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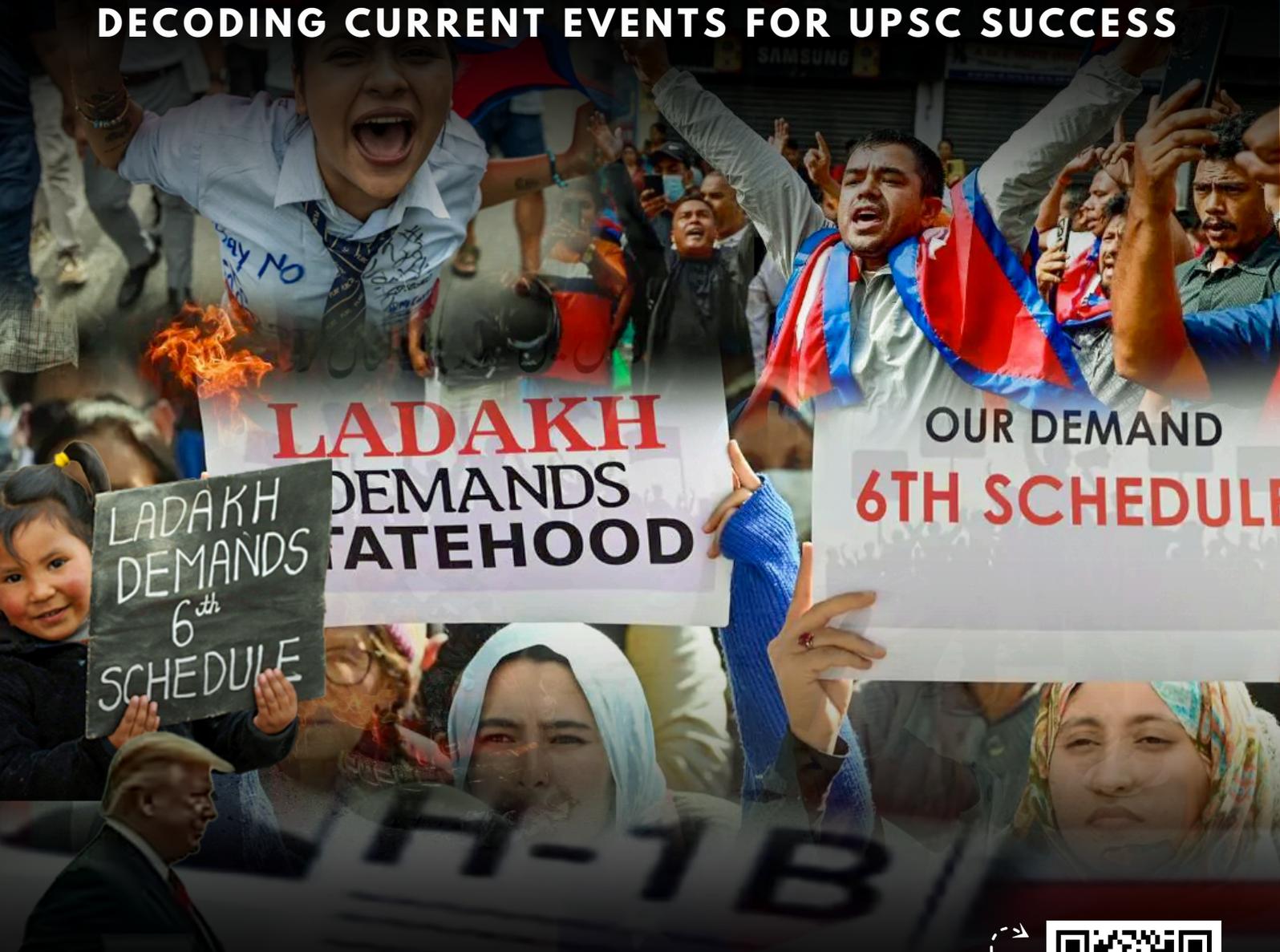
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THE EDGE

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DECODING CURRENT EVENTS FOR UPSC SUCCESS



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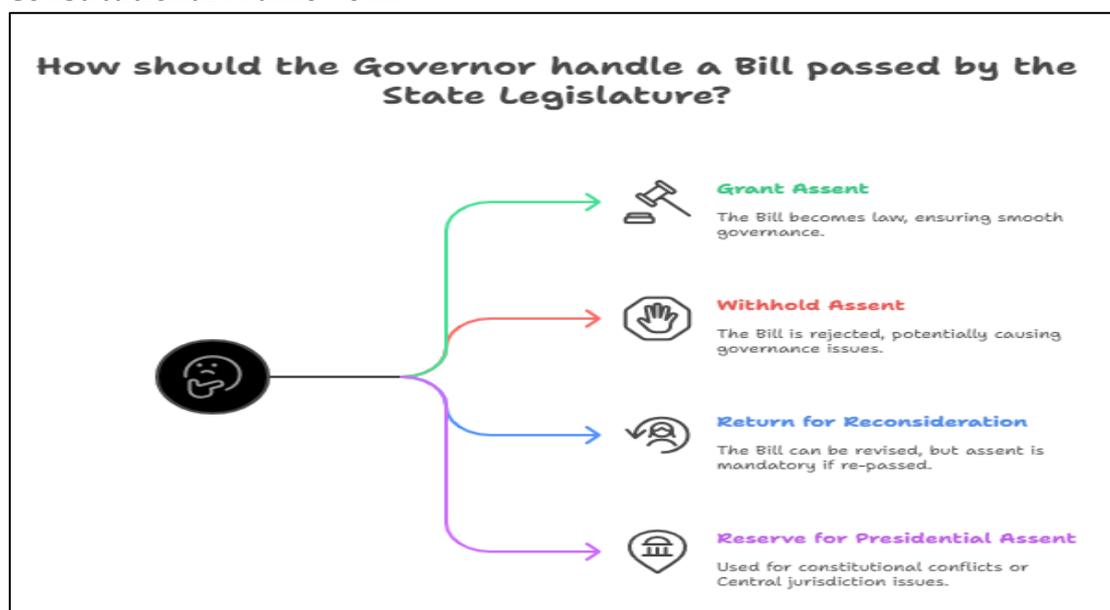
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CONSTITUTION, POLITY & GOVERNANCE

1. Governors as 'Guides and Philosophers' to the States

Context: Chief Justice of India B.R. Gavai recently observed that Governors should function as "true guides and philosophers" to State governments, ensuring smooth governance and upholding constitutional propriety.

Constitutional Framework



- **Article 200:** When a Bill is passed by the State Legislature, the Governor can —
 - ✓ Grant Assent – The Bill becomes law.
 - ✓ Withhold Assent – The Bill is rejected.
 - ✓ Return for Reconsideration – The Bill can be sent back once; if re-passed, assent is mandatory.
 - ✓ Reserve for Presidential Assent – For issues involving constitutional conflicts or affecting Central jurisdiction.
- **Article 201:** If reserved for the President, assent can be granted, withheld, or sent for reconsideration.

Concerns

- **Ambiguity in timelines:** The phrase "as soon as possible" has led to indefinite delays in several States.
- **Governors' inaction:** Cases in Kerala, Tamil Nadu, Telangana, Punjab, and West Bengal highlight prolonged pendency of Bills (7–23 months).
- **Erosion of federal balance:** Use of the 'pocket veto' undermines the mandate of elected governments.

Judicial Interventions

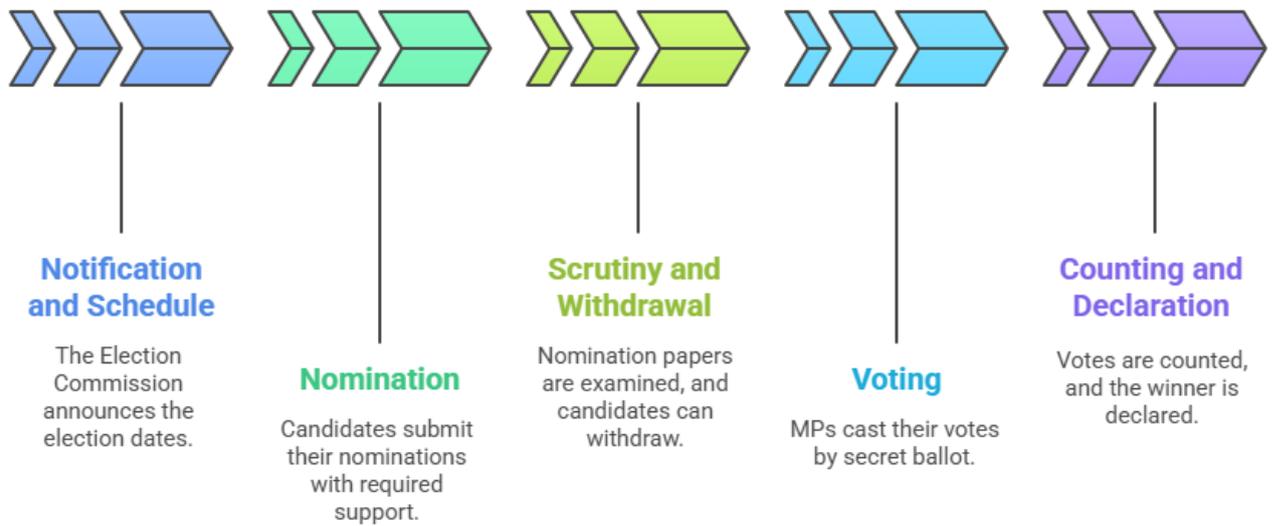
- **Shamsher Singh (1974):** Governors must act on the advice of the Council of Ministers.
- **Rameshwar Prasad (2006):** Refusal of assent can be judicially reviewed.
- **Nabam Rebia (2016):** Discretionary powers of Governors are limited and subject to review.
- **Punjab Case (2023):** Governors cannot obstruct legislative processes.

2. C.P. Radhakrishnan Elected as the 15th Vice-President of India

Context: C.P. Radhakrishnan has been elected as the 15th Vice-President of India, succeeding Jagdeep Dhankhar.

About the Office of the Vice-President

Election Process of the Vice President of India



- The Vice-President of India, established under Article 63, holds the second-highest constitutional office after the President.
- As per Article 64, the Vice-President serves as the ex officio Chairman of the Rajya Sabha.
- Under Article 65, they act as the President in case of vacancy or incapacity of the President.

Election and Tenure

- The Vice-President is elected under Article 66 by an Electoral College consisting of members of both Houses of Parliament (including nominated members).
- Election follows proportional representation by a single transferable vote (STV) through a secret ballot.
- **Term:** 5 years, eligible for re-election.
- **Must be:**
 - ✓ Indian citizen,
 - ✓ 35 years or older,
 - ✓ Qualified to be a Rajya Sabha member,
 - ✓ Not holding any office of profit.
- Can resign to the President or be removed by a resolution of the Rajya Sabha, agreed to by the Lok Sabha.

Functions and Powers

- Presides over Rajya Sabha sessions, maintaining order and discipline.
- Acts as President during temporary or permanent vacancy in the post.
- Enjoys the same privileges, immunities, and emoluments as the President during such tenure.

Salary and Benefits

- Salary: ₹4 lakh per month (revised in 2018).
- Pension: 50% of salary under the Vice-President's Pension Act, 1997.
- Entitled to rent-free residence, medical facilities, travel allowances, and secretarial support post-retirement.

3. Beta Version of "Adi Vaani" Launched

Context: The Ministry of Tribal Affairs has launched the beta version of "Adi Vaani", India's first AI-powered translation tool for tribal languages, aimed at preserving and promoting India's rich linguistic diversity.

About Adi Vaani

- Adi Vaani is an AI-driven translation platform developed to support the creation of a Large Language Model (LLM) for tribal languages.
- The initiative combines artificial intelligence with community participation to preserve, digitize, and revive endangered tribal languages.
- Developed under the “Janjatiya Gaurav Varsh” initiative, the tool currently supports:
 - ✓ Santali (Odisha)
 - ✓ Bhili (Madhya Pradesh)
 - ✓ Mundari (Jharkhand)
 - ✓ Gondi (Chhattisgarh)
- Upcoming phases will include Kui (Odisha) and Garo (Meghalaya, Assam, Tripura) languages.

Developing Institutions

- The project was developed by a consortium led by IIT Delhi, in collaboration with BITS Pilani, IIIT Naya Raipur, and Tribal Research Institutes (TRIs) across Jharkhand, Odisha, Madhya Pradesh, Chhattisgarh, and Meghalaya.

Key Features

- **Multilingual Translation:** Enables translation between Hindi, English, and selected tribal languages.
- **Digitisation of Tribal Knowledge:** Uses AI and Optical Character Recognition (OCR) to preserve folklore, literature, and educational content.
- **Community-Centric Development:** Over 250 native speakers, educators, and community leaders contributed to data collection and corpus creation.
- **Educational Integration:**
 - ✓ Includes tribal language primers for foundational education.
 - ✓ Supported by NCERT and the Central Institute of Indian Languages (CIIL) for 117 languages, including 89 tribal ones.

Impact

- According to the Ministry of Tribal Affairs, Adi Vaani will:
 - ✓ Improve educational access for tribal students through local-language learning materials.
 - ✓ Facilitate administrative outreach in tribal regions.
 - ✓ Strengthen digital inclusion and community participation in language preservation.

4. The Immigration and Foreigners Act, 2025

Context: The Immigration and Foreigners Act, 2025 has come into effect, marking a major reform in India’s immigration management and foreigner regulation system.

About the Act

- The new legislation provides the Central Government with powers to regulate the entry, stay, movement, and exit of foreigners in India.
- It replaces four colonial and post-independence laws:
 - ✓ Passport (Entry into India) Act, 1920
 - ✓ Registration of Foreigners Act, 1939
 - ✓ Foreigners Act, 1946
 - ✓ Immigration (Carriers’ Liability) Act, 2000
- This consolidation creates a single, unified legal framework aligned with present-day security, administrative, and digital governance needs.

Key Provisions

- **Immigration Posts:** The Central Government may designate specific posts for the legal entry and exit of foreigners.
- **Bureau of Immigration:** Establishes a statutory Bureau of Immigration to manage visa issuance, immigration clearance, and regulation of foreigners’ stay and movement.

- **Registration of Foreigners:** Requires all foreigners to register with the designated officer upon arrival in India.
- **Reporting Obligations:** Mandates information sharing by airlines, shipping companies, educational institutions (admitting foreign students), and hospitals (treating foreign patients).
- **Offences and Penalties:**
 - ✓ Entry without valid documents: imprisonment up to 5 years or fine up to ₹5 lakh.
 - ✓ Fraudulent entry, exit, or stay using forged documents: imprisonment up to 7 years and fine up to ₹10 lakh.
- **Power of Arrest:** Authorizes police officers of rank Head Constable and above to arrest foreigners without warrant.
- **Control of Premises:** Civil authorities may order closure or restrict entry of foreigners into certain premises for public safety.

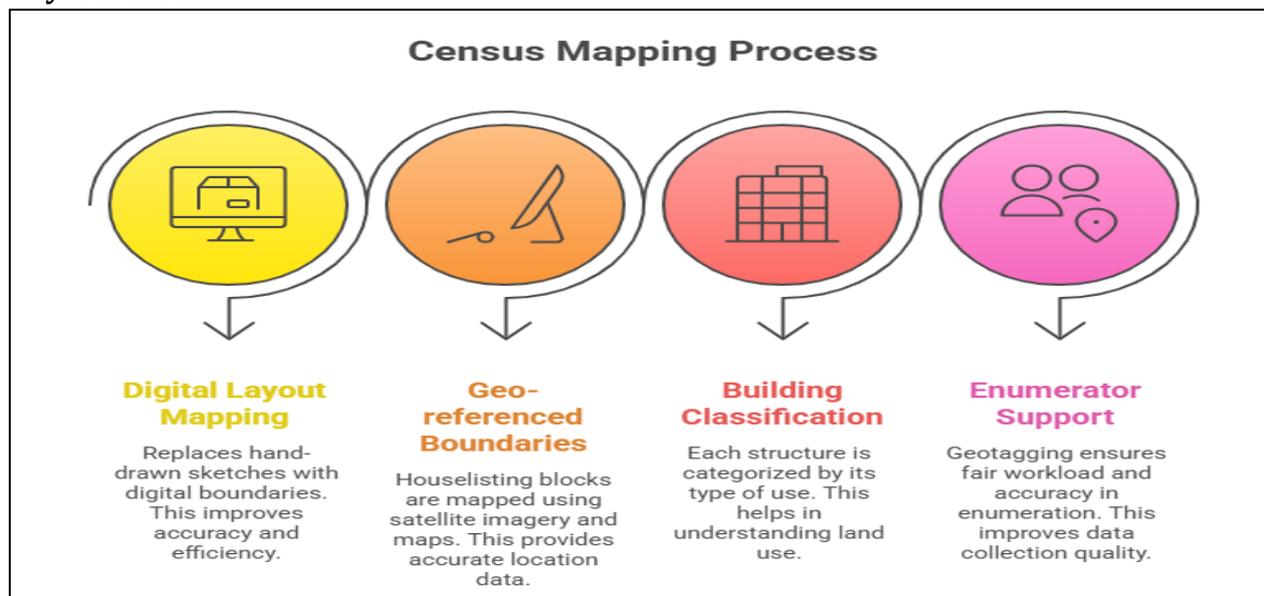
5. Buildings to be Geo-tagged in Census 2027

Context: India's upcoming Census 2027 will be the country's first fully digital enumeration, featuring geo-tagging of over 33 crore buildings—both residential and non-residential. This marks a major shift from traditional manual mapping to Digital Layout Mapping (DLM) using Geographical Information System (GIS) coordinates.

About the Initiative

- Geo-tagging involves assigning each building a unique latitude–longitude coordinate on a GIS map, providing precise spatial identification.
- Conducted during the Houselisting Operations (HLO) phase in 2026, enumerators will use smartphone-based applications to capture data and location points of every building.
- The Population Enumeration phase will follow in February 2027 to record demographic and socioeconomic details.
- The new Census Monitoring & Management System (CMMS) will allow real-time tracking of data collection and ensure greater transparency.

Key Features



- **Digital Layout Mapping (DLM):** Replaces earlier hand-drawn sketches with digital block boundaries.
- **Geo-referenced Boundaries:** Houselisting blocks will be mapped using satellite imagery and administrative maps.
- **Building Classification:** Each structure will be categorized as residential, non-residential, partly residential, or landmark.

- **Enumerator Support:** Geotagging ensures equitable workload distribution and accuracy in enumeration.

Definition Corner

- **Houselisting Block (HLB):** A clearly demarcated area in a village or town ward used for census operations.
- **Household:** A group of people normally living together and sharing meals from a common kitchen (Census 2011 definition).

Significance & Benefits

- **Accuracy & Transparency:** Eliminates duplication and ensures every building is accounted for.
- **Efficient Governance:** Creates a reliable spatial database to aid in urban planning, infrastructure creation, and welfare targeting.
- **Data-Driven Policy Making:** Facilitates accurate assessment of housing, amenities, and demographic spread.
- **Ease of Monitoring:** Real-time data through CMMS enables prompt oversight and verification.
- **Continuity with Existing Systems:** Builds on prior use of geotagging under schemes like Pradhan Mantri Awaas Yojana (PMAY).

6. Supreme Court Urges Guidelines to Regulate Social Media

Context: The Supreme Court of India has advised the Union government to frame guidelines for regulating social media platforms, emphasizing that influencers and content creators monetizing free speech can inadvertently harm vulnerable groups. The Court directed that the National Broadcasters and Digital Association (NBDA) be consulted in drafting these norms.

Constitutional Framework

- Article 19(1)(a) guarantees the Right to Freedom of Speech and Expression.
- Article 19(2) allows reasonable restrictions on speech in the interests of:
 - ✓ Security of the State
 - ✓ Public Order
 - ✓ Decency or Morality
 - ✓ Contempt of Court
 - ✓ Defamation
 - ✓ Incitement to Offense
- **Right to Take Offense:** Offensive speech is not recognized as a constitutional right, and protections do not extend to feelings of hurt or offence.
- **Constitutional Morality:** A dynamic concept that evolves over time and must be nurtured through laws and governance.

Need for Regulating Digital/Commercial Speech

- **Protecting Vulnerable Groups:** Derogatory content targeting women, minorities, or persons with disabilities perpetuates stigma and discrimination.
- **Accountability of Influencers:** Monetized content has commercial stakes; thus, influencers' speech is a public service with responsibility proportional to their reach.
- **Preventing Harm and Disorder:** Fake news, hate speech, or offensive humor can trigger violence or social unrest. Reasonable limits can prevent escalation.
- **Global Alignment:** EU's Digital Services Act and UK's Online Safety Act regulate harmful online content; India seeks similar safeguards.

7. Recusals by Judges

Context: Recently, a Supreme Court judge recused from a bail case after multiple adjournments without providing an explanation, highlighting concerns over transparency in judicial recusals.

What is Recusal?

- **Definition:** Voluntary withdrawal of a judge from a case due to a potential conflict of interest or bias.
- **Purpose:**
 - ✓ Maintain judicial independence and impartiality
 - ✓ Uphold public confidence in fairness
 - ✓ Follow the principle: “Justice must not only be done, but also be seen to be done.”

Position in India

- No formal codified rules exist; judges may recuse without giving reasons.
- **Two types:**
 - ✓ **Automatic recusal:** Judge withdraws voluntarily.
 - ✓ **Plea for recusal:** Party requests withdrawal citing possible bias.
- Upon recusal, the case is reassigned by the Chief Justice.

Key Judgments:

- **Ranjit Thakur v. Union of India (1987):** “Reasonable apprehension of bias” is sufficient.
- **State of West Bengal v. Shivananda Pathak (1998):** Bias undermines fairness.
- **Supreme Court Advocates-on-Record Association v. Union of India (2015):** Pecuniary interest alone mandates recusal.

Global Practices

- **USA:** Title 28, U.S. Code specifies grounds—financial interest, prior involvement, or relation to a party.
- **UK:** R v. Gough established the “real danger” test; recusal requires tangible evidence of bias.

8. Aadhaar Can Be Used for Special Intensive Revision of Electoral Rolls

Context: The Supreme Court has directed the Election Commission of India (ECI) to accept Aadhaar as a valid identity document for the ongoing Special Intensive Revision (SIR) of electoral rolls in Bihar, ahead of upcoming Assembly elections.

About SIR in Bihar

- A house-to-house exercise to update electoral rolls under Section 21 of the Representation of the People Act, 1950.
- Requires voters to submit proof of identity and citizenship.
- Previously, 11 documents were accepted for verification; Aadhaar adds flexibility, especially for voters enrolled after 2003.
- Note: Aadhaar does not establish citizenship.

About Aadhaar

- Launched in 2009; statutory backing via Aadhaar Act, 2016.
- Managed by UIDAI, captures biometric and demographic data for over 1.3 billion residents.
- Recognized globally as the largest biometric ID system.

Supreme Court Judgments on Aadhaar

- **Right to Privacy (2017):** Privacy is a fundamental right under Article 21, setting limits on Aadhaar usage.
- **Aadhaar Verdict (2018):**
 - ✓ Valid for welfare schemes and subsidies.
 - ✓ Cannot be mandatory for bank accounts, SIM cards, or school admissions.
 - ✓ Does not prove citizenship or date of birth.

9. National Scheduled Tribe Finance and Development Corporation (NSTFDC)

Context: Coal India Limited (CIL) and the National Scheduled Tribe Finance and Development Corporation (NSTFDC) have signed an MoU to support tribal students studying in Eklavya Model Residential Schools (EMRSs) through targeted empowerment initiatives.

About NSTFDC

- **Established:** 2001
- **Parent Ministry:** Union Ministry of Tribal Affairs
- **Objective:** To promote the socio-economic and educational development of Scheduled Tribes (STs) by facilitating self-employment and entrepreneurship.
- **Functions:**
 - ✓ Provides financial assistance at concessional rates for income-generating activities.
 - ✓ Offers grants and support for skill development and vocational training to enhance employability among tribal youth.
 - ✓ Collaborates with public and private entities to ensure inclusive economic growth of tribal communities.

10. Scope of Social Security to Expand with SPREE-2025 and AMNESTY Scheme

Context: The Employees' State Insurance Corporation (ESIC) has launched two major initiatives — SPREE-2025 and the AMNESTY Scheme-2025 — to broaden social security coverage and ease compliance for employers and industries.

SPREE-2025 (Scheme for Promoting Registration of Employers and Employees)

- **Duration:** Active till 31st December 2025
- **Objective:** To bring unregistered industries and workers under the Employees' State Insurance (ESI) framework.
- **Key Features:**
 - ✓ Enables enrollment via ESI Portal, Shram Suvidha Portal, or Company Affairs Portal.
 - ✓ Exemption from past dues or penalties for employers registering under the scheme.
 - ✓ Employees will receive ESI benefits from the date of registration.
 - ✓ Encourages voluntary compliance, reducing litigation and strengthening employer-employee trust.

AMNESTY Scheme-2025

- **Duration:** 1st October 2025 – 30th September 2026
- **Purpose:** A one-time dispute resolution measure to settle pending legal cases under the ESI Act.
- **Features:**
 - ✓ Allows out-of-court settlements between ESIC and employers.
 - ✓ Seeks to reduce backlog of court cases and enhance compliance culture among industries.

11. 11th Commonwealth Parliamentary Association (CPA) India Region Conference

Context: Lok Sabha Speaker Om Birla inaugurated the 11th Commonwealth Parliamentary Association (CPA) India Region Conference in Bengaluru, underscoring India's active engagement in strengthening parliamentary democracy within the Commonwealth.

About Commonwealth Parliamentary Association (CPA)

- **Founded:** 1911 as the Empire Parliamentary Association, renamed CPA in 1948.
- **Objective:**
 - ✓ Promote parliamentary democracy among member legislatures.
 - ✓ Foster good governance, transparency, and accountability.
 - ✓ Provide a platform for exchange of experiences and best practices in legislative functioning.
- **Headquarters:** London, United Kingdom.

- **Membership:** Over 180 legislatures across 55 Commonwealth countries.
- **India's Role:** India has been an active member since independence, participating in CPA initiatives, conferences, and capacity-building programs.

12. Supreme Court Upholds Waqf (Amendment) Act, 2025

Context: The Supreme Court of India upheld the Waqf (Amendment) Act, 2025, while striking down or modifying certain provisions, aiming to balance state regulation with the autonomy of minority religious institutions.

Understanding Waqf

- **Definition:** Property dedicated for religious or charitable purposes under Islamic law; ownership transfers from the donor (wakif) to Allah and is managed by a mutawalli.
- **Origin:** Dates back to the Delhi Sultanate; formal legal protections came through the Mussalman Waqf Validating Act, 1913.
- **Constitutional Framework:** Religious and charitable institutions fall under the Concurrent List, enabling both Parliament and State Legislatures to legislate.

Key Features of the Waqf (Amendment) Act, 2025

- **Central Waqf Council:**
 - ✓ Ex-officio chair: Union Minister in-charge.
 - ✓ Members include MPs, retired judges, eminent scholars; non-Muslim representation mandated, previously removed restrictions on religion for members.
 - ✓ SC capped non-Muslims to 4 out of 22 members.
- **State Waqf Boards:**
 - ✓ Includes Shia, Sunni, Backward Muslim classes, and 2 Muslim women members.
 - ✓ SC capped non-Muslims at 3 out of 11 members.
- **Tribunals & Appeals:**
 - ✓ Tribunal composition simplified; appeals allowed to High Court within 90 days.
- **Survey & Ownership:**
 - ✓ District Collector or senior officers oversee property surveys.
 - ✓ Government property mistakenly claimed as waqf will revert to the state.
- **Audits & Digitalisation:**
 - ✓ Waqf institutions earning over ₹1 lakh subject to state audits.
 - ✓ A centralized portal introduced for transparency and efficient management.
- **Property Dedication & Women's Inheritance:**
 - ✓ Practicing Muslims (≥5 years) can dedicate property to Waqf.
 - ✓ Women's inheritance prioritized before Waqf declaration; special provisions for widows, divorced women, and orphans.

Supreme Court Interventions

- **Practicing Islam Requirement:** Section 3(r) stayed until rules are framed.
- **Collector's Power:** SC restrained premature dispossession of Waqf properties.
- **Representation Limits:** Ensured balance between transparency and minority autonomy.
- **"Waqf by User":** Deletion upheld prospectively; pre-April 2025 properties remain protected.
- **Protected Monuments & ST Properties:** SC upheld provisions voiding Waqf status for these.

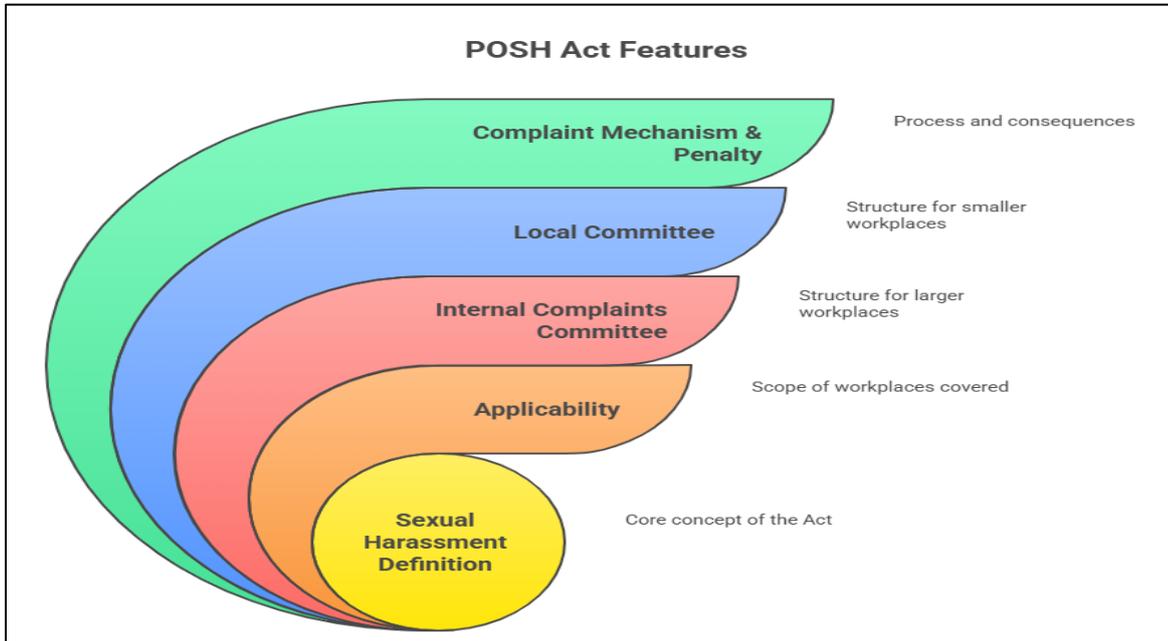
13. SC Declines to Extend POSH Act to Political Parties

Context: The Supreme Court of India recently rejected a plea seeking to bring political parties under the Protection of Women from Sexual Harassment (POSH) Act, 2013, observing that political parties cannot be classified as workplaces under the law.

Background

- In *Centre for Constitutional Rights Research & Advocacy v. State of Kerala (2022)*, the Kerala High Court held that political parties lack a conventional employer-employee relationship, and are not obligated to constitute Internal Complaints Committees (ICCs).
- The decentralized and informal nature of political party structures has led to non-compliance with POSH provisions.

Key Features of the POSH Act, 2013



- **Definition:** Sexual harassment includes unwelcome acts like physical contact, sexual advances, sexually coloured remarks, showing pornography, and other unwelcome conduct of a sexual nature.
- **Applicability:** Covers all workplaces, organized and unorganized sectors, public and private organizations.
- **Internal Complaints Committee (ICC):**
 - ✓ Required in offices with ≥ 10 employees.
 - ✓ Headed by a woman with at least two women employees, one other employee, and a third-party member (NGO or expert).
- **Local Committee (LC):** For workplaces with < 10 employees.
- **Complaint Mechanism:** Written complaint within 3–6 months; resolution via conciliation or formal inquiry.
- **Annual Reporting & Penalty:** Employers must submit annual reports; non-compliance attracts fines up to ₹50,000 (higher for repeat offences).

14. CAG to Deploy AI-Powered Auditing System

Context: The Comptroller and Auditor General of India (CAG) is set to introduce an AI-powered Large Language Model (LLM) to enhance efficiency, transparency, and consistency in public auditing.

Why Digital Auditing is Needed

- Rising volume and complexity of government transactions make traditional audits slow and resource-heavy.
- Most departments now generate vast digital records that remain under-utilized.
- Remote and hybrid audits can help focus field efforts on high-risk areas while reducing costs.

What is a Large Language Model (LLM)?

- A Large Language Model is an AI algorithm that uses deep learning on vast datasets to understand, analyze, and generate human-like text.

- It can summarize data, detect patterns, and support decision-making with minimal human intervention.

Benefits of AI-Enabled Auditing

- **Efficiency:** Automates data analysis and evidence collection.
- **Consistency:** Uses past reports for standardization across audit teams.
- **Enhanced Risk Detection:** Identifies anomalies and high-risk transactions.
- **Wider Coverage:** Enables audits without extensive travel.
- **Faster Resolution:** Digital portal for quicker feedback and follow-up.

Key Initiatives So Far

- Remote audits in GST and Telangana's Stamps & Registration Department.
- Hybrid audits in Haryana's Public Works Department.
- CAG-Connect Portal integrating ~10 lakh auditee entities.
- Virtual Audit System in West Bengal for paperless PRI certification

15. National Awards for e-Governance (NAeG) 2025

Context: Gram Panchayats across India were honoured with the National Awards for e-Governance (NAeG) 2025, recognising outstanding digital initiatives at the grassroots level.

