- **Advanced Packaging:** Expanding support for **ATMP (Assembly, Testing, Marking, and Packaging)** and OSAT facilities to handle sophisticated 2.5D and 3D packaging technologies.
- **Global Supply Chain Integration:** Positioning India as a "China + 1" partner for global tech giants, ensuring supply chain resilience against geopolitical shocks.

2. Progress Under ISM 1.0 (Foundation)

- **Investment Scale:** As of December 2025, **10 major projects** have been approved with a combined investment of **₹1.60 lakh crore** across 6 states (including Gujarat, Assam, and Maharashtra).
- **Fiscal Support:** The government offers up to **50% fiscal support** on a pari-passu basis for setting up silicon fabs and display units.
- **The "First Chip" Milestone:** With construction in full swing at the Tata-PSMC fab in Dholera and Micron's unit in Sanand,

India is on track to produce its first "**Made in India**" commercial chip by late 2026.

3. Market Projections and Targets

- **Market Growth:** India's semiconductor market is expected to surge from \$38 billion (2023) to **\$100–110 billion by 2030**.
- **Self-Sufficiency:** The mission targets **70–75% self-sufficiency** in domestic chip demand by **2029**.
- **Technology Roadmap:** India aims to graduate from mature nodes (28 nm/40 nm) to cutting-edge **3 nm and 2 nm** manufacturing capabilities by **2035**.

4. Supporting Initiatives

- **Design Linked Incentive (DLI) Scheme:** Offers financial incentives and design infrastructure to domestic fabless startups.
- **Digital India RISC-V (DIR-V):** Aims to create a national ecosystem for open-source microprocessors to eliminate licensing fees paid to foreign entities.
- **Chips to Startup (C2S):** Training **85,000 high-quality engineers** over five years to create a "talent powerhouse" for the industry.
- **Indigenous Processors:** Success of projects like **DHRUV64** and **Shakti** processors reduces dependence on imported silicon for strategic sectors.

Integrating the "Three A's" of AI in Education: A Framework for NEP 2020



Why in News?

In **February 2026**, as India marks the sixth year of the **National Education Policy (NEP) 2020**, educationists and policymakers have introduced a strategic roadmap called the **"Three A's of AI" — Adoption, Absorption, and Application**. This framework aims to move Indian classrooms from basic digital literacy to a "sovereign intelligence" model, ensuring that students are not just users of global AI but creators of indigenous solutions.

1. The Three A's Framework

Adoption (The Foundation):

- **Focus:** Initial acceptance and integration of AI tools into daily learning.
- **Goal:** Replacing the "fear of the unknown" with **AI Fluency**.
- **Key Skills:** Basic prompt engineering, navigating LLM interfaces (like Gemini or Bhashini), and automating routine tasks like summarization or scheduling.

Absorption (The Conceptualization):

- **Focus:** Understanding the "Why" behind the "How." Moving beyond viewing AI as a "Black Box."
- **Goal:** Fostering **Critical Thinking** and ethical awareness.
- **Key Skills:** Identifying algorithmic bias (gender/racial), auditing AI outputs for "hallucinations," and understanding data privacy under the **DPDP Act, 2023**.

Application (The Execution):

- **Focus:** Using AI as a "Co-pilot" to solve real-world problems.
- **Goal:** Transitioning from "passive consumers" to **"value creators."**
- **Key Skills:** Using AI for complex data analytics (e.g., weather prediction, census parsing), design thinking, and developing domain-specific AI solutions.

2. Significance for Indian Education (2026)

- **Future of Jobs:** The **World Economic Forum (WEF) 2025 Report** projects that **39% of**

workers' core skills will change by 2030. Fluency in "Applying" AI is now a critical employability metric.

- **Bridging the Language Divide:** The **Bhashini Mission** (National Language Translation Mission) is being integrated into higher education to allow students to learn complex technical subjects in their mother tongue.
- **Competency-Based Education:** Shifting the focus from rote memorization to "Inquiry-Based Learning," where AI facilitates 24/7 doubt-solving and personalized remedial help.

3. Key Challenges and Infrastructure Gaps

- **Cognitive Atrophy:** There is a growing concern over **"Cognitive Offloading,"** where students rely on AI for the *process* of thinking (e.g., writing logic) rather than just the final *product*.
- **The Compute Divide:** Unlike Japan's **"GIGA School"** program (One Student, One Device), rural Indian schools face an infrastructure deficit. Most low-cost devices lack the **Neural Processing Units (NPUs)** needed to run advanced AI locally.
- **Data Sovereignty:** In the absence of a dedicated **"Sovereign AI Cloud"** for education, student data is often processed on foreign servers, risking national data security.
- **The "Black Box" Teacher Dilemma:** A capability gap where students often possess higher AI adoption skills than their teachers, making it difficult for educators to effectively audit or grade AI-assisted work.

4. Strategic Measures for 2026-27

- **Sovereign AI Cloud:** As part of the **IndiaAI Mission**, the government has proposed an indigenous cloud infrastructure (facilitated by **Yotta/Shakti Cloud**) to provide rural schools with high-performance compute power via low-end devices.

- **AI Citizenship Course:** Mandatory modules on **Algorithmic Bias** and **Digital Ethics** have been proposed for Class 8 onwards to create "conscientious guardians" of technology.
- **Process-Based Evaluation:** Shifting from final-answer marking to evaluating the "**Learning Journey**" (e.g., tracking a student's query history and critical thinking steps).
- **Mission NISHTHA 2.0:** A nationwide "Train the Trainer" initiative specifically focused on AI pedagogy to empower over **1 crore teachers** by 2027.

India's Giant Leap in Observational Astronomy : The Ladakh Telescope Trio



Why in News?

In **February 2026**, the **Union Budget 2026-27** sanctioned a transformative investment for India's space and astronomy sector. The government approved the construction of two world-class telescopes in Ladakh—the **National Large Solar Telescope (NLST)** and the **National Large Optical-Near Infrared Telescope (NLOT)**—alongside a major 3.7-metre segmented-mirror upgrade for the existing **Himalayan Chandra Telescope (HCT)**. This move solidifies Ladakh's status as a global astronomical hub, leveraging the pristine, high-altitude conditions of the **Hanle Dark Sky Reserve**.

1. **National Large Solar Telescope (NLST): Mapping the Sun**

- **Location:** Merak, near the **Pangong Tso lake** (chosen for its low set-top turbulence and clear lake-effect air).
- **Specifications:** A **2-metre aperture** telescope operating in **visible and near-infrared** wavelengths.
- **Timeline:** Expected to be operational by **2031-32**.
- **Scientific Mission:**
 - **Space Weather:** Monitoring solar flares and Coronal Mass Ejections (CMEs) to protect Indian satellites and power grids.
 - **Heliophysics:** Studying solar magnetism and dynamics with unprecedented resolution.
- **Synergy:** It will act as the ground-based partner to **ISRO's Aditya-L1** mission, providing a multi-dimensional view of solar activity.

2. **National Large Optical-Near Infrared Telescope (NLOT): A Giant Eye**

- **Location:** Hanle, Ladakh (approx. 4,500 metres above sea level).
- **Specifications:** A massive **13.7-metre aperture** telescope.
- **Segmented Mirror Tech:** Instead of a single glass slab, it uses **90 hexagonal segments**, a technology India is co-developing for the international **Thirty Meter Telescope (TMT)** project.
- **Scientific Mission:**
 - **Deep Space:** Researching exoplanets, stellar evolution, and the "first light" from the early universe.
 - **Cosmology:** Searching for dark matter signatures and studying high-redshift galaxies.

- **Global Standing:** Once completed (over the next decade), it will be one of the largest optical telescopes in the world.

3. Himalayan Chandra Telescope (HCT): The 3.7-metre Upgrade

- **Status:** Originally a 2.01-metre telescope (operational since 2000), it is the workhorse of Indian observational astronomy.
- **The Upgrade:** It is being fitted with a **3.7-metre segmented primary mirror**, significantly increasing its light-gathering power.
- **Remote Operation:** It continues to be operated via satellite link from **CREST, Hosakote (Karnataka)**, allowing astronomers to control it from 3,000 km away.
- **Collaborative Role:** It will provide follow-up observations for transient events detected by **LIGO-India (Maharashtra)** and the **Square Kilometre Array (SKA)**.

4. Strategic and Scientific Significance

- **The Longitudinal Advantage:** India's geographic position (longitude) fills a "blind spot" in global sky surveillance. When it is night in India, telescopes in Chile or Hawaii cannot see the sky; NLOT/NLST ensure **24/7 global monitoring** of transient cosmic events.
- **Data Sovereignty:** Reduces dependence on foreign facilities (like those in Spain or the US) for high-resolution deep-space data.
- **Economic & Regional Development:** These projects boost "Astro-tourism" in Ladakh, providing sustainable livelihoods for the local community in the Hanle Dark Sky Reserve.
- **Global South Leadership:** Establishes India as the premier astronomical destination for researchers from the Global South, fostering regional scientific collaboration.

India's ACC-PLI Scheme: Bridging the "Giga" Gap in Battery Manufacturing



Why in News?

In **February 2026**, a status report from the **Ministry of Heavy Industries (MHI)** revealed significant implementation bottlenecks in the **Advanced Chemistry Cell (ACC) Production Linked Incentive (PLI)** scheme. Despite an ambitious outlay of **₹18,100 crore**, the project is struggling to meet its 2026 targets. As of early 2026, only **1.4 GWh** of capacity has been commissioned against the targeted **50 GWh**, leading to a "zero disbursement" of incentives and a massive shortfall in projected employment.

1. What is the ACC-PLI Scheme?

- **Launch:** October 2021, as part of the broader PLI umbrella to make India a global hub for battery manufacturing.
- **Technology Focus:** Targets **Advanced Chemistry Cells** (like Lithium-Ion, Sodium-Ion, and Solid-State) which offer higher energy density and faster charging than traditional lead-acid batteries.
- **The "50 GWh" Target:** The scheme aimed to establish **50 GWh** of domestic manufacturing capacity by 2026 to power India's EV revolution and renewable energy storage.
- **Financial Structure:** Offers incentives up to **₹2,000 per kWh** of battery sold, contingent on a minimum investment of **₹1,100 crore** and a phased domestic value-addition (60% within five years).

2. Current Implementation Status (February 2026)

The scheme is currently facing a "sharp gap" between policy expectations and ground reality:

- **Allotment Shortfall:** Only **30 GWh** of the 50 GWh capacity was successfully allotted to companies like Reliance New Energy, Ola Electric, and Rajesh Exports.
- **Production Lag:** Only **1.4 GWh** is operational. Approximately **8.6 GWh** is under development but facing delays due to supply chain disruptions for raw materials like Lithium and Cobalt.
- **Incentive Deadlock:** Since commercial production has not reached the required thresholds, **no incentives** have been disbursed out of the ₹2,900 crore earmarked for the initial phase.
- **Employment Gap:** Only **1,118 jobs** have been created so far, a negligible fraction of the **1.03 million jobs** originally projected.

3. Key Challenges Hindering Progress

- **Upstream Supply Chain:** India lacks domestic reserves and refining capacity for critical minerals (Lithium, Nickel, Cobalt), making manufacturers dependent on volatile Chinese imports.
- **Technology Transition:** The rapid shift from NCM (Nickel Cobalt Manganese) to LFP (Lithium Iron Phosphate) and emerging Sodium-Ion tech has made some initial plant designs obsolete, forcing companies to "scale back and redesign."
- **EV Demand Slowdown:** Domestic EV sales growth in 2025-26 has been slower than projected, reducing the immediate "off-take" assurance for battery manufacturers.
- **High Capital Intensity:** Setting up a "Giga-factory" requires massive upfront capital; high interest rates and global economic uncertainty have slowed private investment cycles.

4. Strategic Significance of ACC-PLI

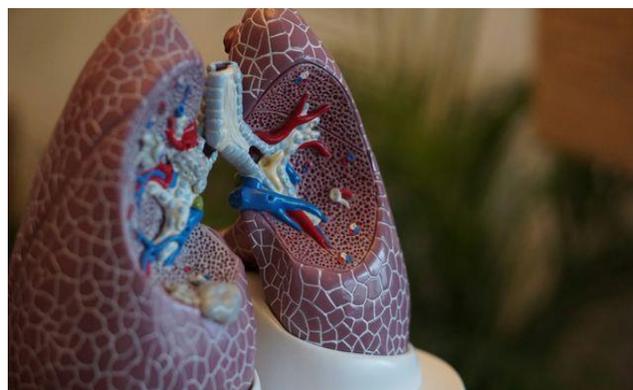
- **Energy Security:** Reducing 100% import dependence on battery cells is vital for India's strategic autonomy.
- **Viksit Bharat 2047:** A robust battery ecosystem is the "fuel" for India's transition to a green economy.
- **Climate Goals:** Essential for meeting India's **COP26 Panchamrit** targets, including 500 GW of non-fossil energy capacity by 2030.

5. The Path Forward: MHI Reforms (2026)

To revive the scheme, the government is considering several "course-correction" measures:

- **Re-tendering the 20 GWh Gap:** The MHI is expected to launch a fresh round of bidding for the remaining 20 GWh capacity by **May 2026**, possibly with relaxed "local content" timelines.
- **Inclusion of Niche Technologies:** Expanding the scope to include **Sodium-Ion** and **Zinc-Air** batteries to reduce Lithium dependence.
- **Critical Mineral Integration:** Linking the ACC-PLI with the **India Semiconductor Mission (ISM)** style incentives for mineral processing and refining.

High-Dose Inhaled Nitric Oxide : A New Frontier Against Drug-Resistant Pneumonia



Why in News?

In **February 2026**, a groundbreaking study published in *Science Translational Medicine* by researchers from **Mass General Brigham (Harvard Medical School)**

revealed that high-dose **inhaled nitric oxide (iNO)** at **300 ppm** can significantly reduce bacterial loads in drug-resistant pneumonia. The study, involving both large-animal models and early-phase human testing, offers a "pathogen-agnostic" strategy to combat the global crisis of **Antimicrobial Resistance (AMR)**, which is projected to cause 10 million deaths annually by 2050.

1. The Challenge: Drug-Resistant Pneumonia

- **Definition:** An inflammatory condition of the lung alveoli where the causative bacteria are resistant to standard antibiotics.
- **The "ICU Threat":** *Pseudomonas aeruginosa*, a multidrug-resistant Gram-negative bacterium, is responsible for **one in five** cases of hospital-acquired pneumonia (HAP), leading to high mortality and prolonged ICU stays.
- **Clinical Impact:** Conventional treatments often fail, resulting in sepsis, lung tissue damage, and a dependency on mechanical ventilation.

2. The Breakthrough: High-Dose iNO (300 ppm)

While low-dose nitric oxide (10–80 ppm) has long been used as a vasodilator for newborns and ARDS patients, this study explores **high-dose (300 ppm)** for its direct antimicrobial properties.

- **Preclinical Efficacy:** In a swine model of *P. aeruginosa* pneumonia, intermittent 300 ppm iNO therapy resulted in a **99% (two-log) reduction** in bacterial burden.
- **Physiological Benefits:** Beyond killing bacteria, the therapy improved **oxygenation** and lung compliance while reducing histopathological lung injury.
- **Multiple Modes of Attack:** High-dose NO kills microbes through:
 - **DNA Deamination:** Directly attacking the pathogen's genetic material.
 - **Oxidative Stress:** Covalently binding to microbial proteins and lipids to disrupt cell membranes.

- **S-nitrosylation:** Deactivating essential bacterial enzymes.

3. Human Safety and Feasibility Data (2025–2026)

- **Phase 1 Trial:** Testing on 10 healthy volunteers confirmed that intermittent 300 ppm iNO is safe, with **methemoglobin (MetHb)** levels remaining within manageable limits (peaking at 2–3%).
- **ICU Feasibility:** The treatment was well-tolerated in two critically ill patients with multidrug-resistant infections, showing no serious adverse events.
- **Long-term Evidence:** A 6-year follow-up of patients previously exposed to high-dose iNO (during the COVID-19 pandemic) revealed no adverse long-term health outcomes.

4. Understanding Nitric Oxide (NO)

- **Chemical Nature:** A highly reactive, colorless gas and a **stable free radical** with a short half-life (seconds).
- **Endogenous Production:** Synthesized in the body from the amino acid **L-arginine** via Nitric Oxide Synthases (NOS).
- **Physiological Roles:**
 - **Cardiovascular:** Acts as an "Endothelium-Derived Relaxing Factor" (EDRF) to lower blood pressure—a discovery that won the **1998 Nobel Prize**.
 - **Immune System:** Naturally produced by macrophages to kill invading pathogens.
 - **Nervous System:** Functions as a retrograde neurotransmitter for memory and synaptic plasticity.

5. Risks and Practical Barriers

- **Toxicity Concerns:** High doses risk elevating **methemoglobin**, which impairs the blood's ability to carry oxygen. Continuous monitoring is mandatory.

- **Bacterial Rebound:** Some researchers caution that bacteria might "rebound" once the gas flow is stopped, necessitating careful dosing schedules.
- **Infrastructure:** Delivering 300 ppm requires specialized high-pressure cylinders, precise delivery systems, and trained ICU staff, which may limit use in resource-constrained settings.

Conclusion

High-dose inhaled nitric oxide represents a shift from "chemical warfare" (antibiotics) to "physical/oxidative warfare" against bacteria. Because NO attacks multiple microbial targets simultaneously, it is significantly less likely to trigger the development of new resistance. As researchers move toward Phase 2 and 3 clinical trials in late 2026, iNO 300 ppm stands as a powerful candidate for a pathogen-agnostic "rescue therapy" in ICUs.

Sarvam AI : Pioneering India's Sovereign LLM Ecosystem



Why in News?

In **February 2026**, Bengaluru-based **Sarvam AI** made a landmark announcement at the **India-AI Impact Summit**, unveiling two high-performance Large Language Models (LLMs): **Sarvam-30B** and **Sarvam-105B**. These indigenous models, alongside a new

multilingual chatbot named **Vikram** (honoring physicist Vikram Sarabhai), represent a major leap in India's quest for "AI Sovereignty." The launch coincides with global interest in Indic AI, including OpenAI's introduction of **IndQA**, a benchmark for Indian languages.

1. The New Models: Sarvam-30B & Sarvam-105B

- **Sarvam-30B (30 Billion Parameters):**
 - Designed for **real-time conversations** with a **32,000-token** context window.
 - Optimized for speed, reasoning, and instruction-following in daily interactions.
- **Sarvam-105B (105 Billion Parameters):**
 - A more "intelligent" model with a **128,000-token** context window.
 - Suited for **complex problem-solving** and long-form analysis across all 22 scheduled Indian languages.
- **Mixture-of-Experts (MoE) Architecture:** Both models use MoE, a technique that activates only the relevant "experts" or components during a query. This drastically reduces computing costs and energy consumption while maintaining the performance of much larger models.

2. Key Features and Strategic Edge

- **Voice-First & Indic-Native:** Unlike global models trained predominantly on English, Sarvam's models are built from the ground up to handle the "data scarcity" of Indian dialects. They are **voice-first optimized**, making AI accessible to non-literate or regional language speakers.
- **Open Source:** Sarvam is releasing these models as **open source**, allowing Indian developers, startups, and researchers to build localized applications without relying on expensive, closed-source foreign APIs.
- **Sovereign AI Infrastructure:** These models were trained using **GPUs** (Graphics Processing Units) provided through the

IndiaAI Mission's common compute program, demonstrating the success of public-private partnerships in high-tech infrastructure.

3. The "Vikram" Chatbot

- **Multilingual Capability:** Named **Vikram**, this chatbot acts as the consumer-facing interface for Sarvam's LLMs.
- **Seamless Switching:** It allows users to switch between Indian languages mid-conversation, mimicking the natural "code-switching" (Hinglish, Tanglish, etc.) common in Indian households.

4. India's Growing AI Landscape (2026)

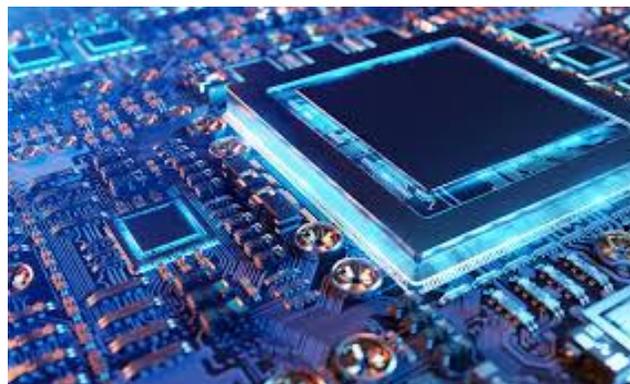
Sarvam AI is part of a broader movement to build a domestic AI stack under the **IndiaAI Mission**:

- **Governance Model:** Sarvam is developing a **120B-parameter sovereign model** specifically for public services and government use.
- **Soket:** Developing India-focused models for high-security sectors like **Defence, Healthcare, and Education**.
- **Gnani & Gan AI:** Gnani has launched its own Indic LLM, while **Gan AI** is building a **70B-parameter** multilingual text-to-speech foundation model to humanize AI interactions.

Conclusion

The launch of Sarvam-30B and 105B marks a shift from India being a "consumer of AI" to a "creator of AI." By focusing on a **voice-first, multilingual, and open-source** approach, Sarvam AI is addressing the unique linguistic diversity of India that global tech giants often overlook. These models ensure that the benefits of the AI revolution reach the "last mile" in the user's mother tongue.

The GPU Revolution: From Gaming Component to Global AI Infrastructure



Why in News?

In **early 2026**, the **Graphics Processing Unit (GPU)** has cemented its status as the most critical hardware of the decade. Originally launched by **Nvidia** in **1999** (the GeForce 256) to handle video game visuals, the GPU has evolved into the "silicon engine" driving the **digital economy**. Today, it is the indispensable backbone for **Generative AI, Machine Learning, and High-Performance Computing (HPC)**, transforming from a discretionary PC part into a strategic national asset.

1. What is a GPU? The Architecture of Parallelism

- **The "Number-Cruncher":** A GPU is designed to perform thousands of **simple mathematical calculations simultaneously**.
- **Parallel vs. Sequential:** * **CPU (Central Processing Unit):** Designed for complex, sequential logic and fast task-switching (the "Manager").
 - **GPU:** Designed for massive, repetitive workloads (the "Factory Floor").
- **The Pixel Challenge:** A standard 1080p screen has **2.07 million pixels**. To run a game at 60 FPS, a GPU must update over **120 million pixels every second**, calculating lighting, shadows, and textures for each one.

2. How a GPU Works: The Rendering Pipeline

To turn a 3D model into an image, the GPU follows a four-step sequence:

1. **Vertex Processing:** Uses matrix math to position 3D triangles on a 2D screen.
2. **Rasterization:** Converts those triangles into a grid of "pixel candidates."
3. **Fragment/Pixel Shading:** The most intensive part—calculating final colors based on light, reflections, and textures.
4. **Frame Buffer:** The finished image is stored in memory (**VRAM**) before being sent to the monitor.

3. GPU vs. CPU: A Silicon Comparison

Feature	CPU	GPU
Core Design	Few, complex cores optimized for sequential tasks.	Thousands of small, efficient cores for parallel tasks.
Silicon Area	Allocated to complex control logic and large caches.	Allocated to repeating compute blocks and wide data paths.
Memory	System RAM (lower bandwidth).	High-Bandwidth VRAM (specialized for massive data movement).
Primary Strength	Decision-making and system management.	High-throughput mathematical operations.

4. Global Market Dynamics (2026)

- **The Nvidia Dominance:** While not a legal monopoly, Nvidia holds roughly **90%** of the discrete GPU market.
- **The CUDA Moat:** Nvidia's **CUDA (Compute Unified Device Architecture)** software platform has become the industry standard for AI development, making it difficult for competitors like **AMD** or **Intel** to break into the data center space.
- **Geopolitical Significance:** High-end GPUs (like the H100 or B200) are now subject to strict **export controls**, as they are vital for developing advanced military and surveillance AI.

5. India's Strategic GPU Initiatives

Recognizing that "AI Sovereignty" requires hardware independence, India has launched several missions:

- **IndiaAI Mission:** A ₹10,372 crore project aimed at creating a **sovereign AI compute capacity** of 10,000 or more GPUs for startups and researchers.
- **India Semiconductor Mission (ISM) 2.0:** Focuses on attracting GPU designers and foundries to set up shop in India.
- **Public-Private Partnerships:** Government-backed access to high-end GPU clusters for indigenous LLM development (e.g., the **Sarvam AI** training).

Conclusion

The GPU's transition from "rendering pixels" to "training neurons" is the defining shift in 21st-century computing. As AI models become more complex, the demand for GPU compute power is outpacing the growth of traditional chips. For nations like India, securing a reliable supply of GPUs is no longer just a tech requirement—it is a prerequisite for economic and strategic survival in the AI age.

Gaganyaan: Successful Drogue Parachute Test Paves Way for India's Crewed Mission



Why in News?

On **February 18, 2026**, the **Defence Research and Development Organisation (DRDO)** successfully conducted a qualification-level load test of the **Drogue Parachute** for the **Gaganyaan programme**. The test was carried out at the **Rail Track Rocket Sled**

(RTRS) facility of the **Terminal Ballistics Research Laboratory (TBRL)** in Chandigarh. This milestone marks a critical step in validating the deceleration system that will ensure the safe return of Indian astronauts from space.

1. Significance of the Drogue Parachute Test

- **Primary Function:** The drogue parachute acts as the first stage of the deceleration system. It is deployed to **stabilize and slow down** the crew module during its high-speed atmospheric re-entry before the larger main parachutes are released.
- **Safety Margin:** The RTRS dynamic test simulated loads **higher than the maximum flight conditions**, proving the parachute's extra design safety margin.
- **Indigenous Expertise:** The success highlights India's self-reliance in designing high-strength **ribbon parachutes** capable of withstanding extreme aerodynamic stresses.

2. Gaganyaan Mission: India's First Human Spaceflight

- **Objective:** To demonstrate India's capability to send a **3-member crew** to **Low Earth Orbit (LEO)** at an altitude of **400 km** for a **3-day mission** and bring them safely back to Earth.
- **Timeline (2026–2027):** * **G1 Mission (March 2026):** The first uncrewed test flight, carrying the humanoid robot **Vyommitra**, is scheduled for later this month.
 - **Validation Flights:** Three uncrewed missions (G1, G2, G3) will precede the final manned flight.
 - **Crewed Mission (Early 2027):** The first manned flight is officially targeted for the first quarter of 2027.
- **The Crew:** Four Indian Air Force pilots—**Prasanth Balakrishnan Nair, Ajit Krishnan, Angad Pratap, and Shubhanshu Shukla**—are currently undergoing mission-specific training in India after completing basic training in Russia.

3. Key Technologies and Systems

- **HLVM3 (Human-Rated LVM3):** A modified version of ISRO's heaviest rocket, the **LVM3**, featuring enhanced safety, redundancy, and a **Crew Escape System (CES)** with high-burn-rate motors for emergency aborts.
- **Orbital Module:** Comprises the **Crew Module (CM)** (the habitable, pressurized living space) and the **Service Module (SM)** (supporting propulsion, power, and thermal control).
- **Deceleration System:** A complex sequence of **10 parachutes** (including drogue, pilot, and main parachutes) that must work in synchronized harmony for a safe splashdown in Indian waters.

Conclusion

The successful testing of the drogue parachute at TBRL Chandigarh brings India one step closer to its historic goal of joining the elite group of nations (USA, Russia, and China) with independent human spaceflight capability. With the **G1 uncrewed mission** expected to launch in a few weeks, 2026 stands as the most defining year for India's space ambitions.



Crux of The Hindu & Indian Express

Science & Technology

Bharat GenAI – India's First Sovereign AI Model



- **On 5 February 2026**, Union Minister **Jitendra Singh** informed the Rajya Sabha that under the **Bharat GenAI initiative**, text-based AI models will be completed in all **22 Constitutionally recognised Indian languages within this month**.
- He also said that speech and vision capabilities have already been developed in 15 Indian languages.
- This is an important step in India's digital and technological development.

What Is Bharat GenAI?

- Bharat GenAI is India's first government-owned sovereign Large Language Model (LLM).
- It is designed especially for:
 - Indian languages
 - Indian culture
 - Indian social needs
- This initiative is part of the **IndiaAI Mission**, which was launched in March 2024.
- Unlike many global AI models that mainly focus on English or a few major languages, Bharat GenAI focuses on India's linguistic diversity.

Main Features of Bharat GenAI

The model has three main components:

1. Text
2. Speech
3. Vision

Current Status

- Text models: To be completed in all 22 scheduled languages this month.
- Speech and Vision models: Already available in 15 languages and will expand further.

The programme may later include regional dialects and local language variations as more data becomes available.

What Does "Sovereign AI Model" Mean?

A sovereign AI model means:

- It is developed and controlled by the Government of India.
- Data and technology remain within national control.
- It is designed according to India's needs and values.

This ensures data security and digital independence.

Institutions Involved

The Bharat GenAI consortium is led by:

- **IIT Bombay**

Other participating institutes include:

- **IIT Hyderabad**
- **IIT Madras**
- **IIT Kanpur**
- **IIT Mandi**
- **IIT Indore**

This shows a national-level collaborative approach.

Technology Innovation Hubs

The government has set up **25 Technology Innovation Hubs** to support AI and related technologies such as:

- Artificial Intelligence
- Robotics
- Machine Learning
- Cybersecurity

Four hubs have been upgraded to improve industry and research collaboration:

- IIT Indore
- IIT Kanpur
- IIT Dhanbad
- **Indian Institute of Science**

This helps in faster technology development and practical use.

Compute Power and GPUs

- Advanced AI needs strong computing power, especially GPUs.
- Under the IndiaAI Mission:
 - A special "compute pillar" has been created.

- Shared computing resources will be provided at subsidised rates.
- Access may also expand through alternative sources.
- This ensures researchers and developers get enough computing support.

Private Sector Participation

- The government is encouraging private companies to participate.
- A ₹1 lakh crore Research, Development and Innovation funding initiative has been launched to support:
 - AI infrastructure
 - Compute needs
 - Projects close to practical use
- This will strengthen India's AI ecosystem.

Access and Pricing

- The model is sovereign but not closed.
- The government is working on:
 - Data-sharing rules
 - Safety safeguards
 - Pricing structure
 - Possible discounts for certain users
- Details are still under discussion.

Why Is This Important?

- Promotes digital inclusion in Indian languages.
- Strengthens India's technological independence.
- Supports research and innovation.
- Encourages industry participation.
- Protects national data interests.

Bharat GenAI is designed as a continuously evolving national capability, not a one-time project.

