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Chief Editor

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Compilation of UPSC relevant news from 1st July to 31st July 2026

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PUBLIC EXAMINATION AMENDMENT ACT, 2026

The Public Examinations (Prevention of Unfair Means) Amendment Act, 2026,
was passed by Lok Sabha on July 29, 2026 by voice vote.

Recent Developments

- **NEET-UG 2026** was cancelled in May 2026 following an alleged paper leak and was re-conducted in June 2026.
- **47 NTA officials were terminated** on July 24, 2026, with legal and criminal proceedings initiated against some.
- A **36-day CJP protest** demanding accountability culminated with the resignation of the **Education Minister on July 25, 2026**.
- The government constituted a **high-powered task force** chaired by **Nandan Nilekani** and introduced the Amendment Bill in Parliament.

Voice Vote

- Voice voting is the preferred tool of decision making by Indian Parliament. MPs in favour of a decision call out "Ayes" and those opposed say "Noes".
- The Speaker then takes a call on which voices were louder and conveys the decision of the House.
- The rules of procedure of Lok Sabha do not mandate recording of votes of MPs for every decision taken.
- Voice voting does not reveal the individual positions taken by MPs.

- The **UPSC**, a constitutionally established body, conducts multiple high-stakes examinations annually and has remained largely leak-proof.
- This demonstrates that **sovereign institutional status, permanent cadre, and direct accountability** are the foundational requirements for examination integrity that the NTA currently lacks.
- The NTA relies heavily on **contractual staff and external deputations**, undermining long-term security protocols and institutional culture of secrecy.
- Heavy **outsourcing to private IT vendors and private engineering colleges** introduces multiple human touchpoints susceptible to manipulation by organised cheating syndicates through server hacks, screen-sharing frauds, and proxy impersonation.

Public Examination

Under **Section 2(k)**, "public examination" is defined as any examination conducted by a **public examination authority** listed in the Schedule of the Act, or any "such other authority as may be notified by the Central Government"

Background

- The **Public Examinations (Prevention of Unfair Means) Act, 2024** was India's **first comprehensive legislation** to criminalise unfair practices in public examinations. It came into force on **June 21, 2024**.
- The Act covers examinations conducted by the **UPSC, Staff Selection Commission (SSC), Railway Recruitment Boards (RRBs), Institute of Banking Personnel Selection (IBPS), National Testing Agency (NTA)**, Central Government Ministries and their attached offices, and other notified authorities.
- Under the Act, all offences are **cognizable, non-bailable, and non-compoundable**.

Need of Overhauling in Public Examination Ecosystem

Structural Vulnerabilities in NTA Model

- The **hyper-centralised model** of paper setting, printing, and physical transit creates multiple weak links. A single breach at any node compromises the entire national system simultaneously.
- The NTA operates as a **"Society" under the Societies Registration Act, 1860**, (unlike the constitutionally established UPSC under Article 315) giving it limited administrative authority and a perceived lack of sovereign accountability.

Constitutional and Socio-economic Harm

- Public examinations are the **primary equalizer for socioeconomic mobility**. When testing infrastructure is porous, it creates asymmetric advantages for organised crime syndicates and wealthy candidates.
- This fundamentally violates **Article 14 (Equality before Law)** and **Article 16 (Equality of Opportunity in Public Employment)**.
- According to the **ILO India Employment Report 2024**, youth account for **83% of India's unemployed workforce**.
- The **informal sector employs 80% of India's workforce**, leaving government jobs as the **primary route to formal employment security** for most youth.
- **Government jobs** are disproportionately sought after due to **stability, pension benefits, social prestige**, and the absence of equivalent opportunities in the private formal sector.
- As a result, competitive public examinations carry **outsized life-determining significance** for millions of aspirants.
- Exam delays and paper leaks trap these millions in **indefinite preparation loops**, wasting their prime productive years and deepening India's **demographic trap**.
- This makes examination integrity not merely an administrative concern but a matter of **profound socioeconomic consequence**.

Economic and Human Cost

- Rural and lower-middle-class families are forced into intergenerational debt to fund prolonged stays in coaching hubs.
- According to **NCRB data**, student suicides have increased by nearly **80% over the last decade**, with examination failure emerging as a major cause — reflecting **sociological anomie** where institutional decay breaks youth's mental resilience.

Technological Obsolescence

- Current testing bodies lack a **"Zero-Trust Digital Architecture."** The absence of advanced encryption, deep-tech surveillance, and algorithmic paper generation leaves the system vulnerable to **dark-web-enabled paper-leak mafias**.

Global Comparisons

- **China** follows a highly centralized system where students complete 12 years of schooling and take the **Gaokao**. This is a national college entrance exam determining university admission through province-based rankings.
- **Singapore** has a structured tiered system wherein 6 years of primary education ending in the **Primary School Leaving Examination (PSLE)**, which streams students into secondary tracks.
 - ♦ Students then take **Ordinary Level (O-Level)** or **Normal Level (N-Level)** examinations, before moving to **Advanced Level (A-Levels)**, **polytechnics**, or **Institutes of Technical Education (ITE)**.
 - ♦ Examinations are managed by the government-linked **Singapore Examinations and Assessment Board (SEAB)**, making the system centralised but less high-stakes than China.
- The **USA** follows a decentralised K-12 system with state-controlled curricula and no national entrance exam. College admissions are holistic — based on **GPA, SAT/ACT scores, essays, and extracurriculars**. Unlike India, China, and Singapore, US tests are optional and run by **private non-profit organisations**.
- These comparisons highlight that India's current **'single-day, single-paper, hyper-centralised'** model combines the high-stakes risks of China with the structural vulnerabilities of a developing regulatory ecosystem. This makes comprehensive examination reform not just desirable but urgent.

Key Features of the Amendment Act, 2026

- The law is formally named the **Public Examinations (Prevention of Unfair Means) Amendment Act, 2026**.

Clause 2: Enhanced Penalties (Amends Section 10)

Offence	Act, 2024	Act, 2026
Use of unfair means by a person	3–5 years; fine up to ₹10 lakh	5–10 years; fine up to ₹50 lakh

Unfair means by a service provider	Fine up to ₹1 crore	Fine up to ₹5 crore
Persons-in-charge of service provider	3–10 years; fine of ₹1 crore	Minimum 5 years; fine of ₹5 crore
Organised crime	5–10 years; minimum fine ₹1 crore	Minimum 7 years; minimum fine ₹10 crore

- The **debarment period** for complicit service providers has been **doubled from 4 years to 8 years**.

Clause 3: Organised Crime (Amends Section 11)

- For organised examination crime involving gangs, syndicates, or colluding institutions, the minimum jail term rises from **5 years to 7 years**.
- The minimum fine rises from **₹1 crore to ₹10 crore**.

Clause 4: Special Task Force (Amends Section 12)

- Currently, the Centre can refer investigation to any central investigating agency.
- This clause adds a new option, the Centre can constitute a **Special Task Force (STF)** exclusively for a specific case.
- Once an STF is constituted, **only that STF** will investigate the case. Regular police and other agencies are excluded.

Clause 5: Fast Track System (Inserts new Sections 12A and 12B)

- **Section 12A: Investigation and Trial:**
 - ♦ **Investigation Timeline (12A(1)):** Whoever investigates, local police, central agency, or STF, must complete the investigation within **two months (60 days)** of the case being registered or referred.
 - ♦ **Special Fast Track Courts (12A(2)):** Every state and UT must **designate a Court of Session** as a **Special Fast Track Court** exclusively for trying offences under this Act on a **day-to-day basis**.

Fast-Track Courts

- Fast-Track Courts are **special courts established to expedite trial and disposal** of long-pending cases, particularly heinous crimes and crimes against vulnerable groups.
- They are expected to help clear the **massive backlog in the regular lower judiciary** and ensure speedy delivery of justice.

- ♦ **Connected Offences (12A(3)):** These courts can also try connected offences under the **Bharatiya Nyaya Sanhita, 2023** and other applicable laws in the **same trial**, avoiding the need for separate proceedings.
- ♦ **Trial Timeline (12A(4)):** Trial must proceed on a **day-to-day basis**. Adjournment beyond the following day requires **reasons recorded in writing**.
 - ♦ The trial must be completed within **three months** of the chargesheet being filed.

- ♦ **Transfer of Pending Cases [12A(5) and 12A(6)]:**
 - ♦ All pending cases under the 2024 Act are **automatically transferred** to these Fast Track Courts.
 - ♦ Transferred cases must also be completed within **three months from the date of transfer**.
 - ♦ **Special Public Prosecutors [12A(7) and 12A(8)]:** States and UTs must appoint **one or more Special Public Prosecutors** for each Fast Track Court to exclusively handle these cases.
- ➔ **Section 12B: Appeals:**
- ♦ Appeals against judgments, sentences, or orders of the Fast Track Courts go directly to the **High Court**, heard by a **bench of two Judges**.
 - ♦ **Bail orders** can also be appealed to the High Court, a departure from ordinary criminal procedure.
 - ♦ Appeals must be disposed of **within three months from admission**, as far as possible.
 - ♦ Appeals must be filed within **30 days**. The High Court may condone delay for sufficient cause, but **no appeal shall be entertained after 90 days** from the date of judgment.

Recent Reform Initiatives

Dr. K. Radhakrishnan Committee (2024)

- ➔ The Ministry of Education constituted a **7-member High-Level Committee of Experts (HLCE)** in June 2024 under **Dr. K. Radhakrishnan**, following the UGC-NET paper leak and NEET-UG 2024 irregularities.
- ➔ The committee submitted **101 recommendations** in its report titled **"The Reformation of National Common Entrance Testing in India."**
- ➔ Key recommendations included **Aadhaar-based biometric authentication (DIGI-EXAM)**, encrypted question paper transmission, AI-based monitoring, expanded CCTV, preference for government examination centres, and **State and District-Level Coordination Committees**.
- ➔ By 2026, a majority of recommendations had been implemented or were under active execution.

Nandan Nilekani Task Force (2026)

- ➔ A **six-member high-powered task force** has been constituted under **Nandan Nilekani**, co-founder of Infosys and founding Chairman of **UIDAI (2009–14)**.
- ➔ Other members include **former ISRO Chairman S. Somanath**, **former IB Director Tapan Deka**, **IIT Madras Director V. Kamakoti**, **former Education Secretary Anita Karwal**, and logistics expert **Amrit Lal Meena**.
- ➔ Its mandate is to recommend **technology-driven and structural reforms** to make the examination system **leak-proof, transparent, and tamper-resistant**.

Critical Issues with the Act

Mandatory Timelines

- ➔ The **Supreme Court (2002)** held that it is neither advisable nor judicially permissible to prescribe an outer limit for conclusion of criminal proceedings.
 - ♦ The Acts mandatory three-month trial deadline may directly conflict with this ruling.
- ➔ **More than 40% of cases** pending under similar time-bound laws. This raises serious doubts about the feasibility of the two-month investigation deadline.
 - ♦ For *example*, BNSS rape provisions and the SC/ST Act remained pending for over six months as of 2024.

90-Day Appeal Bar

- ➔ The Act bars High Courts from entertaining appeals after **90 days** which is identical to the provision in the **NIA Act, 2008**.
- ➔ High Courts have taken conflicting views.
 - ♦ The **Bombay High Court (2023)** read down "shall" to "may," avoiding travesty of justice.
 - ♦ The **Delhi High Court (2019)** held the bar is directory, not mandatory, when it curtails the right to life and liberty.
 - ♦ The **Madras High Court (2024)** held the bar is mandatory and unambiguous.
- ➔ In **February 2025**, the Supreme Court directed as an interim measure that appeals under the NIA Act will **not be dismissed on grounds of 90-day delay**.

Fast Track Courts

- ➔ As of April 2026, **775 Fast Track Special Courts** for rape and POCSO cases were functional. Despite this, **over 2.45 lakh cases** remained pending by the end of 2025, up from 2.02 lakh in 2023.
- ➔ Average trial time ranged from **257 days in Andhra Pradesh to 1,717 days in Delhi** as of August 2025.
- ➔ This evidence demonstrates that **designating Fast Track Courts alone does not guarantee speed** without addressing shortage of courts, staff, witnesses, and adjournments.

No Consequence if Investigation Timeline is Breached

- ➔ The Act mandates a two-month investigation deadline but provides **no consequence if this is not met**.
 - ♦ While the Laws like the **Lokpal Act, 2013** requires written reasons for extensions and the **SC/ST Act, 1989** requires written explanation for delays in filing chargesheet.

Way Forward

A. Cryptographic and Technology Interventions

- ➔ Adopt a **"Just-in-Time" (JIT) Hybrid Delivery Model**: Transmit encrypted digital papers via the **National Knowledge Network (NKN)** and print them locally inside exam halls 15–30 minutes before the exam, eliminating physical transit vulnerabilities.

- Implement **Algorithmic Question Randomisation using Item Response Theory (IRT)**. This dynamically generates unique question sequences with identical difficulty levels for every candidate, making leaked answer keys mathematically useless.
- **Air-gap exam centre servers** during the exam window, operating on a localised intranet to block remote-access interventions through applications like AnyDesk.
- Ensure examination systems comply with the **Digital Personal Data Protection Act, 2023** for secure handling of candidates' biometric and personal data.

B. Institutional Restructuring

- The NTA must move away from its current model of **outsourcing examination infrastructure to private vendors and private colleges**.
 - ♦ Instead, state-owned institutions such as **Kendriya Vidyalayas, IITs, NITs, and AICTE-approved public colleges**, should be upgraded into **dedicated, sovereign examination hubs** with their own secure digital infrastructure, trained staff, and direct institutional accountability.
- Transform the NTA into a **statutory autonomous body** with independent funding and professional staffing, moving beyond its current "Society" status to an institution with the sovereign accountability of bodies like UPSC.
- Mandate **STQC (Standardisation Testing and Quality Certification) certification** for all private vendors, ensuring compliance with **ISO 27001 cybersecurity standards**.
 - ♦ STQC is a government body under the **Ministry of Electronics and Information Technology (MeitY)** that provides **testing, calibration, and quality certification services** for electronics, IT products, and systems in India.
- Establish an **independent National Examination Audit Commission (NEAC)**, a statutory body conducting surprise audits, verifying CCTV uptime, and handling whistleblower complaints.

C. Procedural Reforms

- Shift from the **'single-day, high-stakes' model** to **multiple exam iterations throughout the year**, allowing students to retain their best scores.

- ♦ This will reduce logistical pressure and psychological stress.
- Implement **Aadhaar-linked multi-stage biometrics** such as iris and facial recognition.
 - ♦ This should be matched dynamically with candidate screen activity during Computer-Based Tests, not just at entry gates.
- Implement **strict vetting and rotation of paper setters** to prevent long-term familiarity with question bank patterns and reduce insider leak risks.
- Mandate **post-examination forensic review of anomalies**, like, including statistical analysis of score distributions, suspicious answer patterns, and centre-wise performance outliers, to detect and deter organised cheating even after examinations conclude.

D. Systemic Educational Reforms

- Strengthen **PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development)** to establish uniform assessment standards across school boards, enabling universities to assign greater weight to Class 12 performance alongside entrance scores.
- Establish a **statutory central authority** to enforce the **2024 Coaching Centre Guidelines**, curbing misleading rank guarantees, capping fees, and penalising institutes found complicit with solver gangs.

Conclusion

- The **Public Examinations (Prevention of Unfair Means) Amendment Act, 2026** is a necessary strengthening of India's examination integrity framework. Harsher penalties, Fast Track Courts, and Special Task Forces address the immediate crisis.
- However, evidence from existing fast-track court systems and time-bound investigation laws demonstrates that **legislative intent alone does not guarantee implementation**.
- A truly secure examination system requires **institutional restructuring of the NTA, sovereign digital infrastructure, cryptographic security, and systemic educational reform**.

RIGHT TO PROTEST

The Supreme Court upheld peaceful protest as a democratic right while, directing authorities to ensure that crowd-control measures, including pellet guns, follow SOPs and use proportionate force.

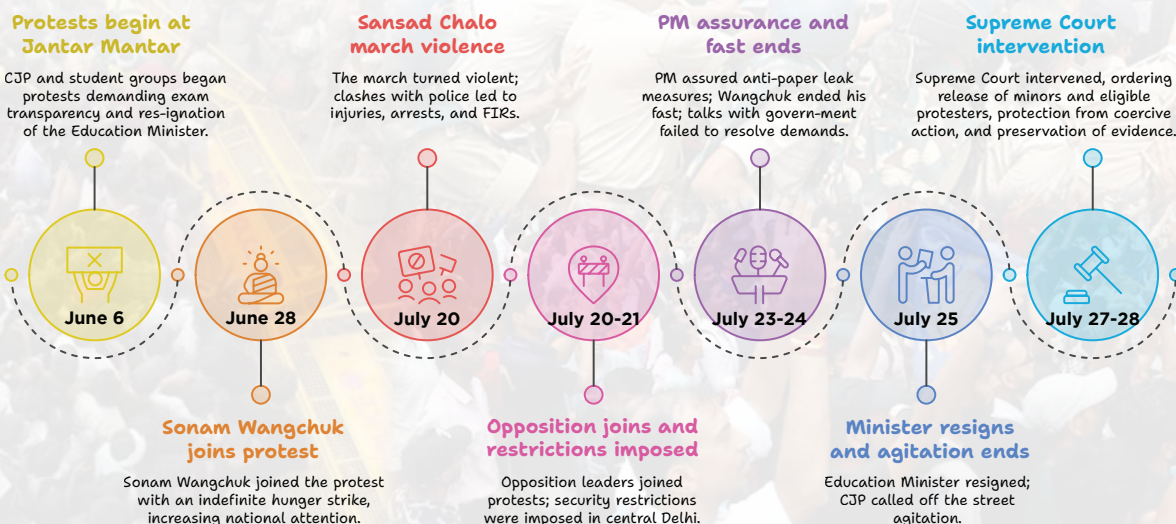
Background

- The protests began after allegations of irregularities and paper leaks in the **NEET-UG 2026** examination, triggering nationwide demonstrations by students demanding accountability, examination reforms, and action against those responsible.
- Demonstrations initially started in Delhi and later spread to several States, including Bihar, Maharashtra, Assam, West Bengal, Uttar Pradesh, Kerala, and Madhya Pradesh.
- During the protests, allegations emerged of excessive police force, including **lathi-charge, tear gas, pellet guns, electric batons, and mass detentions etc.**

Supreme Court's Key Observations on CJP (Cockroach Janta Party) Student Protests

- **Independent and Impartial Investigation:** The Court emphasized the need for a fair, thorough, and independent inquiry into allegations of injuries, police excesses, and attacks on law-enforcement personnel. It indicated the possibility of constituting a high-powered committee/SIT to fix accountability.
- **No One-Sided Inquiry:** The investigation must examine allegations from both sides—excessive use of force by police as well as violence or unlawful acts by protesters—to ensure a balanced assessment.
- **Protection of Student Protesters:** The Court directed the release of minors and students without criminal antecedents and restrained authorities from taking coercive action against eligible protesters while proceedings are pending.
- **Continuation of Lawful Investigation:** The Court allowed registered FIRs and investigations to continue but clarified that peaceful protesters should not face arbitrary action unless there are specific criminal allegations or past criminal records.
- **Accountability for Excessive Force:** The Court observed that officials responsible for misuse of power or excessive force must be identified and held accountable, as mere investigation without fixing responsibility would be inadequate.
- **Preservation of Evidence:** Authorities were directed to preserve all relevant evidence, including CCTV footage, drone recordings, body-camera footage, PCR logs, wireless communications, digital records, and weapon/ammunition logs, to ensure a transparent inquiry.
- **Privacy Protection:** The Court ordered that personal and digital information collected during the protests should be secured and not made publicly available to protect protesters' privacy.
- **Right to Peaceful Protest:** The Court reaffirmed that peaceful protest is a fundamental constitutional right and cannot be suppressed through excessive force, while also recognizing the State's duty to maintain public order.
- **Balance Between Civil Liberties and Public Order:** The Court maintained that both protesters and law-enforcement agencies are equally bound by the rule of law—citizens have the right to dissent peacefully, while authorities must exercise power within constitutional limits.
- **Medical Support for Injured Persons:** The Court directed authorities to ensure medical treatment for individuals injured due to pellet gun use during the protests.

TIMELINE OF EVENTS DURING PROTEST (2026)



- **No Immediate Blanket Ban on Pellet Guns:** The Court declined to prohibit pellet guns outright, stating that the issue requires examination of their legal framework, necessity, proportionality, and compliance with existing SOPs.
- **Use of Pellet Guns and Crowd-Control Measures:** The Court observed that pellet guns cannot be used as a routine crowd-control tool and may be deployed only in exceptional circumstances as per prescribed rules and protocols.
- **Review of SOPs and Use of Force:** The Union Government and Delhi Police were asked to place on record SOPs, standing orders, and guidelines governing pellet guns and crowd-control methods. Police action must follow a **graded response**, with minimum and proportionate force as the guiding principle.

About PROTEST

- According to the UN Human Rights Committee, a peaceful protest is a collective public assembly to express opinions, grievances or demands through non-violent means, protected under the right to freedom of peaceful assembly.
- A protest is an individual or collective expression of dissent, objection, or demand, undertaken to influence public opinion or government action through peaceful and lawful means.

Evolution of Protest in India

- **Ancient India:** Social and religious reform movements by Buddha and Mahavira against orthodox practices.
- **Medieval India:** Bhakti and Sufi movements challenged caste discrimination and religious rigidities.
- **Colonial Period:** Anti-British struggles like Swadeshi, Non-Cooperation, Civil Disobedience, and Quit India Movement.
- **Post-Independence:** Movements on democracy, rights, environment, and governance, including JP Movement, Narmada Bachao Andolan, Anna Hazare Movement, Anti-CAA, Farmers' and student protests.

Importance of Protests in Democracy

- **Ensures Accountability:** Keeps governments transparent and responsive to public concerns.
- **Protects Rights:** Upholds freedom of speech and peaceful assembly.
- **Shapes Policies:** Influences reforms and review of government decisions.
- **Empowers Citizens:** Provides a voice to marginalized and affected groups.
- **Drives Social Change:** Raises awareness and promotes reforms.
- **Checks State Power:** Prevents misuse of authority and strengthens participatory governance.

Constitutional Provisions for Right to Protest in India

Right to Protest – Not Explicitly Mentioned, yet constitutionally Guaranteed i.e. the word "Right To Protest" is not mentioned in

constitution but it is derived from combination of Article 19 (1) (a), Article 19 (1) (b), Article 19 (1) (c)

- **Article 19(1)(a):** Guarantees the freedom of speech and expression, enabling citizens to express opinions and raise public concerns.
- **Article 19(1)(b):** Provides the right to assemble peacefully and without arms, forming the constitutional basis of peaceful protests.
- **Article 19(1)(c):** Protects the right to form associations or unions, allowing collective mobilisation for causes.
- **Article 19(2) & 19(3):** Permit reasonable restrictions on speech and assembly in the interests of sovereignty, security, public order, morality, and other constitutional grounds.
- **Article 21:** The right to life and personal liberty has been interpreted to include democratic participation and the right to voice grievances.
- **Directive Principles (Part IV):** Encourage a democratic and welfare-oriented state where citizens can participate in governance and social change.
- **Judicial Position:** The Supreme Court has recognised the right to peaceful protest as a fundamental democratic right but held that it is not absolute and must be balanced with public order and the rights of others.

Role of Police

The police are the primary agency responsible for managing protests while balancing the right to peaceful assembly with the maintenance of public order.

- **Facilitate Peaceful Protests:** Ensure a safe environment for peaceful assemblies while protecting the rights of demonstrators.
- **Maintain Law and Order:** Prevent violence, rioting, vandalism, and regulate traffic to minimize public disruption.
- **Protect Life and Property:** Safeguard protesters, bystanders, public property, and private property during demonstrations.
- **Enforce the Law Fairly:** Prevent unlawful assemblies, take action against offenders, and use force only when lawful, necessary, and proportionate.
- **Uphold Human Rights:** Respect constitutional freedoms, avoid arbitrary arrests or excessive force, and promote dialogue between protesters and authorities.

Role of the Opposition During a Protest

In a parliamentary democracy, the Opposition plays a crucial role in representing public concerns while ensuring that protests remain constitutional and peaceful.

- **Voice Public Concerns:** Represent protesters' issues in Parliament and before the government.
- **Ensure Accountability:** Scrutinize government actions through parliamentary mechanisms.
- **Promote Dialogue:** Facilitate peaceful communication between protesters and authorities.

- **Protect Democratic Rights:** Uphold freedom of speech and peaceful assembly.
- **Suggest Reforms:** Propose policy changes to address grievances.
- **Strengthen Democracy:** Ensure lawful dissent and constitutional governance.

Jantar Mantar Student Protest (2026)

- **Cause:** Students launched a nationwide protest over the alleged **NEET-UG paper leak** and other examination irregularities, demanding accountability in the education system.
- **Main Demand:** The primary demand was the **resignation of Union Education Minister Dharmendra Pradhan**, with protesters holding him politically accountable for repeated examination failures.
- **Protest Venue:** **Jantar Mantar, New Delhi**, became the focal point of the agitation, with parallel demonstrations held across several states.
- **Nature of Protest:** The movement remained largely **peaceful**, involving dharnas, marches, hunger strikes, and social media campaigns led primarily by students and youth.
- **Leadership:** The protests were spearheaded by the **Cockroach Janta Party (CJP)**, a youth-led movement advocating reforms in the examination system.
- **Government Response:** Following sustained public pressure, **Dharmendra Pradhan resigned** as Union Education Minister, and **Pralhad Joshi** was given charge of the Education Ministry.
- **Additional Assurances:** The government also agreed to **withdraw legal proceedings against peaceful protesters**, provide compensation to affected families, and consider examination reforms.
- **Parliamentary Impact:** The issue disrupted Parliament, with the Opposition demanding accountability over police action and examination irregularities.

Features of Gen Z Protests

- **Digital-first mobilization** with rapid organization through social media.
- **Hybrid activism**, combining online campaigns with street demonstrations.
- Greater emphasis on **transparency, accountability, and fact-sharing**.
- High use of **creative communication** (infographics, reels, memes, short videos).
- Strong preference for **issue-based** rather than ideology-based mobilization.
- Faster public engagement and broader participation across geographical boundaries.

Venues Preference for Protest

Jantar Mantar and Ramlila Maidan Common Protest Venues:

- **Designated Protest Sites:** Jantar Mantar and Ramlila Maidan provide spaces for peaceful demonstrations while limiting inconvenience to the public.
- **Proximity to Seat of Power:** Their location near Parliament and government offices enables protesters to convey demands directly to policymakers.
- **Adequate Space:** Ramlila Maidan accommodates large gatherings, while Jantar Mantar supports smaller protests and symbolic demonstrations.
- **Better Security and Crowd Management:** Designated venues allow effective policing, traffic regulation, and emergency response.
- **Reduced Public Disruption:** They balance the right to protest with the need to maintain public movement and essential services.
- **Historical Significance:** These venues have hosted major democratic movements, including anti-corruption, farmers', student, and civil society protests.
- **Judicial Backing:** The Supreme Court supports peaceful protests but discourages indefinite occupation of public spaces, favouring designated areas.

Major Student/Youth-Led Protests across the World

- **Bangladesh (2024):** Student-led protests over quota reforms and governance resulted in political change.
- **Kenya (2024):** Youth demonstrations against tax increases compelled the government to withdraw the Finance Bill.
- **Nepal (2025):** Governance failures and corruption fuelled large-scale youth protests.
- **Indonesia (2025):** Students launched digital campaigns demanding economic and governance reforms.
- **Togo (2025):** Young people protested for democratic reforms and employment opportunities.
- **Morocco (2025):** Youth protests over healthcare and education led to increased government spending.
- **Peru (2025):** Gen Z protests intensified demands for action against corruption and political instability.
- **Uganda (2026):** Electoral disputes and corruption triggered youth protests amid government crackdowns.

Conclusion

- Safeguard the constitutional right to peaceful protest while ensuring reasonable restrictions to maintain public order and the rule of law. Ensure transparent policing, proportionate use of force, impartial investigations, and accountability to protect civil liberties.
- Promote dialogue, institutional responsiveness, and timely reforms to address public grievances and strengthen constitutional democracy.

INDIA-INDONESIA RELATIONS

The Prime Minister of India paid a State Visit to Indonesia. It opened a new phase in the India–Indonesia Comprehensive Strategic Partnership, which began in 2018.

Key Outcomes of the Visit

Defence and Maritime Security:

- Both countries signed landmark defence agreements covering the **BrahMos supersonic cruise missile** and the **Astra Beyond Visual Range (BVR) air-to-air missile**. This deal is collectively valued at over **USD 600 million**.
- Indonesia signed a contract for **two BrahMos batteries** and placed the **first-ever export order for the Astra missile**. **Bharat Dynamics Limited (BDL)** will integrate the **Astra Mk-1** with an engagement range of **80-110 km** – with Indonesia's **Su-30 fleet**. This is a landmark for India's **Make in India** defence exports.
- Both sides agreed to cooperate on **joint production, technology transfer, defence R&D, shipbuilding, and MRO (Maintenance, Repair and Overhaul)** facilities.
- The **MoU on Maritime Safety and Security Cooperation** was extended to protect Indo-Pacific sea lanes.
- Both sides agreed to jointly develop **Sabang Port** at the northern tip of Sumatra – located less than **100 nautical miles from Indira Point**, the southernmost tip of India's Nicobar Islands — strengthening India's **surveillance, logistics, and strategic presence** near the **Strait of Malacca**.
- The **3rd India-Indonesia Security Dialogue (IISD)** was welcomed as a platform for broader security cooperation.

Critical Minerals, Steel and Industry:

- An MoU was signed on **minerals and steel supply chain technology**, with India committing to invest in **nickel and rare earth permanent magnet manufacturing** in Indonesia, a sector currently dominated by China.
- SAIL and PT Krakatau Steel** agreed to set up a **stainless-steel slab manufacturing facility** in Indonesia.
- A separate agreement covers **rare earth magnets** vital for **electric vehicles and advanced electronics**.

Technology and Digital Cooperation:

- Agreements were signed on **Research, Technology and Innovation Cooperation** and **Next-Generation Telecommunications**.
- The **Indonesia Open Network (ION)** was launched, inspired by India's **ONDC (Open Network for Digital Commerce)**, taking India's **Digital Public Infrastructure (DPI) model** to Southeast Asia.
- Both sides welcomed progress on **Local Currency Transactions (LCT)** between the **RBI and Bank Indonesia** to ease trade and financial integration.

Space Cooperation

- The **Framework Agreement on peaceful uses of outer space** was extended.
- ISRO and Indonesia's BRIN** continue to operate the **Integrated Biak Telemetry, Tracking and Command (TTC) Facilities** to track Indian satellites and launch vehicles.

Health, Agriculture and Disaster Management:

- An MoU between **CDSO and Indonesia** aims to harmonise medical product regulations.
- An **Implementation Agreement on Health Workforce Collaboration** was signed.
- India's **NDMA and Indonesia's National Agency for Disaster Management** established institutional ties for disaster preparedness and response.
- A broad **MoU on Agriculture and Allied Sectors** was signed. India announced supply of **100 tonnes of DWR-162 wheat seeds** to boost Indonesian farm productivity.

Soft Power, Culture and Institutions:

- PM Modi received Indonesia's **highest civilian honour, the Bintang Adipurna**, at the **Istana Merdeka, Jakarta**. He became only the **second Indian Prime Minister after Jawaharlal Nehru** to receive this honour.
- India will conserve and restore the **UNESCO World Heritage Prambanan Temple Complex** in Yogyakarta through the **Archaeological Survey of India (ASI)** which is Indonesia's largest Hindu temple complex built on **Tri Murti symbolism** dedicated to Brahma, Vishnu, and Shiva.
- 2026-27 was declared the Tagore-Dewantara Year of Cultural and Educational Diplomacy**, commemorating the **centenary of Rabindranath Tagore's 1927 visit to Indonesia** and his intellectual connection with **Ki Hajar Dewantara**, founder of the **Taman Siswa (Garden of Students)** movement and Indonesia's first Education Minister.
- India gifted a replica of the **9th-century Nalanda Copper Plate**, engraved in **Devanagari script and Sanskrit**, to be displayed at the **Muara Jambi museum**.
- Indonesia will post a **Liaison Officer at India's IFC-IOR (Information Fusion Centre – Indian Ocean Region)** in Gurugram for real-time maritime intelligence sharing.
- A branch campus of **IIM Bangalore** will be established at the **Singhasari Special Economic Zone in East Java**.
- The **Election Commission of India and Indonesia's KPU** will share best practices in conducting large-scale elections.

Historical Evolution

- India and Indonesia share deep **civilisational bonds through Hinduism, Buddhism, and later Islam**, reflected in the shared heritage of the **Ramayana, Mahabharata**, and links between **Nalanda and Muarajambi**.
- Both signed the **Treaty of Friendship in 1951**. They were founding voices at the **Bandung Conference (1955)** and among the **five founding members of the Non-Aligned Movement (1961)** alongside Yugoslavia, Egypt, and Ghana.
- Ties deepened under India's **Look East Policy (1991)** and gained further momentum under the **Act East Policy (2014)**.
- Relations were elevated to a **Comprehensive Strategic Partnership in 2018**, along with a **Shared Vision of Maritime Cooperation in the Indo-Pacific**. Both countries marked **75 years of diplomatic relations in 2024**.

Geopolitical and Indo-Pacific Cooperation

- Indonesia sits at the intersection of the **Indian and Pacific Oceans**, India's closest maritime neighbour in Southeast Asia and a critical partner for a **free, open, inclusive, and rules-based Indo-Pacific**.
- India's **Act East Policy, Indo-Pacific Oceans Initiative (IPOI), SAGAR vision**, and **MAHASAGAR (Mutual and Holistic Advancement for Security Across the Regions)** vision align naturally with Indonesia's **Global Maritime Fulcrum** vision.
- Indonesia's **regional weight in ASEAN** helps India deepen Southeast Asian engagement and diversify strategic partnerships.
- Both countries cooperate in **BRICS, G20, IORA**, and the **East Asia Summit**.

Defence Cooperation

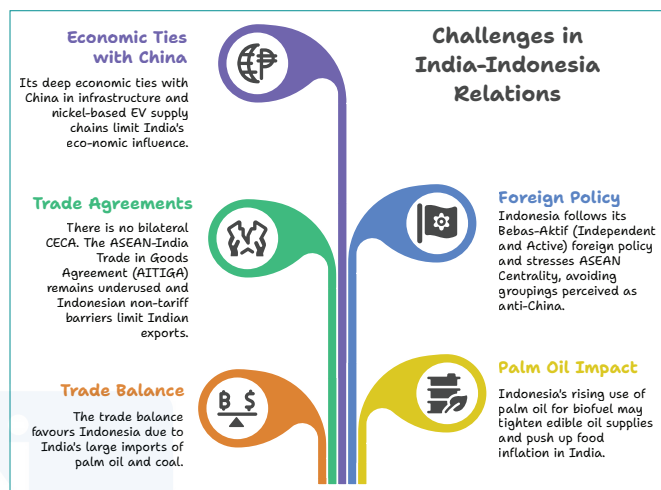
- Indonesia's purchase of **BrahMos and Astra** missiles is a milestone for India's defence exports, demonstrating international trust in India's **indigenous defence industry**.
- Institutional defence ties run through the **Joint Defence Cooperation Committee (JDCC)**, Defence Ministers' Dialogues, and the proposed **IISD**.
- Regular military exercises include **IND-INDO CORPAT, Garuda Shakti, Samudra Shakti**, and multilateral drills like **Milan and Komodo**, building operational interoperability.

Geo-economic Cooperation

- Indonesia is India's **second-largest trading partner in ASEAN** after Singapore. Bilateral trade grew from **USD 4.3 billion in 2005-06 to USD 38.84 billion in 2022-23**, settling at **USD 28.15 billion in 2024-25**.
- India imports **crude palm oil and coal** while exporting **refined petroleum, vehicles, steel, and agricultural products**.
- Cooperation in **critical minerals, rare earth magnets, nickel, steel, and battery value chains** is now a **strategic priority** reducing dependence on China-dominated supply chains.

People-to-People and Cultural Ties

- Approximately **1,20,000 Persons of Indian Origin and 15,000 NRIs** live in Indonesia.
- India is the **fifth-largest source of tourists** to Indonesia.
- Education ties are growing through the **IIM Bangalore campus, ECI-KPU cooperation**, and India's **ITEC programme** including judicial training.



Way Forward

- Speed up the **AITIGA review** and explore a bilateral **CECA** to reduce non-tariff barriers and grow Indian exports.
- Build strong **critical mineral, nickel, rare earth, and EV battery value chains** through joint ventures and long-term investment.
- Operationalise **Sabang Port** with clear institutional frameworks, assured funding, and firm timelines.
- Deepen cooperation in **defence manufacturing, maritime security, technology, digital infrastructure, space, agriculture, and disaster management**.
- Align **SAGAR and MAHASAGAR** with Indonesia's **Global Maritime Fulcrum** while respecting **Bebas-Aktif** and ASEAN Centrality, focusing on capacity building and intelligence sharing.

Conclusion

- India and Indonesia have built a **multi-dimensional partnership** rooted in shared history, common strategic interests, and converging Indo-Pacific visions.
- The Prime Minister's visit expanded cooperation in defence, maritime security, minerals, technology, space, health, agriculture and culture, producing **20 substantive outcomes**.
- The **BrahMos and Astra** deals mark a new chapter in India's defence export journey.
- The **Sabang Port** project, if operationalised, could provide India a strategic footprint near a critical maritime chokepoint.
- Deeper economic ties and cooperation on shared geopolitical challenges can help anchor a free, open and **rules-based Indo-Pacific** order.

WOMEN-LED PANCHAYATI RAJ

Under India's BRICS Chairship 2026, the Ministry of Panchayati Raj showcased India's women-led Panchayati Raj model as a global example of democratic decentralisation and grassroots women's empowerment.

Panchayati Raj Institutions

Historical Evolution

- The **Balwant Rai Mehta Committee (1957)** recommended a three-tier Panchayati Raj structure; **Rajasthan** became the first state to implement it in **1959**.
- The **73rd Constitutional Amendment Act, 1992** granted constitutional status to PRIs, adding **Part IX** to the Constitution and formally institutionalising the three-tier system across India.

Constitutional Provisions

- **Article 243D** mandates reservation of not less than **one-third of seats** for women in Panchayats at all levels, including for the positions of Pradhan and Zila Panchayat Chairperson.
- **Article 15(3)** empowers the State to make special provisions for women and children, providing the constitutional basis for affirmative action in PRI governance.
- **Article 243G** read with the **Eleventh Schedule** lists **29 subjects**, including agriculture, drinking water, rural housing, health, education, and women and child development. Over these Panchayats can exercise authority, defining the governance domain of elected women representatives.