About the Awards

- **Organised by:** Ministry of Personnel, Public Grievances and Pensions (MoPPGP) in collaboration with the Ministry of Panchayati Raj (MoPR).
- **New Category:** Introduced exclusively for Gram Panchayats to acknowledge innovations in digital service delivery.
- **Incentives:**
 - ✓ Gold Award: ₹10 lakh
 - ✓ Silver Award: ₹5 lakh
 - ✓ (Funds to be reinvested in citizen-centric digital projects.)
- **Objective:** To promote Digital Governance as a key enabler of Good Governance and enhance public service delivery at the village level.

16. Ladakh Statehood Protests

Context: Violent protests have erupted in Ladakh, with youth demanding statehood and inclusion under the Sixth Schedule, leaving four dead and several injured.

Background

- In August 2019, Ladakh was carved out of Jammu & Kashmir and made a Union Territory (UT) without a legislature.
- Initially welcomed, the move later sparked resentment due to loss of political representation and fears of cultural dilution.
- Two major groups — Leh Apex Body (LAB) and Kargil Democratic Alliance (KDA) — have united across communities to voice regional concerns.

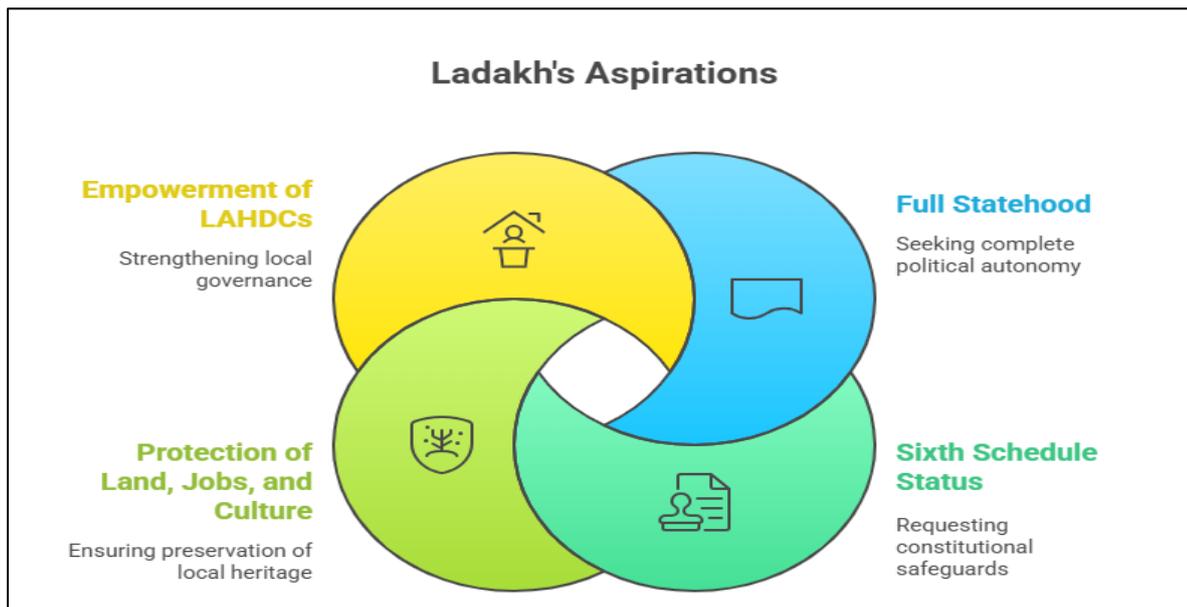
Key Issues

- **Absence of Legislative Power:** Ladakh lacks a local assembly; LAHDCs (Leh & Kargil) have limited powers.
- **Demographic & Cultural Fears:** Locals fear ecological imbalance and loss of identity from outside investments and mega-projects.
- **Land & Employment Rights:** Demand for a Ladakh Resident Certificate to safeguard land ownership and job opportunities, akin to protections under Article 35A.

Core Demands

- Full Statehood for Ladakh

- Sixth Schedule status for constitutional safeguards
- Protection of land, jobs, and culture
- Empowerment of LAHDCs



Government Response

- High-Powered Committee (HPC): Formed by the MHA to consult LAB & KDA and explore constitutional safeguards.
- NCST Recommendation: Advocated Sixth Schedule inclusion, noting Ladakh's 97% Scheduled Tribe population.
- **Job Reservation:**
 - ✓ 85% reservation for Ladakh residents in government jobs (80% for STs, 4% for border residents, 1% SC, 10% EWS).
- **Regulatory Amendments (2025):**
 - ✓ Ladakh Reservation Regulation
 - ✓ Civil Services & Recruitment Regulation
 - ✓ Official Languages Regulation
 - ✓ LAHDCs (Amendment) Regulation
- Women's Representation: One-third seats in LAHDCs reserved for women on a rotational basis.

Geographical Context

- Terrain: High-altitude cold desert in the Himalayas' rain shadow.
- Ranges: Zaskar, Ladakh, Karakoram.
- Major Rivers: Indus, Nubra, Shyok, Zaskar.
- Borders: China (N & E), PoK (NW), Afghanistan.
- Significance: Second largest district in India after Kutch; lies in Seismic Zone IV (high earthquake risk).

INTERNATIONAL RELATIONS

1. India, China Pledge Cooperation at SCO Summit

Context: At the 25th Shanghai Cooperation Organisation (SCO) Summit in Tianjin, Prime Minister Narendra Modi and Chinese President Xi Jinping held the first structured bilateral meeting in seven years, signalling a cautious thaw in relations post-Galwan (2020). The leaders reaffirmed

that India and China are development partners, not rivals, marking a symbolic reset in the 75th year of diplomatic ties.

Key Outcomes of the SCO Summit

- **High-Level Engagement:** Both leaders welcomed the positive momentum in ties, emphasising that differences must not escalate into disputes.
- **Border Peace:** Acknowledged successful disengagement along the LAC in 2024 and reaffirmed commitment to maintain peace and stability through military and diplomatic channels.
- **People-to-People Ties:** Agreed to expand exchanges through direct flights, visa facilitation, and resumption of Kailash Manasarovar Yatra.
- **Economic Cooperation:** Discussed reducing the \$99.2 bn trade deficit and enhancing collaboration in renewables, AI, pharmaceuticals, and connectivity.
- **Multilateral Synergy:** PM Modi supported China's SCO Presidency and invited President Xi to the BRICS Summit 2026 in India.

India-China Bilateral Reset: Key Themes



- **Border and Security**
 - ✓ Both nations reiterated that border peace is a prerequisite for stable relations.
 - ✓ Agreed to strengthen Confidence-Building Measures (CBMs) — hotlines, local-level talks, and working groups — to manage friction points.
 - ✓ India follows a security-first approach, while China prioritises economics-first engagement.
- **Panchsheel Revival**
 - ✓ PM Modi recalled the Panchsheel Principles (1954) as the moral compass of India-China ties — mutual respect, non-aggression, non-interference, equality, and peaceful coexistence.
 - ✓ Both sides linked their dialogue to shared civilisational ethos and Asian stability.
- **Economic Dimensions**
 - ✓ China remains India's second-largest trading partner with bilateral trade at US\$131.8 billion (FY 2024-25).

- ✓ Talks focused on balancing trade, resilient supply chains, and leveraging SCO's proposed \$1.4 bn development bank.
- **Geopolitical Balancing**
 - ✓ India projected SCO as a platform for Security–Connectivity–Opportunity (S–C–O), reinforcing its strategic autonomy.
 - ✓ China used the forum to assert leadership in the Global South, revealing divergent strategic visions.

About SCO

- **Origin:** Evolved from the Shanghai Five (1996) — China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan.
- **Formed:** 2001 (with Uzbekistan).
- **Members (10):** China, Russia, India, Pakistan, Iran, Belarus, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan.
- **Headquarters:** Beijing; Languages: Russian, Chinese.
- **Objectives:** Counter-terrorism (via RATS, Tashkent), economic cooperation, connectivity, and multipolar global order.
- **Significance for India:** Platform for Eurasian outreach, energy security, counter-terror cooperation, and balancing China's influence.

2. India–EU FTA Negotiations and the New Strategic Agenda 2025

Context: European Union (EU) negotiators are visiting New Delhi to accelerate India–EU Free Trade Agreement (FTA) talks, aiming to conclude the deal by the end of 2025. This aligns with the EU's New Strategic EU–India Agenda, which seeks deeper cooperation in trade, technology, and global governance.

Background

- India–EU ties, established in 1962 and elevated to a Strategic Partnership in 2004, have evolved into a multidimensional relationship covering trade, technology, defence, and sustainability.
- The renewed push comes amid changing global supply chains, tariff realignments, and the EU's Carbon Border Adjustment Mechanism (CBAM), which could impact Indian exporters from 2026.

India–EU FTA Negotiations: Current Status

- Negotiations cover 27 chapters, of which 11 are completed, including intellectual property rights, competition, and digital trade.
- Key unresolved areas include agriculture (dairy, sugar, rice excluded), sanitary & phytosanitary standards, and tariff concessions on whisky and automobiles.
- India seeks parity in CBAM flexibilities granted to the U.S., while addressing MSME compliance costs.
- The EU delegation, led by Trade Commissioner Maros Šefčovič and Agriculture Commissioner Christophe Hansen, is engaging with Indian ministers to fast-track discussions.

New EU–India Strategic Agenda: Five Pillars

- **Prosperity, Sustainability & Technology:**
 - ✓ Prioritizes the FTA, supply chain resilience, and innovation through the Trade and Technology Council (TTC) and Horizon Europe.
- **Security & Defence:**
 - ✓ Cooperation in maritime security, cyber defence, and counterterrorism; support for defence industrial partnerships.
- **Connectivity & Global Issues:**

- ✓ Promotes collaboration through India–Middle East–Europe Economic Corridor (IMEC) and the Global Gateway initiative.
- **People-to-People Cooperation:**
 - ✓ Focus on mobility, education, research, and establishment of an EU–India Business Forum.
- **Institutional Coordination:**
 - ✓ Strengthening coordination between the EU, its member states, and India for long-term strategic alignment.

3. India–Singapore 2025 Summit

Context: Prime Minister Narendra Modi hosted Singaporean Prime Minister Lawrence Wong in New Delhi in 2025. The summit emphasized maritime security, defence cooperation, emerging technologies, and economic collaboration, reinforcing India’s strategic and economic engagement with Singapore.

Key Outcomes of the Summit

- **Maritime Security & Indo-Pacific Cooperation**
 - ✓ India expressed interest in patrolling the Malacca Strait, a strategic chokepoint linking the Indian Ocean and Pacific.
 - ✓ Enhanced cooperation in submarine rescue operations and support for the Indo-Pacific Oceans Initiative (IPOI).
- **Defence & Emerging Technologies**
 - ✓ Agreements on joint research and development in quantum computing, artificial intelligence, automation, and unmanned vessels.
 - ✓ Strengthening bilateral ties in advanced military capabilities and technological collaboration.
- **Economic & Infrastructure Cooperation**
 - ✓ Plans to export green energy from India to Singapore via dedicated ports.
 - ✓ Initiatives in space research and applications and a new India–Singapore semiconductor policy dialogue.
 - ✓ Establishment of a National Centre of Excellence for Skilling in Advanced Manufacturing in Chennai.
- **Counter-Terrorism & Security Cooperation**
 - ✓ Reinforced bilateral and multilateral cooperation to combat cross-border terrorism.
 - ✓ Collaboration under FATF and other international security frameworks.

Strategic Significance of Malacca Strait

- **Global Trade Artery:** Nearly 40% of India’s trade and 80% of China’s oil imports pass through this narrow channel.
- **Energy Security:** Ensures uninterrupted oil and gas flows from the Middle East to East Asia.
- **Geostrategic Leverage:** India’s Andaman & Nicobar Command enhances its ability to contribute to regional maritime security.

India–Singapore Relations

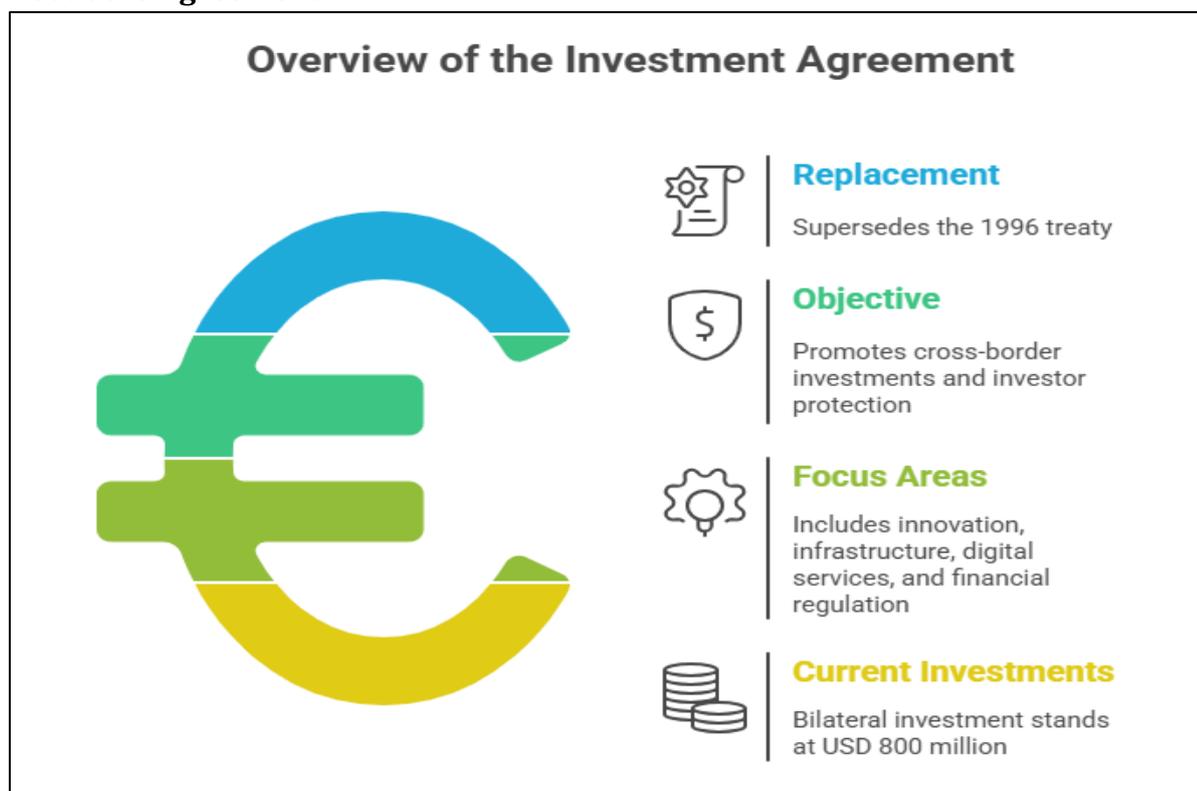
- **Historical Context**
 - ✓ Maritime trade and Buddhism linked India and Singapore in ancient times.
 - ✓ Modern relations strengthened after Singapore’s independence in 1965.
 - ✓ Singapore supported India’s Look East Policy, now Act East Policy.
- **Political & Defence Cooperation**
 - ✓ 50 years of diplomatic relations celebrated in 2015.
 - ✓ Regular joint exercises include:
 - SIMBEX – Naval
 - Bold Kurukshetra – Army

- Agni Warrior – Artillery
- **Economic & Trade Ties**
 - ✓ Comprehensive Economic Cooperation Agreement (CECA, 2005) covers trade, services, and investments.
 - ✓ Singapore is among India's largest trade and investment partners in ASEAN, accounting for 27.83% of overall trade with ASEAN (2024–25).
 - ✓ Leading source of Foreign Direct Investment (FDI) into India.
- **Multilateral Engagement**
 - ✓ Strong partners in ASEAN, East Asia Summit, IORA, IONS, FATF, WTO, UN, and Commonwealth.

4. India-Israel Bilateral Investment Agreement (BIA)

Context: India and Israel signed a Bilateral Investment Agreement (BIA), under India's new model treaty framework. Israel is the first OECD member to enter into such an agreement with India.

About the Agreement



- **Replacement:** Supersedes the 1996 treaty, terminated in 2017.
- **Objective:** Promote cross-border investments while providing investor protection.
- **Focus Areas:** Innovation, infrastructure development, digital services, financial regulation.
- **Current Investments:** Bilateral investment stands at USD 800 million.

India-Israel Relations

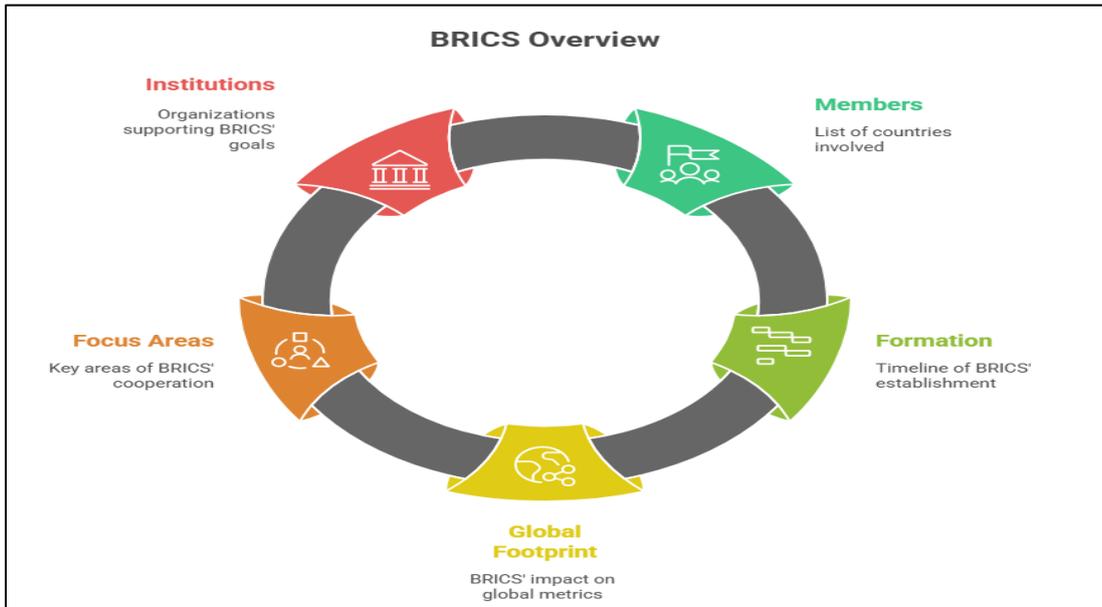
- **Diplomatic Ties:** India recognized Israel in 1950; full embassies opened in 1992.
- **Trade:** India is Israel's 2nd largest trading partner in Asia; bilateral trade (excluding defense) was USD 6.53 billion (FY 2023-24).
- **FDI:** Israel invested USD 334.2 million in India (2000–2024), primarily in high-tech, agriculture, and water sectors.
- **Defense & Security:** Israel is a key supplier of drones, AWACS radars, and missile technologies.
- **Agriculture & Water:** Indo-Israeli Centers of Excellence and cooperation via MASHAV promote technology transfer and high-yield farming.

- **Science & Technology:** Joint projects under I4F Fund (USD 40 million) and S&T cooperation since 1993.
- **Multilateral Collaboration:** Active in I2U2 (India, Israel, USA, UAE) for projects in food security, space, and innovation.

5. BRICS Virtual Summit

Context: A virtual BRICS Summit was recently held, called by Brazil amid the backdrop of 50% U.S. tariffs on India and Brazil. India emphasized protecting non-discriminatory, rules-based global trade norms and strengthening resilient supply chains through constructive cooperation.

About BRICS



- **Members:** Brazil, Russia, India, China, South Africa; new members: Egypt, Ethiopia, Iran, Indonesia, Saudi Arabia, UAE.
- **Formation:** Concept of BRIC coined in 2001; formal grouping started in 2006; South Africa joined in 2010.
- **Global Footprint:** Represents ~49.5% of world population, ~40% of global GDP, ~26% of global trade.
- **Focus Areas:** Political/security, economic/financial, cultural & people-to-people exchanges.
- **Institutions:** New Development Bank (NDB) supports public/private projects via loans, equity, guarantees.

Significance for India

- **Strategic Autonomy:** Provides a non-Western multilateral platform for engagement.
- **Global Influence:** Larger bloc amplifies India's voice in global governance.
- **Championing Global South:** Positions India as a key advocate for developing nations.
- **Middle East Engagement:** Inclusion of Saudi Arabia, Iran, UAE, Egypt opens diplomatic and economic avenues.
- **UNSC Reform:** Strengthens India's push for a permanent seat.
- **Balancing China:** Broader membership allows coalition-building to prevent unilateral dominance.

6. Political Crisis in Nepal and Its Implications for India

Context: Nepal is witnessing large-scale youth-led protests that have turned violent, leading to the resignation of Prime Minister K.P. Sharma Oli. The unrest reflects growing frustration among the younger generation over corruption, censorship, and lack of opportunities.

Causes of the Political Crisis

- **Youth Discontent:** High unemployment (over 20%), corruption, and widening inequality have alienated Nepal's Generation Z, which relies heavily on remittances due to limited domestic job prospects.
- **Suppression of Dissent:** The government's ban on 26 social media platforms—seen as a curb on free speech—sparked nationwide demonstrations.
- **Harsh State Response:** Use of force, including firing on protesters, curfews, and mass detentions, intensified public outrage and destabilized the government.

Impact on India

- **Security Concerns:** Instability in Nepal threatens India's internal security due to the open border, which can be exploited by extremist or criminal networks.
- **Economic Disruptions:** Political unrest hampers trade, tourism, and investment, jeopardizing India's projects in hydropower, infrastructure, and cross-border energy cooperation.
- **Strategic Setbacks:** Political volatility weakens India's developmental influence and provides space for external powers—particularly China—to expand their presence.
- **Cultural and Social Spillover:** Shared ethnic and cultural ties mean unrest in Nepal can have ripple effects in Indian border states.

India's Broader Neighbourhood Challenge

- Regional instability in countries like Nepal, Sri Lanka, and Bangladesh underscores the fragility of South Asia. Political turmoil in these nations diverts India's diplomatic bandwidth and constrains its larger global ambitions.

Way Forward

- **Active Neighbourhood Engagement:** Strengthen political dialogue and development cooperation under the Neighbourhood First Policy.
- **Support Democratic Stability:** Encourage inclusive governance and institutional resilience in Nepal.
- **Enhance Border Management:** Improve surveillance and cross-border coordination to tackle security risks.
- **People-to-People Diplomacy:** Deepen cultural and educational exchanges to maintain goodwill among the Nepali youth.

7. India Votes in Favour of Palestine's Statehood at UN

Context: India voted in favour of a UN General Assembly resolution endorsing the New York Declaration, which calls for a peaceful settlement of the Palestine issue through the two-state solution.

About the Resolution

- Introduced by: France.
- UNGA Vote Outcome: 142 in favour, 10 against, 12 abstentions.
- Countries Against: Israel, USA, Hungary, Argentina.
- **Key Provisions:**
 - ✓ Collective action to end the Gaza conflict.
 - ✓ Implementation of the two-state solution.
 - ✓ Israeli commitment to a sovereign and viable Palestinian state.

India's Historical Stand on Palestine

- **Recognition:**
 - ✓ First non-Arab country to recognize the Palestine Liberation Organization (PLO) in 1974.
 - ✓ Recognized the State of Palestine in 1988.
- **UN Voting:** Consistently supports Palestinian resolutions.
- **Two-State Solution:** Advocates peaceful coexistence of Israel and Palestine within secure, recognized borders.

- **East Jerusalem:** Supports as the capital of Palestine per UN resolutions.
- **International Support:** Endorses Palestine's membership in UNESCO and UNGA observer status.

India-Palestine Engagement

- **High-Level Visits:**
 - ✓ PM Modi (2018) – first Indian PM visit to Palestine.
 - ✓ President Pranab Mukherjee (2015) – first presidential visit.
- **Development Assistance:** India has provided \$141 million in aid and funded IBSA projects worth \$5 million.
- **Diplomatic Position:**
 - ✓ Rejection of violence and terrorism.
 - ✓ Support for humanitarian aid to Gaza.
 - ✓ Advocacy for diplomatic and peaceful solutions.

Balancing Act with Israel

- India maintains strategic partnerships with Israel in defence, agriculture, and innovation.
- Approach framed as: "Principled support for Palestine, pragmatic partnership with Israel."

8. First India-Iran-Uzbekistan Trilateral Meeting

Context: The first India-Iran-Uzbekistan trilateral meeting was held in Tehran, focusing on countering extremism and terrorism and promoting Uzbekistan's use of Iran's Chabahar Port for trade with India.

Key Highlights

- **Trade and Connectivity:**
 - ✓ The meeting emphasized deeper connectivity via the International North-South Transport Corridor (INSTC), facilitating faster, cost-effective trade between India, Central Asia, and Europe.
 - ✓ Chabahar Port, Iran's deep-water port in Sistan-Baluchistan, was highlighted as a key logistics hub. It offers direct sea access for large cargo ships, bypassing Pakistan, and serves as a gateway for India to Central Asia and beyond.
- **Regional Cooperation:**
 - ✓ Discussions focused on joint efforts against extremism and terrorism.
 - ✓ Other trilateral frameworks include India-Iran-Armenia, aimed at enhancing INSTC connectivity and Chabahar usage.
 - ✓ Countries like Kazakhstan and Tajikistan have expressed interest in utilizing Chabahar for trade.
- **Strategic and Economic Initiatives:**
 - ✓ India is pursuing an early-harvest Free Trade Agreement (FTA) with the Eurasian Economic Union to boost trade and access rare earth minerals.
 - ✓ The INSTC offers a multi-modal transport route linking the Indian Ocean to the Caspian Sea and further to northern Europe via St. Petersburg.
 - ✓ This corridor reduces transit time and freight costs compared to the traditional Suez Canal route.

About Chabahar Port

- Deep-water port in Iran's Sistan-Baluchistan province.
- Nearest Iranian port to India, located on the open sea, enabling secure access for large vessels.
- Serves as a key node for India to Central Asia, Afghanistan, and Europe, complementing the INSTC.

About the International North-South Transport Corridor (INSTC)

- Initiated by Russia, India, and Iran, the INSTC is a multi-modal transport network.

- Route: Mumbai → Bandar Abbas (sea) → Bandar-e-Anzali (road) → Caspian Sea → Astrakhan (sea) → Rail to Europe.
- Objective: Cut transit time and reduce freight costs, enhancing India's connectivity with Central Asia and Europe.

9. Genocide

Context: A UN-mandated Independent International Commission of Inquiry has alleged that Israel is committing genocide in Gaza, citing evidence of intent and actions aimed at destroying the Palestinian population. The findings have reignited global debate over the interpretation and enforcement of international humanitarian law.

What is Genocide?

- The term "genocide" was coined in 1944 by Raphael Lemkin, combining Greek "genos" (race or tribe) and Latin "cide" (killing). It was developed in response to the Holocaust and other mass atrocities.
- The UN General Assembly (1946) recognized genocide as an international crime, later codified in the 1948 Convention on the Prevention and Punishment of the Crime of Genocide (Genocide Convention).

Definition (Article II, Genocide Convention)

- Genocide includes any of the following acts committed with intent to destroy, in whole or in part, a national, ethnic, racial, or religious group:
 - ✓ Killing members of the group.
 - ✓ Causing serious bodily or mental harm.
 - ✓ Deliberately inflicting living conditions aimed at physical destruction.
 - ✓ Imposing measures intended to prevent births.
 - ✓ Forcibly transferring children to another group.
- The International Court of Justice (ICJ) classifies the prohibition of genocide as customary international law and a jus cogens norm, binding on all states irrespective of treaty ratification.

Recent Findings of the Commission

- The Independent International Commission of Inquiry concluded that four of the five acts defined as genocide under the 1948 Convention have occurred in Gaza since the conflict began in October 2023, after the Hamas attacks.
- **These include:**
 - ✓ Killing members of the group.
 - ✓ Causing serious physical and psychological harm.
 - ✓ Imposing life-threatening conditions aimed at destruction.
 - ✓ Preventing births within the group.

Response from Israel

- Israel has rejected the UN report, calling it politically biased and factually incorrect, and has demanded the dissolution of the Commission. Israeli authorities maintain that their military actions target Hamas militants, not civilians, and fall within the scope of self-defence.

Legal and Global Implications

- The accusation marks one of the gravest charges under international law, potentially bringing state and individual accountability before the ICJ and International Criminal Court (ICC).
- It underscores the growing scrutiny of international humanitarian norms, the limits of UN enforcement mechanisms, and the politicization of global justice systems.

10. Defence Pact Between Saudi Arabia and Pakistan

Context: Pakistan and Saudi Arabia have signed a Strategic Mutual Defence Agreement to enhance military cooperation. India has noted the development and reaffirmed its commitment to comprehensive national security.



About the Agreement

- The pact states that “any aggression against either country shall be considered aggression against both.”
- It aims to deepen defence collaboration and strengthen joint deterrence capabilities.
- The signing followed an emergency summit of Arab and Muslim nations in Qatar amid escalating tensions after Israel’s strikes on Hamas leadership.

Rationale Behind the Pact

- Regional tensions: Growing Israeli operations in Iran, Lebanon, Syria, Yemen, and Qatar have alarmed Arab states.
- US reliability doubts: Gulf nations increasingly question Washington’s credibility as a security guarantor.
- Strategic signalling: The pact signals Islamic solidarity and serves as a message to Israel.
- Security concerns: With Israel as the region’s only nuclear power, Gulf nations seek enhanced defence coordination.

India’s Response

- India acknowledged the development, stating it would “study its implications for regional and global stability.”
- The government reiterated its focus on safeguarding national interests and ensuring comprehensive security.

Saudi Arabia’s Ties with Pakistan and India

- **With Pakistan:**
 - ✓ Decades of defence cooperation including troop deployments, training missions, and arms trade.
 - ✓ A 1982 security agreement institutionalised bilateral military cooperation.
 - ✓ The 2025 Riyadh meeting pledged to expand joint exercises and training.
- **With India:**
 - ✓ Elevated ties through the Delhi (2006) and Riyadh (2010) Declarations.
 - ✓ India is Saudi Arabia’s 2nd largest trading partner; bilateral trade stood at USD 42.98 billion (2023–24).
 - ✓ Security coordination includes counter-terrorism and avoidance of criticism over India’s internal matters.

Geopolitical Implications

- Strengthens Pakistan’s strategic role in West Asia.

- May complicate India–Saudi strategic engagement.
- Provides Pakistan potential access to advanced arms via Saudi funding.
- Risks Pakistan’s involvement in Middle Eastern conflicts.

11. India and Canada Reset Ties

Context: Indian and Canadian National Security Advisors (NSAs) recently held high-level talks to enhance bilateral cooperation, nearly two years after diplomatic strains over allegations related to Khalistani separatists.

Focus of the Dialogue

- Counter-terror cooperation and intelligence sharing.
- Extradition requests for Khalistani activists wanted in India.
- Strengthening collaboration between the security establishments under new High Commissioners.

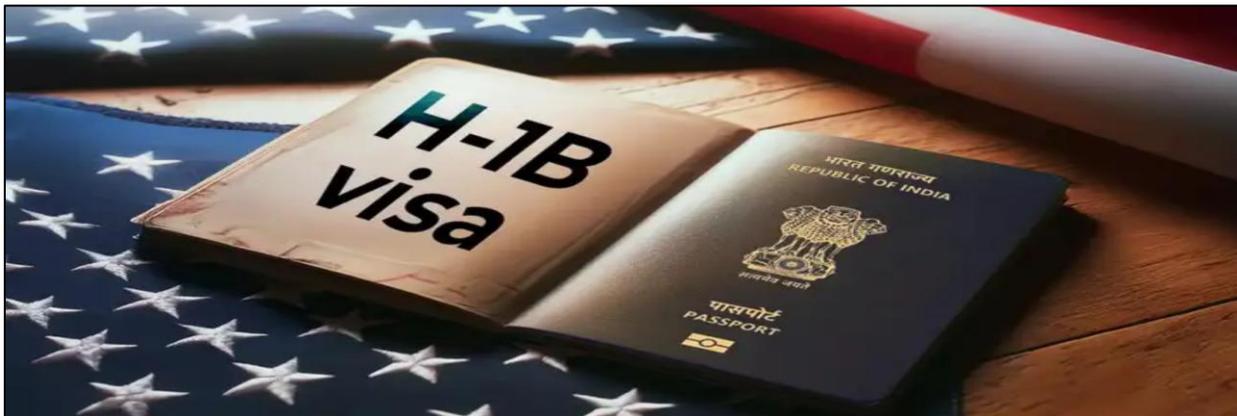
Bilateral Relations Overview

- **Historical Ties:** Diplomatic relations established in 1947, grounded in shared democratic values and Commonwealth membership.
- **Economic Links:** Bilateral trade in 2024: USD 8.55 billion (India’s exports: USD 5.22 B, imports: USD 3.33 B). CEPA and FIPA negotiations ongoing.
- **Civil Nuclear Cooperation:** 2010 Nuclear Cooperation Agreement operational since 2013.
- **Space & Science Collaboration:** ISRO-CSA MoUs; Arctic research partnership through NCPOR and Polar Canada.
- **People-to-People Links:** 1.8 million Indo-Canadians; India is largest source of international students (~40% of all students in Canada).
- **Multilateral Cooperation:** G20, UN, Commonwealth, International Solar Alliance.