NSO Launches MCP Server to Make Government Data AI-Ready



- In February 2026, The National Statistics Office (NSO), under the Ministry of Statistics and Programme Implementation (MoSPI), has launched the beta version of a Model Context Protocol (MCP) server.
- This server is linked with the eSankhyiki Portal, which is India's national portal for official statistics.
- The main aim is to make government data easily usable with Artificial Intelligence tools.

Why Is This in News?

- NSO launched a new MCP server.
- It allows direct connection between official datasets and AI tools.
- It makes government data more accessible and AI-friendly.

What Is MCP Server?

- MCP stands for Model Context Protocol.
- It is a technology that allows users to:
 - Connect directly to datasets using AI tools.
 - Avoid downloading large data files.
 - Integrate official data into their own software.
 - Automate reports using updated statistics.
 - Access multiple datasets through one connection.
- In simple words, it saves time and makes data analysis easier.

What Is eSankhyiki Portal?

- eSankhyiki is India's national portal for official statistics.
- It provides important economic and social data for:
 - Citizens
 - Researchers
 - Businesses
 - Policymakers
- Now, with the MCP server, this data can directly connect with AI systems

Datasets Included in Beta Version

Currently, seven major datasets are available:

1. Periodic Labour Force Survey (PLFS)
2. Consumer Price Index (CPI)
3. Annual Survey of Industries (ASI)
4. Index of Industrial Production (IIP)
5. National Account Statistics (NAS)
6. Wholesale Price Index (WPI)
7. Environmental Statistics

More datasets will be added in the coming months.

Importance of This Initiative

- This step helps in:
 - Strengthening data-driven policymaking.
 - Supporting businesses in decision-making.
 - Saving time in data collection and analysis.
 - Improving transparency and public access to statistics.
- It supports the goal of building a developed India (Viksit Bharat) by improving data infrastructure.

Link with AI Impact Summit

- The launch comes just before the AI Impact Summit scheduled from 15–20 February 2026.
- It also aligns with the objectives of Working Group 6 on "Democratising AI," chaired by **Saurabh Garg**, Secretary, MoSPI.
- This shows India's effort to use AI in practical governance work.

Key Features of MCP Server

- Technology-agnostic (works with different AI tools).
- Reduces barriers between users and official data.
- Helps faster report generation.
- Enables real-time access to government statistics.
- Supports research and innovation.

Users can access the MCP server through the MoSPI data innovation website. Technical support is also available online.

ISRO Identifies Site for Chandrayaan-4 Lander



What is the News?

- **ISRO** has identified a landing site for the upcoming **Chandrayaan-4 Mission**.
- The mission is expected to launch around **2028**.
- It will be India's first **lunar sample-return mission**.
- The **Union Government** has approved the mission.
- It is considered India's **most complex lunar mission** so far.

Background: Success of Chandrayaan-3

Before Chandrayaan-4, India achieved major success with **Chandrayaan-3**.

- Chandrayaan-3 was launched on **14 July 2023** from Sriharikota.
- It was launched using **LVM3 (Launch Vehicle Mark-III)**.
- The mission aimed to demonstrate:
 - **Safe soft landing**
 - **Rover movement (roving) on the Moon**
 - **Conducting scientific experiments**
- On **23 August 2023**, the **Vikram Lander** and **Pragyan Rover** successfully soft-landed near the **Lunar South Pole**.

Why was this historic?

- India became the **first country to soft-land near the Lunar South Pole**.
- India became the **fourth country** to achieve soft landing on the Moon (after USA, Russia, and China).
- It strengthened India's position in the global **space exploration elite club**.

About LVM3 Rocket

- **LVM3** is ISRO's heavy-lift launch vehicle.
- It is capable of placing payloads into **Geosynchronous Transfer Orbit (GTO)**.
- It is a **three-stage rocket**:
 - Two solid strap boosters
 - One liquid core stage
- For Chandrayaan-3, LVM3 placed the spacecraft into an **Elliptic Parking Orbit (170 × 36,500 km)**.

What is Chandrayaan-4?

- Chandrayaan-4 is a **lunar sample-return mission**.
- Its main goal is to:
 - Land on the Moon
 - Collect lunar soil/rock samples
 - Bring them safely back to Earth
- This is more complex than Chandrayaan-3 because:

- It requires **landing + collecting samples + lift-off from Moon + return to Earth**.

Where Will Chandrayaan-4 Land?

- ISRO has selected a site in the **South Polar region of the Moon**.
- The specific area is called **Mons Mouton (MM)**.
- 4 possible landing sites were studied:
 - **MM-1**
 - **MM-3**
 - **MM-4**
 - **MM-5**
- After analysis, **MM-4** was selected.

Why Was MM-4 Selected?

- ISRO used data from the **Orbiter High Resolution Camera (OHRC)**.
- Key features of MM-4:
 - A **1 km × 1 km area** with the least hazards
 - Mean slope of about **5 degrees** (relatively flat surface)
 - Mean height of **5,334 metres**
 - Maximum number of **hazard-free grids (24 m × 24 m size)**
- These conditions make it suitable for **safe soft landing**.

Modules of Chandrayaan-4

Chandrayaan-4 consists of:

- **Propulsion Module (PM)**
- **Descender Module (DM)**
- **Ascender Module (AM)**
- **Transfer Module (TM)**
- **Re-entry Module (RM)**

Landing Process

- The **Descender Module (DM)** and **Ascender Module (AM)** will land together.
- This is called the **AM + DM stack**.
- The landing will use advanced **navigation, guidance and control systems**.

After sample collection:

- The **Ascender Module** will lift off from the Moon.
- The samples will return to Earth using the **Re-entry Module**.

Difference Between Chandrayaan-3 and Chandrayaan-4

Chandrayaan-3

- Focused on **safe landing and rover movement**
- No sample return
- Proved India's soft-landing capability

Chandrayaan-4

- Will perform **sample return**
- Involves landing + lift-off + Earth re-entry
- Technically much more complex

India–AI Impact Summit 2026



Theme: Welfare for All, Happiness of All

Date: 16–20 February 2026

Venue: Bharat Mandapam, New Delhi

1. Introduction

- India hosted the **India–AI Impact Summit 2026** in New Delhi.
- It is the **first global AI summit hosted in the Global South**.

More than:

- 20 Heads of State
- 60 Ministers
- 500 Global AI leaders
- 300+ exhibitors from 30 countries

The Summit shows India's strong focus on **responsible, inclusive and development-oriented AI**.

It is aligned with:

- **Viksit Bharat@2047 vision**
- **Digital India**
- **IndiaAI Mission**

The Prime Minister inaugurated the AI Impact Expo and addressed the Summit.

Basic Overview

Aspect	Details
Event	India AI Impact Summit 2026
Duration	6 days
Venue	Bharat Mandapam, New Delhi
Theme	Human-centric AI for welfare and happiness
Edition	4th Global AI Summit (Earlier: UK 2023, South Korea 2024, France 2025)

2. Why AI is Important for India

- AI is not just technology.
- It is a tool for development.
- The Summit is based on **3 Sutras (Foundational Pillars):**

1. People

- AI must improve lives of citizens.

2. Planet

- AI must support environment and sustainability.

3. Progress

- AI must strengthen economy and governance.

3. Sector-Wise Role of AI in India

AI in Healthcare

AI helps especially in rural areas.

- Remote diagnosis through AI tools
- TB and cancer detection using image analysis
- AI chatbots for telemedicine
- Disease outbreak prediction
- AI-based drug discovery

- Affordable and personalized treatment

Result: Better access, faster diagnosis, lower cost.

AI in Agriculture & Rural Economy

AI supports farmers.

- Weather prediction
- Pest control alerts
- Crop monitoring through drones
- Satellite-based harvest forecasting
- Market price prediction
- Regional language advisory (like Kisan tools)

Result: Higher income and reduced risk.

AI in Education

- AI makes learning easy and personal.
- Adaptive learning systems
- AI tutors for 24/7 support
- Language translation into regional languages
- Personalized feedback
- Platforms like DIKSHA are using AI.
- Result: Inclusive and equal learning.

AI in Finance

AI improves financial security.

- Fraud detection
- AI credit scoring for loans
- Banking chatbots
- Personalized financial advice

Result: Financial inclusion and safety.

AI in Governance

AI improves public services.

- Translation of court judgments
- Faster scheme approvals
- Smart traffic management
- Better case management in courts

Result: Transparent and efficient governance

4. Three Sutras & Seven Chakras

The Summit framework is based on:

The Three Sutras Shaping a Sustainable AI Future



These guide global AI cooperation.

Seven Chakras (Areas of Cooperation)



1. Human Capital

- AI skilling
- Workforce readiness

2. Inclusion for Social Empowerment

- Last-mile delivery
- Citizen-centric AI

3. Safe and Trusted AI

- Ethical AI
- Governance framework
- Public trust

4. Resilience, Innovation & Efficiency

- Sustainable AI
- Environmental responsibility

5. Science

- AI for research
- Equal access to data and compute

6. Democratizing AI Resources

- Affordable AI tools
- Startup access
- Research access

7. AI for Economic Growth & Social Good

- High-impact AI solutions
- Inclusive growth

Together, these create a structured global AI roadmap.

5. Major Events of the Summit

1. AI Impact Expo

- Organized by MeitY
- Spread over 70,000 sq metres
- 300+ exhibitors
- 7 thematic pavilions

Focus: From AI research to large-scale deployment.

2. Regional AI Conferences

Held in 8 states: Meghalaya, Gujarat, Odisha, MP, UP, Rajasthan, Kerala, Telangana.

Purpose:

- Identify state-level AI needs
- Policy inputs
- Capacity gaps

3. AI Compendium

Released on 17 February 2026.

Contains real case studies of AI in:

- Health
- Education
- Agriculture
- Energy
- Gender empowerment

It acts as a knowledge document.

6. Flagship Global Challenges

These challenges move from discussion to action.

1. AI for ALL

- Large-scale AI solutions
- Partnership with Startup India & Bhashini
- Prize up to ₹2.5 crore

2. AI by HER

- Women-led AI innovation
- In partnership with NITI Aayog
- Prize up to ₹2.5 crore

Promotes gender inclusion.

3. YUVAi Challenge

- Youth (13–21 years)
- Partnership with MyBharat & NIELIT
- Prize up to ₹85 lakh

Encourages young innovators. Over 4,650 applications from 60+ countries.

7. Research Symposium

Held on 18 February 2026.

- Knowledge partner: IIIT Hyderabad
- 250 research papers from Global South
- Focus on AI governance, compute access, scientific discovery

Strengthens academic collaboration.

8. Key Institutional Frameworks

1. MeitY

- Policy direction
- Coordination
- Regulatory framework

2. IndiaAI Mission

- AI infrastructure
- Indigenous AI models
- Skilling programs

3. STPI

- Startup incubation
- Technical support
- Industry linkage

4. Digital India

- Digital public infrastructure
- Large-scale AI adoption

India Joins Pax Silica

Aspect	Details
Event	India joined Pax Silica at India–AI Impact Summit 2026
Date	20 February 2026
Location	Bharat Mandapam, New Delhi
Main Objective	Strengthen India–US strategic technology cooperation
What is Pax Silica?	Coalition of trusted democratic nations to secure the global “Silicon Stack”
Silicon Stack Includes	Critical minerals, semiconductor fabs, chip design, AI systems, data centres
Core Aim	Reduce supply chain overdependence and prevent economic coercion
Strategic Principle	Economic security = National security

Strategic Meaning of Pax Silica

The initiative covers the entire technology value chain:

1. Mining of critical minerals
2. Semiconductor fabrication
3. Chip packaging and testing
4. AI model development
5. Data centre deployment

It ensures:

- Diversified supply chains
- Reduced geopolitical risk
- Stronger global partnerships

This reduces risk of overconcentration in one region.

M.A.N.A.V. – PM Narendra Modi’s Human-Centric AI Vision

1. Background

- At the India–AI Impact Summit 2026, **Prime Minister Narendra Modi presented a clear and value-based vision for artificial intelligence.**
- He said AI should not be seen only as data, machines, and algorithms. It must reflect human values, ethics, and dignity.
- India, being home to one-sixth of the world’s population and the largest youth population, has both opportunity and responsibility in shaping global AI discussions.
- To guide this approach, the Prime Minister introduced the framework called **M.A.N.A.V.**

2. Meaning of M.A.N.A.V.

M.A.N.A.V. stands for:

- **M** – Moral and Ethical Systems
- **A** – Accountable Governance
- **N** – National Sovereignty
- **A** – Accessible and Inclusive AI
- **V** – Valid and Legitimate Systems

It is a roadmap for responsible AI development.

3. Pillar 1 – Moral and Ethical Systems

- AI must be fair, transparent, and unbiased.
- Human oversight is necessary.

- Ethical AI design is non-negotiable.
- National Education Policy 2020 promotes AI literacy and computational thinking.
- India secured Guinness World Record with 2,50,946 pledges for responsible AI in 24 hours.
- Ethics must move from policy to public commitment.

4. Pillar 2 – Accountable Governance

- Trust in AI depends on clear rules and oversight.
- IndiaAI Mission approved with ₹10,300+ crore outlay.
- Focus on compute infrastructure, datasets, skilling, and innovation.
- AI Governance Guidelines promote fairness, accountability, and transparency.
- AI systems must be explainable and aligned with democratic values.

5. Pillar 3 – National Sovereignty

- Sovereignty includes control over data, algorithms, and digital infrastructure.
- India Semiconductor Mission strengthens domestic chip manufacturing.
- Focus on trusted data governance frameworks.
- Investment in domestic compute capacity and secure digital infrastructure.
- Aim: Strategic autonomy without digital isolation.

6. Pillar 4 – Accessible and Inclusive AI

- AI should benefit all sections of society.
- Digital Public Infrastructure enables large-scale AI deployment.
- MeghRaj GI Cloud supports cloud services.
- IndiaAI Compute Portal provides access to GPUs and TPUs.
- IndiaAI Kosh offers datasets and AI models.
- National Supercomputing Mission strengthens computing capacity.

- Goal: Reduce entry barriers for startups, researchers, and institutions.

7. Pillar 5 – Valid and Legitimate Systems

- AI systems must be safe, lawful, and trustworthy.
- IT (Intermediary Guidelines and Digital Media Ethics Code) Amendment Rules, 2026 regulate synthetic content and deepfakes.
- Safe and Trusted AI pillar focuses on:
 - Bias mitigation
 - Privacy protection
 - Algorithm auditing
 - Risk assessment

World Leaders at the India–AI Impact Summit 2026 Leaders Attending the Summit

S. No.	Country	Leader	Designation
1	Bhutan	H.E. Mr. Tshering Tobgay	Prime Minister
2	Bolivia	H.E. Mr. Edmand Lara Montano	Vice President
3	Brazil	H.E. Mr. Luiz Inácio Lula da Silva	President
4	Croatia	H.E. Mr. Andrej Plenković	Prime Minister
5	Estonia	H.E. Mr. Alar Karis	President
6	Finland	H.E. Mr. Petteri Orpo	Prime Minister
7	France	H.E. Mr. Emmanuel Macron	President
8	Greece	H.E. Mr. Kyriakos Mitsotakis	Prime Minister
9	Guyana	H.E. Dr. Bharrat Jagdeo	Vice President
10	Kazakhstan	H.E. Mr. Olzhas Bektenov	Prime Minister
11	Liechtenstein	H.S.H. Hereditary Prince Alois	Hereditary Prince
12	Mauritius	H.E. Dr. Navinchandra Ramgoolam	Prime Minister
13	Serbia	H.E. Mr. Aleksandar Vučić	President

14	Slovakia	H.E. Mr. Peter Pellegrini	President
15	Spain	H.E. Mr. Pedro Sánchez Pérez-Castejón	President
16	Sri Lanka	H.E. Mr. Anura Kumara Disanayaka	President
17	Seychelles	H.E. Mr. Sebastien Pillay	Vice President
18	Switzerland	H.E. Mr. Guy Parmelin	President
19	The Netherlands	H.E. Mr. Dick Schoof	Prime Minister
20	United Arab Emirates (UAE)	H.H. Sheikh Khaled bin Mohamed bin Zayed Al Nahyan	Crown Prince of Abu Dhabi

India–AI Impact Summit 2026: Global Leaders & Tech CEOs Participation

2. Major Leaders Present

Leader	Country/Role
PM Narendra Modi	Prime Minister of India
Emmanuel Macron	President of France
Sundar Pichai	CEO, Google
Sam Altman	CEO, OpenAI
Dario Amodei	CEO, Anthropic
Demis Hassabis	Head, Google DeepMind
Shantanu Narayen	CEO, Adobe
Rishad Premji	Executive Chairman, Wipro

The Summit brought together:

- 20+ Heads of State
- 500+ Global AI leaders
- Around 100 CEOs and founders

3. Key Statements by Prime Minister Modi

- AI is transforming healthcare, education, agriculture, governance, and enterprise.
- Summit will enrich global discussion on innovation, collaboration, and responsible AI use.

- India stands at the forefront of AI transformation due to:
 - 1.4 billion population
 - Strong digital public infrastructure
 - Vibrant startup ecosystem
 - Cutting-edge research

He expressed confidence that outcomes will shape a progressive and opportunity-driven future.

4. Investment and Economic Outlook

- IT Minister Ashwini Vaishnaw said India expects over **\$200 billion in investments** in the next two years.
- AI seen as major growth engine for India's economy.

5. Global Tech Commitments

Sundar Pichai (Google CEO)

- Said India will have an “extraordinary trajectory” in AI.
- Google committed to being a long-term partner.
- Announced subsea cable development under existing **\$15 billion AI infrastructure investment**.
- Highlighted India's digital transformation since his childhood in Chennai.

Nvidia Announcement

- Nvidia partnering with Indian cloud providers.
- Will provide advanced processors for AI data centres.
- Focus on training and running AI systems in India.

6. Global AI Governance Focus

World leaders are expected to issue a joint statement on:

- Managing AI risks
- Preventing misuse of AI
- Addressing deepfakes and online scams
- Tackling intrusive surveillance

Experts stress need for stronger global AI regulations.

Conclusion

The India AI Impact Summit 2026 concluded as a historic milestone in India's technological journey. Held at Bharat Mandapam, the Summit received strong global endorsement for India's vision of responsible, inclusive, and sovereign artificial intelligence. The scale of participation — with representatives from 118 countries, over 20 Heads of Government, hundreds of AI leaders, and more than 5 lakh participants — reflects the world's growing trust in India's leadership in the AI age. The Summit moved beyond dialogue to deliver tangible outcomes. Infrastructure investment pledges crossing \$250 billion and nearly \$20 billion in deep-tech commitments demonstrate strong international confidence in India's AI and semiconductor ecosystem. The extensive pre-summit engagements and global participation underline that India has become a central platform for shaping AI governance, innovation, and collaboration. As highlighted by Shri Ashwini Vaishnaw, the true achievement lies not only in the numbers but in the global recognition that India is helping shape the future of artificial intelligence. Anchored in the vision of Viksit Bharat@2047, the Summit marks a decisive step toward building long-term technological capacity, strengthening sovereign AI capabilities, and positioning India as a trusted and responsible leader in the emerging AI-driven world order.

Launch of Tetanus and Adult Diphtheria (Td) Vaccine



1. What Happened?

- Union Health Minister **Shri J.P. Nadda** will launch the **Tetanus and Adult Diphtheria (Td) Vaccine** on **21st February 2026**.
- The launch will take place at the **Central Research Institute (CRI), Kasauli, Himachal Pradesh**.
- The vaccine will be included in India's **Universal Immunization Programme (UIP)**.

2. Why Is This Important?

India earlier used the **TT (Tetanus Toxoid) Vaccine**.

Now, it is being replaced by the **Td Vaccine**.

Reason:

- **DPT vaccination** reduced diphtheria and tetanus cases in children.
- However, **diphtheria immunity declines over time**.
- **Booster doses** are required during adolescence and adulthood.

The **World Health Organization (WHO)** recommended shifting from **TT to Td** in **2006**, and reaffirmed it in **2017**. India's **National Technical Advisory Group on Immunization (NTAGI)** also supported this change.

3. What Is the Td Vaccine?

Td stands for:

- **T – Tetanus**
- **d – Adult Diphtheria (Reduced Dose)**

It protects against:

- **Tetanus**
- **Diphtheria**

Composition:

- **Purified Tetanus Toxoid**
- **Purified Diphtheria Toxoid**
- **Aluminum Phosphate** (Adjuvant to boost immune response)
- **Thiomersal** (Preservative)

4. About the Diseases

Tetanus

- Caused by bacteria entering through **wounds**

- Leads to **muscle stiffness and painful spasms**
- Can cause **lockjaw**, breathing difficulty and even **death**

Diphtheria

- A serious **bacterial infection**
- Causes **breathing problems**
- May lead to **heart failure, paralysis and death**

Both are **vaccine-preventable diseases**.

5. Why Replace TT with Td?

Earlier **TT vaccine** protected only against **Tetanus**.

The **Td vaccine**:

- Protects against **both Tetanus and Diphtheria**
- Strengthens immunity in **adolescents and adults**
- Supports India's success in eliminating **Maternal and Neonatal Tetanus**

This shift improves **overall disease protection**.

6. Role of Central Research Institute (CRI), Kasauli

- Established in **1905**
- Functions under **Directorate General of Health Services**
- Manufactures vaccines for national programmes

For the **Td vaccine**, CRI:

- Conducted **developmental studies**
- Obtained **Test License**
- Received **Marketing Authorization**
- Completed regulatory approvals
- Started **Commercial Manufacturing**

The vaccine has been cleared by the **Central Drugs Laboratory** and is ready for supply.

7. Supply Plan

- **55 lakh doses** will be supplied to the **Universal Immunization Programme** by **April 2026**.
- Production will increase in coming years.

This will strengthen **immunization coverage** in India.

8. Importance for Public Health

- Expands protection **beyond childhood**
- Reduces **morbidity and mortality**
- Strengthens **domestic vaccine manufacturing capacity**
- Supports **Atmanirbhar Bharat** in healthcare

Conclusion

The launch of the **Td Vaccine** marks an important upgrade in India's **National Immunization Policy**. By replacing TT with Td, India ensures **dual protection against Tetanus and Diphtheria** for adolescents, adults and pregnant women. This move strengthens **public health security**, improves **long-term immunity**, and supports India's goal of building a **strong and self-reliant healthcare system**.

Green Ammonia : India's Breakthrough in Clean Energy Pricing



Why in News?

In **February 2026**, the **Solar Energy Corporation of India (SECI)** achieved a historic milestone under the **SIGHT programme** by conducting a series of green ammonia auctions that discovered record-low prices. The discovered tariffs, ranging from **₹49.75 to ₹64.74 per kg** (\$572–\$744/tonne), are nearly **50% lower** than European benchmarks. This breakthrough narrows the gap between clean and fossil-fuel-based ammonia, positioning India as a global price influencer for green fuels.

1. What is Green Ammonia?

- **Definition:** Ammonia (NH₃) produced using **green hydrogen** (derived from water

electrolysis powered by renewable energy) and nitrogen from the air.

- **Carbon Footprint:** Near-zero, compared to **grey ammonia** (produced from natural gas) which emits 2–3 tons of CO₂ per ton of ammonia.
- **The "Haber-Bosch" Evolution:** While the synthesis process remains the same, the feedstock (hydrogen) is switched from fossil fuels to renewable-powered electrolysis.

2. Comparison of Ammonia Types

Type	Production Method	Carbon Profile	Key Role
Grey / Brown	Natural Gas / Coal	High	Current Industry Standard
Blue	Fossil Fuels + Carbon Capture	Moderate	Transitional Option
Green	Renewable Energy + Water	Near-Zero	Future Net-Zero Goal

3. Strategic Significance of the 2026 Auctions

- **Global Price Benchmark:** The discovered price of **~\$641/MT** in the early tranches is a sharp decline from the 2024 H2Global benchmark of **\$1,153/MT**.
- **Import Substitution:** India currently imports nearly **3 million tonnes** of ammonia annually. Green ammonia is expected to replace **30%** of these imports, insulating the economy from volatile global gas markets.
- **Aggregated Demand:** SECI pooled an annual demand of **7.24 lakh tonnes** across 13 fertilizer plants (like Paradeep Phosphates and IFFCO), creating the scale necessary to drive down costs.
- **Hydrogen Hubs:** Strategic coastal ports like **Kandla, Tuticorin, and Paradip** are being developed as Hydrogen Hubs to facilitate green ammonia exports to Japan and South Korea.

4. SIGHT Scheme: The Financial Engine

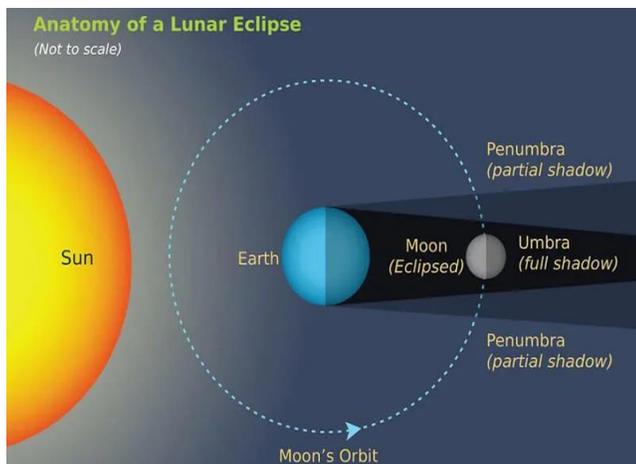
The **Strategic Interventions for Green Hydrogen Transition (SIGHT)** programme is a ₹17,490 crore sub-mission under the **National Green Hydrogen Mission**.

- **Component I:** Focuses on performance-linked incentives for **indigenous electrolyser manufacturing**.
- **Component II (Mode 2A):** Provides production-linked incentives for green ammonia.
- **Incentives:** Successful bidders receive a direct supply incentive for the first three years:
 - **Year 1:** ₹8.82/kg
 - **Year 2:** ₹7.06/kg
 - **Year 3:** ₹5.30/kg
- **Offtake Assurance:** Offers **10-year fixed-price contracts**, providing the revenue certainty required to de-risk massive capital investments.

Conclusion

The 2026 auctions mark the transition of green ammonia from a "concept" to a "commercially viable reality" in India. By achieving price points nearly half of global averages, India is not just decarbonizing its fertilizer and shipping sectors but is setting the pace for the global energy transition. The next step will be the implementation of **mandatory blending norms** for refineries and fertilizer plants to ensure a guaranteed domestic market.

Total Lunar Eclipse 2026 : The "Blood Moon" Over India



Why in News?

On **March 3, 2026**, a spectacular **total lunar eclipse** (Chandra Grahan) occurred, coinciding uniquely with the festival of **Holi**. This celestial event, visible across India, eastern Asia, Australia, and the Americas, transformed the Moon into a deep coppery red, often called a **"Blood Moon."** In India, the eclipse was observed under "moonrise" conditions, meaning the celestial alignment was already in progress as the Moon appeared on the eastern horizon.

1. Key Timings for India (March 3, 2026)

The total duration of the eclipse cycle was approximately **3 hours and 27 minutes**. Because the event began in the afternoon, visibility in India depended on local moonrise times.

- **Eclipse Start (Sparsh):** 3:20 PM IST
- **Totality Phase (Moon is Red):** 4:34 PM – 5:33 PM IST
- **Maximum Eclipse:** 5:04 PM IST
- **Eclipse Ends (Moksha):** 6:47 PM IST
- **Best Viewing Window:** Most Indian cities (Delhi, Mumbai, Bengaluru) saw the final partial phases between **6:26 PM and 6:47 PM IST**.

2. Regional Visibility in India

- **Northeast India & Andamans:** Regions like **Guwahati, Itanagar, and Port Blair** enjoyed the best visibility. Since the Sun sets earlier there, observers were able to witness the tail end of the **Totality (red) phase** shortly after moonrise.
- **Rest of India:** Cities like **Delhi, Mumbai, and Lucknow** primarily witnessed the **Partial phase**, where the Earth's shadow appeared to take a "bite" out of the Moon as it rose in the evening sky.
- **Satak Period:** According to traditional practices, the *Satak Kaal* began at **9:20 AM**

and concluded with the end of the eclipse at 6:47 PM.

3. Science Behind the "Blood Moon"

- **The Shadow Structure:** A lunar eclipse occurs when Earth aligns between the Sun and Moon (**Syzygy**).
 - **Umbra:** The dark inner shadow (causes the partial/total eclipse).
 - **Penumbra:** The faint outer shadow (causes subtle dimming).
- **Rayleigh Scattering:** The Moon turns red because Earth's atmosphere filters out shorter blue wavelengths of sunlight but bends (refracts) longer **red wavelengths** toward the Moon. Effectively, the Moon is illuminated by the light of all the world's sunrises and sunsets happening at that moment.

4. Astronomical Context

- **Rare Alignment:** This was the first total lunar eclipse of 2026. The next total lunar eclipse visible from India is not expected until **December 31, 2028**, which will famously be a "New Year's Eve Blood Moon."
- **Safety:** Unlike solar eclipses, lunar eclipses are **100% safe** to watch with the naked eye. No special filters or glasses are required.

Conclusion

The 2026 Blood Moon served as a rare intersection of astronomical wonder and cultural celebration in India. While the "totality" was brief for western parts of the country, the sight of a crimson moon rising against the backdrop of Holi festivities provided a once-in-a-decade experience for skywatchers.



Ecology & Environment

Turtle Trails Initiative : Regulated Ecotourism and Conservation Fears



Why in News?

The **Union Budget 2026–27** has proposed the development of 'turtle trails' at major nesting sites in **Odisha, Karnataka, and Kerala**. While the government aims to promote regulated ecotourism, the plan has sparked a debate, with conservationists warning that increased human activity could disturb the sensitive nesting process of endangered sea turtles.

1. What are Turtle Trails?

- **Concept:** These are designated coastal pathways and observation facilities designed for **nature-based tourism**.
- **Objective:** To create awareness about marine biodiversity while providing alternative livelihoods for local fishing communities.
- **Features:** The trails include low-impact, often temporary infrastructure like walkways and viewing platforms to minimize the permanent footprint on beaches.

2. Locations and Regional Scope

The initiative focuses on three key coastal states:

- **Odisha:** Targets the global hotspots of **Rushikulya** (Ganjam district) and areas near **Gahirmatha** (Kendrapara).
- **Karnataka:** Identifies various nesting beaches along the Arabian Sea for Arabian Sea populations.

- **Kerala:** Integrates key nesting stretches along the western coast.

3. Conservationists' Concerns

- **Sensitivity to Light and Noise:** Sea turtles, especially the Olive Ridleys, are highly sensitive to artificial lighting and noise. Even "regulated" tourism could disorient nesting females or hatchlings trying to reach the sea.
- **Habitat Disturbance:** Critics argue that mass nesting (Arribada) sites should remain "no-go zones." They fear that infrastructure development might lead to "coastal armouring" (seawalls) and shoreline changes that destroy nesting spots.
- **Priority Shift:** Experts suggest that policy efforts should prioritize **habitat protection** and strict enforcement of fishing bans over tourism-driven projects.