Three-Tier Structure

- **Gram Panchayat (GP):** Functions at the village level, responsible for basic civic administration and local development.
- **Block Panchayat (BP):** Coordinates development plans across multiple villages and ensures implementation of government schemes.
- **District Panchayat (DP):** Supervises and integrates development activities across blocks, ensuring effective planning and resource allocation.
- The **Gram Sabha**, comprising all registered voters of a village, is the most direct form of democracy and the only **permanent unit** in the PRI system. Its powers and functions are determined by the state legislature.

Current Status of Women in PRIs

- Across more than **2.5 lakh Panchayats**, there are approximately **24.04 lakh elected representatives**, of whom women constitute nearly **49.75%**, a figure that far exceeds the constitutional minimum of one-third.
- **20 states** have already extended women's reservation in PRIs to **50%**, including Bihar, Rajasthan, Madhya Pradesh, and Odisha.
- In **Karnataka**, women have surpassed the 50% threshold even in **unreserved seats**, indicating that reservation has created political capital, networks, and familiarity that extend beyond reserved constituencies.

Significance of Women's Participation in PRIs

- **Evidence-Based Policy Shift:** Research consistently shows that women-led Panchayats prioritise **health, education, sanitation, and drinking water**. These sectors are central to inclusive human development and directly aligned with household and community needs.
- **SDG Localisation:** Women-led PRIs are directly linked to India's commitment to **SDG 5 (Gender Equality)** and **SDG 16 (Strong Institutions)**, making grassroots women's leadership a key instrument for achieving India's sustainable development goals at the local level.
- **Democratic Deepening:** The PRI reservation model has successfully transitioned India from a **representative democracy** to a more **participatory one**, bringing millions of previously excluded women into active political leadership.
- **Role Model Effect:** Increased visibility of women in PRI leadership challenges gender stereotypes and inspires younger generations, creating a positive cycle of political participation.
- **Balanced Governance:** Women's participation ensures that **gender-sensitive perspectives** are integrated into local planning, leading to more equitable policies on livelihoods, welfare, and community development.
- **Economic Empowerment:** Women's active role in local governance expands the leadership talent pool, promotes inclusive growth, and strengthens community-level economic decision-making.
- **Global Model:** India's PRI reservation framework is being presented at **BRICS 2026** as a replicable model for democratic decentralisation and grassroots gender empowerment for developing nations.

Challenges

- **Pradhan Pati/Proxy Sarpanch:** The most critical structural challenge is the **Pradhan Pati or Sarpanch Pati** phenomenon where husbands or male relatives of elected women representatives exercise de facto power in their place, fundamentally undermining the spirit of constitutional reservation.
 - The Ministry of Panchayati Raj constituted a committee under former Mines Secretary **Sushil Kumar** to address this, which recommended **exemplary penalties** against such proxy leadership.
- **Two-Child Norm Barrier:** Several states including Rajasthan and Odisha impose a **two-child norm** for contesting Panchayat elections. Since rural women have limited say in family planning decisions, this rule disproportionately **excludes women** from contesting.

- ♦ This acts as a structural barrier that directly contradicts the spirit of women's reservation.
- ➔ **Low Remuneration:** The honorarium for elected women representatives remains extremely low, for example, **₹4,500 per month for sarpanches in Rajasthan**. This discourages serious participation, particularly from educated women who have more lucrative alternatives.
- ➔ **Caste and Patriarchal Barriers:** The hierarchical caste system in rural India makes it particularly difficult for women from **SC and ST communities** to function independently and effectively, adding a layer of social exclusion beyond gender discrimination alone.
- ➔ **Lack of Financial Autonomy:** Many women representatives lack independent control over Panchayat funds, with financial decisions frequently made by male officials or family members, limiting their effective governance authority.
- ➔ **Capacity and Skill Gaps:** A majority of women entering PRIs do so for the **first time in public life**, without prior governance experience. Government training programmes have been unable to cover all elected representatives adequately within stipulated timelines.
- ➔ **Gender Bias and Resistance:** Women representatives frequently face resistance from male co-workers and community members when taking bold decisions, and remain subject to social pressures from **purdah systems and domestic responsibilities** that constrain their public functioning.

Initiatives for Women's Empowerment in PRIs

Constitutional and Legislative Framework

- ➔ The **73rd and 74th Constitutional Amendment Acts** mandated reservation of **one-third of seats** for women in PRIs and urban local bodies respectively, including offices of chairpersons at all levels, with **33% of reserved seats** further earmarked for SC and ST women.
- ➔ The **106th Constitutional Amendment (Nari Shakti Vandan Adhiniyam)** reserves **one-third of seats** for women in the Lok Sabha, State Legislative Assemblies, and the Legislative Assembly of the NCT of Delhi. Thus, extending the PRI reservation logic to higher legislative levels.
- ➔ Capacity Building and Training
- ➔ The **Revamped Rashtriya Gram Swaraj Abhiyan (RGSA) (2022–26)**, approved with a total outlay of **₹5,911 crore** (Central share: ₹3,700 crore), is the primary centrally sponsored scheme for capacity building of PRI members. Its revised mandate explicitly focuses on **localisation of SDGs** at the grassroots level through a whole-of-government approach.
- ➔ Under RGSA, approximately **2.86 lakh women elected representatives were trained between 2022 and December 2025**, with basic orientation training to be completed within **six months of election** and refresher training within two years.
- ➔ **Sashakt Panchayat Netri Abhiyan** was launched specifically

for capacity building of women PRI leaders, focusing on leadership, communication, and negotiation skills.

- ➔ The Ministry launched a **Special Training Module** to strengthen leadership, communication, and decision-making skills of **Women Elected Representatives (WERs)** through practical and interactive learning for real governance situations.

Institutional Initiatives

- ➔ **Model Women-Friendly Gram Panchayat (MWFGP):** An institutional initiative aimed at building **gender-sensitive Panchayats** that ensure women's participation, safety, rights, and empowerment at the grassroots level.
- ➔ **Panchayat Mahila Shakti Abhiyan (PMSA):** Encourages formation of **women's collectives in Panchayats** to boost confidence, networking, and collective decision-making among women leaders.
- ➔ **"Say No to Proxy Sarpanch" Campaign (March 2026):** Launched by the Ministry of Panchayati Raj to directly combat the Pradhan Pati practice through awareness drives, training, and monitoring to ensure women sarpanches exercise real power.
- ➔ **e-Panchayat and Digital India Integration:** Women leaders are being equipped with **digital tools** for better decision-making, financial management, and governance through e-Panchayat platforms and digital literacy programmes.
- ➔ **Separate Mahila Sabhas and Ward Sabhas:** States are encouraged to organise separate Mahila Sabhas to specifically boost women's engagement in local governance deliberations.

Way Forward

- ➔ **Enact Legal Penalties Against Proxy Leadership:** Translate the Sushil Kumar Committee's recommendations into **enforceable legislation** across all states, with clear penalties for Pradhan Pati and proxy sarpanch practices, backed by independent monitoring mechanisms.
- ➔ **Reform the Two-Child Norm:** States should repeal or reform the **two-child norm** for PRI elections, which disproportionately excludes women and contradicts the constitutional spirit of inclusive representation.
- ➔ **Enhance Financial Autonomy:** Ensure that women elected representatives have **direct, independent control** over Panchayat budgets and scheme funds, supported by mandatory financial management training.
- ➔ **Revise Remuneration:** Significantly increase the **honorarium of elected women representatives** to make PRI leadership financially viable and attractive to educated, skilled women.
- ➔ **Address Intersectional Exclusion:** Design targeted programmes for women from **SC, ST, and minority communities** who face compounded barriers of gender, caste, and social exclusion in exercising their elected authority.
- ➔ **Strengthen Gram Sabha Participation:** Institutionalise **Mahila Sabhas** as a regular feature of local governance across all states to ensure women's voices shape community priorities before they reach formal Panchayat deliberations.

AMENDED DRUGS RULES

The Ministry of Health and Family Welfare has amended the Drugs Rules, 1945 through Gazette Notification G.S.R. 607(E) dated July 8, 2026 to remove the licensing exemption for high alcohol-containing medicinal formulations.

Drug Regulation in India

Constitutional Basis

- Entry 19 of List III (Concurrent List) under the **Seventh Schedule** of the Constitution empowers both Parliament and State Legislatures to legislate on drugs.
- This concurrent jurisdiction is the structural reason for fragmented enforcement across states.

Regulatory Architecture

- The **Drugs and Cosmetics Act, 1940** is the primary legislation governing the import, manufacture, distribution, and sale of drugs, cosmetics, and medical devices in India.
- Supporting rules include the **Drugs Rules, 1945**, **Medical Devices Rules, 2017**, **New Drugs and Clinical Trials Rules, 2019**, and **Cosmetics Rules, 2020**.
- The **Central Drugs Standard Control Organisation (CDSCO)**, headed by the **Drugs Controller General of India (DCGI)**, is the central authority for drug regulation and oversees imports and nationally marketed drugs.
- **State Licensing Authorities (SLAs)** appointed by State Governments exercise regulatory control over manufacturing, sale, and distribution of drugs through licensing and inspection at the state level.
- The **National Pharmaceutical Pricing Authority (NPPA)** fixes and revises drug prices under the **Drugs (Prices Control) Order (DPCO), 2013**.

- It also monitors compliance and ensures availability of essential medicines.

- The **Indian Pharmacopoeia Commission (IPC)** publishes the **Indian Pharmacopoeia** under the Drugs and Cosmetics Act, 1940. It is the official compendium prescribing standards of identity, purity, and strength for medicines marketed in India.
- The **State Health Regulatory Excellence Index (SHRESTH)** is a first-of-its-kind national initiative. It benchmarks and strengthens state drug regulatory systems through a transparent and data-driven framework.

Key Schedules Under Drugs Rules, 1945

- **Schedule K** lists drugs exempted from certain provisions of the Drugs and Cosmetics Rules, 1945. It facilitates the sale of drug categories where strict licensing is not considered necessary.
- **Schedule H** covers drugs that can be sold only against the prescription of a Registered Medical Practitioner. Retailers are required to keep sales records.
- **Schedule H1** imposes the highest level of retail regulation. It was introduced in 2013 to address antimicrobial resistance. It requires mandatory prescription and maintenance of a **separate register** recording the prescriber's name, patient's name, drug name, and quantity supplied. Records must be kept for **three years** and remain open for inspection. Products must prominently display the **"Rx" symbol in red** with a **red-bordered warning box** on the label.



Government amends Drugs Rules, 1945 to Strengthen Regulation of High Alcohol-Containing Drug Formulations

Strengthening public health safeguards and
ensuring responsible use of high alcohol-containing medicines.



KEY AMENDMENTS

 Clearer classification and definitions for high alcohol-containing drug formulations.	 Stricter conditions on manufacture, sale, distribution and import.	 Enhanced labeling requirements with prominent warnings.	 Stronger compliance and monitoring mechanisms.	 Measures to prevent misuse and protect public health.
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A step towards safer medicines, stronger regulation and a healthier India.

Key Provisions of the Amendment

- The **Drugs (Tenth Amendment) Rules, 2026** was notified through **G.S.R. 607(E) dated July 8, 2026** and published in the **Gazette of India (Extraordinary) on July 9, 2026**.
- All formulations containing **more than 12% v/v ethyl alcohol** in quantities **exceeding 30 ml** are removed from the Schedule K exemption. Such products must now obtain requisite licences under the **Drugs and Cosmetics Act, 1940**.
- These formulations are simultaneously **shifted to Schedule H1**. Their sale is now mandatory only against the prescription of a Registered Medical Practitioner with strict record-keeping requirements.
- A **new Entry No. 52** has been inserted in Schedule K. It specifically covers **mouthwash preparations** containing more than 12% ethyl alcohol packed and sold in bottles or packs exceeding 30 ml.

Background

- Certain medicinal products were previously exempted from licensing requirements under Schedule K. These included **tinctures of cardamom, ginger, and other aromatic preparations**.
- Some of these formulations contained ethyl alcohol in concentrations as high as **80–90% v/v**. This made them highly susceptible to **misuse as cheap intoxicating substitutes**.
- **State Governments flagged this misuse** and formally requested central intervention. This directly prompted the amendment.
- These products were being actively **diverted outside the pharmaceutical supply chain**. They were being sold without any prescription or record-keeping requirements. This made their misuse impossible to track or control.

Objectives of the Amendment

- **Prevent Misuse and Diversion:** Mandatory licensing, prescription, and record-keeping ensure these formulations are obtained only through regulated pharmaceutical channels. This directly addresses the diversion problem flagged by state governments.
- **Strengthen Public Health and Consumer Safety:** Bringing high-alcohol formulations under Schedule H1 ensures they are dispensed only under medical supervision. This reduces the risk of self-medication, treatment failure, and fatal drug-induced toxicities.
- **Maintain Export Reputation:** India is a major global supplier of generic medicines. Strict regulatory compliance is critical for passing international audits by agencies like the **USFDA**. This protects India's pharmaceutical export standing.
- **Promote Rational Drug Use:** The amendment is part of the government's broader commitment to promoting **rational and responsible use of medicinal products** and strengthening the national drug regulatory framework.

Issues with the Current Regulatory System

- **Manufacturing Quality Concerns:** Instances of contamination and quality lapses continue to highlight weaknesses in adherence to **Good Manufacturing Practices (GMP)**. Smaller manufacturers are particularly vulnerable to such lapses.
- **Fragmented Oversight:** Drug regulation is a **Concurrent List subject**. Multiple regulatory authorities operate at central and state levels with varying enforcement standards. This creates inconsistencies in monitoring and compliance.
- **Regulatory Capacity Constraints:** Many State Drug Control departments face acute shortages of **drug inspectors, testing laboratories, and technical personnel**.
- This limits effective implementation of even well-designed regulatory amendments.
- **Over-the-Counter Drug Culture:** Widespread self-medication increases the risk of irrational and unsafe use of medicines. Enforcement of prescription requirements remains weak at the retail pharmacy level.
- **AMR Aggravation:** Unregulated over-the-counter dispensing of powerful antimicrobials aggravates **global antimicrobial resistance (AMR)**. This underscores the broader importance of Schedule H1 compliance across drug categories.

Significance of the Amendment

- The amendment channels high-alcohol medicinal formulations exclusively through the regulated pharmaceutical supply chain, curbing diversion via unregulated outlets.
- Placing these products under Schedule H1 introduces enforceable safeguards such as mandatory prescriptions, record-keeping, and inspections which were previously absent. It particularly protects rural and semi-urban populations vulnerable to misuse of cheap, high-alcohol tinctures as intoxicants.

Way Forward

- **Capacity Building:** Increase drug inspectors, testing labs, and technical staff in State Drug Control departments to enforce Schedule H1 norms effectively.
- **Quality Assurance:** Embed QA across the manufacturing process rather than relying solely on end-product testing; ensure real-time GMP compliance.
- **Digital Enforcement:** Use AI, analytics, and digital prescription tracking to monitor retail-level compliance, with special focus on e-pharmacies.
- **Public Awareness:** Run campaigns explaining new prescription requirements and discouraging self-medication.
- **Regulatory Transparency:** Mandate public disclosure of inspection findings and actions by CDSCO and State authorities to boost accountability.
- **Centre-State Coordination:** Establish structured mechanisms between CDSCO and State Drug Controllers for uniform, consistent enforcement nationwide.

CIVIL REGISTRATION SYSTEM

According to the latest official data, India officially recorded more than 99% of its estimated births and deaths in 2024.

About

- The **Civil Registration System (CRS)** is a **continuous and compulsory** system for recording **births, deaths, and stillbirths**.
- It serves as the primary source of data on **births, deaths, fertility, mortality, and the sex ratio at birth**. This information supports demographic estimation and population planning.
- The CRS functions under the **Office of the Registrar General and Census Commissioner of India (RGI)** under the **Ministry of Home Affairs**.
- The system operates under the **Registration of Births and Deaths (RBD) Act, 1969**, which was amended in **2023**. Although legally operational since **1970**, its coverage remained limited for many years.

Legal Framework

- **Mandatory Registration:** Registration of every **birth, death, and stillbirth** is compulsory. Registration must be carried out at the **place where the event occurs**.
- **Time Limit:** Births, deaths, and stillbirths should normally be reported within **21 days** of occurrence. A **late fee** applies if registration is delayed.
- **Stillbirth:** Under the Act, a **stillbirth** refers to the death of a fetus **after 28 weeks of pregnancy, but before or during birth**.
- **Digital Registration:** Since **October 2023**, all registrations are required to be completed digitally through the **Civil Registration System**.
- **Births Outside India:** A child born outside India to Indian citizens is registered under the **Citizenship Act, 1955** and the **Citizens (Registration at Indian Consulates) Rules, 1956**. If the parents later return to India with the intention of settling permanently, the birth may be registered under the **RBD Act, 1969** within **60 days** of the child's arrival in India.
- **Deaths Outside India:** Deaths of Indian citizens occurring abroad are registered at the **Indian Consulate** under the **Citizenship Act, 1955**. Such registrations are treated as valid under the **RBD Act, 1969**.
- **Penalty:** Negligence by a Registrar in performing duties under the Act is punishable with a **fine of up to ₹1,000**.

Registration Process

- **Hospital Events:** For births and deaths occurring in hospitals, the **medical officer in charge** or another authorised official is responsible for reporting the event.
- **Home Events:** For births and deaths occurring at home, the responsibility generally lies with the **head of the household** or another prescribed informant.

- **Registration Functionaries:** The **Registrar General of India** supervises the system at the national level. **Chief Registrars, District Registrars, and Local Registrars** manage registration at the State, district, and local levels.

Key Findings of the CRS Report, 2024

- **Birth Registration:** India registered **99.1% of estimated births** in 2024.
- **Death Registration:** Death registration reached **99.4% in 2024**.
- **State Performance:** 18 States and Union Territories achieved 100% birth registration. 21 States and Union Territories achieved 100% death registration.
- **Long-Term Progress:** In **2000**, India registered only **56% of births** and **48% of deaths**. By **2014**, the figures increased to around **86.6%** and **72.5%**, respectively.
- **Reporting Delay:** Despite high coverage, many births and deaths are still not registered within the prescribed **21-day period**.
- **Infant Deaths:** **84.2% of registered infant deaths** were reported from **urban areas**, while only **15.8%** came from **rural areas**. This suggests possible under-registration in rural regions.
- **Medical Certification:** Registration of a death does not necessarily include a **medically certified cause of death**. This reduces the usefulness of CRS data for disease surveillance and public health planning.
- **Coverage Estimation:** The completeness of death registration is estimated using the **Sample Registration System (SRS)**. Since earlier studies suggest that the SRS may itself undercount births and deaths, the reported CRS coverage may be **slightly overestimated**.

Reasons for Improvement

- **Institutional Deliveries:** More births now occur in hospitals and health facilities. Government incentives for institutional deliveries have also encouraged registration.
- **Administrative Need:** Birth certificates are now essential for **school admissions, identity documents, welfare benefits, and many other official purposes**.
- **Expanded Healthcare:** More people are using formal healthcare through expanded health insurance and schemes such as **Pradhan Mantri Jan Arogya Yojana (PM-JAY)**. This has improved death registration.
- **Legal Documentation:** Families require death certificates for **pensions, insurance claims, inheritance, property transfers, bank accounts, and other administrative procedures**.
- **Legal Reform:** The **Registration of Births and Deaths (Amendment) Act, 2023** has made registration more complete, timely, and accessible.

Significance

- **Vital Statistics:** CRS provides reliable data on **fertility, mortality, birth rates, death rates, sex ratio at birth, and population change.**
- **Policy Support:** The data helps evaluate **health and social welfare policies.** It also supports evidence-based policymaking.
- **Real-Time Monitoring:** Timely registration helps monitor demographic trends and **seasonal mortality** caused by **high temperatures and air pollution.** It also supports decision-making during health emergencies such as **Covid-19.**
- **Decentralised Planning:** District- and sub-district-level data support better programme design under **decentralised governance.**
- **Legal Identity:** Birth and death certificates provide legally valid proof for **identity, education, welfare benefits, pensions, insurance, inheritance,** and other administrative purposes.

Concerns

- **Regional Disparities:** The quality and completeness of CRS implementation still vary across States and regions.
- **Delayed Registration:** Many births and deaths continue to be registered after the prescribed **21-day period,** reducing the timeliness of vital statistics.
- **Poor Infant Death Reporting:** Possible under-registration of infant deaths remains a major concern, particularly in rural areas.
- **Weak Mortality Data:** Many deaths still lack **medical certification of the cause of death.** This limits their value for **public health planning and disease surveillance.**
- **Data Quality:** Better record-keeping, timely registration, accurate medical certification, and secure use of digital records are still required.

- **Migration Gap:** CRS does not systematically record **internal migration.** This limits effective administrative planning and service delivery.

Registrar General of India (RGI)

- The **Registrar General of India (RGI)** was established in **1949** under the **Ministry of Home Affairs.**
- **Functions:** The RGI supervises the implementation of the **Registration of Births and Deaths Act, 1969** and manages the **Civil Registration System.**
 - ◆ It also conducts the **Census of India,** oversees the **Linguistic Survey of India,** and maintains the **National Population Register (NPR).**
- **Role:** The RGI supports **demographic planning and policy formulation.** It is headed by a senior civil servant, usually of **Joint Secretary** rank.

Way Forward

- **Improve Coverage:** Increase awareness, simplify registration procedures, and strengthen last-mile service delivery, especially in underserved regions.
- **Strengthen Data Quality:** Expand the **Medical Certification of Cause of Death (MCCD)** system. Conduct regular data audits and improve record accuracy.
- **Reduce Regional Gaps:** Strengthen digital infrastructure, build administrative capacity, and closely monitor low-performing States and districts.
- **Strengthen Digital Governance:** Ensure secure use of digital records, integrate **internal migration** data, and improve inter-agency coordination for evidence-based policymaking.

LEVEL OF REGISTRATION OF BIRTHS, 2024

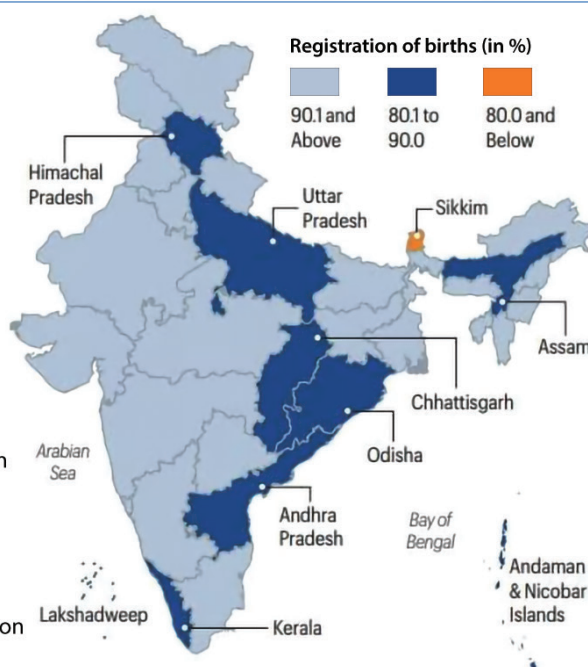
States in grey have at least 90.1% registration of births



STATES such as Kerala, Arunachal Pradesh, Himachal Pradesh, and Goa achieved universal birth registration coverage by the early 2000s.

BUT DEATH registration coverage lagged. Only Goa, Mizoram, and Kerala achieved universal coverage by that period.

TODAY, MOST states have very high rates of registration of births.



DRAFT NATIONAL HEALTH RESEARCH POLICY, 2026

The Department of Health Research (DHR) under the Ministry of Health and Family Welfare has released the Draft National Health Research Policy (NHRP), 2026 for public consultation.

Background

- The policy seeks to align India's health research with its **disease burden, public health priorities**, and the vision of **Viksit Bharat@2047**. It replaces the **National Health Research Policy, 2011**.
- India's **Research and Development (R&D)** ecosystem is undergoing rapid transformation through innovation-led growth.
- The Government has placed **research and innovation** at the centre of its vision for **Viksit Bharat@2047**.
- However, India's **Gross Expenditure on Research and Development (GERD)** remains below **0.7% of Gross Domestic Product (GDP)**. This is significantly lower than countries such as the **United States, China, and South Korea**.

Need for the Policy

- Health research in India remains fragmented across multiple institutions. This leads to duplication of efforts and weak coordination.
- Research capacity is concentrated in a few premier institutions. Many medical colleges and States have limited research infrastructure and scientific manpower.
- Research priorities do not always reflect India's actual **disease burden, health system gaps, equity concerns**, or preparedness for future public health emergencies.
- The existing system largely measures success through **publications, patents**, and completed studies instead of improvements in healthcare.
- Rapid advances in **Artificial Intelligence (AI), digital health, genomics**, and **precision medicine** require stronger governance and regulatory mechanisms.
- Administrative and regulatory delays continue to slow research even when funding is available.
- Public expenditure on health research is only **0.024% of GDP**, well below the **0.27% average** of high-income countries.

Key Features

Unified National Framework

- The policy establishes India's **first comprehensive national health research framework**.
- It brings **biomedical science, clinical medicine, public health, epidemiology, digital health, health systems, behavioural sciences**, and **emerging technologies** under a single national strategy.
- It seeks to promote **indigenous innovation, evidence-based policymaking**, and measurable improvements in health outcomes.

Three-Tier Governance Structure

- The **National Health Research Stewardship Committee** will provide strategic direction and policy oversight.
- The **Department of Health Research (DHR)** will serve as the nodal agency for implementation, coordination, and monitoring.
- The **Indian Council of Medical Research (ICMR)** will provide scientific and technical leadership.
- **States** will integrate health research into local health programmes according to regional priorities.

National Health Research Agenda (NHRA)

- The policy proposes a **National Health Research Agenda (NHRA)** to identify priority research areas.
- Priorities will be based on **disease burden, emerging health threats, health system needs, equity, pandemic preparedness**, and **national development priorities**.
- The Agenda will guide research funding and will be revised periodically in consultation with States, researchers, and community representatives.

Priority Research Areas

- The policy prioritises research on **Tuberculosis (TB), Antimicrobial Resistance (AMR), vector-borne diseases, cancer, Non-Communicable Diseases (NCDs), mental health, anaemia, childhood malnutrition, women's health, maternal and infant mortality**, and strengthening **general healthcare and emergency care systems**.
- It also identifies **Artificial Intelligence (AI), health data science, cell and gene therapy, precision medicine**, and **climate change-related health research** as emerging priority areas.

Outcome-Based Research

- The policy shifts the focus from academic output to **real-world impact**.
- Researchers will be evaluated on their contribution to **public health policies, clinical practice, health programmes, indigenous technologies, capacity building, health system strengthening, health equity**, and **societal outcomes**.
- It promotes wider adoption of the **ICMR Impact of Research and Innovation Scale (ICMR-IRIS)**, launched in **2025**, for impact-based evaluation.

Research Governance

- The policy seeks faster ethics approvals for **multi-centre studies**.
- It proposes establishing a **National Research Integrity Office (NRIO)** to promote ethical research and prevent scientific misconduct.

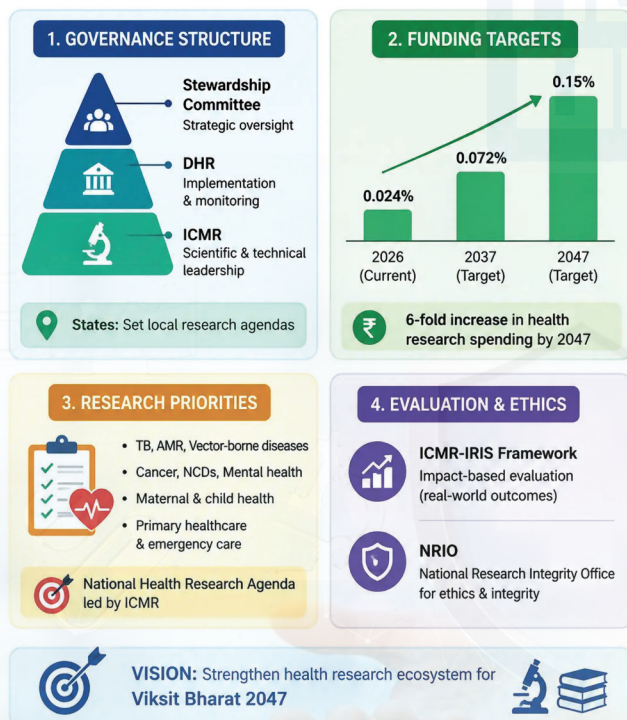
- It encourages responsible use of **Artificial Intelligence (AI)** in health research.
- It strengthens **data governance, cybersecurity, scientific integrity, community participation**, and accountability.
- It also promotes the shared use of **laboratories, biobanks**, and **publicly funded research infrastructure** to improve access and reduce administrative bottlenecks.

Funding and Capacity Building

- Public expenditure on health research is proposed to increase from **0.024% of GDP** to **0.072% by 2037** and **0.15% by 2047**, which is approximately **six times** the current level.
- The policy also proposes long-term national targets for **research investment, medical science PhDs, and indigenous health technologies**.
- It seeks to strengthen research capacity in **medical colleges** and increase participation of **industry, private hospitals, start-ups, and philanthropic organisations**.
- It also encourages States to prepare research agendas based on local health priorities and promote investment through **Corporate Social Responsibility (CSR)** initiatives.

NATIONAL HEALTH RESEARCH POLICY 2026

A Unified Framework for India's Health Research



Significance

- The policy seeks to build a research ecosystem that directly addresses India's public health needs. It aligns scientific research with the country's **disease burden** and **public health priorities**.
- The policy promotes **indigenous innovation** in vaccines, diagnostics, medicines, and medical technologies. It strengthens coordination among research institutions and supports **evidence-based policymaking**.
- It expands research opportunities beyond a few leading institutions by strengthening regional capacity.
- It also promotes **scientific integrity, community participation, accountability**, and stronger collaboration across the health research ecosystem.

Key Challenges

- Research capacity remains uneven across institutions and States. Research priorities do not always match India's evolving disease burden and health system needs.
- Public investment in health research remains inadequate.
- Administrative and regulatory delays continue to slow research. Poor research practices such as **data fabrication, plagiarism, peer-review fraud, authorship manipulation, excessive self-citation**, and weak reproducibility continue to affect research credibility.
- Existing regulatory frameworks have not kept pace with rapidly evolving digital health technologies.
- India also needs stronger capacities in **pandemic preparedness, genomic surveillance, and biosecurity**.

Expert View

- Experts have welcomed the policy's comprehensive approach, emphasis on **ethical** and **impact-oriented** research, and greater role for **States** in setting research priorities.
- However, they emphasise that its success will depend on **adequate funding, strong implementation, better research infrastructure, timely support for researchers**, and effective translation of research into improved healthcare outcomes.

Way Forward

- Increase public investment and achieve the proposed long-term funding targets. Strengthen research infrastructure and scientific capacity across all States and medical institutions.
- Reduce regulatory delays while maintaining high standards of ethics and research integrity.
- Promote stronger collaboration among **government, academia, industry**, and **States** to ensure that research translates into better healthcare and public policy.

MARITIME PIRACY AND SECURITY

The Indian Navy recently foiled a piracy attempt on MV Golden Arsenal about 300 nautical miles east-northeast of Djibouti in the Gulf of Aden. The operation was carried out by INS Trikand.

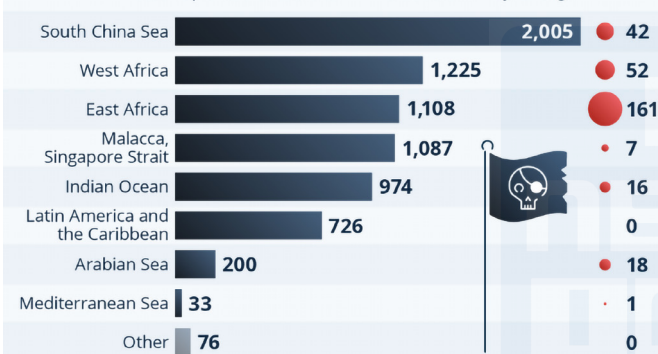
Maritime Piracy

- The **United Nations Convention on the Law of the Sea (UNCLOS), 1982** defines **piracy** as acts of **violence, detention, or destruction**, committed for **private ends**, against persons or property on board a ship on the **high seas** or outside the jurisdiction of any State.
- **Piracy** is different from **armed robbery at sea**. Armed robbery takes place within a country's **territorial waters** and falls under the jurisdiction of the concerned **coastal State**.

THE WORLD'S PIRACY HOTSPOTS

Piracy incidents and successful hijackings of vessels between 2000 and 2024, by region*

■ Total reported incidents ● Successful hijackings



Causes of Maritime Piracy

- **Socio-Economic Factors:** Poverty, unemployment, declining marine resources, and livelihood insecurity push coastal communities towards piracy as an alternative source of income.
- **Governance Failures:** Political instability, corruption, and weak maritime law enforcement create conditions that enable piracy to flourish.
- **Geographical Vulnerability:** Busy international shipping routes, strategic maritime chokepoints, and vast sea areas with limited surveillance provide attractive and accessible targets for pirates.
- **Transnational Organised Crime:** Criminal networks provide finance, logistics, weapons, and intelligence for piracy. They also maintain links with smuggling and human trafficking.

Importance of Maritime Security for India

- Nearly **95% of India's trade by volume** and around **70% by value** is transported through sea routes.
- More than **80% of India's crude oil imports** are carried through maritime routes.

- India has a **coastline of over 11,098 km**, an **Exclusive Economic Zone (EEZ)** of about **2.37 million sq. km**, and island territories located close to major international sea lanes.
- Secure maritime routes are essential for **trade, energy security, the Blue Economy**, and India's strategic interests in the **Indian Ocean Region (IOR)**.

India's Maritime Security Architecture

Indian Navy

- Since **2008**, the **Indian Navy** has maintained anti-piracy deployments in the **Gulf of Aden** and along the **East Coast of Africa**.
- It also undertakes **bilateral and multilateral maritime exercises, Joint Exclusive Economic Zone (EEZ) surveillance**, and **Coordinated Patrols (CORPATs)** with friendly foreign countries.

Maritime Domain Awareness

- The **National Maritime Domain Awareness (NMDA)** framework integrates information from multiple agencies for real-time monitoring of maritime activities.
- The **Information Fusion Centre–Indian Ocean Region (IFC-IOR)** exchanges real-time maritime information with **25 partner nations** and **over 40 international and multinational organisations** to strengthen maritime security.

Indian Coast Guard

- The **Indian Coast Guard** is responsible for **coastal security, search and rescue, marine pollution response**, and **anti-smuggling operations** within India's maritime zones.

India's Institutional Response

- **Maritime Anti-Piracy Act, 2022:** Provides a legal framework to prosecute pirates irrespective of nationality. It empowers Indian authorities to seize pirate ships and prosecute offences committed on the high seas.
- **Security and Growth for All in the Region (SAGAR):** Promotes regional cooperation, maritime security, and capacity building in the Indian Ocean.
- **Indo-Pacific Oceans Initiative (IPOI):** Encourages cooperation in maritime security, disaster risk reduction, and sustainable use of marine resources.

International Initiatives

- **United Nations Convention on the Law of the Sea (UNCLOS):** Defines piracy and authorises States to seize pirate ships and arrest pirates on the high seas.
- **International Maritime Organization (IMO):** Develops global regulations to address maritime threats and secure international shipping.

- **Djibouti Code of Conduct:** Provides a regional framework to combat piracy in the **Western Indian Ocean**.
- **Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP):** Established in **2004**, it is the first regional government-to-government agreement to enhance cooperation against piracy and armed robbery against ships in Asia.

Gulf of Aden

- The **Gulf of Aden** is a deep-water extension of the **Indian Ocean** located between the **Arabian Peninsula** and the **Horn of Africa**.
- It is bounded by **Yemen** to the north, **Somalia** and the **Socotra Islands** to the south, the **Arabian Sea** to the east, and **Djibouti** to the west.
- It connects the **Somali Sea** through the **Guardafui Channel** and the **Red Sea** through the **Bab el-Mandeb Strait**.



- **Major Ports:** Important ports include **Aden (Yemen)**, **Djibouti City (Djibouti)**, **Berbera, Zeila, and Bosaso (Somalia)**.
- **Strategic Importance:** Around **10% of global seaborne petroleum trade** and more than **USD 110 billion of India's trade** pass through the Gulf of Aden.
- **Security Threats:** The region faces **piracy, armed attacks on merchant vessels, illicit trafficking, terrorism, and disruptions linked to regional conflicts**.

Challenges

- Vast maritime areas make continuous surveillance and rapid response difficult.
- The increasing use of **drones** and advanced technologies has made piracy and other maritime crimes more sophisticated.

- Coordination among multiple national agencies and international jurisdictions is complicated by **overlapping mandates** and **legal complexities**.
- Rising geopolitical rivalries and regional conflicts continue to increase maritime insecurity.

MARITIME PIRACY AFFECTED AREAS IN THE WORLD

1. STRAIT OF MALACCA



Strategic chokepoint with high traffic density, making vessels vulnerable to robbery and attack.

2. GULF OF ADEN



Guarded by international naval task forces to counter piracy threats off the Somali coast.

3. GULF OF GUINEA



Global hotspot for kidnapping for ransom, petroleum product theft, and armed robbery.

4. SOUTH CHINA SEA



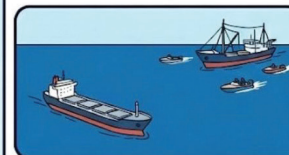
Frequent incidents of armed robbery against vessels at anchor, especially in busy shipping lanes.

5. ARABIAN SEA



Extension of Somali piracy reach, often involving long-range operations from mother ships.

6. INDIAN OCEAN



Large area where pirates use mother ships to conduct long-range attacks on merchant vessels.

Way Forward

- Strengthen maritime surveillance and rapid response capabilities across vulnerable sea lanes.
- Enhance **information sharing, capacity building, and coordinated maritime operations** through regional and international cooperation.
- Strengthen legal and institutional mechanisms to address evolving maritime crimes and the growing use of advanced technologies by pirate groups.
- Promote coordinated efforts to secure critical sea lanes and protect India's trade, energy security, and strategic interests.

Conclusion

- Maritime piracy remains a major challenge to global commerce and regional stability.
- Strengthening **maritime governance, international cooperation, information sharing, and naval capabilities** will be essential to secure vital sea routes and safeguard India's trade, energy security, and strategic interests in the **Indian Ocean Region**.

16TH INDIA-JAPAN ANNUAL SUMMIT

The Prime Minister of Japan, Sanae Takaichi, paid an Official Visit to India for the 16th India-Japan Annual Summit held in New Delhi.



