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CURRENT AFFAIRS MAGAZINE

October 2025



**COMPREHENSIVE
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**PRACTICE
QUESTIONS
+ MCQS**

**PRACTICE
MAPS**

**MAINS VALUE
ADDITION**

WE COVER WHAT MATTERS

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Editor's Note to Readers...

Dear Readers,

The importance of current affairs in the UPSC Civil Services Examination is undisputed. Yet, one of the most common dilemmas aspirants face is how to prepare them and more importantly, which magazine to rely upon. Existing options often fall short, either due to excess clutter or lack of exam relevance, making it difficult for us to recommend any with confidence.

In response to consistent student demand and after careful deliberation, UPSCprep.com has undertaken the responsibility of launching a current affairs magazine that remains true to our core philosophy - crisp, precise, and comprehensive. This edition focuses strictly on what matters for the examination, covering key issues in the news while consciously avoiding irrelevant or unnecessary content.

We hope this initiative simplifies your preparation journey and becomes a reliable companion in navigating current affairs with clarity and confidence.

We would like to give shout-out to our team members Rohan sir, Anisha ma'am, Nishi ma'am, and Rishikesh sir for making this magazine a reality. Lastly, the leadership of Abhijeet sir and Shashank sir is crucial in this endeavour.

If you have any feedback or suggestions to make this magazine even better please drop us a mail on newsletter@upscprep.com.

Regards,
Krishna Tupe
Faculty, UPSCprep.com

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POLITY & GOVERNANCE

Legal Reforms in Justice System

Context: Law Minister reaffirmed commitment to legal reforms, citing **“Panch Parmeshwar”** (collective consensus).

India Justice Report 2025 highlights challenges: access, delays, accountability.

Pendency of Cases



Figure 1: Legal System Challenges and ADR Recognition

Constitutional Basis of ADR

- **Article 39A:** Mandates equal justice and free legal aid.
- **Section 89, CPC 1908:** Recognises arbitration, conciliation, mediation, and judicial settlement (Lok Adalat).

Legal Provisions & Processes

- Arbitration and Conciliation Act, 1996 (amended 2021): Regulates arbitration and conciliation.
- Arbitration Act, 2021: Mentions the Indian Arbitration Council.
- Dispute Resolution Time: Maximum 180 days.
- Pre-Litigation Mediation: For civil and commercial disputes; strengthens interpersonal relationships.

Lok Adalats

- Governing Law: *Legal Services Authorities Act, 1987* (inspired by Article 39A).
- Types: Permanent Lok Adalat, National Lok Adalat, e-Lok Adalat.
- First in India: Gujarat (1999).
- Key Feature: Decisions are final and binding, with no appeal (as disputes are resolved during pre-litigation).
- Dissatisfied parties may still file a regular suit in court.

Why ADR is Crucial

- **Reduce Delays:** Faster, cost-effective, and socially inclusive justice delivery.
- **Social Change:** Mediation fosters empathy and trust, promoting social harmony.
- **True Justice:** Outcomes reached through dialogue to ensure fairness and consent.
- **Inter-State Disparities:** States like Andhra Pradesh, UP, and Bihar have high pendency rates.
- **Judicial Vacancies:** 33% in High Courts; 21% in District Courts.

- **High Workload:** Judges in UP, HP, and Kerala handle over 4,000 cases each.
- **Effective Justice:** Strengthening ADR enhances *per capita justice delivery* and reduces systemic burden.

Conclusion

Strengthening ADR mechanisms is essential for faster, fairer, and more accessible justice, helping ease court burdens while promoting a culture of dialogue, trust, and timely dispute resolution.

Women in Higher Judiciary

Context: Women are significantly underrepresented in India's higher judiciary, mainly due to the Collegium system.

Current Scenario of Women in Judiciary

Higher Judiciary

- **High Courts:** 14% women judges.
- **Supreme Court:** 3.1% women judges (1 out of 34).
- Only one woman Chief Justice among 25 High Courts.

Lower Judiciary

- Nearly 38% women judges (selected through competitive exams).
- Challenges: Lack of gender-friendly infrastructure — e.g., 20% district courts lacked separate women's toilets (2023).

Reasons for Disparity

- Collegium System: Functions like an *“elitist club”*, disadvantaging women and marginalized groups.
- Lack of Transparency: Absence of objective criteria in higher judicial appointments.

Proposed Solution — All India Judicial Service (AIJS)

- **Mechanism:** Open, national-level competitive examination (like UPSC).
- **Benefits:**
 - Merit-based and transparent selection.
 - Inclusive of underrepresented sections.
 - Ensure uniform standards and accountability.
- **Support:** Endorsed by President Droupadi Murmu and several judges.
- **Resistance:** Opposition from sections of Judiciary and Bar, fearing *executive interference* and *loss of judicial autonomy*.
- **Counter-argument:** If competitive exams do not affect lower judiciary independence, why should they affect higher judiciary?

Way Forward

- **Legislation:** Parliament to create AIJS under Article 312.
- **Control:** To vest with Supreme Court to maintain judicial independence.
- **Conducting Authority:** UPSC to hold the examination based on SC/HC eligibility norms.

• Focus Areas:

- Impartiality, transparency, diversity.
- Comprehensive basic training for newly selected judicial officers.

Conclusion

Strengthening women's representation in the higher judiciary requires transparent, merit-based reforms like AIJS, ensuring a more inclusive, diverse, and accountable justice system.

Demand for ST Status: Kurmi Tribe

Context: Tribals in Ranchi Rally Against Kurmis' Demand for ST Status.

Key Development

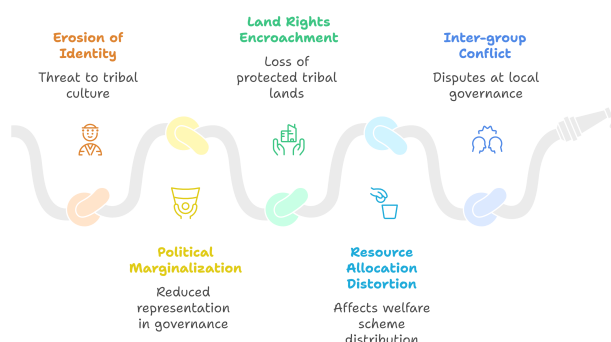


Figure 2: Tribal Resistance to Kurmi ST Status

- Thousands of tribal people in Ranchi protested the Kurmi community's demand for Scheduled Tribe (ST) status.
- All 32 notified tribes of Jharkhand, including Santhal, Munda, Ho, and Oraon, participated.
- The protest was led by Adivasi Sengel Abhiyan with support from Sarna Samitis and other tribal groups.
- Tribal leaders warned of statewide agitation if Kurmis are added to the ST list.
- They argue that Kurmis, currently listed as OBCs in Jharkhand and Bihar, do not meet constitutional criteria for ST status.
- Protesters fear that inclusion of Kurmis will dilute tribal reservation benefits and reduce political representation.
- They also believe it would endanger land rights protected under CNT Act, 1908 and SPT Act, 1949.
- The issue has wider inter-state implications across Jharkhand, Odisha, and West Bengal, where Kurmis are making similar demands.

Concerns

• Tribal leaders' stance:

- They view the move as a "conspiracy" against the identity, culture, and constitutional safeguards of Adivasis.

- Fear of political marginalization in Scheduled Areas where tribals currently have dominance.

• Identity Concerns:

- ST communities fear loss of cultural distinctiveness and dilution of affirmative action.
- Tribal identity in Jharkhand is strongly tied to language (Mundari, Ho, Santali) and religion (Sarna faith)—Kurmis do not share this heritage.

• Administrative Concerns:

- Inclusion of new groups could distort population ratios, affecting resource allocation under *Tribal Sub-Plan (TSP)* and other welfare schemes.
- Could lead to political conflicts between ST and OBC groups at local governance levels (Panchayats).

Conclusion

The Kurmi-ST reservation dispute reflects deep concerns over identity, representation, and constitutional safeguards, underscoring the need for careful, evidence-based decisions to preserve tribal rights and social harmony.

Article 371: Special Provisions

Context: MHA's Offer Indicated consideration of special provisions under Article 371 of the Constitution for Ladakh.

Article 371: Special Provisions

- **Part of Part XXI of the Constitution:** "Temporary, Transitional and Special Provisions"
- **Currently applicable to 12 states** — Nagaland, Assam, Manipur, Mizoram, Maharashtra, Gujarat, Andhra Pradesh, Telangana, Arunachal Pradesh, Goa, Sikkim, Karnataka
- Aims to address specific regional needs, protect cultural identity, and ensure equitable development

Sixth Schedule: Tribal Areas

- Deals with administration of tribal areas in Assam, Meghalaya, Tripura, and Mizoram
- Provides for autonomous district councils (ADCs) and regional councils
- Grants legislative, executive, and judicial powers for tribal populations
- Recognizes tribal status and provides self-governance

Difference between Article 371 and Sixth Schedule

- **Article 371:** Broader special provisions, often for specific states, dealing with development boards, educational facilities, etc.
- **Sixth Schedule:** Specifically for tribal areas, giving a higher degree of legislative and administrative autonomy to protect tribal culture and land rights.

Ladakh's Rationale for Demands

- After being made a Union Territory, concerns arose about land, culture, and demographic protection

- Desire for greater local control and representation

Conclusion

The Centre's readiness to consider Article 371 provisions reflects an effort to balance Ladakh's demand for cultural protection and autonomy with national constitutional frameworks.

SIR in 12 States and UTs

Context: SIR Implemented in 12 States and UTs.



Figure 3: Phase II of SIR | ECI

What is SIR?

- The **Special Intensive Revision (SIR)** 2025 is a nationwide, document-based verification campaign initiated by the Election Commission of India (ECI) to authenticate and update electoral rolls.
- This comprehensive exercise—being conducted across 12 States and Union Territories—aims to cleanse the voter database after nearly two decades by ensuring that only eligible Indian citizens remain enrolled, in line with the Representation of the People Act, 1950.

Organising Authority

The programme is spearheaded by the **Election Commission of India (ECI)**, under the leadership of Chief Election Commissioner Gyanesh Kumar.

Objectives

- To prepare an accurate, verified, and error-free electoral roll ahead of upcoming elections.
- To confirm voter details such as citizenship, age, and residence using documentary evidence and historical records.
- To enhance transparency, inclusiveness, and credibility in India's electoral system.

Key Officials and Functionaries

- **Booth Level Officer (BLO):** Responsible for one polling station (approximately 1,000 voters). Delivers and collects Enumeration Forms (EFs) from every household, cross-checks voter data, and identifies missing, shifted, or deceased voters.
- **District Magistrate (DM):** Acts as the first appellate authority for grievances regarding electoral roll decisions made by the Electoral Registration Officer (ERO).
- **Chief Electoral Officer (CEO):** Functions as the second appellate authority and supervises the revision process across the State or Union Territory.
- **Booth Level Agents (BLAs):** Representatives of recognized political parties trained by ECI. They collaborate with BLOs to collect and verify data, ensuring transparency in the process.

Major Processes Involved

- **Preparation of Enumeration Forms (EFs):** Pre-printed forms containing voter information (name, EPIC number, address, etc.) are generated from the ECI database as of 27 October 2025.
- **Distribution and Collection:** BLOs will conduct up to three household visits to deliver and collect forms. Alternatively, voters can submit forms online through voters.eci.gov.in.
- **Linking with Historical Electoral Rolls (2002–2004):** Voters must locate their own or family members' names in the older electoral rolls, available online, to establish authenticity and continuity of registration.
- **Form Submission:** Citizens must fill in any missing details—such as parent's name, date of birth, or Aadhaar—and submit the form either physically to the BLO or online. No documents are required at this initial stage.
- **Verification by ERO/AERO:** The submitted forms are scrutinized by the Electoral Registration Officer or Assistant ERO. If a voter cannot link their name to the older rolls, they will later be required to provide proof of age and citizenship.
- **Appeals Process:** In case of wrongful deletion or rejection, individuals may appeal to the District Magistrate (first appeal) and, if unsatisfied, to the Chief Electoral Officer (second appeal).

Conclusion

The Special Intensive Revision (SIR) strengthens the accuracy and integrity of India's voter rolls through systematic verification, ensuring a transparent and credible electoral process.

Lokpal of India

Context: The Lokpal of India, the nation's apex anti-corruption ombudsman, is under scrutiny after data revealed a sharp fall in complaints—from 2,469 in 2022-23 to only 233 in 2025—even as it faced criticism for issuing a tender to procure seven BMW cars.



Figure 4: Lokpal of India

About Lokpal:

- The Lokpal of India is an independent statutory body established under the **Lokpal and Lokayuktas Act, 2013**, to inquire into allegations of corruption against public functionaries, including the Prime Minister, Ministers, MPs, and government officials.

History:

- Conceived after public movements like India Against Corruption (2011) led by Anna Hazare.
- The Act came into force on 16 January 2014, institutionalizing a national-level ombudsman after decades of demand for a central anti-corruption authority.
- The first Lokpal was constituted in March 2019, marking a major step in India's fight for transparent governance.

Members and Composition:

- Chairperson:** Former Supreme Court Judge Justice A.M. Khanwilkar (as of 2025).
- Members (7 total):** Includes four judicial and three non-judicial members such as former Chief Justices and senior administrators.
- Appointment:** Made by the President of India, on the recommendation of a Selection Committee comprising the Prime Minister, Speaker of Lok Sabha, Leader of Opposition, Chief Justice of India, and an eminent jurist.

Functions and Powers:

- Inquiry and Investigation:** Lokpal can independently investigate corruption cases under the Prevention of Corruption Act, 1988, ensuring accountability of even the highest offices of governance through impartial inquiries.
- Jurisdiction:** Its authority extends to the Prime Minister, Union Ministers, MPs, and officials (Groups A–D),

including bodies funded or aided by the government, ensuring that no public servant is beyond scrutiny.

- Supervisory Role:** Lokpal exercises superintendence over the CBI in referred cases, empowering it to direct investigations and maintain oversight over central agencies for impartiality.
- Prosecution Powers:** It can sanction prosecutions, order asset attachments, and recommend suspensions or transfers, ensuring tangible punitive action against corruption.
- Quasi-Judicial Authority:** Armed with civil court powers, it can summon witnesses, demand documents, and issue orders—granting judicial credibility in its anti-corruption mandate.

Conclusion

The steep drop in complaints and the BMW procurement controversy highlight the urgent need for greater transparency, accountability, and public trust in the Lokpal's anti-corruption mandate.

SOCIAL ISSUES

NCRB Data: Crime Against SCs/STs

Context: NCRB data shows a rise in caste-based atrocities against Scheduled Castes (SCs) and Scheduled Tribes (STs), highlighting the persistence of discrimination and the need for stronger enforcement and social reforms.

- **NCRB Data (2023):**
 - 57,789 cases against SCs (+0.4%)
 - 12,960 cases against STs (+28.8%)
- **Persistence:** Caste-based violence and exclusion continue despite constitutional guarantees.
- **Historical Context:** Social reformers like Jyotiba Phule, Dr. B.R. Ambedkar, and Periyar challenged the Brahmanical caste order.
- **Policy Implementation:** Inconsistent implementation of social justice policies such as reservations.
- **Law Enforcement:** Enforcement of SC/ST (Prevention of Atrocities) Act, 1989 hampered by delays and bias.

Problems of the Caste System-

- **Social Inequality & Discrimination:** Creates a rigid hierarchy where lower castes face exclusion, untouchability, and denial of dignity and opportunities.
- **Economic Stratification:** Restricts occupational mobility; perpetuates poverty among marginalized groups like SCs, STs, and OBCs.
- **Political Fragmentation:** Caste-based politics deepens social divisions, leading to vote-bank politics and identity polarization.
- **Educational & Cultural Backwardness:** Historical denial of education to lower castes hindered intellectual and cultural participation, reinforcing underdevelopment.
- **National Integration Hindrance:** Promotes parochial loyalties and weakens the sense of fraternity and unity envisioned in the Constitution.

Solutions / Remedies-

- **Legal & Constitutional Safeguards:** Strict enforcement of Articles 15, 16, 17, 46 and the SC/ST (Prevention of Atrocities) Act, 1989 to eliminate discrimination.
- **Social Reform Movements:** Encouraging egalitarian teachings of Buddha, Basavanna, Phule, Ambedkar, Narayana Guru, Periyar to promote social consciousness.
- **Education & Awareness:** Universal access to quality education and value-based curriculum to challenge prejudices and promote inter-caste harmony.
- **Economic Empowerment:** Inclusive development through reservations, skill programs, self-employment schemes (Stand-Up India, PM-DAKSH) to uplift marginalized communities.
- **Behavioural & Cultural Change:** Promoting inter-caste marriages (Special Marriage Act), community dialogue,

and media awareness to weaken caste identities and foster fraternity.

Conclusion

Rising caste-based atrocities underline the urgent need for stronger law enforcement, social reforms, and sustained efforts to build an egalitarian society rooted in dignity and constitutional values.

Role of Women in Agriculture

Context: Women's participation in agriculture has surged, but many remain unpaid, highlighting systemic inequities and the need for reforms to unlock their economic potential.



Figure 5: Participation of Women in Agriculture

Feminization of Agriculture

- **Trend:** Women's employment in agriculture surged by 135% in the last decade, now accounting for over 42% of the sector's workforce.
- **Reason:** Rural men migrating to higher-paying non-farm jobs, leaving women to take over agricultural work.
- **Paradox:** Despite increased participation, nearly half of women in agriculture are unpaid family workers (numbers jumped 2.5 times). One in three working women in India is unpaid.
- **Impact:** Reinforces inequities rather than enabling economic empowerment; agriculture's share of national GVA fell.

Systemic Inequities Faced by Women Farmers

- **Recognition:** Not officially recognized as farmers.
- **Land Ownership:** Own only 13–14% of land holdings.
- **Wage Gap:** Earn 20–30% less than men for equivalent work.
- **Access Barriers:** Limited access to asset ownership, decision-making power, credit, and government support.
- **Low-Value Activities:** Trapped in tasks with minimal economic return.

Opportunities for Women's Economic Inclusion

- **Global Trade Trends:** FTAs (e.g., India-U.K. FTA) can boost agricultural exports, creating opportunities in value chains where women are strongly represented (spices, millets, organic produce).

- **Value Addition:** Enabling women to move into higher-margin segments like processing, packaging, branding, and exporting.
- **Geographical Indications (GIs):** Support for GIs and branding can help shift from subsistence to premium markets.

Role of Digital Innovations

- **Bridging Gaps:** Connecting women to markets, knowledge systems, financial services.
 - **Examples:** e-NAM, mobile-based advisories, voice-assisted apps, and precision agriculture tools.
- **Formalization:** Helps formalize women's labour, expands access to schemes, credit, and fair pricing.
- **Overcoming Barriers:** Addressing low digital literacy, language gaps, access to affordable devices.
- **Promising Models:**
 - BHASHINI platform
 - Jugalbandi
 - L&T Finance's Digital Sakhi
 - Odisha's Swayam Sampurna FPOs
 - Jhalawari Mahila Kisan Producer Company

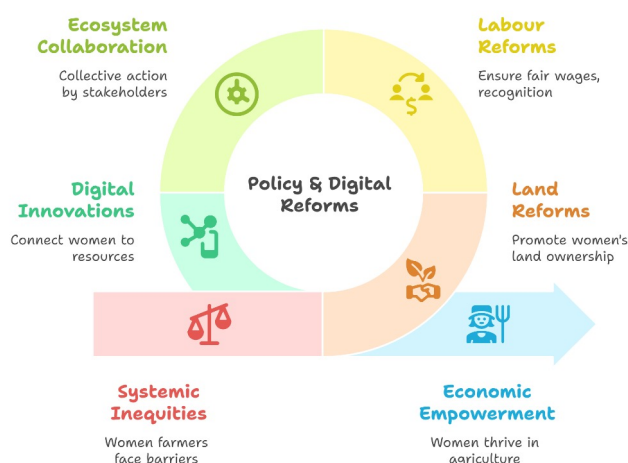


Figure 6: Empowering Women in Agriculture

Policy & Structural Reforms Needed

- **Land Reforms:** Promote joint or individual land ownership for women to strengthen eligibility for credit, insurance, and institutional support.
- **Labour Reforms:** Ensure fair wages and recognition for women's agricultural work.
- **Ecosystem Collaboration:** Collective action by government, private sector, NGOs, SHGs, FPOs.

Conclusion

Empowering women with recognition, resources, and market access is key to making agriculture more equitable and economically rewarding.

Reservation for Transgender Persons

Context: The Government of Rajasthan has decided not to provide horizontal reservation (quota) for transgender persons in public employment or education.

Who are Transgenders?

Transgender persons are individuals whose gender identity does not align with their sex assigned at birth, as defined by the Transgender Persons (Protection of Rights) Act, 2019, which includes trans-men, trans-women, intersex persons, genderqueer persons, and socio-cultural groups.

Problems Faced by Transgender Persons

- **Social & Economic Exclusion:** Over 90% remain outside formal employment. **Reasons** - social stigma, workplace hostility, and hiring bias.
- **Administrative Hurdles:** The certification and ID process is slow and cumbersome; many applications exceed the 30-day legal limit, delaying access to welfare schemes.
- **Healthcare Barriers:** Gender-affirming procedures are expensive (₹2–5 lakh) and rarely insured; schemes like Ayushman Bharat TG Plus have low awareness and coverage.
- **Educational Disadvantage:** Literacy stands at 56% versus the national 74% average, with bullying, dropouts, and lack of inclusive curriculum widening marginalization.
- **Mental Health Crisis:** High levels of rejection and trauma fuel severe distress—around half have attempted suicide before age 20.

Judicial and Legal Developments

- **NALSA v. Union of India (2014):** Recognized the third gender, upheld fundamental rights, and mandated affirmative action for transgender persons.
- **Recent Court Actions:** Supreme Court and Delhi HC have sought explicit legal protection against sexual offences and inclusion under the Bhartiya Nyaya Sanhita.
- **Implementation Directions:** Apex Court continues to urge Centre and States to ensure welfare schemes, education access, and fair representation in public jobs.
- **Reservation Litigation:** Ongoing petitions (e.g., NEET PG 2025) demand quota implementation as per NALSA directives.
- **Progressive HC Rulings:** Andhra Pradesh HC (June 2025) affirmed that trans-women enjoy the same legal status and marital protections as women under Indian law.

Way Forward

1. **Effective Enforcement:** Streamline the Transgender Persons (Protection of Rights) Act 2019. Simplify self-identification and strengthen anti-discrimination redressal.

2. **Awareness & Sensitization:** Mandatory training for officials, educators, police, and healthcare staff to dismantle stigma.
3. **Inclusive Welfare Delivery:** Expand reach of schemes like SMILE and Ayushman Bharat TG Plus through better publicity and grassroots access.
4. **Employment Inclusion:** Promote public-private hiring incentives and emulate Karnataka's reservation model in government services.
5. **Education Reform:** Introduce gender-inclusive curricula and teacher training to normalize diversity from the school level.

Progress So Far		
Sector / Ministry	Initiative / Programme	Key Figures / Outcomes
Skill Development & Training	Training of transgender persons in various states/UTs (Jharkhand, Andhra Pradesh, Maharashtra, Madhya Pradesh, Uttar Pradesh, New Delhi)	725 trained - Target: 500+ more under Beauty & Wellness and Media & Entertainment Sectors
Entrepreneurship Development	15-day Entrepreneurship Development has been allotted to National Institute of Entrepreneurship and Small Business Development (NIESBUD)	1,800 target beneficiaries 25 trained (1st batch) at Garima Greh, Delhi upcoming in Chennai, Mumbai, Delhi
Ministry of Housing and Urban Affairs Housing (MoHUA - NULM)	Accommodation under "Shelter for Urban Homeless"	Coverage in 18 states/UTs including Punjab, Kerala, Odisha, etc.
Health (NHA - Ayushman Bharat PMJAY)	"Ayushman TG Health Card" with 50 medical services	80 Ayushman Bharat TG cards issued 170+ NGOs/CBOs trained for facilitation
Sanitation (Swachh Bharat Mission - Urban)	Included toilets for transgender persons in their policy guidelines	Policy inclusion implemented
Identity (UIDAI)	Included transgender identity certificate as valid document in updating Aadhar credentials	Implemented nationwide
Reserve Bank of India (RBI)	Transgender persons under Priority Sector lending for self-employment	Eligible for loans under PSL guidelines
Education (MoE)	Central Sector Interest Subsidy Scheme	₹20.51 lakh released (2020-21 to 2024-25)
Ministry of Rural Development (MoRD)	Promotion of Transgender Self-Help Groups (SHGs)	296 SHGs formed 25 SHGs received ₹3.12 crore in loans

Figure 7: Transgenders in India – Progress | PIB

Conclusion

Ensuring dignity, protection, and equal opportunity for transgender persons requires genuine implementation of laws, inclusive policies, and proactive societal acceptance.

Mental Health Crisis

Scale of Crisis

- 1.71 lakh suicides (2023, NCRB)
- Highest suicide rates: Andaman & Nicobar, Sikkim, Kerala.

- States with 40%+ of suicides: Maharashtra, Tamil Nadu, MP, Karnataka, West Bengal.
- Urban areas > Rural areas in suicide rate.
- Men: 72.8% of victims.
- Projected loss: Untreated mental illness may cost India >\$1 trillion in GDP by 2030.



Figure 8: India's Mental Health Crisis

Vulnerable Groups

- Farmers: 10,786 suicides (6.3% of total); highest since 2014.
- Homemakers/Caregivers: High depression, marital stress, domestic violence.
- Youth (15–29 years): Suicide = leading cause of death.
- Students in coaching hubs: High-risk category.

Challenges / Gaps

- Workforce shortage:** 0.75 psychiatrists, 0.12 psychologists / lakh people (vs WHO norm: 1.7).
- Underfunded programs:** Manodarpan inactive; ₹270-crore plan underutilized.
- Stigma:** 50%+ link mental illness to weakness/shame.
- Fragmented initiatives:** Poor inter-ministerial coordination.
- Low budget allocation:** 1.05% of health budget (WHO recommends 5%).
- Rural scarcity:** 70% face shortage of professionals.
- Lack of surveillance:** Weak data systems.
- Digital reliance:** AI-based help tools increasing — privacy, regulation concerns.



Figure 9: Prominent Mental Health issues | PIB

Existing Legal / Policy Framework

- **Mental Healthcare Act, 2017:**
 - Decriminalizes suicide.
 - Guarantees right to mental healthcare.
 - Mandates insurance coverage & patient dignity.
- Supreme Court (Sukdeb Saha v. State of Andhra Pradesh): Recognized **mental health as a fundamental right** under Article 21.
- **District Mental Health Programme (DMHP):** Coverage in 767 districts.
- **Tele-MANAS:** 24×7 helpline; 20 lakh+ counselling sessions.
- **National Suicide Prevention Strategy (2022):** Target: 10% suicide reduction.