4. Species Focus: Olive Ridley Turtle

- **Smallest Sea Turtle:** Recognized by its heart-shaped olive-green shell.
- **Unique Behavior (Arribada):** Known for synchronized mass nesting where thousands of females come ashore simultaneously.
- **Migration:** They travel up to 9,000 km between feeding and breeding grounds.
- **Natal Homing:** Females exhibit "natal homing," returning to the exact beach where they were born to lay their own eggs.

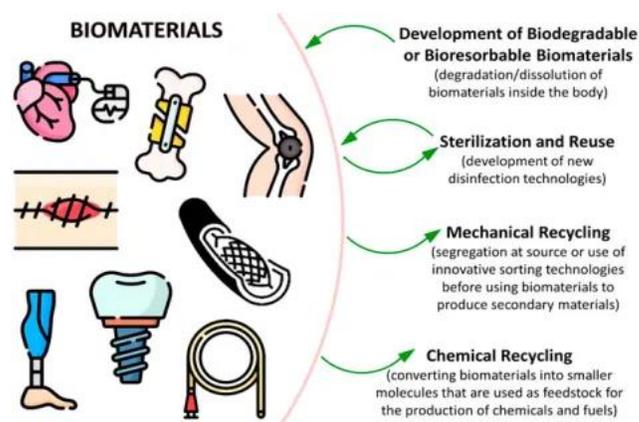
5. Protection and Threats

- **Legal Status:**
 - **IUCN Red List:** Vulnerable.
 - **Wildlife (Protection) Act, 1972:** Schedule I (Highest protection).
 - **CITES:** Appendix I.
- **Major Threats:** * Accidental entanglement in fishing nets (Trawl and Gill nets).
 - Poaching of eggs and habitat loss due to coastal construction.
- **Mitigation:** India mandates the use of **Turtle Excluder Devices (TEDs)** in trawl nets to reduce accidental deaths.

6. Strategic Context in Budget 2026-27

- **Part of "Eco-Trails":** The turtle trails are part of a larger push for niche tourism, which includes bird-watching trails at **Pulicat Lake** and mountain trails in the Himalayas.
- **Livelihood Integration:** The government views this as a way to turn local fishers and volunteers into "nature guides," aligning conservation with economic growth.

Biomaterials: India's Next Frontier in Sustainable Manufacturing



Why in News?

- India is placing a strategic focus on **biomaterials** as a key pillar for its circular economy and low-carbon manufacturing goals.
- A major milestone in this journey is the upcoming commissioning of India's first domestic, industrial-scale **Poly-lactic Acid (PLA) plant** by Balrampur Chini Mills in Kumbhi, Uttar Pradesh, scheduled for **October 2026**.
- In a significant recent development (February 2026), the **Lucknow Cantonment Board** became the first defense-linked institution to formally integrate PLA solutions—such as compostable garbage bags and 3D-printed pens—into its routine operations, signaling strong institutional trust in homegrown biomaterials.

1. What are Biomaterials?

- **Definition:** Materials derived wholly or partly from biological sources (plants, fungi, bacteria) or produced through biological processes (like fermentation).
- **Objective:** Designed to replace petroleum-based materials in sectors like packaging, healthcare, and textiles.
- **Mechanism:** Microorganisms like bacteria are often used in fermentation vessels to convert plant sugars into building blocks (e.g., lactic acid), which are then processed into solid materials.

2. Classification of Biomaterials

- **Drop-in Biomaterials:** These are "plug-and-play" materials that are chemically identical to fossil-based plastics (e.g., **Bio-PET**). They can be used in existing manufacturing lines without any machinery upgrades.
- **Drop-out Biomaterials:** Chemically different from petroleum plastics (e.g., **PLA**). While they are eco-friendly, they require separate processing or industrial composting systems.
- **Novel Biomaterials:** Advanced bio-engineered materials with unique properties, such as **self-healing composites** for construction or **3D-printed bioactive scaffolds** for bone regrowth.

3. Strategic Significance for India

- **Resource Security:** India has 18% of the global population but limited mineral resources. Biomaterials utilize agricultural residues, reducing the need for virgin fossil-fuel imports.
- **Climate Goals:** Many biomaterials are carbon-neutral; crops absorb CO₂ while growing, which offsets the carbon released during production.
- **Economic Value:** The Indian bioplastics market was valued at **\$500 million in 2024** and is projected to grow at over 20% annually through 2033.

- **Export Competitiveness:** As global markets (like the EU) tighten sustainability standards, indigenous biomaterials help Indian exporters avoid carbon-related trade barriers.

4. India's Policy Push: BioE3 and Beyond

- **BioE3 Policy:** Focuses on **Biomanufacturing** and **Bio-foundry**, specifically targeting bio-based chemicals, polymers, and climate-resilient agriculture.
- **Biopharma SHAKTI:** Introduced in the **Union Budget 2026–27** with an outlay of **10,000 crore**, aimed at strengthening the ecosystem for biologics and biosimilars.
- **Institutional Adoption:** Defense establishments and municipal boards (like the Lucknow Cantonment) are increasingly mandating compostable alternatives to single-use plastics.

5. International Landscape

- **European Union:** Promotes compostable packaging under its strict *Packaging and Packaging Waste Regulation*.
- **United Arab Emirates:** Developing a massive PLA facility through *Emirates Biotech*.
- **United States:** The *USDA BioPreferred Program* uses government procurement to drive the demand for bio-based products.

6. Key Challenges

- **Technology Gap:** India still depends on foreign technology for complex biomass conversion and advanced material engineering.
- **Waste Infrastructure:** "Drop-out" materials like PLA need specialized industrial composting facilities to fully realize their environmental benefits.
- **Feedstock vs. Food:** Policy must ensure that biomass is sourced from crop residues and non-food plants to avoid threatening food security.

Arctic Warming : A New Frontier for Invasive Alien Plants



Why in News?

In **February 2026**, a groundbreaking study published in the journal *NeoBiota* by researchers from the **Norwegian University of Science and Technology (NTNU)** warned that rapid Arctic warming is dismantling the region's historic climatic barriers. The study indicates that thousands of non-native vascular plant species are now capable of surviving in the Arctic, threatening to irreversibly transform the fragile tundra ecosystem.

1. How Warming Triggers the Invasion

- **Weakening Barriers:** Traditionally, the Arctic was protected by extreme cold, permafrost, and a short growing season. Rapid warming is lengthening the summer and thawing soil, making it hospitable for southern species.
- **The "Suitability" Scale:** Researchers identified **2,554 vascular plant species** worldwide that could find a suitable climatic niche in today's Arctic if introduced.
- **Human Vectors:** Increased "last-chance tourism," shipping, and resource exploration act as primary pathways. Seeds often "hitchhike" on the boots of tourists, scientific equipment, vehicle tires, and cargo.

2. Current Evidence: The Case of Svalbard

- **Unexpected Bloom:** In **2024**, scientists documented **common meadow rue** (*Thalictrum flavum*), a temperate European

species, in full bloom near Barentsburg in Svalbard.

- **Naturalized Taxa:** Current inventories show that out of **341 alien taxa** recorded in the Arctic, **188** have already become naturalized (established self-sustaining populations).
- **Nutrient Hotspots:** Areas around old barns and human settlements, rich in legacy manure, are serving as "launchpads" for these invasive species to spread into the wider tundra.

3. Identified High-Risk Hotspots

The study mapped six major regions where warming and human connectivity intersect to create "invasion hotspots":

1. **Western Alaska:** Identified as the most vulnerable, potentially supporting over 1,200 invasive species.
2. **Southwestern & Southeastern Greenland:** Vulnerable due to increasing tourism and ice-melt.
3. **Northern Iceland:** Faces pressure from shifting agricultural and maritime patterns.
4. **Fennoscandia:** Northern Norway stands out due to relatively milder conditions.
5. **Kanin–Pechora Region (Russia):** A strategic gateway for Eurasian plant migration.

4. Ecological and Biodiversity Impact

- **Tundra Displacement:** Invasive plants outcompete native mosses, lichens, and shrubs like **bearberry**, which are slow-growing and poor competitors.
- **Food Web Disruption:** Changes in vegetation cover affect the diet and habitat of iconic Arctic fauna, including the **Arctic fox, snowy owl, walrus, and beluga**.
- **Global Target:** Management of these species is critical to meet the **Kunming-Montreal Global Biodiversity Framework (Target 6)**, which aims to reduce the introduction and establishment of invasive alien species by at least 50% by 2030.

5. The Indian Context: Invasive Threats

While the Arctic faces new threats, India is already battling a severe invasive crisis:

- **Footprint:** Invasive plants have invaded approximately **2.6 lakh sq km** of India's natural habitats.
- **Key Invaders:** *Lantana camara* (invading 40% of tiger habitats), *Chromolaena odorata*, and *Prosopis juliflora*.
- **Vulnerable Zones:** The **Nilgiris, Western Ghats**, and the **Ganga–Brahmaputra plains** are high-risk areas where invasive species disrupt local hydrology and soil structure.

Conclusion

The Arctic is no longer an "isolated fortress" of ice. The transition from a "possible future threat" to a "permanent resident" for thousands of alien plants is now a reality. Protecting the High North requires shifting from reactive management to proactive biosecurity—cleaning boots, monitoring cargo, and establishing early-detection systems before these "botanical intruders" fundamentally collapse the native food web.

First Photographic Evidence : Eurasian Otter Rediscovered in Kashmir Valley



Why in News?

In **February 2026**, a team of wildlife researchers and enthusiasts captured the first-ever direct photographic evidence of the **Eurasian Otter (*Lutra lutra*)** along the **Sindh Canal** in the Ganderbal district of Jammu & Kashmir. While the species was historically known to inhabit the region, it was considered locally extinct in several parts of the

Kashmir Valley due to decades of habitat degradation and a lack of sightings. This discovery confirms the continued presence of this elusive "water dog" in the Himalayan freshwater ecosystem.

1. Profile of the Eurasian Otter

- **Scientific Name:** *Lutra lutra* (Family: Mustelidae).
- **Physical Characteristics:** A streamlined body with **webbed feet** and a powerful tail for propulsion. They possess sensitive **whiskers (vibrissae)** to detect prey vibrations in murky waters.
- **Behavior:** Primarily **solitary and nocturnal/crepuscular** (active during twilight). They live in dens called "**holts**" built into the banks of rivers or lakes.
- **Diet:** An apex carnivore; **80% of its diet consists of fish** (trout, schizothorax), but it also preys on amphibians, crustaceans, and waterbirds.

2. Ecological and Bio-indicator Value

- **Keystone Species:** As a top predator, the otter regulates the population of fish and crustaceans, maintaining the balance of the aquatic food web.
- **Health Monitor:** The Eurasian Otter is a sensitive **bio-indicator**. Its presence in the Sindh Canal suggests:
 - **High Water Quality:** Otters cannot survive in heavily polluted or chemically contaminated waters.
 - **Abundant Prey Base:** Indicates a healthy population of native fish and aquatic life.
 - **Riparian Integrity:** Confirms the existence of functional riverbanks with sufficient vegetation for nesting.

3. Conservation Status and Legal Protection

- **IUCN Red List:** Near Threatened (NT).
- **CITES:** Appendix I (Highest level of international trade protection).

- **Wildlife (Protection) Act, 1972: Schedule II** (Providing it high legal protection in India).
- **Threats:** Habitat loss due to sand mining, water pollution, illegal poaching for fur (pelt), and entanglement in fishing nets.

4. Otter Diversity in India

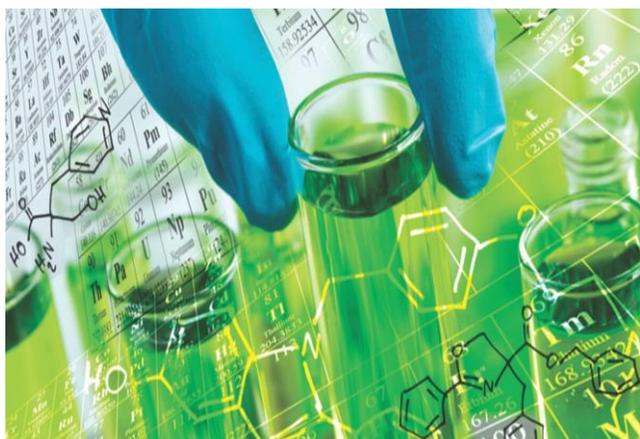
India is home to **three species** of otters, all of which are critical to their respective wetland ecosystems:

1. **Eurasian Otter:** Found in the cold-water torrents of the Himalayas, parts of Northeast India, and the Western Ghats.
2. **Smooth-coated Otter (*Lutrogale perspicillata*):** The most common species, found across the plains and major river systems of India.
3. **Small-clawed Otter (*Aonyx cinereus*):** The world's smallest otter, found in the hilly streams of the Himalayas and the Nilgiris in South India.

Conclusion

The rediscovery of the Eurasian Otter in the Sindh Canal is a beacon of hope for Kashmir's shrinking wetlands. It underscores the resilience of Himalayan wildlife and the urgent need for a dedicated **Otter Conservation Plan** in J&K. Protecting this apex predator is equivalent to protecting the entire riverine ecosystem of the valley, ensuring clean water for both nature and the millions of people who depend on the Sindh and Jhelum rivers.

Bio-based Chemicals : India's Strategic Shift to a Circular Bioeconomy



Why in News?

In **February 2026**, the Government of India intensified its focus on **bio-based chemicals** as a key pillar of the **BioE3 Policy** (Biotechnology for Economy, Environment, and Employment). With the global chemical industry facing strict carbon taxes and supply chain volatility, India is positioning itself to replace traditional petrochemicals with renewable alternatives derived from its vast agricultural surplus. This move is designed to reduce the country's multi-billion dollar import bill for chemicals like acetic acid and methanol while achieving **Net-Zero** targets.

1. What are Bio-based Chemicals?

- **Definition:** Chemical substances derived from **renewable biological resources** (crop residues, algae, fungi, or wood) rather than fossil fuels (petroleum/coal).
- **The Role of Enzymes:** These are "biological catalysts" that allow chemical reactions to occur at lower temperatures and pressures, significantly reducing the carbon footprint of manufacturing.
- **Biorefineries:** The production hub where biomass undergoes **fermentation**, enzymatic conversion, or thermochemical treatment to create high-value "building block" chemicals.

2. Key Bio-based Chemicals and Their Applications

Chemical	Production Method	Industrial Applications
Lactic Acid	Fermentation of carbohydrates	PLA (Biodegradable Plastics), cosmetics, food.
Succinic Acid	Derived from glucose/sugars	Polymers, solvents, and pharmaceuticals.
1,3-Propanediol	Fermented from glycerol	Sustainable textiles (polyester), industrial uses.
Bio-Ethanol	Fermentation of starch/sugars	Bio-fuels and chemical building blocks.
Bio-Surfactants	Derived from plant oils	Green detergents, paints, and adhesives.

3. India's Strategic Advantage (2026)

- **Agricultural Base:** India produces over **300 million tonnes** of food grains and massive quantities of sugarcane and maize, providing a steady supply of "first and second-generation" feedstock.
- **Fermentation Expertise:** Leveraging its status as the "**Pharmacy of the World**," India is repurposing its deep expertise in large-scale microbial fermentation (used for vaccines/antibiotics) for biomanufacturing.
- **Import Substitution:** India imported **\$479.8 million** worth of acetic acid in 2023 alone. Local bio-production can plug this foreign exchange drain.
- **BioE3 Policy:** The Department of Biotechnology is setting up **Bio-foundries** and **Biomanufacturing Hubs** to bridge the gap between lab-scale research and industrial production.

4. Global Best Practices

- **United States:** The **USDA BioPreferred Program** mandates that federal agencies give preference to certified bio-based products, creating a guaranteed market.
- **European Union:** The **EU Bioeconomy Strategy** integrates bio-chemicals into "Circular Economy" goals to eliminate industrial waste.
- **China:** Explicitly prioritizes high-value enzymes in its national bioeconomy development plans to dominate the global "green" supply chain.

5. Challenges and Risks

- **Cost Competitiveness:** Bio-based chemicals often struggle to compete with the low cost of heavily subsidized or established petrochemicals.
- **Feedstock Logistics:** Collecting, transporting, and storing massive amounts of agricultural waste (like paddy straw) requires a robust, decentralized supply chain.

- **Technology Maturity:** Many high-value enzymatic processes are still in the "pilot" stage and require **Viability Gap Funding (VGF)** to scale up.
- **Market Reluctance:** Traditional manufacturers are often hesitant to switch their "input recipes" due to fears of quality variation or supply inconsistency.

Conclusion

Bio-based chemicals represent the "Green Revolution 2.0" for India's industrial sector. By treating agricultural waste as a valuable feedstock rather than a burning liability, India can create a self-sustaining **Circular Bioeconomy**. The success of this transition depends on creating a "pull factor" through green procurement policies and "push factor" through R&D incentives, ensuring that the next generation of plastics, textiles, and medicines are "Grown in India" rather than "Drilled."

Climate Change Impact on Loggerhead Sea Turtles: A Reproductive Crisis



Why in News?

In **early 2026**, a comprehensive marine biology study published in *Global Change Biology* revealed that accelerating **climate change** is severely undermining the **reproductive capacity** and **physical health** of **Loggerhead sea turtles (*Caretta caretta*)**. The research highlights a dangerous shift in their breeding cycles and physical energy reserves, posing an existential threat to their long-term survival across the world's oceans.

1. Profile of the Loggerhead Sea Turtle

- **Scientific Name:** *Caretta caretta* (Family: Cheloniidae).
- **Distinctive Features:** Named for its **large, block-like head** and exceptionally powerful jaw muscles, which allow it to crush hard-shelled prey like crabs, whelks, and conchs.
- **Diet:** Primarily **omnivorous**; they play a key role in marine ecosystems by maintaining the health of seagrass beds and coral reefs.
- **Global Presence:** Found in the **Atlantic, Pacific, and Indian Oceans**, as well as the **Mediterranean Sea**. Scientists currently recognize **ten distinct subpopulations** globally.

2. The "Capital Breeding" Crisis

The study identifies a significant breakdown in the turtles' biological "energy accounting":

- **Energy Storage:** Loggerheads are "**capital breeders**," meaning they must forage and store massive amounts of energy over several years before they have enough "capital" to undertake long-distance breeding migrations.
- **Delayed Breeding Cycles:** Due to **warming oceans** and declining food supplies, the average breeding gap for females has doubled—shifting from a **two-year cycle to a four-year gap**.
- **Reduced Fertility:** Even when they do nest, females are producing significantly **fewer eggs per nest** than they did a decade ago.
- **Chlorophyll Decline:** Satellite data used in the study shows a sharp decline in **ocean chlorophyll** levels, indicating a reduction in the primary productivity (phytoplankton) that sustains the entire marine food chain.

3. Conservation Status and Protection

- **IUCN Red List:** Assessed globally as 'Vulnerable'.

- **Wildlife (Protection) Act, 1972 (India):** Protected under **Schedule I** (highest level of legal protection).
- **CMS (Bonn Convention):** Upgraded to **Appendix I** in 1985, requiring strict international protection for migratory species.
- **CITES:** Listed in **Appendix I**, prohibiting international commercial trade in the species or its parts.

4. International Cooperation Mechanisms

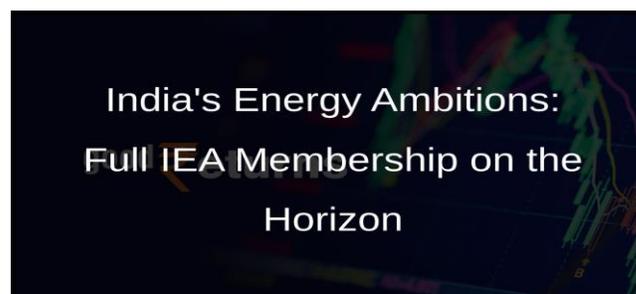
Because loggerheads migrate **thousands of kilometers** across international borders, their survival depends on global MoUs:

- **IOSEA MoU:** The Indian Ocean–South-East Asia agreement focuses on protecting nesting beaches and reducing "bycatch" in fishing nets.
- **Atlantic Coast MoU:** Focuses on the diverse subpopulations along the African coastline.
- **Single Species Action Plan:** A dedicated framework for the critically at-risk subpopulations in the **South Pacific Ocean**.

Conclusion

The 2026 study serves as a "canary in the coal mine" for marine health. The loggerhead's struggle to find enough energy to reproduce is a direct consequence of a destabilized ocean food web. Conservation efforts must now move beyond merely "protecting beaches" to addressing the broader **oceanic productivity loss** caused by rising temperatures. Without a stabilized climate, the biological clock of these ancient mariners may simply run out of time.

India's Path to Full IEA Membership: Reforming Global Energy Governance



Why in News?

In **late February 2026**, during the **IEA Ministerial Meeting** in Paris, the International Energy Agency (IEA) formally welcomed the significant progress made on India's request for full membership. As the world's **third-largest energy consumer**, India's integration is seen as vital for the agency's legitimacy. However, the process remains complex, potentially requiring an amendment to the IEA's **1974 founding charter** to bypass the mandatory **OECD membership clause**.

1. The "OECD Hurdle" and Charter Reform

- **The Legal Constraint:** Historically, IEA full membership has been restricted to members of the **Organisation for Economic Co-operation and Development (OECD)**—a group often referred to as the "rich nations' club."
- **India's Stance:** India has no immediate inclination to join the OECD, seeking to maintain its policy flexibility as a developing economy.
- **The Solution (2026):** IEA leadership and major members (including the U.S.) are currently discussing a **legal amendment** to the founding framework to accommodate major emerging economies like India and **Brazil**, reflecting the multipolar reality of the 21st-century energy landscape.

2. Strategic Oil Reserves: The 90-Day Challenge

A core requirement for IEA full membership is maintaining **Strategic Petroleum Reserves (SPR)** equivalent to **90 days of net imports**.

- **India's Current Status:** As of **February 2026**, India's combined reserves (SPR + oil company inventories) can sustain the country for approximately **74 days**.
- **Strategic Expansion:** To bridge this gap, India is expanding its cavern capacities (beyond Visakhapatnam, Mangaluru, and Padur) to **Odisha**.
- **The Trade-off:** Increasing SPR from 74 to 90 days requires massive capital expenditure.

India is negotiating a **phased integration model** that balances fossil fuel stockpiling with its ambitious renewable energy targets (500 GW by 2030).

3. Evolution of the IEA (1974–2026)

- **Origin:** Founded in **1974** by 17 OECD countries following the Arab oil embargo to manage oil supply emergencies.
- **Modern Mandate:** Today, the IEA has pivoted toward **decarbonization, clean energy transitions, and critical minerals** (lithium, cobalt).
- **Recent Milestone (February 2026):** **Colombia** was officially inducted as the **33rd full member** after joining the OECD in 2020.
- **Associate Status:** India has been an **Associate Member since 2017**, participating in policy talks but lacking the **voting rights and decision-making power** it now seeks.

4. Major IEA Reports & 2026 Innovation Shift

The IEA remains the "gold standard" for energy data. Recent flagship publications include:

- **World Energy Outlook 2025:** Highlighted India's central role in global demand growth.
- **The State of Energy Innovation 2026:** (Released March 2026) Reveals a major shift where **energy security** has overtaken climate goals as the primary driver for technological innovation due to geopolitical risks.
- **Electricity 2026:** Analyzes the rapid rise in demand driven by **Artificial Intelligence (AI)** and data centers.

Conclusion

India's transition to full IEA membership represents a move from being a "**rule-taker**" to a "**rule-maker**" in global energy governance. By including the world's most populous nation, the IEA evolves from a "Western consumers' club" into a truly global energy guardian. For India, this membership provides a seat at the table to influence collective stock releases and global energy transition frameworks while advocating for "**energy justice**" for the Global South.

Mehao Wildlife Sanctuary: Addressing Human–Tiger Conflict in the Eastern Himalayas



Why in News?

In **February 2026**, the Arunachal Pradesh government formally authorized the capture and rehabilitation of a tiger following a tragic incident inside the **Mehao Wildlife Sanctuary (MWS)**. On **February 2, 2026**, a police head constable, Chikseng Manpang, was fatally mauled by a tiger while traveling on a motorcycle along the **Roing–Mayodia road**. In response, the Chief Wildlife Warden issued emergency orders under **Section 11(1)(a)** of the Wildlife Protection Act, 1972, to trap the animal for relocation.

1. Recent Developments & Conflict Mitigation

- **The Incident:** The attack occurred near the 49th km mark on the Roing–Anini road (NH-313). A joint team recovered the victim's body on February 3.
- **Problem Animals Identified:** Forest authorities identified **two sub-adult tigers** as "problem animals" in the Mayodia stretch.
- **Casualties & Retaliation:** * On **February 4, 2026**, one of the two identified sub-adult tigers was found dead with a **gunshot wound**, raising concerns about retaliatory killing.
 - The second sub-adult tiger remains elusive, and intensive monitoring operations are ongoing as of **early March 2026**.
- **Operational Support:** Specialist teams from **Namdapha and Kamlang Tiger Reserves**, the

Itanagar Biological Park, and the Wildlife Trust of India (WTI) have been deployed with tranquilizing equipment.

- **Ex-Gratia:** The state government announced an immediate assistance of **10 lakh** for the victim's family.

2. About Mehao Wildlife Sanctuary

- **Location:** Situated in the **Lower Dibang Valley** district of Arunachal Pradesh, approximately 17 km from Roing.
- **Origin of Name:** It is named after the **Mehao Lake**, a high-altitude (approx. 3,000 m) oligotrophic lake located in the core zone.
- **Terrain & Altitude:** Entirely hilly, with altitudes ranging from **400 m to 3,560 m**. It is part of the **Eastern Himalayas** biodiversity hotspot.
- **Rivers:** Key perennial streams include the **Ashupani, Deopani, Enjopan, Diphu, and Jowe**.

3. Flora and Fauna Diversity

- **Vegetation Zones:** The sanctuary exhibits a remarkable altitudinal zonation of forests:
 - **Tropical Evergreen Forests** (up to 900 m)
 - **Sub-Tropical & Temperate Forests** (900–1800 m)
 - **Temperate Broadleaf Forests** (1800–2800 m)
 - **Temperate Conifer Forests** (above 2800 m)
- **Floral Highlights:** Home to **Mishmi Teeta** (*Coptis teeta*), a rare medicinal plant endemic to the region, and *Taxus baccata*. Common trees include Hollock, Khokan, and Mekai.
- **Faunal Highlights:** * **Large Cats:** Tiger (recently photographic evidence confirmed), Clouded Leopard, Marbled Cat, and Leopard.
 - **Mammals:** Red Panda, Himalayan Black Bear, Hoolock Gibbon (India's only ape), and the Mishmi Takin.
 - **Reptiles:** King Cobra and various species of Pit Vipers.

4. Conservation & Community

- **Camera Trap Milestone:** In **March 2025**, a tiger was captured on a camera trap in Mehao for the **first time in history**, providing scientific proof of their presence in this high-altitude landscape.
- **Tribal Custodians:** The **Idu Mishmi** and **Adi** tribes are the primary inhabitants of the surrounding areas and are recognized as "community champions" for their traditional conservation practices.

Conclusion

The 2026 tiger conflict in Mehao highlights the delicate balance between high-altitude wildlife conservation and human safety along the Mayodia corridor. While the sanctuary remains a vital habitat for endangered species, the recent forest fires in January 2026 are suspected to have driven predators closer to the highway. Authorities are now focusing on a "human-in-the-loop" monitoring system to prevent further retaliatory killings and ensure the safe relocation of the remaining sub-adult tiger.

Sarus Crane : Population Surge in the Heartland of Uttar Pradesh



Why in News?

In **February 2026**, the Uttar Pradesh Forest Department released the results of its latest state-wide census, revealing a significant conservation success. The population of the **Sarus Crane**, the state bird of Uttar Pradesh, has increased by **634 individuals**, marking a **3.1% growth** over the previous year. The census, conducted across **68 forest divisions**, highlights the effectiveness of community-

led wetland conservation and the "Sarus Mitra" (Friends of Sarus) initiative.

1. 2026 Census Highlights

- **Total Population:** The count has reached an all-time high in the state, reinforcing Uttar Pradesh's status as the primary stronghold for the species globally.
- **Top Districts:** High densities remain concentrated in the **Etawah-Mainpuri-Auraiya** belt, often referred to as the "Sarus Heartland."
- **Community Participation:** The increase is attributed to the "Sarathi" and "Sarus Mitra" programs, where local farmers protect nests in paddy fields rather than destroying them, recognizing the bird as a symbol of marital fidelity and good fortune.

2. About the Sarus Crane (*Antigone antigone*)

- **World Record:** It is the **tallest flying bird in the world**, standing nearly 5.9 feet (1.8 meters) tall.
- **State Icon:** It is the **Official State Bird of Uttar Pradesh**.
- **Habitat:** Primarily residents of **wetlands**, including marshes, floodplains, and high-altitude ponds. Uniquely, they have adapted to live in close proximity to humans in flooded paddy fields.
- **Social Behavior:** Regarded as the **least social** crane species; they are almost always seen in pairs or small family groups of three or four.
- **Lifelong Bond:** They are famously **monogamous** and are believed to mate for life. In Indian folklore, they are symbols of eternal love.

3. Physical Features & Ecology

- **Appearance:** Predominantly grey plumage with a distinctive **naked red head** and upper neck. They have long, pale red legs.
- **Nesting:** They build massive nests (platforms of reeds and vegetation) directly on water in natural wetlands or rice paddies.
- **Non-Migratory:** Unlike the Siberian Crane, the Sarus is a **resident bird** and does not

undertake long-distance migrations, though it may move locally based on water availability.

4. Conservation Status

Despite the local population rise in Uttar Pradesh, the species faces global threats from habitat loss, electrocution by power lines, and pesticide poisoning.

- **IUCN Red List: Vulnerable**
- **CITES: Appendix II**
- **Wildlife (Protection) Act, 1972: Schedule IV** (In India, they receive high legal protection).

Conclusion

The 2026 census results are a testament to the "co-existence model" practiced by rural communities in Uttar Pradesh. As wetlands across the globe shrink, the survival of the Sarus Crane in the heavily populated Gangetic plains provides a blueprint for successful community-based wildlife management. The next phase of conservation will focus on "insulating" power lines in high-density areas to reduce accidental deaths of these giant birds.