Key Outcomes of the Summit

Economic Security

- India and Japan adopted a **Joint Declaration on Economic Security** to promote project-based cooperation in **semiconductors, critical minerals, information and communication technology (ICT)** including **Artificial Intelligence (AI), clean energy, and pharmaceuticals**.
- The declaration seeks to reduce vulnerabilities arising from geopolitical disruptions and excessive dependence on concentrated global supply chains.

Artificial Intelligence

- Both countries elevated cooperation to a **strategic Artificial Intelligence research and development partnership**.
- A joint roadmap covering the entire **AI technology stack** was adopted with emphasis on **safe, secure, trusted, inclusive, and human-centric AI**.
- Major collaborations include:
 - ♦ **IndiaAI Mission** and Japan's **GENIAC** initiative.
 - ♦ **Indian Institute of Technology (IIT) Bombay, BharatGen Technology Foundation, and Japan's National Institute of Informatics** for developing **Large Language Models (LLMs)** with scientific reasoning.
 - ♦ **SarvamAI and Preferred Networks** for foundation models.
- Cooperation will also focus on **computing infrastructure, joint research, and business-to-business collaboration**.

Defence Cooperation

- The summit marked the **first India-Japan defence co-development project** through the joint development of the **UNICORN Naval Radio Antenna**.

- Japan's relaxation of defence export restrictions is expected to create new opportunities for defence technology collaboration.

Economic and Infrastructure Cooperation

- Japan announced an investment of **10 trillion yen** in India over the next decade.
- Both countries agreed to **double the number of Japanese companies** operating in India.
- The **Next Generation Mobility Partnership (NGMP)** was operationalised to promote private sector-led cooperation in **railways, automobiles, roads, aviation, shipbuilding, ports, logistics, and urban development**, supporting India's vision of **Make in India for the World**.

Energy and Critical Minerals

- A **Joint Statement on Energy Resilience** was adopted to strengthen cooperation in **strategic crude oil and petroleum reserves, maritime energy transport, joint investments, and energy supply chain resilience**.
- Agreements were signed on **critical mineral exploration, battery technologies, and sustainable battery supply chains** for **electric vehicles, renewable energy, and semiconductor manufacturing**.
- A separate **Memorandum of Understanding (MoU) on geology and mineral exploration** will strengthen technical cooperation in upstream critical minerals.

Healthcare, Bioenergy and Innovation

- Cooperation was expanded in **pharmaceuticals, medical devices, biotechnology, Active Pharmaceutical Ingredients (APIs), and Key Starting Materials (KSMs)** to strengthen trusted pharmaceutical supply chains and contribute to **global health security**.
- The **India-Japan Cooperative Biogas for Growth (CBG) Initiative** aims to establish **1,000 biogas and organic fertiliser plants** across India through dairy cooperatives, promoting the **circular economy, clean energy, and sustainable agriculture**.
- Institutional partnerships between **C-CAMP-RIKEN** and **NCBS-RIKEN** will promote research in **life sciences, biotechnology, neuroscience, healthcare, agriculture, environment, and deep-tech innovation**.

Digital, Financial and People-to-People Cooperation

- Cooperation between the **National Internet Exchange of India (NIXI)** and the **Japan Network Information Center (JPNIC)** will focus on **IPv6 adoption, internet governance, and cybersecurity**.

- A framework between the **International Financial Services Centres Authority (IFSCA)** and the **Japan Financial Services Agency (JFSA)** will strengthen cooperation in **FinTech, RegTech, and financial regulation**.
- Both countries declared **2027 as the India–Japan Year of Shared Horizons** to commemorate **75 years of diplomatic relations**.

Significance of the Summit

- The Summit marked the **first visit to India** by Prime Minister **Sanae Takaichi**.
- It reaffirmed the **India–Japan Special Strategic and Global Partnership** during a period of increasing geopolitical instability.
- It aligned Japan's **Free and Open Indo-Pacific (FOIP)** strategy with India's vision of a **free, open, inclusive, and rules-based Indo-Pacific**.
- It deepened cooperation in **economic security, critical technologies, defence manufacturing, and resilient supply chains**.

Geostrategic Importance

Japan's Indo-Pacific Strategy

- Japan's outreach is driven by growing **Chinese military assertiveness, economic coercion**, and concerns over reduced **United States** engagement in the region.
- Its updated **FOIP** strategy emphasises **economic infrastructure, Artificial Intelligence, supply chain resilience, security cooperation**, and a **rules-based regional order**, with India occupying a central position.

Japan's Strategic Balancing

- Japan is strengthening its strategic capabilities through **higher defence spending, relaxation of defence export restrictions, Official Security Assistance (OSA), and cybersecurity and intelligence reforms**, complementing its engagement with Indo-Pacific partners.

Challenges

- Persistent **trade imbalance** remains in Japan's favour.
- **Geopolitical tensions** in the Indo-Pacific require careful strategic balancing.
- **Language, cultural, and business practice** differences continue to affect deeper economic integration.
- **People-to-people exchanges** remain limited.
- Infrastructure gaps in some parts of India continue to constrain large-scale Japanese investment.
- Differences in economic priorities and India's emphasis on **strategic autonomy** may occasionally limit convergence on global issues.

Way Forward

- Increase Indian exports and encourage greater Japanese investment to reduce the trade imbalance.
- Expand collaboration in **Artificial Intelligence, robotics, clean energy, space, advanced manufacturing, and critical technologies**. Strengthen **tourism, educational partnerships, and cultural exchanges**.
- Deepen cooperation on **environmental sustainability, climate change, disaster resilience, and green energy**.

India–Japan Relations

Evolution

- Diplomatic relations began with the **1952 Peace Treaty**.
- Bilateral ties evolved into **Global Partnership (2000)**, **Strategic and Global Partnership (2006)**, and **Special Strategic and Global Partnership (2014)**.
- Since **2005**, Annual Summit meetings have been held alternately in both countries.

Major Areas of Cooperation

- **Economic Relations:** Bilateral trade reached **USD 27.47 billion** during **FY 2025–26**. Japan is India's **fifth-largest source of Foreign Direct Investment (FDI)** with cumulative investment of **USD 43.2 billion**. India remains the largest recipient of Japan's **Official Development Assistance (ODA)**, including support for the **Mumbai–Ahmedabad High Speed Rail (MAHSR)** project and the **Comprehensive Economic Partnership Agreement (CEPA)**.
- **Strategic and Defence:** Cooperation includes the **Quad, Supply Chain Resilience Initiative (SCRI), International Solar Alliance (ISA), Coalition for Disaster Resilient Infrastructure (CDRI), Leadership Group for Industry Transition (LeadIT)**, regular **2+2 Ministerial Dialogues**, and exercises such as **Malabar, JIMEX, Milan, Dharma Guardian**, and **Coast Guard** cooperation. Participation of the service chiefs during **2024–25** further strengthened interoperability.
- **Space and Emerging Technologies:** Indian Space Research Organisation (ISRO) and Japan Aerospace Exploration Agency (JAXA) cooperate in **X-ray astronomy, satellite navigation, lunar exploration**, the **Lunar Polar Exploration Mission**, and the **Asia Pacific Regional Space Agency Forum (APRSAF)**. Cooperation is also expanding in **semiconductors, start-ups, clean energy, industrial competitiveness, and skill development**.
- **Tourism:** **2023–24** was celebrated as the **Year of Tourism Exchange** under the theme "**Connecting Himalayas with Mount Fuji**."

INDIA-NEW ZEALAND RELATIONS

The Indian Prime Minister's visit to New Zealand, the first in 40 years, marked a historic turning point, with both countries elevating their relationship to a Strategic Partnership and launching a Roadmap to 2030.

Key Outcomes of the Recent Visit

- Both sides set a bilateral trade target of **NZ\$7 billion by 2030**, double the current level.
- The India-New Zealand FTA (2026) was concluded, eliminating duties on 100% of Indian exports to New Zealand.
- New Zealand committed to investing **USD 20 bn in India** over the next 15 years.
- A Maritime Security Dialogue and a Joint Working Group on Counter-Terrorism were established.
- New Zealand joined India's **Global Biofuels Alliance (GBA)** and was nominated as a priority partner under India's **Indo-Pacific Oceans Initiative (IPOI)**.
- A **Kiwifruit Action Plan** was launched along with Centres of Excellence for kiwifruit in Nagaland and Uttarakhand.
- A Joint Action Plan on Sport was signed for collaboration in sports science, sports medicine, and athlete development.

Historical Background

- Diplomatic relations were established in 1952, with missions later upgraded to High Commissions.
- Both are Commonwealth members sharing democratic values and rule of law.
- New Zealand identified India as a priority country under its **"Opening Doors to India" policy (2011)**, reaffirmed through **"India-New Zealand 2025: Investing in the Relationship" (2020)**.

Geopolitical Cooperation

- Both nations share concerns over China's expanding strategic influence, Russia's invasion of Ukraine, and shifting US priorities in global affairs.
- New Zealand holds that smaller nations benefit most from a rules-based international order where rules apply equally regardless of size or power.
- Both sides reaffirmed commitment to a **free, open, inclusive, and stable Indo-Pacific**, freedom of navigation under **UNCLOS (1982)**, and peaceful resolution of disputes.
- In 2025, both cooperated under **Combined Task Force-150 (CTF-150)**, New Zealand as Commander, India as Deputy Commander, combating narcotics trafficking and maritime terrorism in the Middle East and Western Indian Ocean.

Defence Cooperation

- The **Defence Cooperation MoU (2025)** established a formal institutional framework for bilateral defence engagement.
- The inaugural **India-New Zealand Defence Strategic Dialogue** was held in New Delhi in 2025.

- The **Maritime Security Dialogue** was established as a new structured bilateral mechanism.
- Membership in the **Five Eyes intelligence alliance**.

Geo-economic Cooperation

- New Zealand is India's second-largest trading partner in Oceania, with bilateral trade at **NZ\$3.95 billion (~USD 2.4 bn)**.
- India exports **pharmaceuticals, machinery, textiles, and precious stones** while importing **wool, iron and steel, fruits, and aluminium**. India maintains a **positive trade balance**.
- Under the FTA (2026), India opened 70.03% of tariff lines, keeping 29.97% under exclusion, covering 95% bilateral trade.
- India's services exports grew by **13% in 2024**, reaching **USD 634 million**, driven by IT, travel, and business services.
- A **Customs Cooperative Arrangement (2024)** was signed to strengthen trade facilitation and joint action against transnational organised crime.

People-to-People and Cultural Relations

- The Indian diaspora numbers 3 lakh, forming the 3rd largest ethnic community (5% of New Zealand's population).
- Hindi** is the fifth most spoken language in New Zealand.
- India is the 2nd largest source of international students in New Zealand, with around 8,000 students in IT, engineering, hospitality, and architecture.
- A meaningful cultural link exists between **Matariki**, the **Māori** New Year marked by the Pleiades star cluster, and **Kritika**, the ancient Indian name for the same constellation.

Challenges

- New Zealand's evolving **immigration rules** are perceived as disproportionately affecting Indian migrants.
- Labour mobility** remains a key unresolved issue in finalising a comprehensive FTA.
- Dairy market access** is the most sensitive trade dispute — New Zealand seeks greater entry into India's dairy market while India protects millions of small dairy farmers.
- Differences persist over **pro-Khalistan activities** on New Zealand soil, between India's security priorities and New Zealand's freedom of expression framework.

Way Forward

- Fully implement Roadmap 2030 (trade, defence, people-to-people). Time-bound FTA talks on dairy, labour mobility.
- Boost counter-terror cooperation (Khalistani extremism). Expand digital, clean energy, Antarctic collaboration.
- Use Five Eyes ties for intelligence-sharing, regional security.

INDIA-AUSTRALIA RELATIONS

Recently, the Indian Prime Minister's visit to Australia for the 3rd India-Australia Annual Leaders' Summit significantly deepened the Comprehensive Strategic Partnership.

Key Outcomes of the 3rd Annual Leaders' Summit

Defence and Maritime Security

- ➔ The **Joint Declaration on Defence and Security Cooperation (JDDSC)** was adopted, renewing the 2009 framework with focus on **interoperability, cybersecurity, and defence industrial collaboration** within **UNCLOS, ASEAN, and IORA** forums.
- ➔ The **Maritime Security Collaboration Roadmap (MSCR)** was launched to enhance information sharing, capability development, and operational coordination.
- ➔ An **MoU between the Indian Coast Guard (ICG) and Australia's Maritime Border Command (MBC)** was signed to strengthen maritime law enforcement and border protection.

Energy Security and Civil Nuclear Ties

- ➔ The **Administrative Arrangement for the 2014 Civil Nuclear Agreement** was operationalised, enabling steady supply of **Australian uranium** for India's civilian nuclear programme.
- ➔ The **India-Australia Joint Statement on Energy Security** was adopted, reaffirming commitment to securing supply chains amid global geopolitical tensions.
- ➔ The **Rooftop Solar Training Academy** at **Pandit Deendayal Energy University (PDEU), Gandhinagar** was launched to train **2,000 women and youth** as solar technicians under **PM Surya Ghar Yojana**.

Technology, Innovation, and Critical Minerals

- ➔ The **Australia-India Partnership on Cyber, Critical Technologies, and Supply Chains (PACTS)** was launched, replacing the 2020 cyber cooperation framework, with the core objective of enhancing **national security, resilient supply chains, and global cyber resilience**.
 - ♦ PACTS operates across five pillars: **supply chain resilience** (critical minerals, semiconductors, undersea cables); **critical technology** (AI, space, telecom, biotechnology); **cybersecurity** (deterring cybercrime, protecting infrastructure, building a cyber skill incubator); **digital resilience** (scaling India's **DPI model** — UPI, identity stacks — across the Indo-Pacific); and **defence research collaboration** (joint R&D between **DRDO and Australia's Defence Science and Technology Group**).
- ➔ PACTS is governed jointly by **Australia's Deputy Secretary (International and Security Group)** and **India's Deputy National Security Advisor**, with annual Senior Officials' Meetings.
- ➔ A trilateral **MoU under the Australia-Canada-India Technology and Innovation (ACITI) Partnership** was signed to advance cooperation in emerging technologies.
- ➔ **AustralianSuper** committed a further **AUD 500 million** to India's

National Investment and Infrastructure Fund (NIIF), taking total holdings to **AUD 3.3 billion**.

Education, Skills, and Research

- ➔ **Flinders University (Bengaluru)** and **Victoria University (Gurugram)** received formal approval to establish campuses in India.
- ➔ An access agreement gave **IP Australia** access to India's **Traditional Knowledge Digital Library (TKDL)**, protecting Indian knowledge systems from patent misappropriation.

Space, Culture, and Sports

- ➔ Australia extended support to India's **Gaganyaan Mission** through a temporary **space-tracking terminal on the Cocos (Keeling) Islands**.
- ➔ Australia announced repatriation of three **11th–12th century artefacts**, a **stone Nandi**, a **Bhadrakali trident**, and a **Skanda sculpture**.
- ➔ The **India-Australia Sports Collaboration Roadmap** was launched for **High-Performance Sports Centres**, **Para sports**, and **Olympic expertise sharing**.
- ➔ The Indian Prime Minister welcomed Australia's **social media ban on minors**.



Background

- ➔ India and Australia upgraded ties from a **Strategic Partnership (2009)** to a **Comprehensive Strategic Partnership in 2020**.

- Australia is one of only **two countries globally** (alongside Japan) with which India simultaneously maintains **Annual Leader-Level Summits**, a functional **Free Trade Agreement**, and a **2+2 Foreign and Defence Ministers' Dialogue**.
- Bilateral mechanisms include the **Joint Trade and Commerce Ministerial Commission**, **Defence Policy Talks**, **Australia-India Education Council**, **Energy Dialogue**, and multiple **Joint Working Groups**.

Economic and Trade Relations

- Bilateral trade in goods stood at **USD 24.1 billion in FY25**, with Indian exports at **USD 8.58 billion** and imports at **USD 15.52 billion**; total trade including services reached **USD 50.2 billion**.
- India ranks as Australia's **8th largest trading partner**, while Australia is India's **14th largest**.
- The **Economic Cooperation and Trade Agreement (ECTA)**, in force since **December 2022**, has progressively reduced tariffs and accelerated economic integration.
- Both sides are fast-tracking negotiations to upgrade ECTA into a **Comprehensive Economic Cooperation Agreement (CECA)**.
- Australia launched **A New Roadmap for Australia's Economic Engagement with India (2025)**, identifying four priority sectors: **clean energy, education, agribusiness, and tourism**.
- Education remains Australia's **primary service export to India**, valued at **USD 9.4 billion in 2025**.

Strategic and Indo-Pacific Cooperation

- Both countries are active members of the **Quad**, **Supply Chain Resilience Initiative (SCRI)**, **IORA**, and **East Asia Summit (EAS)**, collectively working towards a **free, open, and rules-based Indo-Pacific**.
- The **India-Australia Renewable Energy Partnership (REP, 2024)** targets eight cooperation areas including **solar PV, green hydrogen, battery storage, and the circular economy**.
- Defence cooperation is reinforced through the **Mutual Logistics Support Arrangement (2020)**, the **Joint Guidance for the India-Australia Navy to Navy Relationship (2021)**, regular exercises — **Malabar**, **AUSINDEX**, **Pitch Black** — India's participation in **Talisman Sabre 2025**, **submarine rescue support**, and **Indian naval deployments to the Cocos (Keeling) Islands**.
- The **Australia-India Critical Minerals Investment Partnership (2022)** and the **Critical Minerals Research Hub (2023)**, backed by **USD 5 million** in funding, drive innovation in sustainable mining and processing.
- The Indian diaspora of nearly **9.76 lakh people** forms the **largest overseas-born group** in Australia; the **Migration and Mobility Partnership Arrangement (MMPA, 2023)** and the **Centre for Australia-India Relations (2023)** support structured institutional mobility.

Challenges

- **Strategic Divergence:** Australia's security is anchored in the **US alliance system and AUKUS**, while India follows **strategic**

autonomy. Australia focuses on the **Western Pacific**, while India faces **continental threats along the LAC and Indian Ocean maritime challenges**. Australia's economic dependence on China further complicates deeper strategic alignment.

- **Economic Bottlenecks:** CECA progress remains slow due to Australian demands for access to India's **agriculture and dairy markets** and stringent **SPS standards** affecting Indian exports. India's dependence on Australian **coking coal and LNG** sustains a **persistent trade deficit**.
- **Slow Defence Technology Collaboration:** While joint exercises are well-established, cooperation in **defence manufacturing, technology transfer, and joint R&D** remains underdeveloped.
- **Critical Mineral Supply Chains:** Despite Australia's vast reserves of **lithium, cobalt, and rare earth elements**, limited domestic processing capacity keeps these resources tied to **China-linked refining infrastructure**.
- **Diaspora and Sociopolitical Frictions:** Incidents of **temple vandalism**, safety concerns involving **Indian students**, and activities of **Khalistani separatist elements** create recurring diplomatic tensions. Challenges persist in **mutual recognition of skills, work visas**, and post-study opportunities. Differences in domestic approaches to **freedom of expression** complicate resolution.

Way Forward

- Finalise a balanced **CECA** by resolving SPS barriers through **Mutual Recognition Agreements (MRAs)** while protecting India's agriculture and dairy sectors through **tariff-rate quotas and safeguard mechanisms**.
- Move beyond raw mineral trade towards **joint investment in critical mineral refining**, leveraging the **Quad Critical Minerals Initiative (2026)** and **PACTS** to reduce China's dominance in supply chains.
- Translate the **JDDSC and MSCR** into stronger **underwater domain awareness, reciprocal deployments**, and joint **defence R&D and co-production** to strengthen India's indigenous defence capabilities.
- Convert the **Civil Nuclear Agreement** operationalisation into **long-term uranium supply arrangements** supporting India's expanding nuclear energy programme.
- Deepen **intelligence sharing and law enforcement cooperation** to address extremist activities targeting Indian diplomatic and cultural institutions.

Conclusion

- To transform political goodwill into structural permanence, India and Australia must dismantle non-tariff barriers, co-invest in **critical mineral refining infrastructure**, and bridge the gap between **Western alliance systems and strategic autonomy** through localised maritime burden-sharing.
- Together, both democracies can anchor a **multipolar, secure, and resilient Indo-Pacific order**.

CARBON CREDIT TRADING SCHEME

The Union Cabinet has approved a draft notification to bring the iron and steel sector under the ambit of India's Carbon Credit Trading Scheme (CCTS).

About CCTS in India

- The Carbon Credit Trading Scheme (CCTS) is India's domestic carbon market mechanism aimed at reducing greenhouse gas (GHG) emissions by assigning a monetary value to carbon reductions.
- It provides a market-based mechanism where entities that reduce emissions below prescribed levels earn Carbon Credit Certificates (CCCs), which can be traded with entities that fail to meet their emission targets.
- It seeks to achieve India's climate commitments while promoting cost-effective decarbonisation of industries.

Legal Basis

- **Energy Conservation Act, 2001**, as amended by the **Energy Conservation (Amendment) Act, 2022**.
- The amendment empowered the Central Government to establish a **Carbon Credit Trading Scheme**.

Launch

- **Notified: June 2023** by the **Ministry of Power (MoP)** under the Energy Conservation Act.
- Provides an overall framework for the **functioning of the Indian Carbon Market (ICM)**.

Objectives

- **Emission Reduction:** Reduce greenhouse gas emissions through energy efficiency and low-carbon technologies.
 - ♦ Achieve emission intensity targets in **2026–27** with **2023–24 as the baseline year**.
- **Carbon Market Development:** Establish a domestic carbon market to promote carbon credit trading and incentivise cleaner production.
- **Climate Goals:** Support India's **NDC targets** and the **Net Zero emissions goal by 2070**.

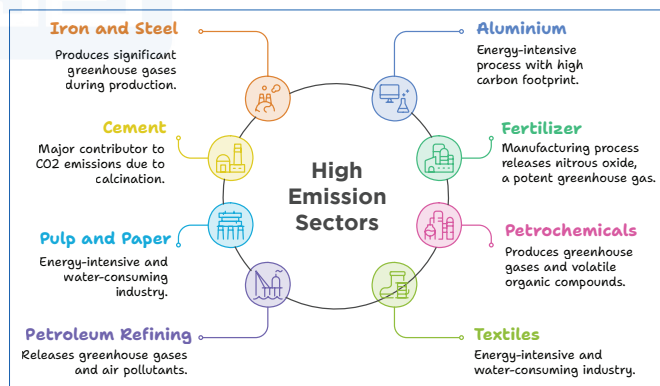
Features

- **Compliance Mechanism:**
 - ♦ Under the **Compliance Mechanism**, emission-intensive industries designated as **Obligated Entities (OEs)** are required to achieve prescribed **Greenhouse Gas Emission Intensity (GEI)** targets.
 - ♦ Each Obligated Entity is assigned a **GEI target**, measured as **greenhouse gas emissions per unit of output**, to promote emission efficiency.
 - ♦ Industries that achieve or surpass their assigned GEI targets are awarded **Carbon Credit Certificates (CCCs)**, which can be traded in the domestic carbon market.

- ♦ Obligated Entities that fail to meet their emission intensity targets must purchase **Carbon Credit Certificates** from compliant entities to fulfil their obligations.
- ♦ If an Obligated Entity neither meets its target nor acquires the required carbon credits, it is liable to pay an **environmental compensation**, calculated at **twice the average carbon credit trading price**.
- **Voluntary Mechanism (Offset Mechanism):** Allows organizations and projects outside the compliance sectors to generate carbon credits through approved emission reduction activities. Encourages participation from industries, businesses, and project developers.

Challenges

- **Emission Measurement and Transparency:** Ensuring accurate measurement, reporting and verification (MRV) of emissions while avoiding double counting of carbon credits.
- **Institutional and Compliance Burden:** Limited carbon accounting capacity, high compliance costs for small industries, and the need to align with existing schemes like PAT.
- **Market Stability:** Addressing carbon price volatility and ensuring a transparent, reliable, and efficient carbon trading mechanism.



Significance

- **Low-Carbon Transition:** Supports India's shift towards a low-carbon economy by promoting clean technologies and sustainable industrial practices.
- **Industrial Efficiency and Investment:** Enhances resource efficiency, improves industrial competitiveness, and mobilizes private investment in climate-friendly projects.
- **Global Climate Alignment:** Helps meet international climate commitments and prepares Indian industries for emerging carbon regulations like the **Carbon Border Adjustment Mechanism (CBAM)**.

Way Forward

- **Strengthen Carbon Market Mechanisms:** Enhance Measurement, Reporting and Verification (MRV) frameworks, ensure transparency, avoid double counting, and establish an effective carbon pricing system.
- **Accelerate Green Technology Adoption:** Promote the use of renewable energy, green hydrogen, scrap-based steel

production, energy-efficient technologies, and Carbon Capture, Utilisation and Storage (CCUS) through policy support and investments.

- **Improve Industrial Competitiveness:** Enable the steel sector's transition towards low-carbon production, reduce import dependency, meet global requirements such as CBAM, and contribute towards India's Net Zero target by 2070.



INDIA'S STEEL SECTOR

Overview:

- India is the **world's second-largest producer of crude steel**, after China.
- The sector is a key pillar of the **"Make in India"** initiative and contributes significantly to infrastructure development, manufacturing, construction, automobiles, railways, defence, and renewable energy.
- Steel is classified as a **de-regulated sector**, with pricing and production decisions largely determined by market forces.

Key Facts:

- **Global Rank:** 2nd largest crude steel producer.
- **Ministry:** Ministry of Steel.
- **Major Raw Materials:** Iron ore, coking coal, limestone, manganese, dolomite.
- **Production Process:** Mainly through **Blast Furnace–Basic Oxygen Furnace (BF-BOF)** and **Electric Arc Furnace (EAF)/Induction Furnace (IF)** routes.
- India is **self-sufficient in iron ore** but remains heavily dependent on **imports of coking coal**.
- **Major steel zones** are located in Kalinganagar, Angul, Rourkela, Jharsuguda, Nagarnar, Bhilai, Raipur, Jamshedpur, Bokaro, Durgapur, Kolkata and Vizag.

Government Initiatives:

- **Production Linked Incentive (PLI) Scheme** for Specialty Steel.
- **National Steel Policy, 2017.**
- **PM Gati Shakti** and **National Infrastructure Pipeline (NIP)** boosting steel demand.
- **Steel Scrap Recycling Policy, 2019.**
- **Green Steel Mission** (under development) to promote low-carbon steel production.
- Inclusion of the **iron and steel sector under the Carbon Credit Trading Scheme (CCTS)** to reduce emission intensity.

National Steel Policy, 2017:

- **Vision:** Develop India into a **globally competitive steel producer**.
- **Targets (2030–31):**
 - ♦ **300 million tonnes (MT)** crude steel production capacity.

- ♦ **255 MT** finished steel production.
- ♦ **230 MT** finished steel consumption.
- ♦ **160 kg** per capita steel consumption.
- ♦ Create around **2.5 million additional jobs**.

Green Steel:

- It refers to steel produced using technologies that significantly reduce greenhouse gas emissions, such as:
 - ♦ Green hydrogen-based Direct Reduced Iron (DRI).
 - ♦ Electric Arc Furnaces powered by renewable energy.
 - ♦ Carbon Capture, Utilisation and Storage (CCUS).
 - ♦ Increased use of recycled steel scrap.
- **AI in Steel Pavilion:** It is first-of-its-kind collaborative platform which is designed as a problem-to-solution marketplace.

Challenges:

- **Raw Material Dependence:** Heavy reliance on imported coking coal increases vulnerability to global price fluctuations and supply disruptions.
- **High Energy & Environmental Costs:** Steel production is energy-intensive, leading to high carbon emissions and pressure for decarbonisation.
- **Global Market Pressures:** Rising international competition, trade barriers, and compliance with mechanisms like **Carbon Border Adjustment Mechanism** create challenges for exports.
- **Economic & Infrastructure Constraints:** High logistics costs and cyclical fluctuations in steel prices affect profitability and competitiveness.

Significance:

- **Climate Mitigation Priority:** Steel is a major contributor to India's industrial carbon emissions, making it a key sector for emission reduction efforts.
- **Economic Growth & Infrastructure:** Expanding domestic steel production is essential for achieving **Viksit Bharat 2047** goals and supporting large-scale infrastructure development.
- **Green Transition Incentives:** Inclusion of the steel sector under the **Carbon Credit Trading Scheme (CCTS)** encourages reduction of **Greenhouse Gas Emission Intensity (GEI)** and adoption of cleaner technologies.

REVISED CAFE III NORMS

The Union Government has released the draft CAFE-III norms for public consultation, proposing more stringent fuel efficiency and CO₂ emission standards for passenger vehicles, effective from 1 April 2027.

About CAFE III

- ➔ Corporate Average Fuel Efficiency (CAFE)-III Norms
- ➔ **Governing Body:** Bureau of Energy Efficiency (BEE) (Ministry of Power)
- ➔ **Legal Framework:** Energy Conservation Act, 2001
- ➔ **Timeline:** Scheduled to run from April 1, 2027, through March 31, 2032
- ➔ **Target Vehicles:**
 - ♦ M1 category passenger vehicles (*seating up to nine people, gross weight under 3,500 kg*).
 - ♦ These norms apply to vehicles running on petrol, diesel, LPG, CNG, hybrids, and EVs
- ➔ CAFE norms prescribe the average fuel efficiency and CO₂ emission limits that automobile manufacturers must achieve across their fleet of passenger vehicles sold in India.
- ➔ They are based on the Corporate Average of a manufacturer's fleet, rather than individual vehicle performance.
 - ♦ The norms were tightened in the beginning of financial year 2022-23, with increased penalties for non-compliance.
- ➔ The CAFE norms push automakers to lower carbon dioxide emissions while incentivising the production of EVs, hybrids, and CNG vehicles, which are less carbon-intensive than cars that run on fossil fuels.

Objectives

- ➔ **Enhance Fuel Efficiency:** Promote efficient vehicles to reduce fuel consumption.
- ➔ **Reduce Emissions & Import Dependence:** Minimise GHG emissions and reliance on imported crude oil.
- ➔ **Promote Sustainable Mobility:** Encourage clean technologies and contribute to India's Net Zero goal by 2070.

Key Highlights of Revised CAFE III

- ➔ **Progressively Stricter Fuel Efficiency Targets:** The draft CAFE-III norms require automobile manufacturers to progressively enhance the fuel efficiency of their passenger vehicle fleets.
- ➔ **Reduced Fuel Consumption and CO₂ Emissions:** The proposed standards tighten the target fuel consumption from **3.996 litres/100 km (94.76 gCO₂/km)** in **2027–28** to **3.327 litres/100 km (78.90 gCO₂/km)** by **2031–32**.
- ➔ **Biofuel Recognition through Carbon Neutrality Factors (CNFs):**
 - ♦ **Introduction of CNFs:** For the first time, the draft CAFE-III norms propose **Carbon Neutrality Factors (CNFs)** to account for the lower lifecycle emissions of biofuels.
 - ♦ **Lower Emission Credits:** Manufacturers will be allowed to claim lower-than-actual tailpipe CO₂ emissions for vehicles

powered by **ethanol, compressed biogas (CBG), and other biofuels**, encouraging the adoption of cleaner fuels.

➔ Block-based Compliance Assessment:

- ♦ Instead of **annual compliance**, automobile manufacturers will be evaluated over **two compliance blocks**.
- ♦ The proposed framework consists of an **initial three-year compliance period**, followed by a **second two-year compliance period**, providing greater flexibility in meeting fleet-average targets.

➔ Incentives for Fuel-Saving Technologies:

The draft CAFE-III norms provide **additional compliance incentives** for manufacturers adopting approved fuel-saving technologies.

- ♦ Manufacturers can claim **compliance benefits of up to 9 gCO₂/km**, with a maximum credit of **1 gCO₂/km for each approved technology**.

➔ Super Credits for Cleaner Vehicles:

- ♦ The draft CAFE-III norms propose **super credits** for manufacturers of Battery Electric Vehicles (BEVs), Range-Extended Electric Vehicles (REEVs), Plug-in Hybrid Electric Vehicles (PHEVs), Strong Hybrid Electric Vehicles (SHEVs), and Flex-Fuel Vehicles (FFVs).
- ♦ These vehicles will receive **additional weightage while calculating fleet-average fuel consumption**, encouraging the adoption and production of cleaner vehicle technologies.

Challenges

- ➔ **Industry Compliance Burden:** Higher compliance costs for automobile manufacturers due to investment in advanced technologies.
- ➔ **Consumer & Market Challenges:** Adoption of cleaner technologies may increase vehicle prices and requires balancing emission targets with demand for larger vehicles like SUVs.
- ➔ **Infrastructure & Supply Chain Gaps:** Need for expansion of EV charging networks and development of domestic supply chains for batteries and clean energy technologies.

Conclusion

- ➔ CAFE-III represents a significant step towards improving fuel efficiency, reducing vehicular emissions, and lowering India's dependence on imported crude oil.
- ➔ Incentives for cleaner technologies can accelerate the adoption of EVs, hybrids, and biofuels while promoting sustainable mobility.
- ➔ Successful implementation will require affordable clean vehicles, adequate charging infrastructure, technological investment, and robust domestic supply chains to support India's climate goals.

Comparison			
Parameter	CAFE-I	CAFE-II	CAFE-III (Draft)
Period	2017–2022	2022–2027	2027–2032
Objective	Introduced fuel efficiency standards for passenger vehicles	Reduced CO ₂ emission limits further	Proposes stricter standards for cleaner mobility
Target Fuel Consumption	5.09 litres/100 km by 2021–22 (120.7 g CO ₂ /km)	4.34 litres/100 km by 2026–27 (103.6 g CO ₂ /km)	3.327 litres/100 km by 2031–32 (78.90 g CO ₂ /km)
CO ₂ Emission Target	Baseline for implementation	Around 10% reduction over CAFE-I	Further 25% reduction over CAFE-II
Compliance Period	5 years (2017–2022)	5 years (2022–2027)	5 years (2027–2032)
Applicability	Passenger vehicles (M1 category)	Passenger vehicles (M1 category)	Passenger vehicles (M1 category)
Key Focus	Establishing fuel efficiency standards	Improving fuel economy and reducing emissions	Clean mobility, advanced technologies, and lower emissions
Major Features	Introduction of fuel efficiency norms	Stricter CO ₂ emission limits	More ambitious targets, biofuel recognition, compliance blocks, technology incentives, and super credits for cleaner vehicles
Environmental Impact	Initiated emission reduction efforts	Promotes lower carbon emissions and fuel savings	Supports India's Net Zero target by 2070

Note: CAFE (Corporate Average Fuel Efficiency) norms regulate the average fuel efficiency and CO₂ emissions of passenger vehicle fleets sold by manufacturers in India.

Vehicular Emission Standards

Vehicular Emission Standards (Bharat Stage Norms):

- Bharat Stage (BS) emission norms regulate pollutants emitted by motor vehicles in India.
- Implemented by the **Ministry of Road Transport and Highways (MoRTH)** under the **Central Motor Vehicles Rules (CMVR), 1989**.
- Standards are based on European (Euro) emission norms.
- **Aim to reduce:** Particulate Matter (PM); Nitrogen Oxides (NOx); Carbon Monoxide (CO) and Hydrocarbons (HC)

Evolution of Bharat Stage (BS) Emission Standards:

- **BS-I (2000):** India's first emission standard for motor vehicles, introduced to regulate harmful pollutants and promote the use of cleaner fuels and improved engine technologies.
- **BS-II (2005):** Tightened emission limits over BS-I and reduced sulphur content in fuels, leading to lower vehicular emissions and better urban air quality.
- **BS-III (2010):** Prescribed stricter limits on pollutants such as CO, HC, NOx and PM, while encouraging adoption of advanced emission-control technologies.
- **BS-IV (2017 – Nationwide):** Implemented across the country with stricter emission norms and low-sulphur (50 ppm) fuel, resulting in significant reductions in air pollutants.
- **BS-VI (1 April 2020):** Implemented nationwide by skipping BS-V, introducing **10 ppm sulphur fuel**, **On-Board Diagnostics (OBD)**, and **Real Driving Emission (RDE)** norms to achieve a substantial reduction in vehicular emissions and align India with global best practices.

Features of BS-VI

- **Ultra-Low Sulphur Fuel:** Sulphur content in petrol and diesel was reduced from **50 ppm to 10 ppm** to enable cleaner combustion.
- **Stricter Emission Standards:** Significantly lowered **Particulate Matter (PM)** and **Nitrogen Oxides (NOx)** emissions from vehicles.
- **On-Board Diagnostics (OBD):** Mandated OBD systems to continuously monitor vehicle emission performance.
- **Real Driving Emission (RDE) Norms:** Introduced phased RDE testing to measure emissions under actual road conditions.
- **Cleaner and Efficient Vehicles:** Improved fuel quality and engine performance while reducing overall vehicular pollution.

ANTARCTIC CRYOSPHERE

A23a, the world's largest iceberg, has disappeared after surviving for almost 40 years in the Antarctic waters.

About A23a

- A23a once covered an area nearly twice the size of London and had an estimated mass of around one trillion tonnes. Its remaining fragments have now broken apart and melted, becoming too small to be tracked by satellites.
- The iceberg separated from Antarctica's Filchner–Ronne Ice Shelf in 1986 and remained grounded on the seafloor for several decades before drifting in recent years.
- Its eventual breakup was driven by a combination of ocean currents, warmer waters, wave activity, and melting processes.
- The transformation of A23a offers valuable insights into the evolving Antarctic cryosphere and highlights the broader implications of polar changes for global climate systems.

About Cryosphere

- Cryosphere refers to the frozen water components of the Earth, including ice sheets, glaciers, sea ice, ice shelves, snow cover, permafrost, and frozen lakes/ivers.
- The Antarctic Cryosphere represents the vast frozen system of Antarctica, dominated by the Antarctic Ice Sheet, which stores the largest amount of freshwater ice on Earth.
- The ice sheet covers nearly 14 million square kilometres of size and contains enough ice to raise global mean sea level by approximately 58 metres if it were to melt completely.

Components of Antarctic Cryosphere

- **Antarctic Ice Sheet:**
 - ♦ Covers nearly **98% of Antarctica**.
 - ♦ Contains around **60% of the world's freshwater**.
 - ♦ **Divided into:**
 - ♦ **East Antarctic Ice Sheet (EAIS):** Larger, colder, and relatively stable.
 - ♦ **West Antarctic Ice Sheet (WAIS):** More vulnerable due to marine-based ice and warming oceans.
- **Ice Shelves:**
 - ♦ Floating extensions of glaciers attached to the coastline.
 - ♦ Important for slowing the movement of inland ice towards oceans.
 - ♦ **Major ice shelves:**
 - ♦ Ross Ice Shelf
 - ♦ Ronne–Filchner Ice Shelf
- **Sea Ice:**
 - ♦ Seasonal freezing of ocean water around Antarctica.
 - ♦ Expands during winter and retreats during summer.
 - ♦ Plays an important role in regulating global climate.