12. H-1B Visa Fee Hike in the United States

Context: The U.S. President has signed a proclamation raising the H-1B visa fee from \$1,500 to \$1,00,000 annually, marking a substantial increase and impacting foreign skilled workers, particularly from India.

About H-1B Visa



- **Purpose:** Allows U.S. companies to employ foreign professionals in specialty occupations requiring technical expertise or a bachelor’s degree or higher.
- **Fields Covered:** IT, engineering, science, medicine, finance, and other specialised sectors.
- **Duration:** Initially 3 years, extendable up to 6 years.
- **Employer-Tied:** Workers cannot change employers without filing a new petition.
- **Annual Cap:** 85,000 visas (including 20,000 for U.S. master’s degree holders).
- **Indian Beneficiaries:** Indians account for over 70% of successful H-1B petitions, followed by China (12–13%).

Implications

- **Impact on Indian Professionals:** The fee hike could reduce the inflow of skilled Indian workers to the U.S., affecting employment and remittances.
- **Global Talent Mobility:** May push companies to consider alternative destinations for talent, such as Canada, Australia, or Europe.
- **U.S. Labor Market:** Intended to incentivize the hiring of domestic talent and reduce dependency on foreign professionals.

13. France Recognises Palestine as a State

Context: France, along with the United Kingdom, Canada, Australia, and Portugal, has formally recognised Palestine as a State at the United Nations, marking a significant diplomatic development in the Israel–Palestine issue.

About the Move

- The recognition, though symbolic, strengthens global support for Palestinian statehood, even as the U.S. maintains opposition and retains veto power over full UN membership.
- Israel has rejected the move and announced plans to expand settlements in the occupied territories.

Background

- Palestine became a non-member observer state at the UN in 2012.
- Full UN membership requires approval by nine of 15 Security Council members and no veto from any permanent member.
- Over 145 UN member states already recognise Palestine; India recognised it in 1988.

Criteria for Statehood (Montevideo Convention, 1933)

- To qualify as a sovereign state, an entity must have:
 - ✓ A permanent population,
 - ✓ A defined territory,
 - ✓ An effective government, and
 - ✓ The ability to conduct foreign relations.

Current Status of Palestine

- Palestine maintains diplomatic missions, and international participation (including the Olympics), but lacks defined borders, a capital, and full control over its territory due to Israeli occupation.

The Two-State Solution

- Originating from the UN Partition Plan of 1947, it envisions independent Israeli and Palestinian states within pre-1967 borders.
- The plan remains central to peace efforts, but Israeli settlements in the West Bank remain a major obstacle.

ECONOMIC SCENARIO

1. Fertiliser Shortages Amid Monsoon Boom

Context: The well-distributed southwest monsoon of 2025 has spurred record kharif sowing and an unexpected surge in fertiliser demand, exposing structural weaknesses in India's fertiliser supply and distribution system.

Background

- India witnessed above-normal rainfall (6.1% higher than average) this monsoon, with 33 out of 36 meteorological subdivisions recording normal precipitation.

- This led to a rise in rice acreage (↑7.6%) and maize cultivation (↑11.7%), both highly nitrogen-intensive crops—driving up the demand for urea and DAP.

Fertiliser Demand Surge

- Between April–July 2025, sales of most fertilisers — urea, SSP, MOP, and complex blends — grew in double digits.
- However, DAP sales dropped by 12.8%, continuing a trend of shortfall due to import dependence and supply disruptions.
- Farmers substituted DAP with Ammonium Phosphate Sulphate (APS – 20:20:0:13), whose sales rose sharply to 69.7 lakh tonnes, making it India’s third-most used fertiliser after urea and DAP.

Supply-Side Constraints

- **Falling Domestic Production:**
 - ✓ **Urea:** Declined from 102.1 lt (2024) to 93.6 lt (2025).
 - ✓ **DAP:** Stagnant at 13.7 lt.
- **Reduced Imports:** Supply restrictions from China, a key exporter, curtailed availability.
- **Low Stocks:** As of August 2025, urea stocks fell to 37.2 lt (from 86.4 lt last year), with similar declines across other fertilisers.

Types of Fertilisers

- **Urea (N-based):** Supplies nitrogen; most heavily subsidised and widely used.
- **DAP (N & P-based):** Crucial for root growth during sowing.
- **NPK Complexes:** Balanced nutrient supply.
- **SSP (P & S-based):** Low-cost phosphatic fertiliser gaining traction.
- **APS (20:20:0:13):** Newer phosphatic alternative with rising popularity.

Subsidy Framework

- **Urea Subsidy Scheme:** Farmers pay ₹242 per 45-kg bag, while the actual cost is around ₹3,000. The government bears the difference, budgeted at ₹1.19 lakh crore (FY26).
- **Nutrient-Based Subsidy (NBS):** Subsidy linked to nutrient content (N, P, K, S) instead of product type — encouraging balanced fertiliser use. Budgeted at ₹0.49 lakh crore (FY26).

Key Government Initiatives

- **Nutrient Based Subsidy (2010):** Promotes balanced nutrient application.
- **One Nation, One Fertiliser:** Uniform branding and transparency.
- **PM-PRANAM Scheme:** Incentivises states to promote bio-fertilisers and alternate nutrients to reduce chemical dependence.

2. PM Emphasizes ‘Vocal for Local’ as Path to Viksit Bharat

Context: In his latest Mann Ki Baat address, the Prime Minister urged citizens to adopt the ‘Vocal for Local’ mantra during the festive season, calling it a key step toward realizing the vision of a Viksit Bharat (Developed India) and Aatmanirbhar Bharat (Self-Reliant India).

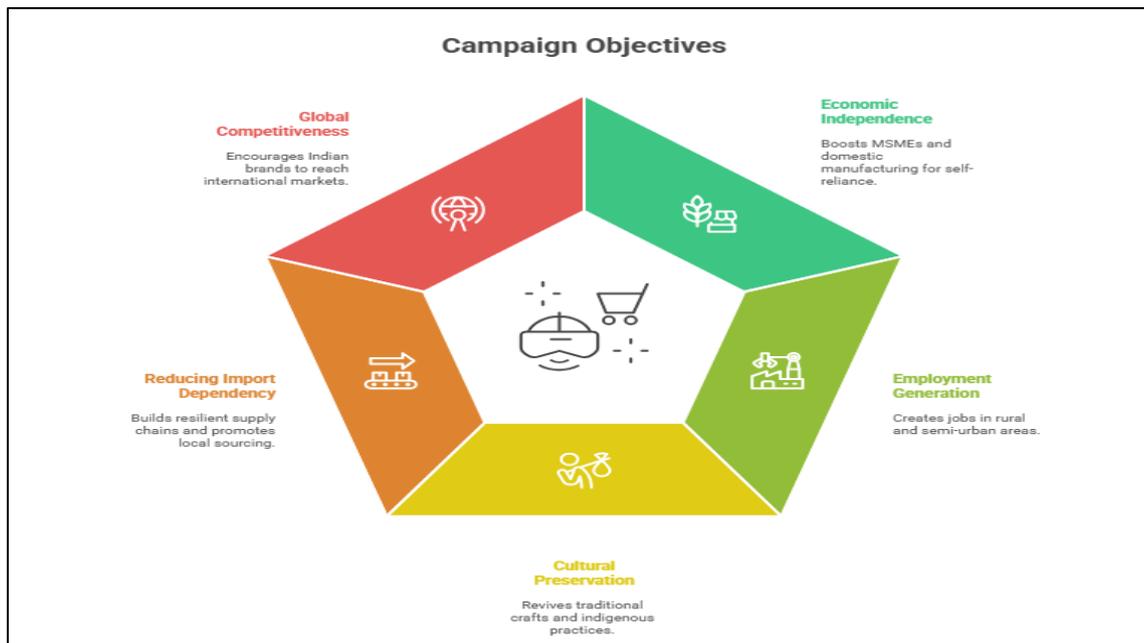
About the ‘Vocal for Local’ Initiative

- Launched in 2024 by NITI Aayog under the Aspirational Blocks Programme, the initiative promotes local products, artisans, and industries to strengthen India’s domestic economy and reduce import dependency.
- It draws inspiration from the Swadeshi Movement, redefined in a modern, globalized, and digital context.
- Government platforms like GeM, ONDC, and india.gov.in actively support indigenous innovations and local procurement.

Objectives of the Campaign

- **Economic Independence:** Boost MSMEs, start-ups, and domestic manufacturing.

- **Employment Generation:** Create local jobs, especially in rural and semi-urban areas.
- **Cultural Preservation:** Revive traditional crafts, handlooms, and indigenous practices.
- **Reducing Import Dependency:** Build resilient supply chains and promote local sourcing.
- **Global Competitiveness:** Encourage Indian brands to reach international markets — “Make in India, Make for the World.”



Success Stories & Examples

- **Khadi & Village Industries:** Crossed ₹1.25 lakh crore in sales; Khadi has become a symbol of self-reliance.
- **GI-Tagged Products:** Pochampally Ikat, Darjeeling Tea, and Madhubani Art gaining global visibility.
- **Schemes:** One District One Product (ODOP) and PM Vishwakarma Yojana empower artisans.
- **Digital India Products:** UPI, RuPay, and indigenous fintech innovations are now global success models.
- **Festive Campaigns:** Citizens are encouraged to buy local during Diwali, Raksha Bandhan, and Holi.

Challenges

- **Quality and Pricing Issues:** Local products often face competition from cheaper imports.
- **Digital Divide:** Limited e-commerce access for small producers.
- **Infrastructure Gaps:** Weak logistics networks impact market access.
- **Sustainability Concerns:** Risk of over-commercializing traditional crafts.
- **Trade Pressures:** Protectionist measures may invite global trade friction.

Measures for Aatmanirbhar Bharat & Vocal for Local

- **Policy Reforms:** Aatmanirbhar Bharat Abhiyan (10% of GDP stimulus, 2020), PLI Schemes, EoDB reforms.
- **Infrastructure Push:** PM Gati Shakti and National Infrastructure Pipeline (NIP).
- **Digital Self-Reliance:** India Semiconductor Mission, Digital Public Infrastructure, Semicon India.
- **Local Promotion:** Mandatory local procurement via GeM, GI-tag drives, and NITI Aayog’s Vocal for Local Initiative.

3. Bond Market in India – Rising Yields Amid RBI Rate Cuts

Context: India's 10-year benchmark government bond yield has increased by nearly 26 basis points in the past month, despite the Reserve Bank of India (RBI) reducing the repo rate by 100 basis points over the last seven months. This unusual divergence reflects investor unease over inflation trends, fiscal risks, and government borrowing levels.

Understanding the Bond Market in India

- The bond market is a key segment of India's financial system, where the government and corporations raise long-term funds by issuing debt securities. It helps channel savings into productive investment and influences interest rate movements across the economy.
- **Types of Bonds:**
 - ✓ Government Bonds: Include Treasury Bills, long-term Government Securities (G-Secs), and State Development Loans (SDLs).
 - ✓ Municipal Bonds: Issued by local bodies for urban infrastructure.
 - ✓ Corporate Bonds: Issued by private or public companies to fund business expansion.
- **Regulators:**
 - ✓ RBI regulates government securities.
- SEBI oversees the corporate bond market.

Recent Developments

- The 10-year G-Sec yield has risen from around 6.34% to 6.60%, even as the repo rate has been reduced to 5.50%.
- The expected trend—that lower repo rates lead to lower bond yields—has reversed, indicating market anxiety about fiscal pressures and inflation persistence.
- The Monetary Policy Committee (MPC) has maintained a hawkish stance on inflation while projecting 6.5% GDP growth and 3.1% inflation for FY 2025–26.

Why Are Yields Rising Despite Rate Cuts?

- **High Fiscal Deficit and Borrowing:** The government's large borrowing program increases bond supply, pushing prices down and yields up.
- **Inflationary Expectations:** Persistent inflation fears make investors demand higher returns to offset price risks.
- **Global Headwinds:** Rising US Treasury yields and global capital outflows have tightened domestic financial conditions.
- **Liquidity Constraints:** Despite RBI's rate cuts, tight banking system liquidity has dampened demand for government securities.

Market Implications

- **Rising Yields = Falling Prices:** Investors face mark-to-market losses on existing bond holdings.
- **Higher Borrowing Costs:** Government and corporate borrowing rates increase, impacting investment sentiment.
- **Steepening Yield Curve:** Long-term yields rising faster than short-term ones reflect expectations of higher future borrowing costs.

Fiscal and Policy Context

- The proposed GST rationalisation—from four slabs (5%, 12%, 18%, 28%) to two (5% and 18%)—may lead to an estimated ₹50,000–60,000 crore revenue loss, raising concerns of fiscal slippage and higher market borrowings. This further pressures yields upward.

Possible Corrective Measures

- **Government Borrowing Strategy:** Shift towards shorter or medium-term borrowings to manage yield pressures.
- **RBI Interventions:**

- ✓ **Open Market Operations (OMOs):** RBI purchases long-term bonds to inject liquidity and reduce yields.
- ✓ **Operation Twist:** Simultaneous buying of long-term and selling of short-term securities to adjust yield spreads.

Forward Outlook

- While immediate rate cuts appear unlikely due to inflationary risks, a softening inflation trajectory could prompt the RBI to adopt a growth-supportive stance in the medium term. This would help stabilise yields and revive demand for long-duration bonds.

4. India's Push to Become a Global Semiconductor Hub

Context: At SEMICON India 2025, Prime Minister Narendra Modi emphasized India's potential to become a major player in the global semiconductor industry. The event saw participation from over 40 countries, underlining international confidence in India's capabilities.

Importance of Semiconductors

- Semiconductors are essential for electronics, electric vehicles, defense systems, space technology, and digital infrastructure.
- They play a crucial role in economic security, technological self-reliance, and enhancing India's global competitiveness.

India Semiconductor Mission (ISM) and Key Initiatives

- ISM acts as the nodal agency for India's semiconductor ecosystem.
- **Schemes include:**
 - ✓ Semiconductor & Display Fabs: Support up to 50% of project cost.
 - ✓ Compound Semiconductors & ATMP: Capital expenditure assistance.
 - ✓ Design-Linked Incentives (DLI): Backing startups and chip design projects.
- **Recent achievements:**
 - ✓ Launch of the first "Made in India" chip by ISRO and Semiconductor Laboratory, Chandigarh.
 - ✓ Pilot OSAT (Outsourced Semiconductor Assembly and Test) line in Sanand, Gujarat.
 - ✓ Approval of multiple semiconductor projects worth \$18 billion in 2025 alone.

Role of Talent and States

- India possesses 20% of global semiconductor design talent, providing a competitive advantage.
- State governments are encouraged to build supportive ecosystems to attract investment and strengthen manufacturing capacity.

Global Outlook and Strategic Advantage

- The global semiconductor market is expected to reach \$1 trillion by 2030.
- India aims to contribute across equipment, materials, and services, leveraging its MSMEs, mineral resources, and digital expertise.
- Fast-track approvals via the National Single Window System aim to reduce project timelines and promote long-term investment.

5. BHARATI Initiative

Context: The Agricultural and Processed Food Products Export Development Authority (APEDA) has launched the BHARATI initiative – Bharat's Hub for Agritech, Resilience, Advancement and Incubation for Export Enablement – to strengthen agri-food startups and enhance India's export potential. The initiative aims to help India achieve USD 50 billion in agri-food exports by 2030.

Key Features of BHARATI

- Startup Support: Targets 100 agri-food startups in its inaugural cohort.
- Acceleration Programme: Three-month intensive support on product development, regulatory compliance, market access, export readiness, and collaborative solutions.

- High-Value Focus: GI-tagged products, organic foods, superfoods, processed Indian food items, livestock, and AYUSH products.
- Technology Integration: Encourages AI, IoT, blockchain, agri-fintech for traceability, cold-chain logistics, perishability management, and sustainability.
- Collaborative Ecosystem: Partnerships with IITs/NITs, universities, industry bodies, state agricultural boards, and accelerators to strengthen incubation and innovation.

About APEDA:

- Established in 1986 under the Ministry of Commerce & Industry.
- Mandate: Development and promotion of export of scheduled agri-food products across 14 categories, including fruits, vegetables, cereals, dairy, meat, and processed foods.

6. Vikram 32-bit Microprocessor

Context: At the Semicon India 2025 conference in New Delhi, the Prime Minister of India was presented with the Vikram 3201, India's first indigenously designed 32-bit launch vehicle-grade microprocessor, marking a major step toward semiconductor self-reliance and technological indigenization.

About Vikram 3201

- **Developed by:** ISRO's Vikram Sarabhai Space Centre (VSSC) and Semiconductor Laboratory (SCL), Chandigarh.
- **Type:** Fully indigenous 32-bit microprocessor designed for launch vehicle avionics.
- **Upgrade of:** Vikram 1601 (16-bit processor), which has powered ISRO launch vehicles since 2009.
- **Validation:** Space-qualified through the SpaDeX Mission (PSLV-C60), confirming performance in real flight conditions.

Key Features

- Operates reliably between -55°C and $+125^{\circ}\text{C}$ —ideal for extreme space environments.
- Compatible with Ada programming language, widely used in safety-critical systems.
- Supports 64-bit floating-point computations and on-chip MIL-STD-1553B bus interfaces for secure mission communication.
- Built on a custom instruction set architecture tailored for real-time control and guidance applications.
- Enables Atmanirbharata in navigation, guidance, and control systems for India's space launch vehicles.

Semicon India 2025

- **Theme:** "Building the Next Semiconductor Powerhouse."
- Organized under the India Semiconductor Mission (ISM) to showcase India's progress in chip design, packaging, fabrication, and R&D collaboration.
- Aims to position India as a key player in the global semiconductor value chain, promoting investment, skill development, and innovation.

7. Banking Sector: A Pillar of India's Economic Growth

Context: President Droupadi Murmu recently emphasised the pivotal role of India's banking sector in propelling economic growth, supporting MSMEs, strengthening rural economies, and advancing financial inclusion. The sector today stands at the core of India's transition toward Viksit Bharat.

India's Banking Landscape

- **India's banking architecture comprises:**
 - ✓ Scheduled Commercial Banks (SCBs) – backbone of credit delivery and monetary transmission.

- ✓ Cooperative & Local Area Banks – catering to rural and niche financial needs.
- ✓ Development Financial Institutions – NABARD, SIDBI, and IDBI financing agriculture, small industries, and infrastructure.
- ✓ NBFCs – over 9,000 entities serving credit-deficient sectors.

Contribution of the Banking Sector to Economic Growth

- **Credit Expansion and Economic Activity**

- ✓ Bank credit reached ₹164.3 lakh crore in March 2024, a 20.2% YoY growth, reflecting strong economic momentum.
- ✓ Agricultural credit rose to ₹20.7 lakh crore in FY24 from ₹13.3 lakh crore in FY21, aided by 7.4 crore Kisan Credit Card accounts.
- ✓ Industrial credit growth accelerated to 8.5% in FY24 from 5.2% in FY23.

- **Financial Stability and Asset Quality**

- ✓ Gross NPAs of SCBs fell to a 12-year low of 2.8% (March 2024), compared to 11.2% in FY18 — indicating improved recovery mechanisms and credit discipline.
- ✓ Stronger capital buffers have enhanced resilience to interest rate fluctuations.

- **Digital Transformation and Financial Inclusion**

- ✓ Over 77% of adults now hold formal bank accounts.
- ✓ UPI transactions surged from ₹0.07 lakh crore (FY17) to ₹200 lakh crore (FY24), revolutionising digital payments.
- ✓ India's 116 crore smartphone subscribers ensure deep financial connectivity even in remote areas.

- **Support to MSMEs and Entrepreneurship**

- ✓ Tailored credit to MSMEs has fostered innovation, employment, and local enterprise.
- ✓ India now ranks second globally (after China) in terms of borrowing customers.

- **Capital Market Development**

- ✓ Fund mobilisation through primary markets touched ₹10.9 lakh crore in FY24.
- ✓ IPOs rose from 164 (FY23) to 272 (FY24), and corporate bond issuances hit a record ₹8.6 lakh crore.

- **Implementing Welfare and Social Schemes**

- ✓ **PMJDY:** 56 crore accounts opened; 67% in rural/semi-urban areas.
- ✓ **Ayushman Bharat:** 34 crore health cards issued (49% female holders).
- ✓ **Atal Pension Yojana & NPS:** 7.3 crore subscribers; female participation up to 48.5%.

Role in Monetary and Fiscal Management

- **Monetary Transmission:** RBI uses banks for liquidity and rate adjustments through repo and reverse repo operations.
- **Public Debt & Subsidy Management:** Banks invest in G-Secs and enable Direct Benefit Transfers (DBT) for schemes like PM-KISAN and Ujjwala Yojana.
- **Tax Collection:** Facilitate GST, customs, and income tax payments through digital systems.

Key Challenges

- **Liquidity and Deposit Growth Imbalance:** Credit expansion has outpaced deposit mobilisation, increasing short-term borrowing dependence.
- **Cybersecurity Threats:** Rising phishing, ransomware, and mule account frauds endanger digital trust.
- **Unsecured Retail Credit:** Fast growth in personal loans increases default risks.
- **Financial Inclusion vs Profitability:** Limited rural infrastructure and digital literacy hinder deep penetration.
- **Capital Adequacy:** Smaller banks face hurdles in meeting Basel-III norms.
- **Competition & Consolidation:** Excessive mergers risk market concentration and reduced customer choice.

Reform Measures and Policy Initiatives

- **Banking Laws (Amendment) Act, 2025**

- ✓ Introduced 19 amendments across five major laws.
- ✓ Enhanced governance, audit quality, and investor protection in PSBs.
- ✓ Reduced “substantial interest” threshold from ₹5 lakh to ₹2 crore.

- **4R Strategy (2014)**



- ✓ Recognition, Recapitalisation, Resolution, and Reform – for PSB revival and professionalism through the Banks Board Bureau.

- **Digital & Cybersecurity Frameworks**

- ✓ RBI’s Framework for Responsible and Ethical Enablement of AI (FREE-AI) and initiatives like MuleHunter AI ensure secure innovation.

- **Green & Transition Finance**

- ✓ Integration of climate-risk assessment into lending.
- ✓ Expansion of Sovereign Green Bonds and green deposits to fund sustainable projects.

- **Governance and Fair Conduct**

- ✓ Emphasis on transparency, responsible lending, and consumer protection to strengthen trust in the financial system.

Narasimham Committee Reforms (1991 & 1998)

- Advocated a 4-tier banking hierarchy, reduction in SLR, 8% capital adequacy, and creation of Asset Reconstruction Funds.
- Recommended bank mergers for global competitiveness while cautioning against merging weak institutions.
- Suggested RBI’s regulatory autonomy and exit from ownership roles.

8. NITI Aayog Unveils Strategy for Self-Reliant Pulses Sector

Context: NITI Aayog released a report titled “Strategies and Pathways for Accelerating Growth in Pulses towards the Goal of Atmanirbharta”, outlining measures to strengthen India’s pulses sector. India is the largest producer and consumer of pulses, accounting for ~38% of global area and ~28% of production. Despite this, India remains the second-largest importer, after China. Major producing states include Madhya Pradesh, Maharashtra, and Rajasthan, contributing over 55% of production.

Importance of Pulses in India

- **Nutritional Security:** Pulses are rich in protein, fiber, vitamins, and minerals, supporting human and animal health. They align with SDG 2 (Zero Hunger) and SDG 3 (Good Health and Well-being).
- **Sustainable Agriculture:** Pulses improve soil fertility, conserve water, and reduce synthetic fertilizer use. Their low carbon footprint contributes to SDG 13 (Climate Action) and SDG 15 (Life on Land).

Challenges in the Pulses Sector

- **Low Yields:** India's average yield (0.74 t/ha) lags behind the global average (0.97 t/ha) and ranks lowest among the top ten producers.
- **Technological Gaps:** Limited adoption of high-yielding varieties, weak extension support, and poor pest and disease management.
- **Environmental Constraints:** Predominantly rainfed cultivation with inadequate irrigation; vulnerable to droughts and climatic shocks.
- **Economic and Market Issues:** Price volatility, lower profitability than cereals, and fragmented marketing channels discourage farmers.

Recommendations for Self-Reliance

- **Area Retention and Diversification:** Maintain existing pulse area and diversify cultivation via crop-wise clustering and agro-ecological region strategies.
- **Seed and Technology Interventions:** Distribute quality seeds and treatment kits, focusing on 111 high-potential districts. Promote "One Block–One Seed Village" model supported by Farmer Producer Organisations (FPOs).
- **Climate Adaptation:** Integrate measures to mitigate El Niño, La Niña, and other climatic risks.
- **Data-Driven Decision Making:** Establish monitoring systems, early-warning tools, and market intelligence platforms to enhance transparency and traceability.

Mission Atmanirbharta in Pulses (6-Year Plan)

- The Union Budget 2025–26 launched the mission focusing on tur, urad, and masoor, structured around five pillars:
 - ✓ **Assured Procurement:** NAFED and NCCF to buy pulses at assured prices under four-year agreements.
 - ✓ **Seed Systems & Traceability:** Quality seed distribution under the One Block–One Seed Village model.
 - ✓ **Strengthening FPOs:** To improve bargaining power, access to inputs, and market linkages.
 - ✓ **Nutrition Factor:** Expand pulses in Public Distribution System (PDS) and mid-day meals.
 - ✓ **Value Chain Development:** Enhance mechanisation, value addition, and post-harvest loss management.

9. Incentive Scheme to Promote Critical Mineral Recycling

Context: The Union Cabinet approved a Rs. 1,500 crore Incentive Scheme to develop domestic recycling capacity for critical minerals from secondary sources under the National Critical Mineral Mission (NCMM). The six-year scheme spans FY 2025-26 to FY 2030-31.

About Critical Minerals

- **Definition:** Minerals essential for economic development, national security, and emerging technologies.
- **Applications:** EV batteries, semiconductors, solar panels, wind turbines, advanced manufacturing, defense, medical devices.
- **Key Minerals:** Lithium, cobalt, nickel, rare earth elements, beryllium, tungsten, tantalum, platinum group metals, etc.
- **Strategic Need:** Heavy reliance on imports and global supply concentration, especially from China, creates supply chain vulnerabilities.

Scheme Features

- **Eligible Feedstock:** E-waste, lithium-ion battery scrap, and other industrial scrap.
- **Beneficiaries:** Both large recyclers and small/start-up units (one-third of outlay reserved for small entities).
- **Coverage:** New units, capacity expansion, modernization, and diversification.
- **Incentives:**
 - ✓ Capital Subsidy: 20% on plant and machinery.
 - ✓ Operational Subsidy: Linked to incremental sales; 40% in year 2, 60% in year 5.
- **Caps:** ₹50 crore per large entity (Opex ₹10 crore) and ₹25 crore per small entity (Opex ₹5 crore).
- **Expected Outcomes:**
 - ✓ 270 kilotons annual recycling capacity
 - ✓ 40 kilotons critical mineral production
 - ✓ ~₹8,000 crore investment and ~70,000 jobs

Need for Recycling

- Rapid rise in e-waste, PV module waste, and EV batteries.
- Limited domestic mining, refining, and separation technology.
- Over-dependence on China for rare earths and refined critical minerals.
- Environmental concerns and regulatory bottlenecks restrict exploitation of primary sources.

10. India's Foreign Capital Paradox

Context: Despite being the world's fastest-growing major economy, with GDP growth averaging 8.2% (2021–24), India is witnessing relatively low foreign capital inflows, creating a “foreign capital paradox.”

Trends in Capital Flows

- Net capital inflows (including FDI, commercial borrowings, external assistance, and NRI deposits) were \$18.3 billion in 2024–25, the lowest since the 2008–09 global financial crisis.
- Capital inflows in 2025 fell over 40% compared to 2024, despite GDP growth of 7.8% in the latest quarter.
- Net FDI = Gross FDI – (Repatriation by foreign firms + Outward FDI by Indian firms). Positive net FDI signals economic attractiveness; low net FDI may reflect profit-taking or capital exits.

Reasons for Low Foreign Capital Inflows

- **PE/VC Exit Cycle:** Earlier growth investments have matured, prompting investors to exit.
- **High Market Valuations:** Encourages profit-taking rather than new entry.
- **Global Uncertainties:** Trade wars, tariffs, and geopolitical tensions.
- **Merchandise Trade Deficit:** Imports far exceed exports (\$287.2 billion in 2024–25).
- **Investor Perception:** Corporate earnings, profitability, and sustainable business environment matter more than headline GDP growth.

Implications

- **Economic:** Stress on external financing and higher current account deficit.
- **Currency:** Pressure on the rupee due to capital outflows.
- **Investor Confidence:** Weak participation in India's growth story.
- **Policy Space:** Limits on financing growth through external resources.

11. 56th GST Council Meeting – Towards GST 2.0

Context: The 56th meeting of the Goods and Services Tax (GST) Council, held in September 2025, introduced next-generation reforms (GST 2.0) aimed at simplifying the tax structure, reducing consumer burden, and promoting ease of doing business.

About the GST Council

- **Constitutional Basis:** Established under Article 279A of the Constitution through the 101st Constitutional Amendment Act, 2016.
- **Composition:**
 - ✓ Chairperson: Union Finance Minister
 - ✓ Members: Union Minister of State (Finance) and Finance Ministers of all States and UTs
- **Decision Mechanism:**
 - ✓ Centre – one-third voting power
 - ✓ States – two-thirds voting power
 - ✓ Decisions require a three-fourths majority
- **Functions:** Recommends GST rates, exemptions, thresholds, and procedural reforms.

Key Highlights of the 56th GST Council Meeting

• Simplified Two-Slab Structure

The existing four-rate structure (5%, 12%, 18%, 28%) was merged into:

- ✓ 5% – Essential items (merit rate)
- ✓ 18% – Standard goods and services
- ✓ 40% – Sin and luxury goods (special rate)

Aims to reduce classification disputes and simplify compliance.

• Relief for Consumers and Common Households

- ✓ Zero GST on UHT milk, paneer, chapatis, parathas, and other essential food items.
- ✓ 5% GST on soaps, shampoos, toothpaste, bicycles, and farm tools.
- ✓ GST exemption on all life and health insurance policies.

• Healthcare and Medicine Support

- ✓ 33 life-saving drugs and 3 critical medicines made fully GST-exempt.
- ✓ Medical equipment to attract only 5% GST, improving healthcare affordability.

• Boost to Key Sectors

- ✓ **Agriculture:** Reduced GST on tractors, harvesters, and fertilizer inputs (sulphuric acid, nitric acid, ammonia) to 5%.
- ✓ **Manufacturing & Green Energy:**
 - Renewable energy devices taxed at 5% (down from 12%).
 - Small cars, TVs, ACs, and cement shifted from 28% to 18%.
- ✓ **Labour-Intensive Sectors:** Handicrafts, leather, and marble goods moved to 5% slab.

• Institutional and Compliance Reforms

- ✓ Goods and Services Tax Appellate Tribunal (GSTAT) to become operational by December 2025 for faster dispute resolution.
- ✓ Inverted duty structure corrected for manmade fibers and textiles.
- ✓ Digital compliance and refund processes simplified for MSMEs.

• Compensation Cess Rationalisation

- ✓ Cess continues only on sin and luxury goods (tobacco, aerated drinks, luxury vehicles) to meet pending state dues.
- ✓ Phased withdrawal of cess from 22nd September 2025 for other goods, marking a step toward fiscal consolidation.

About GST

- **Introduced:** 1 July 2017
- **Nature:** Destination-based, value-added indirect tax replacing multiple central and state levies.
- **Components:**
 - ✓ CGST & SGST for intra-state transactions
 - ✓ IGST for inter-state transactions

- **Network:** Managed through the Goods and Services Tax Network (GSTN) ensuring digital filing and transparency.

12. India's Ambition to Become a Top Five Shipbuilding Nation by 2047

Context: India, currently holding less than 1% of the global shipbuilding market, aims to become one of the world's top five shipbuilding nations by 2047, leveraging its strategic coastline, competitive labour, and government-backed initiatives.

About Shipbuilding

- **Definition:** Construction, repair, and maintenance of vessels used for trade, transportation, and defence.
- **Current Market:** Asia-Pacific dominates with 49% of global shipbuilding; India's share is 0.06%, while China, South Korea, and Japan collectively control 85%.
- **Maritime Sector Contribution:** Accounts for 4% of India's GDP, handling 95% of trade by volume. Cargo throughput at Indian ports reached 819.22 million tonnes in FY24.

Factors Driving Growth

- **Strategic Location:** Long coastline and proximity to major shipping routes.
- **Competitive Labour Costs:** Lower than other leading shipbuilding nations.
- **Focus on Niche Segments:** Offshore support vessels, dredgers, and ferries.
- **Government Support:** Policies such as SFAS, Sagarmala, and MIV 2030 encourage infrastructure development and indigenous shipbuilding.

Government Initiatives

- **Sagarmala Programme:** Enhances port infrastructure, coastal development, and connectivity.
- **Maritime India Vision 2030 (MIV 2030):** 150+ initiatives to make India a top 10 maritime nation by 2030.
- **Inland Waterways Development:** 26 national waterways to reduce road/rail congestion.
- **Green Tug Transition Program (GTTP):** Promotes eco-friendly port operations.
- **Maritime Development Fund:** ₹25,000 crore for port modernization and private investment.
- **Shipbuilding Financial Assistance Policy (SBFAP 2.0):** Direct subsidies to Indian shipyards.
- **Cruise Bharat Mission:** Development of river and sea cruise terminals to boost tourism.
- **Indian Ports Act, 2025:** Strengthened state maritime boards and dispute resolution mechanisms.