Crux of The Hindu & Indian Express

Ecology & Environment

Gentoo Penguins Infected with Bird Flu on Heard Island



1. What Happened?

- **Gentoo penguins** have become the first birds confirmed to be infected with **H5 Avian Influenza (H5N1 Bird Flu)** in an **Australian territory**.
- The infection was detected on **Heard Island**, a remote **sub-Antarctic island** controlled by Australia.

Earlier, the virus had been found in:

- **Southern Elephant Seals**
- Now also confirmed in:
 - **Gentoo Penguins**
 - **Antarctic Fur Seals**

This is the **first recorded bird infection** in Australia's external territories.

2. About Heard Island

- Located more than **4,000 km south-west of Perth**
- Around **1,700 km north of Antarctica**
- Situated in the **Southern Ocean**
- **Extremely remote and uninhabited**

Due to its isolation, it is an **ecologically sensitive and important region**.

3. About the Virus

The virus detected is **H5N1 (clade 2.3.4.4b)**.

This strain is:

- **Highly Pathogenic** (very severe)
- **Highly Contagious**

Globally, this strain has infected and killed millions of:

- **Seabirds**
- **Wild Birds**
- **Poultry**

It is considered a major **global wildlife health threat**.

4. How Was It Detected?

- Samples collected during a **research voyage (February 3, 2026)**
- Testing done at the **Australian Centre for Disease Preparedness (CSIRO)**
- **Preliminary laboratory results confirmed H5 infection**

This shows the importance of **scientific monitoring and surveillance**.

5. Is There Mass Wildlife Death?

Scientists aboard the research vessel **RSV Nuyina** observed the region.

Findings

- **No large-scale mass mortality events**
- Only a **small number of confirmed infections**

This suggests the outbreak is currently **limited in scale**.

6. Government's Response

The Australian government stated:

- **Australia's national bird flu-free status remains unchanged**
- Risk to mainland Australia is **not significantly increased**

However, authorities stressed the need for:

- **Vigilance**
- **Continuous monitoring**
- **Preparedness**

7. Biosecurity and Preparedness Measures

Australia is investing over **100 million Australian dollars** to strengthen preparedness.

Key measures:

- **Rapid response equipment** in all states
- Stronger **monitoring systems**
- Protection of **at-risk native species**
- Coordination between **government, industry and conservation groups**

Monitoring will continue to protect **wildlife and biodiversity**.

8. Importance of This Development

Environmental Importance

- Shows **H5N1** has reached remote sub-Antarctic ecosystems
- Raises concern for **penguin populations and marine mammals**
- Highlights vulnerability of **fragile polar biodiversity**

Biosecurity Importance

- Need for strong **wildlife disease surveillance**
- Even remote islands are not safe from **global disease spread**

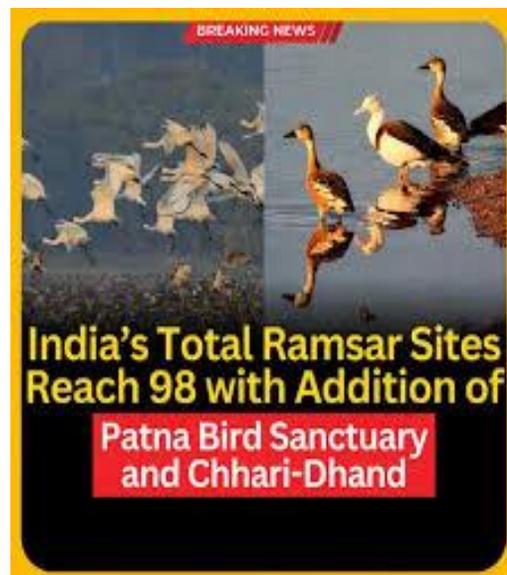
9. Broader Context

- **Bird flu outbreaks** have been increasing globally.
- Even **Antarctica and nearby islands** are now exposed

This case highlights:

- Wildlife diseases as a **global environmental challenge**
- Role of **climate change and migration patterns**
- Impact of increasing **global ecological connectivity**

India Welcomes 2 New Ramsar Sites: National Count Hits 98



Why in News?

- In the run-up to **World Wetlands Day 2026**, India has expanded its list of protected wetlands by designating **Patna Bird Sanctuary (Uttar Pradesh)** and **Chhari-Dhand (Gujarat)** as Ramsar sites.
- This brings the country's total tally to **98**.
- Every year on **2 February**, World Wetlands Day is celebrated to honor the date the **Ramsar Convention** was adopted in 1971 to

ensure the global conservation of these vital ecosystems.

1. Chhari-Dhand (Gujarat)

- **Geographical Setting:** Found in the dry Kutch district, nestled between the **Banni grasslands** and the famous salt marshes.
- **Characteristics:** This is a **seasonal saltwater wetland** that grows to about 80 sq km during the rainy season.
- **Conservation Status:** It holds the distinction of being **Gujarat's sole Conservation Reserve**. It acts as a primary resting point for birds traveling along the western migratory route.
- **Biodiversity:** * It provides a winter home for roughly **30,000 Common Cranes**.
 - It hosts significant numbers of both Greater and Lesser Flamingos.
 - It protects rare species like the **Sociable Lapwing** (critically endangered) and the **Common Pochard** (vulnerable).
- **Unique Fact:** It is well-known for the “**Chir Batti**”—strange, unexplained lights visible across the landscape after dark. The surrounding area is also home to the Desert Fox and Caracal.

2. Patna Bird Sanctuary (Uttar Pradesh)

- **Location:** Situated in the **Etah district** (Jalesar area).
- **Compact Size:** Covering only about 1 sq km, it is one of the **smallest protected areas** in the state of Uttar Pradesh.
- **Ecological Mix:** Despite its size, it features a rich blend of **freshwater swamps**, forests, and grassy patches within a farming region.
- **Avian Hub:** As a crucial part of the **Central Asian Flyway**, it attracts thousands of winter visitors, including the Rosy Pelican and the Northern Pintail.
- **Recognition:** With 178 bird species and over 250 types of plants, it is classified as an

Important Bird and Biodiversity Area (IBA) by BirdLife International.

Summary Table for Quick Revision

Feature	Chhari-Dhand	Patna Bird Sanctuary
State	Gujarat (Kutch)	Uttar Pradesh (Etah)
Type	Seasonal Saline Wetland	Freshwater Marsh
Key Species	Common Flamingos, Crane,	Rosy Spoonbill, Pelican, Eurasian
Unique Highlight	Chir Batti (Ghost Lights)	One of UP's smallest sanctuaries

Gujarat: India's Only State with Lions, Tigers, and Leopards



Why in News?

Gujarat is on the verge of officially regaining its status as a **tiger-bearing state**. A Royal Bengal Tiger has established a sustained presence in the **Jambughoda** and **Ratanmahal** forest ranges, marking a historic moment for wildlife conservation in India.

1. A Unique Global Distinction

With the tiger's return, Gujarat becomes the **only state in India** to host three of the world's major big cats in the wild:

- **Asiatic Lions** (Gir National Park)
- **Royal Bengal Tigers** (Eastern Gujarat)
- **Leopards** (Across the state)

2. The Migration Corridor

- **The Journey:** The tiger traveled approximately 60 km from the **Katthiwada Wildlife Sanctuary** in Madhya Pradesh to reach Gujarat's Kanjeta and Jambughoda ranges.
- **Habitat Suitability:** A 90-km corridor connecting these areas provides a thriving forest environment with natural caves and permanent water sources.
- **Population Planning:** The state forest department is working with the **National Tiger Conservation Authority (NTCA)** to potentially introduce a female mate to establish a permanent breeding population.

3. Sustaining the Predator: Prey Base

- **Herbivore Breeding:** To ensure the tiger has enough food and to reduce human-animal conflict, a **Herbivore Breeding Centre** has been set up near the Kada dam.
- **Species:** The center focuses on breeding **Spotted Deer (Chital)** and **Sambar**, which are then released into the tiger's territory.

4. Jambughoda Wildlife Sanctuary

- **Forest Type:** A mix of dry southern tropical, dry deciduous, and secondary forests with thickets of **Teak, Mahua, and Bamboo**.
- **Key Wildlife:** Apart from the new tiger, it is a stronghold for **Leopards**, Sloth Bears, Hyenas, and the **Chausingha** (Four-horned antelope).

5. Ratanmahal Wildlife Sanctuary

- **Specialization:** Established in 1982, it is famous for having the **highest population of Sloth Bears** in Gujarat.
- **Vegetation:** The forest is rich in Jamun and Mahua trees, which provide essential food for the bear population.
- **Ecological Role:** It serves as the catchment area for the **River Panam**, which provides water to the Dahod and Panchmahal districts.

Geography & Ecology Snapshot

- **Migration Source:** Katthiwada (Madhya Pradesh).
- **New Habitat:** Jambughoda & Ratanmahal (Gujarat).
- **Key River:** Panam River.
- **Major Trees:** Teak, Mahua, Bamboo, Jamun.

□□□



Coking Coal Declared a Critical and Strategic Mineral



Why in News?

- To decrease heavy reliance on imports and bolster the "Aatmanirbhar Bharat" and "Viksit Bharat 2047" initiatives, the Indian government has officially designated **Coking Coal** as a **Critical and Strategic Mineral**.
- This change was made under the **Mines and Minerals (Development and Regulation) Act, 1957 (MMDR)**.
- Using powers under **Section 11C** of the Act, the government amended the **First Schedule**.
- This move explicitly includes Coking Coal under the definition of "Coal" in **Part A** and categorizes it as a Critical and Strategic Mineral in **Part D**.

1. Understanding Coking Coal

- **What it is:** Also known as metallurgical coal, it is a high-grade variety of **bituminous coal**.
- **The Process:** It undergoes a heating process called **carbonization** to create **coke**.
- **Role in Industry:** Coke is an essential raw material used in traditional blast furnaces to convert iron ore into pig iron. It currently has no effective substitute in large-scale steelmaking.

2. Key Properties

- **Caking Ability:** Its primary value comes from its ability to soften and swell when heated, forming a solid mass (coke).
- **High Quality:** It is characterized by having very low levels of impurities, such as ash, sulfur, and phosphorus, which is vital for maintaining the quality of steel.

3. Strategic Link to Steel Production

- **Industrial Demand:** Producing one tonne of steel requires approximately **780 kg of coking coal**.
- **Economic Impact:** As the world's second-largest crude steel producer, India's industrial growth is directly tied to the steady supply of this mineral.

4. Global and Indian Context

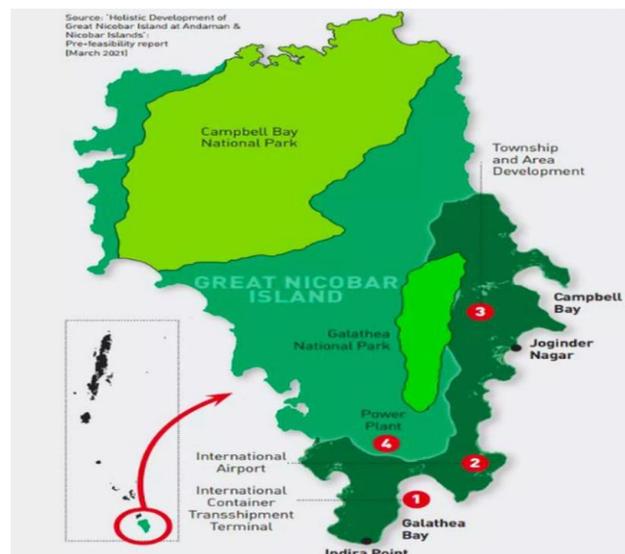
- **Leading Producers:** Globally, the supply is dominated by China, Australia, Russia, the USA, and Canada.
- **India's Import Dependency:** India currently imports nearly **95%** of its coking coal requirements for the steel sector. A major portion of these imports arrives from **Australia**.
- **Rising Demand:** In the 2024–25 period, imports reached 57.58 million tonnes, showing a continuous upward trend.

5. Domestic Resources in India

- **Potential:** India possesses significant domestic resources estimated at **37.37 billion tonnes**.

- **Major Locations:** The bulk of these resources is found in **Jharkhand**. Other notable reserves are located in **Madhya Pradesh, West Bengal, and Chhattisgarh**.

Great Nicobar Island Project: Strategic Vision vs. Tribal Rights



Why in News?

As the ₹92,000 crore **Great Nicobar Island (GNI) mega-project** moves toward final approval, the Nicobar Tribal Council has raised serious concerns. The Council alleges that the local administration is pressuring them to give up ancestral lands. They further dispute claims that forest rights were settled under the **Forest Rights Act (FRA), 2006**, asserting that the legal process for FRA was never even started.

1. What is the Great Nicobar Island Project?

Launched in 2021 and spearheaded by **NITI Aayog**, this is a massive infrastructure initiative at the southern tip of the Andaman and Nicobar chain.

- **Executing Agency:** Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO).
- **Key Components:**
 - An International Container Transshipment Terminal (ICTT) at **Galathea Bay**.
 - A greenfield international airport.

- A new township and a gas-powered power plant.
- A dedicated tourism project.
- **Location Conflict:** The project requires clearing forests in Galathea, Pemmaya, and Nanjappa Bays—areas traditionally belonging to the **Nicobarese community**.

2. Strategic and Economic Importance

- **Maritime Sentinel:** GNI is located near the **Malacca Strait**, one of the world's busiest shipping lanes. This allows India to monitor sea routes vital for global trade and track naval movements in the Indo-Pacific.
- **Act East Policy:** The project aligns with India's "Act East" vision and the QUAD's strategy to ensure a free and open Indo-Pacific.
- **Economic Independence:** The new transshipment terminal aims to reduce India's reliance on foreign ports like **Singapore and Colombo** for handling cargo, fitting into the "Maritime India Vision 2030."

3. Geography of Great Nicobar Island

- **The Island:** It is the largest and southernmost island in the Nicobar group, covered mostly in dense **tropical rainforests**.
- **Indira Point:** Located on this island, it is the **southernmost point of India**.
- **The 10° Channel:** This 150-km-wide water body separates the Andaman islands (North) from the Nicobar islands (South).

4. Ecological and Tribal Profile

- **National Parks:** The island hosts **Campbell Bay National Park** and **Galathea National Park**.
- **Biosphere Reserve:** It is protected under the **Great Nicobar Biosphere Reserve**.
- **Indigenous Tribes:** The island is home to unique indigenous communities, including the **Shompen** (a Particularly Vulnerable Tribal Group), **Nicobarese, Onge, and Andamanese**.

5. The Core Controversy

- **Land Rights:** The Tribal Council argues that their displacement from ancestral lands (especially after being relocated once following the 2004 Tsunami) violates their cultural and legal rights.
- **Environmental Impact:** Critics warn that the massive construction and diversion of nearly 130 sq km of forest land could permanently damage the island's fragile ecosystem and the nesting grounds of the **Giant Leatherback Turtle**.

Meghalaya Rat-Hole Mining Disaster : A Recurring Tragedy



Why in News?

A major disaster unfolded in **East Jaintia Hills, Meghalaya**, on **5 February 2026**, when a powerful explosion ripped through an illegal rat-hole coal mine in the **Thangsko (Mynsyngat)** area. The blast, suspected to be caused by unscientific dynamite use, triggered a fire and collapse that killed at least **18 workers** initially, with the death toll rising to **30** by 10 February 2026. The incident has once again highlighted the systemic failure to enforce the ban on rat-hole mining.

1. What is Rat-hole Mining?

Rat-hole mining is a primitive and hazardous method of coal extraction predominantly practiced in Meghalaya due to the state's unique geology.

- **Side-cutting:** Horizontal tunnels are dug into hill slopes following thin coal seams.
- **Box-cutting:** A deep vertical pit (often 100–400 feet) is dug, from which narrow horizontal tunnels (3–4 feet high) branch out.

- **The Method:** Miners, often migrants or children, must crawl through these tunnels with basic hand tools. The process involves **no scientific ventilation, structural support, or safety gear.**

2. Legality and Regulatory Conflict

- **The Ban:** The **National Green Tribunal (NGT)** banned rat-hole mining in 2014, a decision upheld by the **Supreme Court**. It violates the **Mines and Minerals (Development and Regulation) Act, 1957.**
- **Sixth Schedule Autonomy:** In Meghalaya, land and mineral rights often rest with local communities and **Autonomous District Councils (ADCs)**. This creates a conflict where local customary rights are used to bypass central environmental and safety regulations.
- **Judicial Response (2026):** Following the blast, the **Meghalaya High Court** took *suo motu* cognizance, reprimanding the state for failing to curb illegal activities despite a prior fatal incident on 14 January 2026.

3. Environmental and Health Hazards

- **Acid Mine Drainage (AMD):** Sulfur in coal reacts with water to create sulfuric acid, turning rivers like the **Lukha and Myntdu** highly acidic and orange-colored, killing aquatic life.
- **Safety Death Traps:** Lack of pillars leads to frequent roof collapses. In 2018, the **Ksan disaster** saw 15 miners trapped in a flooded mine; in the 2026 blast, a methane gas pocket ignited by dynamite caused the devastation.
- **Occupational Diseases:** Constant exposure to coal dust leads to "Black Lung" diseases like **silicosis and pneumoconiosis.**

4. Reasons for Persistence

- **Geological Constraint:** Meghalaya's coal seams are too thin (under 2 meters) for large-scale, mechanized open-cast mining to be "economically viable" for small owners.

- **Economic Lure:** Despite the risks, daily wages of **1,500 – 2,000** attract impoverished laborers from Assam and Nepal.
- **Lack of Alternatives:** The region lacks industrial diversity, leaving coal as the primary source of "quick money" for the local economy.

5. Way Forward: Measures to End the Crisis

- **Technological Surveillance:** Implementing real-time **satellite monitoring** and drone surveillance to detect fresh mine openings in remote terrains.
- **Sustainable Alternatives:** Funding agri-horticulture (e.g., pineapple/spice cultivation) and eco-tourism to transition workers away from hazardous mining.
- **Green Corps:** Utilizing the **Meghalaya Environment Protection and Restoration Fund (MEPRF)** to employ former miners in ecological restoration projects.
- **Consolidated Mining:** Encouraging small landholders to form cooperatives that can afford scientific, regulated, and safer open-cast mining methods.

Conclusion

The 2026 tragedy is a "tragedy foretold," underscoring that without breaking the economic dependence on illegal coal and ensuring strict institutional accountability, these mines will continue to be death traps.

Thwaites Glacier : New Evidence of "Doomsday" Destabilization



Why in News?

In **February 2026**, a series of international research findings have intensified concerns over the **Thwaites Glacier** in West Antarctica. A significant study published in *Geophysical Research Letters* (January 2026) revealed that the glacier is being "bombarded" by hundreds of low-magnitude **glacier earthquakes**, signaling internal fracturing far beyond previous estimates. Furthermore, a **British Antarctic Survey (BAS)** expedition in February 2026 successfully drilled a 1,000-meter borehole through the ice, confirming "turbulent and warm" ocean conditions directly beneath the glacier's main trunk.

1. The "Doomsday" Profile

- **Scale:** Often called the "**Doomsday Glacier**," it is a Florida-sized ice mass (approx. 1.9 lakh sq. km) and the widest glacier on Earth (~120 km).
- **Sea-Level Contribution:** It is currently responsible for **4% of annual global sea-level rise**.
- **The "Cork" Effect:** Thwaites acts as a strategic plug; its collapse would not only raise sea levels by **65 cm (0.65 metres)** but could also destabilize the entire West Antarctic Ice Sheet, potentially leading to a catastrophic **3.3-metre rise** over several centuries.

2. Newly Discovered Melting Mechanisms

Recent data from the **International Thwaites Glacier Collaboration (ITGC)** has redefined how the glacier is melting:

- **Shallow Pumping:** Tides are "pumping" warm seawater up to **10 km upstream** beneath the grounded ice, creating high-pressure melt zones that were previously unmapped.
- **Basal Terraces:** Robot observations (via *Icefin*) show that while flat surfaces melt slowly, the **vertical cracks and "staircase" formations** (terraces) at the base are melting at extreme speeds.
- **Increased Fracturing:** Satellite analysis shows the total length of ice fractures in the **Thwaites Eastern Ice Shelf (TEIS)** doubled

between 2002 and 2022, growing from 165 km to over 335 km.

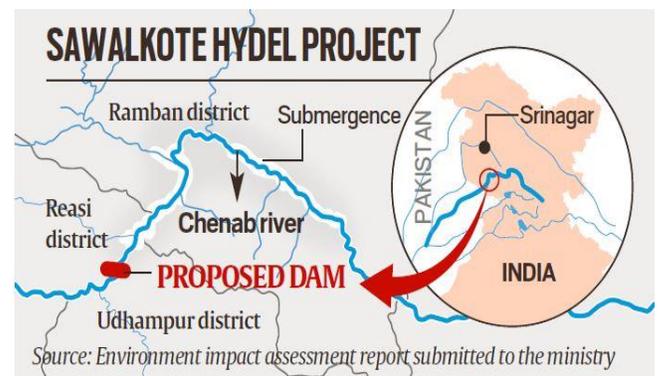
3. Geographical Vulnerability: The Marine Instability

- **Reverse-Sloping Bedrock:** The glacier sits on land that slopes **downward and inland**. As the "grounding line" (where ice meets rock) retreats, it encounters deeper water, allowing more heat to enter and accelerating the melt in a self-reinforcing loop.
- **Shear Zone Weakening:** The "shear zone"—the area where the floating ice shelf meets the faster-moving land ice—is disintegrating. This removes the "brake" that holds the glacier back from sliding into the sea.

4. Global Implications and Timelines

- **The Five-Year Window:** Some researchers warn that the **eastern ice shelf**, which currently braces a third of the glacier, could shatter within the next **3 to 5 years**.
- **Impact on India:** For a country with a 7,500 km coastline, even a few centimeters of rise from Thwaites will exacerbate **storm surges, salt-water intrusion** in the Sundarbans, and flood risks for megacities like Mumbai and Chennai.
- **Historical Warning:** Geological evidence from February 2026 indicates that **Hektor Glacier** (Antarctic Peninsula) recently lost half its mass in just two months, proving that "lightning-fast" collapses are physically possible for larger glaciers like Thwaites.

India–Pakistan Stand-off Over the Sawalkot Hydroelectric Project



Why in News?

In **February 2026**, Pakistan officially requested detailed information and formal consultations from India regarding the **Sawalkot Hydroelectric Project** on the **River Chenab**. Islamabad invoked the provisions of the **Indus Waters Treaty (IWT) of 1960**, asserting that the accelerated development of the project threatens its water security. This diplomatic move follows India's unprecedented decision in **April 2025** to place the IWT in "**abeyance**" (suspension) as a punitive measure following the **Pahalgam terror attack**, marking a significant shift in India's water diplomacy.

1. The Sawalkot Hydroelectric Project

- **Location & River:** Situated on the **Chenab River** (a "Western River" under the IWT) in the **Ramban district** of Jammu & Kashmir.
- **Capacity:** A massive **1,856 MW** project, making it the largest hydroelectric installation in J&K and one of the biggest in Northern India.
- **Design:** It is a **run-of-the-river** scheme involving a 192.5-metre high **concrete gravity dam**. It is designed to utilize the natural flow of the river with minimal storage, expected to generate over **7,000 million units** of electricity annually.
- **Current Status:** Declared a "**Project of National Importance**," India recently fast-tracked the work by floating a **₹5,129 crore tender** for major civil works in February 2026. The project, which faced delays since 1984, is now targeted for completion by **2035**.

2. The IWT "Abeyance" and Strategic Shift

- **First Suspension in History:** Following the killing of 26 tourists in the **Pahalgam attack (April 2025)**, India's Cabinet Committee on Security put the 65-year-old treaty in abeyance. India has linked the continuation of the treaty to Pakistan "**credibly and irreversibly**" ending support for cross-border terrorism.

- **Hydrological Leverage:** By placing the treaty in abeyance, India has bypassed several treaty-imposed design and operational restrictions. This allows for:
 - **Fast-tracking Projects:** Accelerated work on the Chenab and Jhelum basins (Sawalkot, Ratle, Pakal Dul).
 - **Cessation of Data Sharing:** India has stopped sharing real-time water flow data, a key requirement for flood forecasting in Pakistan.
 - **Operational Flexibility:** India can now carry out activities like **reservoir flushing** on projects like Kishanganga without adhering to the treaty's restrictive monsoon-only windows.

3. Pakistan's Stance and Regional Implications

- **"Act of War" Warning:** Pakistan has condemned the suspension, warning that any diversion of river waters would be viewed as an act of aggression. Islamabad maintains that the IWT has no provision for unilateral suspension.
- **Economic Stakes:** The Indus system supports **80% of Pakistan's cultivated land** and contributes nearly **25% to its GDP**. Pakistan argues that India's "unilateral actions" on the Chenab risk its agricultural and existential stability.
- **Legal Recourse:** Pakistan has sought intervention from the **World Bank** and the **Permanent Court of Arbitration**, though India has largely boycotted these specific proceedings since the treaty was placed in abeyance.

4. Existing Hydroelectric Projects on the Chenab

The Chenab River is a vital energy corridor for Jammu & Kashmir, already hosting several major projects:

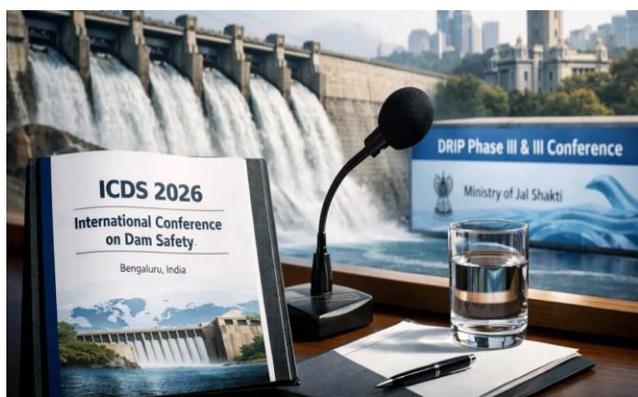
- **Dulhasti (390 MW):** Kishtwar district.
- **Baglihar (890 MW):** Ramban district.
- **Salal (690 MW):** Reasi district.

- **Ongoing/New Projects:** Ratle (850 MW), Pakal Dul (1,000 MW), and Kiru (624 MW) are also being prioritized alongside Sawalkot.

Conclusion

The battle over the Sawalkot project is as much about **geopolitics** as it is about energy. By accelerating construction on the Western Rivers while the treaty is suspended, India is effectively utilizing its **upper-riparian status** as a non-military deterrent. For Pakistan, the potential loss of water-sharing data and the new designs of the Sawalkot dam represent a long-term threat to its food security, setting the stage for a prolonged legal and diplomatic standoff.

International Conference on Dam Safety (ICDS) 2026: Securing India's Water Infrastructure



Why in News?

In **February 2026**, the **International Conference on Dam Safety (ICDS) 2026** concluded in **Bengaluru**, marking a critical milestone in India's efforts to modernize its aging dam infrastructure. Jointly organized by the **Ministry of Jal Shakti**, the **Government of Karnataka**, **IISc Bangalore**, and the **World Bank**, the conference served as a high-level review of the **Dam Safety Act, 2021** and the ongoing **DRIP Phase II & III** projects.

1. Key Highlights of ICDS 2026

- **The Bengaluru Declaration:** Experts and policymakers committed to a "basin-level coordinated approach" for dam operations, moving away from isolated management to prevent downstream flooding.
- **Sedimentation Crisis:** Reservoir siltation was flagged as a "silent threat" to India's water security. The conference mandated the use of **remote sensing** and **bathymetric surveys** to monitor storage loss.
- **Risk-Based Prioritization:** A new "Simplified Risk Screening Tool" was introduced to categorize India's **6,628 large dams** based on their structural vulnerability and downstream population density.
- **Climate Resilience:** With extreme weather events becoming more frequent, the conference emphasized **Dynamic Rule Curves**—adjusting reservoir water levels in real-time based on advanced weather forecasts.
- **Emergency Preparedness:** Strengthening **Emergency Action Plans (EAPs)** and formalizing **floodplain zoning** were identified as non-negotiable requirements for all dam owners.

2. Dam Rehabilitation and Improvement Project (DRIP)

DRIP is India's flagship initiative, supported by the **World Bank** and the **Asian Infrastructure Investment Bank (AIIB)**, to enhance dam safety.

- **Global Context:** India ranks **3rd globally** (after China and the USA) in the number of large dams. Over **80%** of these dams are more than 25 years old, making rehabilitation urgent.
- **Phase I (2012–2021):** Successfully rehabilitated **223 dams** across 7 states.
- **Phase II & III (2021–2031):** Currently underway with an outlay of approximately **\$1 billion (₹7,000+ crore)**. It targets **736 dams** across 19 states.
- **Objectives:** * Improving structural safety and operational performance.
 - Strengthening institutional setups (CWC and State Dam Safety Organizations).

- Exploring **incidental revenue generation** (e.g., floating solar, tourism) to make dam maintenance self-sustaining.

3. The Dam Safety Act, 2021: The Legal Backbone

The Act provides a statutory framework to prevent dam-related disasters through a **four-tier institutional mechanism**:

- **National Level:**
 - **National Committee on Dam Safety (NCDS):** Evolves policies and recommends safety regulations.
 - **National Dam Safety Authority (NDSA):** Implements policies and resolves inter-state disputes.
- **State Level:**
 - **State Committee on Dam Safety (SCDS):** Oversees safety at the state level.
 - **State Dam Safety Organization (SDSO):** Conducts regular inspections and surveillance.
- **Responsibility:** The primary responsibility for safety rests with the **Dam Owners**. They are legally mandated to conduct pre-monsoon and post-monsoon inspections and prepare EAPs.

4. Financing and Funding Pattern

The DRIP project follows a shared financial responsibility model to encourage state participation:

- **Special Category States (NE & Hilly):** 80% Centre : 20% State. (Includes a 90% Central Grant on the loan amount for Manipur, Meghalaya, and Uttarakhand).
- **General Category States:** 70% Centre : 30% State.
- **Central Agencies:** 50% Centre : 50% Agency.

Conclusion

The ICDS 2026 has transitioned the conversation from "reactive repair" to "proactive health monitoring." By integrating the **Dam Safety Act** with

advanced technologies like **Digital Twins** and **IoT sensors** under DRIP, India is ensuring that its "temples of modern India" remain assets rather than liabilities. The focus is now on ensuring that every large dam has a functional **Emergency Action Plan** to protect the millions living downstream.

Mt. Aconcagua : India's Joint Military Expedition to the "Sentinel of Stone"



Why in News?

In **early February 2026**, the Union Defence Minister flagged off a high-profile **Joint Mountaineering Expedition to Mt. Aconcagua** from New Delhi. The team, comprising elite climbers from the **Indian Army and the Argentine Army**, aims to summit the highest peak in the Southern and Western Hemispheres. This expedition marks a significant milestone in **India-Argentina defense diplomacy**, following the **2025 Memorandum of Understanding** on enhanced military training and high-altitude warfare cooperation.