Recommendations / Steps Needed

- Raise mental health budget → at least 5% of total health expenditure.
- Set up **cross-ministerial task force** (health, education, agriculture, WCD).
- Target 3-5 mental health professionals / lakh people in 5 years.
- Make counselling public infrastructure (schools, colleges, hospitals, rural areas).
- Destigmatize help-seeking via campaigns.
- Special outreach: farmers, homemakers, students.
- Regulate digital ecosystem: privacy, disclaimers, crisis protocols.



Figure 10: WHO recommendations for Mental Health Care | PIB

Conclusion

Strengthening ADR mechanisms is essential for easing the burden on India's courts and ensuring faster, fair, and accessible justice for all.

CULTURE

Tenkasi Excavations: Iron Age Culture

Context: Recent Digs in T.N.'s Tenkasi Reveal Presence of Iron Age Culture.



Figure 11: Tenkasi Excavation

Key Discovery

- The first season of excavations by the Tamil Nadu State Department of Archaeology (TNSDA) at **Thirumalapuram** in Tenkasi district revealed the presence of Iron Age culture.
- The site is located close to Western Ghats.
- Tentative estimates suggest dating back to early to mid-third millennium BCE, similar to findings from **Adichanallur** and **Sivagalai**.

Excavation Findings

- Burial site covers around 35 acres.
- Discovery of a rectangular stone slab chamber with urn burials and urns — a first in Tamil Nadu.
- Chamber made of 35 stone slabs, filled with cobblestones.
- Rich collection of ceramics found:
 - White-painted black-and-red ware
 - Red ware
 - Red-slipped ware
 - Black-polished ware
 - Coarse red ware
 - Unique feature:
- White-painted designs on black-and-red ware, black ware, and black-slipped ware — previously reported from sites such as **T. Kallupatti**, **Adichanallur**, **Sivagalai**, **Thulukkarpatti**, and **Korkai**.
- Symbols on the urns were among the most striking discoveries.

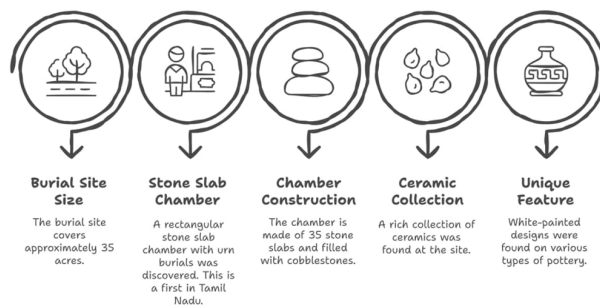


Figure 13: Findings of the Excavation

Cyan Bharatam Mission

Context: The **Gyan Bharatam Mission**, a flagship initiative of the Ministry of Culture, is signing MoUs with institutes nationwide to **identify, digitize, preserve, and promote** India's vast manuscript heritage, establishing a National Digital Repository (NDR).

- Parent Ministry:** Union Ministry of Culture



Figure 12: Iron Age sites with Radiometric dating | The Hindu



Figure 14: National Mission for Manuscripts

- **Objective:** To identify, document, conserve, digitize, preserve, and promote India's vast manuscript heritage.
- **Key Feature:** Establishment of a dedicated digital platform — **National Digital Repository (NDR)** to share manuscript heritage worldwide.

Partnerships: MoUs with institutions such as:

- Asiatic Society, Kolkata
- University of Kashmir
- Hindi Sahitya Sammelan
- Government Oriental Manuscript Library, Chennai

Institute Categories:

- **Cluster Centres:** Responsible for their own and designated partner centres.
- **Independent Centres:** Responsible for their own collections.

Mission Support: Provides framework, guidance, monitoring, funding, equipment, and budgetary allocations.

Activities: Survey and cataloguing, conservation and capacity building, technology and digitisation, linguistics and translation, research, publication, and outreach.

Conclusion: In essence, the **Gyan Bharatam Mission** is creating a unified national effort to protect, digitize, and showcase India's manuscript legacy, ensuring timeless knowledge becomes accessible to future generations.

Rethinking Urban Planning

Context: Urgent need to rethink India's urban planning framework, which remains restricted to land-use regulation, arguing that cities must be transformed into economic growth hubs to achieve Viksit Bharat @2047.



Figure 15: Developed India Mission

Urbanization Trends and Economic Contribution

- According to **Census 2011**, about 31% of India's population resides in urban regions — a figure projected to cross 50% by 2047.
- Despite occupying a smaller geographic footprint, urban India generates nearly 63% of the national GDP, a share expected to climb to 75% by 2047 (NITI Aayog, 2023).
- India today has over 4,000 statutory towns and 53 metropolitan centres (Census 2011), yet a large

proportion of these urban areas suffer from inadequate or uncoordinated planning.

- The **World Bank (2024)** estimates that maintaining sustainable urban growth will require around USD 840 billion in infrastructure investments over the next fifteen years.

Present Model of Urban Planning

- **Land-Use Focused Approach:** Urban planning in India largely remains zoning-oriented, a carryover from colonial-era sanitary and spatial regulations. It prioritizes land allocation and layout design over economic and social outcomes.
- **Master Plan Shortcomings:** Traditional Master Plans and Development Plans emphasize population forecasts and infrastructure provision, while neglecting economic development, environmental sustainability, and social inclusion.
- **Narrow Spatial Scope:** Planning remains restricted to municipal boundaries, overlooking the interconnected growth of peri-urban regions and urban-rural economic linkages that drive metropolitan expansion.

Key Weaknesses in the Current Framework

- **Lack of Economic Integration:** Urban development often proceeds without a clear linkage between spatial form and economic function, resulting in weak job creation and industrial dispersion.
- **Reactive Rather than Proactive:** Planning authorities respond to unplanned expansion instead of guiding growth through long-term vision and investment strategies.
- **Resource Neglect:** Urban plans rarely incorporate systematic management of critical resources such as water, energy, and waste, undermining sustainability.
- **Climate Oversight:** Despite escalating risks of floods, heatwaves, and pollution, climate resilience and mitigation remain peripheral to urban planning.
- **Institutional Fragmentation:** Overlapping jurisdictions between urban local bodies (ULBs), development authorities, and state departments weaken coordination and accountability.

Need for an Economic Vision-Oriented Planning Paradigm

- **Economic-First Urban Design:** Every city must develop an economic blueprint identifying its core growth engines — manufacturing clusters, logistics hubs, innovation corridors, or service ecosystems.
- **Data-Driven Forecasting:** Projections for housing, transport, and land demand should arise from evidence-based economic and employment trends, not outdated demographic ratios.
- **Cities as Economic Accelerators:** Urban centres should function as growth nodes, enhancing competitiveness, productivity, and quality of life.

- **Integrated and Sustainable Planning:** Urban design should integrate climate action, mobility, and resource efficiency as fundamental pillars rather than add-ons.

Way Forward

- **Merge Economic and Spatial Planning:** Align land-use policies with regional industrial and service growth strategies to strengthen city-region linkages.
- **Build Climate-Resilient Cities:** Incorporate low-carbon transport, green buildings, and disaster management into all master and regional plans.
- **Empower Urban Local Governments:** Enhance the fiscal, functional, and administrative autonomy of ULBs to implement local planning effectively.
- **Reform Legal and Educational Frameworks:** Update outdated Town Planning Acts, and train future planners in economics, environmental science, and digital technologies to foster multidisciplinary planning competence.

Conclusion

Transforming India's cities into engines of growth requires shifting from narrow land-use planning to an integrated, economic- and sustainability-driven urban development vision.

Decline of Dogri in J&K

Context: A recent sociolinguistic study in Jammu has raised alarms over the declining use of the Dogri language, revealing that urban youth show near-zero proficiency in reading or writing about Dogri.

About Dogri Language:



Figure 16: Dogri Language Script

What it is: Dogri is an **Indo-Aryan language** spoken predominantly in the Jammu region of India. It is one of the **22 scheduled languages** under the **Eighth Schedule** of the Indian Constitution and an official language of J&K since 2020.

Origin: A descendant of Sanskrit, Dogri evolved from the Old Indo-Aryan (1200–250 BCE) through Middle Indo-Aryan (400

BCE–1100 CE) into its modern form. The word “Dogra” or “Duggar” appears as early as 1317 CE in **Amir Khusrow’s Nuh Sipihr**.

History:

- Once the official script of the Dogra princely state under **Maharaja Ranbir Singh** (1857–85 CE), it was written in **Dogra Akkhar** but later **replaced by Devanagari script** in the 20th century.
- Dogri gained constitutional recognition in **2003**, marking a milestone in India's linguistic preservation.

Spoken among:

- Dogri is spoken by approximately 2.6 million people, primarily across Jammu, Himachal Pradesh, and northern Punjab, with smaller communities in Pakistan and among the Indian diasporas.

Features:

- **Linguistic Traits:** Uses 10 vowels and 28 consonants with tonal variations (level, falling, rising).
- **Phonological Patterns:** Displays nasalization, metathesis, and tone-based sound differentiation.
- **Vocabulary Influence:** Incorporates borrowings from Persian and English while retaining Sanskrit roots.

Conclusion

Dogri stands as a vital marker of Jammu's cultural identity, reflecting a rich linguistic heritage that continues to evolve while preserving deep historical roots.

150 Years of Vande Mataram

Context: Prime Minister, in his Mann Ki Baat address, called for nationwide participation to celebrate the 150th anniversary of “Vande Mataram”, describing it as a “mantra that unites 140 crore Indians”.

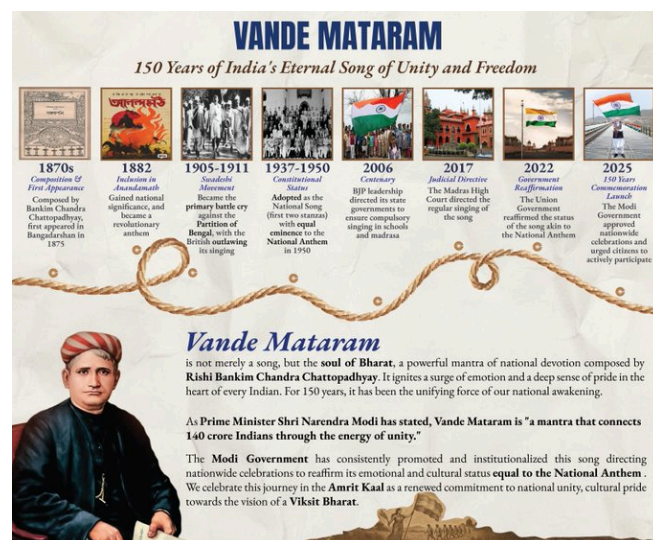


Figure 17: 150 Years of Vande Mataram | AIR

About Vande Mataram – 150 Years Celebration:

Vande Mataram (meaning “I bow to thee, Mother”) is India’s national song, symbolizing reverence to the motherland and evoking patriotism and unity among citizens.

Written by: Composed in Sanskritised Bengali **by Bankim Chandra Chattopadhyay** in the 1870s, it was first published in his novel *Anandamath* (1882).

History:

- The song’s first public rendition was by Rabindranath Tagore at the **1896 Congress Session**.
- It became the anthem of India’s freedom struggle, sung in protests and revolutionary gatherings despite being banned by the British.
- The Indian National Congress (1937) adopted its first two stanzas as the National Song, balancing inclusivity and secular appeal.
- On **January 24, 1950**, the Constituent Assembly accorded Vande Mataram equal honour to the National Anthem “Jana Gana Mana.”

Features:

- **Spiritual Patriotism:** Depicts the nation as a nurturing mother embodying both emotional and divine strength.
- **Secular Adaptation:** Only the first two stanzas, devoid of religious imagery, are used officially to ensure inclusivity.
- **Cultural Symbolism:** Serves as a unifying call cutting across linguistic and regional divides.
- **Historical Legacy:** Its association with movements like Swadeshi (1905) and Quit India (1942) made it the lyrical soul of resistance.

Conclusion

Vande Mataram’s 150-year legacy continues to inspire unity and patriotism, reminding the nation of its shared heritage and enduring spirit.

WORLD NEWS

UN Counter-Terror Role Appointment: Pak

Context: Pakistan's appointment to lead UN counter-terrorism bodies despite its alleged terror links raises global concerns.

Pakistan's Alleged Terror Links

- **Accusations:** Harboursing terror groups (LeT, JeM), involvement in attacks (Mumbai 2008, Pulwama 2019, Pahalgam 2025).
- **Evidence:** Public appearances of UN-designated terrorists (Hafiz Saeed), state actors at terrorists' funerals.

UN Counter-Terrorism Appointments

- **Pakistan's Role:** Led UNSC Taliban Sanctions Committee, Vice-Chair of Counter-Terrorism Committee (CTC), and UNSC President (July 2025).
- **Controversy:** Raised questions about the UN's credibility given Pakistan's record.

Issues with UN Selection Process

- Lack of stringent vetting for compliance with counter-terrorism standards.
- Geopolitical manoeuvring overriding moral and security imperatives.
- Pakistan's removal from FATF grey list (Oct 2022) despite ongoing concerns.
- IMF loan (\$1 billion) granted despite terror-financing misuse concerns.

Implications for India

- Undermines India's narrative against Pakistan as a state sponsor of terrorism.
- Pakistan could influence global counter-terrorism policies, hindering India's efforts.
- Could derail India's diplomatic ties with the Taliban.

India's Countermeasures

- Leverage alliances and highlight Pakistan's history in UN forums.
- Push for accountability and transparency in UN selection processes.
- Engage global media to shape the narrative.
- Strengthen national security and intelligence cooperation with like-minded partners.

Conclusion

Pakistan's elevation to key UN counter-terror roles exposes gaps in global vetting and raises serious credibility concerns, underscoring the need for stronger accountability and vigilance by India and the international community.

INTERPOL's Operation HAECHI-VII

Context: A global crackdown coordinated by INTERPOL on cyber-enabled financial crime.



Figure 18: INTERPOL's Operation HAECHI-VII

- **Operation HAECHI-VII** is part of INTERPOL's ongoing HAECHI series **targeting online financial fraud and cyber-scams**.
- Focus areas include phishing, romance scams, investment fraud, business email compromise and online gambling-linked money laundering.
- It involves **coordinated action among multiple countries** to freeze illicit funds and apprehend suspects.
- The operation aims to disrupt global criminal networks exploiting digital platforms for financial crimes.

Fiji: Eliminates Trachoma

Context: Trachoma is a neglected tropical disease and a leading infectious cause of blindness.

- Fiji has officially been validated as the **26th country** to eliminate trachoma as a public-health problem.
- This marks the elimination of the first neglected tropical disease in Fiji.

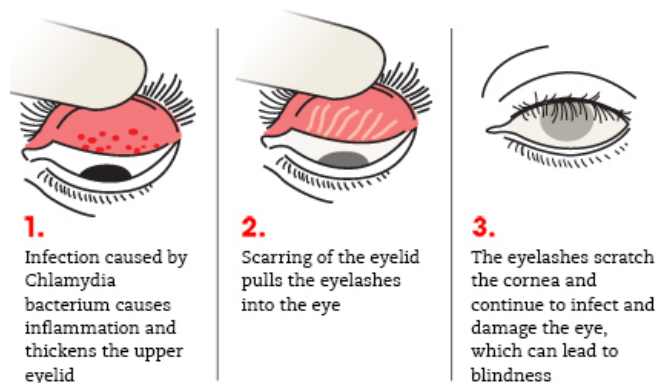


Figure 19: Stages of Trachoma

- The achievement follows long-term public-health interventions under the **SAFE strategy (Surgery, Antibiotics, Facial hygiene, Environmental improvement)**.
- It reflects improved eye-health outcomes and strengthens community-level healthcare measures.

UNSC Sanctions on Haiti

Context: Haiti continues to face **severe instability** and **gang-related violence**.



Figure 20: Map of Haiti

- The UN Security Council has extended the sanctions regime on Haiti for another year.
- The sanctions include an **arms embargo**; **travel bans** and **asset freezes** targeting individuals and groups.

- Renewal reflects ongoing concerns about gang control, political instability and humanitarian crises.
- The decision underscores continued international efforts to restore stability and governance in Haiti.

Madagascar's Coup

Context: Madagascar experienced a political upheaval following public unrest and a military intervention.



Figure 21: Colonel Michael Randrianirina

- Colonel Michael Randrianirina** was sworn in as President after a military takeover.
- The coup followed widespread protests over governance issues, shortages and economic distress.
- The military, led by elite units, removed the previous leadership and assumed control.
- The new President has pledged a transitional period before holding elections.

United Nations Turns 80

Context: The United Nations was founded in 1945 after World War II to maintain peace, promote cooperation, and prevent future conflicts.



Figure 22: United Nations Flag

- The year marks the **80th anniversary** of the establishment of the UN, reflecting its evolution from 51 founding members to a global body of 193 nations.
- Over eight decades, the UN has played a central role in **peacekeeping operations**, conflict mediation, humanitarian relief, global health campaigns, climate action, and development initiatives.
- The milestone prompts renewed debate on **UN reforms**, including expansion of the Security Council, greater representation for developing countries, and improving the effectiveness of peacekeeping missions.
- The anniversary emphasises the continuing relevance of the **UN Charter**, reaffirming goals of preventing war, upholding human rights, fostering social progress, and promoting international cooperation.
- It also highlights emerging global challenges—such as technological risks, pandemics, climate change and geopolitical rivalry—that require collective action through the UN system.

UN's Fifth Committee

Context: The UN General Assembly operates through six main committees, each with a specific mandate.

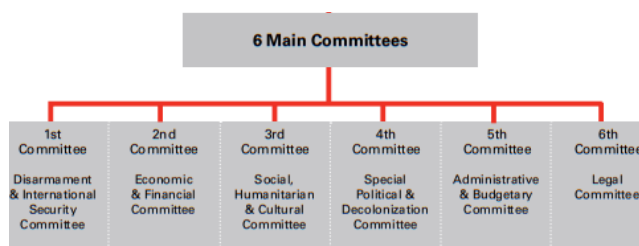


Figure 23: Committees of the UN

- The Fifth Committee is responsible for **administrative and budgetary matters** of the United Nations.
- It reviews and approves the UN's regular budget, peacekeeping budget, and financial reports.
- The committee addresses human resources, internal oversight, and programme planning.
- It ensures financial accountability and smooth administrative functioning of the UN system.

UN Human Rights

Context: India secured another term in the UNHRC. India elected for the 2026–2028 term.

- This is **India's seventh time** on the Council.
- Election done through UN General Assembly voting.
- Reflects India's global standing and commitment to human rights.

BILATERAL RELATIONS

India-EFTA Trade Pact

Context: India signed a major trade agreement with the **European Free Trade Association (Iceland, Liechtenstein, Norway, Switzerland)**.



Figure 24: EFTA Countries

- The pact is the Trade and Economic Partnership Agreement (TEPA), signed in March 2024.
- Come into force on 1 October 2025.
- EFTA has committed USD 100 billion investment in India over 15 years.
- Sensitive sectors like dairy have been kept out of tariff liberalization.

India-Brazil: MERCOSUR PTA



Context: India and Brazil are working to widen the scope of the existing **India-MERCOSUR Preferential Trade Agreement**.

- The PTA was signed in 2004 and implemented in 2009.
- Discussions aim to increase product coverage from around 450 items to 1,500–2,000.
- Target to increase bilateral trade to USD 20 billion by 2030.
- Expansion will deepen access to **South American markets** for Indian exporters.

Figure 25: MERCOSUR Members

India-Mongolia

Context: High-level talks between India and Mongolia resulted in major agreements.

- Both countries signed 10 MoUs, elevating ties and enhancing cooperation significantly.

- Cooperation includes energy, minerals, culture, heritage restoration, and digital solutions.
- India to offer free e-visas to Mongolian citizens.
- Emphasis on historical Buddhist and cultural linkages.

India-Bhutan

Context: India and Bhutan held a border management and security meeting.

- **14th bilateral meeting** held in Thimphu in October 2025.
- Reviewed border management, check-post upgrades and cross-border movement.
- Focus on capacity building of Bhutan Police and securing border pillars.
- Reinforces India-Bhutan strategic and security cooperation.

India-Russia: Putin's Visit

Context: President Vladimir Putin's visit to India in December 2025 underscores a complex but strategically important relationship characterized by areas of convergence, divergence, and opportunities for future collaboration.



Figure 26: Balancing strategic alignments and regional interests

Convergence

- India and Russia continue to support a multipolar world, cooperating on UN reforms, BRICS, and other global governance platforms.
- Defence ties remain strong with joint exercises, technology transfers, and projects like the Chennai–Vladivostok maritime corridor.
- Energy partnership is steady, with Russia supplying oil, gas, and coal despite Western sanctions.
- Both cooperate on regional security and counterterrorism, backed by intelligence sharing.
- Engagement through SCO, RIC, and G20 strengthens their strategic synergy against unilateral pressures.

Divergence

- Russia's growing closeness with China complicates India's strategic environment, especially amid Indo-China border tensions.
- India's expanding partnerships with Western nations create friction, particularly regarding Ukraine and sanctions compliance.
- Russian arms supplies to Pakistan cause mistrust and weaken defence confidence.
- Differing positions on Afghanistan, West Asia, and connectivity initiatives like INSTC add strategic complexities.

Way Forward

- Boost cooperation in emerging technologies—AI, cybersecurity, digital infrastructure, critical minerals, and advanced manufacturing.
- Diversify economic engagement through investments in pharmaceuticals, energy, machinery, and defence co-production.
- Deepen coordination in multilateral forums to safeguard strategic autonomy against China–West power competition.
- Promote stronger cultural, educational, and tourism exchanges to reinforce societal-level trust.
- Collaborate on climate action, supply chain resilience, and global health preparedness to leverage mutual strengths.

Conclusion

India–Russia ties remain a mix of deep strategic alignment and emerging divergences, but sustained dialogue and diversified cooperation can keep the partnership resilient and mutually beneficial in a shifting global order.

India-Afghanistan

Context: Re-engagement under the Taliban Regime

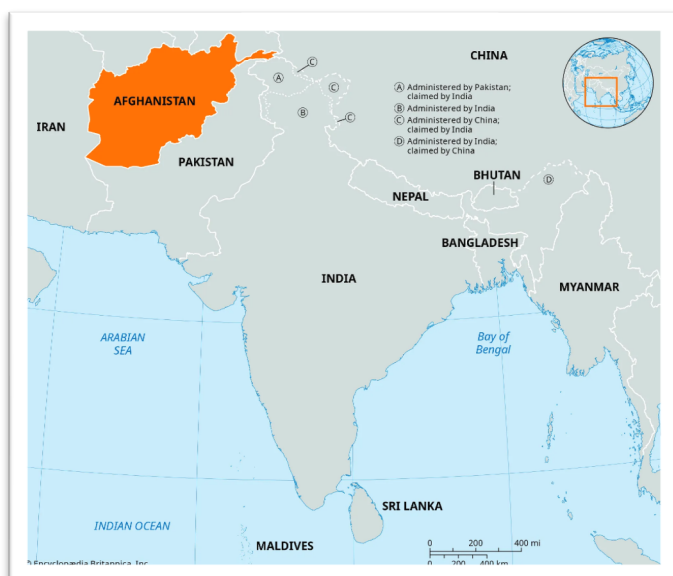


Figure 27: Map of India and Afghanistan

- India's current approach towards Afghanistan reflects a **pragmatic, calibrated engagement** with the Taliban administration, balancing humanitarian responsibility, strategic security concerns, and regional geopolitical realities.
- The **visit of Taliban Foreign Minister Amir Khan Muttaqi to India in October 2025** marks the first high-level Taliban diplomatic visit since 2021 and signals a cautious attempt at normalization without formal recognition.

1. Diplomatic Engagement & Political Developments

- India has upgraded its **technical mission in Kabul to an Embassy**, indicating a shift toward functional diplomatic normalization while still withholding formal recognition of the Taliban government.
- Regular engagements have continued through:
 - Talks in Dubai
 - Phone conversations between EAM S. Jaishankar and Taliban leaders
- India's stance remains rooted in:
 - Respect for Afghanistan's sovereignty, territorial integrity, and independence
 - Strategic flexibility without premature political endorsement

This approach reflects India's tradition of **pragmatic realism** in conflict-affected regions.

2. Strategic & Security Dimensions

Key Concerns Raised by India

- Cross-border terrorism emanating from Afghan territory, indirectly linked to Pakistan-backed terror groups.
- Forced repatriation of Afghan refugees by Pakistan, raising humanitarian and destabilization concerns.
- Overall security instability and risk of extremist resurgence.

Taliban's Assurances

- Commitment that Afghan territory will not be used against any country.
- Claims to have expelled terror groups such as Lashkar-e-Taiba.
- Rejection of joint counter-terror operations with India, asserting independent capability.

Despite assurances, India remains cautious due to historical distrust and volatile regional security dynamics.

3. Economic & Development Cooperation

Both sides have expressed intent to strengthen economic engagement:

- India-Afghanistan Air Freight Corridor to enhance bilateral trade.
- Taliban's request for stronger trade linkages via:
 - Wagah Border
 - Chabahar Port (key Indo-Iran connectivity node bypassing Pakistan)

- Cooperation in:
 - Hydroelectric projects
 - Agricultural development
 - Infrastructure restoration

This aligns with India's goal of preserving its role as a development partner and stakeholder in Afghan reconstruction.

4. Humanitarian & People-to-People Engagement

India has continued humanitarian outreach even after Taliban's return to power:

- Supply of:
 - Food grains, medicines, vaccines
 - Cancer drugs and earthquake relief materials
 - Ambulances, MRI and CT machines
- Launch of a new visa module facilitating:
 - Medical
 - Business
 - Student travel
- Consideration of ICCR scholarships for Afghan students
- Rapid disaster relief Response reinforces India's image as a **reliable humanitarian partner**

5. Areas of Friction

Despite engagement, multiple challenges persist:

- India has not formally recognised the Taliban government.
- Taliban-imposed restrictions on women and gender rights remain a concern.
- Human rights criticism is dismissed by the Taliban as "international propaganda."
- Pakistan's influence narrows India's geopolitical manoeuvrability.
- Internet shutdowns and lack of transparency obstruct development coordination.

6. Regional & Geopolitical Considerations

India seeks to avoid isolation while maintaining influence by:

- Coordinating with regional stakeholders such as Russia, Iran, China, and Central Asian states.
- Positioning Afghanistan as a stabilizing rather than destabilizing node in regional security architecture.
- Preventing Afghanistan from becoming a terror sanctuary that could threaten Indian interests.

Way Forward

- Continue calibrated and issue-based engagement without formal recognition.
- Strengthen cooperation in trade, infrastructure, and humanitarian sectors.
- Maintain zero tolerance for terror networks operating from Afghan soil.
- Advocate for inclusive governance and protection of human rights through dialogue and multilateral forums.

- Work with regional partners for balanced reconstruction and stability in Afghanistan.

Conclusion

India's re-engagement with the Taliban represents a delicate balance between **strategic realism and moral responsibility**. A cautious yet constructive engagement with the Taliban can help India secure its strategic interests while contributing to Afghanistan's stability and humanitarian needs.

India-UK Trade Agreement

Context: India-UK Comprehensive Economic and Trade Agreement came into force.