Glaciers:

- ♦ Slow-moving masses of ice flowing from the interior towards the coast.
- ♦ **Example: Thwaites Glacier** (often called the “Doomsday Glacier”).

Importance of Antarctic Cryosphere

Global Sea-Level Regulation:

- ♦ Antarctic ice stores enormous quantities of water.
- ♦ Complete melting of the Antarctic Ice Sheet could raise global sea levels by around **58 metres**.

Climate Regulation:

- ♦ Ice surfaces reflect solar radiation through the **albedo effect**, helping cool the planet.
- ♦ Changes in ice cover influence global temperature patterns.

Ocean Circulation:

- ♦ Melting Antarctic ice affects **Southern Ocean circulation** and global ocean currents.
- ♦ Formation of cold, dense Antarctic water helps drive global thermohaline circulation.

Biodiversity Support:

Supports diverse Antarctic ecosystems, including penguins, seals, krill, and marine microorganisms.

Threats to Antarctic Cryosphere

- **Climate Change:** Rising global temperatures are accelerating ice loss. Warmer ocean currents are melting ice shelves from below.
- **Ice Shelf Collapse:** Loss of ice shelves removes the natural barrier slowing glacier flow. For *example* Larsen A collapse (1995) and Larsen B collapse (2002).
- **Ocean Warming:** Increased ocean heat contributes significantly to melting of marine-based glaciers.
- **Changing Snowfall Patterns:** Altered precipitation affects accumulation and balance of Antarctic ice.

Antarctic Cryosphere Concerns

Thwaites Glacier:

- ♦ Located in **West Antarctica**.
- ♦ One of the fastest-retreating glaciers in Antarctica.
- ♦ Its collapse could significantly contribute to global sea-level rise.

Antarctic Sea Ice Decline:

- ♦ Recent reductions in Antarctic Sea ice have raised concerns about changes in climate feedback systems.
- ♦ Reduced sea ice lowers albedo, causing more heat absorption.

India and Antarctic Cryosphere: Initiatives and Research

- **Indian Antarctic Programme:** Launched in 1981, the programme focuses on scientific research and monitoring of Antarctica.
- India has established three permanent research stations — **Dakshin Gangotri (1983), Maitri (1988), and Bharati (2012)**, of which Maitri and Bharati are currently operational.
- **National Centre for Polar and Ocean Research (NCPOR):** An autonomous institute under the Ministry of Earth Sciences (MoES), based in Goa, responsible for managing India's Antarctic and polar research activities.
- **Research Focus:** Studies on Antarctic ice dynamics help India understand climate change patterns, Indian monsoon variability, ocean processes, and the impacts of sea-level rise on coastal regions.
- **Indian Research Stations in Antarctica:**
 - ♦ *Maitri Station* – Operational since 1988.
 - ♦ *Bharati Station* – Operational since 2012 and focused on polar and climate research.

International Frameworks

- **Antarctic Treaty System (1959):** Ensures Antarctica is used for peaceful purposes and scientific research.
- **Protocol on Environmental Protection to the Antarctic Treaty (Madrid Protocol, 1991):** Protects Antarctica's environment and designates it as a "natural reserve devoted to peace and science."

Factors Affecting the Antarctic Cryosphere

- **Rising Ocean Temperatures:**
 - ♦ Warmer ocean waters can flow beneath ice shelves, causing **basal melting**.
 - ♦ This process can occur even when surface temperatures remain extremely cold and is a major driver of ice loss.
- **Atmospheric Warming:** Increasing air temperatures accelerate **surface melting, meltwater pond formation, hydrofracturing, and weakening of ice shelves**, making them more vulnerable to collapse.
- **Changing Ocean Currents and Winds:** Alterations in ocean circulation and wind patterns can transport warmer waters towards glaciers and modify the flow of heat beneath floating ice shelves.
- **Iceberg Calving and Wave Action:**
 - ♦ While calving is a natural process, warmer oceans, weakened ice structures, and stronger wave action can increase iceberg break-off rates.
 - ♦ The movement and fragmentation of **A23a iceberg** highlight the influence of changing oceanic and physical conditions on ice dynamics.

Changes in Snowfall and Precipitation:

- ♦ The Antarctic ice sheet's mass balance depends on the difference between **snow accumulation** and ice loss through **surface melting, iceberg calving, and ice discharge into the ocean**.
- ♦ Changes in precipitation patterns can therefore affect long-term ice stability.

Impacts of Changes in the Antarctic Cryosphere

Disruption of Ocean Circulation:

- ♦ Increased freshwater input from melting ice can alter **ocean salinity, water density, deep-water formation, and global ocean circulation patterns**.
- ♦ Changes in the formation of **Antarctic Bottom Water**, a key component of the global circulation system, can have impacts far beyond the polar region.

Impact on Marine Ecosystems:

- ♦ Declining Sea ice affects the availability and distribution of species such as **krill, penguins, seals, whales, and other marine organisms**.
- ♦ Changes in prey availability beneath sea ice can disrupt feeding patterns and survival strategies of Antarctic species.

Strengthening of Ice-Albedo Feedback:

- ♦ Reduction in snow and ice cover decreases Earth's reflective capacity (**albedo**), causing greater absorption of solar radiation, further warming, and accelerated ice loss through a positive feedback cycle.
- ♦ Less ice → lower albedo → more solar energy absorbed → further warming. This creates a positive feedback loop that can accelerate warming.

Threats to Coastal Regions:

Antarctic ice loss contributes to **sea-level rise**, increasing risks of coastal flooding, erosion, saltwater intrusion, and damage to coastal infrastructure.

- ♦ In India, vulnerable areas include densely populated coastal regions such as **Mumbai, Kolkata, and the Sundarbans**.

Conclusion

- **The disappearance of A23a alone cannot be considered direct evidence of climate change**, as iceberg calving and melting are natural processes.
- However, it serves as an important example for studying the evolving dynamics of the Antarctic cryosphere.
- **The broader concern lies in cumulative changes across ice sheets, glaciers, ice shelves, and sea ice**, as these collectively influence the functioning of the global climate system.
- **The Antarctic cryosphere is not just an isolated frozen landscape but a vital component of Earth's climate system**, regulating sea levels, ocean circulation, biodiversity, and the future resilience of vulnerable coastal regions.

INDIA-UK CETA

India and the United Kingdom signed the India-UK Comprehensive Economic and Trade Agreement (CETA) in July 2025, and after completion of legal and ratification processes, it entered into force on 15 July 2026.

Background

- India and the United Kingdom formally launched negotiations for the CETA in 2022 to deepen economic cooperation and expand bilateral trade.
- After **14 rounds of negotiations**, the India-UK CETA was concluded in May 2025, signed on 24 July 2025, and entered into force on 15 July 2026 after completing legal and ratification processes.
- To complete the overall framework, the **Double Contribution Convention (DCC)** was signed on 10 February 2026.
- The India-UK CETA is a comprehensive, next-generation **Free Trade Agreement (FTA)** covering goods, services, digital trade, investment, government procurement, labour, environment, innovation, SMEs, and regulatory cooperation, going beyond traditional FTAs that primarily focus on tariff reduction.
- The agreement aims to enhance bilateral trade, investment, economic cooperation, and strategic partnership between India and the United Kingdom.

Double Contribution Convention (DCC)

- DCC is an arrangement which prevents eligible Indian workers from paying social security contributions in both India and the UK.
- **Exemption:** Workers and employers can avoid UK contributions for up to five years while continuing contributions in India.
- Expected to benefit around 75,000 workers and 900+ employers. Eligible workers may save approximately 23% of their salaries.

Significance of the India-UK CETA

- **Boosts Trade and Investment:** Enhances bilateral trade and investment through improved market access, lower trade barriers, stronger supply chains, and greater labour mobility via the **Double Contribution Convention (DCC)**.
- **Strengthens Strategic Partnership:** Deepens the **India-UK Comprehensive Strategic Partnership** and is supported by the **UK-India Vision 2035** roadmap covering defence, climate action, education, innovation, and technology.
- **Advances India's FTA Strategy:** Complements India's recent trade agreements with the **UAE, Australia, and EFTA** nations, reflecting a shift towards **comprehensive, next-generation FTAs**.
- **Supports Viksit Bharat 2047:** Aligns with India's objective of concluding high-quality trade agreements with major economies to accelerate economic growth and global integration.

- **Expands Bilateral Trade:** Expected to **double India-UK trade to around US\$120 billion by 2030**, generating jobs, higher incomes, and stronger economic growth in both countries.
- **Improves Export Competitiveness:** Provides **zero or reduced tariffs on 99% of Indian exports** to the UK, giving India a competitive edge over exporters from **Bangladesh, Vietnam, and China**.
- **Benefits Manufacturing and MSMEs:** Boosts exports and employment in key manufacturing and textile clusters such as **Tiruppur, Surat, Ludhiana, Pune, Chennai, Gujarat, West Bengal, and Assam**.

Challenges of the India-UK CETA

- **Implementation Challenges:** Effective implementation requires harmonisation of standards, customs procedures, regulatory frameworks, and timely dispute resolution.
- **Non-Tariff Barriers:** SPS measures, technical standards, and conformity assessment requirements may continue to restrict exports despite tariff reductions.
- **Rules of Origin:** Ensuring compliance is crucial to prevent trade deflection while minimising additional costs for exporters.
- **Services & Mobility:** Limited labour mobility, visa restrictions, and delayed recognition of professional qualifications may constrain services trade.
- **Regulatory & IPR Differences:** Divergence in intellectual property, digital trade, environmental, and labour standards may increase compliance burdens.
- **Global Economic Uncertainty:** Geopolitical tensions, supply-chain disruptions, and economic slowdowns could limit expected trade and investment gains.
- **Need for Domestic Reforms:** Strengthening logistics, infrastructure, skilling, ease of doing business, technology adoption, and MSME competitiveness is essential to maximise benefits.
- **Awareness & Utilisation:** Greater awareness among businesses and exporters is needed to effectively leverage preferential provisions under the agreement.

Measures to Maximise the benefits

- **Enhance Export Competitiveness:** Improve productivity, technology adoption, innovation, and quality standards to maximise access to the UK market.
- **Strengthen MSMEs:** Provide financial support, technology upgradation, digital platforms, and capacity-building programmes to help MSMEs utilise CETA benefits and comply with **Rules of Origin (RoO)** and certification requirements.

- **Improve Trade Facilitation:** Streamline customs procedures, promote digital trade, strengthen logistics, and ensure effective implementation of FTA provisions to reduce transaction costs.
- **Strengthen Quality Infrastructure:** Expand testing laboratories, certification facilities, and regulatory frameworks to align Indian products with international standards and reduce non-tariff barriers.
- **Diversify Exports:** Promote value-added exports and strengthen integration with global value chains.
- **Develop Skilled Workforce:** Enhance skill development and facilitate recognition of professional qualifications to boost services exports.
- **Protect Sensitive Sectors:** Monitor vulnerable industries and MSMEs and use safeguard measures whenever necessary.
- **Promote Investment and Innovation:** Encourage bilateral investment, technology transfer, and joint research and development to strengthen long-term economic cooperation.

Benefits for India under the India–UK CETA

- **Greater Market Access:** 99% of Indian exports receive duty-free or preferential access to the UK market, enhancing India's export competitiveness.
- **Boost to Merchandise Exports:** Increased exports of textiles, garments, leather, footwear, gems & jewellery, marine products, engineering goods, pharmaceuticals, chemicals, and agricultural products (*Which previously faced duties of 4% to 16%*).
- **Growth in Services Exports:** Better opportunities for **IT, financial, legal, education, architecture, consultancy, and professional services**, strengthening India's services sector.
- **Benefits for Professionals:** Easier temporary mobility for **Indian professionals**, including contractual service suppliers, business visitors, and independent professionals.
- **Double Contribution Convention (DCC):** Indian employees on short-term assignments in the UK are exempt from paying **dual social security contributions**, reducing costs for workers and employers.
- **Employment Generation:** Higher exports and investment are expected to create jobs in **manufacturing, MSMEs, agriculture, and services**.
- **Opportunities for MSMEs:** Improved market access, simplified customs procedures, and trade facilitation will help **MSMEs integrate into global value chains**.
- **Increased Investment:** Greater investor confidence is expected to attract **UK investment** in manufacturing, infrastructure, fintech, clean energy, and innovation.
- **Access to Government Procurement:** Indian businesses gain opportunities to compete for **UK public procurement contracts**, expanding business prospects.
- **Strengthening the India–UK Strategic Partnership:** Deepens economic integration, diversifies export markets, enhances supply-chain resilience, and supports India's goal of becoming a global manufacturing and services hub.

Gains for the UK under the India–UK CETA

- **Enhanced Access to the Indian Market:** India will provide preferential treatment to **89.5% of tariff lines covering 89.4% of trade value**, improving access for UK goods. Tariff elimination and phased reductions will make British products more competitive in India.
- **Boost to Whisky, Gin and Premium Goods Exports:** Import duties on **British whisky and gin** will reduce significantly from **150% to 75% immediately** and gradually decline to **40% over 10 years**.
 - ♦ This will benefit UK distillers and premium consumer goods exporters in the growing Indian market.
- **Improved Opportunities for UK Automobile Sector:** Lower tariffs on selected **UK-made automobiles** will enhance competitiveness of British car manufacturers and increase exports to India.
- **Access to Indian Government Procurement:** UK companies will gain opportunities to participate in **Indian federal government procurement tenders**, expanding business prospects in a large public procurement market.
- **Expansion of Financial and Professional Services:** The agreement provides greater opportunities for UK firms in **financial services, IT, telecommunications, accounting, auditing, consulting, engineering and environmental services**.
 - ♦ Eligible UK service providers can operate in India without mandatory commercial presence in certain sectors.
- **Recognition of Professional Qualifications:** India will facilitate recognition of selected UK professional qualifications, benefiting professionals in sectors such as **law, accounting and other specialised services**.
- **Consumer and Industrial Export Benefits:** Reduced tariffs will support exports of **Scotch whisky, premium automobiles, engineering goods, industrial machinery and other high-value products** to India.
- **Strengthening UK Economic Growth:** Greater exports, investment opportunities and services access will support **UK businesses, employment generation and long-term economic growth**.

Way Forward

- **Maximise Export Opportunities:** Enhance manufacturing competitiveness, quality infrastructure, innovation, and value-added production to fully utilise duty-free access and expand India's presence in the UK market.
- **Ensure Inclusive Gains:** Strengthen MSMEs through finance, technology upgradation, skilling, and awareness programmes while protecting sensitive sectors from import-related challenges.
- **Deepen Economic Integration:** Improve trade facilitation, regulatory cooperation, professional mobility, and investment partnerships to promote services exports, technology transfer, and long-term India–UK economic growth.

ENERGY STORAGE DEMAND IN INDIA

India's energy storage capacity requirement is estimated to rise to 888 GWh by 2035–36, reflecting the country's transition towards a renewable energy-based power system and increasing electricity consumption.

About

- According to the **India Energy Storage Alliance (IESA) and Customised Energy Solutions (CES) report**, India will require:
 - ♦ 321 GWh from Battery Energy Storage Systems (BESS).
 - ♦ 567 GWh from Pumped Storage Projects (PSP).
- India's current installed storage capacity is only around **1 GWh**, highlighting the massive scale-up required.

1. BATTERY ENERGY STORAGE SYSTEMS

- A **Battery Energy Storage System (BESS)** is a technology that **stores electrical energy in rechargeable batteries** and supplies it back to the grid or consumers whenever required. It acts as a **large rechargeable power bank** for the electricity grid.
- It is a key enabler for integrating **renewable energy sources** such as solar and wind into the power system.

Major Components

- Battery cells/modules (commonly Lithium-ion)
- Battery Management System (BMS)
- Power Conversion System (PCS/Inverter)
- Energy Management System (EMS)
- Cooling and fire protection system
- Transformer and grid connection equipment
 - ♦ **An inverter**, which converts the direct current from the batteries into the alternating current of the electricity grid (and vice versa);
 - ♦ **A transformer**, which adapts the system's voltage to that of the grid
- BESS technology is based on the use of **electrochemical batteries**, which can store the energy produced by renewable energy plants.

Types of Battery Technologies

- **Lithium-ion Batteries:** High efficiency and fast response; widely used in **grid-scale energy storage and electric vehicles (EVs)**.
 - ♦ These batteries typically use lithium in combination with other materials, such as iron and phosphate used in LFP (lithium ferrophosphate) batteries.
- **Sodium-ion Batteries:**
 - ♦ Lower-cost technology using abundant materials; emerging option for **grid storage applications**.
 - ♦ While conventional and flow batteries normally use liquid electrolytes, in this case they are in a solid state (e.g., ceramic or synthetic materials).
- **Lead-acid Batteries:** Mature and cost-effective technology; mainly used for **backup power systems**.

- **Flow Batteries:** Provide long-duration and scalable storage; suitable for **renewable energy integration**.
- **Solid-state Batteries:** Offer higher safety and greater energy density; considered promising for **future energy storage applications**.

Advantages

- **Grid Stability:** Balances supply-demand fluctuations while supporting voltage and frequency regulation.
- **Energy Security:** Provides reliable backup power during outages and reduces dependence on imported fossil fuels.
- **Peak Load Management:** Meets peak electricity demand and reduces stress on the transmission network.
- **Environmental Benefits:** Facilitates clean energy adoption and helps reduce greenhouse gas emissions.
- **Economic Benefits:** Lowers electricity procurement costs and delays the need for new generation and transmission infrastructure.

BESS in India

- **National Programme on Battery Energy Storage Systems (2023):**
 - ♦ Approved by the Union Cabinet.
 - ♦ Supports deployment of **4,000 MWh** of Battery Energy Storage Systems.
 - ♦ Implemented through **Viability Gap Funding (VGF)**.
 - ♦ Encourages private sector participation.
 - ♦ Helps integrate renewable energy and improve grid reliability.
- **Production Linked Incentive (PLI) Scheme** for Advanced Chemistry Cell (ACC) Manufacturing
- **National Mission** on Transformative Mobility and Battery Storage.
- **PM Surya Ghar: Muft Bijli Yojana** (distributed storage opportunities)
- Green Energy Corridor projects

Challenges for India

- **Import Dependence:** Heavy reliance on imported battery materials and critical minerals like **lithium, cobalt, nickel, and graphite**.
- **Limited Domestic Ecosystem:** Lack of a strong domestic manufacturing base for advanced energy storage technologies.
- **Recycling Challenges:** Developing recycling infrastructure and ensuring safe disposal of used batteries remain key concerns.
- **Financial and Cost Barriers:** High initial investment requirements and challenges in financing large-scale storage projects.

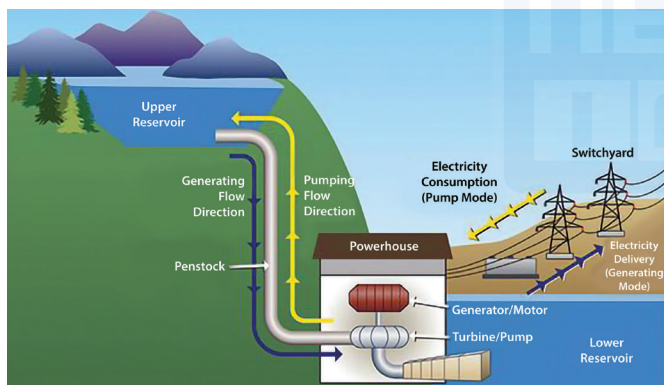
- **Technical Limitations:** Battery degradation over time, limited storage duration, and the need for improved safety standards.
- **Infrastructure Issues:** Challenges related to land availability, transmission connectivity, and grid integration.

2. PUMPED STORAGE PROJECT

- A **Pumped Storage Project (PSP)** is a type of **hydroelectric energy storage system** that stores electricity by pumping water from a **lower reservoir** to an **upper reservoir** during periods of low electricity demand.
- During peak demand, the stored water is released back through turbines to generate electricity.
- It is often referred to as a "**natural battery**" or "**gravity-based energy storage system**".

Working Mechanism

- **Pumping Mode (Charging):** -During off-peak hours or when surplus renewable energy is available, electricity is used to pump water from the **lower reservoir** to the **upper reservoir**.
- **Storage Mode :** -Water remains stored in the upper reservoir as **potential energy**.
- **Generation Mode (Discharging):** During peak demand, water flows downhill through **reversible pump-turbines**, generating electricity before returning to the lower reservoir.



Main Components

- **Upper Reservoir:** Stores water at an elevated level to generate electricity when demand is high.
- **Lower Reservoir:** Receives discharged water and stores it for reuse in the pumping cycle.
- **Reversible Pump-Turbines:** Generate electricity while releasing water and pump water back during off-peak hours.
- **Motor-Generator:** Operates as a generator in generation mode and as a motor in pumping mode.
- **Penstock (Water Conduit):** High-pressure conduit that conveys water between the reservoirs and the powerhouse.
- **Powerhouse:** Structure containing the turbines, pumps, generators, and control equipment.
- **Transmission System:** Delivers electricity generated by the plant to the transmission grid.

Advantages

- **Large-Scale Energy Storage:** Stores electricity in large quantities for long durations.
- **Grid Stability:** Provides frequency regulation, voltage support, spinning reserve, and black-start capability.
- **Renewable Energy Integration:** Stores surplus solar and wind energy to ensure reliable round-the-clock renewable power.
- **Long Operational Life:** Offers a lifespan of over 50–100 years with minimal performance degradation.
- **High Efficiency:** Achieves a round-trip energy efficiency of approximately 70–85%.
- **Environmental Benefits:** Reduces reliance on fossil fuel-based peaking plants and supports power sector decarbonisation.

Types of PSPs

- **Open-loop PSP:** Uses one reservoir connected to a natural river or lake system.
- **Closed-loop PSP:** Uses two reservoirs that are isolated from natural water bodies, reducing environmental impacts.

Major Pumped Storage Projects in India

- **Tehri Pumped Storage Project** – Uttarakhand – Under development.
- **Purulia Pumped Storage Project (PSP)** – West Bengal – Operational.
- **Kadamparai Pumped Storage Project (PSP)** – Tamil Nadu – Operational.
- **Sardar Sarovar Pumped Storage Project (PSP)** – Gujarat – Proposed/Planned.
- **Sharavathy Pumped Storage Project (PSP)** – Karnataka – Proposed expansion.
- **Koyna Hydroelectric Project** – Maharashtra – Operational; expansion under consideration.

Feature	Pumped Storage Projects (PSP)	Battery Energy Storage Systems (BESS)
Storage Medium	Water	Batteries
Scale	Very large	Small to large
Storage Duration	6–20+ hours	Typically 2–8 hours
Lifespan	50–100 years	10–20 years
Response Time	Seconds to minutes	Milliseconds
Capital Cost	High initial cost	Moderate to high
Environmental Issues	Land and water impacts	Critical minerals and battery disposal
Best Use	Long-duration storage	Short-duration and fast-response services

CENTRE OF EXCELLENCE ON HUMAN-WILDLIFE CONFLICT

On 10 July 2026, the Environment Ministry established a Centre of Excellence on Human–Wildlife Conflict at WII–SACON – a national portal for evidence-based policymaking and reducing Human–wildlife related conflicts.

Centre of Excellence on Human–Wildlife Conflict

- The Centre of Excellence was established at Wildlife Institute of India - Salim Ali Centre for Ornithology and Natural History (WII–SACON), Coimbatore, Tamil Nadu.
- **Purpose:**
 - ◆ Act as a national knowledge and research hub for human–wildlife conflict management.
 - ◆ Develop science-based, technology-driven and community-oriented solutions for conflict mitigation.

Functions

- **Research & Data Analysis:** Study patterns, causes and trends of human–wildlife conflict. Develop evidence-based strategies for conflict-prone regions.
- **Policy Support:** Assist governments and forest departments in preparing species-specific and area-specific conflict management plans.
- **Capacity Building:** Train forest officials, rapid response teams and local communities in conflict prevention and management.
- **Technology Innovation:** Promotes AI, GIS, remote sensing, camera traps, drones, and early warning systems for identifying conflict hotspots and enabling timely, science-based mitigation measures.
- **Focus Species:** Focuses on managing major human–wildlife conflicts involving elephants, tigers, leopards, and other large mammals through targeted conservation and mitigation strategies.

About National Human–Wildlife Conflict Portal

- **Objective:** To create a **centralised database** of human–wildlife conflict incidents across India for better planning and decision-making.
- **Features:**
 - ◆ Collection and standardisation of conflict-related data.
 - ◆ Mapping of conflict hotspots.
 - ◆ Support for evidence-based policy formulation.
 - ◆ Monitors trends in **human casualties, crop damage, livestock losses, and other wildlife-related incidents** for effective conflict assessment and management.

About Human–Animal Conflict

- Human–Animal Conflict (HAC), also known as Human–Wildlife Conflict (HWC), refers to interactions between humans and wild animals that result in **loss of life, injury, damage to crops or property, livestock depredation, or threats to wildlife conservation**.

- It is a major challenge in India due to increasing pressure on forests, habitat fragmentation, and expansion of human activities into wildlife areas.
- According to the **IUCN**, it occurs when the needs and behaviour of wildlife negatively affect humans or when human activities threaten the survival of wildlife.

Causes of Human–Animal Conflict

- **Habitat Loss and Fragmentation:** Expansion of agriculture, mining, industries, roads, and settlements reduces natural habitats. Wildlife enters human areas in search of food and shelter.
 - ◆ **Example:** Kancha Gachibowli Forest Clearing, Vikarabad Forest Encroachments etc
- **Decline of Natural Prey and Food Sources:** Reduction in prey species forces carnivores like tigers and leopards to target livestock. Crop-raiding occurs due to shortage of wild food for herbivores.
 - ◆ **Example:** Odisha farmers fear wild boars, deer destroying crops overnight.
- **Human Encroachment in Wildlife Corridors:** Blocking traditional animal movement routes increases encounters. Infrastructure projects such as highways and railways disrupt migration paths.
 - ◆ **Example:** Excavation and land-use changes threaten Wayanad's Periya–Pakranthalam elephant corridor.
- **Climate Change:** Changes in rainfall and temperature alter animal behaviour and distribution. Scarcity of water increases movement towards human settlements.
 - ◆ **Example:** Erratic rainfall and drought in Rajasthan push leopards and other wildlife towards villages in search of water.
- **Illegal Wildlife Trade and Poaching:** Decline in wildlife populations affects ecosystem balance. Disturbed animals may enter human-dominated landscapes.
 - ◆ **Example:** Sundarbans, West Bengal: Illegal fishing and wildlife exploitation can reduce prey availability, increasing tiger movement near human settlements.
- **Population Growth:** Expansion of cultivation and infrastructure into wildlife habitats.
 - ◆ **Example:** Mumbai, Maharashtra: Urban expansion around Sanjay Gandhi National Park has increased human–leopard interactions.
- **Tourism Pressure:** Increased human presence in wildlife habitats disrupts natural animal behaviour and elevates human–wildlife interactions.

- ♦ Unregulated tourism activities can cause habitat disturbance, stress to animals, and increased conflict with local communities.
- ♦ **Example: Wayanad, Kerala:** Resort expansion and tourism infrastructure near forest areas can fragment habitats and increase human–wildlife conflict.

Major Conflict Examples in India

- ➔ **Elephants:** Crop damage, human deaths, and railway/road accidents in states like Assam, Odisha, Jharkhand, and Karnataka.
- ➔ **Tigers:** Livestock predation and occasional attacks near tiger reserves.
- ➔ **Leopards:** Increasing encounters in peri-urban areas.
- ➔ **Wild Boar and Nilgai:** Large-scale agricultural damage.
- ➔ **Monkeys:** Conflict in urban and agricultural landscapes.

Government Initiatives

- ➔ **Wildlife Protection Act, 1972:** - Provides legal protection to wild animals and regulates hunting.
- ➔ **Project Tiger (1973):** - Conservation of tiger habitats and prevention of human–tiger conflict.
- ➔ **Project Elephant (1992):** - Protects elephant habitats and corridors and Promotes mitigation measures.
- ➔ **Human–Wildlife Conflict Guidelines (2021):** - Issued by the Ministry of Environment, Forest and Climate Change: Provides guidelines for human–wildlife conflict mitigation through preventive measures, community participation, and strengthening rapid response teams.
- ➔ **Compensation Schemes:** - States provide financial assistance for human casualties, crop damage, and livestock losses due to wildlife conflict.
- ➔ **Wildlife Corridors & Eco-bridges:** Maintain habitat connectivity and reduce wildlife deaths caused by roads and railways.

Human–Wildlife Conflict Management in India

- ➔ **Solar-Powered Fencing:** Electrified fencing powered by solar energy that safely prevents wild animals from entering agricultural fields or settlements.
 - ♦ Used in **Kerala and Karnataka** to prevent elephant and wild boar intrusion into farmlands.
- ➔ **Bee-Fence Technique Against Elephants:** Fences made using beehive boxes or artificial bee sounds that deter elephants, as elephants avoid bees due to fear of stings.
 - ♦ Implemented in **Assam, Karnataka, and Odisha** to reduce elephant crop-raiding.
- ➔ **Elephant-Proof Trenches (EPTs):** Deep trenches constructed along forest boundaries to prevent elephants from entering human habitations and farms.
 - ♦ Used in **Uttarakhand, Jharkhand, and Karnataka** near elephant corridors.

Early Warning Systems:

- ♦ Technology-based systems that alert communities about approaching wild animals to prevent encounters.
- ♦ **AI-based elephant alert systems in Assam and Kerala** send mobile warnings to villagers about elephant movement.

Community Participation:

- ♦ Involving local communities in wildlife monitoring, conflict prevention, and conservation activities.
- ♦ **Village Forest Protection Committees in Odisha** assist in elephant conflict management.

Crop Diversification:

- ♦ Shifting from wildlife-attractive crops to less palatable crops to reduce crop damage.
- ♦ Farmers in **Himachal Pradesh and Uttarakhand** promote crops like ginger, turmeric, and medicinal plants instead of crops frequently raided by animals.

Restoration of Wildlife Corridors:

Protecting and restoring natural movement routes of animals between fragmented habitats.

- ♦ **Rajaji–Corbett Elephant Corridor (Uttarakhand)** helps maintain elephant movement and reduces human encounters.

Global Best Practices in Human–Wildlife Conflict Management

- ➔ **Kenya:** Uses **beehive fences** to deter elephants and protect agricultural fields.
- ➔ **Namibia:** Promotes **community-based conservation** by involving local communities in wildlife protection.
- ➔ **Nepal:** Implements **buffer-zone management** around protected areas to reduce conflicts and support local livelihoods.
- ➔ **Sri Lanka:** Uses **electric fencing and community monitoring** to minimize human–elephant conflicts.

Challenges in Human–Wildlife Conflict Management

- ➔ **Slow Compensation Process:** Delayed payment for human deaths, injuries, crop damage, and livestock losses reduces community support for conservation.
 - ♦ Complex verification procedures often discourage affected people from reporting losses.
- ➔ **Habitat Fragmentation:** Conversion of forests for agriculture, mining, roads, and settlements breaks wildlife habitats into smaller patches. Fragmented habitats increase animal movement into human-dominated areas.
- ➔ **Insufficient Wildlife Corridors:** Lack of protected movement routes restricts animal migration and increases encounters with humans. Infrastructure projects often block traditional wildlife pathways.
- ➔ **Weak Coordination Among Departments:** Poor coordination between forest departments, local administration, police, disaster management agencies, and infrastructure authorities delays conflict response.

- ♦ Lack of a unified approach affects effective management.
- **Limited Community Participation:** Local communities often bear the highest costs of conflict but have limited involvement in decision-making. Negative attitudes towards wildlife may increase due to repeated losses.
- **Inadequate Scientific Monitoring:** Lack of reliable data on animal movement, conflict hotspots, and population trends affects planning.
 - ♦ Limited use of technologies like GPS tracking, AI-based alerts, and remote sensing reduces effectiveness.
- **Climate Change Impacts:** Changing rainfall patterns, rising temperatures, and extreme weather events alter animal habitats and food availability. Water and resource scarcity push wildlife closer to human settlements.

Solutions for Human–Wildlife Conflict

- **Habitat Conservation:** Protect and restore forests, wetlands, and grasslands to maintain natural habitats and reduce animal movement into human areas.
 - ♦ **Example:** Restoration of degraded habitats around tiger reserves to improve prey availability.
- **Protection of Wildlife Corridors:** Identify, preserve, and legally secure animal movement routes to prevent habitat fragmentation and conflicts.
 - ♦ **Example:** Protection of elephant corridors in Karnataka and Uttarakhand.
- **Technology-Based Solutions:** Deploy modern technologies such as AI alerts, camera traps, GPS tracking, and mobile warnings for early conflict detection.
 - ♦ **Example:** AI-based elephant alert systems used in Assam and Kerala.
- **Community Participation:** Involve local communities in conservation activities and promote coexistence-based approaches.
 - ♦ **Example:** Village committees in Odisha participating in elephant conflict management.
- **Scientific Conflict Management:** Adopt evidence-based strategies, avoid unnecessary relocation, and use trained rapid response teams.
 - ♦ **Example:** Rapid Response Teams for leopard rescue and conflict mitigation in Maharashtra.
- **Sustainable Development Planning:** Integrate wildlife conservation into infrastructure and land-use planning to minimise ecological damage.
 - ♦ **Example:** Wildlife underpasses and eco-bridges on highways to reduce animal road deaths.
- **Forest (Conservation) Act, 1980:** Regulates diversion of forest land for non-forest activities to conserve forest ecosystems.
- **Biological Diversity Act, 2002:** Promotes conservation of biodiversity, sustainable use of resources, and equitable benefit sharing.
- **National Board for Wildlife (NBWL):** Advises the government on wildlife conservation policies and activities affecting protected areas.
- **National Tiger Conservation Authority (NTCA):** Oversees tiger conservation, habitat protection, and management of human–tiger conflict.

SC Observations on Human–Wildlife Conflict

- **Promote Human–Wildlife Coexistence:** Emphasised balancing wildlife conservation with human safety and livelihoods by addressing habitat loss and ecological imbalance.
- **Protection of Wildlife Corridors:** Directed protection of elephant and tiger corridors to maintain animal movement and reduce conflicts.
- **Segur Elephant Corridor Case (2022):** Upheld restrictions on commercial activities in elephant corridors to protect ecological connectivity.
- **Conflict Management through Compensation:** Stressed timely and transparent compensation for human deaths, injuries, crop and livestock losses.
- **Human–Wildlife Conflict as a Disaster Issue:** Suggested considering conflict-related incidents under disaster management frameworks for better support.
- **Wildlife-Friendly Infrastructure:** Recommended mitigation measures like underpasses, overpasses and scientific impact assessments in development projects.
- **Scientific Decision-Making:** Advocated data-based planning, expert inputs and technology-driven approaches for conflict management.
- **Protection under Public Trust Doctrine:** Reaffirmed that the State is a trustee of forests, wildlife and natural resources.

Conclusion

- **Promote Coexistence-Based Conservation:** India's rich wildlife diversity, including over 70% of global wild tigers and around 60% of Asian elephants, requires landscape-level conservation, protection of corridors, and community participation for sustainable coexistence.
- **Adopt Scientific and Technology-Driven Management:** Use AI, GIS, drones, camera traps, and early warning systems along with the Centre of Excellence on Human–Wildlife Conflict and National HWC Portal for data-driven monitoring and rapid response.
- **Ensure Sustainable Development Planning:** Integrate wildlife conservation into infrastructure development through wildlife-friendly designs, protection of habitats, and mitigation of fragmentation caused by linear projects to reduce conflict and ensure biodiversity conservation.

Legal Framework for Human–Wildlife Conflict Management

- **Wildlife (Protection) Act, 1972:** Provides legal protection to wild animals and their habitats while regulating hunting and wildlife trade.

INTEROPERABLE CRIMINAL JUSTICE SYSTEM

The Ministry of Home Affairs announced that from 1 January 2027, procedures relating to all investigations and trials under the new criminal laws will be recorded digitally through the Interoperable Criminal Justice System (ICJS).

About ICJS

- ICJS is a national digital platform integrating **Police (Crime and Criminal Tracking Network and Systems-CCTNS), Courts (e-Courts), Prisons (e-Prisons), Forensics (e-Forensics) and Prosecution (e-Prosecution)** into a single network.
- It enables an end-to-end digital workflow from **First Information Report (FIR)** registration to investigation, chargesheet filing, trial and final disposal.

Digital Drive

The digitisation aims to make way for faster, more transparent, and integrated justice delivery nationwide



- All investigations and trials under BNS, BSS, and BNSS will be digitally recorded and stored on the **MeghRaj** government cloud platform

- The **Interoperable Criminal Justice System (ICJS)** connects police, courts, prisons, prosecution, and forensic laboratories on a single platform

- Over **63,500** zero-FIRs have been registered, allowing complaints to be filed regardless of jurisdiction and transferred electronically

- **25 new forensic laboratories** have been added in two years to support mandatory forensic investigations

- Implementation has risen from 46.47% to 70.06% since January 2025, with improved **chargesheet compliance** and millions of digital evidence IDs and e-summons generated

- **National Crime Records Bureau (NCRB)** is the nodal agency, while the **National Informatics Centre (NIC)** is the technology partner.
 - ◆ Data is hosted on **MeghRaj**, and **ICJS 2.0** upgrades applications, hardware and network connectivity across States and Union Territories.
- It supports implementation of the **Bharatiya Nyaya Sanhita (BNS)**, **Bharatiya Nagarik Suraksha Sanhita (BNSS)** and **Bharatiya Sakshya Sanhita (BSS)**.

Key Features

- It enables seamless data sharing, improves data quality, reduces paper records, supports **Artificial Intelligence/**

Machine Learning (AI/ML) tools and promotes **SMART Policing**.

- Major platforms include **CCTNS**, **e-Prisons**, **e-Forensics**, **e-Prosecution**, **National Automated Fingerprint Identification System (NAFIS)** and the **Criminal Procedure (Identification) System** under the Criminal Procedure (Identification) Act, 2022.