1. Expedition Details (2026)

- **Objective:** To foster bilateral military cooperation and test the endurance of special forces in extreme "Arctic-like" conditions outside the Himalayas.
- **The Team:** Led by the **Himalayan Mountaineering Institute (HMI)** and the **Indian Army's Adventure Wing**, the 22-member squad includes some of India's most decorated high-altitude specialists.

- **Strategic Training:** The team underwent rigorous pre-expedition training in **Siachen and Leh** to acclimatize for the "Viento Blanco" (White Wind)—Aconcagua's infamous high-velocity storm.

2. About Mt. Aconcagua

- **Location:** Located in the **Mendoza Province of Argentina**, approximately 15 km from the international border with **Chile**.
- **Global Standing:** * **Height: 6,961 meters (22,837 feet).**
 - It is the **highest mountain in South America** and the tallest peak in both the Southern and Western Hemispheres.
 - It holds the distinction of being the **tallest mountain outside of Asia** (specifically, outside the Hindu Kush-Himalaya-Karakoram belt).
- **The Seven Summits:** It is a core member of the "Seven Summits"—the highest peaks on each of the seven continents.

3. Geological and Climatic Profile

- **Origin & Formation:** Formed by the **subduction** of the **Nazca Plate** beneath the **South American Plate**.
- **Type:** While it is of volcanic origin, it is **not an active volcano**. It is a **fold mountain** composed primarily of sedimentary and metamorphic rock.
- **Glaciers:** Home to several massive glaciers, the largest being **Ventisquero Horcones Inferior**, which extends down to about 3,600 meters.
- **Climate Zones:** * **Base:** Dry, desert-like conditions with sparse Andean vegetation.
 - **Middle:** Alpine desert zone characterized by loose scree and "penitentes" (tall thin blades of hardened snow/ice).
 - **Summit:** Perennial Arctic conditions with temperatures dropping below -30°C.

4. India-Argentina Connectivity (2026 Context)

- **Defense Exports:** The expedition coincides with Argentina's growing interest in Indian defense platforms, specifically the **LCA Tejas** and **LCH Prachand** helicopters, which are optimized for the high-altitude conditions found in the Andes.
- **Scientific Collaboration:** Parallel to the climb, the two nations are exploring a joint framework for **Glacial Melt Monitoring** in the Andes and the Himalayas to study climate change impacts on "Third Pole" environments.

Conclusion

The 2026 Mt. Aconcagua expedition is more than a sporting feat; it is a "soft power" tool that aligns with India's **Act Global** defense strategy. By successfully navigating the highest reaches of the Andes, the Indian Armed Forces are demonstrating their technical proficiency and "all-weather" operational readiness, while simultaneously strengthening strategic ties with a key South American partner.

Lake Urmia : Cloud Seeding and the Battle Against "Water Bankruptcy"



Why in News?

In **late February 2026**, the Iranian government intensified its unconventional efforts to revive **Lake Urmia** by launching large-scale **cloud-seeding operations** over the lake's basin. This move followed a series of nationwide **communal prayers (Salat al-Istisqa)** held in Tehran and other cities, as Iran faces

its sixth consecutive year of severe drought. By **March 2, 2026**, regional officials reported a measurable improvement, with the lake's water level rising by **68 cm** compared to the previous year, though it remains significantly below historical averages.

1. Cloud Seeding and Restoration Efforts (2025–2026)

- **The Operation:** Following the driest autumn in 50 years (2025), the **Ministry of Energy** deployed specialized aircraft and drones to disperse silver iodide and salt particles into incoming low-pressure systems.
- **Geographical Scope:** The program focuses on the **East and West Azerbaijan** provinces, with a dedicated air base established in **Tabriz** to support flights until May 2026.
- **Hydrological Impact:** As of **February 21, 2026**, the lake's surface area expanded to nearly **900 square kilometers** (up from ~481 sq km in 2025).
- **International Collaboration:** In **October 2025**, the **Government of Japan**, alongside the **FAO** and **UNDP**, signed a new cooperation document to promote "climate-adapted livelihoods" and sustainable agriculture in the basin to reduce water diversion.

2. About Lake Urmia

- **Location:** A massive endorheic (no outlet) salt lake situated in **northwestern Iran**, between the provinces of East and West Azerbaijan.
- **Salinity:** It is one of the largest hypersaline lakes globally. At its peak, it was roughly **one-fourth as salty as the Dead Sea**, though recent desiccation has increased salinity to levels that no longer sustain fish life (except for the salt-tolerant *Artemia*).
- **Topography:** The lake sits at an elevation of **4,183 feet (1,275 meters)** above sea level, surrounded by the Zagros Mountains and volcanic cones.

- **Primary Sources:** Fed by the **Talkheh River** (northeast) and the **Zarīneh and Sīmīneh** twin rivers (south).

3. Ecological and Protection Status

- **Biosphere Reserve:** Designated as a **UNESCO Biosphere Reserve** and part of the **Man and the Biosphere (MAB) Programme**.
- **Ramsar Site:** Registered as a **Wetland of International Importance** under the **Ramsar Convention (Site No. 38)** since 1975.
- **Biodiversity:** Despite its shrinking size, the lake remains a critical staging area for migratory birds, including **flamingos** and pelicans, who feed on the lake's brine shrimp (*Artemia*).

4. Key Challenges: The "Salt Storm" Threat

- **Ecological Collapse:** Over 90% of the lake's surface area has been lost since the 2000s due to a combination of persistent drought, over-damming of feeder rivers, and the drilling of thousands of illegal wells for agriculture.
- **Salt Storms:** As the water recedes, it leaves behind a vast salt bed. Wind-driven **salt storms** now threaten to ruin farmland for millions of people in the surrounding region, potentially triggering mass migration.
- **Water Bankruptcy:** Experts describe the situation as "water bankruptcy," where the consumption of renewable water resources has far exceeded the natural supply.

Conclusion

The 2026 rise in Lake Urmia's water level offers a rare glimmer of hope for one of the world's most endangered ecosystems. However, scientists caution that cloud seeding is a "short-term fix" and not a cure for structural water mismanagement. The long-term survival of the lake depends on the successful implementation of the **Japan-funded FAO projects** to shift the region's agricultural model toward water-efficient crops and the permanent decommissioning of unsustainable irrigation infrastructure.

The Hudson River: Gateway Tunnel Project and the 2026 Funding Battle



Why in News?

In **February 2026**, the states of **New York and New Jersey** filed a high-profile lawsuit against the **Trump administration** over an indefinite freeze on **\$16 billion** in federal funding for the **Gateway Tunnel Project**. The funding, originally committed under the 2021 Infrastructure Law, was halted in late 2025 for an "administrative review" of contracting goals. By **February 6, 2026**, construction was nearly forced to a standstill, threatening approximately **1,000 jobs**. However, following a **federal court order** in late February, over **\$205 million** in reimbursements were released, allowing crews to return to site as of **March 2026**.

1. The Gateway Tunnel Project (Hudson Tunnel Project)

- **The Goal:** To build a new **two-tube rail tunnel** beneath the Hudson River between **North Bergen, NJ**, and **Manhattan, NY**, while simultaneously rehabilitating the existing 116-year-old **North River Tunnel** (damaged during Superstorm Sandy in 2012).
- **Strategic Value:** The project is the "centerpiece" of the broader Gateway Program. It serves as a critical artery for the **Northeast Corridor**, carrying roughly **200,000 daily passengers** via Amtrak and NJ Transit.
- **Economic Impact:** It is estimated to create **95,000 jobs** and generate over **\$19 billion** in economic activity.

2. About the Hudson River

- **Geography:** A **507 km** long river flowing almost entirely within **New York State**. Its final 34 km segment forms the iconic boundary between **New Jersey** and **New York**.
- **Source:** Originates at **Lake Tear of the Clouds** in the Adirondack Mountains, near **Mount Marcy** (the highest point in NY).
- **Hydrology:** The lower portion of the river is a **tidal estuary** (a fjord) where saltwater from the Atlantic meets freshwater.
- **Mouth:** Drains into **Upper New York Bay** and the **Atlantic Ocean** at New York Harbor.
- **Historical Significance:** Named after explorer **Henry Hudson**, who explored it in 1609. It has historically been a vital commercial waterway, especially when combined with its major tributary, the **Mohawk River**.

Conclusion

The 2026 legal battle over the Hudson Tunnel underscores its status as the **most critical infrastructure project** in the United States. While the court-ordered release of funds has averted an immediate shutdown, the project remains a "political lever" in federal-state relations. For commuters, 2026 marks the year the "ghost project" finally becomes a physical reality as heavy boring machines prepare to move beneath the riverbed.

Dragon Hole: The Deepest Blue Hole in the World (2026)



Why in News?

In **February 2026**, new deep-sea explorations using **autonomous underwater vehicles (AUVs)** have provided the most detailed mapping to date of the **Sansha Yongle Blue Hole**, popularly known as the **Dragon Hole**. These recent missions have confirmed that while the upper layers are teeming with life, the extreme depths remain one of the most hostile and **anoxic (oxygen-free)** environments on the planet, serving as a "natural laboratory" for studying primordial Earth conditions.

1. Key Findings from the 2026 Missions

- **Depth Confirmation:** High-precision sensors have reaffirmed the depth at **301.19 meters**, maintaining its record as the deepest known underwater sinkhole, significantly surpassing **Dean's Blue Hole** in the Bahamas (202 meters).
- **Bacterial "Hotspots":** Scientists discovered unique colonies of **sulfur-oxidizing bacteria** at the transition zone where oxygen disappears (around 100 meters deep).
- **Sediment Archives:** Core samples taken from the bottom are being analyzed to reconstruct the **paleoclimate** of the South China Sea over the last 10,000 years.

2. About the Dragon Hole

- **Location:** Situated within the **Xisha Islands (Paracel Islands)** in the South China Sea, approximately 25 kilometers from the **Discovery Reef**.
- **Local Name:** Referred to by local fishermen as the **"Eye" of the South China Sea**.
- **Formation:** Like most blue holes, it is a **karst limestone** sinkhole formed during past ice ages when sea levels were lower. As the ice melted and sea levels rose, these caves were flooded.
- **Dimensions:**
 - **Surface Diameter:** ~130 meters.
 - **Bottom Diameter:** ~36 meters.
 - **Structure:** A nearly vertical, funnel-shaped underwater cavity.

3. A Unique Dual Ecosystem

The Dragon Hole is defined by a sharp "chemical divide" known as a **chemocline**:

- **Upper Section (Oxic Zone):** The first 100 meters are rich in oxygen and nutrients. Over **20 marine species**, including various fish and crustaceans, have been documented here.
- **Lower Section (Anoxic Zone):** Below 100 meters, the water is stagnant with **zero oxygen** and high levels of **hydrogen sulfide**. There is virtually no water exchange with the surrounding ocean, making it uninhabitable for complex life but a haven for specialized extremophile bacteria.

4. Scientific Significance

- **Environmental Time Capsule:** Because the bottom water is stagnant, the sediments at the base are undisturbed, providing an "archival record" of marine history.
- **Climate Research:** It helps researchers understand how marine life reacts to **ocean deoxygenation**, a growing concern due to modern climate change.

Conclusion

The Dragon Hole remains a pinnacle of marine geological research in 2026. While its extreme depths are a "dead zone" for fish, they are a "gold mine" for microbiologists and climate scientists. The lack of water circulation at the bottom ensures that the Dragon Hole remains a perfectly preserved window into the ocean's past, helping us predict the future of oxygen-depleted "dead zones" in the global seas.

Ethiopia-Eritrea



Why in News?

In **February 2026**, relations between Ethiopia and Eritrea reached a critical breaking point. On **February 7, 2026**, the Ethiopian Ministry of Foreign Affairs issued a formal and "blunt" diplomatic ultimatum, ordering neighboring Eritrea to **"immediately withdraw its troops"** from Ethiopian territory. Ethiopia accused Asmara of **"outright aggression"** and occupying northeastern border areas for a "considerable period." This move follows the collapse of the wartime alliance between the two nations and a growing dispute over Ethiopia's demand for sovereign access to the **Red Sea**.

1. About Eritrea

- **Location:** Situated in the **Horn of Africa**, occupying a strategic position along the world's most vital shipping lanes.
- **Bordering Countries:** Ethiopia (South), Sudan (West), and Djibouti (Southeast).
- **Maritime Boundary:** Boasts an extensive coastline along the **Red Sea** to the north and east, controlling the **Dahlak Archipelago** and parts of the **Hanish Islands**.
- **Capital City:** **Asmara** (a UNESCO World Heritage site known for its Italian modernist architecture).
- **International Standing:** A member of the **African Union** and the **Common Market for Eastern and Southern Africa (COMESA)**.

2. Geographical Features of Eritrea

- **Climate Diversity:** Ranges from tropical desert on the Red Sea coast to mild semiarid conditions in the central highlands and tropical semiarid in the southwest.
- **Highest Point:** **Mount Emba Soira**, reaching **3,018 meters** (9,902 feet).
- **Major Rivers:** The **Tekezé** (forms part of the border with Ethiopia), the **Mereb**, and the **Barka**.
- **Natural Resources:** Rich in mineral wealth, including **copper, potash, zinc, and gold**,

alongside significant reserves of oil and natural gas.

Conclusion

The 2026 ultimatum marks the most hostile diplomatic exchange between Addis Ababa and Asmara since the 2018 peace deal. While Ethiopia maintains that the "cycle of violence" can still be broken through diplomacy, the rhetoric has shifted toward a "war of words" that threatens to destabilize the entire Horn of Africa. The survival of regional peace now depends on whether Eritrea acknowledges the troop withdrawal demand and if a compromise on Red Sea access can be reached.



Crux of The Hindu & Indian Express

Geography

Indian Team for Mount Aconcagua Expedition



- **In February 2026**, India sent a mountaineering team to climb Mount Aconcagua, the highest mountain outside Asia.
- The expedition was flagged off by Defence Minister **Rajnath Singh**.
- This mission highlights India's growing focus on adventure sports, leadership training, and high-altitude mountaineering.

About Mount Aconcagua :



- Located in: Argentina
- Mountain Range: Andes (Principal Cordillera)
- Height: 6,962 metres
- Highest peak in South America
- Highest peak in the Western Hemisphere
- Highest mountain outside Asia
- Volcanic origin (currently inactive)

Climbing Mount Aconcagua is considered one of the major global mountaineering challenges.

Organising Institutes

The expedition is a joint effort of:

- **Nehru Institute of Mountaineering (NIM)**
- **Jawahar Institute of Mountaineering & Winter Sports (JIM&WS)**

These are premier mountaineering training institutes of India.

They train:

- Civilians
- Armed forces personnel
- Adventure enthusiasts

They provide training in:

- Snowcraft
- Survival skills
- High-altitude climbing
- Leadership development

This collaboration reflects India's strong training system in adventure and defence-related skills.

Team Members

- The six-member expedition team
- The expedition began on 6 February 2026 and is expected to conclude by the end of the month.
- All members have experience in:
 - High-altitude expeditions
 - Snow operations
 - Survival training

Significance of the Expedition

- Demonstrates India's growing presence in global mountaineering.
- Promotes youth development and leadership training.
- Enhances physical endurance and discipline.
- Supports defence preparedness.
- Strengthens India's international image in adventure sports.

Practice Question

Q. Mount Aconcagua is located in which country?

- A. Chile
- B. Peru
- C. Argentina
- D. Bolivia

Correct Answer: C. Argentina

India Strengthens Global Food Security



1. Why in News?

- The **Food Corporation of India (FCI)** signed a **Five-Year Memorandum of Understanding**

(MoU) with the **World Food Programme (WFP)** on **18 February 2026**.

- The agreement is for the **supply of rice** to support **global humanitarian operations** and **fight hunger and malnutrition**.

2. Who Signed the Agreement?

The MoU was signed by:

- **Rabindra Kumar Agarwal**, CMD, FCI (on behalf of the **Government of India**)
- **Carl Skau**, Deputy Executive Director, **WFP**

The signing took place in the presence of the **Secretary, Department of Food and Public Distribution**.

3. Key Details of the Agreement

- FCI will supply **200,000 Metric Tonnes (MT) of Rice**
- Rice quality: Up to **25% broken rice** allowed
- Duration: **5 years** (extendable by mutual consent)
- Price: To be decided **annually**
- Current price: **₹2,800 per quintal** (valid till **31 March 2026**)

4. Purpose of the Agreement

The rice supplied will be used by **WFP** for:

- **Humanitarian Operations**
- Supporting **Vulnerable Populations**
- Combating **Hunger and Malnutrition**

The goal is to assist countries facing **food shortages, conflicts and disasters**.

5. Importance of the World Food Programme (WFP)

- WFP is a **United Nations (UN) Agency**
- Works towards achieving **SDG-2: Zero Hunger**
- Provides food during **wars, natural disasters and poverty crises**

India's partnership strengthens WFP's ability to deliver **nutritious food globally**.

6. Significance for India

This agreement:

- Strengthens India's role in **Global Food Security**
- Shows commitment to **fighting hunger worldwide**
- Highlights India as a major **Agricultural Power**

- Enhances India's image as a **Responsible Global Partner**

It reflects India's policy of **Global Solidarity and Cooperation**.

7. Broader Impact

For the Global Community

- Helps vulnerable populations access **nutritious food**
- Supports **international humanitarian efforts**
- Contributes to achieving **Sustainable Development Goals (SDGs)**

For India

- Strengthens **Diplomatic Relations**
- Enhances global leadership in **Food Systems**
- Promotes India's **Agricultural Strength**

Conclusion

The **Five-Year Rice Supply Agreement** between **FCI and WFP** is a major step in strengthening **Global Food Security**. By supplying **200,000 MT of rice**, India is actively contributing to the fight against **Hunger and Malnutrition**. This partnership highlights India's growing role as a **trusted and responsible contributor to global humanitarian efforts** and supports the vision of a **Hunger-Free World**.

Balancing Farmer Protection with Strategic Growth

AGRICULTURE:
Expanding Exports While Safeguarding Farmers

EXPORT BOOST

- Zero additional duty on Indian exports worth **USD 1.36 billion**

FARMER PROTECTION FRAMEWORK

- Full protection to highly sensitive sectors (Exemption Category)
- Calibrated tariff reduction for select sensitive products
- Phased elimination (up to 10 years) for specific intermediates
- Immediate duty elimination limited to non-sensitive products

Source- Ministry of Commerce and Industry

Why in News?

India and the US have officially entered into a **Framework for an Interim Trade Agreement** in **February 2026**. This follows a breakthrough where the US reduced reciprocal tariffs on Indian goods to **18%**, providing India preferential access to the **USD 30-trillion US market**. This agreement is a crucial precursor to a full Comprehensive Bilateral Trade Agreement.

1. Protecting the Indian Farmer: The "Negative List"

India has successfully maintained a calibrated approach to ensure that domestic agriculture—the backbone of the rural economy—is not disrupted by large-scale American imports.

- **Strict Exclusions:** India has refused tariff relief on a "negative list" of sensitive items, including **poultry, meat, dairy, wheat, rice, maize, and pulses**.
- **Fruit & Veg Safeguards:** Commodities like bananas, citrus fruits, and green peas remain protected.
- **GM Ban Persistence:** India has maintained its firm stance against **Genetically Modified (GM)** organisms, explicitly blocking US GM corn and soybean for direct consumption or cultivation.

2. Strategic Opening: The Animal Feed Bridge

To support India's booming livestock and poultry sectors, which are facing a domestic supply crunch, the deal opens specific windows for feed inputs:

- **Red Sorghum:** India will now import **US Sorghum** as a vital non-GM alternative to maize.
- **DDGS (Distillers Dried Grains with Solubles):** India is allowing the import of this ethanol by-product. While it may originate from GM corn, it is permitted only as a **processed feed input**, supporting the high protein requirements of Indian cattle and poultry.
- **Market Context:** India's maize yields (**3.75 tonnes/ha**) are significantly lower than the US (**11.25 tonnes/ha**), making imports

necessary to meet the projected demand of **93–200 mt of maize** by 2050.

3. Major Wins for Indian Exports

The agreement eliminates or sharply reduces duties for several Indian sectors, enhancing their global competitiveness:

- **Zero-Duty Access:** Indian **spices, tea, coffee, and cashew nuts** can now enter the US with 0% duty (down from as high as 50%).
- **Horticulture Boost:** Tariff elimination on **mangoes, guavas, papayas, and avocados** provides a massive opportunity for Indian farmers to tap into the high-value US retail market.
- **Processed Foods:** Duty-free entry for select processed cereals like **barley** encourages "Value-Addition in India" before export.

4. Safeguards against Dumping

To prevent a surge of imports from hurting local producers, India has integrated several "Safety Valves":

- **Tariff Rate Quotas (TRQs):** For items like **apples and almonds**, low duties apply only to a specific quota; anything above that attracts standard higher rates.
- **Minimum Import Price (MIP):** Applied to **wines and spirits** to ensure only premium products enter, protecting the domestic mass-market liquor industry.
- **Phased Rollout:** Many tariff reductions are spread over **10 years** to give Indian industries time to modernize and compete.

5. Economic Scale and Projections (2026–2050)

- **Current Surplus:** India maintains an agricultural trade surplus of **USD 1.3 billion** with the US.
- **Feed Demand:** The compound feed industry in India has reached **60 mt** (40 mt for poultry alone).
- **Future Need:** Under a "Rapid Growth" scenario, India may need to import up to **46 mt of maize** by 2040, a gap the US is

strategically positioned to fill under this framework.

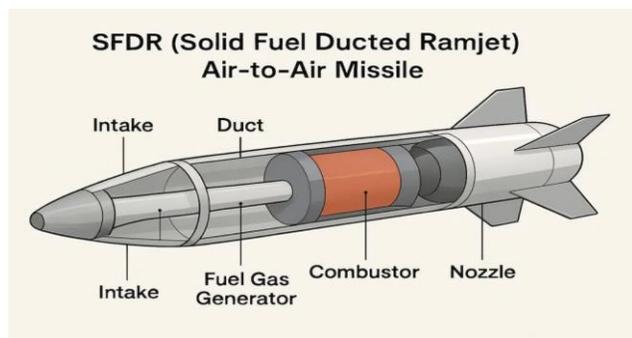
Conclusion

The 2026 Interim Trade Agreement is a masterclass in "Reciprocity with Safeguards." While it unlocks the massive purchasing power of the American consumer for Indian spices and fruits, it uses surgical precision to protect India's food security and the livelihoods of its small-scale farmers.



Internal Security

DRDO Successfully Demonstrates SFDR Technology



Why in News?

The **Defence Research and Development Organisation (DRDO)** successfully conducted a flight demonstration of **Solid Fuel Ducted Ramjet (SFDR)** technology on **3 February 2026** at the Integrated Test Range (ITR), Chandipur, Odisha. With this milestone, India joins an elite league of nations—including the US, Russia, and the EU—possessing advanced air-breathing propulsion technology for long-range missiles.

1. What is Solid Fuel Ducted Ramjet (SFDR) Technology?

SFDR is a next-generation missile propulsion system designed to overcome the limitations of traditional rocket motors.

- **Air-Breathing Engine:** Unlike conventional rockets that carry both fuel and an oxidizer, SFDR "breathes" oxygen from the atmosphere to burn its fuel.
- **Fuel Efficiency:** By not carrying a heavy oxidizer, the missile can carry more fuel, allowing for a much larger range and higher sustained speeds.
- **Solid Fuel:** It uses a high-energy **boron-based solid fuel**, making the system simpler, safer to store, and easier to handle than liquid-fueled ramjets.

2. How SFDR Technology Works

- **Nozzle-less Booster:** A ground-based booster first accelerates the missile to supersonic speeds (above Mach 2) within seconds. This is necessary because ramjets only function at high speeds where air can be naturally compressed.
- **Cheek-Mounted Air Intakes:** Once the target speed is reached, these intakes open to scoop up atmospheric air.
- **Ramjet Sustainer:** The incoming air is compressed and mixed with the solid fuel. A **Hot Gas Valve** regulates the combustion gases based on altitude and speed to maintain steady thrust.
- **Thrust Modulation:** Unlike standard rockets that burn out quickly and then "coast," SFDR can "throttle" its engine. This allows the missile to save energy and then "sprint" during the final attack phase.

3. Performance and Strategic Edge

- **Extended Range:** SFDR enables missiles to engage targets at distances between **50 km and 340 km**, far beyond visual range.

- **Sustained Supersonic Speed:** It maintains high speeds of **Mach 2 to Mach 3.8** throughout its flight.
- **Larger No-Escape Zone:** Because the missile retains high energy until the very last moment, it is nearly impossible for enemy fighter jets to outmaneuver it, even with defensive turns.
- **"First Look, First Kill":** This gives the Indian Air Force (IAF) the ability to strike enemy aircraft from a safe "standoff" distance before the adversary can react.

4. Tactical Significance for India

- **Astra Mk-3:** This technology is the backbone of the upcoming **Astra Mk-3** air-to-air missile, which aims to rival the European **Meteor** and Chinese **PL-15** missiles.
- **Operational Versatility:** While currently focused on air-to-air combat, the technology can be adapted for surface-to-air missile (SAM) systems as well.
- **Indigenous Power:** The successful test validates all key subsystems (nozzle-less booster, fuel flow controller, and ramjet motor) developed entirely within India, reducing dependence on foreign propulsion systems.

5. Technology Comparison: Ramjet, SFDR, and Scramjet

Feature	Ramjet	SFDR	Scramjet
Airflow in Engine	Subsonic (Air slows down)	Subsonic (Air slows down)	Supersonic (Air stays fast)
Fuel Type	Mostly Liquid	Solid (Boron-based)	Liquid Hydrogen
Typical Speed	Mach 2-3	Mach 2-3.8	Above Mach 5 (Hypersonic)
Primary Use	Cruise Missiles (BrahMos)	Air-to-Air (Astra Mk-3)	Hypersonic Vehicles (HSTDV)

Exercise KHANJAR 2026 : 13th India-Kyrgyzstan Joint Special Forces Drill



Why in News?

The **13th edition** of the India-Kyrgyzstan Joint Special Forces Exercise, **KHANJAR**, was conducted from **4 February to 17 February 2026** at the military station in **Missamari, Assam**. This annual exercise continues to be a cornerstone of the defense partnership between the two nations, focusing on elite tactical coordination.

1. Background and Evolution

- **Inception:** The exercise was first initiated in **2011** and has been conducted annually since then.
- **Alternating Hosts:** To reflect mutual trust and equality, the venue alternates between India and Kyrgyzstan. The previous edition (**KHANJAR-XII**) was held in March 2025 at Tokmok, Kyrgyzstan.
- **UN Mandate:** The 2026 drills were designed specifically to simulate joint operations and counter-terrorism scenarios under a **United Nations mandate** framework.

2. Participating Units

- **Indian Army:** Represented by the elite **Parachute Regiment (Special Forces)**, known for high-altitude and unconventional warfare.
- **Kyrgyzstan Armed Forces:** Represented by the **ILBRIS Special Forces Brigade** (also referred to in some contexts as the **Scorpion Brigade**), which specializes in rapid response and mountain combat.

- **Strength:** Both sides deployed specialized contingents of approximately **20 personnel** each to ensure focused, high-intensity training.

3. Core Training and Focus Areas

The exercise focuses on the exchange of best practices in **urban and mountainous terrain**:

- **Specialized Skills:** Intensive training in **sniping**, building intervention (room clearance), and mountain craft.
- **Tactical Maneuvers:** Practicing small-team tactics and building clearance drills to handle asymmetric and hybrid threats.
- **Interoperability:** Developing seamless coordination and mutual understanding between the elite units for future multinational peacekeeping operations.

4. Strategic Significance

- **Defense Ties:** The exercise strengthens the **Strategic Partnership** established in 2015 and reinforces the bilateral defense cooperation agreement signed that same year.
- **Regional Security:** It addresses shared concerns regarding international terrorism, extremism, and drug trafficking in the Central Asian region.
- **Eastward Focus:** Hosting the exercise in **Assam** highlights India's strategic focus on its eastern region and its capacity to host international drills in diverse topographies.

5. Geography Focus: Kyrgyzstan

- **Landlocked Central Asia:** Borders Kazakhstan, China, Tajikistan, and Uzbekistan. Its capital is **Bishkek**.
- **Fergana Valley:** Kyrgyzstan shares this strategically sensitive and fertile valley with its neighbors. The region is critical due to its high density of population and **hydrocarbon resources**.
- **Mountainous Terrain:** Over 90% of the country is mountainous (Tian Shan range), making their Special Forces naturally adept at high-altitude warfare—a key area of interest for the Indian Army.

Union Budget 2026–27: A Historic Push for Defence Modernisation



Why in News?

The **Union Budget 2026–27** has allocated a record-breaking **Rs 7.85 lakh crore** to the defence sector, the highest-ever for the Ministry of Defence. This 15% increase over the previous year comes in the strategic wake of **Operation Sindoor (May 2025)**, which tested India's tri-services coordination and highlighted critical gaps in long-range precision and drone warfare.

1. Core Pillars of the 2026-27 Defence Budget

- **Capital Outlay (Modernisation):** Allocated **Rs 2.19 lakh crore**, a nearly 22% jump. This funds the acquisition of next-gen fighter jets, submarines, and autonomous systems.
- **Aatmanirbhar Bharat (Self-Reliance):** Rs 1.39 lakh crore (about **75% of the capital acquisition budget**) is reserved exclusively for domestic procurement.
- **Border Infrastructure:** Funding for the **Border Roads Organisation (BRO)** has been increased to **Rs 7,394 crore** to accelerate strategic tunnels and airfields along the northern borders.
- **Research & Development:** The **DRDO** received **Rs 29,100 crore**, with a significant focus on capital R&D for high-risk technologies like hypersonic weapons and AI.

2. Operation Sindoor: The Strategic Context

The budget is heavily influenced by the lessons of **Operation Sindoor (May 2025)**, a tri-service response to the Pahalgam terror attack.

- **Precision over Mass:** The operation underscored the need for stand-off weapons

(like the **Astra Mk-3** and **BrahMos**) and layered air defense.

- **Mission Sudarshan Chakra:** Announced by PM Modi in late 2025, this mission aims to neutralize enemy infiltrations using advanced offensive and defensive technologies, now backed by the 2026 budget.

3. Support for Veterans and Personnel

- **ECHS Boost:** The Ex-Servicemen Contributory Health Scheme received **Rs 12,100 crore** (a 45% increase) to modernize medical facilities for veterans.
- **Pensions:** Allocated **Rs 1.71 lakh crore** for over 34 lakh pensioners, with a focus on digitizing disbursements via the **SPARSH** system.
- **Agnipath Scheme:** Allocations for the Agnipath scheme have risen as it becomes a core part of the revenue budget, aiming to reduce the long-term pension burden.