Figure 28: India-UK FTA

1. Economic Foundation

- UK = 6th largest investor in India (~5% of total FDI).
- CETA Benefits: Lower tariffs on textiles, agri goods, pharma; regulatory cooperation.
- EU = India's 2nd largest trading partner.
- Bilateral Trade (2024–25): USD 156 billion.

2. Strategic Convergence

- Technology Security Initiative (TSI): Launched 2024; focus on AI, quantum tech, semiconductors, critical minerals.
- Global Context: World fragmenting into trading blocs; need for resilient supply chains.
- Defence Roadmap (2024): Emphasis on joint R&D, co-production, and tech transfer.

3. Mutual Benefits for Britain

- Access to vast Indian market.
- Green finance and digital innovation opportunities.
- Reliable geopolitical partner in Indo-Pacific.

4. Mutual Benefits for India

- Access to advanced tech, defence systems, and investment.
- Expansion for Indian services & skilled workforce abroad.

5. Vision Statement

"Next-generation partnership combining trade liberalisation with joint investments in sustainability; tariff reductions with mobility frameworks; defence procurement with co-development of critical technologies."

Points of Divergence

Area	Divergence / Issue
Trade Negotiations (FTA)	Disagreements over tariff reductions on automobile, whisky, and dairy sectors.
Labour Mobility	UK's post-Brexit immigration policies limit skilled worker movement from India.
Data Protection & Digital Trade	Divergent views on data localisation and digital sovereignty.
Geopolitical Alignment	UK's alignment with AUKUS and NATO vs. India's strategic autonomy and non-alignment approach.
Human Rights & Political Issues	UK Parliament's criticism on Kashmir and minority issues strains diplomatic goodwill.

Way Forward

- **Fast-track FTA Negotiations:** Conclude a balanced trade pact ensuring mutual market access and protection of sensitive sectors.
- **Strengthen Tech & Defence Collaboration:** Expand Technology Security Initiative to include joint IP frameworks and start-up linkages.
- **Enhance Mobility Partnerships:** Establish flexible visa and student exchange frameworks for professionals and researchers.
- **Institutionalize Strategic Dialogue:** Create annual *India-UK 2+2* Ministerial Dialogue covering foreign, defence, trade, and technology issues.

Conclusion

India and the U.K.'s deepening trade and strategic engagement marks a significant step toward a modern, technology-driven partnership that strengthens economic growth, security cooperation, and long-term geopolitical alignment.

India's Solar Pump Initiative

Context: India to boost solar pumps scheme in Africa, island nations

PM-KUSUM Scheme (Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan)

Launched by: Ministry of New and Renewable Energy (MNRE), Government of India — in 2019.

Objective: To provide energy security and income support to farmers by:

- Promoting decentralized solar power production,
- Reducing dependence on grid electricity and diesel, and
- Enhancing irrigation access through solar-powered pumps.

Key Components:

Component	Description
Component- A	Installation of decentralized grid-connected solar power plants (up to 2 MW capacity) on barren/fallow land.
Component- B	Installation of standalone solar pumps for irrigation.
Component- C	Solarisation of existing grid-connected pumps to reduce dependence on conventional power.

Implementation Targets:

- **Target:** 30.8 GW of solar capacity through 35 lakh pumps by 2026.
- **Beneficiaries:** Individual farmers, cooperatives, and panchayats.
- **Funding Pattern:** 60% subsidy (30% Central + 30% State), 30% bank loan, and 10% farmer contribution.

International Expansion Context:

- India plans to replicate PM-KUSUM model in African and small island developing states (SIDS) under ISA (International Solar Alliance).
- Focus: Solar irrigation, energy access, and climate resilience.
- Aligned with India's "Global South Cooperation" and "One Sun, One World, One Grid (OSOWOG)" initiative.

Significance:

- Promotes climate-smart agriculture.
- Reduces diesel imports and carbon emissions.
- Strengthens South-South cooperation and India's role as a renewable energy leader.

Conclusion

India's plan to scale its solar pump initiative across Africa and island nations strengthens climate-resilient agriculture,

expands clean energy access, and reinforces India's leadership in Global South renewable cooperation.

India-Australia: Energy

Context: Australian Minister for Climate Change and Energy visited India to discuss the **clean energy partnership**.

India–Australia Renewable Energy Partnership (REP)

- Launched by Prime Ministers Narendra Modi and Anthony Albanese.
- Objective:** Move from *vision to implementation* in clean energy cooperation.
- Focus Areas:**
 - Joint projects
 - Critical mineral cooperation
 - Capacity building

Central Challenge

- Scaling up renewable energy while reducing dependence on China for critical materials and manufacturing.

Ambitious Targets

- India:** 500 GW *non-fossil electricity capacity* by 2030 (including 280 GW from solar).
- Australia:** 62–70% reduction in emissions below 2005 levels by 2035; net-zero by 2050.

Vulnerability & Dependence

- China:** Refines over 90% of rare earth elements and produces ~80% of global solar modules.
- India:** Depends heavily on imports for rare earth magnets and battery materials (used in EVs and wind power).
- Australia:** Large producer of lithium, cobalt, and rare earths, but lacks large-scale refining and downstream manufacturing capacity.

Framework of REP (8 Focus Areas)

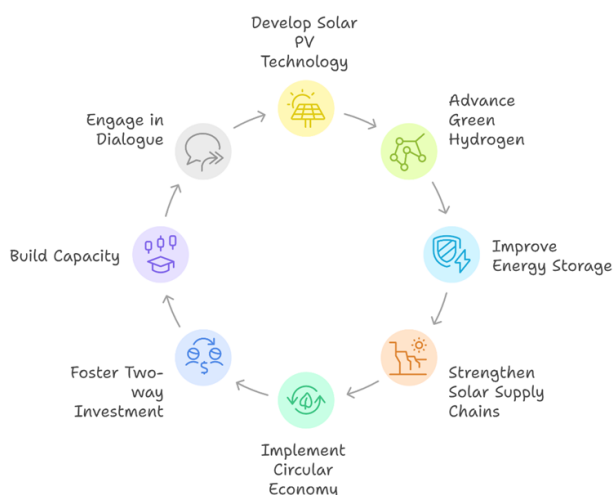


Figure 29: Renewable Energy Progress Cycle

Strengths for Collaboration

- Australia:
 - Rich *resource base* (lithium, cobalt, rare earths).
 - Regulatory stability* and *skilled workforce*.
- India:
 - Large scale and demographic dividend* (skilled youth for manufacturing & installation).
 - Growing market demand* and *Production-Linked Incentive (PLI)* schemes to boost domestic renewable manufacturing.

Conclusion

The India–Australia Renewable Energy Partnership offers a timely pathway for both nations to scale clean energy, reduce dependence on China, and jointly build resilient, future-ready green value chains.

India-Australia: Defence

Context: India and Australia have further strengthened their defence partnership by institutionalising high-level engagement through the **inaugural Defence Ministers' Dialogue (October 2025)**, reflecting the steady evolution of bilateral ties into a major pillar of Indo-Pacific security architecture. This engagement coincides with the **fifth anniversary of the India–Australia Comprehensive Strategic Partnership** and a marked rise in defence interactions over the last decade.

1. Defence Ministers' Dialogue (October 2025)

The first Defence Ministers' Dialogue between India and Australia was held in October 2025, formalising a permanent high-level defence engagement mechanism.

Key areas of discussion included:

- Defence industry collaboration
- Maintenance, repair and overhaul (MRO) support
- Information-sharing mechanisms
- Submarine rescue cooperation

Both sides emphasised:

- Deeper operational alignment
- Coordinated security efforts in the Indo-Pacific
- The dialogue provides structured momentum for:
- Bilateral defence cooperation
- Joint initiatives and long-term strategic planning

2. Expanding Defence Ties: Key Developments

Australia has acknowledged India's growing capabilities in high-end defence manufacturing and production. Defence Minister Rajnath Singh's visit to Australia (9–10 October 2025) underlined the strengthening partnership.

Discussions covered:

- Bilateral security cooperation

- Regional issues
- Countries of mutual concern

Key initiatives underway:

- Development of a **Maritime Security Road Map** to enhance maritime domain awareness in the Indian Ocean
- Work towards a new **Joint Declaration on Defence and Security Cooperation**
- **Defence engagements have tripled over the last decade:** 11 in 2014 → 33 in 2024
- The **Air-to-Air Refuelling Implementing Arrangement** marks India's first such agreement with any partner, indicating enhanced military interoperability.

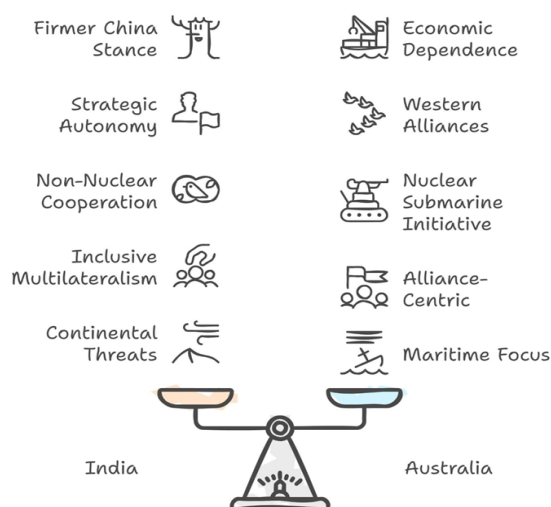


Figure 30: Balancing Strategic Divergence

Points of Convergence

Domain	Points of Convergence
Indo-Pacific Vision	Commitment to a free, open, and rules-based Indo-Pacific; respect for UNCLOS; opposition to coercive behaviour
Maritime Security	Joint patrols, anti-piracy, freedom of navigation; exercises like AUSINDEX and Malabar
Defence Industry	Co-development & co-production; India's manufacturing base + Australia's technology strengths
Quad Cooperation	Collaborative role in cyber security, supply chains, disaster resilience, regional stability
Energy & Minerals	Cooperation on lithium, cobalt and securing defence supply chains

Points of Divergence

Area	Points of Divergence
China Policy	Australia's economic dependence constrains stance; India adopts firmer strategic posture

Defence Orientation	India prioritises strategic autonomy; Australia aligned with Western alliances (AUKUS, ANZUS)
Nuclear Submarines	India not part of AUKUS nuclear submarine initiative
Regional Engagement	Australia more alliance-centric; India prefers inclusive multilateralism (ASEAN, IORA)
Strategic Focus	India balances continental threats; Australia remains predominantly maritime-focused

Conclusion

The India–Australia defence partnership is rapidly evolving into a cornerstone of Indo-Pacific stability. While differences persist in strategic orientation and alliance structures, the relationship is driven by shared interests in maritime security, defence modernisation, and regional stability. The **institutionalisation of defence dialogue** and **expansion of operational cooperation** reflect a maturing strategic trust capable of shaping a resilient Indo-Pacific security architecture.

India Middle-East Europe Corridor (IMEC)

Context: The India–Middle East–Europe Economic Corridor (IMEC) aims to enhance connectivity and trade between India, the Arabian Peninsula, and Europe.

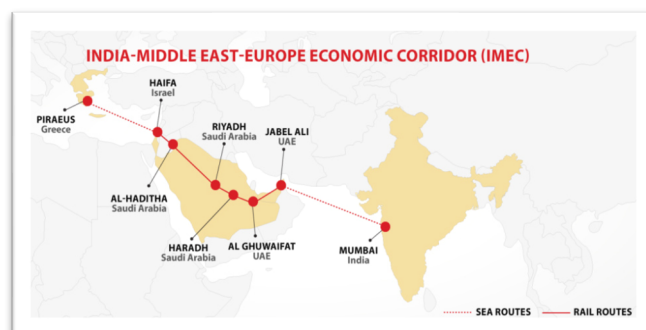


Figure 31: India–Middle East–Europe Economic Corridor (IMEC)

IMEC Vision

- **Maritime Connectivity:** Between India and the Arabian Peninsula.
- **High-speed Trains:** Linking UAE ports to Haifa port (Israel) via Saudi Arabia and Jordan.
- **Infrastructure:**
 - Clean hydrogen pipeline
 - Electricity cable
 - High-speed undersea digital cable
 - Port consolidation

Historical Context (2023)

- **Favourable Geopolitics:** Emerged from optimism post Abraham Accords, strengthened India–Arab relations, and closer India–US ties.
- **Launch:** On the sidelines of the G20 Summit in Delhi, endorsed by EU, France, Germany, Italy, Saudi Arabia, and India.

Challenges

- **West Asia Security Deterioration:** After Oct 7 Hamas attacks, Israel's retaliatory strikes strained Israel–Arab relations.
- **Feasibility Concerns:** Route viability is questioned due to conflict-affected regions.
- **Arctic Trade Route:** Climate change opening new northern routes, possibly reducing Mediterranean importance.

Opportunities & Way Forward

- **Mediterranean Importance:** Still vital for India to access European markets, especially nations like Italy.
- **Economic Opportunities:** India–Europe trade (~\$136 billion) demands resilient supply chains.
- **Adaptability:** IMEC's multi-member structure allows adaptation to geopolitical changes.
- **Diversification:** India can engage other commercial hubs/ports in Saudi Arabia and Egypt.
- **Counter Pakistan:** Strong India–Arab ties can counter Pakistan's regional influence.

Key Concepts

- **IMEC (India–Middle East–Europe Economic Corridor):** Proposed multimodal transport corridor linking India, the Middle East, and Europe.
- **Abraham Accords:** Series of normalization agreements (2020) between Israel and Arab nations (UAE, Bahrain, Sudan, Morocco).
- **I2U2 Framework:** Grouping of India, Israel, UAE, and USA focusing on joint investments in water, energy, transportation, space, health, and food security.

Conclusion

IMEC remains a promising connectivity initiative that can strengthen India's trade links with Europe and the Middle East, provided it adapts to evolving geopolitical challenges and maintains resilient, diversified partnerships.

India-Sri Lanka

Context: Sri Lankan PM Amarasuriva meets Modi in New Delhi.

Areas of Convergence (Strengths & Cooperation)

- **Cultural & Historical Ties:** Shared heritage through Buddhism, Tamil culture, and ancient trade links (e.g., *Chola–Anuradhapura* connections).
- **Economic Partnership:**

- India is Sri Lanka's largest trading partner and among top investors.
- India–Sri Lanka Free Trade Agreement (ISFTA) has boosted bilateral trade to over \$6 billion.
- **Development Assistance:** India has provided over \$4 billion in aid and credit lines for infrastructure, housing, and energy (e.g., *Jaffna–Kankesanthurai railway* and *Trincomalee oil farm* projects).
- **Security Cooperation:** Joint naval exercises (*SLINEX*), intelligence sharing, and counter-terrorism coordination ensure maritime security in the Indian Ocean Region (IOR).
- **Humanitarian & Energy Support:**
 - During the 2022 economic crisis, India provided \$4 billion in emergency aid (fuel, food, medicines).
 - Joint plans for power grid interconnection and renewable energy in the Mannar region.



Figure 32: India-Sri Lanka Relations

Areas of Divergence (Irritants & Challenges)

- **Fishermen Issue:** Frequent arrests and conflicts due to trawling by Indian fishermen in Sri Lankan waters (Palk Bay).
- **Tamil Minority Question:** India's emphasis on 13th Amendment implementation for Tamil devolution often seen as interference by Colombo.
- **Chinese Influence:** Growing Chinese presence through Belt and Road projects (*Hambantota Port, Colombo Port City*) raises India's security concerns.
- **Trade & Connectivity Delays:** Slow progress on ETCA (Economic and Technology Cooperation Agreement) and connectivity projects due to domestic political sensitivities in Sri Lanka.
- **Geopolitical Balancing:** Sri Lanka's "India First, but not India Only" policy—balancing India, China, and others—creates strategic unease.

Way Forward (Recommendations & Opportunities)

- **Deepen Economic Integration:** Revive ETCA, promote investments in renewable energy, tourism, and digital economy.
- **Resolve Fishermen Dispute:** Encourage joint patrolling, seaweed farming, and livelihood diversification on the Indian side.
- **Promote People-to-People Ties:** Strengthen Buddhist circuits, cultural exchanges, and education scholarships to rebuild societal goodwill.
- **Enhance Strategic Connectivity:** Implement power grid, LNG pipeline, and ferry links (Rameswaram–Talaimannar) to bind the economies together.
- **Balanced Regional Diplomacy:** Encourage Sri Lanka's economic diversification while ensuring India's security interests through sustained engagement rather than exclusivity.

Conclusion

India and Sri Lanka's partnership—rooted in history, geography, and shared security—can grow stronger through deeper economic cooperation, sensitive handling of political issues, and sustained people-centric engagement.

Global Geospatial Committee

Context: India has been elected to a leadership position in UN-GGIM for Asia and the Pacific.



Figure 33: UN Global Geospatial Information Management

- India will serve as **Co-Chair for 2025–2028**.
- Represents **56 national geospatial authorities** in the Asia-Pacific region.
- Strengthens India's role in global geospatial governance and data-driven development.
- Enhances cooperation in spatial data infrastructure and geospatial innovation.

SUMMITS

India-ASEAN Summit

Context: The Prime Minister of India virtually addressed the 22nd India-ASEAN Summit held in Kuala Lumpur, reaffirming India's enduring commitment to deepening cooperation in maritime security, digital inclusion, and resilient supply chains.



Figure 34: PM Modi attending 22nd India-ASEAN Summit

Evolution of India-ASEAN Relations

- India became a Sectoral Dialogue Partner in 1992 and a Full Dialogue Partner in 1996.
- Look East Policy** (1991) laid the groundwork; **Act East Policy** (2014) strengthened strategic, economic, and cultural engagement.
- Since 2002, India has regularly participated in ASEAN Summits; ties were elevated to a **Comprehensive Strategic Partnership** in 2022.
- Economic integration advanced through **AITIGA** (2009) and **Services & Investment Agreements** (2015).
- Relations are rooted in shared Buddhist heritage, maritime links, and historical exchanges.

Key Areas of Opportunity

- Maritime Cooperation:** Enhance naval exercises, maritime domain awareness, and Indo-Pacific security coordination.
- Economic Synergy:** Use the AITIGA review to improve trade balance and reduce non-tariff barriers.
- Digital & Green Economy:** Collaborate on digital public infrastructure, renewable energy, and green technologies.
- Connectivity:** Strengthen projects like the India-Myanmar-Thailand Highway and Kaladan Corridor.
- People-to-People Ties:** Boost cultural exchanges, tourism, education, and youth engagement.

Major Initiatives Undertaken

- ASEAN-India Plan of Action (2026-2030):** Focuses on trade, innovation, food security, and capacity building.
- AITIGA Review:** Aims to modernize trade rules and improve market access.

- 2026 ASEAN-India Year of Maritime Cooperation:** Prioritizes blue economy, maritime safety, and joint initiatives.
- ASEAN-India Fund (₹500 crore):** Supports connectivity and developmental projects.
- Cultural and academic platforms** like AINTT, ICCR scholarships, and digital learning efforts promote deeper exchange.

Challenges in the Partnership

- Trade Deficit:** India's imports from ASEAN exceed exports, showing limited value addition.
- Slow AITIGA Progress:** Protectionist concerns and differing national priorities delay negotiations.
- China's Dominance:** ASEAN's heavy economic reliance on China affects India's strategic leverage.
- Connectivity Delays:** IMT Highway and Kaladan projects face slow implementation.
- Policy Divergences:** ASEAN's neutrality and India's Quad engagement create occasional diplomatic hesitation.

Way Forward

- Accelerate Economic Integration:** Conclude AITIGA review quickly; expand cooperation in services, digital trade, and startups.
- Enhance Maritime Engagement:** Institutionalize joint naval exercises and information-sharing frameworks.
- Boost Connectivity:** Prioritize physical, digital, and energy linkages between India's Northeast and Southeast Asia.
- Strengthen Dialogues:** Use Track 1.5 and Track 2 mechanisms to improve trust, coordination, and policy alignment.

Conclusion

India-ASEAN relations continue to deepen through strategic, economic, and cultural cooperation. With stronger connectivity, modernized trade frameworks, and enhanced maritime engagement, the partnership can play a vital role in shaping a stable, prosperous, and inclusive Indo-Pacific region.

East Timor: ASEAN's 11th Member

Context: East Timor (Timor-Leste) was formally admitted as the 11th member of ASEAN at the 47th ASEAN Summit in Kuala Lumpur, marking the bloc's first expansion since the 1990s.

About East Timor:

- East Timor, officially the Democratic Republic of Timor-Leste, is a sovereign island nation in Southeast Asia, and one of the world's youngest republics (independent since 2002).

- **Location:** It lies in the eastern half of Timor Island in the Malay Archipelago, bordered by Indonesia to the west, and the Timor Sea (north of Australia) to the south.
- **Capital:** Dili.
- **Geographical Features:** Mountainous terrain with **Mount Tatamailau (2,963 m)** as the highest peak; dry tropical climate, sandalwood vegetation, and rich biodiversity including civet cats and crocodiles.



Figure 35: Map of ASEAN members with Timor-Leste

About ASEAN:

- The Association of Southeast Asian Nations (ASEAN) is a regional intergovernmental organization that promotes political, economic, and cultural cooperation in Southeast Asia.
- **Established in: 1967**, through the **Bangkok Declaration**, signed by Indonesia, Malaysia, Philippines, Singapore, and Thailand.
- **Headquarters:** Jakarta, Indonesia.
- **Members:** Now **11 countries** – Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei, Vietnam, Laos, Myanmar, Cambodia, and East Timor (2025).
- **Aims & Functions:**
 - Promote regional stability through dialogue and diplomacy.
 - Enhance economic integration via the ASEAN Free Trade Area (AFTA) and RCEP.
 - Foster cultural exchange and people-to-people connectivity.
 - Address transnational issues like terrorism, disaster management, and climate change.

Conclusion

East Timor's entry marks a historic step for ASEAN, strengthening regional unity and expanding cooperation across Southeast Asia.

East Asia Summit

Context: India took part in a major regional summit involving Indo-Pacific partners.



Figure 36: 20th East Asia Summit, Kuala Lumpur

- External Affairs Minister S. Jaishankar represented India at the **20th East Asia Summit** held in Kuala Lumpur.
- Discussions focused on regional security, maritime cooperation, economic integration and Indo-Pacific stability.
- India reaffirmed its commitment to freedom of navigation, peaceful resolution of disputes and **ASEAN** centrality.
- The Summit brought together major Asia-Pacific nations to review strategic and geopolitical issues.

FATF - Grey List

Context: FATF monitors countries with weak anti-money laundering and counterterror financing systems.

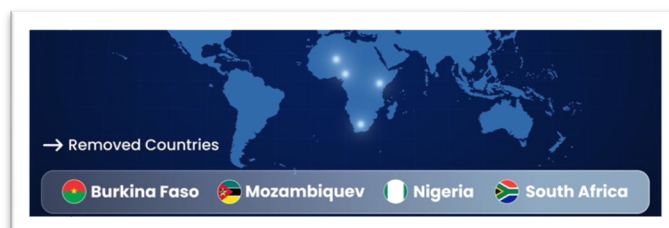


Figure 37: Countries removed from FATF-Grey List

- FATF removed four African Countries - **Burkina Faso, Mozambique, Nigeria and South Africa** from its Grey List.
- The countries demonstrated substantial progress in strengthening AML/CFT frameworks.
- Removal improves international financial credibility and reduces banking and investment risks.
- This marks a major compliance achievement for some of Africa's largest economies.

ECONOMICS

Fiscal Health and Debt of Indian States

Context: Fiscal health of Indian states, examining indicators of fiscal strain, revenue mobilization, debt, and sustainability.

Fiscal Strain Indicators (Description & Relevance)

- **Rising Debt Burden:** High Debt-to-GSDP ratio (e.g., Punjab 45%, HP 40%, Rajasthan 38%). Indicates a significant increase in public debt.
- **Fiscal Deficits:** Breaching FRBM limits (typically 3%). States spend more than they earn, leading to borrowing.
- **High Interest Payments:** 15–20% of revenue receipts consumed by interest payments. Reduces fiscal space for capital expenditure and development. Committed **Expenditure:** Salaries, pensions, subsidies absorbing over 50% of state revenues (e.g., Punjab, Kerala, West Bengal). Limits funds for growth-oriented spending.

NITI Aayog's Fiscal Health Index: Findings & Challenges

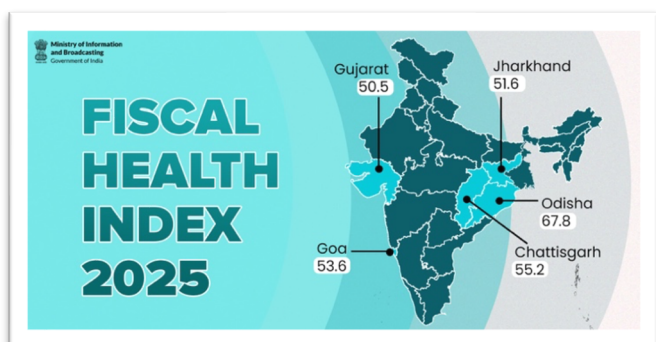


Figure 38: Fiscal Health Index 2025 | MIB

- **Uneven Revenue Generation:** Stark differences — Maharashtra (70% internal receipts), Arunachal Pradesh (9%), UP (42%). Leads to vertical imbalance (rich states self-fund, poorer rely on Union transfers).
- **Volatile Revenue Sources:** Some states rely on lotteries (Kerala), mining royalties (Odisha), and land sales (Telangana) — these are not sustainable long-term.
- **Borrowing Patterns:** Spiked during the pandemic. Some states (AP, Rajasthan, Telangana) continued increasing borrowings; others (Karnataka, Kerala, Maharashtra) cut back; few (Odisha, UP, Tripura) reduced further.
- **Welfare Paradox:** Some “surpluses” are accounting gains, not developmental. Heavy reliance on central transfers and off-budget loans. Welfare schemes proliferate despite thin fiscal bases, leading to high dependence on borrowings.

Way Forward

- **Enhance Revenue Mobilization:** Broaden the state tax base through improved GST compliance, property tax reforms, and rationalization of user charges.
- **Rationalize Expenditure:** Shift focus from revenue to capital spending to spur long-term growth and employment.
- **Strengthen Fiscal Responsibility Framework:** Adopt outcome-based budgeting and real-time debt monitoring dashboards for accountability.
- **Promote Fiscal Sustainability & Cooperation:** Strengthen Centre-State coordination through fiscal councils for early warning on debt stress and better resource sharing.

Conclusion

Strengthening ADR mechanisms is essential for faster, fairer, and more accessible justice, easing court burdens while promoting trust, dialogue, and social harmony.

Employment a National Priority

Context: India is prioritising job creation to address rising youth unemployment and ensure inclusive economic growth.

Demographic Dividend

- India is the most populous and youngest country.
- Expected to add 133 million to the working-age population (15–64 years) in the next 25 years (~18% of global incremental workforce).
- Worker population projected to peak around 2043, creating a short window of opportunity.