Implementation Status

- Only **46%** of **FIRs** are digitally transmitted to courts. Since July 2024, **74.66 lakh FIRs** under **BNS** and **63,572 Zero-FIRs** under **BNSS** have been registered.
- **Zero-FIRs** can be filed irrespective of jurisdiction and are later transferred to the concerned police station.
- **CCTNS** operates across **16,000 police stations** in **23 languages**, supported by the **Bhashini** application.
- **Haryana, Goa, Assam, Punjab and Chandigarh** have implemented all digitisation parameters, while some north-eastern States continue to face connectivity challenges.
- Forensic laboratories increased from **129 (2023)** to **154 (2025)**, with **700+ mobile forensic units** deployed. The implementation score improved from **46.47%** to **70.06%**. **60-day** and **90-day chargesheet compliance** also improved.
- As of **31 May 2026**, the national database contained **37.68 crore police records**, including **9.9 crore FIRs** and **7.64 crore chargesheets**.

FCRA 2.0 PORTAL AND e-OCI CARD

The Union Home Minister launched the **Foreign Contribution (Regulation) Act (FCRA) 2.0 Portal** and the **Electronic Overseas Citizen of India (e-OCI) Card** to strengthen digital governance and citizen services.

FCRA 2.0 Portal

- Launched by the **Ministry of Home Affairs**, the portal is developed under the **Foreign Contribution (Regulation) Act (FCRA)** and incorporates the **Foreign Contribution (Regulation) Act Amendment Rules, 2026**.
- It aims to **simplify compliance**, reduce paperwork, strengthen monitoring and enforcement, and prevent **foreign influence on India's internal affairs**.
- It provides **end-to-end digital services** for applications, renewals, annual returns and other services through **process re-engineering**.
- Hosted on **MeghRaj**, it enables secure data management and faster verification through Aadhaar-based authentication, e-Sign, Optical Character Recognition (OCR)-based document analysis, an integrated dashboard, and integration with Permanent Account Number (PAN), Aadhaar, Overseas

Citizen of India (OCI), NGO Darpan, Institute of Chartered Accountants of India (ICAI) Unique Document Identification Number (UDIN) system and banks.

- FCRA, enacted in 1976 and replaced by the **Foreign Contribution (Regulation) Act, 2010**, regulates foreign contributions to protect national sovereignty, security and public interest.

e-OCI Card

- An **Overseas Citizen of India (OCI)** cardholder is a foreign national of Indian origin registered under the Citizenship Act, 1955.
- Introduced by the **Ministry of Home Affairs** under the **Citizenship (Amendment) Rules, 2026**, the **e-OCI Card** provides a **fully digital, convenient and secure** service for over **50 lakh Overseas Citizen of India (OCI)** cardholders.
- Applicants can complete the **entire OCI process online**, from application and document upload to downloading the approved digital card.
- Physical **OCI booklet re-issuance** after obtaining a new passport beyond **20 years of age** is no longer required. Passport details must be updated online.
- The digital system enables **real-time verification**, **smoother immigration clearance**, and reduces the risk of losing physical documents.
- The **OCI Scheme**, introduced in **2005** through an amendment to the **Citizenship Act, 1955**, grants specified privileges to **foreign nationals of Indian origin** and strengthens India's engagement with the global Indian diaspora.

ACADEMIC BANK OF CREDITS AND APAAR ID

The Academic Bank of Credits (ABC) is a digital platform of the Ministry of Education, regulated by the University Grants Commission (UGC), to build a flexible, learner-centric and lifelong learning ecosystem.

About

- Academic Bank of Credits (ABC) stores, manages, transfers and redeems **academic credits** earned from recognised institutions. It enables learning achievements to be **recognised, preserved and used throughout a learner's life**.
- Automated Permanent Academic Account Registry (APAAR) is a unique **12-digit student ID** linked to ABC under the **One Nation, One Student ID** initiative.
 - ♦ It creates a single academic identity across **school education, higher education, skill development** and other learning programmes.
- The initiative supports the **National Education Policy (NEP) 2020** and the **National Credit Framework (NCrF)** by enabling **credit transfer, multiple entry and exit**, and recognition of learning across **institutions and disciplines**.

Key Features

- **APAAR** is accessible through **DigiLocker** and can also be generated through **Common Service Centres (CSCs)**, improving access for learners in remote and underserved areas.
- Students can **accumulate, transfer and redeem credits**. Credits remain valid for **up to seven years**, or as prescribed for the relevant discipline, and cannot be reused after redemption.

CORE FEATURES OF ACADEMIC BANK OF CREDITS (ABC)



- Students may earn up to **40% credits** through **Study Webs of Active Learning for Young Aspiring Minds (SWAYAM)**. Around **388 universities** have adopted **SWAYAM** credit regulations, while **170 universities** have adopted the **National Credit Framework (NCrF)**.
- Students register using an **ABC/APAAR ID** linked with **Aadhaar** and **DigiLocker**. Recognised institutions upload academic credits directly to student accounts.

Significance

- **Encryption, security protocols** and **Aadhaar-linked DigiLocker authentication** protect the privacy, integrity and security of academic records.
- Integration with **DigiLocker, CSCs, SWAYAM, SAMARTH ERP** and **blockchain-based digital credentials** strengthens India's **digital education infrastructure** and supports a **secure, transparent and future-ready lifelong learning ecosystem**.

eSARAS (SARAS AAJEEVIKA)

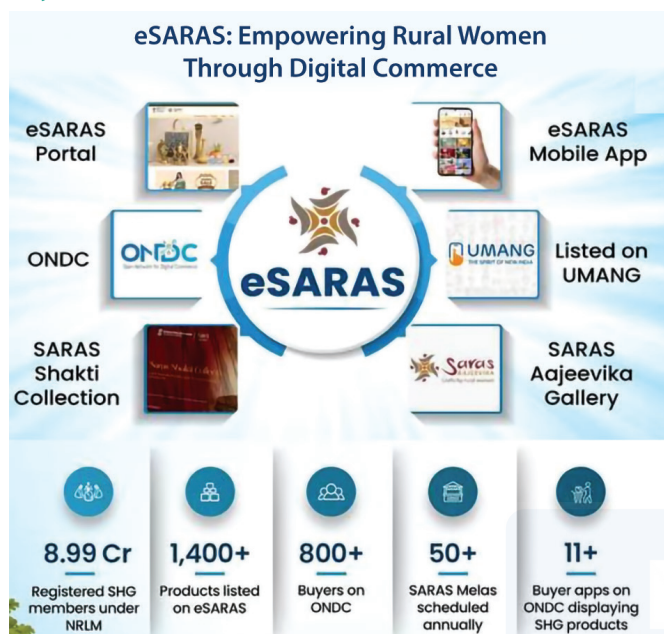
The Government highlighted eSARAS as a key initiative for digitally empowering women-led Self-Help Groups (SHGs) by connecting rural artisans with national markets under the Digital India initiative.

About eSARAS

- eSARAS is the official digital marketplace of the **Ministry of Rural Development**, developed under the **Deendayal Antyodaya Yojana–National Rural Livelihoods Mission (DAY-NRLM)**.
- It is exclusively dedicated to products made by **women SHGs, their federations, rural artisans and producer collectives**.
- The platform provides **direct market access**, reduces dependence on **middlemen**, ensures **fair remuneration**, and promotes **indigenous crafts, rural entrepreneurship**, and **women-led enterprises**.

- Every purchase directly connects buyers with the **artisan** behind the product.

Key Features



- It offers home décor, apparel, accessories, personal care products, food items, toys, handicrafts and handlooms, including Chanderi sarees, marble crafts and Pashmina products.
- It supports marketing, branding, processing, packaging, logistics and shipping of rural products.
- It enables online registration, product cataloguing, digital payments, order management, and promotes digital literacy and financial inclusion among rural women.
- The platform has expanded into an ecosystem comprising the **eSARAS Portal**, **Mobile App**, **Fulfilment Centre**, **Open Network for Digital Commerce (ONDC)** integration, **Unified Mobile Application for New-age Governance (UMANG)** listing, **SARAS Shakti Collection**, and the **SARAS Aajeevika Gallery** in New Delhi.
- Through **ONDC**, over **800 handcrafted products** are available across **11+ buyer applications**, reaching **20+ crore buyers**.

DAY-NRLM

DAY-NRLM is the flagship programme of the Ministry of Rural Development that mobilises poor rural households into Self-Help Groups (SHGs) and promotes self-employment, skilled wage employment, and sustainable livelihoods for poverty reduction.

Significance

- eSARAS strengthens women's entrepreneurship, digital inclusion, national market access, cultural heritage

preservation, sustainable livelihoods, Vocal for Local, Aatmanirbhar Bharat, and inclusive rural economic growth.

- It also supports community institutions under DAY-NRLM and expands livelihood opportunities for women from marginalised and remote areas.

NEW RULES UNDER THE TELECOMMUNICATIONS ACT, 2023

The Union Government notified three Telecommunications Authorisation Rules, 2026, advancing implementation of the Telecommunications Act, 2023.

Notified Rules

- The rules cover principal telecommunication services, captive telecommunication services, and miscellaneous telecommunication services.
- They replace the earlier licence-based framework with an **authorisation-based system**.
- Telecom operators and **Internet Service Providers (ISPs)** may migrate immediately. They may also continue under existing licences until expiry and then apply afresh.

Background

- The **Telecommunications Act, 2023** replaces the **Indian Telegraph Act, 1885** and the **Indian Wireless Telegraphy Act, 1933**.
- It modernises and consolidates telecom law for technologies such as **5G**, **6G**, **satellite communication**, **Internet of Things**, and internet-based services.
- The reform mainly changes the regulatory framework. It does not immediately alter most day-to-day telecom services.

Major Provisions

- The Act adopts a broad, **technology-neutral definition** of telecommunication. This may allow regulation of messaging and calling applications.
- Simplified **Right of Way** procedures aim to accelerate broadband expansion and next-generation network deployment.
- Spectrum will ordinarily be assigned through **auctions**. Administrative allocation is allowed for specified purposes, including defence, national security, disaster management and public broadcasting.
- The **Universal Service Obligation Fund** has been renamed **Digital Bharat Nidhi**. It continues to support connectivity in rural, remote and commercially unviable areas.
- The framework adds **anti-spam obligations** and uses the **Department of Telecommunications eServices Portal** for digital processing.
- An authorisation does not automatically provide **spectrum rights**.
- Separate approval is required for satellite networks and infrastructure in **security-sensitive areas**.

- Network data and logs must remain within India. They cannot be routed, shared or made available abroad.

Concerns

- The Government may temporarily take possession of telecom infrastructure during war, public emergency or national-security situations.
- It may also intercept, monitor or suspend communications under prescribed procedures.
- These provisions have raised concerns regarding **privacy**, **digital rights**, and possible regulation of **Over-the-Top platforms**.

CENTRALLY LICENSE APPROVING AUTHORITY (CLAA) FRAMEWORK

The Central Government amended the Drugs Rules, 1945 to bring cell or stem cell-derived products, gene therapeutic products, and xenografts under the Centrally License Approving Authority (CLAA) framework.

Objective

- The amendment aims to strengthen **patient safety**.
- They ensure **uniform national regulatory standards**, promote the safe adoption of **advanced medical technologies**, and establish **joint Central-State regulatory oversight**.

About CLAA

- CLAA is a joint licensing mechanism under the **Drugs and Cosmetics Act, 1940**, administered by the **Central Drugs Standard Control Organization (CDSCO)**.
- It ensures **uniform regulation**, **quality control**, **safety**, and **regulatory oversight** of specified critical drugs and biological products across India while reducing variations in licensing practices among States.
- CDSCO functions as the **Central License Approving Authority**.
- It approves licences for specified critical drugs, regulates **imports**, **new drug approvals**, and **clinical trials**, and coordinates with **State Drug Control Organisations** for uniform implementation.

Expansion of Coverage

- Earlier, the framework covered blood and blood products, vaccines, large volume parenterals (intravenous solutions exceeding 100 ml), recombinant DNA (r-DNA) products, and other notified biological products.
- The amendment expands the framework to regulate additional **emerging medical technologies**, including:
 - ♦ **Cell or Stem Cell-derived Products:** Includes stem cell-based regenerative therapies and CAR-T cell therapies used for blood cancers such as leukaemia and lymphoma.
 - ♦ **Gene Therapeutic Products:** Includes gene replacement and gene-editing therapies used for genetic disorders and various cancers.

- ♦ **Xenografts:** Includes animal tissue-derived products, such as heart valves, used in cardiology and orthopaedics.

Licensing Process

- The manufacturer applies to the **State Licensing Authority (SLA)**. The **SLA** inspects the manufacturing facility and verifies compliance with **Good Manufacturing Practices (GMP)**.
- After a satisfactory inspection, the **SLA** forwards its recommendation to **CLAA**. CLAA independently evaluates the proposal and grants or rejects the licence.

Significance

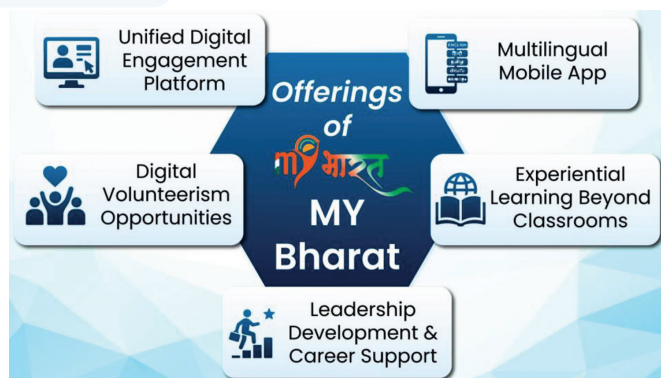
- These therapies involve **highly complex**, **specialised**, and **rapidly evolving** technologies that require enhanced regulatory scrutiny.
- The amendment strengthens **joint Central-State oversight**, ensures **uniform national standards**, improves **patient safety**, aligns India's regulatory framework with **global best practices**, promotes **healthcare innovation**, and facilitates the **safe and timely adoption** of advanced medical technologies.

MY BHARAT (MERA YUVA BHARAT)

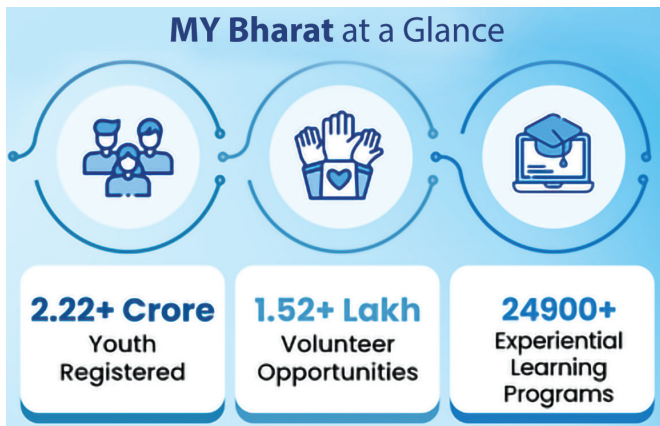
Union Minister for Youth Affairs and Sports Mansukh Mandaviya highlighted the role of MY Bharat in nurturing youth potential and directing it towards nation-building.

About

- MY Bharat (Mera Yuva Bharat) was launched in **October 2023** as an autonomous body under the **Department of Youth Affairs, Ministry of Youth Affairs and Sports**.



- It is registered as a society under the **Societies Registration Act XXI of 1860**.
- The platform connects **government institutions**, **educational institutions**, **businesses**, **non-profit organisations**, **mentors**, and young people.
- It is aligned with the **National Youth Policy** and seeks to place youth at the centre of **nation-building**.
- It mainly serves people aged **15–29 years**. It also nurtures adolescents aged **10–19 years** to build early civic awareness and participation.



Objectives

- It provides **equitable access to opportunities** that help young people realise their aspirations and contribute to **Viksit Bharat**.
- It promotes **volunteering, skill development, leadership, civic participation**, and community engagement.
- It provides an overarching, **technology-powered institutional mechanism** for both **youth development** and **youth-led development**.

Key Features

- It connects youth with programmes and learning opportunities offered by **businesses, government departments, and non-profit organisations**.
- It supplements classroom learning through **experiential programmes** in local businesses, local self-government institutions, and government bodies.
- Youth can create individual profiles listing their **skills and activities**.
- They can network with one another and connect with potential **mentors**.
- The platform provides **learning resources, mentorship programmes, experiential opportunities, professional networks, and industry connections**.
- It aims to empower young people to become **catalysts for community transformation**.

ALLAHABAD HIGH COURT UPHOLDS UNIFORM LEGAL MARRIAGE AGE

The Allahabad High Court ruled that the Prohibition of Child Marriage Act (PCMA), 2006 uniformly prescribes the minimum legal marriage age for all citizens, holding that personal laws, including Shariat principles, cannot override statutory child-protection laws.

Key Observations of the Court

- The **PCMA, 2006** determines the legal minimum marriage age for every citizen, irrespective of **religion or personal law**.
- The minimum legal marriage age is **18 years for females** and **21 years for males**.

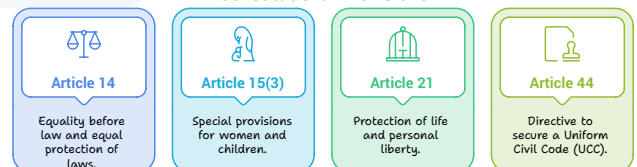
- A **child marriage** is **voidable** at the option of the minor party within **two years of attaining majority**.
- The Court held that **laws enacted by Parliament** prevail over conflicting **religious personal laws**.
- It observed that the **Muslim personal law** principle permitting marriage after **puberty** cannot override the **PCMA** or the **Protection of Children from Sexual Offences (POCSO) Act, 2012**.
- The Court harmonised the **PCMA** and **POCSO Act**, holding that permitting marriage below **18 years** would conflict with the **POCSO Act**, which defines a **child** as any person below **18 years** and criminalises sexual activity involving children.
- The Court emphasised that the **PCMA** and **POCSO Act** are **welfare legislations** founded on **public health, scientific understanding, and national policy**, making their protections universally applicable.
- The Bench relied on **Moidutty Musliyar v. Sub Inspector, Vadakkencherry Police Station (2024)**, which held that personal law cannot override statutory prohibitions on child marriage or dilute **POCSO** protections.

Legal Framework

Statutory Provisions

- PCMA, 2006**: A child is a male below 21 years or a female below 18 years.
- POCSO Act, 2012**: A child is any person below 18 years.
- Muslim Personal Law (Shariat) Application Act, 1937**: Traditional Muslim personal law recognises a person attaining puberty (presumed at 15 years) as competent to marry.

Constitutional Provisions



Significance

- The judgment reinforces that **child protection, dignity, and statutory rights** prevail over conflicting personal-law practices.
- It strengthens the overriding authority of **child protection laws** and contributes to the wider debate on **personal laws, gender justice, and the Uniform Civil Code**.
- It promotes **women's empowerment** by discouraging child marriage and improving **education, autonomy, dignity, and decision-making capacity**.

Concerns

- Divergent **High Court** decisions have created **legal uncertainty** on whether **personal laws** can override the **PCMA, 2006**.
- The **Supreme Court** has not yet delivered an authoritative ruling on the issue.

- The **Prohibition of Child Marriage (Amendment) Bill, 2021**, which sought to address related issues, lapsed with the dissolution of the **17th Lok Sabha**.
- The ruling also raises questions regarding **religious autonomy** under **Article 25**.
- Effective implementation remains difficult because of **social customs, poverty, lack of education, and gender inequality**.

EMERGENCY CREDIT LINE GUARANTEE SCHEME (ECLGS) 5.0

Emergency Credit Line Guarantee Scheme (ECLGS) 5.0 has facilitated over 4.11 lakh government-guaranteed loans worth more than ₹1.55 lakh crore to improve credit access for eligible sectors.

About

- ECLGS 5.0 is the latest version of the **Emergency Credit Line Guarantee Scheme**, originally launched under the **Aatmanirbhar Bharat Package (2020)** to help businesses, including **Micro, Small and Medium Enterprises (MSMEs)**, meet operational liabilities and resume business during the **COVID-19** crisis.
- The **2026** version addresses financial stress faced by **MSMEs** and the **aviation sector** due to disruptions arising from the **West Asia conflict**.
- It is under the operational domain of the **Department of Financial Services (DFS), Ministry of Finance**.
- The scheme provides additional **working capital** support by allowing eligible borrowers to avail loans of up to **20%** of their existing working capital limits.
- The total credit support envelope is **₹2.55 lakh crore**, including **₹5,000 crore** for the airline sector.

Key Features

- **Objective:** To provide credit guarantee coverage to Member Lending Institutions (MLIs) through the National Credit Guarantee Trustee Company Limited (NCGTC) against default under the additional credit facility, helping eligible borrowers overcome short-term liquidity mismatches arising from the West Asia conflict.
- **Eligible Borrowers:** MSMEs, non-MSMEs with existing working capital limits, and scheduled passenger airlines having standard outstanding credit facilities as on 31 March 2026.
- **Credit Guarantee:** 100% for MSMEs and 90% for non-MSMEs and the airline sector. The guarantee protects MLIs against losses arising from borrower non-repayment.
- **Implementing Agency:** NCGTC, established to manage and provide guarantees under the scheme.
- **Loan Tenure:** 5 years, including a 1-year moratorium, for MSMEs and non-MSMEs; 7 years, including a 2-year moratorium, for the airline sector.
- The maximum guarantee cover remains co-terminus with the tenor of the loan.

NATIONAL ACADEMIC DEPOSITORY (NAD)

The National Academic Depository (NAD), introduced in 2017, is enabling a secure, paperless, and interoperable system for storing, issuing, verifying, authenticating, and accessing academic records across India.

About

- NAD is a nationwide digital framework for managing **degrees, diplomas, certificates, mark sheets, and evaluation reports**.
- It aims to provide **students** and **academic award holders** with **lifelong access** to verified digital academic credentials anytime and anywhere.
- It addresses the limitations of paper-based records, including **loss, damage, forgery**, and delays in manual verification.
- Since **2020**, NAD has been implemented through **DigiLocker**, which serves as its operational platform.
- The **Ministry of Education** is the parent ministry, while the **University Grants Commission (UGC)** is the nodal agency.
- NAD covers **Central, State, Private and Deemed-to-be Universities, CBSE** and other school boards, **Institutions of National Importance**, higher education institutions, students, academic award holders, employers, banks, government bodies, and other verifying entities.
- It is integrated with **DigiLocker**, the **Automated Permanent Academic Account Registry (APAAR)**, the **Academic Bank of Credits (ABC)**, and the government's **e-Sanad** service. **APAAR** and **ABC** manage students' academic credits and facilitate **academic mobility**, while **e-Sanad** enables secure verification, attestation, and apostille services.

Need

- India has one of the world's largest education systems, comprising about **14.71 lakh schools, 1,420 universities, 53,583 colleges, 16,795 standalone institutions, and 280 Research and Development (R&D) institutes**.
- These institutions generate millions of **degrees, diplomas, certificates, mark sheets, and evaluation reports** every year.
- The **National Education Policy (NEP), 2020** promotes **Multiple Entry-Multiple Exit**, the **National Credit Framework**, and the **Academic Bank of Credits**, creating the need for a **secure, interoperable, and easily accessible** academic record system.

Functioning

- Educational institutions generate verified **academic awards** after completion of courses or examinations.
- These records are securely uploaded to **NAD** through **DigiLocker**.
- The digital records are automatically linked to the student's **DigiLocker** account for secure access, retrieval, sharing, and instant verification throughout life.
- The coordinated framework enables institutions to issue verified digital records while students securely access and share them.

Secure and Paperless Documentation

Accessibility

Digital documents can be accessed anytime and anywhere.



Authenticity

Documents are issued directly by various Award Granting Institutions (AGIs).



Paperless Processing

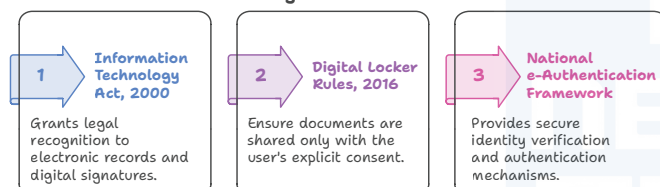
Documents can be shared online. This helps to reduce delays and overall processing time.



Key Benefits

- Provides a **secure, trusted, and paperless** framework for academic record management.
- Enables **lifelong access, instant verification**, and secure sharing of authentic academic credentials.
- Reduces **certificate forgery**, improves **transparency** and **service delivery**, and speeds up admissions, recruitment, banking, and government verification.
- Aligns India's academic credential management with **global best practices**.

Legal Framework



TOWER OF JUSTICE AND JUDICIAL REFORMS

Chief Justice of India (CJI) Surya Kant inaugurated the Tower of Justice, the new District Court Complex in Gurugram, Haryana, and emphasised that judicial reforms must create a judiciary that is **efficient, impartial, accessible, humane, and firmly rooted in constitutional values**.

Key Highlights

- The complex has **56 courtrooms** with modern **digital infrastructure**.
- It includes a proposed **International Arbitration Centre** under the **Punjab and Haryana High Court**, a **Ladies Bar Room**, and a **childcare centre** to promote an inclusive working environment.
- The complex aims to improve **access to justice**, strengthen **judicial efficiency**, expand **judicial capacity**, and facilitate faster disposal of **commercial disputes** and **Negotiable Instruments Act** cases.
- The **CJI** stated that judicial reforms should not focus only on speedy disposal of cases. **Speedy justice must never come at the cost of constitutional values**.
- He stressed that no citizen should be denied justice because of **financial, social, or procedural** barriers.
- He called for a judiciary that is **modern yet humane, technologically advanced yet rooted in constitutional values**, and sensitive to the human lives behind every case.

Judiciary in India

Supreme Court

The highest court with the power to interpret the Constitution, resolve Centre-State disputes, and examine the legality of laws and government actions.



District and Specialised Courts

District Courts and specialised courts deal with civil, criminal, family, consumer, and labour matters.



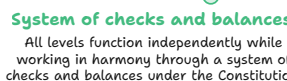
High Courts

Hear appeals from subordinate courts and decide State-level legal matters.



System of checks and balances

All levels function independently while working in harmony through a system of checks and balances under the Constitution.



Key Challenges

- The **State of the Judiciary Report** states that over **5 crore** cases are pending across all higher and subordinate courts, while only **20,580 judges** serve across the **Supreme Court, High Courts, and District Courts**.
- Many courts lack adequate **infrastructure** and **technology**. According to the **National Judicial Data Grid (NJDG)**, **19.7%** of district courts do not have separate toilets for women.
- Against a sanctioned strength of **1,114 judges** in the **High Courts**, **347 posts** are vacant. In the district judiciary, **5,300 posts** are vacant out of a sanctioned strength of **25,081**.
- The **Supreme Court** currently has only **two women judges**. Since **2014**, **170 women judges** have been appointed to the **High Courts**, including **96** in the last five years, and **6** to the **Supreme Court**. Women constitute **36.33%** of the district judiciary.

Major Initiatives

- **Information and Communication Technology (ICT)**: Promotes technology-enabled justice delivery.
- **Electronic Supreme Court Reports (e-SCR)**: Provides the digital version of **Supreme Court** judgments.
- **Virtual Courts**: Enable court proceedings through **video conferencing**.
- **eCourts Portal**: A single digital platform for **litigants, advocates, government agencies, police, and citizens**.
- **National Judicial Data Grid (NJDG)**: Makes case pendency data available at the **national, State, district, and individual court** levels.
- **Judicial Reforms**: Focus on increasing the number of judges, modernising court infrastructure, and expanding **e-Courts**.
- **Alternate Dispute Resolution (ADR)**: Promotes **arbitration, mediation, and conciliation**. The **Commercial Courts Act, 2015** mandates **pre-institution mediation** for commercial disputes.
- **Fast Track Courts**: Expedite cases involving **heinous crimes, women, children, senior citizens**, and other priority matters while reducing pendency.

NAVI MUMBAI AIRPORT NOTIFIED AS AIRPORT FOR IMPORT OF DRUGS

The Ministry of Health and Family Welfare has notified Navi Mumbai Airport, Maharashtra as a designated airport for the import of drugs under the Drugs Rules, 1945, to strengthen pharmaceutical logistics and promote Ease of Doing Business.

Notification

- The Government amended **Rule 43A of the Drugs Rules, 1945**, which specifies the notified airports through which drugs may be imported into India, to include **Navi Mumbai Airport**.
- The notification was issued by the **Ministry of Health and Family Welfare** after consultation with the **Drugs Technical Advisory Board (DTAB)** under the **Drugs and Cosmetics Act, 1940**.
- With this addition, the total number of notified **ports of entry** for drug imports through **air, sea, rail, and road** has increased to **42**.
- Under the **Drugs and Cosmetics Act, 1940**, drugs can be imported into India only through **notified ports of entry**.

Objective

- The measure aims to ensure smoother movement of **pharmaceutical consignments**, strengthen **logistics infrastructure**, provide greater flexibility to importers, and promote **Ease of Doing Business** in the pharmaceutical sector.

Drug Regulation in India

- **Central Drugs Standard Control Organization (CDSCO)**: The **Central Authority** for regulating the quality of drugs in India under the **Drugs and Cosmetics Act, 1940**. It is headed by the **Drugs Controller General of India (DCGI)**.
- **National Pharmaceutical Pricing Authority (NPPA)**: Fixes and revises drug prices under the **Drugs (Prices Control) Order (DPCO), 2013**.
- **Indian Pharmacopoeia Commission (IPC)**: Oversees the **periodic publication** of the **Indian Pharmacopoeia**, the official compendium of drug standards under the **Drugs and Cosmetics Act, 1940**.
- **State Health Regulatory Excellence Index (SHRESTH)**: A national initiative that benchmarks and strengthens **State drug regulatory systems** through a **transparent, data-driven framework**.

PRADHAN MANTRI UNAUTHORISED COLONIES IN DELHI AWAS ADHIKAR YOJANA

The Delhi Chief Minister has sought ₹100 crore as the first phase of Central financial assistance to implement the revised Pradhan Mantri Unauthorised Colonies in Delhi Awas Adhikar Yojana (PM-UDAY).

About

- **PM-UDAY** was launched on **29 October 2019** under the **National Capital Territory of Delhi (Recognition of Property Rights of Residents in Unauthorised Colonies) Regulations, 2019**.

- It is implemented under the **National Capital Territory of Delhi (Recognition of Property Rights of Residents in Unauthorised Colonies) Act, 2019**.
- The scheme is implemented by the **Delhi Development Authority (DDA)** under the **Ministry of Housing and Urban Affairs**.
- It covers **1,731 notified unauthorised colonies** and is expected to benefit nearly **40 lakh residents**.

Eligibility

- The applicant must own and physically possess a property located within a **notified unauthorised colony**.
- The property owner must submit prescribed ownership or possession documents, complete **online registration**, undergo **Geographic Information System (GIS)-based survey and verification**, and fulfil the conditions under the scheme.
- Properties located in **forests, protected monument zones, Yamuna floodplains, road rights of way, ridge areas**, and **69 affluent unauthorised colonies** are not eligible.

Key Features

- The scheme grants **ownership, transfer, and mortgage** rights based on documents such as **Registered Sale Deed, Registered Gift Deed, General Power of Attorney (GPA), Agreement to Sell (ATS), Possession Letter**, payment receipts, and other prescribed documents.
- The **DDA** operates a fully online portal with **GIS-based application and verification** for issuing **Conveyance Deeds** (government land) and **Authorisation Slips** (private land). Around **40,000 documents** had been issued as of **31 March 2026**.
- **Certificates of Regularisation** and provision of **civic infrastructure** are undertaken by the **Municipal Corporation of Delhi (MCD)** and other local bodies.

Objectives

- To provide **legal property rights**, secure ownership, facilitate **sale, purchase, transfer, inheritance**, and **mortgage**, reduce ownership disputes, strengthen **transparency**, promote **financial inclusion**, and integrate unauthorised colonies into the formal urban planning framework.

Significance

- Owners can use their property as collateral to secure formal bank loans.
- Legal clarity increases property values, drives private investment, and boosts employment.
- The framework significantly improves the local Ease of Doing Business.
- It upgrades public roads, water networks, sanitation, and street lighting.
- The system encourages structural redevelopment and strengthens municipal governance.
- It ensures long-term, planned, and sustainable urban growth.

Challenges

- ➔ Systemic bottlenecks, outdated records, and technical gaps slow down the scheme's execution.
- ➔ **Operational Issues:** Implementation is hindered by low public awareness, complex paperwork, and poor digital literacy.
- ➔ **Data Gaps:** Missing property records, unregistered transfers, and slow GIS mapping delay progress.
- ➔ **Administrative Hurdles:** Boundary disputes, restricted zones, and poor agency coordination stall fieldwork.

UMANG PORTAL

Researchers have identified security vulnerabilities in the UMANG Portal, raising concerns about the protection of users' personal data.

About

- ➔ **UMANG (Unified Mobile Application for New-age Governance)** is a flagship initiative under the **Digital India Programme** of the **Ministry of Electronics and Information Technology (MeitY)**.
- ➔ It was launched in **November 2017** by **Prime Minister Narendra Modi** during the **5th Global Conference on Cyberspace** in **New Delhi**.
- ➔ It provides a **single unified platform** for accessing services of the **Central Government, State Governments, and local bodies** anytime and anywhere.

Key Features

- ➔ It offers government services through **mobile applications, the web, and authorised partner centres**, which can be accessed on **smartphones, tablets, and desktops**.
- ➔ Citizens can access services such as **Employees' Provident Fund Organisation (EPFO), healthcare, pensions, Liquefied Petroleum Gas (LPG) bookings, certificates, and other citizen-centric services**.
- ➔ As of **February 2026**, it provides **2,446 services** from **240 government departments**, including **80 Central Government departments** and **160 departments** across **30 States and Union Territories**.
- ➔ It supports **23 Indian languages** and aims to deliver **2,000+ services** from **220+ departments**.

AUTONOMOUS HILL DEVELOPMENT COUNCILS (AHDCs) IN LADAKH

The Ladakh Administration has decided to extend the Ladakh Autonomous Hill Development Council (LAHDC) framework to all seven districts following an in-principle agreement between the Ministry of Home Affairs (MHA) and Ladakh leaders to extend constitutional safeguards under Article 371.

Background

- ➔ Ladakh became a **Union Territory** in **2019** without a **Legislative Assembly**.

- ➔ Following the creation of **Sham, Nubra, Changthang, Zaskar, and Drass** in **April 2026**, Ladakh now has **seven districts: Leh, Kargil, Sham, Nubra, Zaskar, Drass, and Changthang**.
- ➔ Earlier, elected **AHDCs** existed only in **Leh and Kargil**.
- ➔ The administration has also created **17 new tehsils**, increasing the total number to **32**.

About AHDCs

- ➔ **AHDCs** are elected **local self-government institutions** established to ensure **decentralised administration** in the geographically remote and strategically important region of **Ladakh**.
- ➔ They function under the **Ladakh Autonomous Hill Development Council (LAHDC) Act, 1995**. **Section 3(1)** of the Act provides for the constitution of a council in every district through a government notification published in the **Official Gazette**.
- ➔ Each district will have its own elected **AHDC**. The establishment of the five new councils will require **legal amendments and delimitation of constituencies**.
- ➔ The councils exercise **executive, financial, and administrative** powers over **district-level development, land ownership and allotment, district development planning, health, education, tourism, local infrastructure, and social welfare**.
- ➔ Under the existing framework, the councils also have powers relating to **recruitment and promotion of district cadre employees**. However, the exact powers of the five new councils will depend on the amended legal framework, official notifications, and delimitation process.
- ➔ Every council will have a dedicated **Council Fund** and the authority to levy **taxes, fees, and other charges** in accordance with the law.

AHDCs and Sixth Schedule Autonomous Councils

Autonomous Hill Development Councils (AHDCs)	Sixth Schedule Autonomous District Councils
Created under the LAHDC Act, 1997 .	Constitutional status under Articles 244(2) and 275(1)
Applicable only in Ladakh	Applicable in notified tribal areas of Assam, Meghalaya, Mizoram, and Tripura
Perform mainly administrative and developmental functions	Exercise legislative, judicial, executive, and financial powers
No judicial authority	Can establish village courts under traditional tribal laws

Article 371

- ➔ **Article 371**, contained in **Part XXI** of the Constitution (**Articles 371 to 371J**), provides **special constitutional safeguards** to protect **indigenous culture, tribal identity, customary laws, land rights, local employment, and administrative autonomy**.

- These provisions grant **asymmetrical autonomy** based on the **historical** or **geographical vulnerabilities** of specific States and regions.
- The **MHA** is considering a **customised sui generis model** under **Article 371** for Ladakh instead of extending **Sixth Schedule** status.

Significance

- The reform strengthens governance in strategically important **border districts** adjoining **China (Tibet Autonomous Region)** and **Pakistan-held regions**, while improving **border infrastructure, service delivery, and administration**.
- It promotes **grassroots governance** by empowering local communities to identify development priorities and ensure faster implementation of government programmes.
- It enables **region-specific planning** based on Ladakh's **frigid deserts, high-altitude pastoral pastures, glacier-fed river valleys, and border villages**, allowing policies to reflect local geographical conditions.
- To strengthen public service delivery, the administration has created **4 new divisions** under the **Public Health Engineering (PHE)** and **Flood Control Department**, and **5 new divisions** under the **Public Works Department (PWD)** and **Pradhan Mantri Gram Sadak Yojana (PMGSY)**.

Challenges

- The proposal does not fully address demands for **Sixth Schedule status, statehood**, and a **Legislative Assembly**, which continue to be raised by sections of Ladakh's population.
- The proposed **Union Territory-level elected body, AHDCs, and Panchayati Raj Institutions** may face overlapping responsibilities unless their respective powers are clearly defined.

TRIAL IN ABSENTIA

A Special National Investigation Agency (NIA) Court in Jammu has issued a non-bailable warrant against Hafiz Saeed in the Pahalgam terror attack case. Following the NIA's supplementary chargesheet, the agency is expected to seek a trial in absentia under Section 356 of the Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023.

About

- A trial in absentia is a criminal trial conducted in the absence of the accused.
- Under Section 356 of the BNSS, 2023, if a proclaimed offender has absconded to evade trial and there is no immediate prospect of arrest, the court may treat the accused's absence as a waiver of the right to be present during the proceedings.
- After recording reasons in writing, the court may proceed with the inquiry, trial, and pronouncement of judgment as if the accused were present.

Applicability

- The provision applies only to a proclaimed offender under Section 84 of the BNSS.
- Under Section 84(4), a person accused of an offence punishable with 10 years or more imprisonment, life imprisonment, or death, who fails to appear after a proclamation, may be declared a proclaimed offender after due inquiry.

Procedural Safeguards

- Before the trial can commence, two consecutive arrest warrants must be issued with an interval of at least 30 days.
- A public notice must be published in a local or national newspaper, giving the accused 30 days to appear.
- The notice must also be displayed at the accused's last known residence, and a relative or friend must be informed.
- The trial can begin only after 90 days from the framing of charges, ensuring sufficient opportunity for the accused to appear.
- If the accused has no legal representation, the court must appoint a defence lawyer at State expense.
- Statements of prosecution witnesses recorded before trial may be used as evidence. If the accused is later apprehended, the court may permit cross-examination in the interest of justice.
- Depositions and witness examinations may be recorded through audiovisual electronic means to preserve transparency, accuracy, and integrity, and to enable review if the accused is later apprehended.