4. Enduring Challenges

- **The Revenue-Capital Imbalance:** Despite the record hike, nearly **50%** of the budget is consumed by salaries and pensions, leaving less than 30% for actual "new" equipment.
- **Squadron Shortage:** The Indian Air Force currently operates **31 fighter squadrons** against an authorized strength of 42. Phasing out aging MiGs remains a critical gap.
- **Import Dependency:** India remains the world's **2nd-largest arms importer** (SIPRI 2026). While "Negative Indigenisation Lists" promote local industry, they can create temporary gaps if domestic production (like the Tejas Mk-1A) faces delays.

5. The Path to 2047: Strategic Measures

- **Modernisation Fund:** There is an ongoing push to operationalize a **non-lapsable fund** as recommended by the 15th Finance Commission to ensure large contracts are not stalled by annual budget cycles.

- **Theaterisation:** Expediting the creation of **Integrated Theatre Commands** to ensure the Army, Navy, and Air Force operate as a single cohesive unit.
- **Private Sector R&D:** Shifting from a "buyer-seller" model to a "**co-development**" model, where the government funds private-sector prototypes for faster innovation.

Conclusion

The Union Budget 2026–27 is a decisive step toward **Viksit Bharat @2047**, moving India from a buyer's military to a builder's military. By balancing the lessons of Operation Sindoor with a massive push for domestic R&D, India aims to secure its strategic autonomy in an increasingly complex global landscape.

Agni-III Successfully Test-Fired : Strengthening India's Nuclear Deterrence



Why in News?

On **6 February 2026**, India successfully test-fired the intermediate-range ballistic missile **Agni-III** from the Integrated Test Range (ITR) at Chandipur off the coast of Odisha. The launch was a routine training exercise conducted under the **Strategic Forces Command (SFC)** to validate the operational and technical parameters of the system, confirming its reliability as a key pillar of India's nuclear triad.

1. Key Features of Agni-III

Developed by the **Defence Research and Development Organisation (DRDO)**, the Agni-III is a sophisticated surface-to-surface missile designed for long-range precision strikes.

- **Propulsion:** A **two-stage, solid-fuelled** engine that allows for rapid deployment and high reliability.
- **Range:** It has a strike range exceeding **3,000–3,500 km**, enabling it to reach strategic targets across the region.
- **Payload:** Capable of carrying both conventional and nuclear warheads with a payload capacity of **1.5 tonnes**.
- **Lethality:** It features an estimated nuclear yield of **200–300 kilotons**.
- **Mobility:** The missile can be deployed from **rail and road mobile launchers**, significantly enhancing its survivability against pre-emptive strikes and providing operational flexibility.

2. The Agni Missile Series: A Strategic Evolution

The Agni series, conceptualized in the 1980s under the **Integrated Guided Missile Development Program (IGMDP)**, serves as the backbone of India's "credible minimum deterrence" policy.

Missile Variant	Type	Range (Approx.)	Status
Agni-I	Short-Range	700–1,250 km	Inducted; being replaced by Agni-P.
Agni-II	Medium-Range	2,000–2,500 km	Inducted.
Agni-III	Intermediate-Range	3,000–3,500 km	Inducted; forming the middle tier of deterrence.
Agni-IV	Intermediate-Range	3,500–4,000 km	In service/Inducted.

Agni-V	ICBM-Class	5,000+ km	Canisterised; operational.
Agni-VI	ICBM/SLBM	8,000–10,000 km	Under development; MIRV capable.
Agni Prime	Next-Gen IRBM	1,000–2,000 km	Two-stage; canisterised and lighter.

3. Strategic Significance

- **Deterrence Credibility:** Regular tests by the SFC ensure that the systems are not just technologically sound but also operationally ready for the "user" (the armed forces).
- **Technological Maturity:** The transition to **canisterised launches** (seen in Agni-V and Agni Prime) and **solid-fuel propulsion** across the series reduces launch preparation time from hours to minutes.
- **Second-Strike Capability:** The emphasis on road and rail mobility ensures that even after a potential first strike, India retains the ability to retaliate effectively.
- **Regional Stability:** By maintaining a reliable and diverse missile inventory, India reinforces its **No First Use (NFU)** doctrine while ensuring that any adversary faces unacceptable retaliation.

Indian Navy to Acquire Six Additional P-8I Poseidon Aircraft



Why in News?

In February 2026, the Defence Acquisition Council (DAC), chaired by the Defence Minister, accorded Acceptance of Necessity (AoN) for the procurement of six additional Boeing P-8I Poseidon maritime patrol aircraft. This long-pending deal, estimated at approximately \$3 billion (₹25,000+ crore), aims to double down on India's surveillance and anti-submarine warfare (ASW) capabilities in the Indian Ocean Region (IOR).

1. Key Features of the P-8I Deal

- **Inter-Governmental Agreement (IGA):** The procurement is being processed through the US Foreign Military Sales (FMS) route, which ensures a government-to-government (G2G) guarantee of quality and support.
- **No Offset Clause:** Under the Defence Acquisition Procedure (DAP) 2020, offset requirements have been removed for IGAs and G2G deals. Consequently, this specific contract will not involve mandatory technology transfer or local co-production.
- **Operational Urgency:** Unlike "Make in India" projects (like the C-295), this purchase prioritizes immediate operational needs to counter the increasing presence of foreign submarines and research vessels in the Bay of Bengal and the Arabian Sea.

2. Boeing P-8I: The "Submarine Hunter"

- **Role:** A long-range, multi-mission aircraft based on the Boeing 737-800. It is the mainstay of the Indian Navy's Maritime Domain Awareness (MDA).
- **Capabilities:**
 - **ASW & ASuW:** Equipped with Mk-54 torpedoes and Harpoon anti-ship missiles to neutralize submerged and surface threats.
 - **Sensors:** Features advanced radar, sonobuoys, and electro-optical systems for 24/7 surveillance.

- **Intelligence (ISR):** Used for signals intelligence and monitoring chokepoints like the Strait of Malacca.
- **Current Fleet:** The Navy already operates 12 P-8I aircraft (ordered in 2009 and 2016) stationed at:
 - **INS Rajali (Arakkonam, Tamil Nadu):** Home to the INAS 312 'Albatross'.
 - **INS Hansa (Goa):** Home to the INAS 316 'Condors'.

3. Strategic Context and US Defence Ties

- **The "High-Low" Mix:** The P-8Is will act as the "high-end" strategic asset, complemented by the upcoming MQ-9B SeaGuardian drones (long-endurance) and the indigenous C-295 based Medium Range Maritime Reconnaissance (MRMR) aircraft.
- **Expanding US Engagement:** This deal coincides with other major US-India defence procurements in 2026, including:
 - **MH-60R Helicopters:** Sustainment support and follow-on supplies worth ₹7,995 crore.
 - **GE F414 Engines:** Joint production for India's Tejas Mk2 fighter jets.
 - **Excalibur Projectiles:** Advanced GPS-guided artillery shells for the Army.

4. Impact on Maritime Security

- **Countering the "String of Pearls":** The additional six aircraft will allow the Navy to maintain a persistent vigil over the Andaman and Nicobar Islands and the sensitive sea lanes of communication (SLOCs) that carry 90% of India's energy imports.
- **Enhanced First Responder Role:** Strengthens India's position as a Net Security Provider in the region, aiding in Search and Rescue (SAR) and anti-piracy operations.

NATO Mission "Arctic Sentry": Securing the High North



Why in News?

On **February 11, 2026**, NATO officially launched a major multi-domain mission named "**Arctic Sentry**." The mission was unveiled by NATO Secretary-General Mark Rutte and Supreme Allied Commander Europe (SACEUR) General Alexis Grynkeiwich following a high-level "framework" agreement between the US and NATO. This initiative aims to consolidate the Alliance's Arctic operations under a single command structure to counter increasing Russian military activity and growing Chinese interest in the region.

1. Core Objectives: Stability and Collective Defence

- **Unified Command:** For the first time, all NATO activities in the Arctic are brought under the operational leadership of **Joint Force Command (JFC) Norfolk**, Virginia.
- **Strategic Deterrence:** The mission is designed to protect Allied territory and ensure the **High North**—the area encompassing the Arctic Circle and its maritime approaches—remains a zone of stability.
- **Geopolitical Balancing:** A primary driver for "Arctic Sentry" was to address US security concerns regarding **Greenland**, successfully lowering transatlantic tensions while providing a collective response to Arctic threats.

2. Key Features of "Arctic Sentry"

- **Enhanced Vigilance Activity (eVA):** It is categorized as an "enhanced vigilance activity," similar to the **Baltic Sentry** (launched Jan 2025 for undersea infrastructure) and **Eastern Sentry** (deterrence on the eastern flank).
- **Multi-Domain Coordination:** It integrates air, sea, land, space, and cyber capabilities. Key pillars include:
 - **Iceland Air Policing:** Utilizing fighter jets from various Allies (currently the Swedish Air Force) to safeguard High North airspace.
 - **Maritime Autonomous Systems (MAS):** Heavy reliance on underwater sensors and naval drones to monitor "shadow fleets" and protect undersea cables.
- **Infrastructure Monitoring:** Continuous surveillance of the **GIUK Gap** (Greenland, Iceland, and the UK), a critical maritime chokepoint for transatlantic security.

3. Military Exercises & Preparedness (2026)

The mission acts as a "coherent framework" for several large-scale military engagements:

- **Exercise Cold Response 2026 (March):** A Norwegian-led drill involving **25,000 troops from 14 nations**. It tests the Alliance's ability to receive reinforcements and fight in extreme winter conditions across northern Norway and Finland.
- **Exercise Lion Protector (September):** A UK-led Joint Expeditionary Force (JEF) exercise focused on **counter-sabotage** and the protection of critical national infrastructure (pipelines, power grids) from hybrid threats.
- **Arctic Endurance:** A series of Danish-led multi-domain exercises integrated into the Sentry framework to enhance regional interoperability.

4. Geopolitical Significance of the Arctic

- **Resource Potential:** The region holds massive reserves of rare earth elements, minerals, and an estimated **13% of the world's undiscovered oil**.
- **Emerging Sea Routes:** As ice melts, the **Northern Sea Route** and **Northwest Passage** are becoming viable for global shipping, potentially cutting transit times between Europe and Asia by 40%.
- **Seven vs. One:** With the accession of Finland and Sweden (2023-24), **7 of the 8 Arctic Council members** are now NATO allies, with Russia being the sole exception.

Conclusion

"Arctic Sentry" represents NATO's transition from episodic presence to **persistent surveillance** in the High North. By leveraging JFC Norfolk as a bridge between North America and Europe, the Alliance is creating a "Silicon Shield" of sensors and drones to ensure that the melting Arctic does not become a new theater of uncontrolled conflict.

Assam Rifles : Transitioning to an All-Indian Canine Squad by 2050



Why in News?

In **February 2026**, the **Assam Rifles**—India's oldest paramilitary force—announced a strategic roadmap to achieve complete "canine indigenization." Following a **2025 Ministry of Home Affairs (MHA) directive** aimed at promoting *Atmanirbhar Bharat* in security forces, the Assam Rifles plans to gradually phase out foreign dog breeds like Labradors and

German Shepherds, replacing them entirely with indigenous Indian breeds by **2050**.

1. Indigenous Breeds in Focus

The force has identified two primary Indian breeds for their resilience and suitability to the country's diverse terrains:

- **Tangkul Hui (Haofa):** * **Origin:** Native to the **Ukhrul district of Manipur**, traditionally raised by the Tangkul Naga people.
 - **Traits:** Medium-sized hunting dogs known for exceptional stamina, alertness, and being highly **disease-resistant** in hot and humid climates.
 - **Status:** A pilot project involving six Tangkul Hui dogs initiated in 2022 has been successful; they are currently deployed in **narcotics detection** roles.
- **Kombai (Polygar Dog):**
 - **Origin:** Native to the Cumbum–Uthamapalayam region of **Tamil Nadu**.
 - **Traits:** Muscular, loyal, and historically used for guarding property and hunting large game.
 - **Plan:** The force will induct two males and eight females in **April 2026** to establish a domestic parent stock for breeding.

2. Training and Infrastructure

- **ARDTC Jorhat:** All indigenous recruits undergo rigorous training at the **Assam Rifles Dog Training Centre (ARDTC)** in Jorhat, Assam—the force's sole facility for canine education.
- **Specialized Roles:** These dogs are trained as **Guard and Tracker dogs**. Their primary missions include:
 - Detecting **arms and explosives**.
 - Sniffing out **narcotics** (crucial for the Indo-Myanmar border).
 - Camp and convoy security.

- **Timeline:** The force aims for the **full induction** of these two breeds into the squad by **March 2027**, with the broader goal of phasing out foreign lineages by 2050.

3. Strategic and Operational Context

- **Force Composition:** As of early 2026, the Assam Rifles operates with **253 dogs** (against a sanctioned strength of 344), supported by over **1,200 trained handlers**.
- **Operational Success:** In **September 2025**, the canine unit played a pivotal role in seizing a massive cache of narcotics being transported from Myanmar into a Northeastern state.
- **Adaptability:** Indigenous dogs are physically better suited for the rugged, hilly terrain of the Northeast and the extreme conditions of Jammu & Kashmir, requiring less specialized care than foreign breeds.

4. About Assam Rifles: "Sentinels of the Northeast"

- **Dual Control:** Unique among Central Armed Police Forces (CAPFs), it operates under the **Ministry of Home Affairs (Administrative)** and the **Ministry of Defence (Operational)**.
- **Historical Roots:** Established in **1835** as the "Cachar Levy," it originally protected British tea plantations from tribal raids.
- **Modern Mandate:** Primarily responsible for counter-insurgency operations in the Northeast and guarding the **1,643 km Indo-Myanmar border**.

Exercise Vajra Ghaat: Validating K9 Vajra's Desert Combat Prowess



Why in News?

In **February 2026**, the Indian Army's **White Tiger Division** successfully conducted **Exercise Vajra Ghaat** at the **Pokhran Field Firing Range** in Jaisalmer, Rajasthan. The exercise specifically focused on testing the operational readiness of the **K9 Vajra** self-propelled artillery system in the high-heat, loose-sand conditions of the **Thar Desert**, ensuring the weapon system is fully optimized for India's western borders.

1. Objectives and Execution

- **Tactical Validation:** The primary goal was to validate refined **Tactics, Techniques, and Procedures (TTP)**. This ensures that the "shoot-and-scoot" capability of the K9 Vajra is effectively utilized to enhance battlefield survivability against modern counter-battery fire.
- **Desert Mobility:** The drill demonstrated the ability of **heavy tracked artillery** to maintain high mobility and swift deployment in harsh desert terrain, where traditional wheeled assets might struggle.
- **Lead Formation:** The exercise was spearheaded by the **White Tiger Division**, a key constituent of the Army's strike capabilities in the western sector.
- **Strategic Outcome:** The successful completion of the drill strengthens India's **combat posture** along the border with Pakistan, proving that heavy fire support can be moved and operated with speed in arid environments.

2. The K9 Vajra Gun System

- **Origin:** A 155 mm, 52-calibre tracked self-propelled howitzer derived from South Korea's **K9 Thunder**.
- **Manufacturer:** Produced in India by **Larsen & Toubro (L&T)** under a technology transfer agreement with Hanwha Defense.

- **Key Features:**
 - **Range:** Capable of engaging targets at distances of **38–43 km** depending on the ammunition.
 - **Ammunition:** Compatible with both Indian and **NATO-standard** 155 mm shells.
 - **Protection:** Encased in all-welded steel armor, providing the crew protection against shell fragments and small arms fire.
- **Procurement:** Initially procured under the 'Buy Global' category, the system has since seen high levels of indigenization, with the Army recently pursuing an additional 200 units for high-altitude and desert regions.

3. Context of Desert Warfare

- **High Heat Resilience:** Desert operations test the cooling systems and electronic resilience of heavy machinery. The K9 Vajra is equipped with specialized auxiliary power units and air conditioning systems for crew comfort and equipment safety.
- **Interoperability:** The exercise tested the integration of the K9 Vajra with advanced **Unmanned Aerial Vehicles (UAVs)** and data links for real-time target acquisition and precision strikes.

Conclusion

Exercise Vajra Ghaat reinforces the K9 Vajra's role as a versatile asset that has transitioned from being a desert-only gun to a mainstay across India's diverse borders. By mastering the TTPs in Pokhran, the Indian Army has ensured that its mechanized columns possess the necessary heavy firepower to dominate any potential conflict in the western sector.

Exercise MILAN 2026 : Strengthening Global Maritime Synergy



Why in News?

In **February 2026**, the Indian Navy successfully hosted the **13th edition of Exercise MILAN** in Visakhapatnam. To facilitate cultural and social exchanges among the international delegates, the Navy established a dedicated **MILAN Village**. This edition is the largest to date, featuring participation from over **70 countries**, including first-time participants like **Germany, the Philippines, and the UAE**, underscoring India's growing influence as a pivotal maritime power.

1. Key Facts About Exercise MILAN 2026

- **Nature:** A **biennial** (once every two years) multilateral naval exercise hosted by the Indian Navy.
- **Timeline:** Conducted from **15th to 25th February 2026** off the coast of Visakhapatnam, the "City of Destiny."
- **Participation:** Over 70 nations sent warships, maritime patrol aircraft, and high-level delegations. The inclusion of **Germany** and **the Philippines** signifies the expanding strategic footprint of the exercise beyond the immediate neighborhood.
- **MILAN Village:** A unique cultural hub set up at the **Naval Dockyard**, showcasing Indian handicrafts, cuisine, and heritage to foster "Camaraderie across the Oceans."

2. Structural Phases of the Exercise

The 10-day exercise was divided into two distinct operational blocks:

- **Harbour Phase (15–19 Feb):** Focused on "intellectual interoperability." Activities included the **International Maritime Seminar**, Subject Matter Expert Exchanges (SMEE), cross-deck visits, and a massive **International City Parade** along the RK Beach.
- **Sea Phase (20–25 Feb):** Focused on "tactical interoperability." Participating navies performed advanced drills, including:
 - **Anti-Submarine Warfare (ASW)** and surface firings.
 - **Humanitarian Assistance and Disaster Relief (HADR)** simulations.
 - Complex maneuvers and multi-ship replenishment at sea.

3. Strategic Significance and Policy Alignment

- **Indo-Pacific Order:** The exercise promotes a "free, open, inclusive, and rules-based" maritime order, acting as a deterrent to unilateral aggression in global commons.
- **Act East Policy:** Originally launched in 1995 to engage Southeast Asian neighbors (Indonesia, Singapore, Sri Lanka, Thailand), MILAN is now a cornerstone of India's **Act East Policy**.
- **MAHASAGAR & SAGAR:** Aligns with India's vision of **Security and Growth for All in the Region (SAGAR)** and the **MAHASAGAR** initiative (Maritime Heads for Active Security and Growth for All in the Region).
- **Preferred Security Partner:** MILAN solidifies India's role as a "First Responder" and a **Preferred Security Partner** in the Indian Ocean Region (IOR).

4. Historical Evolution

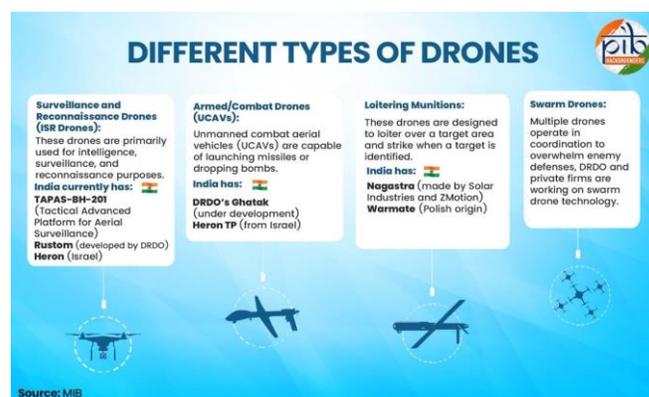
- **1995:** Launched under the **Andaman and Nicobar Command** with just 4 foreign navies.
- **2022:** Moved from the Andaman Islands to **Visakhapatnam** to accommodate the massive increase in the number of ships and the complexity of maneuvers.

- **2024:** Featured 50 countries; the **2026** edition has seen a nearly **40% increase** in international participation.

Conclusion

Exercise MILAN 2026 is a testament to the Indian Navy's ability to unite diverse maritime forces under a single banner of cooperation. By moving beyond simple drills to complex high-end warfare simulations, MILAN has transitioned from a "regional gathering" to a "global maritime institution," ensuring that the Indian Ocean remains a zone of peace and stability.

India's Drone Ecosystem: Scaling Digital Governance and Innovation



Why in News?

In **February 2026**, new government data highlighted the rapid maturity of India's regulated drone sector. With over **38,500 registered drones** and nearly **39,900 certified remote pilots**, the ecosystem has transitioned from a niche hobbyist space to a critical tool for governance, agriculture, and national security. This expansion is a direct result of the liberalized **Drone Rules, 2021**, and the "single-window" efficiency of the **Digital Sky platform**.

1. India's Drone Regulatory and Promotion Framework

- **Drone Rules, 2021 (Amended 2022/23):** These reforms eliminated the need for several traditional approvals (like unique authorization numbers and student pilot licenses) and replaced them with **DGCA-issued Remote Pilot Certificates**.

- **Airspace Liberalization:** Large portions of Indian airspace have been designated as "Green Zones" (up to 400 feet), where no prior permission is required for drones weighing up to 500 kg.
- **Production Linked Incentive (PLI):** A ₹120 crore scheme is actively supporting domestic startups and MSMEs to manufacture drones and components "In India," reducing reliance on imports.
- **Fiscal Incentives:** The **GST on drones** was slashed to **5%**, significantly lowering the entry barrier for commercial operators and training institutes.
- **Digital Sky & eGCA:** These platforms provide a paperless, end-to-end digital experience for registration, type certification, and flight permissions.

2. Key Applications and Schemes

- **Namo Drone Didi Scheme:** Launched in 2023, this flagship program empowers **Women Self-Help Groups (SHGs)** by providing them with drones and training for agricultural services (spraying fertilizers and pesticides), creating new rural livelihoods.
- **SVAMITVA Scheme (Land Mapping):** Drones are the backbone of this rural property mapping project. As of early 2026, mapping is complete in **3.28 lakh villages**, and **2.76 crore property cards** have been prepared, providing legal titles to rural residents.
- **Infrastructure Monitoring (NHAI & Railways):**
 - * **Highways:** Monthly drone recordings provide digital evidence for project progress and dispute resolution.
 - **Railways:** Drones inspect high-altitude bridges and tracks, while the **RPF** uses them for crowd management and yard security.
- **Disaster Management (NECTAR):** Specialized drones developed for the Northeast can hover for long durations during floods and landslides, transmitting real-time visuals to coordinate rescue missions in difficult terrains.

- **Defence & National Security:** Drones are now integral to border surveillance and intelligence. **Operation SINDOOR** showcased their use in precision monitoring and as part of integrated air defense networks.

3. Capacity Building and Innovation

- **SwaYaan Programme:** A dedicated human resource development initiative focused on standardized training and certification for the next generation of unmanned aircraft systems (UAS) professionals.
- **NIDAR Challenge:** The **National Innovation Challenge for Drone Application and Research** serves as an incubator for autonomous drone tech, encouraging startups to solve indigenous challenges.

Conclusion

India's drone sector has evolved from a regulatory challenge into a "force multiplier" for the economy. By simplifying the pilot certification process and linking manufacturing with fiscal incentives, the government has ensured that drones are no longer just "flying cameras" but essential tools for **Digital India**. The focus in 2026 remains on scaling the **Namo Drone Didi** initiative to bridge the gender gap in technology while hardening drone defenses for national security.



Crux of The Hindu & Indian Express

Internal Security

IAF to Showcase Air Power in Vayu Shakti 2026



1. What is the News?

- The Indian Air Force (IAF) will conduct a major air combat exercise called **Vayu Shakti 2026** on 27 February 2026.
- Location: Near **Jaisalmer**, close to the Pakistan border
- Type: Simulated war exercise
- Participation: More than 100 aircraft
- This will be the largest air combat drill of the IAF this year.

2. Why is This Exercise Important?

This exercise is important because it demonstrates India's:

- Military preparedness
- Ability to defend borders
- Offensive and defensive air capabilities
- Coordination between different air units
- It comes shortly after Operation Sindoor, during which the IAF demonstrated operational readiness. Vayu Shakti 2026 further strengthens that message.

3. Meaning of "Simulated War Environment"

A simulated war means:

- No real conflict
- Practice under real-like battlefield conditions
- Aircraft attack dummy targets
- Air defence systems respond as they would in actual war

This helps test:

- Speed
- Accuracy
- Communication
- Response capability

4. Fighter Aircraft Participating

The exercise will include almost all frontline fighter aircraft:

- **Rafale**
- **Su-30 MKI**
- **Tejas**
- **MiG-29**

- **Jaguar**
- **Mirage 2000**
- **BAE Hawk**
- Important Point: The **MiG-21** will not participate, as it has been retired from service.

5. Helicopters and Transport Aircraft

The following helicopters and transport aircraft will also participate:

- **HAL Prachand** – Indigenous attack helicopter firing rockets during live drills
- **Boeing CH-47 Chinook**
- **Mil Mi-17**
- **C-130J Super Hercules**
- **Airbus C-295**

Key Highlights:

- The C-295 will perform a night assault landing for the first time in this exercise.
- The C-130J will land on a short runway, deploy Garud commandos, and take off quickly.
- Attack helicopters will secure the landing area.
- This shows India's capability to conduct rapid military operations in challenging conditions.

6. Air Defence Systems Activated

India has fully activated its air defence systems during the exercise.

Important systems include:

- **Akash** missile system
- **L-70** guns
- Anti-drone systems
- Anti-aircraft platforms

These systems create multiple layers of protection for Indian airspace.

7. What is IACCS?

The exercise will be monitored by the Integrated Air Command and Control System (IACCS).

This system:

- Tracks aircraft in real time

- Collects data from long, medium and short-range radars
- Provides a complete air situation picture
- Helps coordinate offensive and defensive missions

It ensures better control and faster decision-making during operations.

8. Was Pakistan Informed?

- Yes.
- Pakistan was informed through a NOTAM (Notice to Airmen). However, India has still activated full air defence as a precautionary measure.

9. Who Will Witness the Exercise?

- Several VVIPs
- Around 40 officials from embassies of friendly countries

This shows India's confidence in its air power and military readiness.

India–France SCALP Missile Deal

INDIA–FRANCE BIG DEFENCE, SCALP DEAL NEAR FINALISATION 



What is the News?

- India and France are close to signing a major **defence deal** worth around **₹3,200 crore (300 million euros)**.
- India plans to purchase additional **SCALP long-range cruise missiles** from France.
- These missiles were successfully used by the **Indian Air Force (IAF)** during **Operation Sindoor (2025)**.
- A final decision on the deal is expected soon.

What was Operation Sindoor?

- **Operation Sindoor** was a major **cross-border precision strike** conducted by India in **May 2025**.
- It was launched after the **Pahalgam terror attack (22 April 2025)** in **Jammu & Kashmir**.
- **26 civilians were killed**, including:
 - One **Indian Navy officer**
 - One **Nepali citizen**
- It became India's largest strike after the **Balakot Airstrike (2019)**.

How were SCALP Missiles Used?

- **SCALP missiles** were fired from **Rafale fighter jets**.
- Targets included terror headquarters of:
 - **Jaish-e-Mohammed (JeM)**
 - **Lashkar-e-Toiba (LeT)**
- Locations: **Muridke** and **Bahawalpur (Pakistan)**.
- The missiles achieved **pinpoint accuracy**.
- After the initial strike, the **Indian Air Force**:
 - Attacked **12 Pakistan Air Force bases**
 - Destroyed **fighter jets** and **surveillance aircraft** on the ground
- India used multiple **high-precision weapons**:
 - **SCALP cruise missiles**
 - **BrahMos supersonic cruise missiles**
 - **HAMMER precision-guided bombs**
 - **Loitering munitions** (used for surveillance and final strike)
- Total **9 terror-linked sites** were targeted:
 - 4 in **mainland Pakistan**
 - 5 in **Pakistan-occupied Kashmir (PoK)**
- The **Ministry of Defence (MoD)** clarified that:
 - No **Pakistani military installations** were targeted
 - Only verified **terror centres** were attacked

What is SCALP Missile?

- SCALP is also known as **Storm Shadow**.

- Full form: **Système de Croisière Autonome à Longue Portée.**
- It means **long-range autonomous cruise missile.**

Type

- **Air-launched cruise missile**

Range

- More than **250 km**
- Provides **stand-off strike capability** (can hit targets without entering enemy airspace)

Key Features

- Flies at **very low altitude** to avoid radar detection
- Uses **GPS, inertial navigation and infrared seeker**
- Designed for **deep-penetration strikes**
- Can destroy:
 - **Bunkers**
 - **Command centres**
 - **Air bases**
 - **Ammunition depots**

Countries Using SCALP

- **France**
- **United Kingdom**
- **Italy**
- **Greece**
- **India**
- In India, it is integrated with **Rafale fighter aircraft.**

Future Plans of Indian Air Force

- India is purchasing **Meteor air-to-air missiles** for Rafale jets.
- **26 Rafale Marine aircraft** have been ordered for the **Indian Navy.**
- The Air Force is planning to procure **114 additional Rafale aircraft.**
- In the next **10–15 years**, India may have around **200 Rafale jets.**
- Rafale is expected to become the **mainstay fighter aircraft** of the IAF.

Launch of Vibrant Village Programme-II (VVP-II) in Assam



1. Why in News?

- Union Home Minister **Amit Shah** launched **Vibrant Village Programme-II (VVP-II)** in **Nathanpur village, Cachar district, Assam.**
- The aim is to strengthen **development in border areas** and improve **internal security.**
- The Minister said border villages will now be treated as India's **"first and best villages"**, not the last villages.

2. Main Objective

The programme focuses on:

- Improving access to **Basic Services**
- Creating **Sustainable Livelihoods**
- Enhancing **Border Security**
- Supporting the vision of **Viksit Bharat@2047**

The idea is that **strong and developed border villages** help protect the nation.