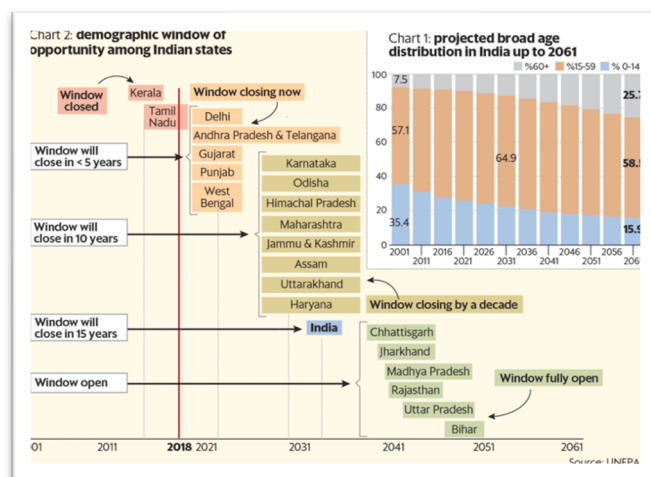


Figure 39: Demographic Dividend in Indian States

Importance of Employment

- Critical for equity and inclusion, lifting millions out of poverty.
- Reduces regional and social disparities, ensuring equitable growth.

- Vital for growth and resilience in a consumption-driven economy.

Challenges

- Lack of a unified national framework for employment and livelihoods.
- Demand-supply mismatch between economic growth and skills/mobility.
- Low employability of graduates due to outdated curricula.
- Mismatch between availability of people and jobs.
- Labour market frictions, regional disparities, and gender barriers.
- Lack of high-quality, real-time employment data for policy action.

Proposed Solutions (Integrated National Employment Policy)

- **Policy Framework:** Consolidate existing schemes and align diverse initiatives.
- **Coordination:** Collaboration among States, key Ministries, and industry.
- **Governance:** Managed by an Empowered Group of Secretaries, executed via District Planning Committees.
- **Goals:** Define time-bound employment targets and identify high-employment potential sectors.
- **Alignment:** Integrate trade, industrial, education, and labour policies for coherence.
- **Skills:** Revise college curricula; promote industry-linked skilling, AI/robotics integration.
- **Mobility:** Enhance Centre-State collaboration on migration policies; develop "One India" mobility framework.
- **Labour Codes:** Ensure timely implementation of the four labour codes with clear transition guidelines.

Conclusion

India's demographic window can translate into real growth only if job creation becomes a coordinated national mission backed by skills, mobility, and coherent employment-focused policies.

Outward FDI & Domestic Investment

Context: Amidst global economic uncertainties, Indian private capital needs to shift focus from outward FDI to domestic investment, wage growth, and R&D to stimulate internal demand and ensure sustainable national economic growth.

Challenge: Balancing long-term global trade benefits with short-term harms (low wages, unemployment).

Historical Trend of Indian Capital:

- Grew under protected pre-liberalization economy.

- Post-1990s liberalization: Cross-border investments, global links.

Need for Change: Indian capital must align with public interest, work with government to mitigate risks, and focus on domestic demand.

Three Thrust Areas for Domestic Capital

1. Enhance Internal Private Investments:

- Despite record profits, private investment remains flat.
- Public capex surged (₹3.4 lakh Cr in FY20 → ₹10.2 lakh Cr in FY25).
- Outward FDI grew at 12.6% CAGR (vs. global 3.9%), indicating preference for foreign locations.

2. Ensure Moderate Wage Growth:

- Corporate profits at 15-year high, but wage growth stagnated.
- Affects distribution and dampens domestic demand.
- Contractualization erodes collective bargaining power.

3. Invest More in R&D:

- Gross expenditure on R&D is 0.64% of GDP (insufficient).
- Primarily government-funded (private sector only 36% vs. 70%+ in advanced economies).
- Private R&D concentrated in few sectors (pharma, IT, transport).

Conclusion: Unified response from government and private sector is crucial; national interest above profit maximization.

Stabilising the Rupee: RBI

Context: RBI Sold \$7.7 Billion in August to Check Rupee Volatility

- **Exchange Rate Volatility:** Rapid and unpredictable fluctuations in the value of one currency against another. High volatility creates uncertainty for businesses and investors.
- **Rupee Depreciation:** A fall in the value of the Indian Rupee relative to other currencies, particularly the US Dollar. Makes imports costlier and exports cheaper.
- **Foreign Exchange Reserves:** Assets held by the central bank in foreign currencies. Used to back liabilities and influence monetary policy, including managing exchange rates.

RBI's Intervention in Forex Market

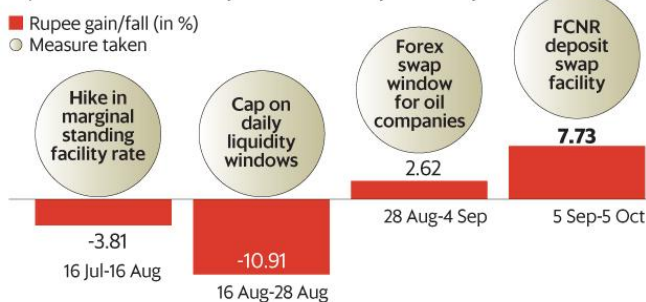
- **Selling US Dollars:** Increases dollar supply in the market, strengthens the rupee, or prevents sharp depreciation by raising rupee demand.
- **Buying US Dollars:** Increases rupee supply, weakens the rupee, or prevents sharp appreciation.

Reasons for Intervention

- **Stabilizing Rupee:** Prevent excessive depreciation that could increase import costs and inflation.
- **Maintaining Investor Confidence:** Signal stability and prevent capital outflows.
- **Managing External Debt:** A weaker rupee makes external debt servicing costlier.

Days of the future past

It pays to look at what measures worked in 2013 in stabilizing the rupee when the currency has fallen nearly 12% this year.



Source: RBI

Figure 40: RBI's intervention in 2013

August 2025 Data

- RBI sold \$7.7 billion in August.
- Nearly three times higher than the previous month.
- RBI did not purchase US dollars in July and August.

Implication

- The large dollar sale indicates strong pressure on the rupee to depreciate.
- RBI intervened actively to maintain stability, which led to a reduction in foreign exchange reserves.

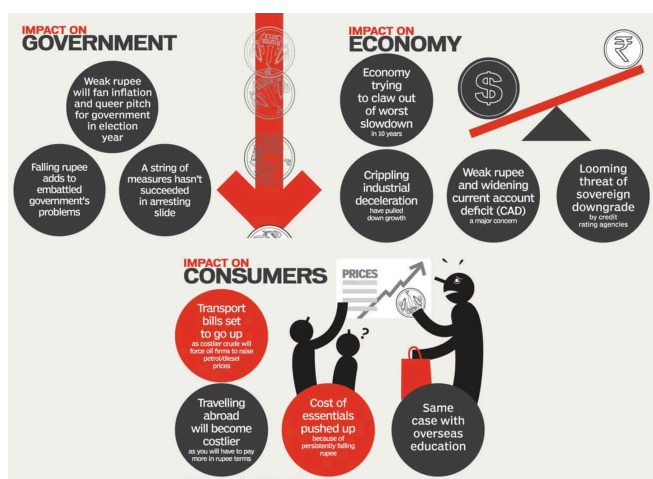


Figure 41: Impact on Government, Economy and Consumers | HT

Conclusion

The RBI's heavy dollar sales highlight persistent pressure on the rupee and underscore the central bank's priority of maintaining currency stability amid global volatility.

India's Job-Ready Graduates

Context: India faces an employability crisis, with only 42.6% of graduates deemed job-ready.

Purpose: The goal of employability is not just job acquisition but sustainable career growth — enabling individuals to learn, unlearn, and relearn continuously to stay relevant in rapidly transforming industries.



Figure 42: Employment Outlook

Core Features

- **Comprehensive Skillset:** Integrates domain knowledge with critical thinking, problem-solving, teamwork, and communication.
- **Adaptability:** Builds resilience and readiness to embrace new technologies and work cultures.
- **Continuous Learning:** Encourages lifelong skill development in response to evolving job markets.
- **Value Orientation:** Focuses on meaningful contribution to organizational objectives and broader economic productivity.

Causes of Academia-Industry Gap

- Curricula remain outdated and heavily theory-oriented.
- Practical exposure, labs, and real-world training are limited.
- Soft skills like communication and teamwork are neglected.
- Technology evolves faster than academic syllabus updates.
- Weak collaboration and mismatched expectations between academia and industry.

Government & Institutional Initiatives

- **NEP 2020:** Encourages multidisciplinary, flexible, and industry-linked learning.
- **AICTE Internship Policy:** Makes industrial internships compulsory for engineering students.
- **Skill India Mission:** Strengthens vocational skills aligned with industry needs.
- **NASSCOM FutureSkills PRIME:** Provides digital training in AI, analytics, cybersecurity, etc.



Figure 43: Flagship Skill Development Initiative

Challenges in Implementation

- Slow and rigid curriculum revision processes.
- Weak coordination among institutions, regulators, and industries.
- Faculty often lack exposure to current corporate practices.
- Rural institutions face infrastructure and connectivity gaps.
- Industry participation in research and skill development remains limited.

Way Forward

- Co-create curricula through continuous academia-industry dialogue.
- Promote apprenticeships, live projects, and dual-learning models.
- Enable faculty sabbaticals and immersion programs in industry.
- Establish soft skills, ethics, and communication labs to enhance employability.

Conclusion

Bridging the gap requires sustained collaboration, flexible learning systems, and investment in both skills and innovation. With aligned efforts from academia, industry, and government, India can produce a truly job-ready and future-ready workforce.

INTERNAL SECURITY

Curbing Left Wing Extremism

Context: Maoist insurgency in India is at its weakest due to leadership crisis, reduced cadre strength, and effective counter-insurgency operations, prompting the government to offer a "lucrative surrender and rehabilitation policy." Union Home Minister Amit Shah's call for Maoists to surrender, aiming to eradicate Maoism by next year.

Decline of Maoist Movement

- **Leadership Crisis:** Central Committee shrunk from 42 to 13 members (mostly old, ill); Politburo reduced from 25 to 7-8.
- **Cadre Reduction:** From nearly 10,000 members to below 2,000.
- **Loss of Strongholds:** Influence waned even in traditional bastions like Chhattisgarh's "Liberated Zone."
- **Intellectual & Political Base:** Sharp decline in intellectual sympathy and recruitment of educated youth.

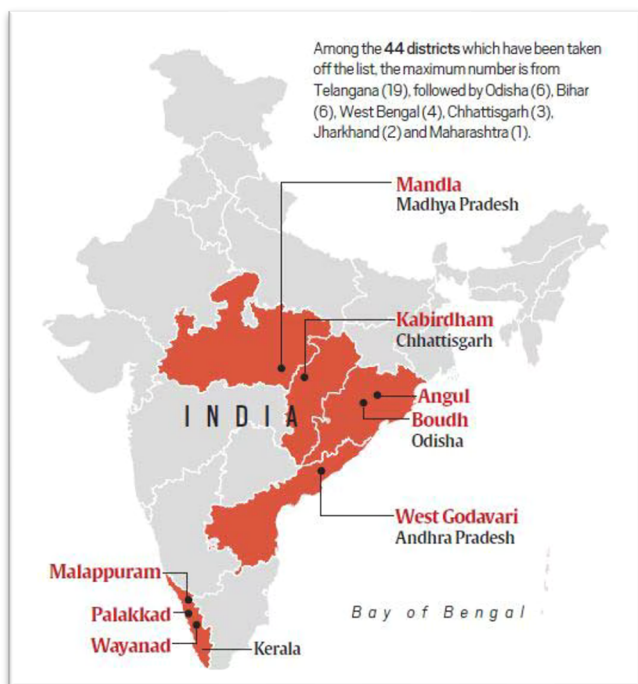


Figure 44: Shrinking Maoist presence in India

- **Enhanced Surveillance & Tech Use:** Use of drones, satellite mapping, and digital monitoring improved intelligence gathering.
- **Financial Network Disruption:** Crackdown on extortion, forest produce trade, and mining-related funds curtailed Maoist finances.
- **Improved State Presence:** Better road connectivity, mobile networks, and welfare delivery in tribal interiors reduced alienation.

Reasons for Decline

- **Specialized Forces:** Deployment of CoBRA (CRPF) and District Reserve Guards (Chhattisgarh).
- **Effective Operations:** Operation Black Forest and elimination of key leaders (e.g., Basavaraju).
- **Surrenders & Arrests:** Over 1,450 surrenders and 1,460 arrests in 18 months.
- **Tribal Disillusionment:** Tribals caught in crossfire; growing disillusionment with Maoist violence.
- **Militarization over Political Development:** Maoists' excessive focus on armed struggle alienated potential supporters.
- **Inter-State Coordination:** Joint operations between Andhra Pradesh, Telangana, Odisha, and Chhattisgarh curtailed cross-border movement.
- **Development Schemes Penetration:** Flagship programs like PMGSY, Aspirational Districts Programme, and Vanbandhu Kalyan Yojana addressed root causes.
- **Community Policing:** Local confidence-building measures (Jan Sampark Abhiyan, Civic Action Programmes) improved trust in administration.

Government Policy

"Lucrative surrender and rehabilitation policy." Includes monetary incentives, vocational training, land, and housing support to rehabilitate surrendered cadres.

Way Forward

- **Focus on Developmental Governance:** Strengthen last-mile delivery of education, health, and livelihood schemes in tribal areas.
- **Community Engagement:** Empower Gram Sabhas under PESA Act, 1996 and ensure local participation in resource management.
- **Rehabilitation with Dignity:** Expand post-surrender integration through skill training, mental health counselling, and livelihood support.
- **Inclusive Economic Opportunities:** Promote forest-based industries, MFP (Minor Forest Produce) value chains, and women-led SHGs.
- **Address Root Grievances:** Speed up land rights settlement under Forest Rights Act (FRA), 2006 and prevent displacement due to mining projects.
- **Information & Cyber Vigilance:** Counter Maoist online propaganda through factual communication and psychological operations.
- **Sustained Coordination:** Strengthen SAMADHAN doctrine (Smart leadership, Aggressive strategy, Motivation, Actionable intelligence, etc.) across states.

Conclusion

The rapid decline of Maoist insurgency shows that strengthened security operations combined with

development and community engagement are proving effective, making lasting peace both achievable and within reach.

NSG Hub in Ayodhya

Context: A new hub of the National Security Guard (NSG) to be established in Ayodhya, Uttar Pradesh.



Figure 45: National Security Guard (NSG)

National Security Guard (NSG)

- **Nature:** Elite counter-terror and counter-hijack force of India.
- **Formation:** Established in 1984 following *Operation Blue Star*, under the NSG Act, 1986.
- **Mandate:** To combat terrorism and handle high-risk security situations.
- **Personnel:** Drawn from the Indian Army and Central Armed Police Forces (CAPFs).
- **Nickname:** *Black Cats*.

NSG Hubs

- **Purpose:** Ensure rapid deployment and response to terrorist threats across regions.
- **Existing Hubs:** Mumbai, Chennai, Kolkata, Hyderabad, Ahmedabad, and Jammu (6 hubs).
- **New Hub:** Ayodhya, Uttar Pradesh — 7th hub.

Significance of Ayodhya Hub

- **Strategic Placement:** Covers a larger geographical area in Northern India.
- **Operational Readiness:** Enhances NSG's response time to potential threats in the region.
- **Security Imperative:** Ayodhya's increasing prominence as a religious and tourist destination necessitates heightened security.

Conclusion

The new NSG hub in Ayodhya strengthens India's counter-terror preparedness, ensuring faster response and enhanced security across Northern India.

EXERCISES

IN-RoKN: India-South Korea

Context: India and South Korea held their inaugural naval drill to deepen maritime cooperation.



Figure 46: IN-RoKN: India-South Korea bilateral Naval Exercise

- The first-ever India-South Korea bilateral naval exercise, named **IN-RoKN**, began on 13 October 2025 in Busan.
- It included a Harbour Phase (professional exchanges, cross-deck visits) and a Sea Phase (tactical manoeuvres, joint operations).
- India deployed **INS Sahyadri**, while South Korea deployed **ROKS Gyeongnam** for the exercise.
- The exercise strengthens strategic partnership and enhances interoperability in the Indo-Pacific.

AUSTRAHIND: India-Australia

Context: India and Australia conduct an annual military exercise to boost interoperability.



Figure 47: AUSTRAHIND: India-Australia Military Exercise

- The latest edition of **AUSTRAHIND** started on 13 October 2025 in Perth and continues until 26 October.
- The Indian Army contingent includes troops from the Gorkha Rifles and supporting elements.
- The drill focuses on operations in urban and semi-urban terrain and joint tactical planning.
- It reinforces growing defence ties under the India-Australia Comprehensive Strategic Partnership.

Samudra Shakti: India-Indonesia

Context: India and Indonesia hold regular maritime drills to secure the Indo-Pacific region.



Figure 48: Samudra Shakti: India-Indonesia Naval Exercise

- The **5th edition of Samudra Shakti** was conducted from 14 to 17 October 2025 at Visakhapatnam.
- India participated with **INS Kavaratti**, while Indonesia deployed **KRI John Lie** with an integral helicopter.
- The exercise featured helicopter operations, weapon firings, air-defence drills and VBSS (Visit, Board, Search, Seizure) operations.
- It aims to enhance operational synergy and maritime security cooperation between the two nations.

JAIMEX-25: Japan-India

Context: India and Japan regularly conduct naval drills under their Special Strategic and Global Partnership.



Figure 49: JAIMEX: Japan-India Naval Exercise

- The **JAIMEX-25** maritime exercise was held with sea and harbour phases in Japan in October 2025.
- **INS Sahyadri** operated alongside Japanese Maritime Self-Defence Force ships, including destroyers and a submarine.
- Activities included anti-submarine warfare, missile defence, flying operations, and replenishment at sea.
- The exercise strengthens naval interoperability and supports a free, open and inclusive Indo-Pacific.

ENVIRONMENT & GEOGRAPHY

Climate Change impact on Maize

Context: Maize is a globally important crop, but **monocultures are vulnerable to pests**. Productivity is projected to fall by up to 24% by the late 21st century due to climate change.

Discovery: Maize plants use the volatile compound **linalool** as a "warning signal" to alert neighbours about insect attacks, triggering defensive responses.

Mechanism (Plant–Soil Feedback)

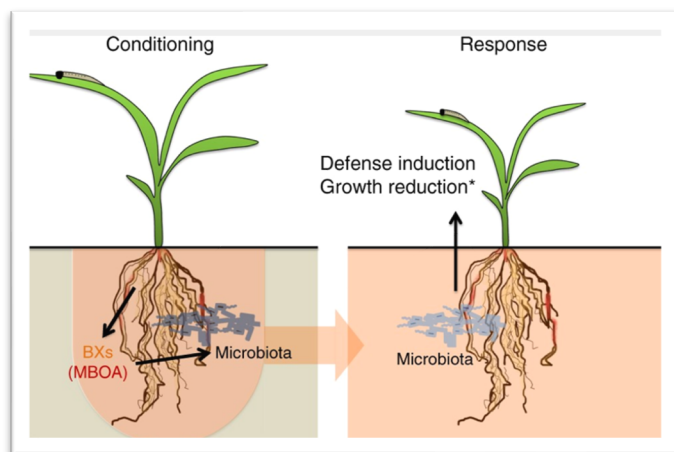


Figure 50: Plant-Soil feedback mechanism

- **Insect Attack:** Crowded maize plants release more linalool.
- **Linalool Exposure:** Activates jasmonate signalling in roots.
- **Jasmonate Activation:** Upregulates genes, releasing defensive metabolite HDMBOA-Glc into the soil.
- **HDMBOA-Glc in Soil:** Enriches beneficial bacteria.
- **Beneficial Bacteria:** Induce salicylic acid signalling in neighbouring plants, priming them for threats.

Benefits of this Defence: Broad-spectrum resistance: Less susceptible to fall armyworm, root-knot nematodes, fungus (*Exserohilum turcicum*), and rice black-streaked dwarf virus (RBSDV).

Trade-off: Stronger defence comes at a cost: plants grow more slowly and produce less biomass.

Implications for Agriculture

- **Reduced Chemical Use:** Harnessing this feedback can cut chemical pesticide use.

- **Breeding:** Identify maize varieties more responsive to linalool signalling for marker-assisted selection.
- **Managing Growth–Defence Trade-off:** Engineer plants to be unresponsive to the signal when pests are not an issue (increasing yield) or provide external signal when pests are present (reducing losses).
- **Sustainable Solutions:** Offers a natural, sustainable way to enhance crop resilience against pests and diseases—especially relevant given climate change impacts on maize productivity.

Polar Geoengineering

Context: Scientists warn that polar geoengineering could cause severe and irreversible environmental harm. While such interventions aim to slow ice melt, the scientific consensus is clear: **deep and sustained reductions in greenhouse gas emissions remain the safest and most effective response to climate change**. Every tonne of emissions avoided today reduces future shocks and enhances global climate stability, unlike geoengineering which carries high uncertainty and unintended consequences.

Five main methods of polar geoengineering proposed to protect the polar regions from ice melt and climate change effects are:

1. **Stratospheric Aerosol Injection (SAI):** This involves releasing reflective particles such as **sulphur dioxide** or **calcium carbonate** into the stratosphere over polar regions to reflect sunlight and reduce surface temperatures.

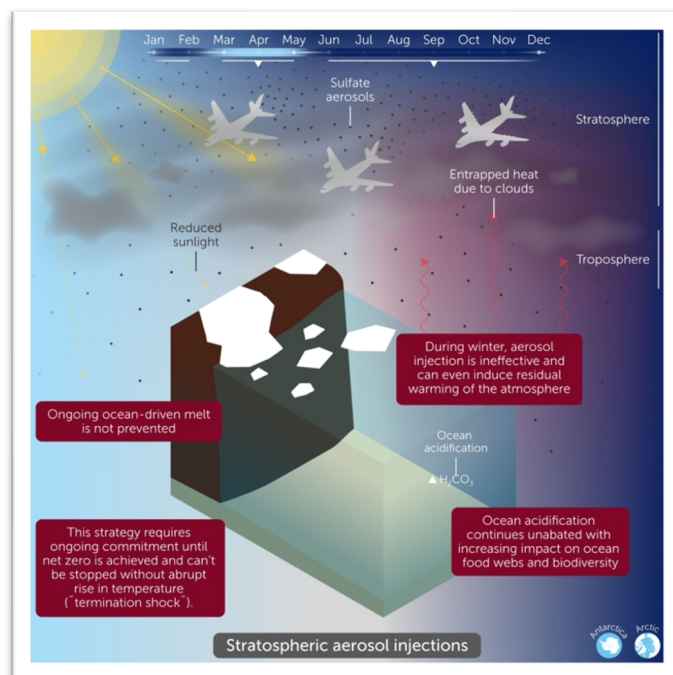


Figure 51: Stratospheric Aerosol Injection (SAI)

- **Objectives:**

- Reduce polar amplification of warming
- Slow ice melt by decreasing incoming solar radiation
- **Limitations & Risks:**
 - Ineffective during polar night due to lack of sunlight
 - Risk of sudden temperature spikes if deployment stops abruptly (termination shock)
 - Potential disruption of global precipitation patterns
 - Possible damage to the ozone layer, particularly over Antarctica
 - Does not address ocean acidification

2. **Sea Curtains (or Sea Walls):** Large flexible underwater barriers anchored to the seabed near glaciers to block warm ocean currents from reaching ice shelves.

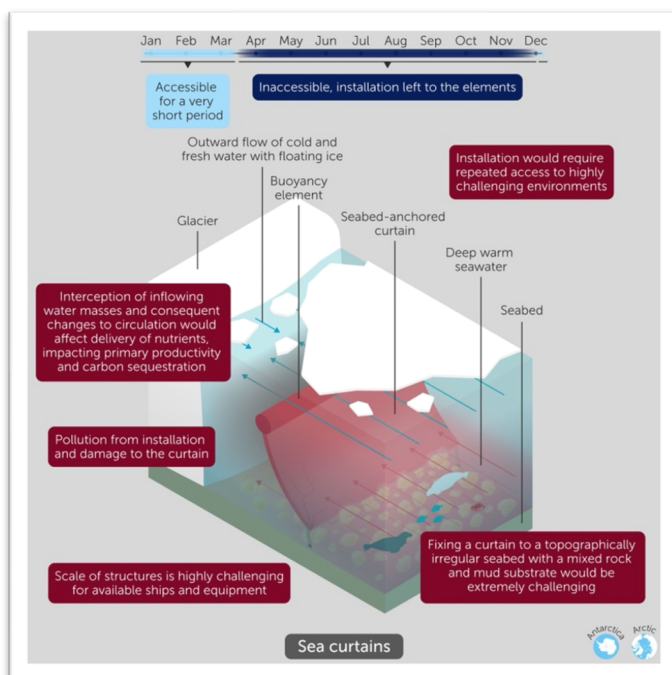


Figure 52: Sea Curtains (or Sea Walls)

- **Objective:** Reduce ocean-driven melting of major glaciers (e.g., Thwaites Glacier)
- **Challenges:**
 - Enormous engineering complexity
 - Severe ecological disruption of marine circulation
 - Extremely high costs and unresolved feasibility
 - Risk of failure under ice pressure

3. **Sea Ice Management:** Techniques proposed include 'spreading reflective materials' (e.g., glass microbeads) to increase albedo. And 'pumping seawater' onto ice to thicken it and promote freezing.

- **Objective:** Preserve Arctic sea ice by increasing reflectivity and ice mass
- **Concerns:**

- Environmental toxicity of microbeads
- Impractical scale required
- High energy consumption
- Potential disruption of Arctic ecosystems

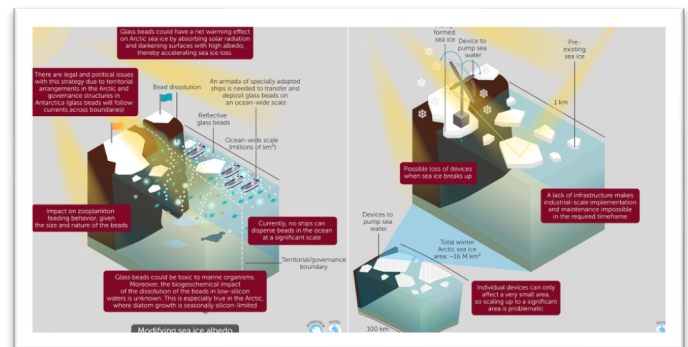


Figure 53: Sea Ice Management

4. **Basal Water Removal:** Involves pumping meltwater from beneath glaciers to increase friction at the ice-bed interface and slow glacier movement.