13. Stablecoins

Context: The market for stablecoins has expanded rapidly, with their market capitalization surpassing \$280 billion, more than doubling in the past 18 months. Their growth reflects increasing adoption in payments, digital finance, and crypto markets.

What Are Stablecoins?

- **Definition:** Stablecoins are cryptocurrencies designed to maintain price stability by pegging their value to underlying assets.
- **Types of Pegs:**
 - ✓ Fiat currencies: e.g., US Dollar, Euro
 - ✓ Commodities: e.g., gold
 - ✓ Other cryptocurrencies
 - ✓ Algorithm-based mechanisms that automatically adjust supply to maintain stability
- **Difference from CBDCs:** Unlike Central Bank Digital Currencies (CBDCs), which are government-issued and controlled, stablecoins can be privately issued and may be pegged to foreign currencies.

Global Regulatory Landscape

- **United States:** Passed the Genius Act, mandating stablecoins to be fully backed by liquid assets such as cash or Treasury bills, with regular disclosure requirements.
- **Japan and Singapore:** Introduced targeted regulatory frameworks for stablecoins to ensure consumer protection and financial stability.
- **China:** While focusing on the digital yuan, China is also exploring regulations for yuan-backed stablecoins amid rising usage.

14. Five Years of Blue Revolution

Context: Five years since its launch, the Pradhan Mantri Matsya Sampada Yojana (PMMSY) has significantly strengthened India's fisheries sector, making it ecologically sustainable, economically viable, and socially inclusive.

Background

- **Blue Revolution (2015):** Aimed at boosting fish production and modernizing the fisheries value chain. While it improved productivity, gaps remained in post-harvest handling, traceability, fisher welfare, and market access.
- **PMMSY (2020):** Launched to address these gaps, PMMSY builds on the Blue Revolution with a comprehensive, integrated approach to production, technology, infrastructure, value chains, and fisher welfare.

Structure and Components



About PMMSY

- **Launched:** September 2020, announced in Union Budget 2019–20.
- **Objectives:**
 - ✓ Sustainable, inclusive, and equitable utilization of fisheries potential.
 - ✓ Enhancing fish production through expansion, intensification, and diversification.
 - ✓ Modernizing value chains: post-harvest management and quality improvement.
 - ✓ Doubling incomes of fishers and fish farmers, creating employment.
 - ✓ Strengthening contribution to Agriculture GVA and exports.
 - ✓ Ensuring social, physical, and economic security for fishers.
 - ✓ Robust fisheries management and regulatory framework.

Milestones and Achievements

- **Record Production:** 195 lakh tonnes in 2024–25, up from 141.64 lakh tonnes in 2019–20.
- **Global Standing:** India is the second-largest fish producer, contributing nearly 8% of global output.
- **Exports Growth:** Fisheries exports rose from ₹46,662.85 crore in 2019–20 to ₹60,524.89 crore in 2023–24.
- **Women Empowerment:** Over 99,000 women empowered through financial support up to 60% of project cost (up to ₹1.5 crore/project).

- Livelihood Generation: 58 lakh jobs created across fishing and allied activities.
- Climate-Smart Value Chains: Modern, sustainable infrastructure implemented for post-harvest handling and processing.

15. Draft National Industrial Classification (NIC) 2025 Released

Context: The Ministry of Statistics and Programme Implementation (MoSPI) has released the Draft National Industrial Classification (NIC) 2025 for public consultation.

About NIC 2025

- **Purpose:** Standardizes the categorization of industries and economic activities, enabling uniform data collection, policy planning, and research.
- **Significant Updates:**
 - ✓ Introduces new categories reflecting digital and green transformations:
 - Renewable energy
 - Fintech
 - Digital commerce
 - AYUSH healthcare
 - Platform-based services
- First Revision in 17 Years: Modernizes the classification to capture India's rapidly evolving economic and technological landscape.

16. RBI Retains Flexible Inflation Targeting Framework

Context: Former members of the Monetary Policy Committee (MPC) recently supported retaining India's Flexible Inflation Targeting (FIT) regime, which sets a Consumer Price Index (CPI) inflation target of 4% within a 2–6% band. The framework is credited with stabilising inflation expectations and supporting economic growth.

About Consumer Price Index (CPI)

- **Definition:** Measures changes in retail prices of a fixed basket of goods and services, reflecting the cost of living and consumer purchasing power.
- **Compilation in India:** Prepared by the National Statistical Office (NSO) using 2012 as the base year.
- **Purpose:**
 - ✓ Tracks inflation trends by comparing current prices to past prices.
 - ✓ Initially used for adjusting wages, now critical for monetary policy and inflation targeting by RBI.
 - ✓ Also measures real economic growth by adjusting for price changes.
- **Variants:** India publishes CPI indices for industrial workers, agricultural labourers, and rural labourers.

Significance of FIT

- Anchors inflation expectations, reducing uncertainty for businesses and consumers.
- Guides the RBI in interest rate decisions to balance growth and price stability.
- Enhances transparency and credibility of India's monetary policy framework.

17. 'Pink Tax' in India

Context: According to the International Finance Students Association (IFSA) study titled 'The Gender Tax: Assessing the Economic Toll on Women', nearly 67% of Indians have never heard of the 'Pink Tax', highlighting a lack of awareness about gender-based pricing disparities in the country.

What is Pink Tax?

- **Definition:** The Pink Tax is not an actual government levy but a pricing phenomenon where products or services targeted at women are priced higher than comparable male or unisex versions.
- **Common Products Affected:**
 - ✓ **Personal care:** Shampoos, body lotions, deodorants, facial and skincare items
 - ✓ **Hygiene:** Sanitary napkins, tampons
 - ✓ **Clothing:** T-shirts, jeans
 - ✓ **Services:** Haircuts, salon treatments, dry-cleaning
- **Origin:** The term originated in California, U.S., in 1994.

Regulatory Framework in India

- No specific legislation exists to curb Pink Tax.
- National Consumer Disputes Redressal Commission (NCDRC) mandates fair pricing policies and discourages gender-based price discrimination.
- **Government Initiatives:**
 - ✓ July 2018: GST exemption for sanitary napkins and tampons, previously taxed at 12%, reducing the financial burden on women.

Ways to Avoid Pink Tax

- Opt for gender-neutral or men's variants when quality is comparable.
- Compare unit prices rather than packaged prices.
- Choose unisex products over pink-labelled options.

18. India Secures First Exploration Contract for Polymetallic Sulphides from ISA

Context: India has signed its first-ever global exploration contract with the International Seabed Authority (ISA) to explore polymetallic sulphide (PMS) nodules in the Carlsberg Ridge region of the Indian Ocean.

About Carlsberg Ridge

- A 3,00,000 sq km submarine mountain range in the northwest Indian Ocean, forming the boundary between the Indian and Arabian tectonic plates.
- Extends from near Rodrigues Island to the Owen fracture zone.
- India had applied in January 2024 for exploration rights in Carlsberg Ridge and the Afanasy-Nikitin Sea (ANS) Mount, the latter still pending approval and subject to claims by Sri Lanka.

Significance for India

- Strengthens India's role in strategic deep-sea mining and access to critical industrial metals like copper, zinc, gold, and rare earth elements.
- Enhances resource security and supports the Deep Ocean Mission, contributing to India's goal of mineral self-reliance.
- Expands India's expertise in sustainable deep-sea exploration and aligns with global standards for environmental protection.

International Seabed Authority (ISA)

- Autonomous body established under UNCLOS 1982 and the 1994 Agreement to regulate deep-sea mineral activities for the benefit of humankind.
- **Headquarters:** Kingston, Jamaica.
- **Members:** 170 (169 states + EU).
- **Functions:**
 - ✓ Grants permits for exploration of seabed resources in areas beyond national jurisdiction, known as the Area, which spans 54% of the world's ocean floor.
 - ✓ Ensures environmental protection and sustainable resource management.
- **Global Context:** So far, 19 countries have been granted exploration rights by the ISA.

India's Previous Engagements

VISHNU IAS ACADEMY | UPSC | TGPS | APPSC | **OPTIONALS:** ANTHROPOLOGY | PSIR | SOCIOLOGY 9000500939

- Holds ISA permits in the Central Indian Ocean Basin and for polymetallic sulphides in the Indian Ocean Ridge, valid through 2027 and 2031, respectively.
- The Carlsberg Ridge contract marks India's first exploration in this region, opening avenues for future deep-sea mineral development.

19. Surging Exports Narrow India's Trade Deficit

Context: India's trade deficit contracted sharply by over 54% to \$9.9 billion in August 2025, compared to \$21.7 billion in August 2024, primarily due to a strong rise in merchandise exports, according to the Ministry of Commerce and Industry.

Trade Deficit: Meaning

A trade deficit occurs when a country imports more goods and services than it exports, which can weaken the domestic currency and affect external sector stability.

Drivers of Positive Trade Performance

- **Policy Support for Exports:**
 - ✓ Schemes like PLI (Production-Linked Incentive), RoDTEP (Remission of Duties and Taxes on Exported Products), and enhanced logistics via PM GatiShakti have boosted competitiveness.
 - ✓ Exporters remained resilient despite 25–50% tariffs imposed by the U.S.
- **Strong Services Sector Performance:**
 - ✓ IT, fintech, business process management, and professional services drove global demand.
 - ✓ Net services surplus of \$16.7 billion cushioned merchandise trade deficit.
- **Import Moderation:**
 - ✓ Decline in crude oil and commodity prices reduced import bills.
 - ✓ Promotion of domestic manufacturing in electronics, defence, and renewable energy is reducing import dependence.

Implications for the Economy

- External sector stability: Lower trade deficit strengthens the current account position.
- Forex and rupee stability: Reduced pressure on the rupee, bolstering foreign exchange reserves.
- Global competitiveness: Demonstrates India's resilience amidst global tariffs and headwinds.
- Economic growth: Export momentum boosts GDP, employment, and industrial expansion.

20. Prime Minister Pushes for Local Production

Context: Prime Minister Narendra Modi urged citizens to prioritise 'Made in India' products to realise the vision of a Developed India by 2047. He also laid the foundation for India's first PM Mega Integrated Textile Region and Apparel (PM MITRA) park in Dhar, Madhya Pradesh.

About PM MITRA Parks

- The PM MITRA scheme aims to integrate the textile value chain — Farm to Fibre to Factory to Fashion to Foreign.
- The Dhar park is among seven approved sites; others include Virudhnagar (TN), Warangal (Telangana), Navasari (Gujarat), Kalaburagi (Karnataka), Lucknow (UP), and Amravati (Maharashtra).
- These parks will promote large-scale investment, exports, and employment in the textile sector.

India's Manufacturing Sector:

- Currently contributes ~17% of GDP; target: 25% by 2025–26.
- Annual Survey of Industries (2022–23):
 - ✓ Output growth: 21.5% | GVA growth: 7.3%.

- ✓ Key contributors: Metals, petroleum, food products, chemicals, and vehicles (58% of total output).
- ✓ Generated ~22 lakh new jobs in 2022–23.
- ✓ Leading states: Maharashtra, Gujarat, Tamil Nadu, Karnataka, Uttar Pradesh.

Challenges

- High logistics and power costs hinder competitiveness.
- Low R&D investment (<1% of GDP).
- Import dependence on semiconductors and electronics.
- Skill mismatches and low productivity in MSMEs.
- Global competition from Vietnam, Bangladesh, and China.
- Environmental compliance costs.

Make in India: Achievements

- Ease of Doing Business: India rose from 142 (2014) to 63 (2020) in World Bank rankings.
- Vaccine manufacturing: India supplies 60% of global vaccines.
- Vande Bharat Trains: 102 services operational — symbol of indigenous innovation.
- INS Vikrant: India's first indigenous aircraft carrier; defence production hit ₹1.27 lakh crore in 2023–24.
- Electronics: Output grew from \$48 bn (FY17) to \$101 bn (FY23); mobile manufacturing forms 43% of it.
- Textiles: Employs 14.5 crore people.
- Indian products like 'Made in Bihar' boots and Amul dairy now have global presence.

21. India–ILO MoU on Occupational Classification to Boost Global Job Opportunities

Context: The Government of India has signed a Memorandum of Understanding (MoU) with the International Labour Organisation (ILO) to implement the International Reference Classification of Occupations (IRCO) framework.

About the MoU

- The IRCO, developed by the ILO, provides a universal system for classifying occupations based on job functions, skills, and responsibilities.
- It enables cross-country comparison of workforce data, supporting:
 - ✓ Global migration management
 - ✓ Vocational training and skilling policies
 - ✓ Labour market analysis and planning
 - ✓ By aligning with IRCO, India aims to standardize its skill classifications, improve mutual recognition of qualifications, and enhance global employability of Indian workers.

About the International Labour Organisation (ILO)

- Established: 1919 under the Treaty of Versailles; became the first UN specialized agency in 1946.
- Members: 187 countries (India is a founding member).
- Structure: The only tripartite UN agency bringing together governments, employers, and workers.
- Mandate: To promote decent work, set international labour standards, and support social justice.
- Headquarters: Geneva, Switzerland.

SOCIAL ISSUES & SOCIAL JUSTICE

1. WHO World Mental Health Report 2025

Context: The World Health Organisation (WHO) released two major reports – World Mental Health Today and Mental Health Atlas 2024 – highlighting the global burden of mental health disorders and the urgent need for policy action. Globally, over one billion people live with mental health conditions, while suicide accounts for 1 in 100 deaths, with young adults being the most vulnerable.

Global Highlights

- **Prevalence:** 13.6% of the global population suffers from a mental disorder, with numbers rising faster than population growth (2011–2021).
- **Most Common Disorders:** Anxiety and depression together constitute over two-thirds of all cases.
- **Age & Gender Trends:**
 - ✓ Young adults (20–29 years) show the fastest rise in prevalence.
 - ✓ Males: Higher rates of ADHD, autism, and intellectual disabilities.
 - ✓ Females: Higher prevalence of anxiety, depressive, and eating disorders.
- **Suicide:** Leading cause of death among young people; progress toward SDG target (one-third reduction by 2030) remains slow, with only 12% reduction projected.
- **Economic Impact:** Depression and anxiety alone cost the global economy US\$1 trillion annually through lost productivity.

Mental Health Scenario in India

- **Prevalence:** Around 10.6% of Indian adults suffer from mental disorders (NMHS 2015–16), with urban prevalence (13.5%) higher than rural (6.9%).
- **Treatment Gap:** 70–92% remain untreated due to stigma, shortage of professionals, and limited awareness.
- **Workforce Shortage:** India has only 0.75 psychiatrists per 100,000 people, compared to WHO's recommendation of 3 per 100,000.
- **Challenges:**
 - ✓ Poor infrastructure in psychiatric hospitals.
 - ✓ Urban-rural disparity in access.
 - ✓ High out-of-pocket costs and lack of medicines in rural areas.

Government Initiatives in India

- **Mental Healthcare Act, 2017:** Guarantees right to mental healthcare, decriminalizes suicide, introduces advance directives, and regulates electroconvulsive therapy (ECT).
- **RPwD Act, 2016:** Recognizes mental illness as a disability and strengthens legal protection.
- **National Mental Health Programme (NMHP, 1982):** Integrates mental health into general healthcare.
- **Ayushman Bharat & DMHP:** Provides services through primary health centers and district programs.
- **National Tele Mental Health Programme (Tele MANAS, 2022):** 24/7 free tele-counseling across 36 states/UTs.
- **Kiran Helpline:** Suicide prevention and crisis support.
- **Capacity Building:** Training healthcare professionals via iGOT-Diksha (2020) and expanding mental health resources in medical colleges.

Ethical Perspective

- **Equity:** Access to mental health care is a right under Article 21; rural populations and vulnerable groups must receive equal support.

- **Autonomy & Dignity:** People should seek care without stigma or coercion.
- **Duty of Care:** Workplaces, schools, and governments have moral obligations to prevent harm.
- **Collective Well-being:** Addressing mental health improves productivity, social cohesion, and public safety.

2. Empowered Women: Foundation of Viksit Bharat

Context: Prime Minister Narendra Modi launched the Bihar Rajya Jeevika Nidhi Saakh Sahkari Sangh Limited, reaffirming that “empowered women are the foundation of Viksit Bharat.” The initiative reflects India’s push toward inclusive growth through women-led development.

About Jeevika Nidhi Saakh Sahkari Sangh Limited

- **Nature:** A state-level cooperative financial institution to support women entrepreneurs in Bihar.
- **Objective:** To ensure affordable and timely credit access for Self-Help Group (SHG) members, reducing reliance on high-interest Microfinance Institutions (charging 18–24%).
- **Membership:** All cluster-level federations of Jeevika SHGs form part of this cooperative.
- **Funding:** Jointly supported by the Central and State governments.
- **Technology Integration:** Fully digital operations enabling loan processing through mobile applications; around 12,000 community cadres are equipped with tablets.

How Women Empowerment Drives Viksit Bharat

- **Economic Growth:** Bridging the gender gap in labour participation could add up to \$770 billion to India’s GDP by 2025.
- **Entrepreneurship:** SHGs and women-led enterprises create local employment, boost rural consumption, and strengthen sustainable livelihoods.
- **Education & Human Capital:** Empowered women reinvest in children’s education and health, enhancing intergenerational progress.
- **Governance & Democracy:** Women leaders in Panchayati Raj Institutions have improved outcomes in water, health, and sanitation sectors.
- **Social Equity:** Empowerment curbs poverty, child marriage, and discrimination—advancing Sabka Saath, Sabka Vikas, Sabka Vishwas.

Key Government Initiatives Empowering Women

- **Economic Empowerment**
 - ✓ **DAY-NRLM:** Over 10 crore women mobilised into SHGs nationwide.
 - ✓ **Lakshpati Didi & Namu Drone Didi:** Building rural women entrepreneurs through digital and agri-technology skilling.
 - ✓ **Bank Sakhi Initiative:** Women as financial inclusion facilitators at village level.
 - ✓ **Stand-Up India & Mudra Yojana:** Easing access to institutional credit for women entrepreneurs.
- **Social Infrastructure & Welfare**
 - ✓ **PM Awas Yojana:** Houses registered in women’s names to boost asset ownership.
 - ✓ **Ujjwala Yojana:** Over 10 crore LPG connections reducing drudgery and indoor pollution.
- **Health & Nutrition**
 - ✓ **Ayushman Bharat-PMJAY:** ₹5 lakh health cover per family.
 - ✓ **POSHAN Abhiyaan & Matru Vandana Yojana:** Focused on maternal and child health.
- **Political & Legal Empowerment**
 - ✓ **Women’s Reservation Act 2023:** 33% reservation in Parliament and State Assemblies.
 - ✓ **One Stop Centres:** Over 700 centres aiding women in distress.

3. Special Bulletin on Maternal Mortality in India 2021–23

Context: The Government of India released the Special Bulletin on Maternal Mortality in India 2021–23, prepared by the Office of the Registrar General of India (ORGI) under the Sample Registration System (SRS). The report shows a stable Maternal Mortality Ratio (MMR) of 88 per 1,00,000 live births, reflecting progress in maternal healthcare.

Key Concepts

- **Maternal Death:** Death of a woman during pregnancy or within 42 days of termination, due to pregnancy-related causes.
- **Maternal Mortality Ratio (MMR):** Maternal deaths per 1,00,000 live births.
- **Maternal Mortality Rate:** Maternal deaths per lakh women aged 15–49 years.
- **SDG Target:** Reduce global MMR to <70 per 1,00,000 live births by 2030.

Government Initiatives

- **Janani Suraksha Yojana (JSY, 2005):** Promotes institutional delivery, especially for vulnerable women.
- **Pradhan Mantri Matru Vandana Yojana (PMMVY):** Maternity benefits of ₹5,000 for first child; PMMVY 2.0 adds incentives for second child if a girl.
- **Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA, 2016):** Provides assured quality antenatal care on 9th of every month.
- **LaQshya (2017):** Enhances quality of labour room and maternity OT care.
- **Maternal Death Surveillance Review (MDSR):** Facility and community-level corrective actions.
- **VHSND & RCH Portal:** Outreach and digital tracking for maternal and child health.
- **State-Level Innovations:**
 - ✓ **Madhya Pradesh – Dastak Abhiyan:** Community-based early risk detection.
 - ✓ **Tamil Nadu – Emergency Obstetric Care Model:** Efficient referral system for timely emergency care.

4. Himachal Pradesh Declared Fully Literate

Context: On International Literacy Day (8 September 2025), Himachal Pradesh Chief Minister announced that the state has achieved full functional literacy, with a 99.3% literacy rate, surpassing the national benchmark of 95%.

- It becomes the fourth fully literate state after Tripura, Mizoram, and Goa.
- Ladakh was the first fully literate Union Territory, declared in June 2024.

Definition of Literacy

- According to the 2011 Census, literacy is the ability to read and write with understanding in any language for individuals aged 7 and above.
- Functional literacy implies applying reading, writing, and numeracy skills in daily life.

ULLAS / NILP Program

- ULLAS (Understanding Lifelong Learning for All in Society) Nav Bharat Saaksharta Karyakram is a centrally sponsored scheme (2022–2027) targeting non-literate adults (15+ years).
- Focuses on literacy, digital literacy, and life skills like financial literacy.
- **Achievements:**
 - ✓ Enrolled over 3 crore learners with 1.83 crore completing assessments (90% success rate).
 - ✓ Materials available in 26 Indian languages, ensuring inclusivity.

5. National Annual Report & Index on Women's Safety (NARI) 2025

Context: The National Commission for Women (NCW) released the National Annual Report & Index on Women's Safety (NARI) 2025, ranking Indian cities on women's safety based on governance, infrastructure, and perception indicators.

Key Findings

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- **Safest Cities:** Kohima, Visakhapatnam, Bhubaneswar, Aizawl, Gangtok, Itanagar, and Mumbai.
- **Least Safe Cities:** Patna, Jaipur, Faridabad, Delhi, Kolkata, Srinagar, and Ranchi.
- **National Safety Score:** 65%, serving as a benchmark for urban safety performance.
- **Public Harassment:** 7% of women faced harassment in 2024; the rate doubles (14%) among women below 24 years.
- **Hotspots:** Neighbourhoods (38%) and public transport (29%) are the most unsafe zones.
- Only 25% of women expressed confidence in authorities' action on complaints.

Barriers to Women's Safety

- **Institutional Fragmentation:** Poor coordination among agencies reduces enforcement effectiveness.
- **Judicial Delays:** Slow investigation and trials weaken deterrence.
- **Unsafe Mobility:** Poor last-mile connectivity and lack of female staff in public transport.
- **Under-Reporting:** Only one in three victims report incidents due to stigma and mistrust.
- **Cultural Barriers:** Patriarchal norms and victim-blaming attitudes persist.
- **Data Gaps:** Official crime data often miss perception-based insecurities.

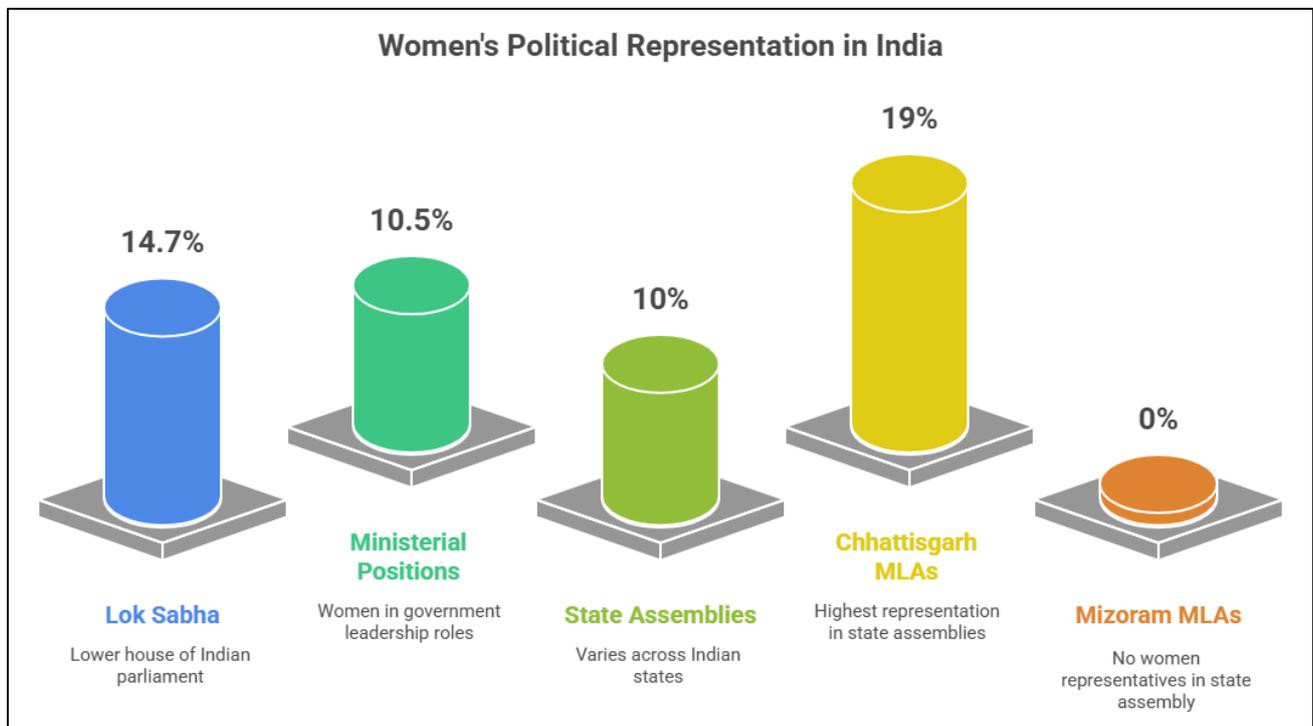
Government Initiatives

- **Nirbhaya Fund:** Finances safety-related infrastructure and technology projects.
- **SHe-Box Portal:** Provides an online platform for women to file sexual harassment complaints.
- **POSH Act (2013):** Mandates Internal Committees in workplaces and Local Committees for smaller organizations.

6. Women's Political Participation in India: Bridging the Gender Gap

Context: At the first national conference on parliamentary and legislative committees on women's empowerment, the Governor of Andhra Pradesh highlighted the persistent underrepresentation of women in India's political landscape, underscoring the need for structural reforms and policy interventions.

Current Scenario



- Globally, 27.2% of parliamentarians are women (UN Women), up from 11% in 1995.
- **In India:**
 - ✓ Lok Sabha: Women hold 14.7% of seats, below the global average of 26.5%.
 - ✓ Ministerial positions: Only 10–11% of ministers are women.

- ✓ State Assemblies: Representation often falls below 10%; Chhattisgarh leads with 19 women MLAs, while Mizoram has none.
- India ranks 148th among 193 countries, 31st among 47 Asian nations, and fifth among eight SAARC countries in women's political representation.

Reasons for Low Participation

- **Political Barriers:**
 - ✓ Parties field fewer women candidates; only 797 contested in 2024, with 74 elected.
 - ✓ Patriarchal party structures limit leadership roles and internal democracy.
- **Social Norms & Gender Stereotypes:**
 - ✓ Cultural beliefs discourage women from political careers.
 - ✓ Politics remains male-dominated; domestic responsibilities often take precedence.
- **Safety & Mobility Concerns:**
 - ✓ Campaigning risks restrict participation, especially in rural/conflict-prone areas.
 - ✓ Low Female Labour Force Participation:
 - ✓ Limits civic and political engagement, particularly among marginalized women.

Government Initiatives & Policy Push

- **Nari Shakti Vandan Adhiniyam (2023):** Reserves 33% of parliamentary seats, effective from 2029.
- **73rd & 74th Amendments:** Ensure 1/3 reservation for women in Panchayati Raj and Urban Local Bodies, resulting in 1.4 million elected women representatives.
- **State Initiatives:** 20 states increased local body reservations from 33% to 50%.
- **Capacity Building:** Training programs via National Institute of Rural Development.
- **Empowerment Schemes:** PMGDISHA, PMJDY, Stand-Up India, and NRLM Self-Help Groups support women's civic and political engagement.

7. Closing Gender Gaps Holds the Key to Ending Poverty

Context: The UN Gender Snapshot 2025, released by UN Women and UN DESA, warns that over 351 million women and girls could remain in extreme poverty by 2030 unless urgent measures are taken to close gender gaps.

Key Findings

- **Persistent Poverty:** Global female poverty has remained at 10% since 2020, worsened by conflict and climate change.
- **Unpaid Work & Representation:** Women perform 2.5 times more unpaid care work than men and hold less than one-third of parliamentary seats.
- **Digital Divide:** In 2024, internet use was 70% for men and 65% for women. Bridging this gap could lift 30 million women from poverty and add \$1.5 trillion to global GDP.
- **Food & Safety:** 64 million more women than men were food insecure in 2024; 1 in 8 women faced intimate partner violence.
- **Child Marriage:** Down from 22% (2014) to 18.6% (2024) among women aged 15–19.
- **Conflict Exposure:** 676 million women and girls lived near active conflict zones — the highest since the 1990s.
- **Climate Threat:** Worst-case scenarios could push 158 million more women into poverty by 2050.

India-Specific Insights

- **Labour Force:** Female Labour Force Participation Rate (FLFPR) – 37% (2023), among South Asia's lowest.
- **Political Representation:** Women hold 15% of Lok Sabha seats; the Women's Reservation Act, 2023 aims for 33%.

- Education: Parity in school enrolment achieved, but dropout rates rise at the secondary level due to early marriage and safety issues.
- Digital Divide: Only 33% of women access the internet versus 57% of men.
- Violence: Over 4 lakh cases of crimes against women reported in 2022 (NCRB).

Global Efforts

- SDG 5: Gender equality and empowerment of women.
- Beijing Declaration (1995): Blueprint for women's rights and empowerment.
- CEDAW: Promotes legal and policy measures to eliminate gender discrimination.

India's Initiatives

- Poshan Abhiyaan: Addresses malnutrition among women and children.
- PMGDISHA: Promotes digital literacy among rural women.
- One Stop Centre (Sakhi): Provides integrated support to victims of violence.
- WISE-KIRAN: Supports women scientists' participation in research.
- Maternity Benefit Act (2017): Ensures 26 weeks of paid maternity leave.
- Nari Shakti Vandan Adhiniyam (2023): Reserves one-third seats for women in legislatures.

About UN Women & UN DESA

- UN Women (2010): UN entity for gender equality; HQ – New York.
- UN DESA: UN body supporting sustainable development and SDGs implementation.

8. Swasth Nari Sashakt Parivar Abhiyan

Context: Prime Minister Narendra Modi launched the Swasth Nari, Sashakt Parivar Abhiyan along with the 8th Rashtriya Poshan Maah campaign in Madhya Pradesh, marking India's largest-ever health outreach for women and children.

About the Initiative

- **Led by:** Ministry of Health & Family Welfare (MoHFW) and Ministry of Women & Child Development (MoWCD).
- **Aim:** To provide women-centric preventive, promotive, and curative health services at the community level.
- **Implementation:**
 - ✓ Over 10 lakh health camps will be organised nationwide at Ayushman Arogya Mandirs, CHCs, District Hospitals, and other government facilities.
- **Focus Areas:**
 - ✓ Screening, early detection, and treatment of non-communicable diseases, anaemia, tuberculosis, and sickle cell disease.
 - ✓ Strengthening maternal, child, and adolescent health services

GEOGRAPHY, DISASTER MANAGEMENT & ENVIRONMENT

1. Decarbonisation of India's Emission-Heavy Sectors

Context: A recent study by the Centre for Social and Economic Progress (CSEP) estimates that India will require an additional \$467 billion by 2030 to decarbonise four major emission-intensive sectors — steel, cement, power, and road transport.

What is Decarbonisation?

- Decarbonisation refers to the systematic reduction of carbon dioxide (CO₂) emissions from key sectors to mitigate global warming and move toward net-zero emissions.
- It involves transitioning to renewable energy sources such as solar, wind, and bioenergy, alongside adopting energy-efficient and low-carbon technologies.

Need for Decarbonisation

- **High Emission Share:** The steel, cement, power, and road transport sectors contribute over 50% of India's CO₂ emissions.
- **Climate Commitments:** India's Nationally Determined Contributions (NDCs) under the Paris Agreement necessitate deep reforms across these sectors.
- **Public Health:** These sectors are major sources of PM2.5 and NO_x pollution, impacting urban air quality and health.
- **Energy Security:** Reducing dependence on imported fossil fuels strengthens strategic autonomy.
- **Economic Competitiveness:** Global supply chains are shifting towards low-carbon production; without transition, India risks trade disadvantages.

Sector-Wise Funding and Measures

Sector	Estimated Funding (by 2030)	Key Decarbonisation Measures
Steel	USD 251 billion	Green hydrogen, energy efficiency, Carbon Capture & Storage (CCS)
Cement	USD 141 billion	Alternative fuels, clinker substitution, CCS
Power (Electricity)	USD 47 billion	Expansion of renewables, grid modernisation
Road Transport	USD 18 billion	Electric vehicles, biofuels, EV charging infrastructure

Challenges

- **Coal Dependence:** Around 70% of electricity still comes from coal, making the transition complex.
- **Technology Barriers:** High costs and limited maturity of CCS, battery storage, and hydrogen technologies.
- **Regulatory Fragmentation:** Overlapping mandates between central and state agencies slow policy execution.
- **Financing and Workforce Transition:** Massive capital inflow and reskilling of workers in fossil fuel sectors are critical.

Progress So Far

- India has achieved 50% of its installed electricity capacity from non-fossil sources — five years ahead of its 2030 target.
- Initiatives like PM-KUSUM and PM Surya Ghar have accelerated solar adoption at household and agricultural levels.
- Renewable energy expansion has generated rural employment, improved public health, and reduced air pollution.
- India has already achieved 2.29 billion tonnes of carbon sinks (out of its 2.5–3 billion tonne target by 2030) and reduced emission intensity by 36% (target: 45% by 2030).