3. Key Announcement

- Amit Shah stated:
- Border villages are no longer the last villages. They are the **"First Villages of India."**

The government aims to make them number one in:

- **Connectivity**
- **Education**
- **Healthcare**
- **Employment**
- **Overall Development**

4. Coverage in Phase II

Under **VVP-II**:

- Around **2,000 villages** will be covered

- Spread across more than **330 border blocks**
- Covering **17 States and Union Territories**
- Located along borders with **Pakistan and Bangladesh**

Total estimated cost: Around **₹7,000 crore**

5. Coverage in Assam

In Assam:

- **140 villages**
- Across **26 blocks**
- In **9 border districts**

Districts include:

Cachar, Sribhumi, Dhubri, South Salmara, Kokrajhar, Chirang, Baksa, Tamulpur and Udalguri

6. Infrastructure and Development Focus

The programme will ensure:

- **All-weather Roads**
- **Uninterrupted Electricity**
- **Mobile and Internet Connectivity**
- **Piped Drinking Water**
- **Better Healthcare Services**
- **Improved Educational Infrastructure**
- **Livelihood Opportunities**

This will:

- Improve **Quality of Life**
- Reduce **Migration from Border Areas**

7. Financial Details

- Total Allocation: **₹6,839 crore**
- Duration: Till **FY 2028–29**
- Estimated cost: About **₹3 crore per village**

Coverage:

- **1,954 villages**
- Across **15 States and 2 Union Territories**

States/UTs include:

- Arunachal Pradesh, Assam, Bihar, Gujarat, J&K (UT), Ladakh (UT), Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan, Sikkim, Tripura, Uttarakhand, Uttar Pradesh and West Bengal

8. Background: Vibrant Village Programme (VVP–I)

- Approved on **15 February 2023**.
- Launched on **10 April 2023** in **Kibithu, Arunachal Pradesh**.

Phase I covered:

- **662 villages**
- Across **46 blocks**
- In **19 districts**

States covered:

- **Arunachal Pradesh, Himachal Pradesh, Sikkim, Uttarakhand and Ladakh**

Main objectives:

- Improve **Living Standards**
- Prevent **Out-Migration**
- Promote **Tourism**
- Improve **Road and Internet Connectivity**
- Generate **Employment**

It also aimed to counter foreign infrastructure development near borders, especially by **China**.

9. Importance of VVP–II

For National Security

- Strengthens the **Security Grid**
- Maintains population presence in border areas
- Reduces **Illegal Cross-Border Activities**

For Rural Development

- Improves infrastructure in **Remote Areas**
- Reduces **Regional Imbalance**
- Enhances **Employment and Income Opportunities**

Conclusion

Vibrant Village Programme–II is a major step toward transforming India's border villages into **developed and secure communities**. With an allocation of **₹6,839 crore**, the programme ensures full infrastructure coverage and livelihood support. By redefining border villages as the **"First Villages of India,"** the government is linking **Rural Development** directly with **National Security** and the vision of **Viksit Bharat@2047**.

PRAHAAR – India’s First National Counter-Terrorism Policy



1. Why in News?

- The **Ministry of Home Affairs (MHA)** launched India’s first comprehensive **National Counter-Terrorism Policy and Strategy** called “**PRAHAAR**”.
- It marks a shift from a **reactive approach** (after attack) to a **proactive, intelligence-driven approach** (preventing attacks before they happen).

2. What is PRAHAAR?

PRAHAAR is an acronym. Each letter represents a pillar of the strategy:

- **P – Prevention** of terror attacks
- **R – Response** (swift and proportionate action)
- **A – Aggregating capacities** (whole-of-government approach)
- **H – Human rights and Rule of Law**
- **A – Attenuating radicalisation**
- **A – Aligning international efforts**
- **R – Recovery and resilience**

It follows a **Whole-of-Government** and **Whole-of-Society** approach.

3. Key Pillars of PRAHAAR

1. Prevention

India will adopt a **proactive and intelligence-led system**.

Important mechanisms

- **Multi Agency Centre (MAC)**
- **Joint Task Force on Intelligence (JTFI)**

Focus areas:

- Prevent misuse of **Internet and Social Media**
- Break **Over-Ground Worker (OGW)** networks
- Stop **Terror Funding**
- Use **Advanced Border Technologies**
- Protect **Critical Infrastructure** (Power, Railways, Aviation, Ports, Defence, Space, Atomic Energy)

2. Response

- **Local Police** as first responders
- Support from **State Counter-Terror Forces** and **CAPFs**
- **National Security Guard (NSG)** for major attacks
- **National Investigation Agency (NIA)** for investigation and prosecution

Goal: **Swift action and strong legal deterrence.**

3. Aggregating Capacities

Focus on:

- **Modern weapons and technology**
- **Standardised Anti-Terror Structure**
- Advanced training by **BPR&D, CAPFs, and NSG**

Aim: Better **Inter-Agency Coordination** and uniform capacity across states.

4. Human Rights and Rule of Law

The strategy balances **National Security** with **Fundamental Rights**.

Legal framework includes:

- **Unlawful Activities (Prevention) Act (UAPA), 1967**
- **Bharatiya Nyaya Sanhita, 2023**
- **Bharatiya Nagarik Suraksha Sanhita, 2023**
- **Bharatiya Sakshya Adhinyam, 2023**
- **Prevention of Money Laundering Act (PMLA), 2002**
- **Arms Act, 1959**

Ensures:

- **Judicial Oversight**
- **Due Process**
- **Right to Appeal**

5. Attenuating Radicalisation

A **Soft-Power Approach** to address root causes.

Focus on

- Role of **Community Leaders and NGOs**
- **De-radicalisation Framework**
- Rehabilitation of vulnerable youth
- Action against hardcore elements
- Prevent **Prison Radicalisation**
- Promote **Socio-Economic Empowerment**

6. Aligning International Efforts

Terrorism is **Transnational** in nature.

India will use:

- **Mutual Legal Assistance Treaties (MLATs)**
- **Extradition Treaties**
- **Joint Working Groups (JWGs)**
- Cooperation at **United Nations (UN)**

Goal: Deny **Safe Havens** to terrorists.

7. Recovery and Resilience

Adopts a **Whole-of-Society Approach**.

- Strong **Public-Private Partnership**
- Rapid restoration after attack
- Build long-term **Community Resilience**

4. Emerging Terror Threats

- **State-Sponsored Cross-Border Terrorism**
- Influence of **ISIS and Al-Qaeda**
- **Drone-Based Attacks** (Punjab, J&K)
- **Criminal-Terror Nexus**
- Misuse of **Social Media and Dark Web**
- **Cryptocurrency Financing**
- **Cyber Attacks** on critical systems
- **CBRNED Threats** (Chemical, Biological, Radiological, Nuclear, Explosive, Digital)

5. Implementation Challenges

1. Federal Issues

- “**Police**” and “**Public Order**” are **State List subjects**.
- Possible **Centre-State Coordination issues**.

2. Capacity Gaps

- Local police may lack **advanced cyber training**.

- Financial constraints for states.

3. Subjectivity in De-radicalisation

- Measuring radicalisation is **psychological and complex**.
- Risk of **profiling or misuse**.

4. Legal Concerns

- Low conviction rates under strict laws.
- Long **Pre-Trial Detentions**.

5. Inter-Agency Silos

- Need for seamless **Real-Time Intelligence Sharing**.

6. Measures to Strengthen PRAHAAR

- Improve **Intelligence Sharing Mechanisms**
- Upgrade **State ATS and Counter-Terror Units**
- Use **AI, Big Data and Machine Learning**
- Track **Crypto-Based Terror Funding**
- Amend **IT Rules** to control extremist content
- Create **Specialised Federal Prosecutors**
- Fast-track **International Digital Evidence Sharing**

Vajra Prahar 2026 : Strengthening the India-US Special Forces Synergy



Why in News?

In **February 2026**, the **16th edition** of the India-US joint special forces exercise, ‘**Vajra Prahar**’, commenced at the **Special Forces Training School in Bakloh, Himachal Pradesh**. Running from **February 24 to March 16, 2026**, the exercise highlights the

maturing tactical bond between the elite units of both nations. This edition focuses specifically on **joint operations in mountainous terrain**, testing the high-altitude combat readiness of the participating troops.

1. Exercise Vajra Prahar: The Special Ops Bridge

- **Origin & Frequency:** First conducted in **2010**, it is an annual exercise held alternately in India and the US.
- **The 15th Edition (2024):** Held at the **Orchard Combat Training Centre in Idaho, USA**, in November 2024.
- **Participating Units:**
 - **India:** Personnel from the **Indian Army's Special Forces**.
 - **USA:** Elite "**Green Berets**" of the US Army Special Forces.
- **Key Focus Areas (2026):** * **Joint Mission Planning:** High-degree physical conditioning and collaborative planning for special operations.
 - **Tactical Drills:** Execution of joint drills in realistic combat scenarios within challenging mountainous environments.
 - **Operational Sharing:** Exchange of best practices in techniques, procedures, and special operations tactics.

2. India-US Defence Cooperation: The 2025–2035 Roadmap

The relationship has moved from a "buyer-seller" dynamic to a robust **strategic industrial partnership**.

- **The 2025 Framework:** On **October 31, 2025**, in Kuala Lumpur, both nations signed the '**Framework for the US-India Major Defence Partnership**'. This landmark 10-year pact provides a unified policy direction for the next decade, focusing on regional stability and deterrence.
- **Major Defence Partnership (MDP):** Since its designation in **2016**, India remains a priority partner for the US, recently receiving reviews

for high-end tech transfers like **fifth-generation fighters** and **undersea systems**.

- **INDUS-X (Innovation Bridge):** Launched in **2023**, the **India-US Defense Acceleration Ecosystem** has achieved major milestones, including the **INDUS-X IMPACT Challenges** for undersea communications and maritime ISR (Intelligence, Surveillance, and Reconnaissance).

3. Foundational Agreements & Interoperability

The military partnership is grounded in four foundational "enabling" agreements:

1. **LEMOA (2016):** Logistics support and mutual access to facilities.
 2. **COMCASA (2018):** Secure communication links for real-time information sharing.
 3. **ISA (2019):** Protection of classified information shared with the private sector.
 4. **BECA (2020):** Sharing of high-end geospatial intelligence and satellite data.
- **Security of Supply (SOSA - 2024):** A recent addition ensuring the security of supply chains for critical defense materials.

4. Defense Procurement & Joint Drills

- **US-Origin Platforms:** India's inventory now includes **Apache, Chinook, MH60R Seahawk** helicopters, and **P8I maritime aircraft**. New pipelines include **MQ-9B Predator** drones and **Stryker** infantry combat vehicles.
- **The Exercise Calendar:**
 - **Bilateral:** *Yudh Abhyas* (Army), *Cope India* (Air Force), *Tiger Triumph* (Tri-services).
 - **Multilateral:** *Malabar* (with Japan and Australia), *RIMPAC*, and *Red Flag*.

Conclusion

The 2026 edition of Vajra Prahar signifies more than just a training event; it is a testament to the "Strategic Convergence" between India and the US in the Indo-Pacific. As special operations become increasingly critical in asymmetric warfare, the

synergy between the Indian Special Forces and the Green Berets serves as a pillar for regional stability and integrated deterrence.

Dharma Guardian 2026 : Enhancing India-Japan Military Synergy



Why in News?

In late February 2026, the 7th edition of the annual joint military exercise 'Dharma Guardian' commenced at the Foreign Training Node in Chaubattia, Uttarakhand. Running from February 24 to March 9, 2026, this edition highlights the deepening "Special Strategic and Global Partnership" between India and Japan. The exercise provides a platform for both armies to refine tactical skills in challenging mountainous and semi-urban terrains.

1. Exercise Overview: The Ground Defense Pillar

- **Origin & History:** Launched in 2018 at Vairengte, Mizoram, the exercise has become an annual event conducted alternately in India and Japan.
- **The 6th Edition (2025):** Held at the East Fuji Training Area in Japan (February–March 2025), which marked a milestone with company-strength participation for the first time.
- **Participating Units (2026):**
 - **India:** Represented by a 120-member contingent from the **Ladakh Scouts** (known as the "Snow Warriors"), renowned for their expertise in high-altitude and mountain warfare.
 - **Japan:** Represented by a 120-member contingent from the **32nd Infantry Regiment** of the **Japan Ground Self-Defense Force (JGSDF)**.

2. Key Objectives & Tactical Activities

The 2026 edition focuses on achieving high levels of physical fitness and synchronizing tactical drills for counter-terrorism and urban warfare.

- **Temporary Operating Base (TOB):** Troops practice establishing secure bases in hostile environments.
- **ISR Grid Development:** Focus on building an integrated **Intelligence, Surveillance, and Reconnaissance (ISR)** grid for real-time situational awareness.
- **Urban Combat Drills:** * **Cordon and Search Operations** in simulated semi-urban settings.
 - **House Intervention Drills** and **Heliborne Operations** for rapid troop insertion and extraction.
- **Mobile Vehicle Check Posts:** Training on managing checkpoints to monitor and restrict hostile movements.

3. Strategic Context and Defense Synergy

The exercise is part of a broader "Indo-Pacific" security architecture designed to maintain a rules-based international order.

- **Interoperability:** Moving beyond symbolic participation to achieving a "shared combat language" and seamless operational coordination.
- **Modern Technology:** Emphasis on incorporating contemporary technologies like drones and advanced communication systems into ground tactics.
- **Comprehensive Partnership:** Complements other bilateral drills such as:
 - **JIMEX** (Navy)
 - **Veer Guardian & Shinyuu Maitri** (Air Force)
 - **Malabar** (Multilateral Navy)

Conclusion

The 2026 edition of Dharma Guardian reinforces the growing professional alignment between the Indian Army and the JGSDF. By training in the rugged foothills of the Himalayas, both forces are not only refining their tactical combat skills but also building the mutual trust necessary for rapid coordination in the face of non-traditional security threats.

□□□

Birth Anniversary of Guru Ravidas: 649th Jayanti



Why in News?

Prime Minister Narendra Modi paid homage to **Shri Guru Ravidas Maharaj ji** on his 649th birth anniversary. This day is observed annually on the Purnima Tithi (Full Moon) of the Magha month, which fell on **1 February 2026**.

1. Birth and Historical Context

- **Origin:** Born during the 15th century (approx. 1450–1520) in **Seer Goverdhanpur, Varanasi, Uttar Pradesh**.
- **Social Background:** He belonged to a marginalized community, yet his spiritual depth drew followers from every strata of society, transcending caste boundaries.

2. Spiritual Connections

- **Lineage:** He is regarded as a disciple of the famous Bhakti saint **Ramananda** and was a contemporary of the poet **Kabir**.
- **Guide to Royals:** Historical traditions identify him as the spiritual teacher (guru) of the celebrated devotee **Meera Bai**.

3. Core Philosophy: Nirguna Bhakti

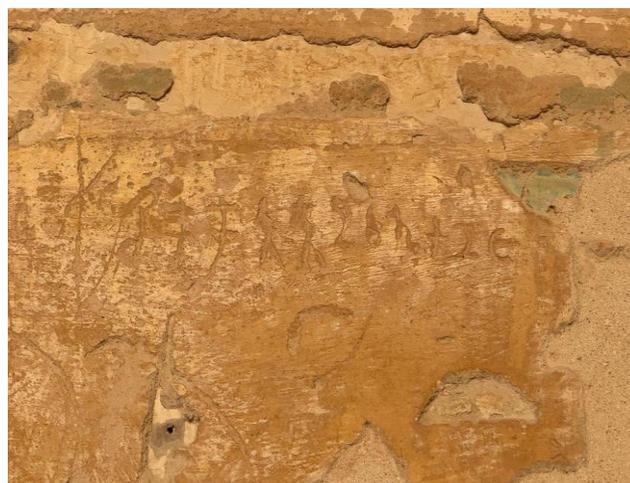
- **Formless God:** He championed **Nirguna Bhakti**, the worship of a formless Supreme Being, while rejecting idol worship and complex rituals (Saguna worship).
- **Beghumpura (City Without Sorrow):** He envisioned a utopian, egalitarian city called "Beghumpura," where there is no suffering, fear, or social inequality.

- **Sahaj:** He taught the concept of *Sahaj*, representing a natural and mystical union between the individual soul and the ultimate truth.
- **Social Reform:** His message was a powerful voice of **social dissent** against caste-based discrimination and orthodox religious structures.

4. Literary and Religious Legacy

- **Language of the People:** He wrote his hymns in simple, local dialects so that the common man could understand his message.
- **Guru Granth Sahib:** His spiritual excellence is recognized in Sikhism; many of his devotional hymns are included in the **Adi Granth**.
- **Panchvani:** His writings are also preserved within the Dadupanthi tradition's *Panchvani*.
- **Ravidassia Faith:** His life and teachings serve as the pillar of the **Ravidassia religion**, which centers its faith on the holy text *Amrit Bani Guru Ravidass*.

Tamil-Brahmi Inscriptions in the Valley of the Kings : Signatures of Ancient Globalisation



Why in News?

In **February 2026**, a groundbreaking discovery was presented at the **International Conference on Tamil Epigraphy** in Chennai. Researchers documented nearly **30 inscriptions** in **Tamil-Brahmi, Prakrit, and Sanskrit** inside the high-security royal tombs of the

Valley of the Kings in Egypt. This discovery, made by **Prof. Ingo Strauch** (University of Lausanne) and **Prof. Charlotte Schmid** (EFEO, Paris), provides "clinching evidence" that ancient Indian merchants were not merely coastal traders but curious travelers who ventured deep into the Egyptian interior during the **1st–3rd centuries CE**.

1. Nature of the Discovery

- **Location:** The inscriptions were found across **six rock-cut tombs** (including the tomb of **Ramesses VI**) on the west bank of the Nile in the **Theban Necropolis**, near modern-day Luxor.
- **Format:** The markings are brief "tourist graffiti," primarily personal names, scratched into the walls and corridors of the tombs.
- **Multicultural Context:** They appear alongside over **2,000 Greek graffiti** marks. This suggests that Indian visitors adopted the existing Mediterranean custom of "marking their presence" at famous monumental sites.
- **Linguistic Diversity:** While **20 inscriptions** are in **Tamil-Brahmi (Tamili)**, the remaining 10 are in **Sanskrit, Prakrit, and Gandhari-Kharosthi**, indicating visitors from the northwestern (Gandhara), western (Gujarat/Maharashtra), and southern regions of India.

2. Key Inscriptions and Linguistic Links

- **Cikai Korraṇ (Sigai Korran):** This name appears **eight times** across five different tombs.
 - **Etymology:** "Cikai" is linked to the Sanskrit *śikhā* (tuft or crown), while "Korraṇ" is a classic Tamil name derived from *korram* (victory), associated with the **Chera warrior goddess Korravai**.
- **Kopāṇ varata kantan:** A striking phrase meaning "**Kopāṇ came and saw.**" This mimics the standard formula found in Greek graffiti of the era, proving that these

travelers could likely read and understand the local Greek scripts.

- **Other Names:** Names like **Cātaṇ** and **Kiraṇ** were also identified, both of which are common in the early epigraphic records of Tamil Nadu (e.g., Pugalur and Ammankovilpatti).

3. Strategic and Historical Significance

- **Beyond the Ports:** Earlier evidence of Indian presence was restricted to Red Sea ports like **Berenike** and **Myos Hormos**. Finding these names in the Nile Valley (Thebes) proves that Indian merchants traveled hundreds of miles inland for "sightseeing" or cultural exploration.
- **Two-Way Trade:** While Roman accounts (Pliny, Ptolemy) detail Romans coming to India for pepper and pearls, these inscriptions provide tangible proof of the **reverse journey** made by Indian merchants to the heart of the Roman Empire.
- **The "Kshaharata" Envoy:** One Sanskrit inscription mentions a *duta* (envoy) of a **Kshaharata king** (Western Satraps who ruled Gujarat/Malwa in the 1st century CE), indicating formal diplomatic or high-level commercial missions.

4. Links with Sangam Literature

The findings provide a physical anchor to **Sangam-era** texts (c. 300 BCE – 300 CE) that describe:

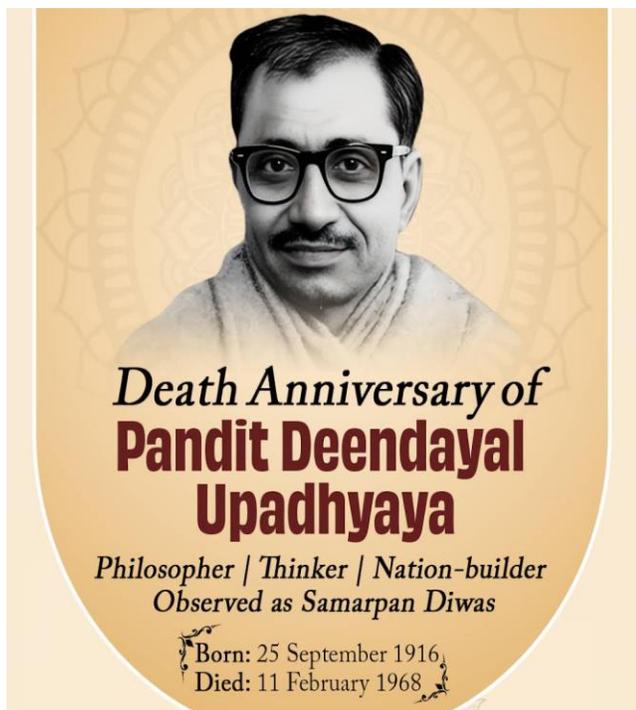
- **Yavanas:** Westerners who visited Tamil ports like Muziris and Puhar.
- **Maritime Wealth:** The *Pattinappālai* and *Purananuru* mention the arrival of horses by sea and the export of "black gold" (pepper).
- **Onomastics:** The recurring name "Korran" appears in the Sangam corpus, including references to the Chera king *Piṭṭāṅkorraṇ*.

Conclusion

The discovery in the Valley of the Kings rewrites the narrative of ancient Indian mobility. It confirms that the ancient Tamil mercantile community was part of

a vibrant, cosmopolitan travel culture. These were not just sailors moving cargo; they were "global citizens" who possessed the literacy, curiosity, and wealth to explore the most sacred heritage sites of the ancient world.

Death Anniversary of Pandit Deendayal Upadhyaya: Commemorating the Architect of Integral Humanism



Why in News?

On **11 February 2026**, the Vice-President of India, **Shri C.P. Radhakrishnan**, along with the Prime Minister and other senior leaders, paid floral tributes to **Pandit Deendayal Upadhyaya** on his death anniversary (Punya Tithi). The day was observed as '**Samarpan Diwas**' (Dedication Day) across the country, highlighting his vision of an inclusive, self-reliant India. Leaders emphasized that his philosophy remains a guiding force in the nation's journey toward becoming a **Viksit Bharat** (Developed India) by 2047.

1. Who was Pandit Deendayal Upadhyaya?

- **Background:** Born on **25 September 1916** in Mathura, Uttar Pradesh, he was a prolific philosopher, sociologist, and a formidable political organizer.
- **Political Career:** He was a key leader of the **Bharatiya Jana Sangh (BJS)**, serving as its General Secretary from its inception in 1951 and later as its President in 1967.
- **Tragic Demise:** He passed away under mysterious circumstances on **11 February 1968** near Mughalsarai station.

2. Core Philosophy: Integral Humanism (Ekatma Manav Darshan)

Propounded in **1965**, this remains the official ideological roadmap of the Bharatiya Janata Party (BJP).

- **Holistic View:** It views the individual as an integrated whole of **Body, Mind, Intellect, and Soul**, rather than just an "economic man" as seen in Western Capitalism or Socialism.
- **The Third Way:** Upadhyaya presented this as an indigenous alternative to both **Capitalism** (which he felt promoted unchecked individualism) and **Communism** (which he believed suppressed individual liberty).
- **Dharma-Guided Politics:** He argued that politics should be rooted in **Dharma** (moral and ethical law) to ensure that the pursuit of wealth (**Artha**) and desire (**Kama**) leads to spiritual liberation (**Moksha**).
- **Chiti and Virat:** He believed every nation has a "soul" (**Chiti**) and a living manifestation of its culture (**Virat**), which must guide its governance.

3. The Concept of Antyodaya

- **Uplifting the Last Person:** Upadhyaya's most enduring contribution is the concept of **Antyodaya**—the rise of the last person.
- **Social Justice:** He believed that the progress of a nation should not be measured by the wealth of the top tier, but by the well-being of the most disadvantaged person in the queue.
- **Economic Decentralization:** He advocated for **Swadeshi** (self-reliance) and a village-centric economic model to ensure local employment and dignity.

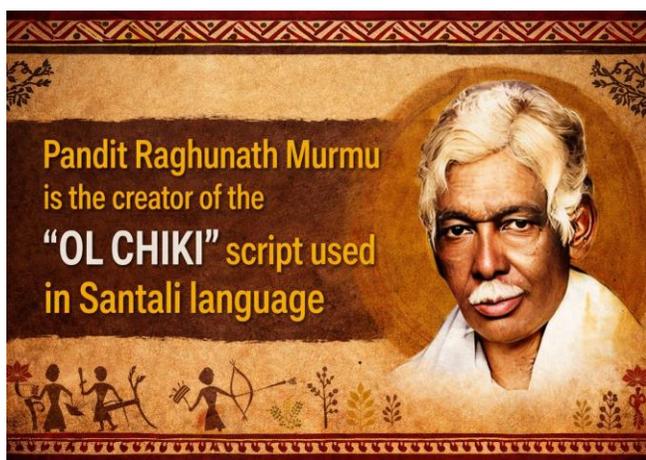
4. National Recognition and Legacy

- **Antyodaya Diwas:** Since 2014, his birth anniversary (**25 September**) is celebrated as Antyodaya Diwas.
- **Renaming Landmarks:** In 2018, the iconic **Mughalsarai Junction** in Uttar Pradesh was renamed **Pt. Deendayal Upadhyaya Junction**.
- **Flagship Schemes:** Several major government initiatives are named after him to reflect his pro-poor philosophy:
 - **Deendayal Antyodaya Yojana (DAY-NRLM/NULM):** For poverty alleviation and livelihoods.
 - **Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY):** For rural electrification.
 - **DDU-GKY:** For rural youth skill development.
- **Prashikshan Mahabhiyan 2026:** In February 2026, specialized training workshops (Mahabhiyan) were organized in regions like Shopian (J&K) and Haryana to educate workers on his principles of value-based politics.

Conclusion

Pandit Deendayal Upadhyaya's legacy has transitioned from being a purely political ideology to a foundational principle for India's modern welfare state. By linking ancient Indian wisdom with contemporary developmental needs, his vision of *Ekatma Manav* (Integrated Man) continues to influence policies ranging from financial inclusion (Jan Dhan) to universal healthcare (Ayushman Bharat).

Centenary of the Ol Chiki Script : A Century of Santhali Identity



Why in News?

On **February 16, 2026**, the President of India, **Smt. Droupadi Murmu**, inaugurated the **Centenary Celebration of the Ol Chiki script** at the Dr. Ambedkar International Centre in New Delhi. Organized by the **Ministry of Culture** in collaboration with *Fagun* (a Santhali newspaper), the event commemorates **100 years** of the script's invention. To mark this historic milestone, the President released a **₹100 commemorative coin** and a **special postage stamp**, recognizing the script's transformative role in indigenous linguistic empowerment.

1. Invention and Historical Context

- **Creator:** The script was invented in **1925** by **Pandit Raghunath Murmu** (honored as *Guru Gomke*) in the Dandbose village of Mayurbhanj, Odisha.
- **The "Phonetic Gap":** Before 1925, Santhali was written using Roman, Devanagari, Odia, or Bengali scripts. However, these were unable to accurately represent the unique **glottal stops** and specific vowel patterns of the language.
- **Literary Milestones:** Pandit Murmu authored *High Serena* (1936), the first book in Ol Chiki, and the play *Bidu-Chandan*, which remains a cornerstone of Santhali cultural literature.
- **Global Reach:** The script is now the primary medium for Santhali speakers across **Jharkhand, Odisha, West Bengal, Bihar, and Assam**, as well as communities in Nepal, Bhutan, and Mauritius.

2. Linguistic and Scientific Structure

- **Phonetic Precision:** The script consists of **30 letters** (6 vowels and 24 consonants). It is entirely phonetic, meaning every symbol corresponds to a specific, unique sound in the Santhali language.
- **Language Family:** Santhali belongs to the **Austroasiatic language family**, and Ol Chiki was specifically designed to preserve its oral nuances in a written format.

- **Digital Evolution:** The President noted with satisfaction that Ol Chiki is now expanding into **digital mediums**, further bridging the gap between ancient tradition and modern technology.

3. Constitutional and Democratic Significance

- **Eighth Schedule:** The Santhali language (written in Ol Chiki) was included in the **Eighth Schedule** of the Constitution of India via the **92nd Constitutional Amendment Act, 2003**.
- **Linguistic Justice:** In a landmark move for democratic accessibility, the **Constitution of India was officially translated into Santhali** using the Ol Chiki script and released in **December 2025**.
- **Educational Integration:** The President emphasized that while children may learn in English or Hindi, they must also be encouraged to learn their mother tongue in its original script to preserve their cultural "threads of unity."

4. Commemorative Features (2026)

- **The ₹100 Coin:** Features the **Lion Capital of Ashoka** on the obverse and a portrait of **Pandit Raghunath Murmu** against a backdrop of Ol Chiki characters on the reverse.
- **Postage Stamp:** A multicolor stamp printed at the Security Printing Press, Hyderabad, honoring the script as an enduring symbol of national recognition.
- **Felicitation:** During the Delhi event, the President felicitated **10 achievers** from the Santal community for their exceptional work in promoting the widespread use of the script.

Conclusion

The centenary of Ol Chiki is not just a celebration of a script, but of a community's resilience in preserving its intellectual self-determination. By transitioning

Santhali from an oral tradition to a structured written medium, the script has ensured that the "original voice" of the Santal people remains un-distorted. As the President noted, "neglecting one's script is like neglecting one's own identity."

80th Anniversary of the Royal Indian Navy (RIN) Revolt: The "Last War" of Independence



Why in News?

On **February 18, 2026**, India commemorates the **80th anniversary** of the **Royal Indian Navy (RIN) Revolt of 1946**. This historic uprising, which began on the **HMIS Talwar** in Bombay, remains one of the most potent symbols of militant anti-colonial resistance. It is remembered for its unprecedented display of **Hindu-Muslim unity** and for being the "final nail in the coffin" of British rule in India, as it proved that the colonial government could no longer rely on the loyalty of the Indian armed forces.

1. The Uprising: Triggers and Spread

- **Immediate Spark:** The revolt began with a hunger strike by "ratings" (non-commissioned sailors) on **HMIS Talwar** over **substandard food, racial discrimination, and low wages**. The arrest of a rating for scrawling "**Quit India**" on the ship intensified the protest.
- **Scale of Insurrection:** The mutiny rapidly spread to **78 ships and 20 shore establishments**, involving over **20,000 sailors**. Major naval bases in **Karachi**,

Madras, Calcutta, and Vishakhapatnam joined the strike.

- **Air Force Support:** In a rare show of inter-service solidarity, sympathetic strikes occurred within the **Royal Indian Air Force** in Bombay, Poona, and Ambala.