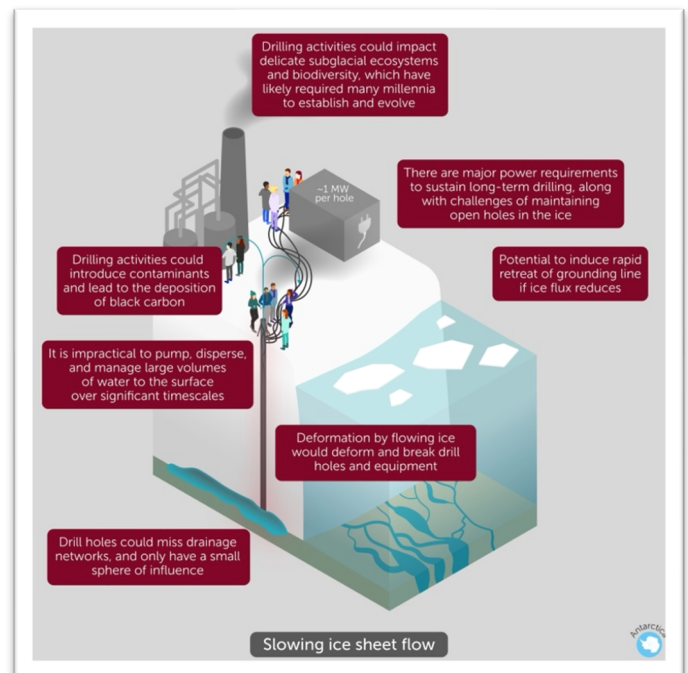


Figure 54: Basal Water Removal

- **Objective:** Reduce glacier velocity and ice discharge into oceans
 - **Limitations:**
 - Energy-intensive
 - Requires constant monitoring
 - Highly experimental
 - Not proven at scale
5. **Ocean Fertilization:** Addition of nutrients like iron to stimulate phytoplankton growth, enhancing CO₂ uptake and storage in deep ocean layers.
- **Objective:** Increase biological carbon sequestration
 - **Risks:**
 - Harmful algal blooms

- Disruption of marine food webs
- Uncertain permanence of carbon storage
- Difficult to control and monitor at scale

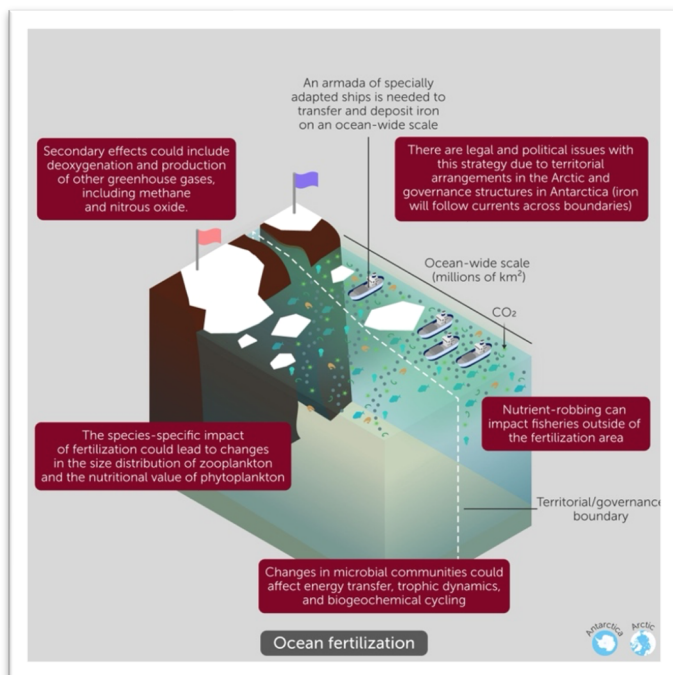


Figure 55: Ocean Fertilization

(Note: This is more accurately classified as **Carbon Dioxide Removal (CDR)** rather than direct polar geoengineering.)

Conclusion

Polar geoengineering may offer temporary relief, but its risks, uncertainties, and potential ecological harm make it far less reliable than rapid, sustained global emission reductions.

Landslides and Floods: North Bengal

Context: Torrential rain triggered landslides and floods in Darjeeling and northern West Bengal.



Figure 56: Rivers in Northern West Bengal

Impact

- Road connectivity to Mirik and Darjeeling disrupted.
- Dudhiya Iron Bridge collapsed.

- Thousands of tourists stranded.
- Several rivers are flowing above a dangerous level.

Geographical Features

- **Sub-Himalayan West Bengal:** Region prone to heavy rainfall.
- **Hilly Terrain:** Darjeeling and Mirik sub-divisions susceptible to landslides.
- **Balasan River:** Bridge collapse cut off communication.
- **Sankosh River:** Excessive inflow from Bhutan and Sikkim worsened floods.
- **Teesta, Torsa, Jaldhaka Rivers:** Major North Bengal rivers flowing near danger levels.
- **Dooars Region:** Foothill area severely affected; inundation of national parks.

Contributing Factors

- Sudden rainfall exceeded 300 mm in 12 hours.
- Excessive water flow from **Sankosh River** (Bhutan/Sikkim).
- **Saturated soil** conditions (IMD red alert).
- Tala Hydropower Dam gates in Bhutan reportedly failed to open, causing Wangchu river overflow.

Way Forward & Best Practices

1. **Strengthening Early Warning & Forecasting Systems**
 - **Integrated Warning Systems:** Expand IMD's Doppler Radar coverage and link real-time rainfall, river gauge, and landslide sensors in North Bengal.
 - **Localized Alerts:** Use block-level hydrological models and SMS/IVRS-based dissemination in hill districts.
2. **Infrastructure Resilience & Land-Use Planning**
 - **Climate-Resilient Roads & Bridges:** Adopt bio-engineering techniques for slope stabilization (vetiver grass, gabion structures).
 - **Example: Sikkim's "Zonal Landslide Susceptibility Mapping"** for infrastructure siting can be replicated in Darjeeling.
3. **Watershed & River Basin Management**
 - **Afforestation & Catchment Treatment:** Strengthen natural drainage and slope vegetation to reduce runoff.
 - **Example: Teesta Flood Management Project** (Bangladesh) demonstrates community embankment maintenance and participatory monitoring.
4. **Community-Centric Preparedness**
 - **Local Disaster Management Plans (LDMPs):** Update village-level SOPs, mock drills, and inventory of shelters.
 - **Best Practice: Kerala's "Operation Anantha"**—community-government collaboration post-flood—can guide local response networks.

Conclusion

Heavy rainfall and fragile Himalayan terrain make North Bengal highly prone to floods and landslides, underscoring the need for stronger early-warning systems, resilient infrastructure, and community-centric disaster preparedness.

Supermoon

Context: A supermoon occurs when a full or new moon coincides with the Moon's closest approach to Earth (perigee), making it appear larger and brighter, and causing slightly higher tides.

Definition: A full moon or new moon coinciding with the Moon's closest approach to Earth (*perigee*) in its elliptical orbit.

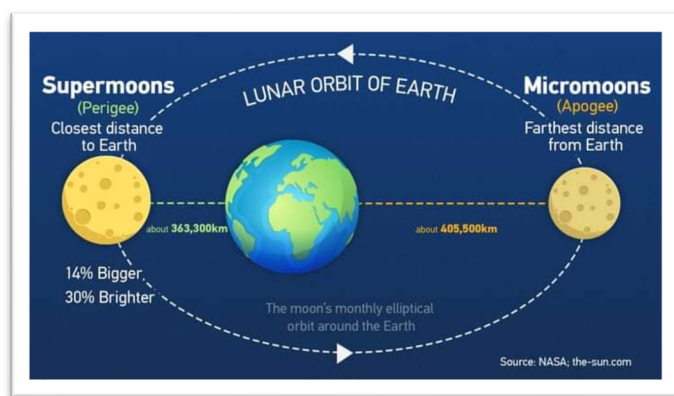


Figure 57: Supermoons and Micro-moons

- **Moon's Orbit:** Elliptical; distance from Earth varies by approximately 50,000 km.
- **Visual Effect:** Appears about 14% larger and 30% brighter than when at its farthest point (*apogee*).
- **Origin of Term:** Popularized by astrologer Richard Nolle in the 1970s.

Impact on Tides

- Creates perigean spring tides.
- Tides are slightly higher and lower than usual due to stronger gravitational pull.
- Can exacerbate coastal flooding when combined with storm surges.

Cultural Significance: Inspires folklore and spiritual observances; offers opportunities for astronomers and photographers.

Conclusion

A supermoon simply reflects the Moon's closer approach to Earth, making it appear brighter and bigger while slightly intensifying tides, offering both scientific insight and cultural fascination.

Leopards: Lowest Genetic Diversity

Context: Stanford study reveals snow leopards have the lowest genetic diversity among big cats, attributed to **persistently small population size** and **effective "purging" of harmful mutations**, but raising concerns for future adaptation to anthropogenic threats.

Findings & Facts

Parameter	Details
Population Estimate	~4,500-7,500 individuals globally
Genetic Diversity	Lowest among all big cat species
Reason for Low Diversity	Persistently small population size over evolutionary time (not a recent bottleneck)
Homozygous Load	Lower load of harmful mutations, suggesting some "purging" over time
Study Source	Stanford University, published in PNAS (Oct 2025)

Implications for Conservation

- **Reduced Adaptive Capacity:** Low genetic diversity makes the species vulnerable to new threats like climate change and habitat alteration.
- **Vulnerability of Remote Species:** While remote habitats offered historical protection, rising climate and anthropogenic pressures now threaten even these species.
- **Informed Conservation Policy:** Genetic data is crucial for:
 - Identifying population sub-structure.
 - Mapping connectivity corridors.
 - Implementing non-invasive genetic monitoring (e.g., faecal DNA tests).



Figure 58: Where are snow leopards found?

Why does this matter to India?

India is a snow leopard range state (Himalayas).

This necessitates urgent domestic conservation measures:

- Establishing wildlife corridors.
- Promoting community-based conservation.
- Developing climate resilience strategies.

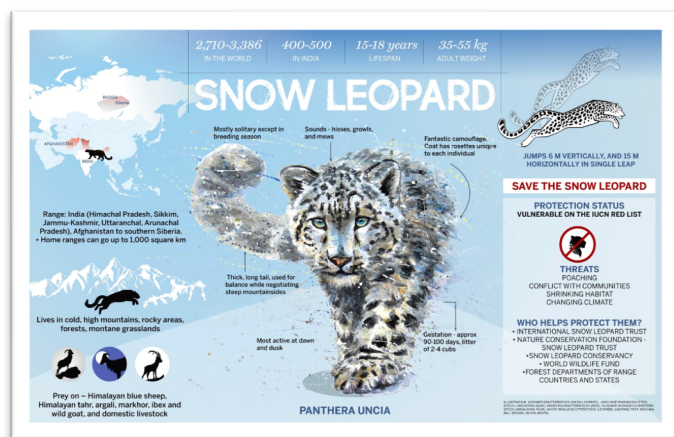


Figure 59: Snow Leopard Facts

Wild Elephant Population

Context: India's wild elephant population estimated at 22,446, a drop from 27,312 recorded in 2017.

- **Estimation Method:** India's first DNA-based count conducted under the All-India Synchronous Elephant Estimation 2025.
- **Population Range:** Between 18,255 and 26,645, with an average of 22,446.



Figure 60: Elephant stats

Indian Elephant (*Elephas maximus indicus*)

- **Conservation Status:**
 - IUCN Red List: *Endangered*
 - Wildlife Protection Act, 1972: *Schedule I*
 - CITES: *Appendix I*
- **National Heritage Animal:** Declared in 2010

Reasons for Decline (Potential)

- **Habitat Loss & Fragmentation:** Due to development projects, agriculture, and human settlements.

- **Human–Elephant Conflict (HEC):** Crop raiding, property damage, and retaliatory killings.
- **Poaching:** For ivory; though reduced, remains a threat.
- **Linear Infrastructure:** Roads and railways cutting across elephant corridors.
- **Climate Change:** Affects water sources and food availability.
- **Disease:** Outbreaks reported in certain populations.
- **Improved Census Methodology:** DNA-based counts may offer more accurate estimates, correcting earlier overestimations.

Conservation Initiatives

- **Project Elephant (1992):** Centrally sponsored scheme to protect elephants, their habitats, and corridors.
- **Elephant Reserves:** Designated conservation areas for elephant populations.
- **MIKE Programme:** *Monitoring the Illegal Killing of Elephants* (under CITES).
- **Gaj Yatra:** Awareness campaign for elephant conservation.
- **Corridor Protection:** Identifying and securing elephant corridors for safe movement.

Conclusion

India's declining wild elephant numbers highlight the urgent need to strengthen habitat protection, reduce human–elephant conflict, and enhance scientific conservation efforts for long-term species survival.

Saranda Sanctuary

Context: The Supreme Court of India has reserved its verdict on the Jharkhand government's plea to reduce the proposed Saranda Wildlife Sanctuary area from 310 sq. km to 250 sq. km, citing the need to protect tribal habitation and community rights.



Figure 61: Saranda Forest, Jharkhand

About Saranda Wildlife Sanctuary: What Is It?

The Saranda Sanctuary is a proposed wildlife sanctuary in West Singhbhum district of Jharkhand, located within the Saranda Forest Division.

Location:

- Situated in southern Jharkhand, the Saranda region — meaning “land of seven hundred hills” — covers about 856 sq km, of which 816 sq km is reserved forest.
- It is also known as one of **Asia's largest Sal (*Shorea robusta*) forests**.

- It lies within the **Singhbhum Elephant Reserve**, forming a vital ecological corridor and biodiversity hotspot between Jharkhand, Odisha, and Chhattisgarh.

History:

- Declared a game reserve in 1968 under the Bihar Forest Act.
- The **National Green Tribunal** (2022) directed Jharkhand to notify it as a sanctuary under the Wildlife Protection Act, 1972.

Key Features:

- Flora:** Dense cover of Sal, Kusum, Mahua, and rare orchids.
- Fauna:** Habitat for Asian elephants, four-horned antelope, sloth bears, flying lizards, and migratory birds.
- Communities:** Home to Ho, Munda, Oraon, and PVTGs, reliant on forest produce like mahua and resin.
- Mineral Wealth:** Contains nearly 26% of India's iron ore reserves, making it a major mining zone for SAIL and private operators.

Significance:

- Ecological Hotspot:** Forms a vital carbon sink and biodiversity reserve in eastern India.
- Elephant Corridors:** Maintains wildlife connectivity between Saranda, Similipal, and Sundargarh forests.

Conclusion

Kolhan Forest Division represents a critical ecological and tribal heritage zone whose protection is essential to balance biodiversity conservation with the pressures of mining and development.

Cloud Seeding

Context: For the first time in over five decades, the Delhi government, in collaboration with IIT-Kanpur, has conducted a cloud seeding trial to induce artificial rain and combat the city's severe air pollution.

- The experiment involved a Cessna 206H aircraft dispersing flares loaded with seeding material over north and east Delhi.

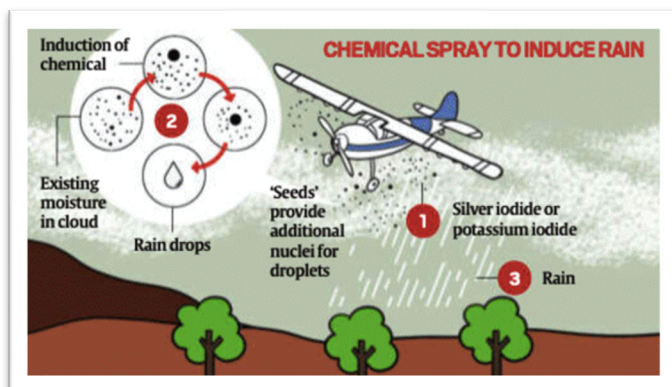


Figure 62: Cloud Seeding

About Cloud Seeding in Delhi:

What is Cloud Seeding?

- A weather-modification technique that induces artificial rainfall by dispersing chemicals into clouds.
- Being tested in Delhi to reduce air pollution by settling dust and particulate matter.
- Jointly carried out by the Delhi Government and IIT Kanpur.

Chemicals Used

- Silver iodide (AgI)
 - Potassium iodide (KI)
 - Sodium chloride (NaCl)
- These act as condensation or ice nuclei to help form raindrops.

How It Works

- Identifying suitable clouds:** Meteorologists use radar/satellite data to find clouds with enough moisture.
- Aircraft deployment:** A Cessna 206H or similar aircraft releases flares containing seeding chemicals.
- Seeding:** Each flare (2–2.5 kg) disperses fine particles into the cloud base or interior.
- Nucleation & growth:** Water vapour condenses on salt/iodide particles, forming droplets or ice crystals.
- Coalescence:** Droplets merge, grow heavier, and eventually fall as rain.
- Pollution washout:** Rain helps settle PM2.5, PM10, dust, and other pollutants.

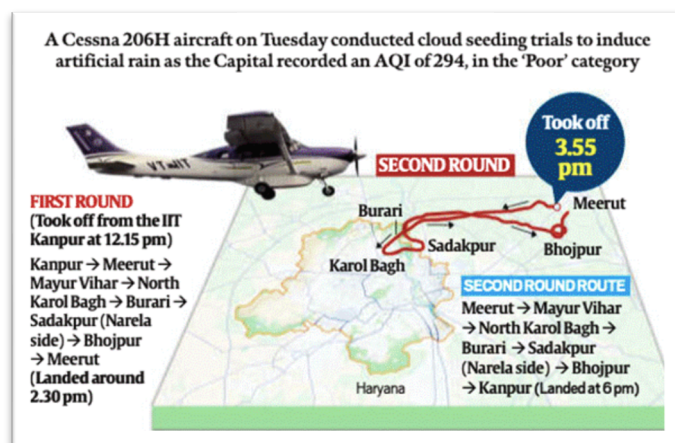


Figure 63: Cloud Seeding in Delhi

Delhi Case Example

- Eight flares were fired into clouds over Burari, Karol Bagh, and Mayur Vihar.
- Moisture levels (15–20%) were too low, so results were not fully successful.

Limitations

- Weather dependent:** Needs adequate cloud moisture, often lacking in Delhi winters.

- **Temporary relief:** Rainfall reduces pollution only for a short period.
- **Environmental concerns:** Silver iodide residues may affect soil and water ecosystems.

Conclusion

Cloud seeding can offer temporary improvement in air quality, but it is not a standalone solution for pollution control. Sustainable emission reduction, cleaner fuels, and long-term environmental planning remain essential for lasting air quality improvement.

Nauradehi, MP: Cheetah

Context: The Madhya Pradesh government has announced plans to designate the Nauradehi Wildlife Sanctuary as the state's third cheetah reintroduction site, following Kuno National Park and Gandhi Sagar Sanctuary. This initiative aims to expand habitat options and strengthen the cheetah population in India.

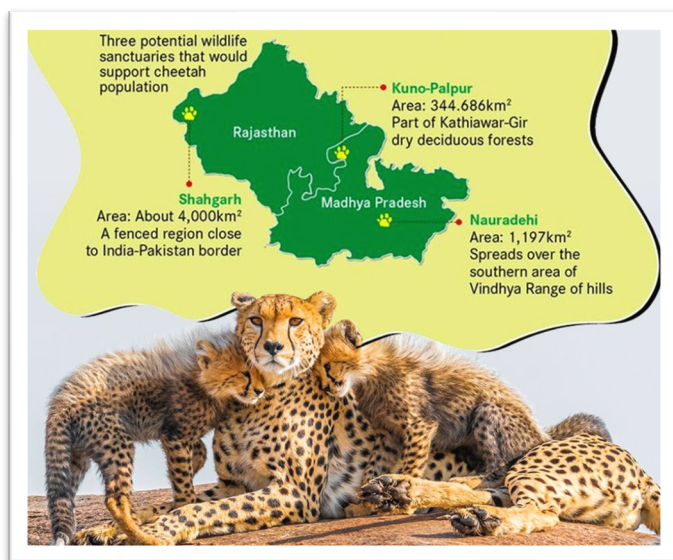


Figure 64: Home for Cheetah in India

Geographical Setting

- Nauradehi Wildlife Sanctuary covers ~1,197 sq. km, making it one of India's largest protected areas.
- Located across Sagar, Damoh, and Narsinghpur districts of Madhya Pradesh in the upper Vindhyan range.
- Lies between the **Yamuna and Narmada basins**, with rivers like **Bamner, Kopra, and Bearma** flowing through it.

Ecological Characteristics

- Features mixed deciduous forests, Vindhyan sandstone, and diverse soils (red, black, alluvial).
- Elevation ranges 400–600 m; receives ~1,200 mm annual rainfall.
- Rich grasslands, shrubs, bamboo—ideal for herbivores and suitable cheetah habitat.

- Home to 250+ animal species (tigers, leopards, wild dogs, blackbuck, chinkara, sloth bear) and 170+ bird species (storks, vultures, pheasants).

Cheetah Reintroduction Efforts

- **Asiatic cheetah** went extinct in India in 1952 due to hunting and habitat loss.
- **Project Cheetah** aims to reintroduce cheetahs to restore lost ecological roles.
- **African cheetahs** brought from Namibia released in Kuno NP (2022) and Gandhi Sagar Sanctuary (2024); Nauradehi proposed as a future site.

Key Facts

Fastest land animal (up to 112 km/h) due to its lightweight body and powerful limbs.

Subspecies:

- African cheetah (*A.j. jubatus*) – introduced to India.
- Asiatic cheetah (*A.j. venaticus*) – critically endangered, survives only in Iran (~12 left).
- India was the first country to lose a large carnivore after Independence.

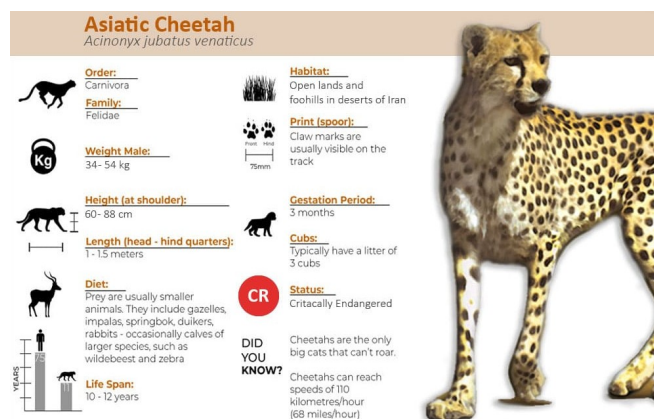


Figure 65: Asiatic Cheetah Facts

Project Cheetah (2022) – Highlights

- Aim: Re-establish cheetahs in India's grassland ecosystems.
- Agencies: National Tiger Conservation Authority (NTCA), MP Forest Dept., and international partners.
- Sites: Kuno NP (active), Gandhi Sagar (expanding), Nauradehi (proposed).

Ecological Importance

- Acts as an indicator species for grassland and savanna health.
- Helps maintain trophic balance by regulating prey populations.
- Boosts biodiversity in dry and semi-arid ecosystems.

Conclusion

Nauradehi Wildlife Sanctuary's vast landscape, rich biodiversity, and grassland-forest mosaic make it a strong candidate for future cheetah introduction. Its ecological setting aligns well with Project Cheetah's goal of restoring a key predator and strengthening India's grassland conservation efforts.

Severe Ecological Decline: Loktak Lake

Context: A Nagaland University study has warned of severe ecological degradation in Manipur's Loktak Lake, citing land-use changes, agricultural runoff, and shifting cultivation.

About Loktak Lake:

- Loktak Lake is the **largest freshwater lake** in South Asia and a **Ramsar Site**, celebrated for its **floating islands (phumdis)** and as home to the world's only floating national park — **Keibul Lamjao National Park**.
- Located in: Situated in Moirang, Bishnupur District of Manipur, about 48 km from Imphal, the lake spans nearly 250 km², expanding to 500 km² during the monsoon.

Formation:

- It is a natural floodplain lake formed by the **confluence of several rivers** — Khuga, Nambul, Imphal, Thoubal, and others — whose sediments and organic matter created the floating vegetation masses known as phumdis.



Figure 66: Phumdis in Loktak Lake

Features:

- Unique Phumdis:** Floating mats of vegetation and soil that support human settlements (**phumsangs**) and wildlife.
- Biodiversity Hotspot:** Habitat for 428 animal and 132 plant species, including the endangered **Sangai deer** (brow-antlered deer) — Manipur's state animal.
- Cultural Heritage:** Every 15th October, Loktak Day celebrates the lake's ecological and cultural significance.
- Tourism & Livelihoods:** Supports fishing, hydropower, irrigation, and tourism through Sendra and Takmu Water Sports Complex.

Loktak Lake's growing ecological stress highlights the need for urgent conservation measures to protect its unique phumdis, biodiversity, and vital role in Manipur's cultural and economic life.

Sawalkote Hydel Project

Context: The environmental clearance for the Sawalkote hydroelectric project on the **Chenab River**, linking it to India's post-suspension stance on the **Indus Waters Treaty (IWT)**.

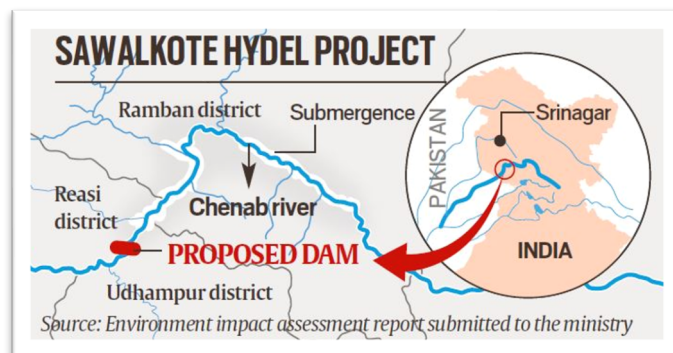


Figure 67: Sawalkote Hydel Project

- Location:** Chenab River, Ramban, Jammu and Kashmir.
- Basic Facts of R. Chenab**
 - Origin:** From the Baralacha La Pass in the Lahaul-Spiti district of Himachal Pradesh.
 - Formed by confluence of:** Chandra River and Bhaga River at Tandi (near Keylong).
 - Length:** ~960 km (505 km in Pakistan).
 - Drainage Basin:** Jammu & Kashmir, Himachal Pradesh, and Pakistan's Punjab.
 - Tributaries:**
 - Right bank:** Jhelum (below Trimmu Head works in Pakistan)
 - Left bank:** Ravi joins Chenab in Pakistan Punjab (near Ahmadpur Sial).
 - Confluence:** With Sutlej near Uch Sharif, forming the Panjnad, which later joins the Indus.

Physical Geography

- Flows through **the Pir Panjal Range** (deep gorges, steep gradients).
- Important valleys:** Chenab Valley in Jammu region (Doda, Kishtwar, Ramban).
- Known for high hydroelectric potential due to steep fall and large discharge.

Major Hydropower Projects (India)

Project	State/UT	Installed Capacity	Remarks

Baglihar Dam	J&K	900 MW	Run-of-river project; source of India-Pakistan dispute (2005–07).
Salal Dam	J&K	690 MW	First major hydro project on Chenab.
Dul Hasti Project	J&K	390 MW	Near Kishtwar.
Ratle Project	J&K	850 MW	Under construction; joint venture (JKSPDC & NHPC).
Pakaldul Project	J&K	1000 MW	On Marusudar, a tributary of Chenab.