BNSS vs Code of Criminal Procedure (CrPC), 1973

		
Section 82(4) Permitted proclamation and attachment of property of an absconding accused.	Section 317 Allowed proceedings in the accused's absence only where personal attendance was unnecessary or the accused persistently disrupted proceedings.	Section 299 Allowed recording of evidence where there was no prospect of arrest.

- These provisions allowed only limited or partial in-absentia proceedings at the court's discretion and did not permit a complete trial in absentia. Section 356 of the BNSS addresses this gap by enabling a full trial in the absence of a proclaimed offender.

Case Background

- The non-bailable warrant was issued at the request of the NIA, two days after it filed a supplementary chargesheet against Hafiz Saeed in his individual capacity and as the head of **Lashkar-e-Taiba (LeT)** and its proxy outfit The Resistance Front (TRF).

- The charges have been filed under the **Bharatiya Nyaya Sanhita (BNS), 2023** and the **Unlawful Activities (Prevention) Act, 1967**, including offences relating to waging war against India and cross-border criminal conspiracy.

PREVENTION OF INSULTS TO NATIONAL HONOUR (AMENDMENT) BILL, 2026

The Government is expected to introduce the Prevention of Insults to National Honour (Amendment) Bill, 2026 during the Monsoon Session of Parliament.

About the Bill

- The Bill amends the **Prevention of Insults to National Honour Act, 1971**, which currently protects the **National Flag**, the **Constitution of India**, and the **National Anthem (Jana Gana Mana)**.
- It extends the Act's legal protection to the **National Song (Vande Mataram)**.
- The amendment seeks to address the absence of a specific penal provision protecting **Vande Mataram**, in line with **Dr. Rajendra Prasad's** statement in the **Constituent Assembly** on **24 January 1950** that it should be honoured equally with **Jana Gana Mana**.

Key Features

- **Section 3** of the **1971 Act** will be substituted to provide the **National Song** and the **National Anthem** with the same legal protection.
- It makes it a punishable offence to **intentionally insult, prevent, or disrupt** the singing of **Vande Mataram** or **Jana Gana Mana**, or disturb an assembly engaged in such singing.
- The punishment includes **imprisonment up to three years, or fine, or both**.
- The Bill also recognises **Vande Mataram**, written by **Bankim Chandra Chatterjee** in **1875** and later published in **Anandamath (1882)**, for its contribution to India's freedom struggle.

Vande Mataram

- **Vande Mataram**, meaning "**Mother, I Bow to Thee**," was first published in **Bangadarshan** on **7 November 1875** and later set to music by **Rabindranath Tagore**.
- It inspired the **Swadeshi Movement (1905)** and became a patriotic slogan during the freedom struggle. Its words also appeared on the first Indian tricolour unfurled abroad by **Madam Bhikaji Cama (1907)**.
- On **24 January 1950**, **Dr. Rajendra Prasad** declared **Jana Gana Mana** as the **National Anthem** and **Vande Mataram** as the **National Song**, to be honoured equally for its historic role.
- On **7 November 2025**, **Vande Mataram** completed **150 years** as a symbol of **unity, patriotism, sacrifice, and national identity**.

Significance

- It grants **Vande Mataram** explicit statutory protection on par with the **National Anthem** under the **1971 Act**.
- It also revives the debate on balancing **national honour** with the **freedoms guaranteed under Article 19** of the Constitution.

CONSTITUTION (ONE HUNDRED AND THIRTIETH AMENDMENT) BILL, 2025

The Joint Parliamentary Committee (JPC) examining the Constitution (One Hundred and Thirtieth Amendment) Bill, 2025 has deferred the adoption of its draft report after completing voting on two of its five recommendations.

About the Bill

- The Bill seeks to ensure that persons subjected to extended detention for serious criminal offences do not continue to hold **high constitutional offices**.
- It applies to the **Union Government, State Governments, and the National Capital Territory of Delhi**. Separate Bills containing **similar provisions** have also been introduced for **Puducherry and Jammu and Kashmir**.

Key Provisions

- A **Minister** may be removed only if both of the following conditions are fulfilled:
 - The Minister is **charged** with an offence punishable with **imprisonment of five years or more**; and
 - The Minister remains **arrested and detained for 30 consecutive days**.
- A **Union Minister** may be removed by the **President** on the advice of the **Prime Minister**, while a **State Minister** may be removed by the **Governor** on the advice of the **Chief Minister**.
- If no action is taken, the Minister shall be deemed to have **vacated office automatically on the 31st day** of detention.
- A **Prime Minister** or **Chief Minister** must resign after completing **30 days of detention**. If they fail to resign, they **automatically cease to hold office** from the following day.

Key Concerns

- **Constitutional Issues:** Automatic removal before conviction raises concerns about disqualification based on allegations and its possible impact on the **basic structure** of the Constitution.
- **Misuse of Power:** Automatic removal could allow **investigative agencies** to influence the continuation of elected governments. It may also reduce the **Prime Minister's** or **Chief Minister's** discretion in the selection of Ministers.
- **Separation of Powers:** The arrest of elected leaders may enable executive agencies to **manipulate the tenure of governments** and weaken the chain of democratic accountability from **citizens to legislatures and governments**.

- **Federalism:** Action by agencies of one level of government may affect another level of government, disturbing the balance between the **Union** and the **States**.
- **Rule of Law:** Arrest is based on **suspicion or investigation**, not proof of guilt. At this stage, courts examine only the **legality of the arrest**, not **guilt**. Removing a Minister before judicial determination may therefore be arbitrary and inconsistent with principles of fairness.

JPC Draft Recommendations

- Replace "**removal**" with "**suspension**" until **legal proceedings conclude**.
- Provide for **automatic restoration** if the person is acquitted or the prosecution does not proceed within a specified period.
- Define "**serious criminal offences**" as offences punishable with **imprisonment of five years or more**.

BUILDING AN ATMANIRBHAR PHILANTHROPY ECOSYSTEM

India's philanthropic landscape is transforming structurally, as domestic private giving increasingly overtakes foreign philanthropic inflows.

Atmanirbhar Philanthropy Ecosystem

- A system where social development is financed, governed and driven mainly by **Indian citizens, businesses, entrepreneurs and institutions**, with foreign philanthropy playing a **complementary role**; examples include the **Azim Premji** and **Shiv Nadar Foundations**.
- Per the **Bain-Dasra India Philanthropy Report 2026**, domestic private philanthropy exceeds **₹1.18 lakh crore annually**, over **five times** foreign inflows, aided by growing **demat accounts**, **SIP investments** and **digital payments**.

Ethical Dimensions

- **Compassion and empathy** motivate action for public welfare; wealth is treated as a **public trust (stewardship)**; donors owe **accountability and transparency**; and ethical philanthropy pursues **justice and equity** by addressing structural barriers.

Three Phases of Indian Philanthropy

- **Phase I:** foreign-funded development, reliant on international donors.
- **Phase II:** **CSR-led institutionalisation**, channelling over **₹40,000 crore** annually.
- **Phase III:** **citizen and entrepreneur-led** philanthropy — the emerging phase.

Foreign vs Domestic Roles

- Foreign philanthropy supports **research, public health collaboration, technology transfer** and global knowledge exchange.

- Domestic philanthropy promotes **local ownership, civic engagement, context-rooted innovation** and democratic legitimacy.

Major Constraints

- **FCRA** delays and compliance burdens affect NGOs, with only about **14,500 organisations** holding active FCRA registration out of nearly **six lakh** registered — though foreign contributions have roughly **doubled**, from **₹10,000 crore** to **₹22,000 crore** over the last decade.
- Wealth **locked in shares** lacks a simple donation framework, and **Section 80G** offers only a **50% deduction** capped at **10%** of adjusted gross income — an insufficient incentive.

Corporate Social Responsibility (CSR)

- A statutory obligation under Section 135, Companies Act, 2013, requiring 2% of average net profit (previous three years) to be spent on CSR.
- Applies to companies with net worth above ₹500 crore, turnover above ₹1,000 crore, or net profit above ₹5 crore.

NATIONAL COMMISSION FOR MINORITIES

The Union Government has appointed Harjit Singh Grewal as the Chairperson of the National Commission for Minorities (NCM).

About

- The **National Commission for Minorities (NCM)** was established under the **National Commission for Minorities Act, 1992**, and the first statutory Commission was constituted in **1993**.
- The **Union Government** has notified **six minority communities**: **Muslims, Christians, Sikhs, Buddhists, Zoroastrians (Parsis), and Jains** (added in **2014**).
- Under **Section 3(2)** of the **NCM Act, 1992**, the Commission comprises a **Chairperson**, a **Vice-Chairperson**, and **five Members**, all nominated by the **Central Government** from persons of **eminence, ability, and integrity**.
- Each Member holds office for a **three-year** term from the date of assuming office.
- The Commission aims to **safeguard and protect** the interests of minorities under the **Constitution of India** and laws enacted by **Parliament** and **State Legislatures**.

Functions

- Recommends measures for effective implementation of **constitutional and legal safeguards** for minorities.
- Examines complaints regarding **deprivation of minority rights** and takes up such matters with the appropriate authorities.
- Conducts studies on **discrimination against minorities** and recommends corrective measures.
- Submits **periodic** or **special reports** to the **Central Government** on issues affecting minorities and the difficulties faced by them.

DESIGNATED AUTHORITY UNDER FCRA AMENDMENT BILL, 2026

Amid concerns from minority institutions over the FCRA Amendment Bill, 2026, the government clarified that the designated authority would retain the religious character of places of worship in all cases.

About FCRA, 2010

- FCRA regulates **foreign contributions** to prevent activities harmful to **national interest**.
- First enacted in **1976**, replaced in **2010**, and amended in **2016, 2018 and 2020**; administered by the **Ministry of Home Affairs**.
- Registration is valid for **5 years** and must be renewed before expiry; around **16,000 NGOs** are registered, receiving nearly **₹22,000 crore** annually.

Designated Authority for Asset Management

- Introduced in the **Lok Sabha on 25 March 2026**, the Bill proposes a **Designated Authority** to manage foreign-funded assets on **cancellation, surrender, expiry or non-renewal** of registration.
- It holds **civil-court powers** and can order **transfer or sale** of NGO assets to the government or another body, with appeal to a **District Judge within 90 days**.

Constitutional Provisions

- Article 25** guarantees freedom of conscience and religious practice; **Article 26** protects a denomination's right to manage its affairs, subject to tests of **legality, necessity and proportionality**.
- Article 19(1)(c)** protects freedom of association; per *Noel Harper v. Union of India (2022)*, foreign contribution is not an absolute right, though regulation must not be **arbitrary**.

Other Key Provisions

- A new **Section 14B** provides for "**deemed cessation**" of registration on non-renewal, rejection, or expiry.
- Timelines are now mandatory for receiving and using foreign funds; suspended organisations cannot **sell, transfer or mortgage** assets without prior approval.
- Section 43** now requires **central clearance** before any agency investigates FCRA allegations; maximum imprisonment is cut from **five years to one**.
- "**Key Functionary**" now covers directors, trustees, **karta of HUFs** and office-bearers, personally liable unless they prove **due diligence**.
- If an organisation ceases to exist, its assets **permanently vest** with the government through the Authority.

Rationale and Concerns

- Regulation protects **sovereignty**, prevents **money laundering**, and ensures **transparent, developmental use of funds**; it bars

foreign funding to **candidates, journalists, judges** and political organisations.

- Critics cite **administrative delays**, discretionary cancellation powers, compliance burdens, and poor transparency in fund use.

POLICE IDENTIFICATION DURING CROWD CONTROL

Delhi Police and Rapid Action Force (RAF) personnel were seen in plain clothes or without visible nameplates during a recent Delhi protest, sparking debate over police identification and accountability.

What Does Indian Law Say?

- Operations like **intelligence collection** may genuinely require concealed identity or impersonation, but routine policing follows **statutory procedure** and **judicial guidelines**.
- Under the **Bharatiya Nagarik Suraksha Sanhita, 2023** (Sections 148 to 160, under **Chapter XI**, earlier **Chapter X of the CrPC**), only a **Magistrate** or a **police officer** can order the dispersal of an **unlawful assembly**; though the law doesn't explicitly require officers to display their identity, legal experts argue an officer must be **identifiable** for such an order to carry legal authority.
- In *D.K. Basu v. State of West Bengal (1997)*, the Supreme Court held that police officers making an **arrest** must bear **clear, visible identification**, reinforcing accountability.
- In **2025**, the **Andhra Pradesh High Court** questioned how citizens could recognise **plainclothes personnel** as police officers while they performed official duties.
- While plain clothes may be justified in exceptional situations, their use during **routine law-and-order duties** remains a **legal grey area**.

EXTENSION OF PREVENTIVE DETENTION POWERS UNDER THE NSA IN DELHI

Delhi's Home Department authorised the Police Commissioner, under **Section 3(2) of the National Security Act (NSA), 1980**, to exercise preventive detention powers from **19 July to 18 October 2026** — a routine quarterly renewal.

About NSA, 1980

- A **preventive detention law** enabling the **Centre and States** to detain individuals to safeguard **national security, defence, public order**, and **essential supplies and services**.
- It prevents **expected threats** rather than punishing **past offences**.

Preventive Detention Under the NSA

- It detains a person to prevent **future acts** harmful to national security or public order; unlike ordinary arrests, the detainee need not be produced before a **magistrate within 24 hours**.

Key Features

- **Detention Period:** Initially up to **3 months**, extendable to **12 months** after review.
- **Grounds:** Activities prejudicial to India's **defence, State security, public order, foreign relations, or essential supplies and services.**
- **Advisory Board:** Chaired by a person qualified to be a **High Court Judge**, examines whether sufficient cause exists for continued detention.
- **Representation:** The detainee may represent against the order, though the government can **withhold facts** not in the public interest.

Constitutional Basis

- **Article 22** protects against arbitrary arrest, with preventive detention as an **exception**; safeguards include communication of arrest reasons, **right to representation**, and review by an **Advisory Board** within the specified time.

Preventive vs Punitive Detention

- **Preventive detention** prevents anticipated offences without an initial criminal trial, governed by preventive detention laws; **punitive detention** punishes offences already committed, based on investigation and trial under the **BNSS**.

Issues and Concerns

- Risk of **misuse** through wide executive discretion; detention without trial affects the **Article 21** right to life and personal liberty; limited judicial oversight; possible detention up to **12 months**; and reduced transparency, since **public-interest grounds** may be cited to withhold reasons.
- Balancing national security with democratic freedoms remains an ongoing **constitutional challenge**.

RECORDING AND MONETISATION OF COURT VIDEOS

The Supreme Court (SC) has prohibited the extraction, editing, dissemination, reposting, uploading, and monetisation of audio and video recordings of judicial proceedings on social media and digital platforms without prior court permission. High Courts have been asked to submit reports on adoption of SC's model livestreaming guidelines.

Live Streaming of Court Proceedings

- SC began livestreaming proceedings before its **Constitution Benches** in 2022.
- **Legal basis:** Swapnil Tripathi vs. Union of India (September 2018) — SC declared live telecast of court proceedings part of the **right to access justice under Article 21**.
- The judgment stated livestreaming would **"virtually" expand the court** beyond the four walls of the courtroom.
- SC's **e-Committee**, headed by then **CJI Chandrachud**, framed **model guidelines** to regulate livestreaming across courts in India.

- In 2023, the SC became the **first court in India** to introduce **AI-assisted live transcription** of proceedings, creating a reliable archival record.
- The SC's interim order **does not affect fair news reporting** of judicial proceedings.

Concerns

- Absence of a regulatory framework has enabled recordings to be **clipped, edited, and circulated with misleading captions**, creating false narratives.
- Misuse has a **"chilling effect"** on judges and lawyers, exposing them to **"character assassination"** and **"public trolling"**.
- Such circulation undermines **public confidence in the administration of justice**.

Way Forward

- Establish clear legal guidelines governing **recording, reproduction, dissemination, and commercial use** of livestreamed proceedings.
- Deploy **digital watermarking, content authentication tools, and AI-based monitoring** to detect unauthorised editing and deepfakes.
- Ensure **uniform adoption** of SC's model livestreaming guidelines by all High Courts through periodic review.
- Conduct **public awareness campaigns** on legal consequences of unauthorised circulation of court recordings.

PM-YASASVI

The Government of India has reaffirmed its commitment to expanding educational opportunities under the **PM-YASASVI (Prime Minister Young Achievers Scholarship Award Scheme for Vibrant India) umbrella scheme**.

About PM-YASASVI

- Launched in **September 2023**, it awards scholarships to **Other Backward Class (OBC), Economically Backward Class (EBC), and Nomadic, Semi-Nomadic and Denotified Tribe (DNT)** students.
- Administered and fully (**100%**) funded by the **Ministry of Social Justice and Empowerment**.
- The scheme has **four major components** supporting students at different education stages: **Pre-Matric Scholarship, Post-Matric Scholarship, Top Class Education in Schools, and Top Class Education in Colleges** schemes.
- The **Pre-Matric Scholarship** supports students in **Classes IX and X** in government schools, offering an annual allowance of **₹4,000** to families earning below **₹2.5 lakh**.
- The **Post-Matric Scholarship** supports students in post-secondary education, with allowances ranging from **₹5,000 to ₹20,000**, depending on the course category.
- Overall, the scheme provides financial assistance to eligible students, enabling them to pursue school and higher education without financial hardship.

PUBLISHING OF LAWS AND REGULATIONS

India's legal publishing system remains fragmented and PDF-dependent, making it hard for citizens, lawyers and courts to track laws in force; open legal-publishing standards would improve accessibility and strengthen democratic participation.

About

- The **rule of law** requires that Bills before Parliament or State Assemblies be made known in advance, so citizens know the laws in force and the **judiciary** knows the law it adjudicates.
- In practice, Bills are often not made public before introduction; even when citizens find a law, determining its status on a given date remains difficult.
- The government primarily publishes laws through **gazettes**, issued as **PDFs** designed to look identical across devices; while easy to share and print, this makes it very hard to extract a legal document's **structure and meaning**.

Concerns

- **Frequent amendments** across Acts and notifications make it hard to identify a law's current version or its position on a given date.
- Legal texts are scattered across **gazettes, ministries and websites** without a **unified, machine-readable repository**, causing inconsistency.
- **Judges, lawyers, researchers and businesses** spend considerable time verifying applicable provisions, raising **litigation costs**.
- Inaccessible legal information weakens citizens' ability to understand, debate and participate in the **legislative process**, undermining transparency.

How Other Countries Publish Laws

- Several governments use **markup languages** capturing a law's structure, semantics and local language.
- Many **African countries** use **Akoma Ntoso**, allowing amendments to be tracked and a law's status seen at any point in time.
- The **US** uses **USLM**, an Akoma Ntoso variant, letting commercial vendors, nonprofits and think tanks help citizens engage with democracy.
- The **UK** publishes legislation at **legislation.gov.uk** (run by The National Archives) using **Crown Legislation Markup Language (CLML)**, another Akoma Ntoso derivative.

Way Ahead

- While the rest of the world has moved beyond PDF publishing, India still depends on a standard built over **three decades ago**.
- Until the legal-publishing software stack is upgraded, accessing the law will remain unnecessarily difficult for citizens, lawyers and judges.
- Consulting citizens and standardising legal publishing could transform how the state communicates with people, making them active participants in democracy.

ATMANIRBHAR PANCHAYAT PROGRAMME, SAMARTH PORTAL AND MODEL OSR RULES

Union Minister of Panchayati Raj, Rajiv Ranjan Singh, launched the Atmanirbhar Panchayat Programme and the SAMARTH Panchayat Portal, and released the Model OSR (Own Source of Revenue) Rules for Panchayati Raj Institutions.

Atmanirbhar Panchayat Programme

- Anchored under the **Rashtriya Gram Swaraj Abhiyan (RGSA)**, this Ministry of Panchayati Raj initiative enables **Gram and Block Panchayats** to identify local assets and, with dedicated technical support, develop them into **bankable, revenue-generating projects** that build sustainable OSR.
- It targets **350 such projects** over four years — **50 in Year 1** and **100 each** in the following three years.
- Financing draws on **Public-Private Partnerships, CSR contributions**, convergence with other schemes, and **bank finance**, with **NABARD and HUDCO** as institutional partners.
- Gram Panchayats need a minimum OSR of **₹50 lakh** and Block Panchayats **₹1 crore**, with at least **three years of tenure** remaining, and relaxed thresholds for **special category States**.

SAMARTH Panchayat Portal

- This Ministry initiative strengthens Gram Panchayats' financial capacity through **technology-enabled OSR management**.
- It lets Gram Panchayats digitally manage the entire **OSR lifecycle** — taxpayer registration, demand generation, online payments, collection, and **real-time monitoring**.

Model OSR Rules for Panchayati Raj Institutions

- To strengthen PRIs' **financial independence**, the Ministry has prepared Model OSR Rules as a guiding framework for **States and Union Territories**.
- Building on the **Sixteenth Finance Commission's** recommendations, the Rules help States build a transparent, uniform and efficient system for assessing, collecting and managing Panchayat revenues such as **property tax, user charges, fees** and other non-tax revenues.

DISHA 2.0

The Union Government has launched DISHA 2.0 (Designing Innovative Solutions for Holistic Access to Justice) with a financial outlay of ₹255 crore for 2026-31, for pan-India implementation.

About DISHA 2.0

- A **Central Sector Scheme** of the **Department of Justice, Ministry of Law and Justice**, it fulfils the constitutional vision of access to justice under **Articles 14, 21 and 39A**, and targets over **3 crore beneficiaries**.
- It aims to leverage technology to develop and expand **citizen-friendly legal service platforms**.

Key Components

- **Tele-Law** connects people to panel lawyers via a **mobile app** and **toll-free number 14454**, offering pre-litigation legal advice through **video/tele-conferencing**.
- Under **Nyaya Bandhu (Pro-Bono Legal Services)**, advocates voluntarily assist marginalised and disadvantaged sections covered under **Section 12 of the Legal Services Authorities Act, 1987**.
- The **Legal Literacy and Legal Awareness Programme (LLAP)** partners with stakeholder Ministries and Departments to build grassroot workers' capacity and spread legal awareness through **workshops, webinars, IEC materials**, and collaboration with **Prasar Bharati** and others.
- **VIDHI (Vision for Integrated Delivery of Harmonized Legal Initiatives)-Sanjeevani** strengthens monitoring through a centralised **Integrated Dashboard**, unifying real-time data to track programme performance, service delivery and implementation progress.

RULE 176 AND RULE 267 OF RAJYA SABHA

Opposition members protested against the educational reform and gave a notice under Rule 267 in Rajya Sabha.

Rule 267 of the Rules of Procedure

- With the **Chairman's consent**, a member may suspend the House's normal business to take up an urgent matter of public importance for **immediate discussion**.
- It is a special procedure since it skips the **listed business** and requires the Chairman's consent; it does not apply where **separate suspension provisions** already exist.
- Notably, the Chairman has **rarely admitted Rule 267 notices since 2016**, making its use increasingly contentious.

RULE 267 vs RULE 176	
Key Difference in Rajya Sabha Procedures	
RULE 267	RULE 176
Suspends the normal business of the House	Allows discussion without disrupting the listed agenda
⏸ Members ask the Chairman to suspend the day's scheduled business.	💬 The issue is discussed without disrupting the House's scheduled business.
⚡ Used to take up an urgent issue immediately.	🕒 Discussed for a fixed period of up to two-and-a-half hours.
📄 Involves setting aside the listed agenda.	🕒 Held on a date decided by the Chairman.
⌚ Allows immediate discussion on the urgent matter.	🕒 Does not set aside the House's regular business.
⚖️ THE BIGGEST DIFFERENCE: Rule 267 suspends the normal business of the House while Rule 176 allows a discussion without disrupting the listed agenda.	

Rule 176 of the Rajya Sabha Rules

- It permits a **short-duration discussion** on a matter of urgent public importance **without disturbing** the House's scheduled business.

- A member must send the **Secretary-General** a written notice, with an **explanatory note**, signed by at least **two other members**.
- If the Chairman agrees, the debate is scheduled in consultation with the **Leader of the House** and may last up to **two-and-a-half hours**.

Do You Know?

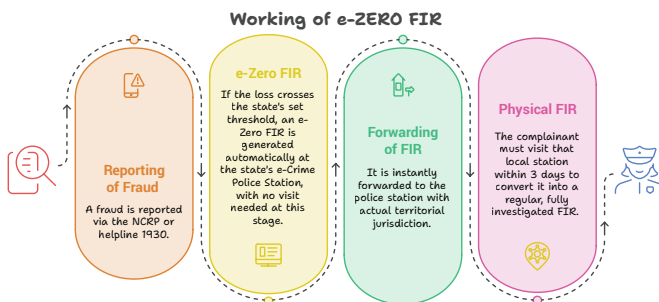
- Lok Sabha Rules of Procedure Rule 193 deals with short duration discussion on a matter of urgent public importance.
- A member shall give written notice to the Secretary-General, with an explanatory note and the signatures of at least two other members.
 - ◆ If the Speaker admits the notice, the debate is scheduled at a time fixed by the Speaker, usually on the advice of the Business Advisory Committee.

e-ZERO FIR SYSTEM

The government has extended the e-Zero FIR system for cybercrime cases to eighteen states and Union Territories, after it was first launched as a Delhi pilot in May 2025.

About

- The e-Zero FIR system is a **digital framework** that automatically generates a **First Information Report** for reported cyber financial crimes, regardless of **territorial police jurisdiction**.
- It was developed by the **Indian Cybercrime Coordination Centre (I4C)** under the **Ministry of Home Affairs**, integrating the **National Cybercrime Reporting Portal (NCRP)**, police **e-FIR systems**, and the NCRB's **Crime and Criminal Tracking Network & Systems (CCTNS)**.
- It runs on **Section 173(1) and 1(ii)** of the **Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023** — replacing the old CrPC — which allows information on a **cognisable offence** to be given electronically, regardless of where the crime occurred.



Significance

- It tests **federal cooperation**, since **Police and Public Order** are State subjects, requiring states to voluntarily adopt a Centre-built platform. It shows **BNSS** actively modernising policing, not merely relabelling old CrPC provisions.
- Linking **NCRP, CCTNS and I4C** reflects India's move toward **integrated digital law-enforcement infrastructure**.



INTERNATIONAL RELATIONS

I-2SEA SUBMARINE CABLE SYSTEM (SCS)

A consortium comprising Microsoft, Singtel, Tata Communications, and Lightstorm will build the 3,600 km I-2SEA Submarine Cable System (SCS) connecting India, Malaysia, and Singapore. The system is targeted to become operational in 2029.

About I-2SEA

- I-2SEA will connect **Machilipatnam** and **South Chennai** in India with **Kuala Lumpur** and **Singapore**.
- It links **India's east coast**, home to the fastest-growing **AI** and **hyperscaler** data centre clusters in **Hyderabad** and **Chennai**, with **Singapore**, the region's AI and cloud interconnect hub, and **Kuala Lumpur**, an emerging data centre corridor.
- The system has dual landing stations in India. Machilipatnam provides the shortest subsea connectivity to Hyderabad, while South Chennai serves as a new diverse landing location for greater network resilience.
- It is designed to meet the growing demand for **AI training**, **AI inference**, **hyperscale cloud services**, **Graphics Processing Unit (GPU)** infrastructure, and enterprise connectivity. It is expected to provide the fastest transmission on the **Singapore/Malaysia-Hyderabad** corridor.

Submarine Cable System (SCS)

- **Submarine cables** are **fibre optic cables** laid on the ocean floor that connect countries through **Internet Service Providers (ISPs)** and **telecom operators**.
- They transmit information as **light pulses** using the principle of **total internal reflection** and connect to **landing stations**, which link them with inland communication networks.
- Along with terrestrial cables and towers, they provide internet connectivity and carry **95–99%** of global international data traffic.
- The **United Nations General Assembly (UNGA)** recognised submarine cables as **critical communication infrastructure** in 2010.

Significance

- Strengthens India's **digital economy**, including **fintech**, **e-commerce**, and **Information Technology (IT)** service exports, and supports high-speed applications such as **financial trading** and **cloud-to-cloud synchronisation**.
- Meets rising bandwidth needs of **AI**, **distributed data centres**, and cloud networks.
- Projects such as the **Chennai-Andaman & Nicobar Island (CANI)** and **Kochi-Lakshadweep Island (KLI)** cables improve **high-speed broadband**, **national security**, and **local economic integration**.

- Reinforces India's position as a **digital transit hub** linking **Europe**, **West Asia**, and **Southeast Asia**.

Challenges

- Vulnerable to **fishing trawlers**, **ship anchors**, **earthquakes**, **underwater landslides**, **extreme weather**, **ageing infrastructure**, and deliberate sabotage. Most faults occur in **shallow coastal waters**.
- Strategic chokepoints such as the **Strait of Hormuz** and **Bab el-Mandeb** increase geopolitical risks.
- High concentration of landing stations despite India's long coastline, multiple regulatory clearances from **Telecom**, **Home Affairs**, **Defence**, **Environment**, and **Fisheries** ministries, and dependence on **foreign repair ships** affect network resilience.

Suggestions

- Establish **Cable Protection Zones** on the lines of **Australia** and **Singapore**, and restrict fishing, dredging, and anchoring near critical cables.
- Develop new landing stations at **Visakhapatnam** and **Dhuvaran**, introduce a **single-window clearance** mechanism, attract **Foreign Direct Investment (FDI)** from global cloud and AI companies, develop indigenous cable-laying and repair vessels, and strengthen **Maritime Domain Awareness** through the **Indian Navy**, **Indian Coast Guard**, and **Unmanned Underwater Vehicles (UUVs)**.

SIMLA AGREEMENT (1972)

The Simla Agreement completed 54 years on 2 July 2026. It was signed in 1972 after the 1971 India-Pakistan War to restore peace and normalise bilateral relations.

About

- The Agreement was signed between **Prime Minister Indira Gandhi** and **President Zulfikar Ali Bhutto** following the creation of **Bangladesh**.
- India's objectives included promoting a **bilateral settlement** of the **Kashmir** issue, normalising relations, and avoiding further humiliation of Pakistan to ensure long-term regional stability.

Key Provisions

- Both countries agreed to resolve all disputes through **peaceful bilateral negotiations**, without involving **third parties**.
- The **ceasefire line** in **Jammu and Kashmir** was redesignated as the **Line of Control (LoC)**. Both sides agreed to respect it without prejudice to their respective claims and not alter it unilaterally.

- Both countries agreed to **withdraw forces** to their respective sides of the international border.
- India agreed to release **Pakistani prisoners of war**, while Pakistan agreed to normalise relations, recognise the sovereignty of **Bangladesh**, and continue dialogue between the two governments on humanitarian and other bilateral issues.

Significance

- It remains the principal **legal and diplomatic framework** for India–Pakistan bilateral engagement.
- The Agreement continues to support the principle of **bilateralism** and is often cited internationally to discourage third-party intervention in the **Kashmir** issue.

Limitations

- The Agreement did not achieve lasting peace because of continuing mistrust and recurring conflicts.
- Nuclear tests** after **1998**, cross-border terrorism, and changing strategic realities reduced its practical effectiveness.
- Subsequent developments, including the **Kargil War (1999)**, **Mumbai attacks (2008)**, **Pulwama attack (2019)**, continuing political instability in Pakistan, militant activities, and **China's** growing regional role have further complicated India–Pakistan relations.

INDIA-ISRAEL BILATERAL INVESTMENT AGREEMENT (BIA)

The India-Israel Bilateral Investment Agreement (BIA), signed in September 2025, came into force on 4 July 2026. It replaces the India-Israel Bilateral Investment Treaty (BIT), 1996, which was terminated in 2017 under India's revised investment treaty framework.

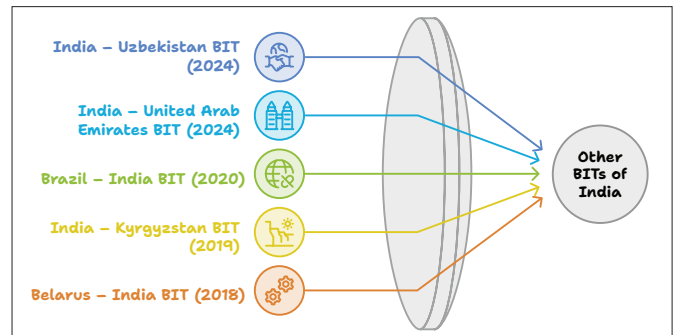
About BIT

- Meaning:** A **Bilateral Investment Treaty (BIT)** is a reciprocal agreement between two countries to promote and protect investments made by investors in each other's territories.
- Purpose:** It provides a stable legal framework, ensures fair treatment of investors, and encourages foreign investment.
- International Law:** BITs are recognised as primary sources of obligations under **Article 38(1)(a)** of the **Statute of the International Court of Justice**.
- Indian Framework:** India adopted the **Model BIT, 2015**, replacing the **Model BIT, 1993**, and uses it for negotiating and renegotiating investment agreements. The **Union Budget 2025–26** also announced a review of the BIT framework.
- Under the **Vienna Convention on the Law of Treaties (1969)**, there is **no substantive legal difference** between a **Treaty** and an **Agreement**.

Key Features of the India–Israel BIA

- First under New Framework:** Israel became the **first Organisation for Economic Co-operation and Development (OECD)** member

to sign an investment agreement under India's **Model BIT, 2015**. The agreement aims to increase bilateral investment, which currently stands at **USD 800 million**.



- Investment Scope:** Treaty protection is available only for investments made in accordance with the host country's laws. An investment must involve **commitment of capital**, **expectation of profit**, and **assumption of risk**. **Portfolio investments** and **speculative assets** are excluded.
- Investment Protection:** Investments of investors from both countries are protected under the agreement.
- Compensation during Armed Conflict:** Investors suffering losses due to **war**, **armed conflict**, or **civil unrest** are entitled to **non-discriminatory treatment** regarding compensation.
- Right to Regulate:** Both governments retain the sovereign right to regulate investments for **public health**, **environmental protection**, **taxation**, **national security**, and **public welfare**.
 - The agreement also prevents **treaty shopping** by denying benefits to shell companies or investors restructuring solely to access dispute settlement.
- Taxation:** A comprehensive **tax carve-out** limits challenges to taxation measures through international arbitration, except in cases involving **expropriation**.
 - Investors must comply with all tax laws, regulations, and administrative guidelines of the host country.
- Dispute Settlement:** Investors must first seek **consultation**, then **exhaust domestic legal remedies**. International arbitration is permitted only after domestic proceedings conclude or **five years** have elapsed, whichever is earlier.
- National Security:** Either country may adopt measures necessary to protect its national security.
 - Such decisions are **non-justiciable** and cannot be reviewed by arbitral tribunals, including in compensation claims.

Significance for India

- Strengthens cooperation in **critical technologies**, **defence**, and supports **Self Reliance** and **Make in India**.
- Expands collaboration in **water conservation**, **high-yield agriculture**, and **innovation**.
- Reinforces India's strategic partnership in **West Asia** and complements its **Act West Policy**.

OPERATION AMISTAD

Operation Amistad, India's Humanitarian Assistance and Disaster Relief (HADR) mission launched after the devastating 2026 Venezuela earthquakes, has concluded successfully with the return of the Indian contingent to New Delhi.

About Operation Amistad

- "Amistad" means "Friendship" in Spanish, symbolising India's solidarity with the people of Venezuela.
- The mission was launched after 7.2 and 7.5 magnitude earthquakes caused widespread destruction.
- It was a **purely humanitarian mission** aimed at providing rapid humanitarian assistance, emergency relief, advanced medical care, temporary field hospitals, supporting recovery until local systems stabilised, strengthening India-Venezuela humanitarian cooperation, and demonstrating India's overseas disaster-response capability.
- Two **Indian Air Force C-17 Globemaster III** aircraft transported a **41-member** contingent from the **Indian Army's 60 Para Field Hospital Unit**, including surgeons, anaesthesiologists, orthopaedic surgeons, dental and other physicians, paramedical staff, and support personnel.
- The mission carried **two BHISHM (Bharat Health Initiative for Sahyog, Hita & Maitri) Cubes**—indigenously developed modular portable field hospitals—along with **6 tonnes** of medicines and medical equipment and **30 tonnes** of relief supplies, including tents, solar lamps, portable water purifiers, and generator sets.

India's HADR Framework

- India's HADR architecture follows a **whole-of-government** approach integrating **diplomacy, defence, disaster management, and public health** to deliver **coordinated, timely, and credible** humanitarian responses.
- International operations are guided by the Prime Minister's 10-Point Agenda on Disaster Risk Reduction, National Disaster Management Authority (NDMA) International HADR Guidelines (October 2024), and principles of sovereignty, international humanitarian law, human rights, transparency, accountability, and the United Nations Office for Disaster Risk Reduction (UNDRR) Gender Action Plan (2024).
- The **Indian Armed Forces** are recognised as key enablers with critical roles in strategic airlift, logistics, evacuation, engineering support, medical assistance, and the use of **drones and Artificial Intelligence (AI)-enabled forecasting**.

Significance

- The Operation reinforces India's role as a **Global First Responder**.
- It strengthens **humanitarian diplomacy**, supports the **Global South**.
- It showcases **BHISHM Cube** innovation and **Indian Air Force** airlift capability.

- It promotes **civil-military coordination**, deepens **India-Venezuela** ties, and reflects "**Vasudhaiva Kutumbakam**" and **SAGAR** (Security and Growth for All in the Region).

INDIA'S MAJOR HADR OPERATIONS

Humanitarian Assistance and Disaster Relief at Home and Abroad



HUMMUS TRAIL

A rights organisation has filed a war crimes complaint in India against an Israeli soldier spotted along the Hummus Trail. The complaint invokes India's jurisdiction under the Geneva Conventions Act, 1960.

About

- The **Hummus Trail** is an informal network of destinations in India that are popular among young **Israeli travellers**.
- These destinations feature **Hebrew signboards, Israeli cafés, Chabad houses, and specialised hostels**, creating a familiar cultural environment.

Background

- Around **80,000 Israelis** visit India every year, mostly after completing **mandatory military service**.
- This post-service journey, known as **Tiul Gadol ("The Big Trip")**, usually lasts **6–12 months**, is funded through **military discharge benefits**, and is regarded as a cultural rite of passage before higher studies or professional life.

- In 2026, Israel allocated 4 million NIS to strengthen tourism cooperation and cultural exchanges with India.