2. Political Links and The "Red Fort" Connection

The revolt was deeply tied to the nationalistic fervor of the time:

- **INA Trials:** The ratings protested against the ongoing trials of the **Indian National Army (INA)** prisoners at the Red Fort. The trial of a Hindu (**Sehgal**), a Muslim (**Khan**), and a Sikh (**Dhillon**) together had already unified the country.
- **Anti-Imperialism:** They demanded the withdrawal of Indian troops from **Vietnam and Indonesia**, where they were being used by the British to restore French and Dutch colonial rule.
- **Symbols of Unity:** On the masts of the rebel fleet, sailors defiantly hoisted the flags of the **Congress (Tricolour)**, the **Muslim League (Crescent)**, and the **Communist Party (Hammer and Sickle)** together.

3. Popular Uprising in Bombay

- **The Mill District:** Bombay's mill district became the epicenter of a massive "hartal." Hindu and Muslim workers jointly set up barricades, torched military vehicles, and faced British machine guns.
- **Brutal Suppression:** The British responded with overwhelming force, deploying armored vehicles and infantry. The conflict resulted in nearly **250 deaths** and over **1,000 injuries** among the civilian protesters and ratings.
- **The Surrender:** On **February 23, 1946**, following the intervention of **Sardar Patel** and **Muhammad Ali Jinnah**, the Naval Central Strike Committee surrendered. They were assured that national parties would

prevent their victimization—an assurance the British later ignored.

4. Historical Significance

- **Erosion of Loyalty:** The revolt shattered the British conviction that the Indian military was a "loyal" pillar of the Raj. Lord Wavell and the British Cabinet realized that holding India by force was no longer tenable.
- **Accelerated Withdrawal:** The mutiny directly influenced the dispatch of the **Cabinet Mission** in 1946 to negotiate the transfer of power.
- **Concessions Won:** Following the revolt, the British remitted sentences for the first batch of INA prisoners and began withdrawing Indian troops from Southeast Asia.
- **Civilian Supremacy:** The intervention of political leaders to end the strike established an early precedent for **civilian control over the military** in post-independence India.

5. Limitations of the Revolt

- **Spontaneity:** The uprising lacked a centralized military or political command, making it vulnerable to isolation.
- **Political Isolation:** While the masses supported the sailors, the **Congress** and the **Muslim League** leadership condemned the violence, fearing it would disrupt the negotiated, non-violent transition to power.
- **Geographic Reach:** The revolt was largely confined to naval personnel and major urban centers, failing to trigger a general armed insurrection across the Indian Army.

Conclusion

The RIN Revolt was the "unsung" final battle of India's freedom struggle. By uniting the cross and the crescent under a shared anti-colonial banner, the ratings proved that the British "Divide and Rule" policy had failed its ultimate test. As India celebrates 80 years of this momentous event, it serves as a reminder of the power of communal harmony in the face of systemic oppression.

Chhatrapati Shivaji Maharaj : The Architect of Hindavi Swaraj



Why in News?

On **February 19, 2026**, the Union Home Minister and leaders across India paid tributes to **Chhatrapati Shivaji Maharaj** on his **396th birth anniversary (Shiv Jayanti)**. The celebrations highlighted his enduring legacy in establishing **Hindavi Swaraj** (indigenous self-rule) and his role as a pioneer in naval warfare and administrative reform.

1. Life and Vision of Hindavi Swarajya

- **Birth:** Born on **February 19, 1630**, at **Shivneri Fort** near Pune.
- **The Pledge:** At a young age, he took a sacred oath at Rareshwar to establish a kingdom free from foreign domination.
- **Core Ideals:** His governance was built on three pillars: **Swadharma** (duty), **Swaraj** (self-rule), and **Swabhasha** (native language).
- **Cultural Shift:** He intentionally replaced Persian, the prevailing court language, with **Marathi and Sanskrit** for official administration.

2. Military and Naval Genius

- **Guerrilla Warfare (Ganimi Kava):** He mastered innovative "hit-and-run" tactics, leveraging the Sahyadri terrain to defeat much larger forces.

- **Father of the Indian Navy:** Recognizing the threat of European colonial powers (Portuguese, British, Dutch), he built a powerful fleet and a chain of sea forts like **Sindhudurg** and **Vijaydurg** to protect the western coastline.
- **Fortification:** He controlled over **300 forts**, viewing them as the strength of the kingdom.

3. Major Battles and Historical Milestones

- **Battle of Pratapgad (1659):** He famously used the **Wagh nakh** (tiger claws) to kill the Bijapuri general **Afzal Khan**, a turning point in Maratha history.
- **Battle of Sinhagad (1670):** Led by his commander Tanaji Malusare, this battle is immortalized for the sacrifice that secured the fort.
- **Treaty of Purandar (1665):** Forced into a temporary truce with Jai Singh I (representing Aurangzeb), he later escaped from house arrest in Agra in 1666.
- **Coronation (1674):** He was formally crowned at **Raigad Fort**, assuming the title of **Chhatrapati**.

4. Progressive Administration

- **Ashtapradhan Mandal:** A Council of Eight Ministers was established to oversee specific departments (e.g., Peshwa for general administration, Amatya for finance).
- **Land Reforms:** He abolished the exploitative *Jagirdari* system, introducing direct revenue collection from farmers to prevent intermediary corruption.
- **Inclusivity:** His army and administration were merit-based, drawing talent from all castes and religions, including a significant number of Muslim soldiers and commanders.

5. Titles and Legacy

- **Titles:** Honored as **Shakakarta** (founder of an era), **Kshatriya Kulavantas** (head of the warrior clan), and **Haindava Dharmodhhaarak** (protector of the faith).

- **Modern Relevance:** His naval strategies continue to influence the modern **Indian Navy**, which recently adopted a new ensign inspired by the seal of Chhatrapati Shivaji Maharaj.

Conclusion

Chhatrapati Shivaji Maharaj was not just a warrior-king but a visionary statesman who laid the foundation for a modern, ethical, and inclusive state. His life serves as a blueprint for "Minimum Government, Maximum Governance," where the welfare of the *Ryot* (peasantry) was the ultimate priority. His legacy of **Swaraj** remains the cornerstone of India's democratic and sovereign identity.

Sacred Ensembles of the Hoysalas: Masterpieces of Soapstone and Stellate Design



Why in News?

In **early 2026**, several lesser-known **11th–13th century Hoysala-era temples** across Karnataka—beyond the famous trio at Belur, Halebidu, and Somanathapura—have drawn fresh global attention. These "hidden gems" are being highlighted for their intricate **soapstone carvings** and unique **star-shaped architecture**, prompting new conservation efforts to preserve the broader Hoysala landscape following the 2023 UNESCO World Heritage recognition.

1. Core Architectural Features

Hoysala architecture is a distinct **hybrid style (Vesara)**, blending the Northern **Nagara** and Southern **Dravida** traditions.

- **Material (Soapstone):** Architects used **chloritic schist (soapstone)**, which is soft when first quarried, allowing for microscopic detailing (jewellery, hair curls, fingernails), but hardens over time.
- **Stellate (Star-shaped) Plan:** The sanctum and its platform (**Jagati**) are often arranged in a star shape. This creates rhythmic projections and recesses that maximize the surface area for ornamentation.
- **Ground Plan Innovations:** Shrines are classified by the number of sanctums: **Ekakuta** (1), **Dvikuta** (2), **Trikuta** (3), **Chatushkuta** (4), and **Panchakuta** (5).
- **Sculptural Narrative:** Walls feature horizontal **friezes** of elephants (stability), horses (speed), and lions (courage), alongside "Madanikas" (celestial dancers) and epic scenes from the Ramayana and Mahabharata.

2. Notable Temples and Sacred Sites

- **The UNESCO Trio (Inscribed 2023):**
 - **Chennakeshava Temple (Belur):** Commissioned by **King Vishnuvardhana** to celebrate victory over the Cholas; a "living" temple dedicated to Lord Vishnu.
 - **Hoysaleswara Temple (Halebidu):** A grand twin-temple dedicated to Shiva, featuring an "epic in stone" on its outer walls.
 - **Keshava Temple (Somanathapura):** A perfect **Trikuta** (three-shrine) model built by commander Somanatha Dandanayaka.
- **The Lesser-Known Gems:**
 - **Lakshmidevi Temple (Doddagaddavalli):** One of the earliest (1114 CE), built by merchant woman **Sahaja Devi**. It features a rare Mahakali sanctum with Tantric influences.

- **Panchalingeshwara Temple (Govindanhalli):** A rare **Panchakuta** design with five east-facing Shiva shrines aligned in a row.
- **Veera Narayana Temple (Belavadi):** Known for its massive **Rangamandapa** and sculptural harmony.
- **Hulikere Kalyani:** A sacred water tank (stepwell) where miniature shrines are symbolically linked to **zodiac signs** and *nakshatras*.
- **Jain Basadis (Halebidu):** Reflect a contrasting aesthetic of meditative stillness and clean lines, embodying Jain ideals of spiritual clarity.

3. The Hoysala Dynasty (1050–1300 A.D.)

- **Origin:** Initially feudatories of the **Western Chalukyas**, they rose to independent power under **Nripa Kama II**.
- **Capitals:** The capital was initially at **Belur** before shifting to **Dwarasamudra** (modern-day Halebidu).
- **Greatest Ruler: Vishnuvardhana (Bittideva)** expanded the kingdom and shifted his faith from Jainism to Vaishnavism under the influence of the saint **Ramanuja**.
- **Cultural Legacy:** The dynasty governed parts of Karnataka and Tamil Nadu for over three centuries, turning the region into a global center for arts and architecture.

Conclusion

The Hoysala temples represent the pinnacle of stone craftsmanship in medieval India. While the "Sacred Ensembles" are now globally protected, the discovery and promotion of regional sites like Koravangala and Javagal in 2026 reflect the immense depth of this architectural tradition. These temples are not just places of worship but lithic manuscripts that capture the social, religious, and artistic spirit of old Karnataka.

Rajaji Replaces Lutyens : A Symbolic Shift at Rashtrapati Bhavan



Why in News?

In **February 2026**, the Prime Minister announced during his *Mann Ki Baat* address that the bust of British architect **Edwin Lutyens** at Rashtrapati Bhavan would be replaced by a bust of **C. Rajagopalachari**. On **February 23, 2026**, President Droupadi Murmu unveiled the new bust at the Grand Open Staircase near Ashok Mandap. This initiative, part of the "**Rajaji Utsav**", is framed as a significant step toward "mental decolonization" and shedding the vestiges of the colonial mindset under the **Panch-Pran** vision.

1. C. Rajagopalachari (Rajaji)

- **About:** Chakravarti Rajagopalachari (1878–1972) was a towering freedom fighter, the **first and last Indian Governor-General** (1948–1950), and the first Indian occupant of Rashtrapati Bhavan as Head of State.
- **Key Roles in Freedom Struggle:**
 - Inspired by **Lokmanya Tilak**, he led the **Vedaranyam Salt Satyagraha** in 1930, mirroring Gandhi's Dandi March.
 - Served as the **Prime Minister of Madras Province (1937)**, where he introduced progressive land reforms and promoted Khadi.

- **C.R. Formula (1944):** Authored "The Way Out" to resolve the deadlock between the INC and the Muslim League, proposing a plebiscite in Muslim-majority districts after the transfer of power.
- **Post-Independence Leadership:**
 - Succeeded Sardar Patel as the **Union Home Minister** and served as the Chief Minister of Madras State.
 - Founded the **Swatantra Party (1959)**, advocating for a market-based economy and individual civil liberties.
- **Literary & Cultural Impact:** Retold the Ramayana (*Chakravarthi Thirumagan*), winning the **1958 Sahitya Akademi Award**. He was one of the first recipients of the **Bharat Ratna (1954)**.

2. Edwin Lutyens: The Architect of New Delhi

- **Contribution:** A renowned British architect who, alongside Sir Herbert Baker, designed the **Viceroy's House** (now Rashtrapati Bhavan), India Gate, and the North/South Blocks.
- **Legacy:** His hybrid style fused Western neoclassicism with Buddhist, Hindu, and Mughal motifs. The central administrative zone of the capital is popularly known as "**Lutyens' Delhi**."
- **The Shift:** While his architectural genius is preserved, his bust has been relocated to the **Rashtrapati Bhavan Museum** to make way for Indian national icons in the building's central ceremonial spaces.

3. Broad Reforms at Rashtrapati Bhavan (2024–2026)

The replacement of the Lutyens bust is part of a broader "Indianization" of the presidential estate:

- **Renaming Halls:** Durbar Hall and Ashok Hall were recently renamed **Ganatantra Mandap** and **Ashok Mandap**.
- **Amrit Udyan:** The Mughal Gardens was renamed **Amrit Udyan** in 2024.

- **Granth Kutir:** A new library established to house 2,300 ancient manuscripts and books in classical Indian languages, replacing colonial-era texts.
- **Param Vir Dirgha:** Corridors once lined with portraits of British officials now feature portraits of **Param Vir Chakra** awardees.

Conclusion

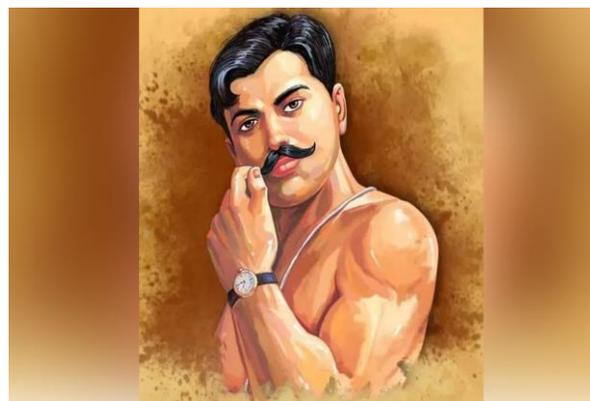
The 2026 "Rajaji Utsav" marks a definitive moment in reclaiming India's institutional memory. By placing Rajaji's bust directly opposite that of Mahatma Gandhi, the government is highlighting the "deep mutual trust" between the two leaders while emphasizing that Rashtrapati Bhavan is now a "**Lok Bhavan**" (House of the People) rooted in Indian civilization rather than imperial heritage.



CruX of The Hindu & Indian Express

↓ History, Art & Culture ↓

Chandra Shekhar Azad : Honoring the Revolutionary on his 95th Martyrdom Day



Why in News?

On **February 27, 2026**, India paid heartfelt tributes to the legendary revolutionary **Chandra Shekhar Azad** on his **95th martyrdom day**. Prime Minister Narendra Modi shared a Sanskrit *Subhashitam* to highlight

Azad's life lessons, remarking that the resolve to stand firm against injustice is the "essence of true prowess." In Madhya Pradesh, Chief Minister Dr. Mohan Yadav visited Azad's birthplace, **Bhabhra (now Chandrashekhar Azad Nagar)**, to announce the development of a grand "**Shahid Park**" (Martyr's Park) and a center for patriotic tourism.

1. The Legend of 'Azad'

- **Early Defiance:** Born as Chandra Shekhar Tiwari in **1906** (Alirajpur, MP), he joined Gandhi's **Non-Cooperation Movement** at just 15.
- **The Courtroom Declaration:** When arrested in 1921, he gave the British magistrate three answers that became immortal:
 - **Name:** Azad (Free)
 - **Father's Name:** Swatantra (Independence)
 - **Address:** Jail
- **Ideological Shift:** Following the withdrawal of the Non-Cooperation Movement in 1922, he transitioned toward **armed revolution**, believing that non-violence alone could not uproot colonial rule.

2. Revolutionary Leadership: HRA & HSRA

- **Hindustan Republican Army (HRA):** Azad joined the HRA under **Ram Prasad Bismil** and played a pivotal role in the **Kakori Train Action (1925)** to fund revolutionary activities.
- **Socialist Turn (HSRA):** In 1928, Azad and **Bhagat Singh** reorganized the group into the **Hindustan Socialist Republican Association (HSRA)** at Feroz Shah Kotla, Delhi. Under Azad as the **Commander-in-Chief**, the group adopted a socialist ideology.
- **Saunders Assassination (1928):** To avenge the death of **Lala Lajpat Rai**, Azad masterminded the assassination of British officer John Saunders in Lahore. He often used the pseudonym '**Balraj**' for official HSRA communications.

3. The Final Stand at Alfred Park (1931)

- **The Encounter:** On **February 27, 1931**, Azad was meeting a fellow revolutionary at **Alfred Park, Allahabad** (now Prayagraj), when they were surrounded by a large police force following a tip-off.
- **The Vow:** Despite being wounded, Azad fought a gun battle alone for over 40 minutes to ensure his comrade escaped. True to his vow that the British would never capture him alive, he shot himself with his **last remaining bullet**.
- **Legacy of the Park:** Alfred Park was later renamed **Chandra Shekhar Azad Park**. The tree behind which he took his final stand is revered as a sacred monument to Indian bravery.

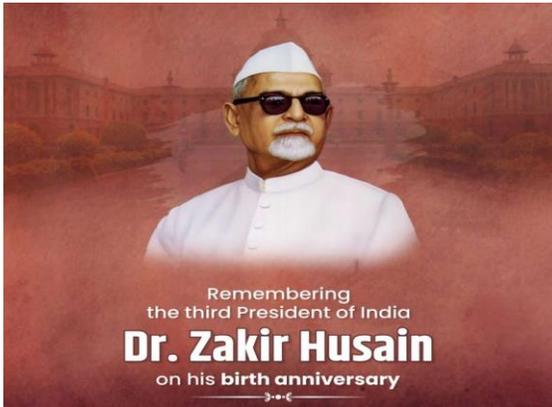
4. 2026 Memorial Developments

- **Grand Shaheed Park:** The Madhya Pradesh government announced a **171 crore** infrastructure boost for Alirajpur, which includes a world-class historical park at Azad's birthplace to preserve rare photographs and artifacts.
- **Patriotic Tourism:** The **Azad Kutiya** museum in MP is being expanded as a premier center for inspiration for youth, emphasizing his early life training in marksmanship with the local **Bhil tribal community**.

Conclusion

Chandra Shekhar Azad remains the ultimate symbol of **fearlessness** in the Indian independence movement. His 95th martyrdom day in 2026 highlights the enduring relevance of his sacrifice—not just as a military strategist, but as a man whose self-respect was so absolute that even the British Empire could not take him prisoner. His legacy continues to bridge the gap between regional tribal valor and the national struggle for a sovereign India.

Birth Anniversary of Dr. Zakir Husain: A Tribute to the Educationist President



Why in News?

On **8 February 2026**, the President of India, **Smt. Droupadi Murmu**, paid floral tributes to the former President of India, **Dr. Zakir Husain**, at Rashtrapati Bhavan on his birth anniversary. Leaders and citizens across the nation recalled his immense contribution as an eminent scholar, statesman, and a champion of constitutional values.

1. Who was Dr. Zakir Husain?

- **Background:** Born on **8 February 1897** in Hyderabad, he was a distinguished educationist and intellectual. He earned a PhD in Economics from the **University of Berlin** in 1926.
- **National Recognition:** In 1963, he was awarded the **Bharat Ratna**, India's highest civilian honor, for his lifelong dedication to public service and education. He was also a recipient of the **Padma Vibhushan** (1954).
- **3rd President of India:** He served as the President from 1967 to 1969.
 - He was the **first Muslim President** of India.
 - He remains the only President to have **passed away in office** (3 May 1969).

2. Contributions to Education and Nation Building

Dr. Zakir Husain believed that "Education is a prime instrument of national purpose."

- **Jamia Millia Islamia:** He was a founding member of the National Muslim University in Aligarh (1920), which later moved to Delhi and became **Jamia Millia Islamia**. He served as its Vice-Chancellor for 22 years (1926–1948).
- **Aligarh Muslim University (AMU):** He served as the Vice-Chancellor of AMU starting in 1948, where he worked to modernize the curriculum while keeping it rooted in Indian values.
- **Basic Education (Wardha Scheme):** At Mahatma Gandhi's request, he chaired the **National Committee on Basic Education** in 1937 to design a Gandhian syllabus for schools, emphasizing mother-tongue instruction and craft-based learning.
- **UNESCO:** Between 1956 and 1958, he served on the Executive Board of UNESCO, representing India's educational vision on the global stage.

3. Public Offices and Political Career

Before ascending to the Presidency, Dr. Husain held several high constitutional positions:

- **Rajya Sabha:** He was a nominated member of the Upper House from 1952 to 1957.
- **Governor of Bihar:** Served from 1957 to 1962.
- **Vice President of India:** Served as the 2nd Vice President from 1962 to 1967 under President Sarvepalli Radhakrishnan.

4. Philosophy and Legacy

- **Secularism:** His presidency symbolized India's deep commitment to a pluralistic ethos. He famously stated, "*The whole of Bharat is my home and its people are my family.*"
- **Democratic Values:** He was known for maintaining the moral authority of the highest office and ensuring that power was used only for "moral purposes."
- **Literary Work:** He was a prolific writer and translator, particularly of children's books and educational literature in Urdu.

Veer Savarkar : Remembering the Revolutionary on his 60th Death Anniversary

Why in News?

On **February 26, 2026**, the Prime Minister and other national leaders paid tributes to **Vinayak Damodar Savarkar** (Veer Savarkar) on his **60th death anniversary**. Savarkar passed away on February 26, 1966, in Mumbai after practicing *Atma-arpan* (fasting until death). The anniversary was marked by commemorative events at the **Savarkar Smarak** in Mumbai and cellular jail-themed exhibitions across various states to honor his contribution to the Indian freedom struggle.

1. Revolutionary Foundations

- **Secret Societies:** Influenced by the "Lal-Bal-Pal" trio, he founded the **Mitra Mela (1899)** in Nashik, which evolved into the revolutionary **Abhinav Bharat Society (1904)**.
- **London Years:** While studying law in London (1906), he established the **Free India Society** and became a key figure at **India House**, a revolutionary hub organized by Shyamji Krishna Varma.
- **The 1857 Narrative:** In 1909, he authored *The History of the War of Indian Independence*. He was the first to categorize the 1857 uprising as the "First War of Independence" rather than a mere "Sepoy Mutiny," a shift that significantly boosted nationalist morale.

2. Trials and "Kala Pani"

- **Nasik Conspiracy Case:** He was arrested in 1910 for his role in providing weapons used in the murder of Nashik Collector A.M.T. Jackson.
- **Escape at Marseilles:** While being extradited to India, he famously jumped through a porthole of the ship *SS Morea* at the port of **Marseilles, France**, in a daring attempt to seek asylum on French soil.

- **Cellular Jail (1911–1921):** He was sentenced to two life terms (50 years) and deported to the **Cellular Jail** in the Andaman Islands. After nearly a decade of rigorous imprisonment and the submission of several mercy petitions, he was moved to mainland India and released under restrictions in **1924**.

3. Ideology and Political Career

- **Hindutva:** While interned in Ratnagiri (1923), he authored *Hindutva: Who is a Hindu?*. He defined a Hindu as someone who considers India both their Fatherland (*Pitrubhu*) and Holyland (*Punyabhu*), emphasizing a cultural and civilizational identity.
- **Hindu Mahasabha:** He served as the **President of the Hindu Mahasabha (1937–1943)**. He advocated for a strong, militarized Hindu society and was critical of the Congress's approach to partition and the Quit India Movement.

4. Social Reform and Modernism

- **Caste Abolition:** Savarkar was a rationalist who fiercely opposed the caste system. He identified **"Seven Shackles" (Bandi)** that hindered Hindu society, including prohibitions on inter-dining and inter-caste marriage.
- **Patit Pavan Mandir:** In 1931, he established the **Patit Pavan Mandir** in Ratnagiri, which was open to all castes, including Dalits, a revolutionary move for its time.
- **Scientific Temper:** He advocated for the use of modern science and technology, famously urging Hindus to abandon superstitious beliefs to progress as a nation.

Conclusion

Veer Savarkar remains one of the most debated and influential figures in Indian history. While his political ideologies continue to shape the contemporary socio-political landscape of India, his role as a revolutionary who endured over a decade of the brutal "Kala Pani" punishment remains a foundational chapter of the Indian freedom movement. His 60th death anniversary in 2026 reaffirms his position as a central icon of "Swadeshi" and national self-respect.

Michelangelo Sketch Sold for ₹ 206 Crore



Why in News?

A red chalk sketch made by **Michelangelo** was sold for **£16.9 million (around ₹206 crore)** at auction.

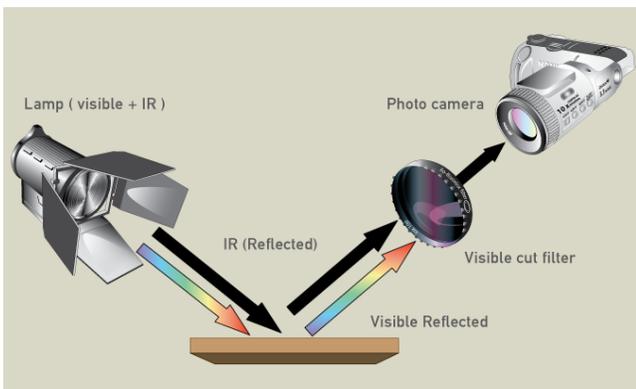
- Sold by: **Christie's**
- Type of artwork: Study of a human foot
- Period: Around 1511–1512

It is believed to be a preparatory drawing for the Sistine Chapel ceiling.

Link with Sistine Chapel

- The drawing is connected to the “Libyan Sibyl” figure painted on the ceiling of the **Sistine Chapel**.
- The Sistine Chapel is located in Vatican City and is one of the most important centres of Renaissance art.

Technique Used for Authentication



Experts used **infrared reflectography**.

- It helps detect hidden drawings beneath the surface.
- Hidden sketches were found on the reverse side.
- Compared with original works at the **Metropolitan Museum of Art**.

Conclusion: The drawing is likely original.

About Michelangelo :

- Lived: 1475–1564
- Nationality: Italian
- Period: Renaissance

Fields

- Sculptor
- Painter
- Architect
- Poet

Main Centres of Work

- Florence
- Rome

Major Patrons

- Medici family (Florence)
- Pope Julius II

Famous Works

1. Statue of David (Florence)
2. Ceiling of the Sistine Chapel
3. Dome of Saint Peter’s Basilica (Rome)

He mainly worked in marble sculpture.

Financial Status

- Not a poor artist.
- At death (1564), estate worth about 50,000 florins.
- Considered one of the richest Renaissance artists.

Other Record Art Sales :

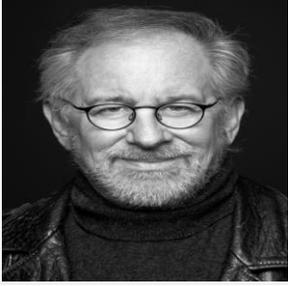
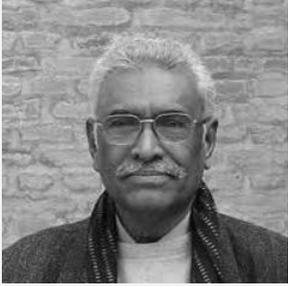
- **Leonardo da Vinci** : A painting attributed to **Leonardo da Vinci** was sold in 2017 for \$450 million.



PERSONS IN NEWS

Name	Designation / Field	Key Context / Reason for News (Feb 2026)
<p style="color: #663399; font-weight: bold;">Narendra Modi</p> 	Prime Minister of India	Awarded the Speaker of the Knesset Medal on Feb 25; first Indian leader to address the Israeli Parliament.
<p style="color: #663399; font-weight: bold;">Rob Jetten</p> 	Prime Minister (Netherlands)	Sworn in on Feb 23 as the youngest PM in Dutch history (38) and the first openly gay leader.
<p style="color: #663399; font-weight: bold;">Sanae Takaichi</p> 	Prime Minister (Japan)	Led the LDP to a landslide victory on Feb 8, securing a supermajority (316/465 seats) in the lower house.
<p style="color: #663399; font-weight: bold;">Yumnam Khemchand Singh</p> 	Chief Minister (Manipur)	Sworn in on Feb 4 following the revocation of President's Rule (which was imposed in Feb 2025).
<p style="color: #663399; font-weight: bold;">Mia Mottley</p> 	Prime Minister (Barbados)	Officially began a new term in February 2026 following successful general elections.

<p>Nidhi Chhibber</p> 	<p>CEO, NITI Aayog</p>	<p>Appointed as Interim CEO (additional charge) on Feb 24, succeeding B.V.R. Subrahmanyam.</p>
<p>Uday Kotak</p> 	<p>Chairman, GIFT City</p>	<p>Appointed as Chairman of Gujarat International Finance Tec-City on Feb 13, succeeding Dr. Hasmukh Adhia.</p>
<p>Divakar Jayant</p> 	<p>Director General</p>	<p>Divakar Jayant, a 1991-batch Indian Naval Armament Service (INAS) officer, served as the Director General of Naval Armament (DGONA) from February 2, 2026, to February 28, 2026. He succeeded P. Upadhyay and was succeeded by B.P. Singh upon his superannuation.</p>
<p>Thanya C. Nathan</p> 	<p>Judiciary</p>	<p>Ranked 1st in Kerala Judicial Service (results Feb 9); India's first visually challenged woman judge.</p>
<p>Rashid Khan</p> 	<p>Athlete (Cricket)</p>	<p>First bowler in history to take 700 T20 wickets (achieved Feb 16 during T20 WC match vs UAE).</p>
<p>Harmanpreet Kaur</p> 	<p>Athlete (Cricket)</p>	<p>Awarded the Padma Shri (Feb 2026) and became the most-capped woman cricketer in history.</p>
<p>Smriti Mandhana</p> 	<p>Athlete (Cricket)</p>	<p>Honoured as the BBC Indian Sportswoman of the Year 2025 in a ceremony held in Feb 2026.</p>

<p>Sachin Tendulkar</p> 	<p>Sports / Advocacy</p>	<p>Formally named the UN Global Road Safety Champion by the UN Special Envoy in February.</p>
<p>Dalai Lama</p> 	<p>Spiritual Leader</p>	<p>Won a Grammy Award for Best Audiobook/Narration ("<i>Meditations</i>") on Feb 1, 2026.</p>
<p>Steven Spielberg</p> 	<p>Filmmaker</p>	<p>Achieved EGOT status on Feb 1, 2026, after winning his first Grammy for <i>Music by John Williams</i>.</p>
<p>Ali Khamenei</p> 	<p>Supreme Leader (Iran)</p>	<p>Killed on Feb 28, 2026, during a strategic military strike in Tehran; 40 days of mourning declared.</p>
<p>T.K. Oommen</p> 	<p>Sociologist</p>	<p>Padma Bhushan awardee and leading sociologist; passed away at 88 in Gurgaon on Feb 26.</p>
<p>Mukul Roy</p> 	<p>Political Leader</p>	<p>Former Union Railway Minister and TMC veteran; passed away at 71 on Feb 23.</p>