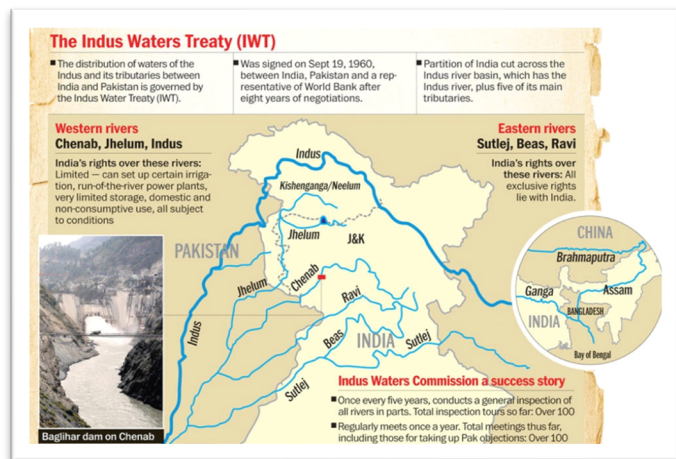


Figure 68: Indus Waters Treaty (IWT)

Indus Waters Treaty (1960)

- Chenab is one of the **“Western Rivers”** (along with Indus and Jhelum) allocated to Pakistan for unrestricted use.
- India's rights:** Non-consumptive uses such as hydropower (run-of-river), navigation, and irrigation up to 700,000 acres ft permitted under treaty provisions.

Conclusion

The Sawalkote project underscores how strategic hydropower development on the Chenab is increasingly shaped by India's evolving post-IWT stance, balancing energy needs with geopolitical considerations.

South China Sea: China–Philippines

Context: China and the Philippines Trade Blame Over Boat Collision in Disputed Sea

Incident

- Philippines accused a Chinese Coast Guard vessel of *deliberately ramming* one of its government vessels (BRP Datu Pagbuaya) in the disputed South China Sea.
- The Chinese vessel allegedly fired water cannon at the Philippine boat.
- China blamed the Philippines, claiming its vessel *“dangerously approached”* the Chinese ship near Sandy Cay.

South China Sea Dispute

- A complex territorial dispute involving China, Vietnam, the Philippines, Malaysia, Brunei, and Taiwan over islands, reefs, and maritime zones.
- The South China Sea covers 3.5 million sq. km, and trade worth over \$5 trillion annually passes through it.
- Rich in oil, gas, and fisheries, making it an area of strategic and economic significance.



Figure 69: Nine dash line in the South China Sea

Key Terms & Legal Framework

- Freedom of Navigation Operations (FONOPs):** Operations conducted by navies (notably the US Navy) to challenge excessive maritime claims and uphold international maritime law.
- UNCLOS (United Nations Convention on the Law of the Sea, 1982):** Defines rights and responsibilities of nations regarding use of oceans, Exclusive Economic Zones (EEZs), and maritime boundaries.
- Nine-Dash Line:** China's demarcation line used to claim historical rights over most of the South China Sea—not recognized under international law.

Conclusion

The South China Sea dispute remains a major flashpoint where competing claims, strategic interests, and legal disagreements fuel ongoing tensions despite clear international norms.

SCIENCE & TECHNOLOGY

10 years of AstroSat

Context: Article celebrates the 10th anniversary of AstroSat, India's first dedicated space astronomy observatory, highlighting its continued operations and scientific contributions.

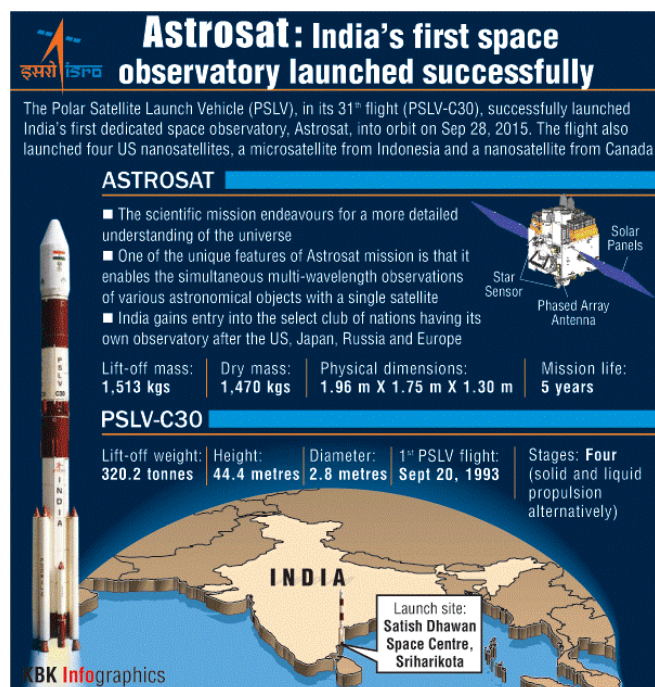


Figure 70: AstroSat

What is AstroSat: India's first dedicated space astronomy observatory.

- Launch Date & Vehicle:** September 28, 2015, by PSLV-C30 (XL) rocket from Satish Dhawan Space Centre.
- Mission Life:** Designed for 5 years, but has completed a decade and continues to provide valuable data.
- Capabilities:** Multi-wavelength space observatory — observes the universe simultaneously in visible, ultraviolet, low and high energy X-ray regions of the electromagnetic spectrum.

Key Payloads:

- Ultraviolet Imaging Telescope (UVIT)
- Large Area X-ray Proportional Counter (LAXPC)
- Cadmium-Zinc-Telluride Imager (CZTI)
- Soft X-ray Telescope (SXT)
- Scanning Sky Monitor (SSM)

Major Discoveries / Contributions: Groundbreaking insights from black holes to neutron stars, nearest star Proxima

Centauri, and first-time detection of FUV photons from galaxies 9.3 billion light-years away.

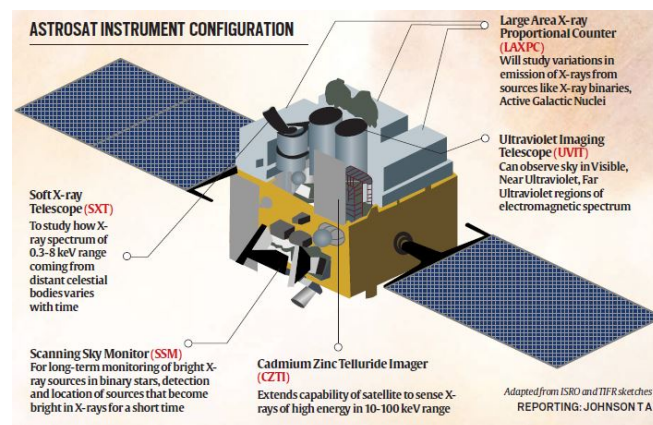


Figure 71: AstroSat Payloads

Collaborative Effort: Realized by ISRO with participation from major Indian astronomy institutions:

- IUCAA (Inter-University Centre for Astronomy and Astrophysics)
- TIFR (Tata Institute of Fundamental Research)
- IIA (Indian Institute of Astrophysics)
- RRRI (Raman Research Institute) and two international institutions (Canada and U.K.)

Conclusion

Both the maize defence findings and AstroSat's decade-long success highlight how scientific innovation—on Earth and in space—can drive sustainable solutions and deepen our understanding of complex natural systems.

Lunar Gravitational-Wave Observatory

Context: Scientists are planning to place a gravitational-wave detector on the Moon (LILA) to detect faint signals in frequency ranges inaccessible to Earth-based observatories, opening a new window to the universe.

Gravitational Waves

- Definition:** Ripples in spacetime caused by accelerating massive objects (e.g., merging black holes, colliding neutron stars).
- Prediction:** Predicted by Albert Einstein's General Theory of Relativity (1916).
- Detection:** First detected in 2015 by LIGO from colliding black holes.
- Significance:** Opens a new window to observe the universe beyond electromagnetic waves, allowing study of phenomena like black holes and the early universe.

Gravitational Wave Detectors

- Interferometers:** Instruments using laser light to detect minute changes in distance caused by gravitational waves.

1. Terrestrial Detectors:

- **LIGO (Laser Interferometer Gravitational-wave Observatory):** Two L-shaped detectors in the US. Sensitive to 100–1,000 Hz band.
- **Others:** GEO600 (Germany), Virgo (Italy), KAGRA (Japan).
- **Limitation:** Earth's seismic noise limits sensitivity and detection range (up to 7 billion light-years).

2. Space-based Detectors:

- **LISA (Laser Interferometer Space Antenna):** Scheduled for 2030s. Three satellites in triangular formation. Sensitive to 0.1 mHz–0.1 Hz range.

3. Lunar Gravitational Wave Detectors (LILA)

- **Concept:** Placing a gravitational-wave detector on the Moon's surface.
- **Project:** Laser Interferometer Lunar Antenna (LILA) by Vanderbilt Lunar Labs.

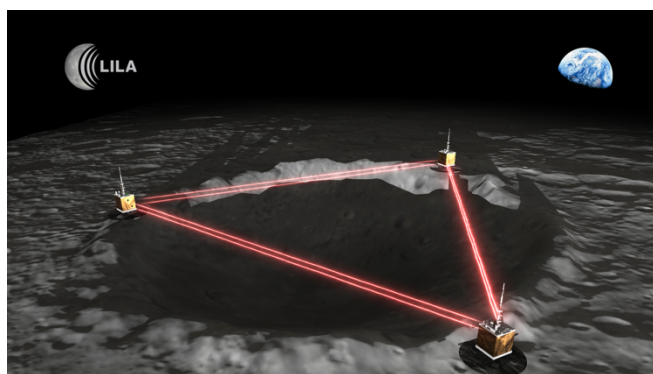


Figure 72: Lunar Gravitational Wave Detectors (LILA)

Advantages of the Moon:

- **Low Seismic Noise:** Far lower than on Earth, allowing detection of fainter signals.
- **Natural Vacuum:** Reduces infrastructure requirements.
- **Unique Frequency Range:** Can study sub-hertz frequencies (decihertz range) inaccessible to terrestrial detectors.

Phases:

- LILA Pioneer (current lunar landers)
- LILA Horizon (requires astronauts)

Earth–Moon System: The system itself could act as a natural detector, with gravitational waves causing tiny orbital deviations.

Conclusion

A lunar detector could revolutionize astronomy by capturing ultra-faint gravitational waves beyond Earth's capabilities.

JWST: Dark-Star

Context: James Webb Space Telescope (JWST) data shows four candidates for "dark stars" — the potential earliest luminous objects in the universe.

Dark Stars (Hypothesis)

- Stars powered not by nuclear fusion (like conventional stars) but by the **annihilation of dark matter particles**.
- Hypothesized to be much larger and brighter than modern stars.
- Composed primarily of hydrogen and helium, but with a significant dark matter core.

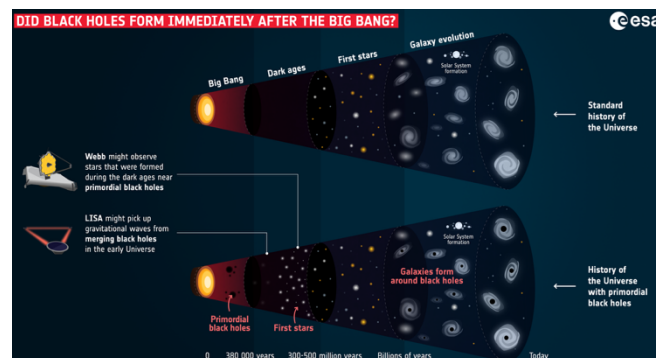


Figure 73: Timeline after the Big Bang

Significance

- Could explain unusually bright objects observed in the early universe.
- Could shed light on the formation of the first supermassive black holes.

Key Concepts

- **Dark Matter:** A hypothetical form of matter that is thought to account for approximately 27% of the mass-energy in the observable universe. It does not emit, absorb, or reflect light, making it difficult to detect directly.
- **Nuclear Fusion:** The process by which two or more atomic nuclei collide at a very high speed and join to form a new type of atomic nucleus. This process releases immense energy and powers conventional stars.
- **James Webb Space Telescope (JWST):** A space telescope developed by NASA, ESA, and CSA, launched in 2021. It is designed to conduct infrared astronomy, observing the most distant objects in the universe, such as the first galaxies.

Conclusion

Polar geoengineering may offer short-term cooling benefits, but its risks, uncertainties, and ecological side effects make emission reduction and sustainable climate action the only truly safe and lasting solution.

Chandrayaan-2: Lunar Exosphere

Context: ISRO's Chandrayaan-2 makes first ever observations on Lunar Exosphere

Mission

- **Name:** Chandrayaan-2 (India's second moon mission)
- **Launch Date:** July 22, 2019

Payload

- **Chandra's Atmospheric Composition Explorer-2 (CHACE-2)** onboard the orbiter.

Key Observation

- First-ever direct observation of the effects of the Sun's Coronal Mass Ejection (CME) on the Moon's dayside exosphere.

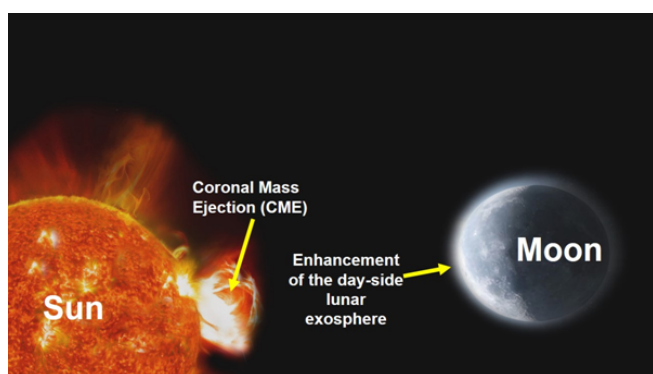


Figure 74: Effects of the Sun's Coronal Mass Ejection (CME) on Lunar exosphere

Findings

- Significant **increase in total pressure** of the Moon's dayside lunar exosphere during CME impact.
- **Total number density** (neutral atoms/molecules) **increased** by over an order of magnitude.
- Observations matched theoretical models, but CHACE-2 provided the **first direct evidence**.

Mechanism

- Increased solar coronal mass from CME knocked off atoms from the lunar surface, releasing them into the exosphere.
- This caused pressure enhancement in the dayside lunar atmosphere.

Significance

- Provides scientific **insights into the lunar exosphere** and **space weather** effects on the Moon.
- Helps understand challenges of building permanent lunar bases, as such solar events can impact lunar infrastructure.
- Advances knowledge about solar-lunar interactions and the Moon's surface environment.

Context of CMEs

- On **10 May 2024**, a series of solar CMEs impacted the Moon, and the Chandrayaan-2 orbiter (via CHACE-2 instrument) detected a major increase (over an order of magnitude) in the dayside lunar exosphere's pressure/density.
- Chandrayaan-2 (via instrument CHACE-2) observed the impact of a solar Coronal Mass Ejection (CME) on the lunar exosphere.

Chandrayaan-2 Status

- **Orbiter:** Continues to function successfully.
- **Vikram Lander:** Lost communication during the soft-landing attempt in 2019.

Conclusion

CHACE-2's findings offer the first direct evidence of how powerful solar events reshape the Moon's exosphere, deepening scientific understanding of lunar environments and future habitation challenges.

PERSONALITY IN NEWS

Biographies of Three Indian Trailblazers Released

Context: Three biographies examine the life of Mokshagundam Visvesvaraya, Muthulakshmi Reddy, and Prasanta Chandra Mahalanobis — trailblazers born in colonial India in the 19th century, who have gone on to make foundational contributions to independent India in the 20th century.

M. Visvesvaraya (1861–1962)



Figure 75: Sir Mokshagundam Visvesvaraya

Contributions & Significance

- **Civil Engineer & Administrator:** 19th Dewan of Mysore (1912–1918).
- **Industrial Modernity:** Advocated for Indian self-reliance, against colonial skepticism.
- **Key Achievements:**
 - Scientific water management (irrigation, drinking water).
 - Flood protection, drainage systems.
 - Expansion of scientific research & technical education.
 - Establishment of colleges, industries, railway lines.
 - Economic planning and development.
- **Philosophy:** Improve quality of daily lives; people shape the nation's destiny.
- **Legacy:** High standards of integrity, excellence, and self-reliance.

Muthulakshmi Reddy (1886–1968)



Figure 76: Muthulakshmi Reddy

Contributions & Significance

- **Pioneering Woman:** First girl student in a boys' school, first Indian woman surgeon from Madras Medical College.
- **First Woman Legislator:** In Madras.
- **Social Reformer:**
 - Fought for abolition of the Devadasi system.
 - Founded Awwai Women's Shelter.
 - Established Adyar Cancer Hospital (stipulated equal treatment for poor/affluent).
- **Legacy:** Tamil Nadu's progressive maternity benefit scheme named after her. Symbol of achieving "impossible dreams."

P. C. Mahalanobis (1893–1972)



Figure 77: Prasanta Chandra Mahalanobis

Contributions & Significance

- **Statistician & Planner:** Fascinated with statistics for economic development.
- **Institutional Builder:**
 - Founded Indian Statistical Institute (ISI) in 1932.
 - Founded National Sample Survey (NSS) in 1950.
- **Economic Planning:** Influenced India's growth measurement and economic development.
- **Second Five-Year Plan:** Laid foundation for heavy industry development (Mahalanobis Model).
- **NSS Surveys:** Gathered granular data on consumption, expenditure, employment, and poverty across India.
- **Philosophy:** "Statistics must have a purpose... Poverty is the most basic problem — statistics must help in solving this problem."
- **Legacy:** Pioneered data gathering for national planning; model for other countries.

Together, these three pioneers shaped India's modern foundations through engineering, social reform, and data-driven economic planning.

Sardar Patel: 150th Birth Anniversary

Context: The Ministry of Culture is marking Rashtriya Ekta Diwas (31 October 2025) with nationwide cultural performances to celebrate the 150th birth anniversary of

Sardar Vallabhbhai Patel, with the Prime Minister of India as the Chief Guest.

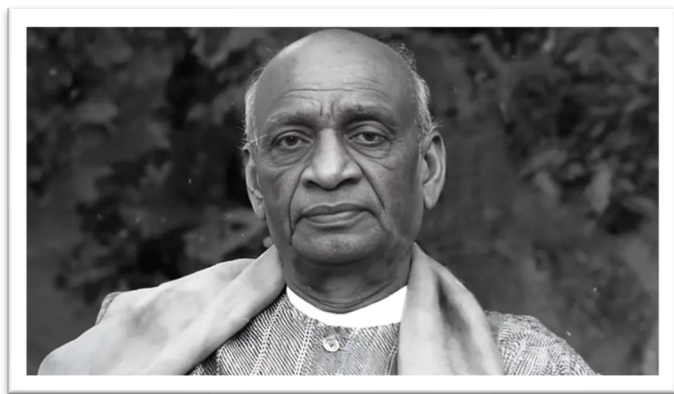


Figure 78: Sardar Vallabhbhai Patel

Early Life and Background

- **Born:** 31 October 1875, *Nadiad*, Gujarat.
- Patel began his career as a barrister, gaining fame for his legal acumen before joining the national movement.
- His life took a decisive turn after associating with Mahatma Gandhi during the Kheda Satyagraha (1918), where he emerged as a defender of farmers' rights and an advocate of social justice.

Contribution to the Freedom Struggle

- **Bardoli Satyagraha (1928):** Patel's leadership during the peasant movement in Bardoli, Gujarat, earned him the honorific "Sardar" (leader).
- **President, Indian National Congress (1931):** Presided over the Karachi Session, which adopted resolutions on Fundamental Rights and Economic Policy—a landmark in India's constitutional evolution.
- **Political Leadership:** Worked closely with Gandhi, Nehru, and Rajendra Prasad, ensuring unity and strategic direction in the freedom movement.

Role in Post-Independence Nation-Building

- **First Deputy Prime Minister and Home Minister (1947–1950):** Patel was the chief architect of India's political integration, overseeing the merger of 565 princely states into the Indian Union through diplomacy backed by firmness.
- **Key Accessions Managed:**
 - **Hyderabad** – integrated through Operation Polo (1948).
 - **Junagadh, Travancore, and Kashmir** – resolved through negotiated accession.
- **Administrative Legacy:** Instituted the All-India Services, describing them as the "Steel Frame of India", to uphold unity and efficiency in administration.

Vision and Ideals

- Advocated for a strong, unified, and disciplined India rooted in administrative integrity.
- His vision inspired later milestones of territorial integration:
 - Goa's liberation (1961)
 - Sikkim's merger (1975)
 - Abrogation of Article 370 (2019)

Legacy and Memorials

- Revered as the "Iron Man of India" for his firmness and administrative prowess.
- As President of Ahmedabad Municipality (1924), led sanitation and civic reforms with ethical leadership.
- The Statue of Unity (2018)—world's tallest statue at 182 metres—honours his role as the nation's unifier.

Conclusion

Sardar Patel's unwavering leadership, administrative vision, and commitment to national unity laid the foundations of a strong, integrated India, making him one of the foremost architects of the modern Indian nation-state.

Pandit Chhannulal Mishra



Figure 79: Pandit Chhannulal Mishra

Passing: He passed away on October 2, 2025, at the age of 89 in Mirzapur, Uttar Pradesh.

Musical Expertise

- A legendary figure in **Hindustani classical music** and a doyen of the **Banaras Gharana**.
- He was a foremost exponent of **Khayal** and the **Purab Ang style** of **Thumri**, also mastering **Dadra**, **Chaiti**, and **Kajri**.
- His performances were known for blending classical rigor with folk vitality and spiritual devotion.

Awards and Honors

- He was a recipient of prestigious Indian civilian awards, including the **Padma Bhushan** in 2010 and the **Padma Vibhushan** in 2020.
- He also received the **Sangeet Natak Akademi Award** in 2000.

Early Life and Training

- Born in Azamgarh, Uttar Pradesh, he received his initial music training from his father, **Pandit Badri Prasad Mishra**.
- He further honed his skills under **Ustad Abdul Ghani Khan** of the **Kirana Gharana** and musicologist **Thakur Jaidev Singh**.

Cultural Significance

- Pandit Chhannulal Mishra was considered a cultural symbol who, alongside Ustad Bismillah Khan, represented the **Ganga-Jamuni tehzeeb**, embodying the harmony of Hindu-Muslim artistic traditions.
- He also contributed to Bollywood music, with his bhajan for the movie *"Aarakshan"* gaining popularity.

Raila Odinga



Figure 80: Raila Odinga

Passing: He passed away on October 15, 2025, in **Kerala**, India, reportedly due to cardiac arrest.

Political Career

- He served as the **Prime Minister of Kenya** from 2008 to 2013.
- He is the son of **Jaramogi Oginga Odinga**, the first vice president of independent Kenya.
- Odinga has had a long and multifaceted political career, including serving as a **Member of Parliament** (MP) for Langata Constituency from 1992 to 2013.
- He has been a presidential candidate multiple times, often alleging electoral fraud in his unsuccessful bids.
- He was also the leader of the **Azimio la Umoja–One Kenya Coalition Party**.

Opposition and Reform

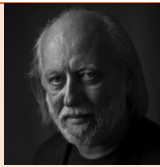
- Odinga was a key figure in Kenya's struggle for multi-party democracy and was imprisoned for six years in the 1980s for alleged plotting against President Daniel arap Moi.
- He has been a persistent opponent of corruption in Kenya.

International Engagements

- Odinga has been involved in mediating political crises, notably being appointed by the **African Union** to lead efforts in **resolving the political crisis in Ivory Coast** in December 2010.

NOBEL PRIZE LAUREATES 2025

Winners

Category	Laureate(s)	Country	Contribution	Key Concepts / Significance
Physiology /Medicine	1 Shimon Sakaguchi 2 Mary E. Brunkow 3 Fred Ramsdell	Japan USA	Discovery of Peripheral Immune Tolerance preventing immune self-attack	- Identified Regulatory T-Cells (Tregs) and Foxp3 gene controlling immune regulation; - Foundation for treatments of autoimmune diseases, cancer immunotherapy, organ transplant rejection
Physics	1 John Clarke 2 Michel H. Devoret 3 John M. Martinis	UK France USA	Discovery of Macroscopic Quantum Tunnelling & Energy Quantization in electric circuits	- Proved quantum behaviour in large-scale systems; - Enabled Josephson Junction-based Qubits; - Applications in quantum computing, cryptography, sensing
Chemistry	1 Susumu Kitagawa 2 Richard Robson 3 Omar M. Yaghi	Japan, Australia USA	Development of Metal-Organic Frameworks (MOFs)	Ultra-porous materials used for CO ₂ capture, water harvesting, gas storage, pollution removal, drug delivery, battery materials
Economic Sciences	1 Joel Mokyr 2 Philippe Aghion 3 Peter Howitt	USA France Canada	Explained innovation-driven economic growth	- Mokyr: Industrial Enlightenment; - Aghion & Howitt: Creative Destruction model explaining replacement of old tech by new innovations
Literature	 <i>Figure 81: László Krasznahorkai</i>	Hungary	Visionary literary work reaffirming art amidst apocalyptic themes	- Known for distinct long sentences that can span dozens of pages. - Acclaimed works include: <i>Satantango</i> (1985) <i>The Melancholy of Resistance</i> (1989) - His introspective body of work emphasizes art's enduring humanistic power amidst apocalyptic themes.
Peace	 <i>Figure 82: María Corina Machado</i>	Venezuela	Advocacy for peaceful democratic transition	Advocacy: Honored for promoting democratic rights and advocating a peaceful transition from dictatorship to democracy in Venezuela. Political Role: As the leader of the Vente Venezuela party, she has mobilized civic movements demanding judicial independence, electoral transparency, and human rights protection.

Nobel Prize: Physiology/Medicine 2025

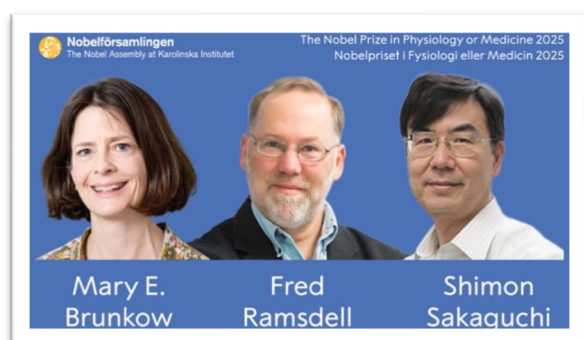


Figure 83: 2025 Nobel Prize Winners in Physiology/Medicine

Contribution: **Peripheral immune tolerance** that prevents the immune system from harming the body.

Key Concepts & Discoveries

1. Understanding Immune Tolerance

Immune tolerance refers to the ability of the immune system to **recognise and avoid attacking the body's own cells**.

There are two layers of this process:

Central Tolerance, which occurs in:

- Thymus (for T-cells)
- Bone marrow (for B-cells)

Here, strongly self-reactive immune cells are destroyed before entering circulation.

Peripheral Tolerance acts as a secondary safeguard in peripheral organs such as:

- Lymph nodes
- Spleen
- Other tissues

Even if harmful immune cells escape central screening, peripheral tolerance ensures they do not damage the body.