India's Decarbonisation Commitments (Panchamrit Goals – COP26, Glasgow)

- 500 GW of non-fossil fuel energy capacity by 2030.
- 50% of energy needs to be met from renewables by 2030.
- Reduction of CO₂ emissions by 1 billion tonnes by 2030.
- 45% reduction in emission intensity of GDP by 2030.
- Net-Zero emissions by 2070.

2. Revised Green Credit Programme Norms, 2025

Context: The Ministry of Environment, Forest, and Climate Change (MoEFCC) has revised the methodology for awarding Green Credits under the Green Credit Programme (GCP), linking credits to tree survival and canopy cover rather than just plantation numbers.

Key Changes in the Framework

- **Five-Year Benchmark:** Green credits will now be issued only after five years of successful restoration, replacing the earlier two-year period.
- **Canopy-Based Evaluation:** Credits are awarded only when the site achieves at least 40% canopy density, ensuring genuine ecological restoration.
- **Credit Formula:** One Green Credit = One surviving tree (aged 5+ years).
- **Verification Mechanism:** Designated agencies will verify survival and canopy cover through a third-party evaluation before credits are granted.
- **Non-Tradable Credits:** Green credits are non-tradable and non-transferable, except between a holding company and its subsidiaries.

They can be used once for:

- ✓ Compensatory afforestation obligations
- ✓ Corporate Social Responsibility (CSR) compliance
- ✓ Other legal tree-planting mandates
- ✓ ESG (Environmental, Social & Governance) reporting

About the Green Credit Programme (GCP)

- Launched: 2023
- Legal Basis: Under the Environment (Protection) Act, 1986
- Objective: To promote voluntary environmental actions and develop a market-based mechanism to reward eco-friendly initiatives.
- Administrator: Indian Council of Forestry Research and Education (ICFRE)
- Governance: Oversight by an Inter-ministerial Steering Committee

Progress:

- So far, 57,986 hectares of degraded forest land have been registered under the programme.

Implementation Framework

- Individuals, communities, industries, and institutions can adopt degraded lands for plantation.
- After five years, ICFRE assesses survival and canopy density.
- Verified credits are recorded in the Green Credit Registry, maintained via a digital platform for transparency and monitoring.

Green Credit vs. Carbon Credit

Aspect	Green Credit	Carbon Credit
Focus	Incentivizes eco-positive actions (e.g., afforestation, waste management)	Reduces greenhouse gas emissions
Legal Basis	Environment (Protection) Act, 1986	Energy Conservation Act, 2001
Unit Definition	One credit per surviving tree (5+ years)	One credit = 1 tonne CO ₂ (or equivalent) avoided
Eligibility	Individuals, communities, companies	Industries or entities reducing emissions
Nature	Domestic, non-tradable (in new rules)	Tradable in carbon markets (domestic & global)

3. Devastating Earthquake Strikes Afghanistan

Context: A powerful 6.0-magnitude earthquake recently struck Afghanistan, claiming over 800 lives and injuring nearly 2,000 people. The extensive damage was due to the shallow depth of the quake and the widespread presence of non-engineered mud-brick structures, highlighting Afghanistan's extreme vulnerability to seismic disasters.

About Earthquakes



- An earthquake is the sudden shaking of the Earth's surface caused by a sudden release of energy when rocks beneath the surface break or slip along a fault line.
- The hypocenter is the point within the Earth where the quake originates.
- The epicenter lies directly above it on the Earth's surface.
- Earthquake magnitude is measured on the Richter Scale, while intensity is assessed using the Modified Mercalli Scale based on observed damage.

Reasons for Frequent Earthquakes in Afghanistan

- **Tectonic Collision Zone:** Afghanistan lies in the Himalaya–Hindu Kush seismic belt, where the Indian Plate collides with the Eurasian Plate, causing immense tectonic stress.
- **Plate Movement:** The Indian Plate moves northward at about 5 cm per year, exerting pressure and forming numerous fault lines across Afghanistan, Pakistan, and northern India.
- **Shallow Epicenters:** The recent quake's shallow depth (~8 km) caused intense ground shaking, magnifying the destruction.
- **Major Fault Systems:** Chaman Fault – runs along Afghanistan–Pakistan border; prone to major thrust quakes.
- Main Pamir Thrust (Pamir Frontal Thrust) – source of deep-focus quakes in the Hindu Kush region.

Afghanistan's Seismic Vulnerability

- Afghanistan is among the most earthquake-prone countries in the world.
- The Hindu Kush region has recorded 12 earthquakes above magnitude 7 since 1900.
- It forms part of the Alpide Belt, the world's second most active seismic zone after the Circum-Pacific Belt.
- Poor infrastructure and traditional mud-brick construction make rural communities particularly susceptible to collapse and casualties.

Impact of the Recent Earthquake

- **Human Loss:** Over 800 deaths and thousands injured.
- **Infrastructure Damage:** Massive destruction of homes and community buildings.
- **Geophysical Effects:** Landslides and secondary shocks reported in nearby provinces.

- **Social Impact:** Displacement of populations and severe humanitarian distress in an already fragile region.

Seismic Waves – The Science Behind Earthquakes

- **Body Waves:** Travel through the Earth's interior.
 - ✓ **P-Waves (Primary):** Fastest, compressional waves; travel through solids, liquids, and gases.
 - ✓ **S-Waves (Secondary):** Slower, transverse waves; travel only through solids.
- **Surface Waves:** Travel along the Earth's crust; slower but more destructive due to larger amplitude.

Geographical Significance of the Hindu Kush Region

- The Hindu Kush Mountains stretch across Afghanistan and Pakistan, forming part of the Alpidic Belt that extends from the Mediterranean region to Southeast Asia.
- This belt includes countries like Afghanistan, India, Nepal, China, Myanmar, and others.
- The collision of the Indian and Eurasian plates continues to generate frequent seismic activity in this region.

About Afghanistan

- **Capital:** Kabul
- **Location:** Landlocked country in South-Central Asia
- **Neighbours:** Pakistan, Iran, Turkmenistan, Uzbekistan, Tajikistan, China, and a narrow border near India.
- **Topography:** Dominated by the Hindu Kush mountains, with passes such as Khyber and Shebar providing key routes across rugged terrain.

4. Air Quality Life Index (AQLI) 2025

Context: The Air Quality Life Index (AQLI) 2025 report by the Energy Policy Institute at the University of Chicago (EPIC) highlights that India is the world's second most polluted country, with air pollution cutting average life expectancy by 3.5 years.

About the Air Quality Life Index (AQLI)

- Developed by Prof. Michael Greenstone and EPIC, the AQLI converts air pollution data into its impact on life expectancy, providing localized insights into how cleaner air can extend lives.
- It forms part of EPIC's Clean Air Program, which aims to guide policymaking through evidence-based pollution research.

Key Findings (2025 Report)

- South Asia (Bangladesh, India, Nepal, Pakistan) remains the most polluted region globally.
- Bangladesh tops the list, with air 12 times dirtier than WHO's limits.
- **India:**
 - ✓ Air pollution is the country's most severe health hazard, cutting life expectancy by 3.5 years.
 - ✓ All 1.4 billion Indians live in regions exceeding WHO's safe PM2.5 limit ($5 \mu\text{g}/\text{m}^3$).
 - ✓ Delhi-NCR residents risk losing up to 8.2 years of life expectancy.
 - ✓ Other major impacts: Bihar (-5.6 years), Haryana (-5.3 years), Uttar Pradesh (-5 years).
 - ✓ 46% of Indians live in areas exceeding even India's own PM2.5 standard ($40 \mu\text{g}/\text{m}^3$).
- China has cut pollution by over 40% since 2014, demonstrating effective policy implementation.
- North America witnessed spikes due to wildfires, while in Africa, air pollution now poses a greater life threat than HIV/AIDS or malaria.

India's Vulnerability and Challenges

- Air pollution causes more health damage than malnutrition or unsafe water, making it India's greatest public health risk.

- Rapid urbanization, industrial emissions, crop residue burning, and vehicular pollution aggravate PM2.5 levels.

Policy Framework & Government Efforts

- National Clean Air Programme (NCAP), 2019: Aims to reduce particulate pollution by 20–30% (from 2017 levels) by 2024.
- Revised Target (2022): 40% reduction by 2026 in 131 non-attainment cities.
- Initiatives such as GRAP, Commission for Air Quality Management (CAQM), and PM Ujjwala Yojana aim to curb pollution at multiple levels.

WHO Guidelines

- WHO's Air Quality Guidelines (AQG) recommend a PM2.5 limit of 5 µg/m³ as the global health benchmark.
- Meeting this limit could add 9.4 months of life even in relatively cleaner Indian regions.

5. Indian Rosewood

Context: Recent habitat modelling by the Institute of Wood Science and Technology (IWST), Bengaluru, reveals that only 17.2% of India's suitable habitat for Indian Rosewood (*Dalbergia latifolia*) lies within protected areas, highlighting urgent conservation needs for this valuable timber species.

About Indian Rosewood

- **Scientific Name:** *Dalbergia latifolia* (also referred to as Indian Rosewood; North Indian Rosewood is *Dalbergia sissoo*).
- **Commonly Known As:** "Ivory of the forests."
- **Description:** A fast-growing, hardy, deciduous, crooked rosewood with long leathery leaves and whitish or pink flowers.
- **Distribution:** Native to the sub-Himalayan region (Afghanistan to Bihar), central, western, and southern India; also found in Nepal, Bangladesh, Myanmar, Java, and Indonesia.
- **Habitat:** Primarily along riverbanks above 200 m, naturally ranging up to 1,400 m, preferring well-drained, deep, moist soils.

Economic and Ecological Importance

- **Timber Resource:** Highly prized for its rich grain, deep color, and durability, used in furniture, musical instruments, veneers, and handicrafts.
- **Ecological Role:**
 - ✓ Improves soil fertility through nitrogen fixation.
 - ✓ Supports bird and insect diversity.
 - ✓ Acts as a long-term carbon sink, contributing to climate mitigation.

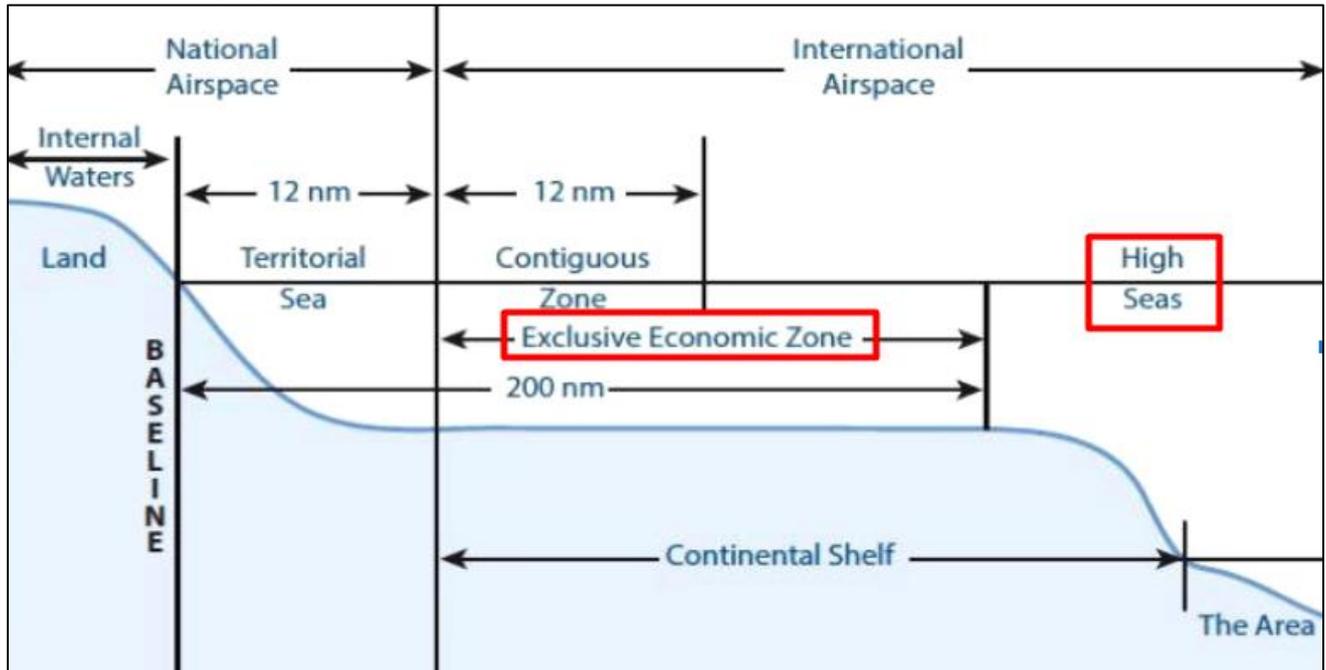
Conservation Status

- IUCN Red List: Vulnerable.
- CITES Listing: Appendix II – international trade regulated to prevent overexploitation.
- Current Concerns:
 - ✓ Populations are dominated by mature, ageing trees with minimal regeneration.
 - ✓ Seedlings are rare or absent in many regions, raising the risk of population decline.
 - ✓ Majority of habitats lie outside protected areas, increasing vulnerability to logging and habitat loss.

6. Biodiversity Beyond National Jurisdiction (BBNJ) Agreement

Context: The Ministry of Earth Sciences has constituted a 12-member panel to implement the new international law aimed at safeguarding India's interests in the high seas. This aligns with the Biodiversity Beyond National Jurisdiction (BBNJ) Agreement, also known as the High Seas Treaty, adopted under the United Nations Convention on the Law of the Sea (UNCLOS).

About the BBNJ Agreement



- **Objective:** Conserves marine biodiversity, curbs pollution, and ensures sustainable use of resources beyond national jurisdiction.
- **Adoption & Status:** Agreed in 2023, opened for signing in 2024; over 140 countries have signed, 55 ratified. India signed in 2024 but is yet to ratify.
- **Scope:**
 - ✓ Establishes Marine Protected Areas (MPAs).
 - ✓ Regulates extractive activities like seabed mining.
 - ✓ Mandates Environmental Impact Assessments (EIA) for oceanic projects.
 - ✓ Promotes capacity building and technology transfer to developing nations.

Key Components

- **Marine Genetic Resources (MGR):** Ensures fair and equitable sharing of benefits from marine life.
- **Area-Based Management Tools:** Establish MPAs and other protective measures.
- **Capacity Building & Technology Transfer:** Supports developing countries in sustainable marine resource utilization.
- **Environmental Impact Assessments:** Minimizes ecological damage from high seas projects.

High Seas: Significance

- **Definition:** Oceans beyond any country's jurisdiction; EEZ extends up to 200 nautical miles from the coastline.
- **Coverage:** High seas constitute 64% of global oceans and 50% of Earth's surface.
- **Importance:**
 - ✓ Biodiversity hotspot and carbon sink.
 - ✓ Regulates climate, stores solar energy, and distributes heat.
 - ✓ Provides seafood, genetic resources, and medicinal compounds.
 - ✓ Current Protection: Only ~1% of high seas are under protection.

International Framework

- UNCLLOS (1982): Legal foundation for ocean governance; defines territorial waters, EEZ, and high seas.
- International Seabed Authority (ISA): Regulates seabed mining beyond national jurisdiction; India is a member.

7. India's First Vulture Conservation Portal

Context: The We Foundation India, in collaboration with Gauhati University's Department of Zoology, has launched India's first Vulture Conservation Portal in Assam — a digital platform to coordinate efforts for protecting the country's declining vulture populations.

About the Portal

- **Objective:** To establish a centralized database for tracking vulture populations, mortality causes, nesting sites, and habitat quality across India.
- **Functions:**
 - ✓ **Population Monitoring:** Real-time data on species distribution and trends.
 - ✓ **Research Support:** Assists scientists in identifying hotspots and threats.
 - ✓ **Policy and Conservation Planning:** Provides data-driven insights for government and NGOs.
 - ✓ **Public Engagement:** Promotes awareness through multilingual outreach, especially in Assamese and regional languages, to involve local communities.

Vultures in India

- India hosts nine species of vultures, belonging to the Old World group found across Europe, Asia, and Africa.
- These scavengers play a vital ecological role by consuming animal carcasses, thereby preventing disease outbreaks and maintaining ecosystem hygiene.

IUCN Status	Species	Scientific Name
Critically Endangered	Oriental White-backed Vulture	<i>Gyps bengalensis</i>
	Long-billed Vulture	<i>Gyps indicus</i>
	Slender-billed Vulture	<i>Gyps tenuirostris</i>
	Red-headed Vulture	<i>Sarcogyps calvus</i>
Endangered	Egyptian Vulture	<i>Neophron percnopterus</i>
Near Threatened	Himalayan Vulture	<i>Gyps himalayensis</i>
	Cinereous Vulture	<i>Aegypius monachus</i>
	Bearded Vulture	<i>Gypaetus barbatus</i>
Least Concern	Eurasian Griffon	<i>Gyps fulvus</i>

Major Threats

- **Diclofenac Poisoning:** Veterinary drug residues in livestock carcasses are fatal to vultures.
- **Habitat Loss:** Deforestation, urbanisation, and reduced nesting sites.
- **Electrocution and Collisions:** With power lines and wind turbines.
- **Secondary Poisoning:** From pesticide-laced carcasses and lead ammunition.
- **Cultural Misconceptions and Hunting:** Sporadic incidents of persecution and trade.

Conservation Significance

- Vultures act as nature's cleanup crew, preventing the spread of zoonotic diseases like anthrax and rabies.
- Their population crash since the 1990s has caused ecological imbalance and increased the number of stray scavengers such as dogs, indirectly heightening rabies risks.

Recent Conservation Efforts

- **India's First Vulture Conservation Portal:** A first-of-its-kind digital network for real-time tracking and awareness.

- **Vulture Conservation Breeding Centres (VCBCs):** Established in Haryana, West Bengal, Assam, and Madhya Pradesh.
- **Ban on Diclofenac (2006):** Veterinary use prohibited to curb poisoning.
- **Action Plan for Vulture Conservation (2020–2025):** Focuses on safe food zones, habitat restoration, and awareness campaigns.

8. Environment Audit Rules, 2025

Context: The Ministry of Environment, Forest and Climate Change (MoEFCC) has notified the Environment Audit Rules, 2025 under the Environment (Protection) Act, 1986. The rules aim to establish a comprehensive framework for environmental accountability, enhancing transparency, credibility, and effectiveness of compliance monitoring across India.

Need for the Rules

- Current monitoring by CPCB, State Pollution Control Boards (SPCBs), and MoEFCC regional offices faces manpower and resource constraints.
- The rules aim to bridge gaps, encourage third-party verification, and strengthen trust among stakeholders while supporting sustainable development goals.

Key Features

- **Certification and Registration of Auditors:**
 - ✓ Environment Audit Designated Agency (EADA) will certify, register, and oversee Environment Auditors (EAs).
 - ✓ EADA also conducts training, maintains an online registry, and can take disciplinary action when necessary.
- **Registered Environment Auditors (REAs):**
 - ✓ Certified auditors will be randomly assigned projects to avoid conflicts of interest.
 - ✓ REAs will conduct audits, sampling, analysis, compensation calculation, and compliance verification under environmental and forest legislations.
- **Two-Tier Compliance System:**
 - ✓ Tier-1: Government regulators (CPCB, SPCBs, MoEFCC) review compliance.
 - ✓ Tier-2: REAs conduct independent audits for third-party verification.
- **Oversight Mechanism:**
 - ✓ A Steering Committee, led by an Additional Secretary of MoEFCC with representatives from regulatory bodies, will monitor implementation, resolve challenges, and suggest reforms.

Expected Outcomes

- **Stronger Compliance:** Independent audits will enhance credibility and enforceability.
- **Integration with Environmental Schemes:** Supports Green Credit Programme, Ecomark, and Extended Producer Responsibility under waste rules.
- **Enhanced Capacity:** Expands trained professionals, allowing regulators to focus on high-risk enforcement and policymaking.
- **Transparency and Accountability:** Random assignment of auditors reduces bias and promotes stakeholder trust.
- **Data-Driven Governance:** Digitized records enable better decision-making, disclosure, and targeted interventions.
- **Proactive Risk Management:** Early detection of non-compliance prevents environmental harm.

9. National Policy on Sustainable Aviation Fuel (SAF)

Context: India is formulating a National Policy on Sustainable Aviation Fuel (SAF) along with a long-term roadmap up to 2050, as part of its strategy to achieve Net Zero emissions by 2070.

About Sustainable Aviation Fuel (SAF)

- SAF is a bio-based alternative to fossil-derived jet fuel.
- Feedstocks include non-edible oils, used cooking oil, algae, and agricultural residues.
- SAF can significantly reduce aviation carbon emissions and help India meet international climate commitments.

Need for a National SAF Policy

- **Global Compliance:** ICAO's CORSIA becomes mandatory from 2027 for member states, requiring airlines to offset carbon emissions beyond a set baseline.
- **India's Gap:** Unlike Brazil (sugarcane) and the US (corn), India currently lacks a Life Cycle Assessment (LCA) benchmark under CORSIA.
- **Blending Targets:** India proposes 1% by 2027, 2% by 2028, and 5% by 2030 in Aviation Turbine Fuel (ATF) for international flights.

Potential and Opportunities

- SAF production could reach 8–10 million tonnes annually by FY40, with an investment of ₹6–7 lakh crore (~\$70–85 billion).
- Emission reduction potential is estimated at 20–25 million tonnes per year.
- India aims to support feedstock cultivation, especially sugarcane, molasses, bagasse, and used cooking oil.
- Collaborative research is ongoing with TERI, ISMA, and international partners like the US under SCEP.

Challenges

- **High Costs:** SAF is nearly 3 times costlier than conventional jet fuel; synthetic SAF (Power-to-Liquid) is up to 7 times costlier.
- **Classification Issues:** Currently classified under fossil fuels, limiting access to bioenergy incentives.
- **Technological Constraints:** Advanced infrastructure, R&D, and sustainable biomass availability remain limited.

Efforts & Initiatives in India

- **Institutional Framework:** Led jointly by MoPNG (production, feedstock, certification) and MoCA (implementation, airline obligations, compliance).
- **Production Initiatives:** Indian Oil Corporation targets 35,000 tonnes/year of SAF from used cooking oil.
- **R&D:** CSIR-IIP developed SAF from indigenous feedstocks like palm stearin, sapium, algae, karanja, jatropha, with provisional certification for military aircraft.

10. Blending of Isobutanol with Diesel

Context: Union Minister for Transport Nitin Gadkari announced that the Automotive Research Association of India (ARAI) is exploring the possibility of blending 10% isobutanol with diesel, marking a potential shift in India's biofuel strategy.

About Isobutanol Blending

- Isobutanol is an alcoholic compound with flammable properties, widely used as a solvent in industries such as paints and coatings.
- Unlike ethanol, trials of blending isobutanol with diesel have shown promising results, while ethanol-diesel blends were unsuccessful.
- Blending levels are expected to increase in the coming months, paving the way for cleaner and more efficient fuel alternatives.

Ethanol Blending in India

- Ethanol blending refers to mixing ethanol with petrol to produce a fuel mixture compatible with internal combustion engines.

- Feedstocks: Sugary sources (sugarcane, molasses, sweet sorghum, sugar beet) or starchy sources (broken rice, corn, cassava).
- **Policy Targets:**
 - ✓ National Policy on Biofuels (2018) set an indicative 20% ethanol blending target by 2030.
 - ✓ Due to encouraging outcomes, the target was advanced to 2025–26.
 - ✓ Ethanol blending in petrol has already achieved 20%, with the next focus being sustainable aviation fuel production.

11. India's First Bamboo-Based Bio-Refinery Inaugurated in Assam

Context: Prime Minister Narendra Modi inaugurated India's first bamboo-based bio-refinery in Golaghat district, Assam, marking a milestone in sustainable bioeconomy development in the northeastern region.

About the Bio-Refinery

- **Raw Material:** Five lakh tonnes of green bamboo sourced annually from Assam, Arunachal Pradesh, and other northeastern states.
- **Products:**
 - ✓ Bioethanol – alternative fuel
 - ✓ Acetic acid – industrial chemical
 - ✓ Furfural – for resins and solvents
 - ✓ Food-grade liquid carbon dioxide – for food and beverage industries
- **Economic Impact:** The plant is expected to provide a ₹200-crore boost to Assam's rural economy, generating employment and supporting local bamboo cultivation.

What is a Biorefinery?

- A biorefinery is an industrial facility that converts biomass into a range of value-added products, acting as a green alternative to conventional oil refineries.
- **Key Outputs:**
 - ✓ Biofuels: Ethanol, biodiesel, biogas, biohydrogen
 - ✓ Biochemicals: Organic acids, solvents, bioplastics, enzymes
 - ✓ Biomaterials: Fibres, biocomposites, biodegradable plastics
 - ✓ Bioenergy: Electricity, heat, syngas

12. Disaster Risk Index (DRI)

Context: The Chief Minister of Himachal Pradesh has urged a reframing of the Disaster Risk Index (DRI), highlighting that the Himalayan region faces unique hazards which are not adequately captured under the current framework.

About Disaster Risk Index (DRI)

- **Definition:** DRI measures the risk of disasters by combining hazard exposure, vulnerability, and resilience/capacity of a geographic unit.
- **Purpose in India:**
 - ✓ Identifies states and UTs most vulnerable to disasters.
 - ✓ Factors considered go beyond natural hazards to include:
 - Population exposure
 - Economic and agricultural impact
 - Infrastructure and preparedness levels

Key Features

- **Prepared by:** 15th Finance Commission (2017–2025).
- **Hazard Types Covered (14):** Earthquake, Cyclone, Flood, Drought, Landslide, Tsunami, Avalanche, Heat Wave, Cold Wave, Coastal Erosion, Forest Fire, Fire, Industrial Hazards, Lightning.

- **Methodology:**
 - ✓ Calculated at the district level (640 districts per Census 2011).
 - ✓ Aggregated to provide state/UT-level indices.

Himalayan Concerns

- The region has fragile ecosystems and is prone to multiple hazards like landslides, flash floods, avalanches, and earthquakes.
- Existing DRI may underestimate vulnerability due to:
 - ✓ High-altitude risks
 - ✓ Rapid glacial melt and climate change impacts
 - ✓ Limited infrastructure for disaster mitigation

13. India's First National Policy on Geothermal Energy

Context: The Ministry of New and Renewable Energy (MNRE) has unveiled India's first-ever National Policy on Geothermal Energy, marking a major step toward achieving the Net Zero target by 2070 through the use of sustainable subterranean heat resources.

Vision and Objectives

- The policy envisions making geothermal energy a key component of India's renewable energy mix by:
 - ✓ Enhancing energy security and diversifying the energy basket.
 - ✓ Reducing greenhouse gas emissions.
 - ✓ Promoting sustainable and inclusive development in remote and high-altitude regions.

Implementation Framework

The MNRE will steer the implementation through:

- International collaborations with leading geothermal nations.
- Pilot projects under the Renewable Energy Research and Technology Development Programme.
- Soft loans from IREDA and DFIs for project financing.
- Establishment of Centres of Excellence (CoEs) for capacity building and R&D.
- Periodic progress reviews for transparency and accountability.

Development and Investment Model

- The policy covers the entire project life cycle — from exploration and drilling to construction and operation.
- **Fiscal and Financial Incentives:**
 - ✓ Long-term concessional loans and Viability Gap Funding (VGF).
 - ✓ Import duty and GST exemptions, tax holidays, and accelerated depreciation.
 - ✓ Inclusion under Renewable Purchase Obligations (RPOs) and Carbon Credit Trading.
 - ✓ 100% FDI permitted in geothermal energy projects.
 - ✓ Special funding for North-Eastern and high-altitude regions.
 - ✓ Conversion of abandoned oil and gas wells for geothermal use.
 - ✓ Joint ventures with oil, gas, and mineral companies for resource sharing.

Guidelines for States and UTs

- Allocation of geothermal blocks with 3–5-year exploration permits.
- Single-window clearance for all approvals.
- Concessional land leasing for project developers.
- Community engagement and compensation measures in tribal areas.
- Long-term project duration up to 30 years, extendable based on resource potential.

About Geothermal Energy

- **Meaning:** Derived from the Greek words Geo (Earth) and Thermal (Heat), it refers to the heat energy stored in the Earth's crust, primarily generated by the natural radioactive decay of uranium, thorium, and potassium.
- **Geothermal Gradient:** Temperature increases by 25–30°C per km of depth below the Earth's surface.
- **Types of Resources:**
 - ✓ High-enthalpy: Found near volcanic zones, geysers, and hot springs — suitable for power generation.
 - ✓ Low to medium-enthalpy: Found in shallow rock formations — ideal for direct heating and geothermal pumps.
- **Advantages:**
 - ✓ High capacity utilization (>80%).
 - ✓ Reliable baseload power with no fuel cost.
 - ✓ Eco-friendly and sustainable.
- **Limitations:**
 - ✓ Capital-intensive and site-specific, requiring significant investment in exploration and drilling.

India's Geothermal Potential

- 381 hot springs identified by the Geological Survey of India (GSI) with temperatures ranging from 35°C to 89°C.
- 10 geothermal provinces across India with medium to low enthalpy (100–180°C) zones.
- The Geothermal Atlas of India (2022) estimates a potential of 10,600 MW.
- Enhanced Geothermal Systems (EGS) and Advanced Geothermal Systems (AGS) can further expand viability.

Global Context

- The global installed geothermal capacity stands at ~15.4 GW, led by the United States, followed by Indonesia, the Philippines, Turkey, and New Zealand.

14. India to Submit Updated Carbon-Reduction Targets by COP30

Context: India will submit its updated Nationally Determined Contributions (NDCs) around the start of the UN Climate Change Conference (COP30), scheduled to be held in Brazil in November 2025.

About NDCs

- Nationally Determined Contributions (NDCs) are country-specific climate action goals under the Paris Agreement (2015).
- Aim: To limit global temperature rise to well below 2°C, preferably 1.5°C, above pre-industrial levels.
- Update Cycle: Every 5 years, countries revise and enhance their NDCs.

India's Current Commitments (NDC 2.0, 2022)

- Reduce emission intensity of GDP by 45% from 2005 levels by 2030.
- Achieve 50% of installed electric capacity from non-fossil fuel sources by 2030.
- Create an additional carbon sink of 2–3 billion tonnes of CO₂ through forests.

Progress So Far

- India reduced emission intensity by 33% (2005–2019).
- By June 2025, over 50% of installed power capacity came from non-fossil sources.
- Preparing to launch an India Carbon Market (ICM) by 2026, covering 13 key sectors with tradable emission certificates.

About COP (Conference of the Parties)

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- Annual climate summit under the UN Framework Convention on Climate Change (UNFCCC) (in force since 1994).
- Serves as the platform for countries to negotiate, review, and strengthen global climate commitments.

NDC 3.0 and Global Context

- India's updated NDCs (2025–2035) will specify targets for 2035.
- Other countries' indicative targets:
 - ✓ EU: 66–72% reduction (from 1990 levels).
 - ✓ Australia: 62–70% reduction (from 2005 levels).
 - ✓ U.S. exited Paris Agreement; China's stance yet unclear.

DEFENSE & INTERNAL SECURITY

1. Exercise Yudh Kaushal 3.0

Context: The Indian Army recently conducted Exercise Yudh Kaushal 3.0 in the Kameng region of Arunachal Pradesh, focusing on high-altitude warfare and multi-domain operations.

About Exercise Yudh Kaushal

- **Objective:** Enhance combat readiness, operational effectiveness, and integration of modern technologies with traditional warfare.
- **Scope:** Multi-domain operations involving land, air, and technology-driven warfare, including drones, unmanned systems, precision weapons, secure communications, and advanced battlefield tactics.
- **Participants:** Primarily the Indian Army, with joint operations from the Indian Air Force, along with contributions from the defence industry and academia.

Key Features of Yudh Kaushal 3.0

- **Conducted By:** IV (Gajraj) Corps of the Indian Army.
- **High-Altitude Focus:** Manoeuvres in the challenging terrain of Arunachal Pradesh's Kameng region.
- **Technology Integration:**
 - ✓ **Drone Surveillance & Real-Time Targeting:** Enhanced situational awareness and precision strikes.
 - ✓ **Air-Littoral Dominance:** Coordinated control over air and adjacent terrain operations.
 - ✓ **Integrated Battlefield Tactics:** Seamless combination of traditional combat and next-generation technologies.
- **ASHNI Platoons:** Operational debut of specialized drone units designed to merge advanced technology with infantry combat skills for decisive battlefield advantage

2. Exercise MAITREE-XIV

Context: The 14th edition of Exercise MAITREE (MAITREE-XIV) between the Indian Army and the Royal Thai Army commenced at the Joint Training Node, Umroi (Meghalaya), marking another milestone in India–Thailand defence cooperation.

About Exercise MAITREE

- Type: Bilateral joint military exercise between India and Thailand.
- Established in: 2006 as part of the ongoing military-to-military exchange programme.
- Objective: To enhance interoperability, coordination, and mutual understanding between the two armies.

- Previous Edition: The 13th edition was conducted at Fort Vachiraprahan, Tak Province, Thailand.

Focus of MAITREE-XIV (2025 Edition)

- Theme: Company-level counter-terrorist operations in semi-urban terrain, conducted under Chapter VII of the UN Charter (Peacekeeping Operations).
- Indian Contingent: A Battalion from the Madras Regiment represents the Indian Army.
- Training Modules Include:
 - ✓ Tactical and combat drills
 - ✓ Joint operational planning
 - ✓ Weapons handling and special arms skills
 - ✓ Physical endurance and fitness training
 - ✓ Raiding and counter-insurgency operations
- The exercise will conclude with a 48-hour validation phase, simulating realistic battlefield conditions.