Legal Aspect

- India is a party to the **Fourth Geneva Convention**, which treats deliberate attacks on civilians and civilian property as **grave breaches** of international humanitarian law.
- Under the **Geneva Conventions Act, 1960, Section 3** empowers Indian authorities to prosecute persons accused of **grave breaches** found in India, irrespective of where the alleged offence was committed.

Key Features

- Major destinations include **Kasol, Old Manali, Dharamkot, Pushkar, Goa, Hampi, Kerala**, and the **Andaman & Nicobar Islands**.
- Many visitors use the trail to recover from **combat-related stress** and **Post-Traumatic Stress Disorder (PTSD)** after military service.
- Some destinations have reported **rave parties, drug abuse**, and **narcotics-related activities**, leading to closer monitoring by authorities.

INDIA-SPAIN TALKS ON UPI-BIZUM INTEROPERABILITY

During Commerce and Industry Minister Piyush Goyal's four-nation European tour (13-18 July 2026), India and Spain agreed to fast-track discussions on enabling interoperability between India's UPI and Spain's Bizum digital payments platform.

Highlights

- The two countries are marking **70 years of diplomatic relations** and celebrating the **India-Spain Dual Year of Culture, Tourism and Artificial Intelligence, 2026**.
- They discussed strengthening **investment facilitation**, improving **professional mobility**, and promoting joint investments in **Latin America**. Goyal proposed an **annual India-Spain Joint Commission meeting**; Spain proposed a dedicated **"India Team"** to facilitate bilateral engagement.
- Goyal also outlined a **"10x10x10" target**, aiming for a **tenfold rise** in bilateral trade, investment and tourism over the next decade.
- Both sides identified opportunities in **automobiles, pharmaceuticals, chemicals, textiles, renewable energy, tourism and infrastructure**.
- In **Brussels**, on the same tour, Goyal co-chaired the **3rd India-EU Trade and Technology Council Ministerial Meeting**.
- He also discussed **fintech cooperation** and possible **UPI integration with Estonia**, in Finland.
- UPI has already gone international in **France, Singapore, the UAE, Mauritius, Sri Lanka, Nepal, Bhutan and Qatar**.

Overview of India-Spain Bilateral Relations

- **Diplomatic Ties:** India and Spain established diplomatic relations in 1956, strengthened by regular high-level visits.
- **Economic Relations:** Spain is India's 6th-largest European trade partner; bilateral trade reached US\$9.9 billion (2023). Spain is India's 16th-largest foreign investor, with cumulative FDI of US\$3.94 billion.
- **Defence:** Spain supports India's defence diversification; the 56 C295 aircraft procurement from Airbus Spain is the first Make in India defence-aircraft project.
- **Tourism:** Around 250,000 Indians visit Spain annually, while 40,000 Spanish tourists visit India.
- **Institutional Cooperation:** The Spain-India Council Foundation promotes bilateral relations.
- **Multilateral Cooperation:** Both cooperate in the UN, G20 and International Solar Alliance on climate, terrorism and sustainable development.
- **Diaspora:** Around 75,000 Indians live in Spain, mainly in Catalonia, Valencia, Madrid and Canary Islands.

BIMSTEC

The National Security Chiefs of Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) member states met in New Delhi and reaffirmed cooperation against terrorism, cyber threats, maritime security, and emerging security challenges.

About BIMSTEC

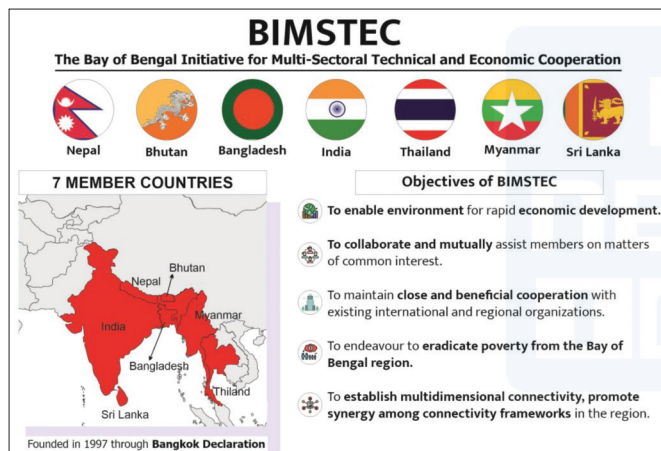
- BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) is a regional organisation formed in 1997 through the signing of the **Bangkok Declaration**.
- It comprises **seven countries** located in the **littoral and adjacent areas of the Bay of Bengal**, serving as a **natural bridge** between **South Asia** and **Southeast Asia**.
- **Founding Members (1997):** Bangladesh, India, Sri Lanka, and Thailand.
- **Current Members:** Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand.
- **Headquarters:** Dhaka, Bangladesh.
- The grouping represents around **1.7 billion people (22% of the world's population)** with a combined **Gross Domestic Product (GDP)** of about **US\$ 5 trillion**.
- Its objective is to promote **economic growth, social development**, and cooperation across **14 priority sectors**, including **trade, investment, energy, technology, transport, connectivity, agriculture, fisheries, tourism, and public health**.

Recent Outcomes

- Adopted **maritime HADR guidelines** to enable **expeditious relief operations** across the region.
- Endorsed **guiding principles** for the conduct of **maritime law enforcement agencies** during **interactions at sea**.

Significance

- ➔ Strengthens connectivity through the **Kaladan Multi-Modal Transit Project** and the **India–Myanmar–Thailand Trilateral Highway**, supporting the integration of **Northeast India** with regional markets.
- ➔ Acts as a practical alternative to the **South Asian Association for Regional Cooperation (SAARC)** and advances **Neighbourhood First**, **Act East**, and **MAHASAGAR**.
- ➔ Promotes **trade**, **investment**, **regional value chains**, **blue economy**, **oil and gas exploration**, **renewable energy**, and regional connectivity.
- ➔ Enhances cooperation in **counter-terrorism**, **cybersecurity**, **maritime security**, and **HADR**, while institutions such as the **BIMSTEC Centre for Weather and Climate** in **Noida** strengthen regional resilience.
- ➔ Encourages **Buddhist circuits**, cultural exchanges, and tourism, while providing a regional alternative to **China's Belt and Road Initiative (BRI)** and **cheque-book diplomacy**.



Challenges

- ➔ Political instability in **Myanmar** and political changes in **Bangladesh** have disrupted connectivity projects.
- ➔ Slow progress on the **BIMSTEC Free Trade Agreement (FTA)**, **Motor Vehicles Agreement**, and **Coastal Shipping Agreement** has limited regional integration.
- ➔ The **Secretariat** suffers from limited funding, staffing, operational mandate, and dependence on **voluntary national contributions**.
- ➔ The absence of a formal **dispute resolution mechanism**, regional asymmetry, competing geopolitical interests, **terrorism**, **cybercrime**, and the lack of a **proactive disaster management mechanism** continue to impede cooperation.

BALUCHISTAN

Pakistan launched **Operation Shaban** in **Balochistan** on **5 July 2026**, after attacks on the **Mangi Dam police post**, **Ziarat**, killed policemen and civilians.

Historical Roots of the Conflict

- ➔ **Kalat**, the largest princely state in present-day **Balochistan**, initially sought independence at Partition.
- ➔ Under political pressure, the **Khan of Kalat** acceded to Pakistan in **1948**.
- ➔ **Baloch nationalists** call the accession **coerced**; Pakistan deems it **legal and final**.
- ➔ Local resentment also grew over **Sui gas** and the sense that resources mainly benefited the centre.

The Operation

- ➔ It targets the **Balochistan Liberation Army (BLA)** in the south and **Tehreek-e-Taliban Pakistan (TTP)** in the north.
- ➔ Pakistani state media report **over 100 militants killed**; the figures remain **unverified and contested** by Baloch groups.

About Balochistan

- ➔ Balochistan is Pakistan's **largest province by area** (about **44%** of the landmass); capital: **Quetta**.
- ➔ It borders **Iran**, **Afghanistan** and the **Arabian Sea**, and is rich in **natural gas**, **copper**, **gold** and **coal**, including **Reko Diq** and the Chinese-run **Saindak** mine.
- ➔ It hosts **Gwadar Port**, a key node of the **China-Pakistan Economic Corridor (CPEC)**.

ROME DECLARATION FOR AN UNARMED AND DISARMING PEACE

On **16 July 2026**, at **Rome's Capitoline Hill**, **over 200 participants**, including **30 Nobel laureates**, **AI scientists**, **religious leaders** and **global experts**, signed the **Rome Declaration**, capping the **Global Nobel Laureates Assembly on AI and Nuclear War** held at **Castel Gandolfo**.

What is the Declaration?

- ➔ It is a global ethical declaration calling for **human control over nuclear weapons** in the age of **Artificial Intelligence**.
- ➔ It warns against delegating **life-and-death decisions**, especially nuclear launch decisions, to **autonomous AI systems**.
- ➔ Inspired by **Pope Leo XIV's** encyclical "**Magnifica Humanitas**," it emphasises protecting **human dignity** from **technological overreach**.
- ➔ Though **non-binding**, it seeks global consensus for an **international treaty** governing AI in military applications.

Core Principles

- ➔ Disarming the next arms race; responsible development, use, governance and leadership of AI; and nuclear disarmament.

Five Ethical and Operational Principles

- ➔ **Mandatory meaningful human control:** Prohibiting any automated or AI-driven system from making the **final decision** on nuclear weapon use.

- **The digital commons model:** Those without access to or control over AI are likely **most affected** by its unintended consequences.
- **Responsible development:** Developers must **publish the ethical frameworks** guiding their models, and fully autonomous, self-improving systems that cannot be monitored or halted by humans are explicitly forbidden.
- **Internal arsenal vulnerability audits:** Nuclear states must urgently review and protect command-and-control systems from **AI-driven cyber-tampering** or **unauthorised interference**.
- **Time-bound, verifiable disarmament:** Renewed good-faith negotiations toward **completely, irreversibly and verifiably eliminating nuclear weapons**.

NATO's ANKARA SUMMIT

The 2026 NATO Summit, held 7-8 July in Ankara, Türkiye, reaffirmed the Alliance's commitment to collective defence and Europe's defence industrial base.

Key Outcomes of the NATO Ankara Summit

- **Reaffirmation of Collective Defence:** Members unanimously reaffirmed their "**ironclad commitment**" to collective defence under **Article 5** of the Washington Treaty, pledging to strengthen military preparedness against emerging threats, particularly from **Russia**.
- **Higher Defence Spending:** NATO reaffirmed the **Hague commitment** to spend at least **5% of GDP** on defence by **2035** – **3.5%** for core defence, **1.5%** for broader security needs – with **Spain** alone exempted.
- **Continued Support for Ukraine:** NATO declared its "**unwavering support for Ukraine**" in defending its freedom, sovereignty and territorial integrity.
- **Revitalisation of Europe's Defence Industrial Base:** Allies vowed to build a high-technology, high-capacity **Europe-wide defence industrial base** – the firms, factories, laboratories and skilled workers needed to sustain military power.

NATO

- **NATO**, the North Atlantic Treaty Organization, is a military alliance founded in **1949** via the **Washington Treaty**, ensuring member security through **collective defence**.
- Founding members included **Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the UK and the US**.
- **Article 5** is NATO's cornerstone: an armed attack on one member is treated as an attack on all.
- Decisions are made by consensus, with the **North Atlantic Council**, comprising member ambassadors, the principal decision-making body.
- NATO now has **32 members**; **Finland and Sweden** joined as the **31st and 32nd**.

Challenges for India

- Rising global demand for military equipment, driven by NATO's higher spending, may lengthen India's **delivery timelines**.
- Higher procurement costs will pressure India's **defence budget** and slow **military modernisation**.
- India remains dependent on foreign suppliers for critical defence tech; delays in **GE F-404 engine** supply have already hit **Tejas Mk-1A** production.

UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW (UNCITRAL)

India, among 8 countries with continuous UNCITRAL membership, co-hosted (with the Supreme Court of India) an international conference marking UNCITRAL's 60th anniversary; EAM S. Jaishankar addressed the inaugural session.

About UNCITRAL

- Established in **1966**, UNCITRAL is a subsidiary body of the **UN General Assembly** headquartered in **Vienna**, working to modernise and harmonise **international trade law**.
- It convenes annual sessions in **New York and Vienna** in turn to promote its work.

Membership

- UNCITRAL has **70 member States**, elected by the UN General Assembly for **six-year terms**, with half renewed every **three years**.
- Its membership grew from **29 in 1966** to **70 by 2022**, balanced to reflect the world's geographical regions and major economic and legal systems.
- **India is a member** of UNCITRAL.

Functions

- It develops legal instruments such as **conventions, model laws and legislative guides** to ease international trade and business by setting **common legal standards**.
- Its work supports the **UN Sustainable Development Goals** by developing modern, harmonised and predictable trade laws that strengthen the **rule of law**, promote **sustainable growth**, facilitate **trade and investment**, and enhance access to **markets and finance**.

Do You Know?

- UNCITRAL is not a WTO body; the **WTO** is an autonomous intergovernmental organisation, while UNCITRAL is a **subsidiary organ** of the UN General Assembly.
- The WTO handles **trade policy and state-to-state matters** like trade liberalisation, tariffs, anti-dumping and import quotas.
- UNCITRAL instead develops legal frameworks for **private international commercial transactions** between businesses and individuals.

SHANGHAI COOPERATION ORGANISATION

India, represented by MoS Kirti Vardhan Singh, urged the Shanghai Cooperation Organisation (SCO) to adopt a firm and principled approach against terrorism at the Council of Foreign Ministers meeting in Cholpon-Ata, Kyrgyz Republic, marking the SCO's 25th anniversary year.

About SCO

- The **Shanghai Five** emerged in **1996** from border demarcation and demilitarisation talks between four former USSR republics and China: **Kazakhstan, China, Kyrgyzstan, Russia and Tajikistan**.
- With **Uzbekistan's** accession in **2001**, the Shanghai Five was renamed the **SCO**.
- Its objective is enhancing regional cooperation to curb **terrorism, separatism and extremism** in Central Asia.

Membership

- SCO has **10 members**: **China, Russia, India, Pakistan, Iran, Belarus**, and the four Central Asian states of **Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan**.
- India became a **full member in 2017** and held the **rotating chairmanship in 2023**.
- Members together contribute about **30% of global GDP** and **40% of the world's population**.
- **Afghanistan and Mongolia** hold **observer status**.

Structure and Languages

- Its official languages are **Russian and Chinese**.
- The **Council of Heads of State (CHS)** is the supreme decision-making body, meeting annually.
- Its two standing bodies are the **Secretariat in Beijing** and the **Executive Committee of the Regional Anti-Terrorist Structure (RATS)** in **Tashkent**.

INDIA-AUSTRALIA CIVIL NUCLEAR COOPERATION

India and Australia have finalised the Administrative Arrangement under their 2015 Civil Nuclear Cooperation Agreement.

Background

- India and Australia identified energy security as a shared priority in 2009, agreeing to cooperate on peaceful nuclear energy while reaffirming non-proliferation commitments.
- Their Civil Nuclear Cooperation Agreement was signed in 2014 and entered force in 2015, providing the legal framework for cooperation; limited, closely monitored uranium exports followed.

The Administrative Arrangement

- It operationalises the 2015 Agreement by removing procedural barriers that restricted commercial-scale uranium trade, establishing a stable mechanism for long-term cooperation.

- It lets Australian private uranium-mining companies contract commercially with eligible Indian entities, including private players under India's evolving nuclear policy.
- All supplied uranium must be used exclusively for peaceful purposes, remaining under IAEA safeguards and Australia's non-proliferation requirements.

Why Australia Can Supply India

- India is not an NPT signatory but has a strong non-proliferation record.
- It signed an India-specific IAEA Safeguards Agreement (2008) and an Additional Protocol (2009), separating civilian and military nuclear facilities.
- In 2008, the Nuclear Suppliers Group granted India a special waiver for civil nuclear trade despite its non-NPT status, forming this arrangement's legal foundation.

ROMANIA

India and Romania signed three agreements to enhance bilateral cooperation in the areas of Science & Technology, Education, and Sports.

About

- Romania is a South-Eastern European country located at the crossroads of Central, Eastern, and Balkan Europe. The national capital is **Bucharest**.
- **It is bordered by:**
 - ◆ Ukraine (north and east)
 - ◆ Moldova (east)
 - ◆ Bulgaria (south)
 - ◆ Serbia (southwest)
 - ◆ Hungary (west)
- It has a coastline along the Black Sea (East).
- The **Carpathian Mountains** form a major mountain system in central Romania.
- The **Danube River** forms part of Romania's southern border and flows into the **Danube Delta** before entering the Black Sea.
- The Danube Delta is Europe's second-largest and best-preserved river delta, located mainly in Romania with a smaller part extending into Ukraine.
- Recognised as a UNESCO World Heritage Site in 1991, it is renowned for its rich biodiversity, wetlands, and unique aquatic ecosystems.
- **Romania Membership** in European Union (**EU**) – joined in 2007 and **NATO** – joined in 2004.

Strategic Importance

- Romania's **Black Sea coastline** gives it strategic importance for maritime trade, energy security, and regional security.
- The **Port of Constanța** is one of the largest ports on the Black Sea and a major hub for grain and energy exports.

India–Romania Relations

- India and Romania established diplomatic relations in 1948, with ties expanding across multiple sectors.
- Bilateral cooperation covers Science & Technology, Education, Trade and Investment, Defence, and Cultural exchanges.
- Romania holds strategic importance for India as a partner in Central and Eastern Europe and in strengthening India–EU engagement.

India-Romania Agreement

- Following delegation-level talks between President Droupadi Murmu and her Romanian counterpart, India and Romania signed three MoUs to enhance cooperation in Science & Technology, Education, and Sports, focusing on research, innovation, academic exchanges, and sports development.
- The agreements strengthen the India–Romania Strategic Partnership, deepen people-to-people ties, and support economic cooperation, with both nations aiming to double bilateral trade within the next three years.
- **Agreements:**
 - ◆ **Science & Technology:** Promotes joint research, innovation, scientific exchanges, and collaboration between research institutions.
 - ◆ **Education:** Enhances academic partnerships, student and faculty exchanges, and cooperation in higher education.
 - ◆ **Sports:** Facilitates collaboration in sports training, coaching, sports medicine, and exchange of best practices.

SABANG PORT

During PM Modi's recent visit, India and Indonesia agreed to jointly develop Sabang Port near the Strait of Malacca.

About

- **Sabang Port** is a deep-sea port located on **Weh Island** in **Aceh Province, Indonesia**, at the northern entrance of the **Strait of Malacca**.
- It is situated close to India's **Andaman and Nicobar Islands**, making it strategically important for the Indo-Pacific region.
- The port is also only around **160 kilometres** from India's upcoming **international transshipment terminal at Great Nicobar Island**. Together, the two locations could create a **strategic maritime corridor connecting the eastern Indian Ocean with Southeast Asia**.

Importance of Sabang Port World Trade

- **Gateway to the Strait of Malacca:** Sabang lies at the entrance of the Strait of Malacca, connecting the Indian Ocean with the South China Sea and the Pacific Ocean. It serves as an

important gateway for ships traveling between Europe, the Middle East, Africa, and East Asia.

- **On One of the World's Busiest Sea Lanes:** The Strait of Malacca is one of the busiest shipping routes globally.
 - ◆ Around **80% of China's oil imports and a significant share of its trade** flow through these waters.
 - ◆ A substantial share of global maritime trade and energy shipments passes through this route every year.
 - ◆ Any disruption here can significantly affect international trade, freight costs, and global supply chains.
- **Energy Security:** The route carries large volumes of crude oil, LNG, and petroleum products destined for major Asian economies such as: China; Japan; South Korea; India.

Significance of Sabang Port for India

- **Strategic Location:** Close to the Malacca Strait, through which a significant share of global trade and energy supplies passes. Enhances India's maritime presence in the eastern Indian Ocean.
- **India–Indonesia Cooperation:** India and Indonesia agreed to develop Sabang Port during Prime Minister Narendra Modi's 2018 visit. The project strengthens the Comprehensive Strategic Partnership between the two countries.
- **Act East Policy & Indo-Pacific Vision:** Supports India's **Act East Policy**. Promotes a **free, open, inclusive, and rules-based Indo-Pacific**.
- **Security Significance:** Improves maritime domain awareness near the Malacca Strait. Facilitates cooperation in anti-piracy, disaster relief (HADR), and naval logistics. Balances China's growing presence in the Indian Ocean Region.
- **Economic Importance:** Enhances trade connectivity between India and Southeast Asia. Can complement development of the **Andaman and Nicobar Islands** as a maritime hub.

Important Chokepoint

- **Strait of Malacca:** Connects the **Indian Ocean and Pacific Ocean**; one of the world's busiest maritime trade routes.
- **Suez Canal:** Provides the **shortest sea route between Europe and Asia**.
- **Panama Canal:** Connects the **Atlantic Ocean and Pacific Ocean**.
- **Strait of Hormuz:** Main maritime outlet for **oil exports from the Persian Gulf**.
- **Bab-el-Mandeb:** Connects the **Red Sea with the Gulf of Aden**, linking the Suez Canal to the Indian Ocean.
- **Bosporus:** Connects the **Black Sea with the Sea of Marmara**, providing access to the Mediterranean Sea.
- **Turkish Straits:** Comprising the **Bosporus and Dardanelles**, they connect the **Black Sea to global maritime trade routes**.
- **Danish Straits:** Connect the **Baltic Sea with the North Sea**, serving as a key gateway for Northern European trade.

E-COMMERCE COUNCIL OF INDIA

IAMAI launched the E-Commerce Council of India (ECCI) in Bengaluru to strengthen digital commerce advocacy and foster industry-government collaboration.

About ECCI

- **ECCI (E-Commerce Council of India)** is a **national industry council** representing India's digital commerce ecosystem.
- It functions under the **Internet and Mobile Association of India (IAMAI)**.
- It serves as a **common platform** for e-commerce companies, logistics firms, payment providers, technology companies, and other stakeholders.

Objective

- **Acts as a unified industry voice** by representing the digital commerce sector in policy discussions, fostering industry-government collaboration, and advocating evidence-based regulations through research and stakeholder consultations.
- **Promotes a trusted and sustainable digital commerce ecosystem** by encouraging best practices, strengthening consumer trust, driving responsible innovation, and supporting inclusive, competitive growth.

Significance

- **Strengthens policy coordination** between industry and government, promoting a transparent, consumer-centric, and well-regulated digital commerce ecosystem.
- **Boosts India's digital economy** by supporting MSME integration, encouraging innovation, and advancing the objectives of the Digital India initiative.

Need for E-Commerce Council of India

- **India's digital commerce market**, valued at over **\$120 billion**, is expanding rapidly into areas such as **quick commerce, cross-border e-commerce, and AI-driven retail**.
- The sector is witnessing **evolving regulations** on **data governance, digital payments, and consumer protection**.
- There is a need for a **structured industry-government dialogue** to proactively shape policies instead of responding after regulations are finalized.

Function

- **Unified Industry Representation:** Provides a single, coordinated voice for the digital commerce sector in engaging with multiple regulators and government ministries like commerce, IT, consumer affairs, RBI, DPIIT.

- **Evidence-Based Policy Advocacy:** Supports policymaking through research, data-driven insights, and structured industry-government dialogue.
- **Promote Cross-Border E-Commerce:** Facilitates global market access for Indian brands, exporters, and MSMEs by simplifying cross-border digital trade.
- **Digital Inclusion of MSMEs:** Encourages the digital transformation of micro, small, and medium enterprises to integrate them into domestic and global value chains.
- **Develop Best Practices:** Promotes responsible standards for AI-driven commerce, quick-commerce logistics, and secure digital payment ecosystems.

Internet and Mobile Association of India (IAMAI)

About:

- Internet and Mobile Association of India (IAMAI) is a not-for-profit industry body established in 2004.
- It represents businesses in digital services, internet, mobile, fintech, e-commerce, digital payments, gaming, edtech, healthtech, OTT, and emerging technologies.
- It serves as a bridge between the government, industry, and other stakeholders to promote the growth of India's digital economy.

Objectives:

- **Promote Digital Economy Growth:** Foster the development of India's internet and digital ecosystem through responsible innovation, consumer trust, and adoption of global best practices.
- **Policy Advocacy & Research:** Represent industry interests before policymakers through research, stakeholder consultations, evidence-based policy advocacy, and capacity-building initiatives.

Functions:

- **Policy Engagement & Knowledge Sharing:** Supports policymaking through collaboration, research, and policy recommendations.
- **Industry Collaboration & Capacity Building:** Promotes industry-academia-government partnerships through conferences, consultations, and awareness programmes.

Significance:

- **Strengthens Digital Governance:** Supports innovation-friendly policies as the unified voice of India's digital industry.
- **Boosts Digital Economy:** Promotes digital inclusion, startup growth, and global competitiveness.

SPECIFIED NON-FINANCIAL ASSETS

The Reserve Bank of India (RBI) has issued the **Commercial Banks-Resolution of Stressed Assets (Third Amendment) Directions, 2026**, amending the 2025 framework to strengthen the resolution process for stressed assets and improve regulatory clarity.

About Prudential Framework for SNFAs

- The framework provides a **comprehensive regulatory mechanism** for the acquisition, valuation, management, accounting, disclosure, and disposal of non-financial assets acquired from defaulting borrowers.
- It introduces the concept of **Specified Non-Financial Assets (SNFAs)** for immovable assets taken over during the loan recovery process.
 - ♦ Disposal of SNFAs must primarily be conducted through **public auctions** in line with the principles of the **SARFAESI Act**.
 - ♦ Banks are prohibited from selling these assets to the **defaulting borrower or related parties**, enhancing transparency and preventing misuse.
- Banks can acquire an **SNFA only after the borrower's loan has been classified as a Non-Performing Asset (NPA)**.
- Every commercial bank must formulate a **board-approved internal policy** for the acquisition, management, and disposal of SNFAs.
- SNFAs will be excluded from Gross NPAs, Net NPAs, and stressed asset figures.
 - ♦ Instead, they will appear separately in bank balance sheets under the category **"non-banking assets acquired in satisfaction of claims."**

About Specified Non-Financial Asset (SNFA)

- An immovable asset (such as land or buildings) acquired by a Regulated Entity (RE) in full or partial satisfaction of its claims on a defaulting borrower.
- Includes Non-Banking Assets (NBAs) acquired under the Banking Regulation Act.
- The asset is considered acquired only after the legal title is transferred to the lender.

Features

- **Applies only to NPAs:** SNFAs can be acquired only after the borrower's loan has been classified as a **Non-Performing Asset (NPA)**.
- **Valuation:** Recorded at the **lower of:**
 - ♦ Net Book Value (NBV) of the extinguished exposure, or
 - ♦ Distress Sale Value (DSV) determined by at least **two independent valuers**.
- ♦ **Holding Period:** Maximum **7 years**, after which the asset must be disposed of or reclassified.
- ♦ **Disposal:** Public auction is encouraged to ensure transparency.

- ♦ **Restriction:** Sale of the asset back to the defaulting borrower or related parties is prohibited.
- ♦ **Governance:** Every regulated entity must have a **Board-approved SNFA policy** covering acquisition, valuation, management, and disposal.
- ♦ **Disclosure:** SNFAs must be shown separately in financial statements and are **excluded from Gross NPA, Net NPA, and Provision Coverage Ratio (PCR)** calculations.

Significance

- **Strengthens prudential regulation** by establishing uniform norms for the management of non-financial assets.
- **Enhances transparency and accountability** in the resolution and disposal of stressed assets.
- **Promotes financial stability** by limiting banks' prolonged exposure to non-core assets.
- **Reinforces RBI's objective** of ensuring banks remain focused on core banking activities rather than holding or managing real estate assets.

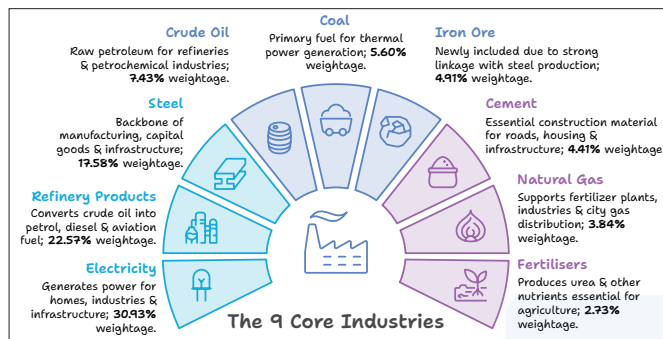
UPDATION OF THE ICI INDEX

The Union Government has released an updated series of its **Index of Core Industries (ICI)**.

Changes in Updated ICI

- **Change in Base Year:** The new series of the index brings forward the base year to **2022-23**. This makes the data more reflective of current reality, and thus makes it a **more useful gauge of industrial activity**.
 - ♦ The previous ICI had a base year of **2011-12**, which was significantly outdated.
- **Inclusion of Iron Ore:**
 - ♦ Iron ore has been added as the 9th core industry due to its importance in industrial production and steel manufacturing.
 - ♦ Number of core industries increased from 8 to 9.
- **Revised Steel Index Calculation:**
 - ♦ **Earlier:** Steel production was measured using net production data.
 - ♦ **Now:** Gross production data is used, making it consistent with the methodology of IIP.
- **Changes in Coal Component:**
 - ♦ Only raw coal has been retained.
 - ♦ Coal middling and washed coal have been removed to avoid double counting, as they are derived from raw coal.
- **Back Series Availability:** Revised data series has been provided from April 2023 onwards to maintain comparability.
- **Redistribution of Sectoral Weights in the Updated ICI:**
 - ♦ **Updated Weights:** Weights are derived from the Index of Industrial Production (IIP) 2022-23 series and adjusted to a total of 100.

- ♦ Iron ore has been newly included with a weight of 4.905% in the Index of Core Industries.
- ♦ Coal, natural gas, and refinery products have witnessed reduced weights:
 - ♦ **Coal:** 10.33% → 5.596%
 - ♦ **Natural Gas:** 6.88% → 3.841%
 - ♦ **Refinery Products:** 28.04% → 22.572%
- ♦ Electricity has recorded the largest increase in weightage, rising from 19.85% to 30.932%, while fertilizers increased marginally from 2.63% to 2.731%.



About ICI

- ➔ The Index is compiled and released by **Office of the Economic Adviser (OEA), Department of Industrial Policy & Promotion (DIPP)**, Ministry of Commerce & Industry.
- ➔ **Index of Core Industries (ICI)** is a **monthly production volume index** that measures the output of India's core infrastructure industries.
- ➔ It provides an **advance indication of the production performance** of core sectors and serves as an **early indicator of industrial growth**.
- ➔ The ICI is released **before the Index of Industrial Production (IIP)**, helping assess the overall industrial performance of the economy at an early stage.
- ➔ ICI measures collective and individual performance of production in **selected eight core industries viz.** Coal, Crude Oil, Natural Gas, Petroleum Refinery Products, Fertilizers, Steel, Cement and Electricity.
 - ♦ The Eight Core Index broadly has a combined weight of **37.90% in the Index of Industrial Production (IIP)** and is published about **12 days prior to IIP**.

Significance

- ➔ **Updated Base Year:** Base year revised to **2022–23** to better reflect the current industrial structure and production patterns.
- ➔ **Improved Comparability:** Steel production is measured on a **gross output basis**, aligning the ICI with the IIP methodology.
- ➔ **Eliminates Double Counting:** Only **raw coal** is included, excluding washed coal and middling.
- ➔ **Greater Reliability:** Methodological changes enhance the **accuracy, consistency, and credibility** of the index.

Index of Industrial Production (IIP)

- ➔ **Index of Industrial Production (IIP)** is a **monthly composite index** measuring changes in industrial production relative to a base year and serves as a key indicator of industrial and economic growth.
- ➔ It is compiled by the National Statistics Office (NSO), MoSPI and covers the Mining, Manufacturing, and Electricity sectors.
- ➔ **The IIP is currently compiled with the base year 2022–23, replacing the earlier base year of 2011–12.**
- ➔ **Classification:** The manufacturing sector is classified using:
 - ♦ **Use-based categories:** Primary goods, Capital goods, Intermediate goods, Infrastructure/Construction goods, Consumer durables, and Consumer non-durables.
 - ♦ **National Industrial Classification (NIC)** industry groups.

MUMBAI-AHMEDABAD HIGH SPEED RAIL

India is set to complete its first-ever bullet train corridor, the **Mumbai-Ahmedabad High-Speed Rail (MAHSR)**, marking a major milestone in the country's transport infrastructure.

Features

- ➔ India's **first high-speed rail corridor**.
- ➔ The corridor has a design speed of **350 kmph** and an **operational speed of 320 kmph**.
- ➔ The corridor will connect **Mumbai and Ahmedabad in about 1 hour 58 minutes**. It covers a total length of approximately **508 kilometres**.
- ➔ It is expected to commence in **August 2027**. The first section to open will be from **Surat to Vapi**.
- ➔ It uses **standard gauge** tracks instead of India's broad gauge.
- ➔ Majority of the alignment is on **elevated viaducts**.
- ➔ **Includes:** *Long bridges, Mountain tunnels* and a 21-km tunnel, including an undersea section *beneath Thane Creek*.
- ➔ Incorporates advanced safety systems with **zero fatality record** of Japanese Shinkansen technology.
 - ♦ **Track System:** J-Slab ballastless track technology is being introduced in India for the first time.
 - ♦ **Track Construction Bases:** Dedicated Track Construction Bases are being developed. These are for the storage and handling of rails, track slabs, machinery, and other equipment.

Objectives

- ➔ Introduce world-class high-speed rail technology while improving regional connectivity across India.
- ➔ Promote industrial and economic development through employment generation, skill development, technology transfer, and indigenous manufacturing under *Make in India*.

Significance

➤ Economic:

- ♦ Faster movement of people and businesses.
- ♦ Boosts investment along the corridor.
- ♦ Enhances logistics and productivity.

➤ Infrastructure:

- ♦ Marks India's entry into the high-speed rail era.
- ♦ Encourages development of future bullet train corridors.

➤ Environmental:

- ♦ Lower carbon emissions through energy-efficient mass transportation compared to road and air transport.
- ♦ Facilitate the transfer of Japanese high-speed rail technology while building capacity for Indian engineers and industries.

➤ Challenges:

- ♦ Face challenges such as land acquisition delays, high capital costs, and environmental and rehabilitation concerns.
- ♦ Construction complexity, particularly in tunnels and urban areas, along with a long gestation period, delays full operational benefits.

➤ Seven High-Speed Rail Corridors: It covering nearly 4,000 kilometres, have been identified for future development.

High-Speed Rail Corridors	
Routes	Travel Time
Delhi–Varanasi	3 hours 50 minutes
Varanasi–Patna–Siliguri	2 hours 55 minutes
Chennai–Bengaluru	1 hour 13 minutes
Bengaluru–Hyderabad	2 hours
Chennai–Hyderabad	2 hours 55 minutes
Mumbai–Pune	48 minutes
Pune–Hyderabad	1 hour 55 minutes

RBI'S UPPER LAYER NBFCs

The Reserve Bank of India has restored the definition of "indirect receipt of public funds" in the regulatory framework for NBFCs, with the revised provisions coming into force on July 1, 2026.

Recent Action of RBI

- In an April 2026 circular, the Reserve Bank of India (RBI) defined "**indirect receipt of public funds**" as funds received indirectly through associates or group entities that have access to public funds.
- The RBI has simplified the classification **criteria for Upper Layer NBFCs (NBFC-ULs)** by replacing the earlier methodology with a single asset-based threshold.

- Under the revised framework, only NBFCs with assets of Rs 1 lakh crore or more will be classified as NBFC-Upper Layer (NBFC-UL).
- As per RBI regulations, an **NBFC-UL** must:
 - ♦ List its shares on a recognised stock exchange within three years of being classified as an NBFC-UL.
 - ♦ Comply with enhanced governance, regulatory, and disclosure requirements applicable to Upper Layer NBFCs.

Non-Banking Financial Company (NBFC)

Requirements for Registration as an NBFC with the Reserve Bank of India:

- To commence business as a Non-Banking Financial Company (NBFC), an entity must satisfy the following conditions:
- **Incorporation:** The company must be incorporated under **the Companies Act, 1956 or the Companies Act, 2013**.
- **RBI Eligibility:** It must comply with the eligibility criteria prescribed by the Reserve Bank of India (RBI) and obtain a Certificate of Registration (CoR) before commencing NBFC operations.
- **Principal Business Criterion:** The company's principal business should involve carrying out financial activities, such as:
 - ♦ Providing loans and advances;
 - ♦ Acquisition of shares, stocks, bonds, debentures, and government or local authority securities, or other marketable securities of a similar nature;
 - ♦ Leasing;
 - ♦ Hire-purchase financing; and
 - ♦ Other specified financial services as permitted by the RBI.
- **However, an NBFC does not include:**
 - ♦ Institutions primarily engaged in agricultural activities;
 - ♦ Industrial or manufacturing enterprises;
 - ♦ Companies engaged in the purchase or sale of goods (other than securities);
 - ♦ Businesses providing services other than financial services; and
 - ♦ Entities involved in the sale, purchase, or construction of immovable property.
- **Minimum Net Owned Fund (NOF):**
 - ♦ A company must have a **minimum Net Owned Fund (NOF) of ₹10 crore** to qualify for registration as an NBFC.
 - ♦ However, **different minimum NOF requirements apply to certain specialized categories of NBFCs**, as prescribed by the RBI.
- **Application through PRAVAAH Portal:** The applicant company must submit its application for registration through the **RBI's PRAVAAH (Platform for Regulatory Application, Validation and Authorization) portal**, along with all prescribed documents and information, in accordance with the RBI's regulatory requirements.