2. Regulatory T-Cells (Tregs)

Discovered by **Shimon Sakaguchi**, Tregs are special immune cells that:

- Suppress self-reactive T-cells
- Prevent autoimmune reactions
- Maintain immune balance

They act as “immune policemen” ensuring that the body does not attack its own organs.

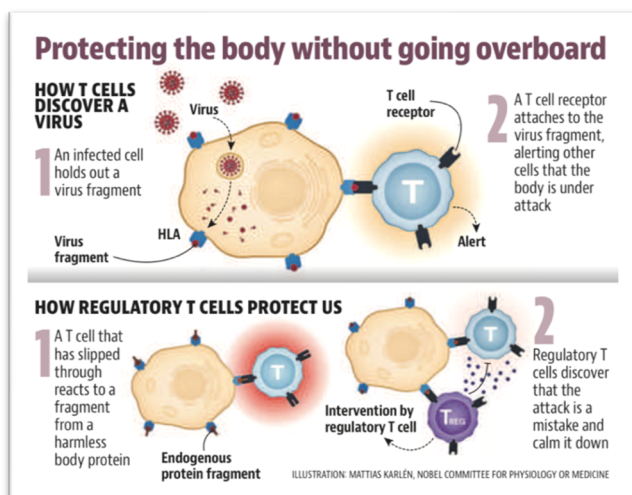


Figure 84: T-Cell working

3. Foxp3 Gene

Identified by Brunkow & Ramsdell, the **Foxp3 gene** is responsible for:

- Development and functioning of Regulatory T-cells
- Maintaining immune tolerance

Mutation or malfunction of Foxp3 results in:

- Uncontrolled immune activation
- Autoimmune diseases
- Tissue inflammation and organ damage

4. Significance in Medicine

This discovery has transformed understanding of:

- Autoimmune diseases (e.g., rheumatoid arthritis, lupus)
- Organ transplant rejection
- Cancer immunotherapy
- Inflammatory disorders

Nobel Prize: Physics 2025



Figure 85: 2025 Nobel Prize Winners in Physics

Contribution: For the discovery of **macroscopic quantum mechanical tunnelling** and **energy quantization** in an electric circuit.

1. Quantum Tunnelling

Quantum mechanics allows particles to pass through energy barriers even when they lack sufficient classical energy.

This defies classical physics, where a particle must possess energy greater than the barrier to cross it.

This phenomenon arises due to:

- Wave-particle duality
- Probabilistic nature of quantum mechanics

2. Macroscopic Quantum Tunnelling (MQT)

MQT shows that this quantum property can occur in **large-scale physical systems**, not just subatomic particles.

Importance:

- It bridges the gap between classical physics and quantum physics.
- Demonstrates that quantum behaviour can influence visible systems.

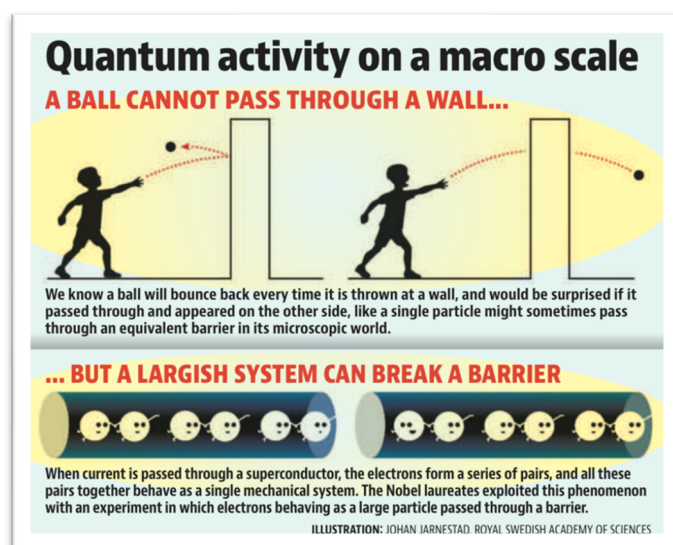


Figure 86: Quantum activity on a macro scale

3. Josephson Junction

A Josephson Junction consists of:

- Two superconductors
- Separated by a thin insulating barrier

It allows:

- Cooper pairs (paired electrons) to tunnel through barrier
- Supercurrent to flow without voltage

This principle is fundamental to:

- Quantum computers
- Qubits
- Superconducting circuits

4. Applications of These Principles

- Quantum Computing → ultra-fast processing
- Quantum Cryptography → secure communication
- Quantum Sensors → precise measurement systems

Nobel Prize: Chemistry 2025

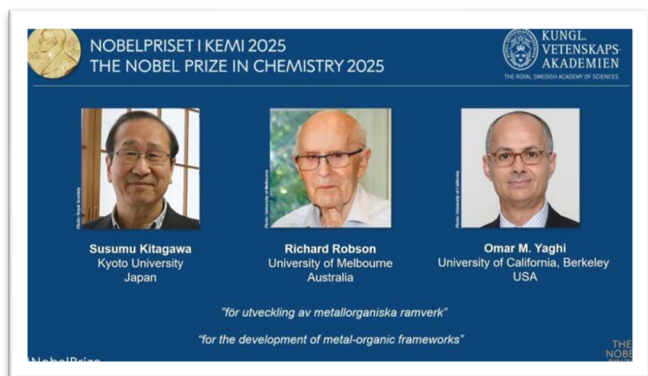


Figure 87: 2025 Nobel Prize Winners in Chemistry

Contribution: For their groundbreaking development of **metal-organic frameworks (MOFs)**.

1. What are MOFs?

MOFs are porous crystalline materials made of:

- Metal ions or clusters (called nodes)
- Organic linkers (carbon-based molecules)

These components self-assemble to create a rigid, highly porous lattice.

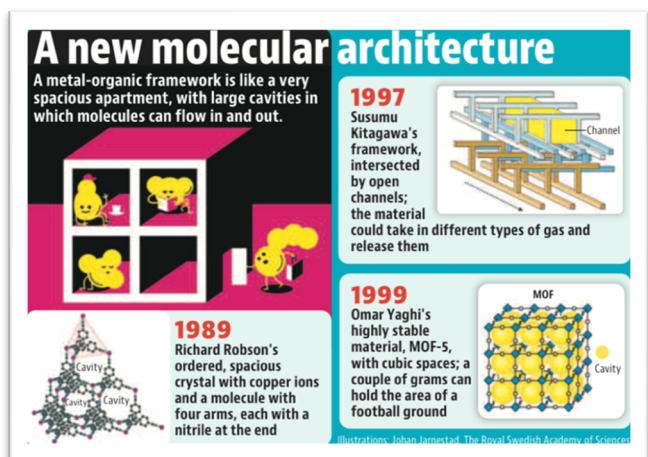


Figure 88: New Molecular architecture

2. Unique Features of MOFs

- Extremely high surface area
- Highly tuneable pore structure
- Lightweight but strong
- Chemically selective adsorption

Some MOFs have surface areas higher than:

- Football fields per gram of material

3. Functional Capabilities

MOFs can be tailored to:

- Trap specific molecules
- Store gases
- Conduct electricity
- Separate chemical compounds

4. Core Applications

Application Area	Description
Carbon Capture & Sequestration	Trapping CO ₂ from industrial emissions or ambient air to mitigate climate change.
Water Harvesting/Extraction	Pulling water vapor from the air in arid regions to provide potable water.
Gas Storage & Separation	Storing hydrogen/methane, or separating gas mixtures (e.g., removing impurities).
Purification/Removal of Pollutants	Removing "forever chemicals" (PFAS), pharmaceutical traces, or toxic gases from water/air.
Catalysis/Chemical Conversion	Providing confined reaction spaces or active sites for useful chemical transformations.
Energy & Battery Materials	Explored for components in batteries, supercapacitors, or hydrogen economy systems.
Drug Delivery/Biomedical Uses	Encapsulating and delivering molecules to specific organs or cells due to tunability and porosity.

Nobel Prize: Economic Sciences 2025



Figure 89: 2025 Nobel Prize Winners in Economic Science

Contribution: "For having explained innovation-driven economic growth."

Joel Mokyr

Awarded for "identifying the prerequisites for sustained growth through technological progress."

- **Historical Foundations:** Highlighted how Europe's Scientific Revolution fostered sustained economic growth by combining technological progress with intellectual development.
- **Knowledge Fusion:** Explained that blending practical "prescriptive" knowledge (knowing how) with theoretical "propositional" knowledge (knowing why) created a self-sustaining innovation ecosystem.

- **Industrial Enlightenment:** Coined this term to describe a period where openness to new ideas and scientific curiosity fuelled cycles of innovation and productivity.

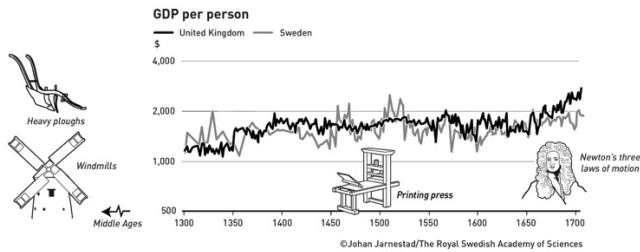


Figure 90: GDP growth per person

Philippe Aghion & Peter Howitt

Awarded for "the theory of sustained growth through creative destruction."

- **Model Development:** Created mathematical models based on Joseph Schumpeter's theory of "Creative Destruction."

- **Creative Destruction:** Their model shows how new technologies, firms, and ideas replace outdated ones, keeping economies competitive and productive.
- **Policy Implication:** Emphasized that strong competition, education, and research investment are crucial for sustaining innovation-driven growth.

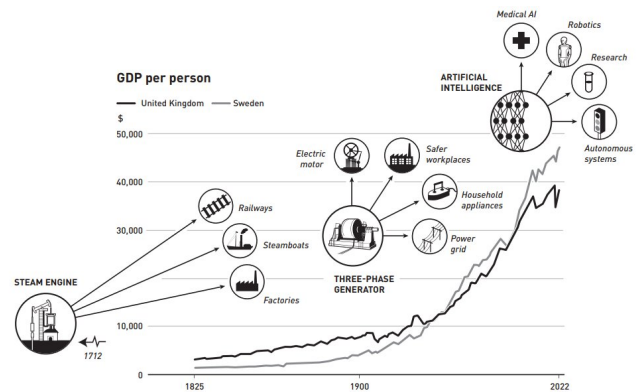


Figure 4. Over the past 200 years, annual growth has been around 1.5 per cent in Sweden and the United Kingdom. Technological innovations and scientific progress have built upon each other in an endless cycle. Data: Maddison Project Database 2023 with underlying sources from Broadberry et al. (2015), Krantz (2017), Schön and Krantz (2015).

Figure 91: GDP growth per person

SCHEMES & INITIATIVES

PM-KISAN (Pradhan Mantri Kisan Samman Nidhi)

Context: The scheme is in the news because the government recently released its **21st instalment**, benefiting over 8 crore farmers. This highlights its ongoing implementation and significant financial outlay, having crossed ₹3 lakh crore in disbursals.

Ministry	Objectives	Key Features & Components	Recent Updates
Ministry of Agriculture & Farmers Welfare	Provide income support to all landholding farmer families across the country.	- Direct Benefit Transfer (DBT) of ₹6,000/year. - Paid in three equal instalments of ₹2,000. - Eligibility: Landholding farmer families (with exclusion criteria).	21st instalment released. - Benefited over 8 crore farmers. - Total disbursals crossed ₹3 lakh crore since inception.

National Pulses Mission

Context: The Union Cabinet recently **approved a mission** to boost domestic pulses production. This initiative aims to reduce India's import dependence and stabilize prices, making it a key development in agricultural policy.

Ministry	Objectives	Key Features & Components	Recent Updates
Ministry of Agriculture & Farmers Welfare	Boost domestic pulses production to reduce import dependence and stabilize prices.	- Focus on improved seeds. - Promotes micro-irrigation. - Encourages cluster-based farming.	- Union Cabinet approved the mission. - Aims for self-sufficiency in pulses.

PM Surya Ghar Muft Bijli Yojana

Context: This scheme is a significant recent initiative, explained as a new rooftop solar program offering **up to 300 units of free electricity** per month. Its focus on subsidies, loans, and net-metering makes it a crucial development in renewable energy.

Ministry	Objectives	Key Features & Components	Recent Updates
Ministry of New and Renewable Energy (MNRE)	Promote rooftop solar installations in households, providing free electricity.	- Provides up to 300 units of free electricity per month. - Offers subsidies for rooftop solar panel installation. - Facilitates low-interest loans. - Includes net-metering benefits.	- Launched on February 15, 2024. - Target: 1 crore households by March 2027. - Total Outlay: ₹75,021 crore.

National Service Scheme (NSS)

Context: NSS is consistently relevant due to its ongoing role in engaging youth in **community development activities**. Its focus on inculcating civic responsibility makes it a perennial topic in social welfare and youth affairs.

Ministry	Objectives	Key Features & Components	Recent Updates
Ministry of Youth Affairs and Sports	Inculcate social welfare and civic responsibility among youth through community service.	- Engages students from colleges, universities, and +2 level. - Activities: Literacy drives, health camps, environmental conservation, disaster management. - Motto: "Not Me But You."	- Actively participates in initiatives like Swachh Bharat Abhiyan. - Conducts health and hygiene awareness programs.

UIDAI's SITAA Initiative

Context: UIDAI recently launched the **SITAA (Secure Identity Technologies for Aadhaar Authentication)** initiative to enhance the security of Aadhaar authentication. This focuses on advanced security protocols and AI-based anomaly detection, addressing contemporary challenges in digital identity.

Ministry	Objectives	Key Features & Components	Recent Updates
Unique Identification Authority of India (UIDAI) under MeitY	Strengthen India's digital identity ecosystem and combat emerging security threats like deepfakes and spoofing in Aadhaar authentication.	- Advanced security protocols. - AI-based anomaly detection. - User protection during authentication. - Focus on Face Liveness Detection, Presentation Attack Detection (PAD), Contactless Fingerprint Authentication.	- Launched on October 16, 2025. - Collaboration with startups, academia, and industry. - Strategic Partners: MeitY Startup Hub (MSH) and NASSCOM.

Govt Initiatives on Food & Nutritional Security

Context: These initiatives are continuously in focus due to ongoing efforts in **fortified rice distribution, POSHAN 2.0 integration, millet promotion, and targeted PDS reforms**. They represent the government's multi-pronged approach to combat hunger and malnutrition.

Ministry	Objectives	Key Features & Components	Recent Updates
Ministry of Consumer Affairs, Food & Public Distribution; Ministry of Women & Child Development; Ministry of Agriculture & Farmers Welfare	Address malnutrition and ensure access to adequate, safe, and nutritious food for all.	- Fortified rice distribution. - POSHAN 2.0 integration. - Millet promotion. - Targeted PDS reforms. - National Food Security Act (NFSA). - Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY). - PM POSHAN Scheme. - Antyodaya Anna Yojana (AAY).	- PMGKAY extended for an additional five years starting January 1, 2024. - Focus on a holistic approach to nutrition.

UDAN Scheme (Ude Desh ka Aam Naagrik)

Context: The UDAN scheme recently completed **nine years**, marking a significant milestone in regional aviation. Its success in connecting underserved airports and expanding air travel makes it a relevant topic for infrastructure and connectivity.

Ministry	Objectives	Key Features & Components	Recent Updates
Ministry of Civil Aviation	Enhance regional air connectivity and make air travel affordable for the common citizens.	- Connects underserved and unserved airports. - Capped airfares on regional routes. - Viability Gap Funding (VGF) for airlines. - UDAN 5.5 focuses on seaplanes and helicopters.	- Completed nine years on October 21, 2025. - Facilitated over 1.56 crore passengers through 3.23 lakh flights. - Operationalized 649 routes, connecting 93 airports. - Expanded framework to focus on aspirational districts and border areas.

PM SHRI Scheme (PM Schools for Rising India)

Context: The PM SHRI scheme is in the news because **Kerala recently joined it**, enabling the upgradation of selected schools in the state. This highlights the scheme's expanding reach and its focus on modernizing educational infrastructure.

Ministry	Objectives	Key Features & Components	Recent Updates
Ministry of Education	Upgrade existing schools into model institutions with modern infrastructure and experiential learning.	- Upgrades selected Central/State/Local Body schools. - Modern infrastructure: Digital classrooms, solar power. - Focus on holistic pedagogy and experiential learning. - Annual grant of ₹1 crore per school for five years.	- Kerala joined the scheme after initial resistance. - Kerala expects to secure ₹1,500 crore as Centre's share. - Two schools from each block to be selected.

PLACES IN NEWS

GS I + GS III : GEOGRAPHY & ENVIRONMENT

(Physical Geography, Biodiversity, Forests, Climate & Disaster Zones)

PLACE	COUNTRY / STATE	WHY IN NEWS	PRELIMS FACTS
Loktak Lake	Manipur, India	Ecological degradation	Largest freshwater lake in NE; Floating phumdis ; Keibul Lamjao NP (only floating NP); Sangai deer habitat; Ramsar Site
Nauradehi WLS	Madhya Pradesh	3rd cheetah site	Satpura landscape; Dry deciduous forests; wolf, leopard; cheetah relocation corridor
Saranda Forest	Jharkhand	SC case on mining	Asia's largest sal forest ; Iron ore-rich; Elephant corridor
Mindanao	Philippines	6.9 earthquake	Second-largest island in Philippines; Pacific Ring of Fire ; Highly seismic
Madagascar	Indian Ocean	Political change	4th largest island in the world; Endemism (lemurs) ; Biodiversity hotspot
Suriname	South America	Forest pledge	93% forested ; Protect 90%; Carbon-negative country ; Amazon basin
Cape of Good Hope	South Africa	Shipping reroute	Alternative to Suez Canal; Strategic global maritime chokepoint

GS II : INTERNATIONAL RELATIONS & SECURITY

(Geopolitics, Strategic Affairs, Multilateral Institutions)

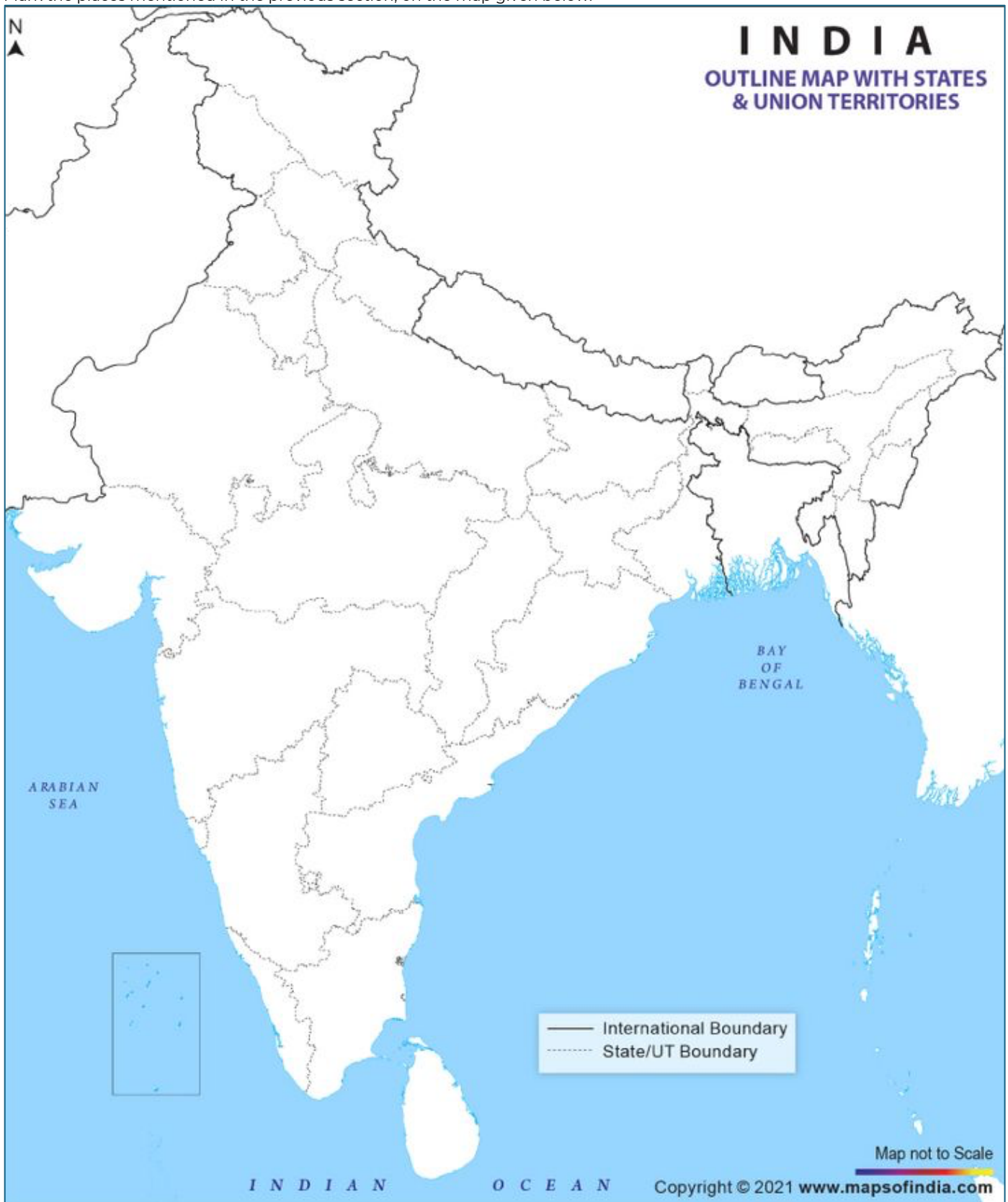
PLACE	COUNTRY/REGION	WHY IN NEWS	PRELIMS FACTS	EXAM ANGLE
Moldova	Europe	Pro-EU govt victory	Between Romania & Ukraine; Russia interference alleged; EU vs Russia geopolitics	NATO expansion buffer
Estonia	Baltic Region	NATO Article 4 invoked	Capital Tallinn; Border with Russia; Baltic Sea coast	NATO Articles
Timor-Leste	SE Asia	Joined ASEAN	Capital Dili ; 11th ASEAN member	ASEAN expansion
Syria	West Asia	Post-Assad elections	Drafting new constitution; Rebel-led transition	Political transition
Venezuela	Latin America	US tensions	Drug trafficking allegations; US deployment concerns	Regional instability
Israel & Gaza	West Asia	ICJ directive	Humanitarian access ordered; Conflict hotspot	West Asia geopolitics
Mongolia	East Asia	Bilateral agreements	Landlocked; Strategic partner	Act East outreach

GS I : CULTURAL & URBAN GEOGRAPHY

PLACE	STATE/REGION	WHY IN NEWS	PRELIMS FACTS
Ayodhya	Uttar Pradesh	NSG hub setup	On Saryu river ; Ram Janmabhoomi Temple
Barcelona	Spain	UNESCO Mondialogo	Capital of Catalonia; Gaudí architecture ; Mediterranean climate
Fiji	Pacific	Trachoma elimination	Capital Suva ; Pacific Islands Forum member
Haiti	Caribbean	UNSC sanctions	Capital Port-au-Prince ; Earthquake-prone

Exercise Maps

Mark the places mentioned in the previous section, on the map given below.



Mark the places mentioned in the previous section, on the map given below.



Mark the places mentioned in the previous section, on the map given below.

EUROPE - POLITICAL

यूरोप- राजनैतिक



MAINS VALUE ADDITIONS

GENERAL STUDIES PAPER – I

Indian Society | Social Issues | Culture | Secularism

- **Kolkata's Pandals** Put Spotlight on 'Bengali Pride' & Acid Attack Survivors: Durga Puja pandals in Kolkata are using themes of 'Bengali pride' (ashmita) and raising awareness about acid attack survivors.
- **Communal harmony, Secularism:** A significant cultural milestone: the **first Muslim girl performing Kathakali** at Kerala , Kalamandalam, breaking a 95-year-old barrier.
- **Compassion for Animals:** British primatologist **Jane Goodall**, renowned for her groundbreaking chimpanzee research and wildlife advocacy, has passed away at 91.

QUICK USAGE IN ANSWER WRITING

These one-liners can be used as:

- Facts + Examples in GS Answers
- Contemporary case studies
- Governance success stories
- Ethical illustrations
- Data-backed introductions or conclusions

GENERAL STUDIES PAPER – II

Governance | Social Justice | Policing | Welfare | Cooperative Federalism

- CRPF distributed over 10,000 radio sets in remote Naxal violence-affected areas of Bastar, Chhattisgarh.
- Kerala CM to declare the state free from extreme poverty on November 1.
- The **Bengaluru Traffic Police (BTP)** has launched a new initiative enabling college students to report traffic violations through the **ASTraM app**, in collaboration with the Aarohan Foundation's Police Marshals programme.
- India is set to launch '**Bharat Taxi**', the country's first cooperative cab service, in November 2025 in Delhi under the aegis of the **Ministry of Cooperation and National e-Governance Division (NeGD)**. Bharat Taxi is a government-backed cooperative ride-hailing platform that empowers cab drivers as members and shareholders, ensuring collective ownership, transparency, and equitable income distribution — a departure from the corporate aggregator model.

NCRB Report 2023 — Key Trends

Category	Data / Trend	Analytical Signal for Answers
Murder Cases	2.8% decrease nationally	Indicates slight institutional relief & improved policing efficiency
Crimes against STs	28.8% surge	Reflects governance gap & ethnic tension hotspots
Cybercrimes	31.2% increase	Highlights digital policing challenges
Crimes against Children	9.2% rise	Vulnerability + child protection deficit
Crimes against Women	0.4% overall rise but 14.9% spike in dowry deaths	Shows persistence of patriarchal violence

- Largely due to ethnic violence in Manipur (jump from 1 in 2022 to 3,399 in 2023).
- High rates in Madhya Pradesh and Rajasthan, indicating vulnerability in central Indian states.
- Highlights need for effective governance and protection of vulnerable groups.

Crimes against Children – Analytical Snapshot

Indicator	Observation	Significance
Total Cases	1,77,335	Indicates urgency of child safety interventions
Known Offender	96%	Breakdown of trust in social institutions
Policy Question	POCSO in consensual adolescent cases	Need for legal nuance & reform debate

GENERAL STUDIES PAPER – III

Economy | Environment | Disaster Management | Agriculture | Infrastructure | Science & Technology | Defence

- **Floods** - 8% more than normal (June 1 - September 30) – IMD
- **Himachal Pradesh's** flagship **Prakritik Kheti Khushhal Kisan Yojana (PK3Y)** promotes nonchemical, natural farming practices. Launched seven years ago, it has trained 3.06 lakh farmers, with 2.22 lakh practicing it on 38,437 hectares.
- **Andhra Pradesh** government decided to build a '**Great Green Wall**' along its coastline to combat degradation.
- **Indian Railways** aims for **net-zero emissions by 2030**, leveraging electrification, renewable energy, and green finance, significantly ahead of national targets.

Stubble Burning – Policy & Solution Matrix

Dimension	Measures Suggested
Technological	Rotavators, Choppers, Bio-decomposers, Mulching Equipment
Employment	Promote Green Jobs with AI-enabled safety systems
Social Justice	Develop Just-transition pathways for workers

- Google's AI tool, **Cell2Sentence-Scale 27B (C2S-Scale)**, proposed a novel drug combination for **detecting cancer**, validated in lab conditions.