3. Exercise Yudh Abhyas 2025

Context: The 21st edition of the Indo-US joint military exercise “Yudh Abhyas 2025” was conducted at Fort Wainwright, Alaska, aimed at deepening military cooperation and interoperability between the two armies.

About Exercise Yudh Abhyas

- **Meaning:** “Yudh Abhyas” translates to “Preparing for War” in Hindi.
- **Inception:** Launched in 2004, it has evolved from counterinsurgency training to comprehensive tactical and strategic cooperation.
- **Frequency:** Conducted annually, with venues alternating between India and the United States.
- **Participants:** Troops from both armies engage in joint tactical drills, high-altitude warfare, air-ground coordination, and UN peacekeeping operations.

Objectives

- Enhance interoperability and operational readiness for multi-domain warfare.
- Strengthen brigade and battalion-level coordination between the two forces.
- Train for conventional, hybrid, and counterterrorism operations.
- Support the Free and Open Indo-Pacific vision through joint military preparedness.

Strategic Importance of Alaska Venue

- Provides exposure to Arctic-like terrain and extreme cold-weather conditions.
- Offers logistical and environmental training crucial for high-altitude and sub-zero combat operations.
- Strengthens India’s understanding of polar and northern operational environments, expanding its strategic reach.

Broader Defence Partnership

- Exercise Yudh Abhyas forms a core part of the India-US Major Defense Partnership, which includes:
 - Vajra Prahar – Special Forces joint training.
 - Cope India – Air Force exercise.
 - SALVEX – Naval exercise focusing on maritime cooperation.
 - Malabar Exercise – Multilateral naval drill with the US, Japan, and Australia under the Quad framework.

4. Technology Perspective and Capability Roadmap (TPCR-2025)

Context: The Ministry of Defence has released the Technology Perspective and Capability Roadmap (TPCR-2025), outlining India's 15-year defence preparedness plan with a focus on nuclear deterrence, drone warfare, and advanced electronic warfare systems.

Key Highlights

- **Nuclear Deterrence:** Strengthening survivability of nuclear assets through advanced delivery platforms, command-and-control infrastructure, and CBRN reconnaissance vehicles.
- **Drone Warfare:**
 - ✓ Development of stealth drones with 1,500 km range and 60,000 feet altitude for electronic warfare, surveillance, and artillery guidance.
 - ✓ Adaptive jamming systems and 15 km electronic denial zones to counter hostile drone swarms.
 - ✓ Loitering munitions with AI-enabled targeting and reusable warheads.
 - ✓ Integrated surveillance drones for real-time intelligence and targeting support.
- **Counter-Drone Measures:** Focused on electronic jamming and denial systems to neutralize hostile swarms.

5. Revised Suspension of Operations Pact Tightens Norms for Kuki-Zo Groups

Context: The Ministry of Home Affairs, in coordination with the Manipur government, has signed a revised Suspension of Operations (SoO) agreement with 24 Kuki-Zo insurgent groups, valid for one year, aimed at strengthening peace and stability in the State.

Key Provisions

- **Territorial Integrity & Peace:** Reaffirmation of Manipur's territorial integrity and pursuit of a negotiated solution for lasting peace.
- **Camp Relocation & Weapons:** Seven camps to be relocated from conflict-prone areas; weapons to be stored in nearest CRPF/BSF camps.
- **Cadre Verification:** Security forces to conduct physical verification to de-list foreign nationals, if any.
- **Restrictions on Insurgent Activities:**
 - ✓ No association with other armed groups.
 - ✓ Ban on recruitment of new cadres.
 - ✓ Prohibition of offensive operations.
- **Suspension of Operations:** Army, Assam Rifles, CAPFs, and State Police will refrain from operations as long as groups comply.

Background

- **2008 SoO Pact:** Signed after Kuki-Naga clashes in the 1990s; Kuki National Organisation (KNO) and United People's Front (UPF) were entitled to ₹6,000/month stipend, halted since 2023 ethnic violence.
- **Kuki-Zo Groups:** Ethnic community across Manipur, Mizoram, Nagaland, Assam, and Myanmar; linked culturally to Chin-Mizo groups.
- **Demands:** Greater autonomy, protection of tribal rights and land, and in some cases, separate statehood.

6. EXERCISE ZAPAD 2025

Context: An Indian Armed Forces contingent has departed for Russia to participate in the multilateral joint military exercise ZAPAD 2025, aimed at strengthening defence cooperation and operational readiness.

About the Exercise

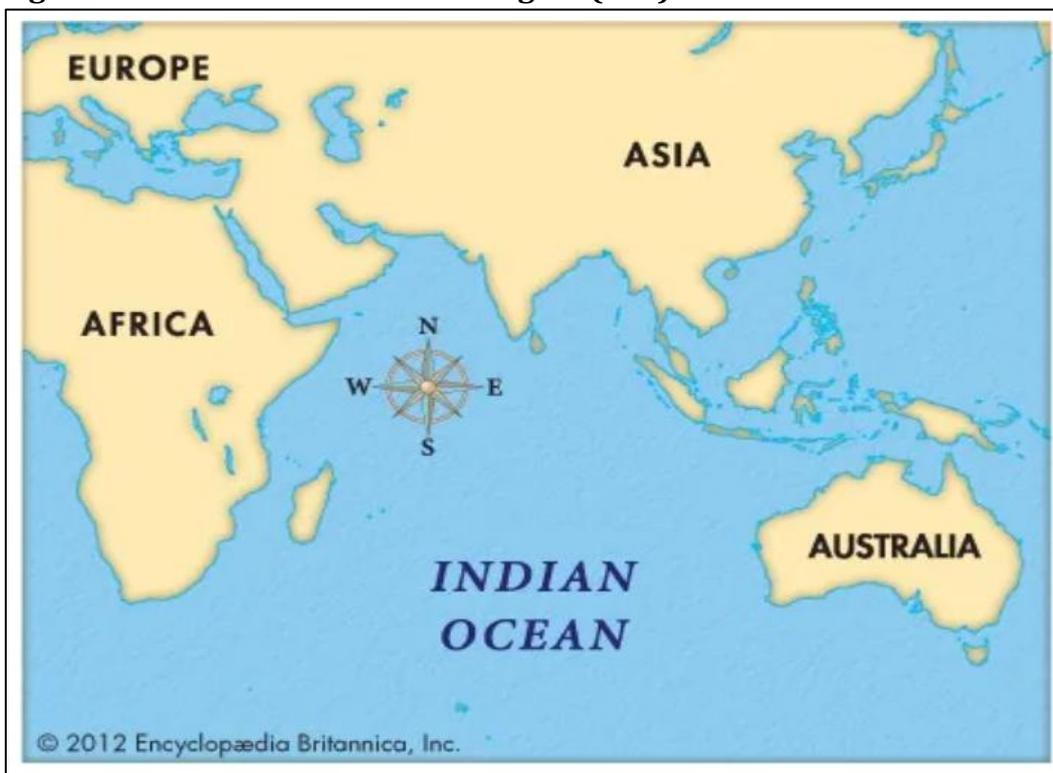
- **Participants:** Over 20 countries, including China.

- **Significance:**
 - ✓ Marks the first instance since Operation Sindoor where Indian and Pakistani armies will participate in the same exercise.
 - ✓ Focuses on enhancing military cooperation, improving interoperability, and exchanging tactics, techniques, and procedures (TTPs).
- **Scope:**
 - ✓ Conventional warfare operations
 - ✓ Counter-terrorism strategies

7. Indian Ocean Region

Context: The 48th Annual Conference on Oceans Law & Policy (COLP48) was held in India for the first time under the theme “Developing World Approaches to Ocean Governance: Perspectives from the Indian Ocean Rim”. India highlighted five priority areas: sustainable fisheries, South-South cooperation, integration of traditional knowledge, climate resilience, and capacity-building for ocean governance.

Significance of the Indian Ocean Region (IOR)



- **Geostrategic Importance:** Third-largest ocean linking Middle East, Africa, South and Southeast Asia; home to critical chokepoints like the Strait of Hormuz, Bab-el-Mandeb, Malacca, and Lombok, which handle the bulk of global trade and energy flows.
- **Economic Importance:** Carries ~50% of global container traffic and 80% of seaborne oil trade; hub for blue economy activities such as shipping, fisheries, seabed mining, and tourism.
- **Energy Security:** Vital for oil and gas transit from West Asia to East Asia; stability ensures uninterrupted energy supplies for India, China, Japan, and South Korea.

Emerging Focus on the IOR

- **Rise of New Economies:** India and China’s growth has revived trade and economic significance in the IOR.
- **Maritime Security Threats:** Piracy near Somalia and other hotspots necessitate secure Sea Lines of Communication (SLOCs).
- **Indo-Pacific Construct:** Combines Indian and Pacific Oceans into a strategic theatre, enhancing the IOR’s relevance in global diplomacy and security.

Challenges in the IOR

- Chinese Naval Expansion: Increased vessel deployments and survey missions under scientific pretext.
- Piracy & Maritime Crime: Threats from terrorism, arms smuggling, and trafficking networks.
- Strategic Port Development: China's investments in ports near India's maritime boundaries aim to strengthen its long-term maritime power projection.

India's Strategic Responses

- Diplomatic & Security Leadership: Positions as first responder in disasters, HADR operations, and Maritime Domain Awareness (MDA) initiatives. Launch of MAHASAGAR strengthens regional security engagement.
- Naval Modernisation: Indigenous warships like INS Vikrant and INS Visakhapatnam enhance maritime deterrence and domain awareness.
- Regional Diplomacy: Engages with littoral states to highlight security risks from militarisation of Chinese-funded infrastructure.
- Stance on Militarisation: Advocates peaceful and sustainable use of the IOR, opposing military deployment by extra-regional powers.

8. Samudra Pradakshina

Context: The Ministry of Defence virtually flagged off Samudra Pradakshina, a historic tri-service all-women circumnavigation sailing expedition, highlighting India's commitment to women empowerment and maritime capability.

About the Expedition

- **Significance:** The initiative symbolizes Nari Shakti, jointness among the Indian Army, Navy, and Air Force, and Aatmanirbhar Bharat while showcasing India's maritime and global vision.
- **Crew:** 10 women officers from the three services.
- **Vessel:** Indian Army Sailing Vessel (IASV) Triveni, indigenously built.
- **Duration & Route:**
 - ✓ 9-month expedition, covering 26,000 nautical miles.
 - ✓ Follows an easterly route, crossing the Equator twice and rounding the three great Capes — Leeuwin, Horn, and Good Hope.
- **Scientific Component:** In collaboration with the National Institute of Oceanography, the crew will study microplastics, document ocean life, and raise awareness on marine health.
- **Return:** The expedition is expected to conclude in Mumbai by May 2026.

9. Exercise Siyom Prahar

Context: The Indian Army successfully concluded Exercise Siyom Prahar in Arunachal Pradesh, aimed at validating the role of drone technology in modern warfare.

About the Exercise

- **Objective:** Focused on developing and testing Tactics, Techniques, and Procedures (TTPs) suitable for future battlefields.
- **Key Features:**
 - ✓ Integration of drone-derived intelligence with conventional firepower.
 - ✓ Refinement of joint targeting processes for faster and more accurate decision-making.
 - ✓ Testing rapid operational responses in dynamic combat environments.
- **Expected Outcomes:**
 - ✓ Lessons for operational integration of technology.
 - ✓ Concepts for enhanced force multiplication and battlefield efficiency.

10. INS Aravali Commissioned in Gurugram

Context: The Indian Navy commissioned INS Aravali at Gurugram in the presence of Chief of Naval Staff Admiral Dinesh K Tripathi, marking a significant step in strengthening India's maritime security architecture.

About INS Aravali

- **Name & Inspiration:** Named after the Aravali Range, one of the oldest folded mountain ranges on Earth, spanning over 800 km from Gujarat to Delhi through Rajasthan and Haryana.
- **Role & Function:**
 - ✓ Acts as a hub of technology and collaboration, linking platforms and partners across oceans.
 - ✓ Enhances information and communication capabilities for the Navy.
- **Motto:** "Maritime Security through Collaboration" – emphasizing cooperative security in the Indian Ocean Region (IOR).

Significance

- Embodies Prime Minister's MAHASAGAR vision — Mutual and Holistic Advancement for Security and Growth Across Regions.
- Strengthens India's position as a Preferred Security Partner in the IOR.
- Enhances operational readiness and facilitates collaboration with international maritime partners.
- Symbolic importance of the Aravalli Range:
 - ✓ Influences the climate of northwest India.
 - ✓ Highest peak: Guru Peak on Mount Abu.

Takeaway

- The commissioning of INS Aravali reinforces India's commitment to maritime security, technological collaboration, and regional cooperation, aligning with its strategic interests in the IOR.

11. Indian Coast Guard Reaffirms Commitment to Global Maritime Governance

Context: At the 4th Coast Guard Global Summit held in Rome, the Indian Coast Guard (ICG) reiterated India's commitment to international maritime governance, emphasizing collaboration, security, and sustainable use of the seas.

About Indian Coast Guard (ICG)

- Established: 1977 under the Coast Guard Act.
- Administrative Control: Functions under the Ministry of Defence.
- Primary Roles:
 - ✓ Maritime law enforcement and coastal security
 - ✓ Protection of India's Exclusive Economic Zone (EEZ)
 - ✓ Anti-smuggling and anti-piracy operations
 - ✓ Prevention of illegal fishing
- Leadership: Headed by a Director General.

Organizational Structure

To ensure effective command and control along India's 7,516 km coastline, the ICG is divided into five regions:

Region	Headquarters	Headed by
North-West	Gandhinagar	Inspector General
West	Mumbai	Inspector General
East	Chennai	Inspector General
North-East	Kolkata	Inspector General

Region	Headquarters	Headed by
Andaman & Nicobar	Port Blair	Inspector General

SCIENCE & TECHNOLOGY

1. CEREBO

Context: The Indian Council of Medical Research (ICMR) has developed CEREBO, a handheld, indigenous device for the rapid diagnosis of traumatic brain injuries (TBI). The innovation aims to improve early detection in rural and resource-limited settings where access to CT (Computed Tomography) and MRI (Magnetic Resonance Imaging) scans is limited or unaffordable.

About CEREBO

- CEREBO is a non-invasive, radiation-free, portable diagnostic tool that uses near-infrared spectroscopy (NIRS) technology integrated with machine learning algorithms.
- **Key Features:**
 - ✓ **Speed:** Detects intracranial bleeding and edema within one minute, enabling rapid intervention.
 - ✓ **Safety:** Radiation-free and safe for infants, pregnant women, and repeated use.
 - ✓ **User-Friendly:** Color-coded outputs for easy interpretation by paramedical staff or minimally trained personnel.
 - ✓ **Portability:** Suitable for ambulances, trauma centers, rural clinics, and disaster-response units.
 - ✓ **Cost-Effective:** Provides an affordable alternative to CT scans in underserved areas.
- CEREBO complements but does not replace CT scans, especially for deep tissue assessment.

Why CEREBO is Needed

- **High TBI Burden:** India reports over 100,000 TBI-related deaths annually, with half occurring within the first two hours post-injury.
- **Challenges with Existing Methods:**
 - ✓ Glasgow Coma Scale: Subjective and error-prone.
 - ✓ CT/MRI Scans: Expensive, infrastructure-intensive, and often inaccessible in rural or emergency contexts.

2. PRATUSH Telescope

Context: Indian scientists at the Raman Research Institute (RRI), Bengaluru, in collaboration with ISRO, have proposed PRATUSH—a pioneering radio astronomy mission to be sited on the far side of the Moon. The mission aims to probe the Cosmic Dawn by detecting faint signals from the universe's earliest epochs.

About PRATUSH

- PRATUSH stands for Probing ReionizATIOn of the Universe using Signal from Hydrogen. It is a low-frequency radio telescope designed to operate over 30–250 MHz with high spectral resolution, enabling the study of cosmic signals free from Earth-based radio interference and ionospheric distortion.
- **Key Features:**
 - ✓ Lunar Far Side Deployment: Exploits the Moon's far side as a radio-quiet zone, shielded from terrestrial radio frequency interference.
 - ✓ Payload Design: Equipped with a wideband, frequency-independent antenna, self-calibratable analog receiver, and digital correlator for high-resolution spectral mapping.

- ✓ **Observational Strategy:** Continuously observes large sky regions with a spectral resolution of 100 kHz.
- ✓ **Compact Technology:** Uses a credit-card sized single-board computer (SBC), initially based on Raspberry Pi, to control the radiometer system, manage data acquisition, perform preliminary processing, and calibrate instruments.
- ✓ **Nominal Lifetime:** Designed for two years, ensuring sufficient sky coverage and high signal-to-noise ratios.
- ✓ **Orbit:** Circumlunar orbit to optimize observations from the Moon's far side.

Scientific Significance

- **Cosmic Dawn Studies:** Will observe the era of the first stars and galaxies, providing insight into the universe's reionization epoch.
- **Ultra-Low-Frequency Radio Astronomy:** Enables detection of radio waves below 30 MHz, blocked by Earth's ionosphere, allowing unique astrophysical studies.
- **Interstellar Plasma and Transients:** Will help study interstellar medium and detect ultra-low-frequency radio bursts.
- **Global Advantage:** India becomes a front-runner in space-based radio astronomy, joining a select group of nations exploring the universe from the lunar far side.

Why the Moon's Far Side?

- **Radio Quiet Zone:** Natural shield from Earth-originated radio signals.
- **No Ionosphere Interference:** Earth's ionosphere distorts signals below ~30 MHz, which PRATUSH can bypass.
- **Unique Observational Window:** Critical for studying early universe cosmology inaccessible from Earth.

3. Majorana Particles

Context: Researchers are exploring Majorana particles as a revolutionary approach to make quantum computers stable and error-resistant. These hypothetical particles, first proposed in 1937, could solve one of quantum computing's biggest challenges — decoherence caused by environmental noise.

What are Majorana Particles?

- **Origin:** The concept was introduced by Italian physicist Ettore Majorana in 1937.
- **Nature:** Majorana particles (or Majorana fermions) are their own antiparticles — unlike ordinary particles such as electrons or protons.
- **Charge:** Being self-antiparticles, they carry no electric charge.
- **Discovery Status:** No fundamental Majorana particle has been observed yet. However, physicists have created quasiparticles in certain superconducting materials that behave like Majoranas.

Majoranas in Quantum Computing

- Quantum computers rely on qubits, which can exist in multiple states simultaneously (superposition). However, qubits are highly sensitive to environmental interference — a phenomenon known as decoherence.
- **Current Limitation:** To correct errors, many physical qubits are needed for one logical qubit, making systems complex and less scalable.
- **Majorana Solution:** Majorana modes allow quantum information to be stored nonlocally, with each qubit's state divided between two spatially separated Majoranas.
- This nonlocal encoding makes them inherently resistant to noise and local disturbances, reducing the risk of decoherence.

Topological Protection and Braiding

- Majorana modes behave as non-Abelian anyons, enabling a unique process called braiding:

- When two Majorana modes are exchanged, the overall quantum state changes in a predictable, topology-dependent way.
- This topological nature ensures computations are less affected by small physical errors — a feature called topological quantum computing.

4. **Acanthamoeba**

Context: The Kerala Health Department has raised concerns about the widespread presence of Acanthamoeba in the State’s waterbodies, suggesting that the organism may be far more common than previously believed.

About Acanthamoeba

- **Nature:** Acanthamoeba is a free-living, single-celled protozoan commonly found in soil, air, and various water sources — including ponds, wells, swimming pools, and contact lens cases.
- **Habitat:** Thrives in environments with high organic content or E. coli contamination, such as stagnant or unchlorinated water.
- **Life Cycle:** Exists in two forms —
 - ✓ **Trophozoite:** Active, feeding stage.
 - ✓ **Cyst:** Dormant, resistant stage capable of surviving harsh conditions like chlorine exposure and UV radiation.
 - ✓ **Not a true parasite:** It can complete its life cycle independently, but under specific conditions, it infects humans.

Mode of Transmission

- Entry through eyes, open wounds, or inhalation of contaminated aerosols.
- Contact lens users are at particular risk when lenses are exposed to contaminated water.

Major Infections Caused by Acanthamoeba

- **Acanthamoeba Keratitis (AK)**
 - ✓ Target: Cornea (eye surface).
 - ✓ Symptoms: Severe eye pain, redness, blurred vision, light sensitivity, and ulceration.
 - ✓ Risk Factors: Poor lens hygiene, using tap water to clean lenses, or swimming with lenses on.
- **Granulomatous Amoebic Encephalitis (GAE)**
 - ✓ Type: Rare but almost always fatal brain infection.
 - ✓ Affected Groups: Immunocompromised individuals (HIV, cancer, transplant patients).
 - ✓ Symptoms: Headache, seizures, fever, confusion, neurological deficits.
- **Disseminated and Cutaneous Infections**
 - ✓ Sites: Skin, lungs, sinuses, and other organs.
 - ✓ Manifestations: Chronic ulcers, abscesses, or nodules.

5. **Protein Language Models (PLMs)**

Context: The advent of Large Language Models (LLMs) in natural language processing has inspired a new frontier in biological research—Protein Language Models (PLMs)—which are transforming the understanding of proteins, the fundamental molecules governing life.

About Protein Language Models

- PLMs are machine learning models adapted from LLMs.
- They interpret protein sequences by treating each amino acid as a “token” and entire proteins as “sentences.”
- This enables computational analysis of protein structure, function, and interactions at an unprecedented scale.

Applications

- **Drug Discovery:** Rapid identification of protein interactions accelerates the development of new therapeutics.
- **Vaccine Development:** Predicts and models viral protein structures, aiding vaccine design.
- **Disease Research:** Helps understand mutations and misfolding in proteins, relevant for Alzheimer's, cancer, and other diseases.
- **Synthetic Biology:** Facilitates design of novel proteins with tailored properties or functions.

6. India's Space Economy Poised for Fivefold Growth by 2033

Context: India's space sector is on the verge of a major expansion — projected to grow from USD 8.4 billion (2022) to USD 44 billion by 2033, with a vision to capture 8% of the global space market by 2030.

India's Rising Space Footprint

- **Current Share:** India contributes nearly 2–3% of the global space economy, expected to rise to 8% by 2030 and 15% by 2047.
- **Private Sector Surge:** The number of Indian space start-ups has grown from 1 in 2022 to nearly 200 by 2024, backed by funding that rose from \$67 million (2021) to \$124 million (2023).
- India now ranks fifth globally in terms of active space companies.
- **Notable Milestone:** Skyroot Aerospace launched Vikram-S, India's first privately built rocket, signaling a new phase of commercialization.

Institutional Framework under the Indian Space Policy, 2023

Body	Key Responsibilities
IN-SPACE	Authorizes and promotes all private/government space activities; facilitates tech transfer and industry incubation.
ISRO	Focuses on R&D, human spaceflight, deep space missions, and collaboration with academia and industry.
NSIL	Acts as the commercial arm, handling production, procurement, and marketing of space assets.
Department of Space (DoS)	Coordinates policy, oversees implementation, ensures safety and international cooperation.

Government Initiatives and Reforms

- **Space Sector Reforms (2020):** Opened the sector to private players, clearly defining institutional roles.
- **₹1,000 Crore Venture Capital Fund:** Approved to boost start-ups and private innovation in the space domain.
- **FDI Liberalisation:**
 - ✓ 100% FDI allowed in manufacturing of components.
 - ✓ Up to 74% (automatic route) for satellite activities.
 - ✓ Up to 49% (automatic route) for launch vehicles and spaceports.
- **SpaceTech Innovation Network (SpIN):** A public-private platform to nurture start-ups and MSMEs.

Major Missions & Vision 2047

- **Gaganyaan** – India's first human spaceflight (scheduled 2027).
- **Bharatiya Antariksh Station (BAS)** – First module by 2028; fully operational by 2035.
- **Chandrayaan-4** – Sample return mission by 2027.
- **Venus Orbiter Mission (VOM)** – To study Venus by 2028.
- **Next-Gen Launch Vehicle (NGLV)** – Targeted for 2032.

7. ISRO Signs Technology Transfer Pact with HAL for SSLV Production

Context: The Indian Space Research Organisation (ISRO) has signed a formal agreement with Hindustan Aeronautics Limited (HAL) for the transfer of Small Satellite Launch Vehicle (SSLV) technology, marking a major step in expanding industry participation in India's space sector.

Key Highlights of the Agreement



- This is the 100th technology transfer agreement facilitated under IN-SPaCe, the autonomous agency promoting private sector engagement.
- Timeline: ISRO will complete the technology transfer process within 24 months from signing.
- Capacity Building: ISRO will provide training and technical support to HAL to enable full mastery of SSLV production.
- Market Access: Post-transfer, HAL will be able to independently manufacture SSLVs for domestic and international clients.

About Small Satellite Launch Vehicles (SSLV)

- SSLV is a three-stage, all-solid launch vehicle capable of placing satellites weighing up to 500 kg into Low Earth Orbit (LEO).
- It is designed for quick turnaround and on-demand launches, making it ideal for the growing global small satellite market.
- SSLV is amenable to industrial production, paving the way for large-scale commercial operations by Indian industry players.

8. AI for Viksit Bharat Roadmap and Frontier Tech Repository

Context: NITI Aayog has launched two major initiatives — AI for Viksit Bharat Roadmap and the NITI Frontier Tech Repository — under its Frontier Tech Hub, to accelerate India's journey toward a technology-driven, inclusive, and innovation-led economy.

AI for Viksit Bharat Roadmap

- The roadmap outlines a practical framework to harness Artificial Intelligence (AI) for economic growth and national development, focusing on:
 - ✓ Accelerating AI adoption across industries to enhance productivity and efficiency.
 - ✓ Transforming R&D through Generative AI, enabling India to leapfrog into innovation-led sectors.

Vision:

- To mainstream AI-assisted technologies across all districts, promoting inclusive and equitable growth and ensuring India's leadership in the global AI landscape.

NITI Frontier Tech Repository

- This digital repository showcases 200+ real-world use cases of frontier technologies across:
 - ✓ Agriculture
 - ✓ Healthcare
 - ✓ Education
 - ✓ National Security
- It highlights how states and startups are using technology to transform governance and livelihoods.
 - ✓ **Supporting Initiatives:**
- Frontier 50 Initiative: Supports 50 Aspirational Districts/Blocks to adopt impactful technologies from the repository to achieve service saturation.
 - ✓ NITI Frontier Tech Impact Awards: Recognizes three states for exemplary use of technology in governance, education, healthcare, and livelihood enhancement.

AI's Transformative Potential Across Sectors

Sector	Key Impact	Potential Value by 2035
Banking & Finance	Enhanced fraud detection, compliance, and efficiency	\$50–55 billion
Manufacturing	Automation, smart design, productivity gains	\$85–100 billion
Pharma & Biotech	Faster, cheaper drug discovery; AI-driven innovation	60–80% faster discovery
Automotive	Software-enabled vehicles, efficient design	\$30–35 billion added value

9. Global Innovation Index (GII) 2025

Context: The 18th edition of the Global Innovation Index (GII) 2025 was released by the World Intellectual Property Organization (WIPO). The index measures and ranks around 140 economies on their innovation ecosystems and performance.

Key Findings

- Global R&D Slowdown: R&D growth declined to 2.9% in 2024, the lowest since 2010, and is projected to fall further to 2.3% in 2025.
- **Top Performers:**
 - ✓ Switzerland
 - ✓ Sweden
 - ✓ United States
 - ✓ South Korea
 - ✓ Singapore
- China entered the top 10 for the first time, ranking 10th globally.
- India rose to 38th rank (from 48th in 2020), retaining #1 position among lower-middle-income countries and in Central & Southern Asia.
- Strengths: Knowledge & Technology Outputs (#22), Market Sophistication (#38)
- Weaknesses: Business Sophistication (#64), Infrastructure (#61), Institutions (#58)
- India's edge lies in ICT services exports, startup ecosystem, VC funding, and intangible assets.

Major Innovation Initiatives in India

- Startup India (2016): Supports entrepreneurs through tax incentives, funding, and ease of compliance.
- Atal Innovation Mission (AIM): Promotes grassroots innovation via Atal Tinkering Labs and Incubation Centres.
- NIDHI (DST): Provides early-stage innovation and incubation support.

- Digital Public Infrastructure: Platforms like UPI, Aadhaar, ONDC, DigiLocker boost scalable innovation.
- PLI Schemes: Encourage R&D-led manufacturing in electronics, semiconductors, EVs, and pharma.

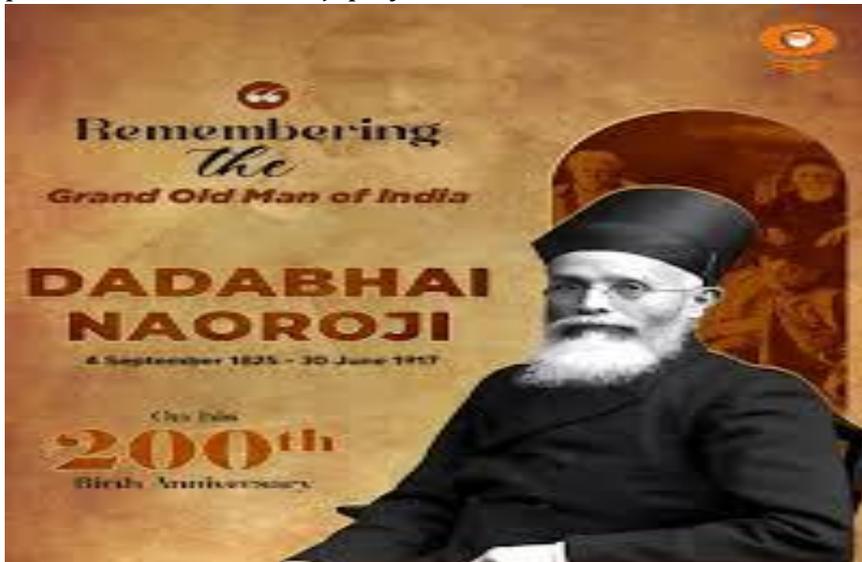
About WIPO

- A self-funding UN agency that promotes innovation and intellectual property rights globally.
- Members: 194 countries, including India.
- Headquarters: Geneva, Switzerland.

History & CULTURE

1. 200th Birth Anniversary of Dadabhai Naoroji

Context: The 200th birth anniversary of Dadabhai Naoroji (1825–1917), famously known as the “Grand Old Man of India”, was recently observed. A pioneering nationalist, social reformer, and political thinker, Naoroji played a foundational role in India’s freedom struggle.



Early Life and Career

- Born on 4 September 1825 in a Parsi priestly family in Bombay.
- Educated and active in social reform, combining intellectual rigor with public activism.
- Founded Rast Goftar (Truth Teller) in 1851, a Gujarati journal promoting civic awareness.
- Established the East Indian Association (1867), India’s first political body with membership across provinces and including both British and Indian members.

Political Contributions

- First Indian MP in British House of Commons (1892): Advocated India’s political and economic interests.
- Drain of Wealth Theory: Demonstrated how British policies transferred India’s wealth to Britain, increasing poverty. Highlighted in his work Poverty and Un-British Rule in India (1901).
- Expressed the demand for Swaraj at the Indian National Congress platform (1906).
- Served as President of the Indian National Congress twice (1886 & 1893) and represented India internationally, e.g., at Amsterdam (1905).
- Mentored future leaders like W.C. Bonnerji and Pherozeshah Mehta.

Legacy

- Returned permanently to India in 1908; passed away on 30 June 1917 in Bombay.

- Left a lasting legacy of combining scholarly analysis with political activism, laying the intellectual and organizational groundwork for India's nationalist movement.

2. SAMHiTA Conference

Context: The Minister of External Affairs inaugurated the SAMHiTA Conference in New Delhi, focusing on South Asia's manuscript traditions and historical contributions to mathematics.

About SAMHiTA

- Full Form: South Asian Manuscript Histories and Textual Archive.
- Objective: Create a relational database and digital archive of Indian and South Asian manuscripts located outside India, in collaboration with global institutional partners.
- Focus Areas: Mathematics, astronomy, linguistics, philosophy, medicine, and literature preserved in manuscripts.
- Significance: Strengthens research in history of science, safeguards India's intellectual traditions, and prevents cultural erasure.

Other Initiatives for Manuscript Preservation

- National Mission for Manuscripts (2003): Documents, conserves, and provides access to Indian manuscripts.
- Indira Gandhi National Centre for the Arts (IGNCA): Repository and research hub for manuscripts and cultural resources.
- Digital Archives: National Digital Library of India (NDLI), Bharatavani Project, Indian Culture Portal.
- UNESCO's Memory of the World Programme: Global initiative to preserve documentary heritage.

3. GI Tag Push in Bodoland Territorial Region (BTR)

Context: The Bodoland Territorial Region (BTR) government in Assam has launched a special drive to secure Geographical Indication (GI) tags for cultural artefacts of all 26 communities in the region.

- This initiative follows the recognition of 21 Bodo indigenous items with GI tags, highlighting the cultural richness of BTR.

About Geographical Indication (GI)

- A GI is a sign used on products with a specific geographical origin, whose qualities or reputation are linked to that origin.
- GI tags are used for agricultural products, foodstuffs, handicrafts, industrial goods, and beverages.

GI Tags in India

- Governed by the Geographical Indications of Goods (Registration & Protection) Act, 1999.
- Administered by the Controller General of Patents, Designs & Trademarks.
- Validity: 10 years, renewable.

4. Langkhon Festival

Context: The Tiwa community of Assam recently celebrated the Langkhon (Langkhun) Festival in Umsowai village, located in the Karbi Anglong district.

About the Festival

- The Langkhon Festival is a four-day traditional celebration of the Tiwa tribe, centered on the worship of bamboo — a symbol of fertility, strength, and harmony with nature.



LANGKHUN FESTIVAL

- It reflects the community's agrarian lifestyle, deep ecological consciousness, and gratitude toward natural resources.
- The festival marks the annual harvest season, where tribals offer prayers to Ramsa Devota and other deities for protection of crops from pests and for a bountiful yield.
- Though primarily celebrated in Karbi Anglong, the festival also holds cultural importance in other Tiwa-inhabited regions of Assam and Meghalaya.

Cultural Significance

- Represents the interdependence between humans and nature, a recurring theme in tribal traditions.
- Strengthens community bonding through collective rituals, songs, and dances.
- Serves as a means to preserve Tiwa cultural identity and transmit indigenous knowledge to younger generations.

5. Adi Sanskriti: India's Digital Initiative for Tribal Art and Culture

Context: The Ministry of Tribal Affairs recently launched the Beta version of Adi Sanskriti during the National Conference on Adi Karmayogi Abhiyaan. The platform is designed to preserve tribal art forms, promote heritage, and enable livelihoods, while connecting tribal communities across India and globally.

About Adi Sanskriti

- **Vision:** Envisaged as the world's first Digital University for preserving and promoting tribal culture and traditional knowledge.
- **Objectives:**
 - ✓ Preserve and document tribal arts, crafts, music, and folklore.
 - ✓ Promote cultural heritage as a tool for education and research.
 - ✓ Enable sustainable livelihoods for tribal artisans through digital platforms.

Key Components

- **Adi Vishwavidyalaya:** A Digital Tribal Art Academy offering 45 courses on tribal dance, painting, crafts, music, and folklore.
- **Adi Sampada:** A socio-cultural repository with over 5,000 curated documents on tribal art, textiles, artefacts, dance forms, and livelihoods.
- **Adi Haat:** An online marketplace (linked with TRIFED) to support tribal artisans by providing direct consumer access, fostering economic empowerment and sustainable livelihoods.

6. "Gyan Bharatam" Portal Launched

Context: Prime Minister Narendra Modi launched the Gyan Bharatam portal at the International Conference on Gyan Bharatam, themed "Reclaiming India's Knowledge Legacy through Manuscript Heritage."

About the Portal

- **Objective:** A digital platform to accelerate digitisation, preservation, and public access of India's rich manuscript heritage.
- **Scope:** Covers manuscripts in nearly 80 languages, including Sanskrit, Prakrit, Assamese, Bengali, Kannada, Kashmiri, Konkani, Maithili, Malayalam, and Marathi.
- **Functionality:** Enables scholars, students, and the general public to access manuscripts digitally, fostering research and cultural awareness.

Gyan Bharatam Mission

- **Restructuring:** The National Mission for Manuscripts (NMM) has been restructured as the Gyan Bharatam Mission under a Central Sector Scheme (2024–31).
- **Key Objectives:**
 - ✓ Survey & Documentation – Cataloguing manuscripts across India.
 - ✓ Conservation & Preservation – Scientific methods to protect fragile manuscripts.
 - ✓ Publication & Research – Promoting scholarship and dissemination of knowledge

MISCELLANEOUS

1. Ramon Magsaysay Award 2025

Context: An Indian non-profit organization, 'Foundation to Educate Girls Globally', has been named a 2025 Ramon Magsaysay Awardee for its exceptional work in promoting girls' education and gender equality in rural India.

Ramon Magsaysay Award



About the Foundation to Educate Girls Globally (Educate Girls)

- **Founded:** 2007 by Safeena Husain
- **Headquarters:** Mumbai, India
- **Objective:** To bridge the gender gap in education by enrolling and retaining out-of-school girls, especially in rural and educationally backward regions.
- **Approach:** Community-driven model involving parents, village leaders, and government partnerships to create sustainable change.

- **Mission:** “One Girl at a Time” — empowering girls through education and life opportunities.
- **Major Initiatives:**
 - ✓ **Development Impact Bond (DIB), 2015:** World’s first outcome-based funding model in education, linking financial support to learning achievements and enrollment outcomes.
 - ✓ **Pragati Programme:** Focused on re-enrolling young women (aged 15–29) in open schooling; scaled from 300 to over 31,500 learners.
 - ✓ **Impact:** Benefited over 2 million girls across 30,000 villages in India.

About the Ramon Magsaysay Award

- **Established:** 1958
- **Named After:** Ramon Magsaysay, 7th President of the Philippines, admired for integrity, courage, and democratic ideals.
- **Instituted by:** The Rockefeller Brothers Fund (RBF) in partnership with the Philippine Government
- **Administered by:** Ramon Magsaysay Award Foundation (RMAF), Manila
- **Nature:** Recognizes individuals and organizations in Asia for transformative leadership, integrity, and selfless service.
- **Prestige:** Often referred to as “Asia’s Nobel Prize.”
- **Categories:**

From 1958–2008, awards were given under six categories:

 - ✓ Government Service
 - ✓ Public Service
 - ✓ Community Leadership
 - ✓ Journalism, Literature, and Creative Communication Arts
 - ✓ Peace and International Understanding
 - ✓ Emergent Leadership (for individuals under 40)
- Since 2009, awards are presented without fixed categories, except Emergent Leadership which continues.

Ramon Magsaysay Award 2025 – Key Awardees

- **Educate Girls (India):** For advancing girls’ education and empowerment.
- **Shaahina Ali (Maldives):** For environmental activism and marine conservation.
- **Flaviano Antonio L. Villanueva (Philippines):** For humanitarian work among the poor and marginalized.
- The 67th Award Ceremony will be held on 7th November 2025 at the Metropolitan Theatre, Manila

2. India-Seychelles Naval Partnership Strengthens Maritime Cooperation

Context: Indian Navy ships INS Tir, INS Shardul, and Indian Coast Guard ship ICGS Sarathi, forming part of the First Training Squadron (1TS), arrived in Seychelles as part of a long-range training deployment aimed at strengthening maritime and diplomatic ties.

About Seychelles

- **Geography:** Seychelles is an archipelago of 115 islands located in the western Indian Ocean, east of Kenya and northeast of Madagascar.
- **Capital:** Victoria, situated on Mahé Island, is one of the smallest national capitals in the world.
- **Strategic Significance:** The islands lie along major sea lanes of communication, making Seychelles a key maritime partner for India in ensuring the security of the Indian Ocean Region (IOR).

India-Seychelles Relations

- **Historical Links:** Indian settlers first arrived in Seychelles around 1770, forming a cultural bridge that continues to thrive today.

- **Defence Cooperation:** India has gifted patrol vessels, conducted hydrographic surveys, and helped set up a Coastal Surveillance Radar System to enhance Seychelles' maritime capabilities.
- **Capacity Building:** Regular naval visits, training exchanges, and joint exercises strengthen interoperability and trust between the two nations.
- **Developmental Partnership:** India has extended grant assistance for infrastructure and renewable energy projects, and the two countries collaborate actively under the International Solar Alliance (ISA) to promote sustainable energy solutions.

3. NIRF 2025 Rankings

Context: The Ministry of Education released the National Institutional Ranking Framework (NIRF) 2025 rankings, assessing higher education institutions across India.

Key Highlights

- **Overall Top Institution:** IIT Madras retained the first position for the seventh consecutive year.
- **Top University:** IISc Bengaluru continues to lead the university category.
- **Notable Entrants:** Jawaharlal Nehru University (JNU) ranked 2nd, and Manipal Academy of Higher Education became the first private university in the top three.
- **Colleges:** Hindu College (DU) ranked 1st, followed by Miranda House and Hans Raj College.
- **Category Leaders:**
 - ✓ Management: IIM Ahmedabad
 - ✓ Medical: AIIMS Delhi
 - ✓ Law: NLSIU Bengaluru

About NIRF

- **Launched:** 2015 by Ministry of Education
- **Purpose:** Rank Indian higher education institutions to promote quality and transparency.
- **Parameters:** Five broad criteria with 18 sub-parameters:
 - ✓ Teaching, Learning & Resources
 - ✓ Research and Professional Practice
 - ✓ Graduation Outcome
 - ✓ Outreach and Inclusivity
 - ✓ Perception
- **Methodology:** Weighted scoring across parameters determines the overall ranking.

4. Angikaar 2025

Context: The Minister of Housing and Urban Affairs launched Angikaar 2025, an outreach campaign under Pradhan Mantri Awas Yojana – Urban 2.0 (PMAY-U 2.0), aimed at accelerating the implementation of the flagship housing scheme across India.

Key Features

- **Objective:** Enhance awareness of PMAY-U 2.0, fast-track verification of applications, and expedite completion of sanctioned houses.
- **Duration & Coverage:** 4th September 2025 to 31st October 2025, covering 5,000+ Urban Local Bodies (ULBs) nationwide.
- **Integration with Other Schemes:**
 - ✓ Promotes Credit Risk Guarantee Fund Trust for Low Income Housing (CRGFTLIH).
 - ✓ Coordinates benefits from PM Surya Ghar: Muft Bijli Yojana.
 - ✓ Prioritizes housing for Special Focus Groups.

5. Papua New Guinea

Context: The Indian Navy's INS Kadmatt, an indigenously built Anti-Submarine Warfare Corvette, led the fleet review during Papua New Guinea's 50th Independence Day celebrations, highlighting India's strategic engagement in the Pacific.

About Papua New Guinea



- **Location:** Largest Pacific Island nation by landmass and population; lies at the crossroads of Southeast Asia and Oceania.
- **Seismic Zone:** Falls within the Pacific "Ring of Fire."
- **Capital:** Port Moresby
- **Languages:** English, Tok Pisin, Hiri Motu
- **Government:** Parliamentary democracy; member of the Commonwealth.
- **Regional Role:** Active in regional forums like Forum for India-Pacific Islands Cooperation (FIPIC).

India-Papua New Guinea Ties

- **Strategic Outreach:** Participation of INS Kadmatt reflects India's Act East Policy, strengthening ties with Pacific Island nations.
- **Security Partnership:** India emerging as a Preferred Security Partner in the Indo-Pacific region.

Development & Capacity Building

- **Line of Credit:** \$100 million for infrastructure development.
- **MoUs:** Collaboration in agriculture research, healthcare, and IT education.
- **Education & Culture:** Centre of Excellence in IT and an ICCR Chair of Indian Studies at UNITECH, Lae.

6. Seven Natural Heritage Sites Added to UNESCO Tentative List

Context: Seven new natural heritage sites from India have been added to UNESCO's Tentative List of World Heritage Sites, taking the country's total from 62 to 69 properties.

Newly Added Sites

- **Deccan Traps at Panchgani and Mahabaleshwar (Maharashtra):** Part of the vast volcanic Deccan Traps, located within the Koyna Wildlife Sanctuary, already a UNESCO site.

- Geological Heritage of St. Mary's Island Cluster (Karnataka): Renowned for columnar basaltic formations from the Late Cretaceous period (85 million years ago) — a rare geological feature.
- Meghalayan Age Caves (Meghalaya): The Mawmluh Cave defines the Meghalayan Age of the Holocene Epoch, representing major climate and geological transitions.
- Naga Hill Ophiolite (Nagaland): Unique exposure of ophiolite rocks — remnants of ancient oceanic crust thrust onto continental land, revealing Earth's tectonic evolution.
- Erra Matti Dibbalu (Red Sand Hills), Andhra Pradesh: Distinctive red sand formations near Visakhapatnam showcasing paleoclimatic and coastal geomorphological significance.
- Natural Heritage of Tirumala Hills (Andhra Pradesh): Known for the Eparchaean Unconformity and Silathoranam (Natural Arch) — representing 1.5 billion years of geological history.
- Varkala Cliffs (Kerala): Expose the Warkalli Formation (Mio-Pliocene Age) and feature natural springs and scenic erosional cliffs along Kerala's coast.

TELANGANA CURRENT AFFAIRS

1. Gussadi Dance

Context: Members of the Raj Gond tribe from Telangana's Adilabad district are set to perform the Gussadi Dance during the 78th Hyderabad Liberation Day celebrations.

About Gussadi Dance



- **Tribal Origin:** Gussadi is a traditional folk dance of the Raj Gond tribe, primarily performed in Adilabad (Telangana) and adjoining regions of Maharashtra.
- **Performance Style:**
 - ✓ The dance is performed exclusively by men, organized in groups called Dandari, with smaller units known as Gussadi.
 - ✓ Dancers adorn turmeric and saffron-colored attire, and wear turban crowns decorated with peacock feathers, deer horns, and goat skins.
- **Musical Instruments:** The performance is accompanied by tribal instruments such as Dappu, Tudumu, Pipri, and Kolikammu.
- **Cultural Significance:** The dance celebrates tribal identity, valor, and connection with nature, often performed during festive and harvest occasions.

Recognition

- Kanaka Raju, a renowned performer from the Raj Gond community, received the Padma Shri (2021) for his exceptional contribution to preserving and promoting the Gussadi dance tradition.

2. Telangana Passes Bill for 42% BC Reservation in Local Bodies

Context: The Telangana Legislative Assembly has passed the Panchayat Raj (Third Amendment) Bill, 2025 and Municipalities (Third Amendment) Bill, 2025 to enhance Backward Classes (BC) reservations to 42% in local body elections.

Key Highlights:

- **Enhanced Quota:** The Bills seek to provide 42% reservation for BCs in both rural and urban local bodies.
- **Previous Attempts:** Earlier Bills and an Ordinance were sent to the Governor for approval but were referred to the Centre, which is yet to respond.
- **Government's Stand:** Chief Minister A. Revanth Reddy reiterated the State's commitment to social justice and empowerment of marginalized groups, linking the move to Social Justice Day (February 4).

Legal and Constitutional Dimensions:

- **Supreme Court Cap:** The Indra Sawhney (1992) judgment limits total reservations to 50%, except under exceptional circumstances.
- **Ninth Schedule Reference:** Tamil Nadu's 69% reservation is safeguarded under the Ninth Schedule. Telangana may require similar constitutional backing to withstand judicial scrutiny.
- **Centre-State Dynamics:** The proposal underscores the complex interplay between state autonomy and central oversight in reservation policy.

Significance:

- **Social Justice:** Expands political representation for BCs, reinforcing inclusive governance.
- **Federalism:** Reflects evolving state-centre relations in implementing social equity measures.
- **Political Context:** Highlights increasing caste-based mobilisation and focus on empowerment politics.
- **National Relevance:** Could reignite debate over the 50% reservation ceiling and judicial limits on affirmative action.

3. Telangana to Formulate State Education Policy Aligned with NEP 2020

Context: The Telangana government has set up a committee to draft the Telangana Education Policy (TEP), aligning it with the National Education Policy (NEP) 2020 and the State's long-term vision—Telangana Rising 2047.

About the Policy:

- Announced on August 29, 2025, the TEP will serve as a strategic framework for education reforms across all levels—school, higher, and technical education.
- The committee will submit its report by October 30, 2025.

Objectives:

- **Adaptation of NEP 2020:** Tailor national recommendations to Telangana's socio-economic context.
- **Skill and Innovation Focus:** Integrate education with emerging job markets, digital transformation, and entrepreneurship.
- **Research-Industry Linkages:** Strengthen collaboration between academia and industry to promote innovation.
- **Comprehensive Reform:** Cover school, higher, vocational, and professional education with emphasis on access, equity, and quality.

Committee Composition:

- **Chairperson:** Keshava Rao, Advisor to the Government
- **Members:** Kadiyam Srihari (MLA), Akunuri Murali (Chairman, Telangana Education Commission), K. Ramakrishna Rao (Chief Secretary), V. Balakista Reddy (Chairman, TGCHE)
- **Member-Convener:** Yogita Rana, Secretary, Education Department

Recent Related Initiatives:

- Revision of English curriculum under TGCHE as per NEP 2020.
- Expansion of digital learning and skilling programmes.

Significance:

- Localized Vision: Customizes NEP principles to Telangana's developmental priorities.
- Skill-Driven Growth: Bridges education–employment gap through industry-linked learning.
- Inclusive Approach: Focuses on rural access, equality, and quality improvement.
- Future-Ready Framework: Integrates education planning with Telangana Rising 2047 for long-term impact.

Challenges:

- Balancing NEP 2020 norms with state priorities, resource constraints, regional disparities, and teacher capacity-building.

4. Kaloji Narayana Rao Literary Award 2025

Context: Noted writer and columnist Nellutla Ramadevi has been selected for the Kaloji Narayana Rao Literary Award 2025 for her outstanding contributions to Telugu literature and journalism.

About the Award:

- Instituted by the Department of Language and Culture, Government of Telangana, the award commemorates Kaloji Narayana Rao (1914–2002) — a poet, freedom fighter, and social reformer known as the People's Poet.
- It honours individuals who have made exceptional contributions to Telugu literature, journalism, and cultural promotion.
- The award is presented annually during Kaloji Jayanthi and Telangana Language Day (September 9).

Selection Process:

- The 2025 selection committee, chaired by Andesri, unanimously chose Nellutla Ramadevi.
- The recommendation was approved by Chief Minister A. Revanth Reddy.

Significance:

- Promotion of Regional Literature: Encourages creativity and preservation of the Telugu language.
- Recognition of Journalism: Highlights the role of ethical and socially conscious writing.
- Cultural Preservation: Reflects Telangana's commitment to honoring its linguistic and cultural legacy.

5. Bathukamma 2025: Telangana's Floral Festival and Cultural Showcase

Context: The Telangana government has announced Bathukamma celebrations (Sept 21–30, 2025) featuring a Guinness World Record attempt and a Bathukamma Carnival, aimed at promoting cultural tourism and showcasing the State's vibrant identity.



Key Highlights:

- Guinness World Record Attempt (Sept 28):
 - ✓ Venue: LB Stadium, Hyderabad.
 - ✓ Event: 10,000 women will participate in creating a 51-foot Bathukamma floral structure.
- Launch of Festivities (Sept 21):
 - ✓ Venue: Thousand Pillars Temple, Warangal.
 - ✓ Inauguration by Tourism and Women Ministers.
- District Events (Sept 22–26):
 - ✓ Bathukamma celebrations at temples and heritage sites, led by District Collectors.

About Bathukamma:

- Telangana's nine-day floral festival celebrated before Dasara, symbolising feminine energy (Shakti) and community harmony.
- Culminates in Saddula Bathukamma, where floral stacks are immersed in water bodies.

Cultural Significance:

- Promotes women's participation, folk traditions, and eco-friendly practices.
- Serves as a platform for cultural tourism, linking heritage with economic empowerment of Self-Help Groups (SHGs).

6. Vaddi Leni Runalu Scheme Revived for Women Empowerment in Telangana

Context: The Telangana government has revived the Vaddi Leni Runalu (Interest-Free Loans) scheme in 2025 to empower Self-Help Group (SHG) women, benefiting over 63 lakh members across the state.

About the Scheme:

- Scheme Name: Vaddi Leni Runalu (Interest-Free Loans)
- Beneficiaries: Women members of Self-Help Groups (SHGs)
- Loan Disbursal (2025–26): ₹21,632 crore sanctioned to 63 lakh SHG members
- Annual Target: Over ₹20,000 crore in interest-free loans
- Goal: Expand SHG membership to 1 crore and promote women's financial independence

Recent Developments:

- At a public event in Yousufguda (Jubilee Hills), loans worth ₹41.15 crore were distributed to 8,130 SHG women. Ministers Ponnampaluri Prabhakar, G. Vivek, and D. Seethakka participated in the event.

Complementary Women-Centric Initiatives:

- Entrepreneurship: 100 shops at Shilparamam reserved for women; 150 RTC buses leased to women's societies (450 more planned).
- Free Bus Travel: 223 crore free trips by women; ₹7,400 crore reimbursed to TSRTC.
- **Social Welfare:**
 - ✓ Free power up to 200 units.
 - ✓ 6 kg free rice per person for 96 lakh families.
 - ✓ Rajiv Arogyasri health coverage up to ₹10 lakh.

Significance:

- **Economic Empowerment:**
 - ✓ Reduces dependency on moneylenders.
 - ✓ Expands access to institutional finance for small-scale businesses.
 - ✓ Promotes entrepreneurship and local livelihoods.
- **Social Impact:**
 - ✓ Strengthens women's collective bargaining through SHGs.
 - ✓ Enhances financial inclusion and gender equality.

- **Policy Vision:**

- ✓ Reflects the government's commitment to treating women as "Mahalakshmi", ensuring welfare, dignity, and self-reliance under the Indiramma Government's inclusive growth vision.

7. **Telangana Seeks 70% Krishna River Share Before KWDT-II**

Context: In 2025, Telangana approached the Krishna Water Disputes Tribunal-II (KWDT-II), seeking 70% (763 TMC ft) of Krishna River waters previously allocated to undivided Andhra Pradesh, citing equity, basin-based principles, and international norms of river sharing.

Background

- The Krishna River flows through Maharashtra, Karnataka, Telangana, and Andhra Pradesh, and has been a source of inter-state water disputes due to competing agricultural, industrial, and drinking water needs.
- KWDT-I (1969–1973): Allocated 2060 TMC ft among Maharashtra, Karnataka, and undivided Andhra Pradesh; Andhra Pradesh received 811 TMC ft at 75% dependability.
- KWDT-II (2004–present): Reassesses allocations under the Inter-State River Water Disputes Act, 1956, post bifurcation of Andhra Pradesh in 2014.

Telangana's Demand (2025)

- Telangana seeks fresh allocation based on:
- 75% dependable waters: Larger basin area, cultivable land, drought-prone regions.
- 65% dependable waters: Population and drought vulnerability.
- Average flows: Command areas above Nagarjunsagar within Telangana.
- Godavari diversions: Krishna delta lies within Telangana basin.
- Surplus flows: Liberty to use all waters over average dependability.

Arguments:

- Historical diversion to Andhra regions left Telangana drought-prone.
- Telangana's basin area and population justify a larger share.
- Supported by international river-sharing norms (Indus, Nile, Mekong).

Andhra Pradesh's Position:

- Defends existing irrigation projects and diversions.
- Opposes Telangana's claim as excessive.

Legal Framework

- Inter-State River Water Disputes Act, 1956: Empowers Centre to constitute tribunals.
- Article 262: Provides parliamentary authority to adjudicate river disputes, excluding Supreme Court jurisdiction.

Significance

- For Telangana: More water for irrigation, drinking, and industry; addresses historical neglect.
- For Andhra Pradesh: Retains critical water for delta and Rayalaseema projects.
- For Federalism: Highlights challenges of inter-state resource sharing post-state reorganisation.
- For Policy: Emphasises basin-based planning and need for a permanent inter-state river authority.

Challenges Ahead

- Potential political resistance to the tribunal's final award.
- Implementation hurdles due to absence of a monitoring authority.
- Climate change impacting flow patterns.
- Possible future demands for national-level reallocation.

8. Pride of Telangana Awards 2025

Context: The sixth edition of the Pride of Telangana Awards honoured eminent personalities and emerging talents from Telangana for outstanding contributions across arts, culture, education, social service, and entrepreneurship.

Introduction

- Organised annually by Round Table India, the awards recognise individuals who have significantly contributed to Telangana's development and cultural heritage. The 2025 edition was held at Novotel HICC, Madhapur, Hyderabad, featuring achievers from diverse fields and cultural performances.

Objectives

- Celebration of Excellence: Honour achievers shaping Telangana's growth.
- Promotion of Culture & Arts: Showcase traditional and contemporary Telangana art forms.
- Education & Social Upliftment: Encourage societal contributions through recognition.

Significance

- Recognition of Talent: Motivates individuals, both established and emerging, to excel.
- Cultural Promotion: Strengthens regional identity by highlighting local arts.
- Community Engagement: Reflects civil society's role in education, social service, and youth development.
- State Pride: Inspires future generations to contribute to Telangana's progress.

ANDHRA PRADESH CURRENT AFFAIRS

1. Marine Biodiversity along the Andhra Pradesh Coast: Insights from the CMFRI Study

Context: From January 24, 2024 to January 23, 2025, the Central Marine Fisheries Research Institute (CMFRI), Visakhapatnam, under a two-year A.P. State Biodiversity Board (APSBB) grant, conducted a comprehensive survey of Andhra Pradesh's 1,053 km coastline. The study catalogued marine flora and fauna, assessed conservation statuses, mapped critical habitats, identified anthropogenic pressures, and initiated economic valuations at three strategic sites.

Body Part:

- **Taxonomic Diversity:** 1,275 species documented, spanning 456 genera, 290 families and 98 orders across 14 taxonomic groups; further data collection and field surveys are ongoing.
- **Species Composition:** Finfish represent 54% of recorded species and molluscs 24%, underscoring the dominance of fishery resources and the significance of invertebrate management.
- **Conservation Status:** 74 species fall under IUCN's critically endangered, endangered or vulnerable categories; 46 species are listed by CITES; 35 species across four taxonomic groups receive Schedule I protection under the Wildlife Protection Amendment Act, 2022.
- **Flagship Turtles:** Four marine turtle species—Olive Ridley, Green, Hawksbill and Leatherback—were recorded along the coast, with one species classified as critically endangered.
- **Gelatinous Zooplankton:** Twenty-three jellyfish species were identified, including the first Indian-waters record of *Rhopilema nomadica*, expanding knowledge of tropical gelatinous fauna.
- **Marine Mammal Diversity:** Sixteen species of marine mammals—whales, dolphins and finless porpoises—were documented; toothed whales and dolphins showed the highest diversity with 10 species.

- **Habitat Spectrum:** Coastal and shelf habitats total ~33,000 sq km and include mudflats, sandy and rocky beaches, estuaries, creeks, mangroves, marshes, lagoons and seagrass beds, each supporting unique assemblages of flora and fauna.
- **Anthropogenic Pressures:** Primary threats identified are fisheries bycatch, habitat loss, plastic pollution, ghost-gear entanglement and illegal shell trade, all requiring targeted mitigation strategies.
- **Site-Specific Valuation:** Economic valuation of marine and biological resources is underway at Bhavanapadu (Srikakulam), Bheemunipatnam (Visakhapatnam) and Antarvedipalem (Konaseema), to quantify ecosystem services and inform sustainable use.
- **Management Implications:** The bio-inventory provides a critical baseline for prudent ecosystem management, policy formulation and sustainable exploitation, ensuring long-term conservation of Andhra Pradesh's coastal biodiversity.

2. APTDC's Mission LiFE Drive and Governance Outreach

Context: APTDC is partnering with BEE, EESL and CESL under Ajay Jain and K. Amrapali to embed Mission LiFE's clean-energy and sustainable practices—such as solar power and EV charging—into its tourism ventures. At the same time, Chief Minister N. Chandrababu Naidu has directed ministers, MPs, MLAs and party cadres to intensify public outreach on welfare schemes, GST reforms and power-sector savings. Together, these initiatives aim to strengthen Andhra Pradesh's sustainable tourism credentials and deepen citizen engagement with government programmes.

Body Part:

- **Partnerships & Institutional Framework:** APTDC has formalized collaboration with BEE, EESL and CESL to embed Mission LiFE principles across its tourism portfolio.
- **Mission LiFE Action Items:** APTDC will integrate 75 simple yet impactful lifestyle actions—such as switching to LED bulbs, harnessing solar power, and promoting public transport, EVs and bicycles—into its tourism offerings.
- **Electric Mobility Infrastructure:** Through its CESL MoU, APTDC will establish EV charging stations and battery-swapping facilities at major cities, highway corridors and key tourist hotspots.
- **Tourism Product Innovation:** The action plan includes launching heli-tourism, developing tent cities and promoting homestays to diversify Andhra Pradesh's tourism experiences.
- **Governance & Public Outreach:** In a state-wide teleconference, CM Naidu directed ministers, MPs, MLAs and TDP leaders to actively explain government welfare and development programmes to citizens.
- **GST Reforms Utsav Campaign:** As part of the outreach, the government has rolled out the GST Reforms Utsav to educate people on the benefits of Goods and Services Tax and revenue reforms.
- **Pension Scheme Expenditure:** Andhra Pradesh allocates Rs 33,000 crore annually for pensions—covering 13% of its population—compared to Uttar Pradesh's Rs 5,500 crore spend on the same.
- **Power Sector Reforms:** The state has reversed previous tariff hikes through a 'True Down' policy, adopted a swapping strategy to avoid high-cost purchases, and is ramping up solar, wind and other renewable energy generation.
- **'Super Six – Super Hit':** Agenda Promotion Party cadres have been charged with popularising the government's flagship 'Super Six – Super Hit' agenda at the grassroots level.

3. 'Super GST – Super Savings' Campaign in Andhra Pradesh

Context: The Andhra Pradesh government, under Chief Minister N. Chandrababu Naidu, has launched the 'Super GST – Super Savings' initiative to educate citizens on GST 2.0 reforms. The campaign will

conduct 65,000 meetings and programmes across the State by October 19 to highlight tax rate cuts on essentials, services and sector-specific goods.

Body Part:

- **Campaign Objectives:** 'Super GST – Super Savings' aims to deliver GST 2.0 benefits to every household, emphasizing reduced rates on daily essentials, medicines, stationery, textiles, sports equipment, transportation and women's and children's items.
- **Scale & Timeline:** A state-wide drive of 65,000 meetings and events will run from September 30 to October 19, culminating in district-level shopping festivals and cultural programmes on October 19.
- **Governance & Oversight:** Chief Minister Naidu reviewed the action plan with the Cabinet Sub-Committee and directed ministers, MPs, MLAs and party cadres to ensure rigorous implementation and direct public engagement.
- **Sector-Specific Programmes:** Awareness campaigns will cover agriculture, MSMEs, handlooms, aquaculture, education, insurance (including zero GST on life and health policies), electronics, e-commerce, construction, tourism, hospitality, transportation, logistics, sports equipment, renewable energy and automobiles.
- **Farmer Outreach:** Tractor rallies and farm machinery demonstrations will engage farmers directly, showcasing reduced GST rates on agricultural inputs and equipment.
- **MSME & Artisan Showcases:** Exhibitions by APCO, Lepakshi and One District-One Product units will display local MSME products, underlining the tax reductions under GST 2.0.
- **Student Engagement:** Essay writing and painting competitions will be organized in 7,000 high schools and 4,000 junior colleges to educate students on lower GST rates for stationery and educational essentials.
- **Publicity & Media Strategy:** Extensive publicity via radio, television, print and social media, along with announcements in cinema theatres and hoardings at government offices, will reinforce the campaign message until October 19.
- **Culmination Events:** Field campaigns will wind up on October 18, followed by grand shopping festivals and cultural programmes in all district headquarters on October 19, coinciding with Diwali celebrations.
- **Expected Impact & Sustainability:** By combining mass outreach, sector-targeted interventions and high-visibility events, the initiative seeks to ensure lasting consumer awareness, improve compliance and bolster public confidence in fiscal reforms.

4. Gurram Jashuva: Championing Social Justice through Telugu Poetry

Context: On his 130th birth anniversary at Vijayawada's Pingali Venkaiah Conference Hall, Tourism Minister Kandula Durgesh paid tribute to Padma Bhushan Gurram Jashuva, inaugurated the Gurram Jashuva Awards 2025, released new literary works and highlighted Jashuva's enduring fight against social evils through poetry.

Body Part:

- **Commemorative Event & Awards:**
 - **Five Telugu literature stalwarts**—Dr. Kanakadurga Prasad Rao, Dr. Palaparathi Sridhar, Meesala Laxman, Potluri Harikrishna and K. Guruvamma—received the Gurram Jashuva Awards 2025, each accompanied by Rs 50,000.
 - **Two books were released:** "Vishwanarudu" by Director Regulla Mallikarjuna Rao and "Muktamani Padyasatakam" by Dr. Palaparathi Sridhar.
 - The poster for the World Telugu Poets Conference (27–28 December) was unveiled to further Jashuva's literary legacy.
- **Poetic Legacy & Works:**

- Durgesh praised Jashuva for transforming “the pain of poverty, untouchability and discrimination” into verses that galvanized social awareness.
- **Highlighted masterpieces include:**
 - ✓ Gabbilam
 - ✓ Firadausi
 - ✓ Vishwanarudu
 - ✓ Harischandra
- The event featured songs and recitals celebrating Jashuva as the “voice of the oppressed.”
- **Early Life & Education:**
 - Born 28 September 1895 in Vinukonda, Guntur district, to Virayya (Yadav caste) and Lingamma (Madiga community).
 - Family’s intercaste marriage and Christian upbringing exposed him to discrimination and hardship.
 - Earned the title “Ubhaya Bhasha Praveena” for mastery of both Telugu and Sanskrit.
- **Major Literary Contributions:**
 - **Gabbilam:** A Dalit hero’s journey to Benares via a bat-messenger, inspired by Kalidasa’s Meghadūta.
 - **Firadausi:** A poetic exploration of betrayal and injustice in the life of the Persian poet.
 - **Kandiseekudu:** Chronicles the social alienation of refugees and outcasts.
 - **Harischandra:** Jashuva’s verses enriched the cremation-ground scene of the classic play, underscoring social suffering.
- **Social Reform & Advocacy:**
 - Regarded as the first modern Telugu Dalit poet, Jashuva’s work directly confronted caste discrimination and untouchability.
 - His poetry fueled self-respect and Dalit rights movements, mobilizing communities toward equality and justice.
- **Professional & Creative Roles:**
 - Served as a school teacher before joining All India Radio, Madras (1946–1960) as a Telugu producer.
 - Drew creative inspiration from personal struggles with poverty and prejudice.
- **Awards & Recognitions:**
 - Honored with government awards during his lifetime; posthumously celebrated through multiple memorial honors.
 - Titled the “**Poet of the Millennium**” for his transformative impact on Telugu literature and society.