Vital Statistics of India (CRS) 2023 — Key Demographic Trends

Indicator	Data	Interpretative Use in Mains
Births (2023)	2.52 crore	Declining fertility trend
Deaths (2023)	86.6 lakh	Stabilisation post-COVID
Excess Deaths (2021)	21 lakh	Pandemic governance impact
Lowest Sex Ratio at Birth	Jharkhand (899), Bihar (900)	Indicates gender bias
Highest Sex Ratio at Birth	Arunachal Pradesh (1,085), Nagaland (1,007)	Regional disparity insight

- The **Southern Command of the Indian Army** has initiated the implementation of the "**Prime Minister's "JAI Strategy** — Jointness, Atmanirbharta, and Innovation, aligning defence preparedness with the upcoming Tri-Services Exercise '**Ex Trishul**'. It is a visionary framework to transform India's defence ecosystem into a cohesive, self-reliant, and future-ready force.
- Over 1.73 lakh killed in **road accidents** in 2023, 1.6% rise: NCRB
- **Indian Railways** aims for net-zero emissions by 2030, leveraging electrification, renewable energy, and green finance, significantly ahead of national targets.
- **Bharat Taxi cooperative model** — promotes inclusive gig economy, cooperative federalism and democratisation of platform economy.

GENERAL STUDIES PAPER – IV

Ethics | Governance Values | Social Responsibility

- Prime Minister of India, in Mann Ki Baat, praised the innovative '**Garbage Café**' initiative of Ambikapur Municipal Corporation, Chhattisgarh, which offers meals in exchange for plastic waste — a model combining waste management with social welfare.

PRACTICE QUESTIONS

Prelims Practice MCQs

Q1. With reference to bonnet macaques, consider the following:

1. It is a species of macaque endemic to Western Himalayan region.
2. It is highly arboreal and strong swimmers.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q2. Consider the following statements regarding Yellow-Crested Cockatoos:

1. It is native to East Timor and Indonesia's islands of Sulawesi.
2. It is categorized as Vulnerable species under the IUCN Red List.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q3. With reference to Registered Unrecognised Political Parties (RUPP), consider the following statements:

1. Tax exemption under Section 13A of the Income Tax Act, 1961.
2. Eligibility for common poll symbols during elections.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q4. With reference to the Chenab River system, which of the following statements is/are correct?

1. The Ravi River joins the Chenab River before the latter forms the Panjnad.
2. The Chenab flows through deep gorges of the Pir Panjal Range in the region where the Sawalkote Hydroelectric Project is located.
3. The Jhelum River joins the Chenab on its left bank in Pakistan's Punjab region.

Select the correct answer using the code given below:

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

- d) 2 and 3 only

Q5. With reference to Lok Adalats in India, consider the following statements:

1. Awards of Lok Adalats are final and binding, but parties dissatisfied with such awards may still institute regular civil suits.
2. Permanent Lok Adalats can adjudicate disputes even without the consent of parties, but only in matters relating to "public utility services."
3. The first National Lok Adalat was held in Gujarat in 1999 under the Legal Services Authorities Act, 1987.

Which of the statements given above is/are correct?

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

Q6. With reference to the PM-KUSUM scheme, consider the following statements:

1. Under Component-A, only government-owned land is eligible for setting up decentralized solar power plants.
2. The scheme provides financial support in a 60:30:10 ratio, where the 60% subsidy is equally shared between the Centre and the States.
3. India plans to replicate the PM-KUSUM model in African and small island developing states through the International Solar Alliance framework.

Which of the statements given above is/are correct?

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

Q7. The India–Middle East–Europe Economic Corridor (IMEC), launched during the G20 Summit in Delhi, primarily seeks to connect:

- a) Indian ports with European manufacturing hubs exclusively through maritime routes
- b) India and Europe via a multimodal network involving West Asian ports, high-speed rail links, and energy–digital infrastructure corridors
- c) South Asia and North Africa through a network of gas pipelines and trade facilitation zones
- d) India and the Mediterranean region through an exclusive clean-hydrogen transport corridor

Q8. Consider the following statements regarding Article 371 and the Sixth Schedule of the Indian Constitution:

1. Article 371 provisions apply only to states with a significant tribal population and provide autonomous district councils with legislative powers.
2. The Sixth Schedule grants a higher degree of self-governance than Article 371, particularly through autonomous councils empowered with judicial authority.
3. Ladakh's demand for inclusion under the Sixth Schedule stems from concerns about land protection, cultural preservation, and demographic stability after it became a Union Territory.

Which of the statements given above is/are correct?

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

Q9. Consider the following statements regarding ASEAN:

1. ASEAN was established through a declaration signed in Jakarta by five founding members in 1967.
2. East Timor became the 11th member of ASEAN in 2025, expanding the grouping beyond its original Southeast Asian mainland states.
3. The ASEAN Free Trade Area (AFTA) predates the establishment of ASEAN and was later integrated into the RCEP framework.

Which of the statements given above is/are correct?

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

Q10. Consider the following statements regarding AstroSat:

1. It was designed to observe the universe in the Visible and Ultraviolet regions of the electromagnetic spectrum simultaneously.
2. It was first dedicated Indian astronomy mission launched by using PSLV-C30 (XL) rocket.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q11. Consider the following statements regarding gravitational-wave detection:

1. Terrestrial detectors like LIGO are limited primarily due to seismic noise, which restricts their detection range to a few billion light-years.
2. LISA, unlike LIGO, is designed to detect gravitational waves at frequencies far lower than the terrestrial sensitivity range.
3. The proposed LILA project aims to use Earth–Moon laser links to detect gravitational waves in the sub-millihertz band.

Which of the statements given above is/are correct?

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

Q12. With reference to the South China Sea region, which of the following best explains why it is considered one of the world's most critical geopolitical hotspots?

- a) It is the only maritime region in Asia where Exclusive Economic Zones (EEZs) do not overlap under UNCLOS.
- b) It contains major choke points that control nearly one-third of global shipping and hosts overlapping territorial claims by multiple ASEAN states and China.

- c) It is the largest source of offshore wind energy in the Indo-Pacific and the primary route for telecommunication cables linking East Asia and Africa.
- d) It is the only region in the Indo-Pacific where freedom of navigation operations are prohibited under international law.

Q13. Consider the following statements regarding the Dogri language:

1. Dogri was originally written in Dogra Akkhar during the Dogra princely state but shifted to the Devanagari script in the 20th century.
2. The term “Dogra” or “Duggar” is found in medieval literature, first appearing in the works of Amir Khusrow.
3. Dogri became an official language of Jammu & Kashmir only after its inclusion in the Eighth Schedule of the Constitution in 2020.
4. Dogri exhibits tonal variations and phonological features such as nasalization and metathesis.

Which of the statements given above are correct?

- a) 1, 2 and 4 only
- b) 1 and 3 only
- c) 2, 3 and 4 only
- d) 1, 2, 3 and 4

Q14. Loktak Lake, often described as the only floating lake of its kind in the world, is primarily known for which of the following unique ecological features?

- a) Formation of coral atolls that support high marine biodiversity
- b) Presence of phumdis, which support a floating national park and arise from accumulated organic matter and sediments
- c) Seasonal thermal vents caused by tectonic activity beneath the lake
- d) Naturally occurring freshwater lagoons created by coastal deposition

Q15. Consider the following statements regarding recent developments in India–UK relations:

1. The Technology Security Initiative (TSI), launched in 2024, focuses on cooperation in areas such as semiconductors, quantum technologies, artificial intelligence, and critical minerals.
2. The UK is among the top ten investors in India, accounting for about 5% of India's total FDI inflows.
3. The Defense Roadmap 2024 emphasises joint research, co-production, and enhanced mobility frameworks for skilled Indian professionals in the UK.
4. The EU is India's largest trading partner, and India–EU bilateral trade in 2024–25 crossed USD 200 billion.

Which of the statements given above are correct?

- a) 1 and 2 only
- b) 2 and 4 only
- c) 1, 2 and 3 only
- d) 1, 2, 3 and 4

Q16. Consider the following statements about the Thirumalapuram excavations in Tenkasi district:

1. The site has revealed Iron Age culture comparable to Adichanallur.

2. A rectangular stone-slab chamber with urn burials was found for the first time in Tamil Nadu.
3. The ceramics include white-painted black-and-red ware.
4. The site is dated to the early to mid-third millennium BCE.

Which of the statements given above are correct?

- a) 1, 2 and 3 only
- b) 2 and 4 only
- c) 1 and 3 only
- d) 1, 2, 3 and 4

Q17. Consider the following statements regarding Jal Prahar 2025, recently seen in the news:

1. It is a joint amphibious exercise conducted by the Indian Navy in close coordination with the Indian Army.
2. The harbour phase of the exercise was conducted at Visakhapatnam.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q18. With reference to the Gulf of Aden, consider the following statements:

1. It is an extension of the Indian Ocean.
2. The gulf connects the Red Sea to the Arabian Sea via the Strait of Bab el Mandeb.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q19. Consider the following statements regarding the IN-RoKN Exercise, recently seen in the news:

1. It is a bilateral naval exercise between the Indian Navy and the Republic of Korea Navy.
2. It is an annual exercise happening since the 1990's.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q20. Consider the following statements regarding the Kurmi community, recently seen in the news:

1. They are a Hindu community located in India and Nepal.
2. Their traditional occupation is pottery.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q21. Consider the following statements regarding Regulatory T-cells (Tregs):

1. They suppress self-reactive T-cells and help prevent autoimmune disorders.
2. They were first identified by Shimon Sakaguchi.
3. Their primary role is to activate cytotoxic immune responses against infected cells.

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

Q22. Consider the following statements regarding blackbuck:

1. It is a species of antelope native to India and Nepal.
2. It is classified as 'Endangered' under the IUCN Red List.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q23. Consider the following statements regarding Scheme for Innovation and Technology Association with Aadhaar:

1. It was launched to strengthen India's digital identity ecosystem.
2. It brings together startups, academic institutions, and industry players to co-develop globally benchmarked solutions to enhance Aadhaar authentication.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q24. Consider the following statements regarding MERCOSUR Group:

1. It is a South American regional economic organization created by signing the Treaty of Asunción.
2. Its head quarter is located in Montevideo, Uruguay.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only

- c) Both 1 and 2
- d) Neither 1 nor 2

Q25. Consider the following statements regarding Bhashini – India’s National Language Translation Mission (NLTM):

1. Bhashini is implemented by the Ministry of Electronics and Information Technology (MeitY) to provide real-time AI-driven translation and speech recognition services in multiple Indian languages.
2. It supports only the 22 Scheduled Languages listed in the Constitution and excludes tribal or lesser-spoken languages from its framework.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Mains Practice Questions

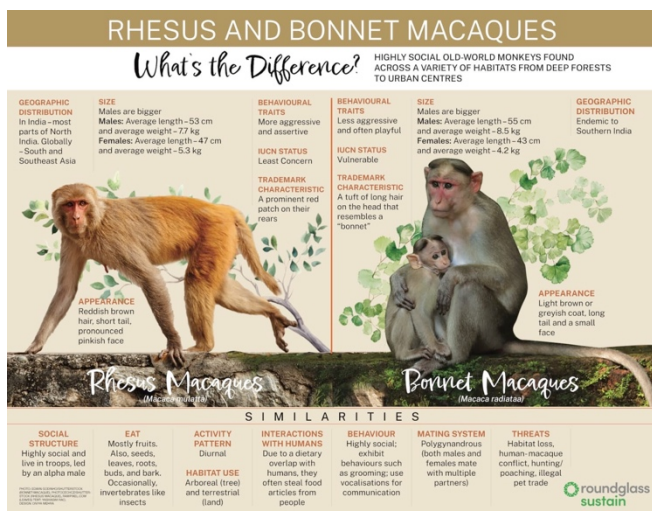
1. Maoist insurgency in India is witnessing a historic decline due to leadership collapse, improved state presence, and coordinated counter-insurgency operations. Examine the key factors behind this decline and suggest measures to ensure that the gains are sustained through development-oriented governance. (250 Words)
2. Indian outward FDI has grown rapidly, even as private domestic investment, wage growth, and R&D remain stagnant. Analyse the implications of this imbalance for India’s economic growth and suggest measures to realign private capital with national development priorities. (150 Words)
3. Examine how President Putin’s 2025 visit reflects both cooperation and emerging friction in India–Russia relations. How should India recalibrate this partnership amid shifting global power dynamics? (150 Words)
4. Recent NCRB data shows a rise in caste-based crimes against SCs and STs, reflecting deep-rooted social discrimination despite constitutional safeguards. Examine the structural causes of continuing caste violence in India and suggest legal, social, and economic measures to address it. (250 Words)
5. India continues to grapple with high pendency, delays, and uneven access to justice. In this context, discuss how strengthening ADR mechanisms—such as arbitration, mediation, and Lok Adalats—can contribute to a more efficient and inclusive justice delivery system. (150 Words)

MCQs Solutions

Q1. (b)

Explanation:

- Kerala's forest department registered a case into the mysterious deaths of nine bonnet macaques near Thiruvananthapuram.
- The bonnet macaque (*Macaca radiata*), also known as zati, is a species of macaque endemic to southern India.
- **Behaviour:** They are highly arboreal and terrestrial quadrupeds, live in multimale-multifemale troops. They are diurnal, meaning they are active during daylight hours. They are strong swimmers.
- **Communication:** A wide array of methods: gestures, facial expressions, and sounds.
- **Habitat:** A variety, including evergreen high forest and dry deciduous forest of the Western Ghat Mountains.
- **Distribution:** The presence of the species has been recorded in Andhra Pradesh, Goa, Karnataka, Kerala, Maharashtra, Tamil Nadu and Gujarat.



Q2. (a)

Explanation:

- Yellow-crested cockatoos in Hong Kong are losing natural nesting due to typhoons and tree trimming and conservationists installing artificial nest boxes that mimic natural nests of these birds.



- The Yellow-crested cockatoo (*Cacatua sulphurea*) is a medium-sized cockatoo with a retractile yellow or orange crest.
- **Appearance:** It usually has white plumage, and on its head is a yellow crest that curves forwards.
- **Habitat:** Forest edge, scrub and cultivated areas from sea-level up to about 1500 meters.
- **Distribution:** It is native to East Timor and Indonesia's islands of Sulawesi and the Lesser Sunda. It is also introduced in Hong Kong developed from caged birds that have been released.

Q3. (c)

Explanation:

- The Election Commission of India (ECI) recently de-listed a total of 474 more Registered Unrecognised Political Parties (RUPP) for flouting norms, including not contesting elections in the last six years.
- About **Registered Unrecognised Political Parties (RUPP):** These are the parties which are either newly registered parties or those which have not secured enough percentage of votes in the assembly or general elections to become a state party, or those which have never contested elections since being registered.
- Despite not having official recognition, **RUPPs enjoy certain benefits:**
 - Tax exemption under Section 13A of the Income Tax Act, 1961.
 - Eligibility for common poll symbols during elections.
 - Common symbols are provided to RUPPs based upon an undertaking that they would put up "at least 5% of total candidates with regard to said Legislative Assembly election of a State".

Q4. (a)

Explanation:



- **Statement 1 – Correct:** Ravi joins Chenab before Chenab meets Sutlej to form Panjnad (Punjab rivers sequence: Jhelum + Chenab → Chenab; Ravi also joins Chenab → later Sutlej + Chenab = Panjnad → Indus).

- **Statement 2 – Correct:** Chenab cuts through Pir Panjal in Ramban district (J&K), where the Sawalkote Hydro Project is located.
- **Statement 3 – Incorrect:** Jhelum joins Chenab at Trimmu in Pakistan on **right bank**, not left.

Q5. (b)

Explanation:

- **Statement 1 – Incorrect:** Lok Adalat awards are final and binding; **no appeal or civil suit lies after award**. Fresh litigation is possible only if no award is passed.
- **Statement 2 – Correct:** Permanent Lok Adalats can decide disputes without mutual consent in **public utility services** if conciliation fails.
- **Statement 3 – Incorrect:** First Lok Adalat: **1982 (Gujarat)**. First National Lok Adalat: **2013**, not 1999.

Q6. (c)

Explanation:

- **Statement 1 – Incorrect:** Component-A allows solar plants by farmers/FPOs on barren or cultivable land (stilts allowed); not limited to government land.
- **Statement 2 – Incorrect:** Correct ratio = **30% Centre + 30% State + 40% Farmer**, not 60:30:10.
- **Statement 3 – Correct:** India promotes replication of PM-KUSUM model in Africa & SIDS via ISA.

Q7. (b)

Explanation:

- IMEC is a **multimodal corridor** linking India to Europe via UAE ports → rail through Saudi Arabia, Jordan, Israel → European ports, with **energy + digital infrastructure**.

Q8. (a)

Explanation:

- **Statement 1 – Incorrect:** Article 371 is not tribe-specific and does not create ADCs (that is Sixth Schedule's feature).
- **Statement 2 – Correct:** Sixth Schedule ADCs have legislative + judicial + administrative autonomy → higher self-governance.
- **Statement 3 – Correct:** Ladakh demands Sixth Schedule for land, culture, ecology, and demographic protection.

Q9. (d)

Explanation:

- ASEAN formed in **Bangkok (1967)**, not Jakarta.
- Timor-Leste is approved in principle but **not yet full member**.
- AFTA formed in **1992**, long after ASEAN (1967).

10. (c)

Explanation:

- Recently, India's first dedicated Space Astronomy Observatory, AstroSat completed a decade of operations.

About AstroSat:

- It is the first dedicated Indian astronomy mission.
- It was launched by PSLV-C30 (XL) rocket from Satish Dhawan Space Centre in Sriharikota on September 28, 2015.
- The minimum useful life of the AstroSat mission was around 5 years but still it is providing valuable information.
- It was designed to observe the universe in the Visible, Ultraviolet, low and high energy X-ray regions of the electromagnetic spectrum simultaneously with the help of its five payloads.

Payloads of AstroSat:

- Ultra Violet Imaging Telescope (UVIT)
- Large Area X-ray Proportional Counter (LAXPC)
- Cadmium-Zinc-Telluride Imager (CZTI)
- Soft X-ray Telescope (SXT)
- Scanning Sky Monitor (SSM).

11. (a)

Explanation:

- **Statement 1 – Correct:** LIGO limited by seismic noise; effective range only up to few billion light-years.
- **Statement 2 – Correct:** LISA detects **low-frequency (millihertz)** waves unlike LIGO.
- **Statement 3 – Incorrect:** LILA proposes Moon-based detector, not Earth-Moon laser links.

Q12. (b)

Explanation:

Critical due to:

- One-third global shipping passes
- Overlapping claims by China + ASEAN states
- Strategic choke points like Malacca Strait

Q13. (a)

Explanation:

- Dogri script → Dogra Akkhar → shifted to Devanagari
- Term "Duggar" found in **Amir Khusrow's writings**
- Included in Eighth Schedule in **2003**, not 2020
- Dogri is **tonal** with nasalization & metathesis

Q14. (b)

Q15. (c)

Explanation:

- **Statement 4 – Incorrect:** This statement is about the EU, not the UK. Furthermore, the data is inaccurate. The US has recently been India's largest trading partner, and India-EU trade has not crossed the USD 200 billion mark. This statement is included as a distractor.

Q16. (c)

Explanation:

- **Statement 1 – Correct:** Thirumalapuram findings — including megalithic burials, iron tools, and distinct pottery styles — clearly place it within the South Indian Iron Age cultural horizon (c. 1200 BCE – 300

CE). The material culture closely resembles the Adichanallur complex, which is one of the most prominent Iron Age–megalithic sites in Tamil Nadu, indicating similar funerary and socio-cultural practices.

- **Statement 2 – Incorrect:** While a rectangular stone-slab chamber (cist) with urn burial is an important find, this burial form is already known in Tamil Nadu. Similar structures have been documented at sites like Kodumanal, Porunthal and Mallappadi. Hence, it is not a first-time discovery.
- **Statement 3 – Correct:** The excavation yielded Black-and-Red Ware (BRW) ceramics with white kaolin paintings, which is a diagnostic feature of Iron Age South India. Such pottery is associated with advanced firing techniques and indicates a settled agrarian society with evolving artistic traditions.
- **Statement 4 – Incorrect:** The third millennium BCE corresponds to the Chalcolithic/Bronze Age phase, whereas Thirumalapuram belongs clearly to the Iron Age. The chronological mismatch makes this statement wrong.

Q17. (c)

Explanation:

- The Indian Navy recently concluded the 'Jal Prahar 2025' joint exercise with the Indian Army to enhance amphibious operations along the eastern seaboard.



About Jal Prahar 2025:

- It is a biannual joint amphibious exercise conducted by the Indian Navy in close coordination with the Indian Army
- The **Jal Prahar 2025** showcased synergy, coordination, and interoperability between the Indian Navy and Indian Army, enhancing operational readiness, maritime security, and national defence capabilities.

The exercise was conducted in two phases.

- The Harbour Phase at Visakhapatnam focused on the induction and integration of army troops onboard INS Gharial.
- This included onboard training, safety briefings, orientation towards a mariner's life, sports and interactions sessions to foster camaraderie, the release stated.

18. (c)

Explanation:

- A suspected missile strike, likely from Yemen's Houthi rebels, caused a vessel to catch fire in the Gulf of Aden recently.

About Gulf of Aden:

- It is an **extension of the Indian Ocean**, located between the Arabian Peninsula and the African continent.
- The gulf **connects the Red Sea to the Arabian Sea** via the **Strait of Bab el Mandeb**.



- The gulf is named after "Aden," a port city on Yemen's coast.
- It is one of the largest natural harbours in the world, with an area of about 70 sq. km of sheltered water.
- It is approximately 900 km long and 500 km wide and covers roughly 410,000 sq.km.
- It is bounded to the south by Somalia and the Socotra Islands (part of Yemen), north by Yemen, east by the Arabian Sea, and west by Djibouti.

Q19. (a)

Explanation:

- Indian Naval Ship (INS) **Sahyadri** recently arrived at Busan Naval Harbour, South Korea, on 13 October 2025 to participate in the inaugural India–Republic of Korea Navy (IN–RoKN) Bilateral Exercise.

About IN-RoKN Exercise:

- It will be conducted in two phases—harbour and sea—to deepen interoperability, enhance coordination, and promote professional exchanges between the two navies.
- As part of the harbour phase, IN and RoKN officials will engage in reciprocal cross-deck visits, sharing of best practices, cross-training sessions, and sport fixtures.
- The Commanding Officer of INS Sahyadri will also call on senior officers of the Republic of Korea Navy, local dignitaries, and representatives from the Indian community in South Korea, reaffirming India's diplomatic goodwill and naval outreach.
- The harbour phase will be followed by the sea phase, wherein, INS Sahyadri and ROKS Gyeongnam will undertake joint exercises.

Q20. (a)**Explanation:**

- Defying prohibitory orders, Kurmis began their rail blockade at various stations in Jharkhand recently to press demand for a ST status for the community and inclusion of the Kurmali language in the Eighth Schedule of the Constitution.

About Kurmi community:

- Kurmis, also known as **Kunbi**, are a Hindu farming caste in India and Nepal.
- The term "Kurmi" is believed to be derived from the Sanskrit word "Krishi," which means agriculture.
- They are mostly found in the **lower regions of the Indo-Gangetic plains**, especially southern regions of Awadh, eastern Uttar Pradesh and parts of Bihar.
- There are several sub-groups within the Kurmi caste called gotras. Some common Kurmi gotras include **Chandel, Chauhan, Solanki, Tomar, Baghel** and **Sengar**.
- The Kurmis came to be known for their exceptional work ethic, superior tillage and manuring, and gender-neutral culture, bringing praise from Mughal and British administrators alike.

Q21. (a)**Explanation:**

- Statement 1 – Correct:** Regulatory T-cells (Tregs) play a crucial role in immune tolerance by suppressing self-reactive T-cells. This prevents excessive immune activation and protects the body from autoimmune diseases such as Type 1 diabetes and multiple sclerosis.
- Statement 2 – Correct:** Tregs were first clearly identified and characterized by Shimon Sakaguchi in the mid-1990s. He demonstrated their role in maintaining self-tolerance and preventing autoimmune pathology.
- Statement 3 – Incorrect:** Activating cytotoxic immune responses is the function of Cytotoxic T lymphocytes (CD8+ T-cells), not Tregs. In contrast, Tregs act as immune suppressors, damping excessive or misdirected immune responses.

Q22. (a)**Explanation:**

- Over the last five years, the Chhattisgarh government has successfully reintroduced the blackbuck back into the state's forests through its five-year reintroduction plan.

About Blackbuck:

- It is a species of antelope native to India and Nepal.
- Scientific name:** Antelope cervicapra.
- Distribution:** It is widespread in the states of Rajasthan, Gujarat, Madhya Pradesh, Tamil Nadu, Odisha, and other areas throughout peninsular India.
- It has been declared as the **state animal** by the governments of **Punjab, Haryana, and Andhra Pradesh**.

Q23. (c)**Explanation:**

- Recently, the Unique Identification Authority of India (UIDAI) has launched the **Scheme for Innovation and Technology Association with Aadhaar (SITAA)**.
- It was launched to strengthen India's digital identity ecosystem and combat emerging security threats such as deepfakes, spoofing, and presentation attacks.
- Aim:** To bring together startups, academic institutions, and industry players to co-develop secure, scalable, and globally benchmarked solutions that enhance Aadhaar authentication.
- SITAA** will particularly focus on advanced biometric technologies, authentication frameworks, artificial intelligence, and data privacy.

Q24. (c)**Explanation**

- Recently, **India and Brazil** agreed to significantly expand their existing trade agreement between India and the MERCOSUR bloc.
- The **Southern Common Market (MERCOSUR for its Spanish initials)** is a South American regional economic organization.
- It is the **fourth largest integrated market** after the European Union (EU), North American Free Trade Agreement (NAFTA), and ASEAN.
- It was created in **1991** by signing the Treaty of Asunción.
- Objective:** Free movement of goods, services, capital and people and it became a customs union in January 1995.

Q25. (a)**Explanation:**

- Bhashini is an ambitious initiative of the Government of India, launched under the **National Language Translation Mission (NLTM)** and implemented by the Ministry of Electronics and Information Technology (**MeitY**). Its objective is to make digital services, governance platforms, and online content accessible in local languages, thus bridging India's linguistic divide.
- The platform leverages Artificial Intelligence (AI) and Natural Language Processing (NLP) technologies to provide:
 - Real-time translation and transcription,
 - Speech-to-text and text-to-speech conversion, and
 - Multilingual language understanding capabilities.
- While it covers 22 Scheduled Languages, Bhashini also extends support to several tribal and regional languages, ensuring inclusive linguistic access across governance, education, and digital communication sectors. Hence, **Statement I is correct**.
- Statement II is incorrect** because Bhashini includes both Scheduled and tribal languages, reflecting India's linguistic diversity.

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