5. Rejuvenation of Village Tanks under ‘Palle Pushkarini’ in Prakasam

Context: Prakasam district has launched the ‘Palle Pushkarini’ initiative for the 2025–26 financial year to renovate and beautify one village tank in each mandal. Supported by MGNREGS funding, the project targets 38 tanks with community-driven selection and aims to bolster rural water security, ecology, and livelihoods.

Body Part:

- **About Scheme:**
 - ✓ Covers 38 village tanks, one per mandal in Prakasam.
 - ✓ Each tank spans 1–5 acres in villages with at least 1,000 residents.
 - ✓ Total estimated cost is ₹3 lakh per tank under the Union government’s scheme.
- **Financial Structure:**
 - ✓ Funded through the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).

- ✓ 60% of each tank's budget is allocated to workers' wages.
- ✓ Remaining 40% covers material, equipment and site costs.
- **Technical Interventions:**
 - ✓ Strengthening tank bunds to prevent breaches and improve embankment stability.
 - ✓ Repairing and desilting sluices and canals to enhance water flow and storage capacity.
 - ✓ Constructing walking tracks and installing cement benches around the perimeters.
- **Beautification & Ecosystem Support:**
 - ✓ Planting fruit and flower saplings on tank bunds to improve biodiversity.
 - ✓ Creating shaded spots and recreational amenities for villagers.
 - ✓ Aesthetic upgrades designed to encourage community stewardship of water bodies.
- **Community Participation:**
 - ✓ Village committees identify and nominate suitable tanks based on local needs.
 - ✓ Proposals vetted at Grama Sabhas—20 submissions received to date; remaining due by October 2.
 - ✓ Ensures bottom-up governance, with villagers actively involved in decision-making and oversight.
- **Employment & Livelihoods:**
 - ✓ MGNREGS-driven wage component guarantees rural employment opportunities.
 - ✓ Local laborers benefit from sustained work on water infrastructure projects.
 - ✓ Skill-building in earthworks and horticulture contributes to long-term job readiness.
- **Environmental Impact:**
 - ✓ Rejuvenated tanks enhance groundwater recharge and mitigate seasonal water scarcity.
 - ✓ Improved water availability supports sustainable agriculture and livestock.
 - ✓ Riparian vegetation and sapling growth bolster local microclimates and soil health.

6. Sacred Groves of Andhra Pradesh: Decline, Diversity and Conservation

Context: A recent study titled “A Preliminary Floristic Exploration in Thimmappakonda Sacred Grove, Anantapur district, Andhra Pradesh State” (2013–2024) documents 380 plant species in one of the State's Pavithravanas. It highlights the ecological, cultural and policy dimensions of sacred groves, while warning that modernisation and development have eroded traditional protections.

Body Part:

- **Study Overview:**
 - ✓ Aimed to catalogue floristic diversity and inform grove conservation across Andhra Pradesh.
- **Methodology:**
 - ✓ Field surveys from 2013 to 2024.
 - ✓ Photographic documentation and specimen collection.
 - ✓ Critical observation of flowering and fruiting periods.
- **Floristic Diversity:**
 - ✓ Total of 380 wild and naturalised species.
 - ✓ Life-form breakdown: 42 trees; 54 shrubs; 246 herbs; 37 climbers; 1 liana.
 - ✓ Represented by 242 genera across 63 botanical families.
- **Cultural Significance:**
 - ✓ Locally called Pavithravanas, groves are dedicated to deities like Shiva, Hanuman, Saraswati, Gangamma, Nagadevatha, Chennakesava, Narasimha and Akkamma.
 - ✓ Viewed as sacred sites whose wellbeing is tied to community welfare.
 - ✓ Traditional religious taboos historically enforced vegetation protection.
- **Ecological Functions:**
 - ✓ Act as biodiversity reservoirs for rare and endemic plants.

- ✓ Regulate local microclimates and moderate temperatures.
- ✓ Prevent soil erosion through dense root networks.
- ✓ Function as carbon sinks, aiding climate mitigation.
- **Threats and Decline:**
 - ✓ Temple modernisation has led to clearing of native vegetation.
 - ✓ Erosion of religious taboos weakens community-based protection.
 - ✓ Other pressures include deforestation, uncontrolled grazing and invasive plant species.
- **National and Global Context:**
 - ✓ Over 13,000 sacred groves formally documented in India; estimated true count between 100,000 and 150,000.
 - ✓ Comparable groves exist in Ghana, Senegal, Sumatra and Bangladesh.
 - ✓ Known regionally as Devrai (Maharashtra), Oran (Rajasthan), Sarpa Kavu (Kerala) and Law Lyngdoh (Meghalaya).
- **Conservation Implications:**
 - ✓ Floristic inventories are critical to catalogue species and monitor ecological resilience.
 - ✓ Identifying threats informs targeted restoration—clearing invasives, fencing to control grazing.
 - ✓ Integrating groves into state biodiversity action plans can formalise their protection.
- **Policy and Governance Relevance:**
 - ✓ Community-driven selection and management models exemplify bottom-up conservation.
 - ✓ Potential synergy with MGNREGS afforestation and rural employment schemes.
 - ✓ Supports APSBB priorities on sacred groves and ecologically sensitive area regulations.

7. Building Swadeshi Tech at NCeG 2025

Context: At the 28th National Conference on e-Governance in Visakhapatnam under the theme “Viksit Bharat: Civil Services and Digital Transformation,” Andhra Pradesh Chief Minister N. Chandrababu Naidu called on technocrats to pioneer indigenous technologies, reduce reliance on imports and strengthen India’s global tech standing.

Body Part:

- **Appeal for Swadeshi Technology:**
 - ✓ Addressed young technocrats, especially from IITs and IIMs, to focus on homegrown innovation over foreign dependence.
 - ✓ Highlighted India’s robust IT sector still relies on other countries for production and urged a shift from user to creator.
- **Legacy of e-Seva and Mee-Seva:**
 - ✓ Recalled the launch of e-Seva (2001) and Mee-Seva, Andhra Pradesh’s pioneering single-window digital service portals.
 - ✓ Credited these platforms with boosting transparency, reducing corruption and making over 750 services citizen-centric and efficient.
- **Flagship Emerging-Tech Hubs:**
 - ✓ Space City near Sriharikota to leverage ISRO launch facilities for satellite and space R&D.
 - ✓ Drone City in Orvakal to incubate UAV design, testing and manufacturing.
 - ✓ Electronics City and MedTech Park to attract semiconductor fabs and medical device startups.
 - ✓ These clusters will create career avenues for technocrats in cutting-edge domains.
- **Quantum Valley in Amaravati:**
 - ✓ Announced development of a Quantum Valley by January 2026, joining a global network of six existing quantum hubs.

- ✓ Collaboration with Government of India, IBM, TCS and L&T to build indigenous quantum computers within two years.
- **Digital Governance Innovations:**
 - ✓ Launched Mana Mitra (WhatsApp Governance) platform delivering 751 government services via chat.
 - ✓ Promoted real-time governance backed by his earlier e-Seva and Mee-Seva models to ensure administrative efficiency.
- **Sanjeevani Health Project:**
 - ✓ Rollout of digital health records for every citizen, enabling predictive and curative care under the mantra “**food as medicine, kitchen as pharmacy.**”
- **Data-Driven Administration:**
 - ✓ Integration of live data streams from satellites, drones, CCTV cameras and IoT sensors into decision-making dashboards for accuracy and transparency.
- **Entrepreneurship & MSME Promotion:**
 - ✓ Inauguration of the Ratan Tata Innovation Hub to mentor startups and foster R&D.
 - ✓ “**One Family–One Entrepreneur**” scheme to catalyse grassroots enterprise growth across rural and urban Andhra Pradesh.
- **Economic Vision & Inter-State Competition:**
 - ✓ Projected India to become the world’s third-largest economy by 2028 and the leader by 2047 under PM Modi’s guidance.
 - ✓ Praised healthy healthy competition among states in adopting new technologies as a driver for national progress.
- **Recognition & Future Roadmap:**
 - ✓ Union MoS Dr. Jitendra Singh presented National e-Governance Awards 2025 to 19 initiatives across six categories, including Gram Panchayats.
 - ✓ Acknowledged Visakhapatnam’s 25-year transformation in sanitation and infrastructure, including Bhogapuram Greenfield Airport plans.
 - ✓ Chief Secretary K. Vijayanand spotlighted state projects—RTGS Lens, Data Lake, AWARE 2.0, AI search platforms and chatbots.
 - ✓ The two-day conference will conclude with the Visakhapatnam Declaration, charting India’s digital governance roadmap.

8. Herpetofaunal Diversity at Papikonda National Park

Context: A recent study in Papikonda National Park—spanning 1,012 sq km along the Godavari in Andhra Pradesh’s Eastern Ghats during surveys from September 2021 to February 2023. Three species—*Minervarya kalinga*, *Sphaerotheca maskeyi* and *Hemidactylus kangerensis*—are new records for the State. IUCN assessments and Wildlife Protection Act schedules reveal conservation priorities amid threats like habitat loss, disease and climate change.

Body Part:

- **Study Area & Habitat:**
 - ✓ **Location:** East and West Godavari districts at 20–850 m elevation, bisected by the Godavari River.
 - ✓ **Vegetation:** Moist deciduous, semi-evergreen and dry deciduous forests providing diverse microhabitats.
- **Methodology:**
 - ✓ **Period:** September 2021–February 2023.
 - ✓ **Techniques:** Random day/night searches, photographic records, field-guide identification.
 - ✓ **Specimens:** Vouchered at the Zoological Survey of India, Hyderabad.

- **Species Diversity & First Records:**
 - ✓ Total documented: 51 species—18 amphibians, 21 lizards, 10 snakes, 2 turtles.
 - ✓ New Andhra Pradesh records: *Minervarya kalinga* (frog), *Sphaerotheca maskeyi* (frog), *Hemidactylus kangerensis* (gecko).
- **Taxonomic Breakdown:**
 - ✓ **Amphibians:** Dominant families—Dicroglossidae (10 species), Microhylidae (4), Bufonidae (2), Rhacophoridae (2).
 - ✓ **Reptiles:** Major families—Gekkonidae (10 species), Colubridae (snakes), Agamidae (lizards).
 - ✓ **Rare/endemic:** *Psammodynastes pulverulentus* (snake), *Argyrophis diardii* (snake first in Eastern Ghats), *Calodactylodes aureus* and *Hemidactylus sushilduttai* (Eastern Ghats gecko endemics).
- **Conservation Status:**
 - ✓ **IUCN 2024:** 46 species Least Concern; three not yet assessed; *Hemidactylus kangerensis* Endangered; *Lissemys punctata* Vulnerable.
 - ✓ Legal protection under **Wildlife (Protection) Act 2022:**
 - **Schedule I:** *Chamaeleo zeylanicus*, *Calodactylodes aureus*, *Pangshura tentoria*, *Lissemys punctata*.
 - **Schedule II:** *Hoplobatrachus tigerinus*, *Euphlyctis cyanophlyctis*.
- **Site-specific Richness:**
 - ✓ **Bhupathipalem:** Highest diversity with 37 species.
 - ✓ **Rampa and Jalatharingini waterfalls:** 29 species each, including single records of *Minervarya kalinga* and *Sphaerotheca maskeyi*.
- **Ecological Roles:**
 - ✓ **Trophic balance:** Amphibians and reptiles regulate insect and small-vertebrate populations.
 - ✓ **Environmental indicators:** Sensitive to habitat change, pollution and disease outbreaks.
 - ✓ **Ecosystem services:** Soil aeration by burrowing species; seed dispersal by some lizards and turtles.
- **Threats & Challenges:**
 - ✓ **Habitat loss and fragmentation:** Deforestation, agriculture expansion and infrastructure projects.
 - ✓ **Emerging diseases:** Chytrid fungi and ranaviruses affecting amphibian populations.
 - ✓ **Climate change:** Altered rainfall patterns and temperature extremes impacting breeding cycles.
 - ✓ Invasive species and grazing pressure degrading microhabitats.
- **Conservation Implications:**
 - ✓ Baseline data crucial for management plans and IUCN reassessments.
 - ✓ Targeted protection for Endangered and Vulnerable species via habitat corridors and disease monitoring.
 - ✓ Integration with State biodiversity action plans to formalize grove of herpetofauna conservation.

9. Andhra Pradesh Bags 'Best State Award' for Sericulture

Context: Andhra Pradesh was honored with the 'Best State Award' under the Central Silk Board's 'Mera Resham – Mera Abhiman' programme during the 76th Central Silk Board Foundation Day celebrations in Bengaluru on September 20, 2025. The accolade recognizes the State's exemplary sericulture promotion efforts, cocoon-production growth and farmer support initiatives.

Body Part:

VISHNU IAS ACADEMY | UPSC | TGPS | APPSC | **OPTIONALS:** ANTHROPOLOGY | PSIR | SOCIOLOGY 9000500939

- **Cocoon Production Boost:**
 - ✓ Targeted awareness and technical support led to measurable increases in cocoon yields.
 - ✓ Encouraged adoption of improved mulberry cultivation practices and silkworm rearing techniques.
- **Farmer Engagement & New Entrants:**
 - ✓ Campaigns inspired new farmers to enter sericulture, diversifying rural livelihoods.
 - ✓ Training sessions on disease management, feeding protocols and post-cocoon handling strengthened skills.
- **Sericulture Value Chain Strengthening:**
 - ✓ Linkages between farmers, reelers and market players enhanced raw-silk quality and market access.
 - ✓ State support improved reelers' processing infrastructure and supply-chain efficiencies.
- **Textile Investment Climate:**
 - ✓ Recognition bolsters Andhra Pradesh's position as an attractive destination for textile and apparel investments.
 - ✓ Alignment with the State's forward-looking textiles policy offers incentives for private-sector participation.
- **Socioeconomic Impact:**
 - ✓ Sericulture promotion generates rural employment, especially for women and landless laborers.
 - ✓ Additional income streams reduce agrarian distress and foster community resilience.
- **Integration with National Programmes:**
 - ✓ State-level initiatives seamlessly integrated with Central Silk Board schemes, ensuring technical support and funding alignment.
 - ✓ Leveraged national research, high-yield mulberry varieties and disease-resistant silkworm breeds.

10. Andhra's Erra Matti Dibbalu and Tirumala Hills on UNESCO Tentative List

Context: Andhra Pradesh has added Erra Matti Dibbalu (Red Sand Dunes) near Visakhapatnam and the Natural Heritage of the Tirumala Hills—including the Eparchaean Unconformity—to UNESCO's Tentative List of World Heritage Sites. This recognition marks the state's commitment to safeguarding these rare geological formations, rich biodiversity and cultural landmarks.

Body Part:

- **Tentative List Inclusion:**
 - ✓ Mandatory first step for formal World Heritage nomination.
 - ✓ Signals intent to protect, preserve and mobilise global expertise and funding.
- **Erra Matti Dibbalu Profile:**
 - ✓ **Location:** Coastal belt near Visakhapatnam, covering 1,500 acres.
 - ✓ **Composition:** Reddish sand, silt and clay oxidised over millennia.
 - ✓ **Geomorphology:** Dendritic drainage patterns; sediment layers recording late Quaternary sea-level and climate shifts.
 - ✓ **History:** First described by William King (1886); declared a National Geo-heritage Monument by GSI in 2016.
- **Geological Significance of Tirumala Hills:**
 - ✓ **Eparchaean Unconformity:** Boundary where >2.5-billion-year-old Archaean rocks meet younger Proterozoic Cuddapah formations.
 - ✓ **Natural Arch (Silathoranam):** A 1.5-billion-year-old rock bridge near the Tirumala temple.

- ✓ **UNESCO themes:** Qualifies under Theme 1 (History of Planet Earth and Evolution of Life).
- **Biodiversity and Ecology:**
 - ✓ **Location:** Seshachalam Biosphere Reserve and Venkateswara National Park.
 - ✓ **Habitats:** Moist deciduous, semi-evergreen and dry deciduous forests; elevations 300–900 m.
 - ✓ **Key species:** Endangered red sanders, Cycas beddomei, Jerdon’s Courser; seasonal waterfalls and endemic flora.
- **Cultural and Spiritual Importance:**
 - ✓ Tirumala temple pilgrimage draws millions annually, intertwining natural and religious heritage.
 - ✓ Local beliefs link grove and rock features to divine protection and community welfare.
- **Global Rarity and Comparisons:**
 - ✓ **Erra Matti Dibbalu:** One of only three known red dune formations worldwide (other sites in Sri Lanka and Tamil Nadu).
 - ✓ **Tirumala’s unconformity:** Among the most accessible and well-preserved unconformities globally.
- **Threats and Conservation Challenges:**
 - ✓ **Erra Matti:** Tourist footfall, vehicular access and film shoots causing erosion and litter.
 - ✓ **Tirumala Hills:** Temple-driven infrastructure, habitat fragmentation and unmanaged waste.
 - ✓ Urgent need for regulated access, buffer-zone management and community engagement.
- **Potential UNESCO Criteria:**
 - ✓ **Erra Matti Dibbalu:** Theme 2 (Tectonic Systems) and Theme 7 (Coastal Systems) under Geological World Heritage guidelines.
 - ✓ **Tirumala Hills:** Theme 1 (Planet History and Life Evolution) demonstrating Earth’s deep time record.
- **Policy and Protection Measures:**
 - ✓ Inclusion on the Tentative List paves way for detailed nomination dossier and protective legislation.
 - ✓ Opportunities for state and central agencies to upgrade site management plans, enforce geo-heritage rules and secure conservation funding.

PRACTICE MCQS

1. With reference to the Governor's power regarding bills passed by the State Legislature, consider the following statements:

1. If the Governor returns a Bill for reconsideration and the State Legislature passes it again, with or without amendments, the Governor is constitutionally bound to grant assent.
2. The Constitution of India prescribes a strict 6-month timeline for the Governor to act on a Bill, failing which the Bill is deemed to have been passed.
3. The Supreme Court, in the *Nabam Rebia* (2016) case, held that the discretionary powers of the Governor, including the power to withhold assent, are absolute and beyond judicial review.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) None

Answer: (a) 1 only

Explanation:

- **Statement 1 is correct.** As per Article 200, if a bill is sent back for reconsideration and the legislature passes it again, the Governor's assent is mandatory.
- **Statement 2 is incorrect.** The Constitution does not specify a strict timeline; it uses the phrase "as soon as possible," which has been a source of ambiguity and has led to indefinite delays.
- **Statement 3 is incorrect.** The *Nabam Rebia* (2016) case, along with others like *Rameshwar Prasad* (2006), affirmed that the discretionary powers of Governors are limited and **subject to judicial review.**

2. Consider the following pairs regarding the election and removal of the Vice-President of India:

1. **Electoral College:** Members of both Houses of Parliament, including nominated members.

2. **Election System:** Proportional representation by means of a single transferable vote.
3. **Removal Process:** A resolution passed by a simple majority in the Lok Sabha and agreed to by the Rajya Sabha.
4. **Eligibility:** Must be qualified to be a member of the Lok Sabha.

How many of the pairs given above are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

Answer: (b) Only two pairs

Explanation:

- **Pair 1 is correct.** The electoral college consists of all MPs (elected and nominated) of both houses.
- **Pair 2 is correct.** The election is held via proportional representation using the STV system.
- **Pair 3 is incorrect.** The removal process is initiated in the **Rajya Sabha** with a resolution passed by an effective majority, which is then agreed to by a simple majority in the Lok Sabha. The pair has the houses reversed.
- **Pair 4 is incorrect.** The Vice-President must be qualified to be a member of the **Rajya Sabha**, as they are the ex officio Chairman of that house.

3. This is an AI-powered translation tool launched by the Ministry of Tribal Affairs. It aims to preserve and promote endangered tribal languages by creating a Large Language Model (LLM) through community participation. It currently supports languages like Santali, Bhili, and Mundari and facilitates translation between them and mainstream languages like Hindi and English.

Which of the following initiatives is being described?

- (a) Adi Sanskriti
- (b) Gyan Bharatam
- (c) Adi Vaani
- (d) BHARATI

Answer: (c) Adi Vaani

Explanation: The description perfectly matches the "Adi Vaani" initiative, which is India's first AI-powered translation tool for tribal languages, developed to preserve linguistic diversity.

4. With reference to the Immigration and Foreigners Act, 2025, consider the following statements:

1. This Act consolidates and replaces multiple colonial and post-independence laws, including the Foreigners Act, 1946.
2. It introduces mandatory reporting obligations for entities like educational institutions and hospitals that deal with foreigners.
3. It empowers police officers of the rank of Head Constable and above to arrest a foreigner without a warrant.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d) 1, 2 and 3

Explanation: All three statements correctly identify key provisions of the new unified legislation. It replaces four older acts, imposes reporting duties on various institutions, and grants specific powers of arrest to police officers.

5. The upcoming Census 2027 will be India's first fully digital enumeration, featuring the geo-tagging of all buildings. What is the primary governance significance of shifting from traditional manual mapping to Digital Layout Mapping (DLM) and geo-tagging?

- (a) It primarily serves to reduce the financial cost of conducting the census.
- (b) It creates a precise and reliable spatial database that enhances the efficiency of urban planning, welfare targeting, and infrastructure creation.
- (c) Its main objective is to replace the need for house-to-house enumeration with satellite-based population counting.
- (d) It is designed to link every individual's census data directly to their Aadhaar number for real-time monitoring.

Answer: (b)

Explanation: While cost reduction is a benefit, the core significance of geo-tagging is the

creation of a high-quality spatial framework. This allows for more accurate and data-driven policymaking in areas like urban planning, resource allocation for welfare schemes, and disaster management, which is a far more significant governance outcome.

6. Assertion (A): The Supreme Court of India recently declined to extend the applicability of the POSH Act, 2013, to political parties.

Reason (R): The Court and previous High Court judgments have held that political parties lack the conventional employer-employee relationship required to be defined as a "workplace" under the Act.

Which one of the following is correct in respect of the above statements? (a) Both A and R are true and R is the correct explanation of A. (b) Both A and R are true but R is not the correct explanation of A. (c) A is true but R is false. (d) A is false but R is true.

Answer: (a) Both A and R are true and R is the correct explanation of A.

Explanation: The assertion (A) is a recent factual development. The reason (R) provides the precise legal rationale behind this decision: the structure of political parties does not fit the definition of a 'workplace' which is predicated on an employer-employee dynamic. This makes it difficult to enforce the mandate of forming an Internal Complaints Committee (ICC).

Therefore, R is the correct explanation for A.

7. Consider the following pairs of bilateral/multilateral engagements and their key focus:

1. **India-China SCO Summit:** Reaffirmation of Panchsheel principles and border peace.
2. **India-EU FTA Negotiations:** Resolving issues related to the Carbon Border Adjustment Mechanism (CBAM).
3. **India-Singapore Summit:** Joint patrolling of the Malacca Strait and green energy exports.
4. **India-Israel BIA:** First such agreement with an OECD member under India's new model treaty.

How many of the pairs given above are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

Answer: (d)

Explanation: All four pairs correctly match the recent diplomatic engagements with their key outcomes or contexts as described in the document.

8. With reference to the BRICS grouping, consider the following statements:

1. The concept was originally coined in 2001 and the formal grouping began with the inclusion of South Africa in 2006.
2. The New Development Bank (NDB) is the primary financial institution of BRICS, supporting both public and private projects.
3. With its recent expansion, the bloc now represents nearly half of the world's population and 40% of the global GDP.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (c)

Explanation:

- **Statement 1 is incorrect.** The concept of BRIC was coined in 2001, and the formal grouping started in 2006, but **South Africa joined later in 2010**, not at the beginning.
- **Statement 2 is correct.** The NDB is the main financial institution created by BRICS to fund infrastructure and sustainable development projects.
- **Statement 3 is correct.** The document states that the expanded BRICS represents approximately 49.5% of the world's population and 40% of global GDP.

9. The recent political crisis in Nepal, driven by youth-led protests against corruption and censorship, presents a multi-faceted challenge for India. From a strategic perspective, what is the most significant implication for India?

- (a) A temporary disruption in bilateral trade and tourism.
(b) The need to manage cultural and social spillover in border states.
(c) Political instability in Nepal provides space for external powers, particularly China, to expand their strategic presence and influence.

(d) Increased security risks along the open border due to potential exploitation by criminal networks.

Answer: (c)

Explanation: While all options are valid implications, the most significant *strategic* challenge for India is the geopolitical one. Political vacuum and instability in its immediate neighborhood weaken India's influence ("Neighbourhood First" policy) and create opportunities for strategic rivals like China to step in with economic and political support, thereby altering the regional balance of power against India's interests.

10. Consider the following statements regarding India's fertiliser sector:

1. Urea is the most heavily subsidised fertiliser and its retail price is fixed by the government.
2. The Nutrient-Based Subsidy (NBS) scheme applies to all fertilisers, including Urea, to promote balanced nutrient use.
3. The PM-PRANAM scheme incentivises states to reduce their consumption of chemical fertilisers by promoting alternatives like bio-fertilisers.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (b)

Explanation:

- **Statement 1 is correct.** Urea is kept outside the NBS scheme, and its price is government-controlled and heavily subsidised.
- **Statement 2 is incorrect.** The NBS scheme applies to phosphatic and potassic (P&K) fertilisers, but **Urea is excluded** from it. This exclusion is a major reason for the imbalanced use of fertilisers in India.
- **Statement 3 is correct.** The PM-PRANAM scheme is designed to encourage states to reduce chemical fertiliser use and promote alternatives, with the savings in subsidy being passed on to the state as a grant.

11. The "Vocal for Local" initiative is described as a redefinition of the Swadeshi

Movement in a "modern, globalized, and digital context". What does this imply?

- (a) A complete ban on all imported goods to protect domestic industries.
- (b) Encouraging Indian brands to not only "Make in India" for domestic consumption but also to compete and succeed in global markets ("Make for the World").
- (c) A government mandate for all e-commerce platforms to exclusively sell products made by Indian MSMEs.
- (d) A revival of purely traditional and non-mechanized production methods.

Answer:

Explanation: The modern context of "Vocal for Local" is not about isolationism. It's about strengthening the domestic manufacturing base to reduce import dependency while simultaneously improving quality and scale to make Indian products globally competitive. It combines self-reliance with global ambition.

12. Recently, India's 10-year government bond yields have been rising despite the RBI cutting the repo rate. What does this divergence primarily indicate about the market's perception?

- (a) The market believes the RBI's rate cuts are insufficient to stimulate growth.
- (b) The market is responding to a sharp increase in foreign direct investment (FDI).
- (c) The market anticipates higher future inflation and is concerned about the government's large borrowing program, thus demanding a higher return on long-term bonds.
- (d) The corporate bond market has become more attractive than the government securities market.

Answer: (c)

Explanation: Bond yields reflect the market's expectation of future interest rates and inflation. A rising long-term yield, despite a cut in the short-term policy rate (repo rate), indicates that investors are worried about long-term risks. The two main risks are: 1) High government borrowing increases the supply of bonds, which pushes their prices down and yields up. 2) Persistent inflation fears make investors demand a higher yield to protect their real returns.

13. With reference to India's Semiconductor Mission (ISM), consider the following statements:

- 1. The mission's schemes provide a uniform 25% capital expenditure assistance for all types of semiconductor facilities, including Fabs, ATMP, and Design.
- 2. India's primary competitive advantage in the global semiconductor landscape is its large deposits of rare earth minerals required for chip fabrication.
- 3. The Design-Linked Incentive (DLI) scheme is a key component of the mission, aimed at nurturing domestic startups in the field of chip design.

Which of the statements given above is/are correct?

- (a) 3 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) None

Answer: (a)

Explanation:

- **Statement 1 is incorrect.** The support is not uniform. For example, Semiconductor & Display Fabs can get support up to 50% of the project cost, not 25%.
- **Statement 2 is incorrect.** India's primary advantage is its large pool of skilled talent, possessing 20% of the global semiconductor design talent, not its mineral deposits.
- **Statement 3 is correct.** The DLI scheme is specifically designed to foster an ecosystem for fabless chip design, which is a less capital-intensive but high-value part of the semiconductor value chain.

14. This is not a government-levied tax but a pricing phenomenon where products and services marketed specifically to women are priced higher than comparable versions for men. It affects a wide range of items from personal care products to services like haircuts.

This phenomenon is known as:

- (a) Sin Tax
- (b) Gender Tax
- (c) Pink Tax
- (d) Luxury Tax

Answer: (c)

Explanation: The description perfectly defines the "Pink Tax," which is a form of gender-based price discrimination. It is not an actual tax but a

marketing and pricing strategy that results in women paying more for similar products.

15. With reference to the Mental Healthcare Act, 2017, consider the following statements:

1. It guarantees the right to access mental healthcare as a fundamental right for every citizen.
2. It decriminalizes the act of attempting suicide, shifting the perspective from a criminal act to one requiring care.
3. It introduces the concept of an "advance directive," allowing a person to state in advance how they wish to be treated for a mental illness.

Which of the statements given above are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (b)

Explanation:

- **Statement 1 is incorrect.** While the Act guarantees the right to access mental healthcare, it frames it as a **statutory right**, not a fundamental right in itself, though it is linked to the fundamental Right to Life (Article 21).
- **Statement 2 is correct.** Section 115 of the Act presumes that a person attempting suicide is under severe stress and should be offered care and rehabilitation, not prosecuted.
- **Statement 3 is correct.** The Act empowers individuals to create an advance directive, specifying their preferences for treatment and nominating a representative, which is a significant step towards ensuring patient autonomy.

16. The UN Gender Snapshot 2025 highlights a persistent "digital divide" between men and women. What is the primary reason this is considered a critical barrier to ending poverty and achieving gender equality?

- (a) It limits women's access to social media platforms for entertainment.
(b) It prevents women from participating in e-governance initiatives and providing feedback.
(c) It excludes women from the rapidly growing digital economy, limiting their access

to online education, financial services, and employment opportunities.

(d) It makes it difficult for governments to collect accurate demographic data on women.

Answer: (c)

Explanation: The digital divide is no longer just about communication; it's about economic and social exclusion. In the modern world, internet access is a gateway to education, job markets, banking, and essential services. By being on the wrong side of this divide, women are systematically excluded from opportunities that could lift them out of poverty, thus perpetuating the cycle of gender inequality.

17. Consider the following statements regarding the revised Green Credit Programme (GCP) norms:

1. Green credits are awarded based on the number of trees planted, irrespective of their survival rate after two years.
2. The credits earned are designed to be freely tradable on a market, similar to carbon credits, to incentivize widespread participation.
3. The Indian Council of Forestry Research and Education (ICFRE) acts as the administrator for the programme.

Which of the statements given above is/are correct?

- (a) 3 only
(b) 1 and 2 only
(c) 2 only
(d) 1 and 3 only

Answer: (a)

Explanation:

- **Statement 1 is incorrect.** The revised norms have made the system more robust. Credits are now linked to **tree survival and canopy cover** and are issued only after **five years**, not two.
- **Statement 2 is incorrect.** Under the new rules, Green Credits are **non-tradable** and can only be used to fulfill specific obligations like compensatory afforestation or CSR. This is a key difference from tradable carbon credits.
- **Statement 3 is correct.** The ICFRE is designated as the administrator of the GCP.

18. This country lies in a highly active seismic zone at the collision boundary of the Indian and Eurasian tectonic plates. It is characterized by major fault systems like

the Chaman Fault. Its high vulnerability to earthquakes is exacerbated by the prevalence of non-engineered, traditional mud-brick structures in rural areas.

Which of the following countries is being described?

- (a) Nepal
- (b) Iran
- (c) Afghanistan
- (d) Turkey

Answer: (c)

Explanation: The description of being at the collision zone of the Indian and Eurasian plates, the mention of the Chaman Fault, and the high vulnerability due to mud-brick housing are all specific characteristics of the seismic situation in Afghanistan, as highlighted in the document.

19. Consider the following pairs of species and their IUCN Red List status as mentioned in the document:

1. Indian Rosewood (*Dalbergia latifolia*): Vulnerable
2. Oriental White-backed Vulture: Critically Endangered
3. Egyptian Vulture: Near Threatened
4. Red-headed Vulture: Critically Endangered

How many of the pairs given above are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

Answer: (c)

Explanation:

- **Pair 1 is correct.** Indian Rosewood is listed as Vulnerable.
- **Pair 2 is correct.** The Oriental White-backed Vulture is listed as Critically Endangered.
- **Pair 3 is incorrect.** The document lists the Egyptian Vulture as **Endangered**, not Near Threatened.
- **Pair 4 is correct.** The Red-headed Vulture is listed as Critically Endangered. Therefore, three pairs are correctly matched.

20. With reference to ISRO's Vikram 32-bit Microprocessor, consider the following statements:

1. It is India's first indigenously designed 16-bit processor for launch vehicle avionics.
2. It is designed to operate reliably in the extreme temperature range found in space environments.
3. It is compatible with the Ada programming language, which is commonly used in safety-critical systems.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (c)

Explanation:

- **Statement 1 is incorrect.** The Vikram 3201 is a **32-bit** microprocessor. It is an upgrade of the older **16-bit** Vikram 1601 processor.
- **Statement 2 is correct.** It is space-qualified to operate reliably between -55°C and $+125^{\circ}\text{C}$.
- **Statement 3 is correct.** Its compatibility with Ada is a key feature for ensuring reliability in mission-critical applications like launch vehicle guidance and control.