Major differences between Banks and NBFCs

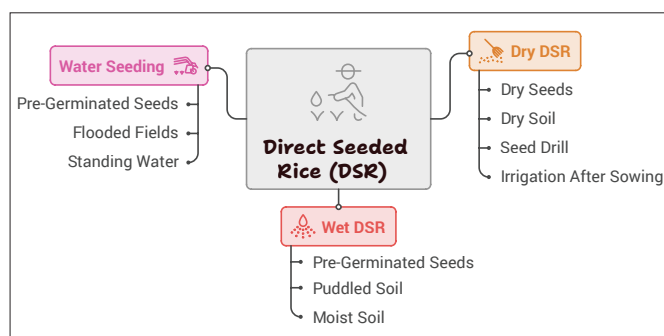
Aspect	Banks	Non-Banking Financial Companies (NBFCs)
Regulator	Regulated by the Reserve Bank of India (RBI) under the Banking Regulation Act, 1949	Regulated by the RBI under the RBI Act, 1934
Primary Function	Accept deposits, provide loans, and offer payment and settlement services	Primarily provide loans, investments, leasing, hire-purchase, and other financial services
Acceptance of Demand Deposits	Permitted (Savings and Current Accounts)	Not permitted
Public Deposits	Can accept public deposits as per RBI norms	Only a few RBI-authorized Deposit-taking NBFCs (NBFC-Ds) can accept term deposits; most NBFCs cannot accept public deposits
Payment and Settlement System	Integral part of the payment and settlement system; can issue cheques drawn on themselves	Not part of the payment and settlement system; cannot issue cheques drawn on themselves
Deposit Insurance	Deposits are insured by the Deposit Insurance and Credit Guarantee Corporation (DICGC) up to the prescribed limit	Deposits (where permitted) are not covered under DICGC insurance
Credit Creation	Creates money through deposit mobilization and lending	Limited role in credit creation as they cannot accept demand deposits
Reserve Requirements	Required to maintain Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR)	Not required to maintain CRR; SLR requirements applicable to banks do not apply in the same manner
Foreign Investment	Subject to sector-specific FDI norms	FDI is permitted under the automatic route in most NBFC activities, subject to applicable regulations
Financial Inclusion	Broad range of banking services including deposits, payments, remittances, and credit	Primarily complements banks by providing credit to underserved sectors such as MSMEs, infrastructure, and rural borrowers
Examples	State Bank of India (SBI), Punjab National Bank (PNB), HDFC Bank	Bajaj Finance Ltd., Shriram Finance Ltd., Tata Capital Ltd., Muthoot Finance Ltd.

DIRECT SEEDED RICE (DSR)

In response to the uncertainty of monsoon rainfall linked to El Niño, the Chhattisgarh government has encouraged the adoption of Direct Seeded Rice (DSR) over traditional paddy transplantation.

Direct Seeding of Rice

- ➔ It refers to the practice of sowing rice seeds directly onto the main field without using a nursery to transplant seedlings.
- ➔ It is also known as the 'tar-wattar' technique.



- ➔ It can be accomplished by sowing pre-germinated seed into wet soil (wet seeding via broadcast or drum seeder).
- ➔ It can also be accomplished by planting dry seed (dry seeding by broadcast and seed-cum-fertilizer drill) on prepared ground.

Advantages

- ➔ **Saves water:** Reduces irrigation water requirement by **15–35%** compared to conventional transplanting.
- ➔ **Reduces labour requirement:** Eliminates nursery raising and manual transplantation.
- ➔ **Lowens cultivation costs:** Fewer labour and field preparation expenses.
- ➔ **Early crop maturity:** Crop matures about **7–10 days earlier**, allowing timely sowing of the next crop.
- ➔ **Lower methane emissions:** Since fields are not continuously flooded, methane emissions are reduced.
- ➔ **Suitable during delayed monsoons:** Useful under conditions of erratic rainfall, such as during **El Niño** years.

Challenges

- **Weed infestation:** Major constraint due to the absence of standing water that naturally suppresses weeds.
- **Requires effective weed management:** Timely herbicide application and mechanical weeding are essential.
- **Dependence on timely rainfall or irrigation:** This method is dependent on timely rainfall or availability of sufficient irrigation. Germination can be affected if adequate soil moisture is unavailable.
- **Yield variability:** Poor crop establishment under unsuitable conditions may reduce yields.
- **Higher risk of pest and rodent damage** during the early growth stages.

Significance

- Promotes **water-use efficiency** in agriculture.
- Supports **climate-resilient farming** under changing rainfall patterns.
- Helps reduce **greenhouse gas emissions**, contributing to sustainable agriculture and improves farmers' profitability by lowering production costs.

Government Initiatives

- States such as **Punjab, Haryana, Chhattisgarh, Uttar Pradesh, and Odisha** are promoting DSR to conserve groundwater and reduce cultivation costs.
- Agricultural universities and the **ICAR** have developed improved DSR practices and suitable rice varieties.

Difference between Direct Seeded Rice (DSR) and Traditional Transplantation Method

Direct Seeded Rice (DSR)	Traditional Transplantation
Seeds are directly sown in the main field using a seed drill or broadcasting method.	Seedlings are raised in a nursery and later transplanted into puddled fields.
Does not require a nursery.	Requires nursery preparation and management.
Requires less labour as manual transplanting is avoided.	Labour-intensive due to nursery raising and transplanting activities.
Uses 15–35% less water due to reduced flooding and puddling.	Requires higher water consumption for puddling and continuous field flooding.
Reduces cultivation costs through lower labour and water requirements.	Higher cultivation costs due to greater labour and input needs.
Crop establishes through direct seed germination in the field.	Seedlings are transplanted after about 20–30 days of nursery growth.
Matures 7–10 days earlier than transplanted rice.	Takes comparatively longer to mature.
Faces higher weed infestation and needs effective weed management.	Lower weed growth due to puddling and standing water conditions.
Produces lower methane emissions due to reduced flooding.	Generates higher methane emissions from flooded fields.
Suitable for regions facing labour shortages, water scarcity, or delayed monsoon conditions.	Suitable where adequate water availability and labour supply exist.
Main challenges include weed control and maintaining soil moisture during germination.	Main challenges include high water use and labour dependency.
Promotes water conservation and climate-resilient agriculture.	Leads to higher groundwater use and greater greenhouse gas emissions.

KAMARAJAR PORT

Kamarajar Port became India's second major port (after Visakhapatnam Port) to achieve an 18-metre draft, enabling larger vessels and higher cargo capacity.

About

- Formerly known as **Ennore Port**. It is located at **Ennore**, about **24 km north of Chennai**, on the **Coromandel Coast** along the **Bay of Bengal** in **Tamil Nadu**. It was declared a **Major Port** under the **Indian Ports Act, 1908** in **1999**.
- The **₹440-crore Capital Dredging Phase VI** project deepened the navigation channels and berths, making the port **Cape Compliant**.
- The port can now accommodate **fully laden Capesize vessels** carrying up to **1,70,000 Deadweight Tonnage (DWT)**.

Major Ports of India

- 13 major ports and approximately 200 non-major ports.
 - The **Vadhavan Port (Greenfield Port, Maharashtra)** and **Galathea Bay Port (Andaman & Nicobar)** have been notified as major ports but are not yet operational.
 - ◆ **Major ports:** Wholly owned and managed by the Union Government.
 - ◆ **Non-major ports:** Respective State Maritime Boards / State Governments.
 - **95%** of India's trade (*by volume*) and **70%** (*by value*) moves through maritime routes; **major ports handle 53%** of cargo traffic.
 - **100% FDI** is permitted under the **automatic route** for port construction and maintenance.
- **Note:** *Draft capability* refers to the maximum depth of water a port can provide for the safe movement and berthing of ships.

Jodhpur's Mojari Gets GI Tag
 ↳ A boost to Rajasthan's 200-year-old handcrafted footwear tradition

1. WHAT HAPPENED?
 The Centre granted a **Geographical Indication (GI)** tag to Jodhpur's nearly 200-year-old Mojari (Jooti) craft.

2. WHAT IS MOJARI?
 Traditional handmade leather footwear known for intricate designs, embroidery, and vibrant colours; a key part of Jodhpur's cultural heritage.

3. SNAPSHOT

5,000+ Households involved in the craft.	~400 Manufacturers driving production.	35,000+ Artisans associated with this trade.	200+ Years of rich heritage and tradition.
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4. WHY THE GI TAG MATTERS

- Official recognition of Jodhpur's traditional footwear.
- Stronger global branding and better market access.
- Enhances credibility and value for artisans.
- Empowers artisans and strengthens the local economy.
- Opens doors to export and new opportunities.

5. LEGACY & SIGNIFICANCE

Once patronised by royalty, the Mojari craft has evolved into a distinctive identity of Jodhpur.

GI TAG TO JODHPUR MOJARI

The iconic Jodhpur Mojari, a handcrafted footwear tradition from Rajasthan, has been awarded the Geographical Indication (GI) tag.

GI Tags for 'Unjha Cumin' and 'Unjha Fennel'

- **Issue:** Farmers from Rajasthan have raised objections against the proposed GI registration of 'Unjha Jeera' and 'Unjha Fennel', arguing that these names may not accurately represent the primary production regions.
- **About Unjha:** Located in Gujarat, Unjha is one of Asia's largest agricultural trading markets for seed spices, particularly *cumin (jeera)*, *fennel (saunf)*, and isabgol.
- **Farmers' Concerns:** Rajasthan farmers claim that Unjha is mainly a trading and marketing hub rather than a major cultivation centre for these seed spices, while Rajasthan contributes significantly to their production.

About GI Tag

- A **Geographical Indication (GI)** is an intellectual property right identifying goods as originating from a specific geographical region where a given quality, reputation, or characteristic is essentially attributable to that origin.
- GI tags are governed by the **Geographical Indications of Goods (Registration and Protection) Act, 1999**.
- In India, GI registration is administered by the **Geographical Indications Registry, Chennai**, under the Office of the Controller General of Patents, Designs and Trade Marks.

Benefits of GI Registration

- Protects producers from unauthorized use and supports rural, artisan-based industries by safeguarding their unique products.
- Promotes exports, brand recognition, and preservation of traditional knowledge and cultural heritage.

MECON ACHIEVES MINIRATNA CATEGORY-I STATUS

The Ministry of Steel has approved the grant of Miniratna Category-I status to MECON Limited.

About MECON Limited

- **Full Form:** Metallurgical & Engineering Consultants (India) Limited
- **Established:** 1959; **Headquarters:** Ranchi, Jharkhand
- **Administrative Ministry:** Ministry of Steel
- **Nature:** Schedule 'A' Central Public Sector Enterprise (CPSE)
- **Core Business:** Engineering consultancy, project management, design, and contracting services
- **Sectors Served:** Steel, mining, infrastructure, power, oil & gas, and other core industries.
- These classifications are conferred by the Government of India based on the guidelines of the Department of Public Enterprises (DPE).

Criteria for Ratna Status of CPSEs

1. **Maharatna:** A Central Public Sector Enterprise (CPSE) is eligible for Maharatna status if it:
 - ◆ Is a **Navratna CPSE**.
 - ◆ Is **listed on an Indian stock exchange** with the prescribed minimum public shareholding (where applicable).
 - ◆ Has an **average annual turnover of ₹25,000 crore or more** during the last **3 years**.
 - ◆ Has an **average annual net worth of ₹15,000 crore or more** during the last **3 years**.
 - ◆ Has an **average annual net profit after tax of ₹5,000 crore or more** during the last **3 years**.
 - ◆ Has a significant global presence or international operations.

2. **Navratna:** A CPSE is eligible for Navratna status if it:

- ♦ Is a **Miniratna Category-I CPSE**.
- ♦ Is classified as a **Schedule 'A' CPSE**.
- ♦ Has secured '**Excellent**' or '**Very Good**' MoU ratings in at least **3 of the last 5 years**.
- ♦ Scores **at least 60 marks** based on six performance parameters:
 - ♦ Net Profit to Net Worth
 - ♦ PBDIT to Capital Employed
 - ♦ Cost of Services/Production
 - ♦ PBDIT to Turnover
 - ♦ Earnings Per Share (EPS)
 - ♦ Inter-Sectoral Performance

3. **Miniratna Category-I:** A CPSE is eligible for Miniratna Category-I status if it:

- ♦ Has made **profits continuously for the last 3 years**.
- ♦ Has a **positive net worth**.

4. **Miniratna Category-II:** A CPSE is eligible for Miniratna Category-II status if it:

- ♦ Has made profits continuously for the last 3 years.
- ♦ Has a positive net worth

Financial Powers after Grant of Status

Status	Investment Power of Board
Maharatna	Up to 15% of net worth in a single project (subject to an overall ceiling of 30% of net worth).
Navratna	Up to ₹1,000 crore or 15% of net worth per project (whichever is lower), subject to an annual ceiling of 30% of net worth .
Miniratna Category-I	Up to ₹500 crore or net worth (whichever is lower).
Miniratna Category-II	Up to ₹300 crore or 50% of net worth (whichever is lower).

Note

According to the latest Department of Public Enterprises (DPE) list, India has:

- ➔ 13 Maharatna CPSEs and 28 Navratna CPSEs (after Chennai Petroleum Corporation Ltd. was upgraded in June 2026).
- ➔ About 100+ Miniratna CPSEs (Category-I and Category-II combined).

Comparison of Ratna Status of Central Public Sector Enterprises (CPSEs)

Feature	Maharatna	Navratna	Miniratna Category-I	Miniratna Category-II
Position	Highest	Second	Third	Fourth
Level of Autonomy	Very High	High	Moderate	Limited
Eligible CPSE Type	Navratna CPSEs meeting prescribed criteria	Miniratna Category-I, Schedule 'A' CPSEs meeting performance criteria	Profit-making CPSEs with positive net worth	Profit-making CPSEs with a shorter record of profitability
Minimum Profit Requirement	Based on Maharatna eligibility criteria	Based on Navratna eligibility criteria	Profit in 3 consecutive years	Profit in 3 consecutive years
Positive Net Worth	Required	Required	Required	Required
Investment Powers (Board)	Up to 15% of net worth in a project (subject to an overall ceiling of 30% of net worth)	Up to ₹1,000 crore or 15% of net worth on a single project (whichever is lower), subject to an annual ceiling of 30% of net worth	Up to ₹500 crore or net worth (whichever is lower)	Up to ₹300 crore or 50% of net worth (whichever is lower)
Government Approval	Minimal	Limited	Required beyond delegated limits	Required more frequently
Decision-Making Freedom	Highest	High	Moderate	Low
Typical Role	Global expansion, mega investments	Large strategic investments and diversification	Growth and modernization	Routine expansion and efficiency improvements

MISSION GOLDEN SPICE

The Union Minister for Development of the North Eastern Region (DoNER) launched the Lakadong Turmeric Mission – Golden Spice, a flagship initiative under the Government of India's Mission Golden Spice.

Mission Golden Spice

- **Lakadong Turmeric Mission – Golden Spice** is a project under the **Ministry of Development of North Eastern Region (DoNER)**'s **Unlocking the Economic Potential of India's Northeast (UNNATI)** initiative, with an outlay of **over ₹175 crore**.
- The mission is being **implemented by the Spices Board India under the Ministry of Commerce and Industry**, leveraging the Board's technical expertise in spice cultivation, quality enhancement, and export promotion.
- A **national mission** aimed at the holistic development of the **spices sector**.
- Focuses on increasing the global competitiveness of Indian spices through quality improvement, technology adoption, and export promotion.
- It is designed as a **five-year roadmap to be implemented in two phases starting from 2025 till 2030**.
 - ◆ Phase One is Value Chain Strengthening, followed by Phase Two, which is Expansion and Scale-up, for promotion of Meghalaya's Unique Selling Proposition (USP), the **GI-tagged Lakadong Turmeric**.
- It is built on years of institutional groundwork laid by the state government, officials and farmers.

Objectives

- **Enhance the productivity, quality, and sustainable cultivation of high-value spices** through improved technologies and climate-resilient farming practices.
- **Boost farmers' income and strengthen India's global leadership in the spice sector** by promoting value addition, export-oriented production, and expanding India's share in the international spice market.

Challenges

- **Production constraints:** Small and fragmented landholdings, climate variability, pest and disease outbreaks, and inadequate processing and post-harvest infrastructure limit productivity and quality.
- **Export and competitiveness challenges:** Residue-related export rejections and intense competition from major spice-exporting countries such as **Vietnam and Indonesia** affect India's global market competitiveness.

Significance

- **Promotes inclusive agricultural growth** by enhancing farmers' income, generating rural employment, and encouraging food processing and value addition.

- **Strengthens India's global competitiveness in the spice sector** by boosting exports, improving quality and traceability, and reinforcing its leadership in the international spice trade.

Key Components

- **Quality Planting Material:** Supply certified, high-yielding and disease-resistant seeds/planting material.
- **Productivity Enhancement:** Promote modern cultivation, mechanization, precision farming and Good Agricultural Practices (GAP).
- **Post-Harvest Management:** Improve scientific drying, grading, storage and minimize post-harvest losses.
- **Value Addition:** Encourage processing, packaging, branding and spice-based value-added products.
- **Export Promotion:** Strengthen quality compliance, traceability and global market access for Indian spices.
- **Sustainability:** Promote organic cultivation, Integrated Pest Management (IPM) and climate-resilient production systems.

Lakadong Turmeric

- It is primarily cultivated in the **West Jaintia Hills district of Meghalaya**.
- It is **globally renowned for its premium quality**, making it one of India's most distinctive and high-value spice varieties.
- It contains **7–10% curcumin**—nearly **four times the global average**—making it one of the **finest turmeric varieties in the world** with immense **nutraceutical, medicinal, and export potential**.



INVESTMENT FRIENDLINESS INDEX (IFI)

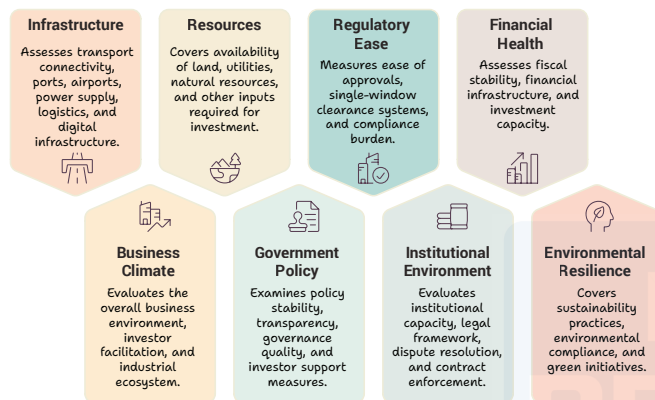
NITI Aayog has released the report titled "Investment Friendliness Index (IFI)".

About

- The **Investment Friendliness Index (IFI)** has been proposed as a framework to **rank Indian states and Union Territories based on their investment climate and business ecosystem**, encouraging competitive federalism and improving the ease of doing business.

- The **Investment Friendliness Index (IFI)** is a **composite index** designed to assess how conducive a state or UT is for attracting domestic and foreign investments.
- It presents a **structured and data-driven framework** for assessing how effectively States and Union Territories **create, enable, and sustain an environment conducive to investments**.
- It evaluates investment attractiveness across the following eight pillars:
- Promotes competitive federalism by attracting investment through governance reforms for balanced regional development.

Pillars of Investment



- **NOTE: The framework comprises 84 indicators**, incorporating both secondary data and perception-based measures derived from a primary survey of investors.

State and UTs Categorization

Classified into Four Performance Categories	
Category	States/Union Territories
Top performers (scores above 50)	Goa, Gujarat, Maharashtra, Odisha, Tamil Nadu
Frontrunners (scores above 45-50)	Andhra Pradesh, Assam, Chandigarh, Chhattisgarh, Delhi, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Rajasthan, Telangana, Tripura, Uttarakhand, Uttar Pradesh
Emerging performers (≥40 – <45)	Bihar, Jammu and Kashmir, Jharkhand, Meghalaya, Nagaland, Puducherry, Punjab, West Bengal
Aspiring states (below 40)	Andaman and Nicobar Islands, Arunachal Pradesh, Dadra & Nagar Haveli and Daman & Diu, Ladakh, Lakshadweep, Manipur, Mizoram, Sikkim

- Among the **Large States**, **Gujarat** secured the first rank, followed by Maharashtra and Tamil Nadu, which are also the top three performers in the overall Index.

- In the **Hilly and North-Eastern States** category, **Uttarakhand** emerged as the highest-ranked State, followed by Assam and Himachal Pradesh.
- Among the **City States and Union Territories**, **Goa** secured the top position, followed by Delhi and Chandigarh.

CRYPTO-ASSET REPORTING GUIDANCE

The Central Board of Direct Taxes (CBDT) has issued a 198-page **Guidance Note on Crypto-Asset Reporting Obligations under the Income-tax Act, 2025**, aligning India's tax reporting framework with the OECD's **Crypto-Asset Reporting Framework (CARF)**.

About Crypto Assets

- The CARF defines "Crypto-Assets" as "a **digital representation of value** that relies on a cryptographically secured distributed ledger or a similar technology to validate and secure transactions", which includes **cryptocurrencies**, as well as **cryptographybased tokens**.
- A "digital representation of value" means that a **Crypto-Asset must represent a right to value**, and that the ownership of, or right to, such value can be traded or transferred to other individuals or entities in a digital manner.

Guidance Note

- It provides detailed compliance requirements for Reporting Crypto-Asset Service Providers (RCASPs) such as crypto exchanges and certain intermediaries.
- **Clarifies:**
 - Scope of reportable crypto-assets and transactions.
 - Due diligence and customer identification requirements.
 - Information to be collected and reported.
 - Filing procedures, timelines, and penalties for non-compliance.
- **Reporting obligations of Crypto-Asset Service Providers are as;**
 - Conduct Know Your Customer (KYC) verification.
 - Determine the tax residency of every customer.
 - Collect the Taxpayer Identification Number (TIN) and self-certification from users.
 - Maintain records of all reportable crypto transactions.
 - File annual reports through Form 167.
 - Preserve records for verification and comply with reporting timelines.

Need for Guidance Note

- The rapid growth of crypto-assets has made it easier to transfer and hold assets outside the traditional financial system, making **tax evasion more difficult to detect**.
- Existing global tax reporting standards, such as the **Common Reporting Standard (CRS)**, do not adequately cover crypto-assets.
- India has aligned its reporting framework with the OECD-CARF to **improve tax compliance and international cooperation**.

Features

- ➔ **Mandatory Customer Due Diligence (CDD):** Collection of Tax Identification Number (TIN), tax residency, and identity details.
- ➔ **Annual Reporting:** Crypto service providers must report users' crypto transactions to the Income Tax Department.
- ➔ **Cross-border Information Exchange:** Facilitates automatic sharing of information with participating countries.
- ➔ **Standardized Reporting:** Uniform reporting format consistent with OECD standards.
- ➔ **No New Tax:** The guidance introduces reporting obligations only; it does not create any new tax on crypto-assets.

OECD's Crypto-Asset Reporting Framework

- ➔ **Developed By:** OECD (2022); endorsed by the **G20 Bali Leaders' Declaration (2022)**.
- ➔ **Objective:** Enable tax authorities to access crypto-asset transaction data, reducing tax evasion through reporting similar to the **Common Reporting Standard (CRS)**.
- ➔ **Implementation:** Monitored by the Global Forum on Transparency and Exchange of Information for Tax Purposes.

Scope:

- ➔ Covers **Relevant Crypto-Assets** used for payment or investment.
- ➔ Applies to **Reporting Crypto-Asset Service Providers (RCASPs)**, including exchanges, brokers, dealers, and other intermediaries.
- ➔ Includes **domestic and cross-border** crypto transactions.

Requirements for RCASPs:

- ➔ Conduct customer due diligence.
- ➔ Collect **tax residency and Taxpayer Identification Number (TIN)** details.
- ➔ Report specified crypto transactions to domestic tax authorities.

Coverage of Transactions:

- ➔ Crypto-to-fiat exchanges.
- ➔ Crypto-to-crypto exchanges.
- ➔ Crypto-asset transfers.

Significance:

- ➔ Enables **Automatic Exchange of Information (AEOI)**, strengthens transparency, and helps curb offshore tax evasion and illicit financial flows.

Challenges

- ➔ **Compliance Burden:** Increases reporting and compliance requirements for crypto intermediaries.
- ➔ **Privacy & Cybersecurity:** Raises risks from collecting and sharing taxpayer data.
- ➔ **DeFi Challenges:** Monitoring DeFi, self-hosted wallets, and P2P transactions remains difficult.

- ➔ **Cross-border Coordination:** Requires effective information sharing among tax authorities.
- ➔ **Regulatory Gap:** Rapid crypto innovation may outpace existing regulatory frameworks.

Significance

- ➔ **Curbs Tax Evasion:** Improves detection of hidden crypto income and offshore assets.
- ➔ **Strengthens Tax Administration:** Enables transaction-level reporting for better compliance and enforcement.
- ➔ **Enhances Transparency:** Increases regulatory oversight and tax compliance in digital assets.
- ➔ **Monitors Cross-border Transactions:** Supports anti-money laundering and other illicit finance measures.
- ➔ **Aligns with OECD Standards:** Promotes global cooperation and strengthens India's crypto regulatory framework.

MATCHA TEA

Assam became the first state in India to commercially produce Matcha tea, with production commencing at the Chota Tingrai Tea Estate in Tinsukia district of eastern Assam.

About

- ➔ **Origin** - Powdered tea originated in China during the Song Dynasty (960–1279 CE).
- ➔ It was introduced to Japan by the Zen monk Eisai around 1191 CE, where it became central to the Japanese tea ceremony.
- ➔ Matcha originated through **cultural exchanges between China and Japan during the premodern period**.
- ➔ **Blocking 90% of sunlight from the leaves** boosts their **chlorophyll and amino acid levels**, and gives its characteristic **bright green colour and rich umami flavour**.
- ➔ **Scientific name:** *Camellia sinensis*
- ➔ Unlike ordinary green tea, where leaves are steeped and discarded, the whole leaf is consumed, making it richer in nutrients and antioxidants.
- ➔ China is the largest producer of matcha tea.
- ➔ The USA, Canada, UK, Germany, France, Australia, Singapore, South Korea and Middle Eastern countries are some of the main markets for match tea exports.

Cultivation & Processing

- ➔ Tea plants are shade-grown for 3–4 weeks before harvest.
- ➔ Shading increases chlorophyll and L-theanine, giving a bright green color and umami taste.
- ➔ Young leaves are harvested, steamed, dried, and de-stemmed to produce Tencha.
- ➔ Tencha is stone-ground into a fine powder called Matcha.

Nutritional Importance

- ➔ Rich in catechins (especially EGCG), powerful antioxidants.

- Contains L-theanine, caffeine, vitamins, and minerals.
- May support alertness, concentration, and antioxidant intake.

Significance for India

- Diversifies India's tea sector beyond conventional black tea.
- Opens opportunities in the premium global green tea market.
- Can increase farmers' income through value-added tea products.
- Enhances export potential for Assam.

Geographical Conditions for Tea Cultivation

- **Climate:** Tea plants thrive in tropical and subtropical regions and require a warm, humid, and frost-free climate throughout the year for optimal growth.
- **Soil:** Grows best in deep, fertile, well-drained soils rich in humus and organic matter.
- **Temperature:** Ideal temperature range is 15°C–23°C for healthy growth.
- **Precipitation:** Needs 150 cm to 250 cm of well-distributed rainfall with frequent showers for continuous leaf growth.

Tea Board of India

- **Establishment:** Constituted as a statutory body in 1954 under the Tea Act, 1953.
- **Objective:** Established to regulate the Indian tea industry, promote its development, and safeguard the interests of tea producers.
- **Jurisdiction:** Administers and oversees all tea produced in the tea-growing regions of India.
- **Composition:** The Board comprises 32 members, including a Chairman and Deputy Chairman, appointed by the Government of India representing various stakeholders of the tea industry.
- **Headquarters:** Located in Kolkata, West Bengal.

INDIAHANDMADE

Indiahandmade brings India's handloom and handicraft traditions into the online economy while supporting artisan livelihoods, cultural preservation and rural employment.

About

- Indiahandmade was launched in 2023 by the Digital India Corporation under the Ministry of Textiles.
- It is a dedicated digital marketplace for artisans, weavers and producer organisations.
- The platform supports the Digital India vision by connecting rural producers directly with buyers across wider markets.
- India has around 64.66 lakh handloom and handicraft artisans. Women constitute 71% of handloom weavers and 64% of all artisans, highlighting the sector's role in inclusive livelihood generation.

Key Features

- It enables **direct buyer access**, reduces intermediaries and supports fair compensation.
- It provides digital tools, online visibility and simple onboarding for effective participation in **e-commerce**.
- It offers **apparel, home décor, furnishings, paintings, furniture, religious items, stationery, musical instruments, jewellery, bags and footwear**.
- It builds buyer confidence through **secure payments, free shipping, purchase protection** and buyer support.

Promotion of Regional Identity

- The platform gives special visibility to **Geographical Indication-tagged** and **One District One Product** items.
- These include **Aipan art, Pashmina shawls, Dokra décor, Tangail sarees, Banarasi silk, Ikat, Chanderi silk and terracotta products**.

Significance

- With plans to onboard more than **60 lakh artisans**, the platform supports **Aatmanirbhar Bharat**, expands digital market access, empowers small sellers and preserves India's handmade heritage.

DISTRICT MINERAL FOUNDATION TRUST

The Comptroller and Auditor General (CAG) has highlighted serious irregularities in the implementation of the Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY) and utilisation of District Mineral Foundation Trust (DMFT) funds in Chhattisgarh.

About PMKKKY

- PMKKKY was launched in 2015 by the Ministry of Mines.
- It aims to utilise mining-related revenues for the socio-economic development and welfare of people and areas directly or indirectly affected by mining.
- The scheme is implemented through District Mineral Foundation Trusts (DMFTs), which receive mandatory contributions from mining leaseholders under the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act).
- Priority sectors include drinking water, healthcare, education, skill development, women and child welfare, environmental restoration, sustainable livelihoods, and infrastructure in mining-affected regions.

Major CAG Findings

- **Dilution of Objective:** PMKKKY intended DMFT funds only for directly and indirectly mining-affected people and villages. However, the **Chhattisgarh DMFT Rules, 2015** expanded the definition of beneficiaries to all residents of mining districts without clear eligibility criteria.

- ➔ **Poor Coverage:** Nearly **44% (754 of 1,734)** directly mining-affected villages remained uncovered.
- ➔ **Diversion of Funds:** DMFT funds were spent on works outside PMKKKY priorities, including beautification projects and renovation of government offices.
- ➔ **Lack of Planning:** Expenditure was incurred without preparing **Master Plans, Vision Documents, or Annual Development Plans.**
- ➔ **Delay in Identification:** Mining-affected villages were identified after delays ranging from **5 months to 5 years**, affecting timely implementation.

Comptroller and Auditor General (CAG) of India

- ➔ The **CAG** is India's **supreme audit authority**, responsible for auditing government accounts and ensuring **accountability** in public financial management.
- ➔ **Articles 148 to 151** of the Constitution define the **appointment, powers, duties, and reporting framework** of the **CAG**.
- ➔ The **Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971** prescribes the service conditions, duties, and powers of the office.

Major Functions

- ➔ Audits expenditure from the Consolidated Fund of India, State Consolidated Funds, and Union Territory Consolidated Funds having Legislative Assemblies.
- ➔ Audits expenditure from the **Contingency Fund and Public Account** of India and the States.
- ➔ Audits transactions relating to debt, sinking funds, deposits, advances, suspense accounts, and remittance business with Presidential approval.
- ➔ Audits the accounts of any authority when requested by the **President** or a **Governor**.

Reports by the CAG

- ➔ Under **Article 151**, the **CAG** submits three reports to the **President of India**:
 - ♦ **Audit Report on Appropriation Accounts:** Verifies whether expenditure was authorised by the legislature and incurred for the intended purpose.
 - ♦ **Audit Report on Finance Accounts:** Presents the annual receipts and expenditure of the Government.
 - ♦ **Audit Report on Public Undertakings:** Examines the finances and expenditure of **Public Sector Undertakings (PSUs)**.
- ➔ The **President** lays these reports before **both Houses of Parliament**, after which the **Public Accounts Committee (PAC)** examines them and submits its **findings** to Parliament.

NEW CONTRIBUTORY PENSION SCHEME (EPFO 3.0)

The government is developing a new contributory pension scheme for unorganised and formal sector workers, under EPFO's 3.0 reforms phase.

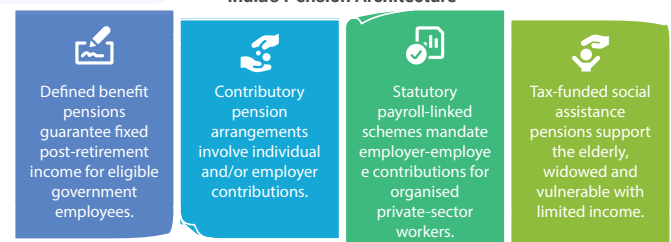
Key Features

- ➔ Covers existing **EPFO members** and workers excluded from the **Employees' Pension Scheme (EPS)**.
- ➔ Contributions may come from multiple sources: **workers, employers, government co-contribution** for lower-wage workers, **aggregators** for gig workers, and **CSR or third-party funds**.
- ➔ Each member gets an **individual pension account**; the system dynamically computes a **Target Retirement Sum (TRS)** based on the chosen pension goal and retirement age, with **adjustments allowed** and contributions recomputed accordingly.
- ➔ Members can decide their **payout or drawdown amount**; **inflation-adjusted projections** are an optional feature.
- ➔ Contributions accumulate in **long-term, government-backed securities**, with **interest credited annually**.
- ➔ A pooled "**Family Benefit Fund**" will finance **family and survivor pensions** for spouses, children and orphans.

Significance

- ➔ EPFO 3.0 introduces new technology, including a **Core Banking Solution** upgrade, and extends PF coverage to **unorganised and gig workers**.
- ➔ It operationalises the **Code on Social Security**, bringing gig and platform workers under social security **for the first time**; aggregators must contribute **1–2% of annual turnover**, capped at **5% of payable dues**.
- ➔ Retirement models of countries like **Singapore** are being studied for best practices.

India's Pension Architecture



All-Citizen Contributory Mechanisms

- ➔ The **NPS** allows voluntary enrolment within age limits, via **Tier I** (restricted withdrawal) and **Tier II** (liquid) accounts.
- ➔ **NPS Vatsalya** lets parents or guardians open pension accounts for **minors**, until they attain majority.
- ➔ The **Atal Pension Yojana (APY)** is a contributory scheme for **low-income subscribers**, enrolled through banks and post offices.

Non-Contributory Framework

- ➔ The **National Social Assistance Programme (NSAP)** provides tax-funded assistance to vulnerable elderly with no formal income; **States are encouraged to provide a matching top-up**.

CLIMATE TIPPING POINTS

The Bonn Climate Change Conference, held in Germany, brought climate tipping points to the forefront of global climate discussions.

About

- Climate tipping points are **critical thresholds** in the Earth's climate system beyond which a small change in temperature or environmental conditions can trigger **abrupt, irreversible, and self-sustaining changes** in the climate.
- Once crossed, these changes continue even if greenhouse gas emissions are reduced.
- They can cause cascading impacts on ecosystems, weather patterns, sea levels, and human societies.
- It operates through **positive feedback loops**, where one change reinforces another.

Characteristics

- Threshold Effect:** A small additional warming triggers disproportionate change.
- Irreversibility:** Recovery may take centuries or millennia, if possible, at all.
- Self-Reinforcing Feedback:** Positive feedback loops accelerate further warming.
- Cascading Impacts:** One tipping point can trigger others (domino effect).

Implications for India

- Accelerated Himalayan glacier melting**, affecting major river systems.
- Erratic monsoons**, impacting agriculture and water security.
- Increased frequency of heatwaves**, droughts, floods, and cyclones.
- Sea-level rise** threatening coastal cities such as Mumbai, Chennai, and Kolkata.
- Mangrove degradation**, including the Sundarbans.
- Declining agricultural productivity** and increased food insecurity.

Global Initiatives

- Paris Agreement (2015):** Limit global warming to well below 2°C and pursue efforts to limit it to 1.5°C.
- UNFCCC COP Conferences:** Promote international climate action.
- IPCC Assessment Reports:** Assess climate science and evaluate tipping point risks.
- Global Methane Pledge:** Reduce methane emissions to slow warming.

India's Initiatives

- National Action Plan on Climate Change (NAPCC)
- Nationally Determined Contributions (NDCs)
- Panchamrit Commitments
- National Green Hydrogen Mission
- Mission LiFE (Lifestyle for Environment)
- International Solar Alliance (ISA)
- Coalition for Disaster Resilient Infrastructure (CDRI)

Aspect	Positive Feedback	Negative Feedback
Meaning	Amplifies the initial change, making the climate change more intense.	Counteracts the initial change, helping to stabilize the climate system.
Effect	Accelerates warming or cooling.	Reduces the magnitude of climate change.
Role in Climate	Increases the likelihood of crossing climate tipping points.	Enhances the resilience and stability of the climate system.
Nature	Self-reinforcing cycle.	Self-regulating cycle.
Impact	Can lead to irreversible changes.	Helps restore equilibrium.

Positive Feedback

- Ice-Albedo Feedback:** Melting ice exposes darker land or ocean, which absorbs more solar radiation, leading to further warming and more ice melt.
- Permafrost Feedback:** Thawing permafrost releases methane (CH₄) and carbon dioxide (CO₂), intensifying global warming.
- Forest Dieback:** Rising temperatures and drought increase forest fires and tree mortality, reducing carbon absorption and releasing more CO₂.

Negative Feedback

- Plant Growth (CO₂ Fertilization):** Higher CO₂ levels can stimulate plant growth, allowing vegetation to absorb more carbon dioxide from the atmosphere.
- Cloud Formation:** Increased evaporation may increase cloud cover, which can reflect more sunlight (higher albedo) and cool the Earth's surface (though cloud effects vary depending on cloud type).
- Chemical Weathering of Rocks:** Higher temperatures and rainfall accelerate weathering, which removes CO₂ from the atmosphere over long timescales.

Major Potential Climate Tipping Points

Climate System	Possible Tipping Point	Impact
Greenland Ice Sheet	Rapid irreversible melting	Significant sea-level rise
West Antarctic Ice Sheet	Ice sheet collapse	Multi-metre sea-level rise over centuries
Arctic Sea Ice	Summer sea ice disappearance	Increased global warming due to lower albedo
Permafrost	Large-scale thaw	Release of methane and carbon dioxide
Amazon Rainforest	Forest dieback	Loss of biodiversity and reduced carbon sink
Atlantic Meridional Overturning Circulation (AMOC)	Weakening or collapse	Disrupted rainfall and temperature patterns across Europe, Africa, and Asia
Coral Reefs	Mass bleaching	Collapse of marine biodiversity and fisheries

TRANSCASPIAN MARINKA

A community in East Kameng district of Arunachal Pradesh has initiated a conservation campaign aimed at safeguarding the ray-finned fish *Schizothorax pelzami*, commonly known as the Transcaspiian marinka.

Transcaspiian marinka (*Schizothorax Pelzami*)

- **Type:** Freshwater ray-finned fish (*Cyprinidae*)
- **Genus:** *Schizothorax* (Snow Trout).
- **Habitat:** Cold Himalayan rivers and streams.
- **Found in:** Himalayan River systems, including Arunachal Pradesh.
- **Importance:** Indicator of healthy freshwater ecosystems.
- **IUCN Red List Status:** Least Concern
- **Distribution:** It is found in rivers of Turkmenistan, Afghanistan, and northeastern Iran, thriving in temperate benthopelagic environments.

Characteristics

- Belongs to the Snow Trout (*Schizothorax*) group.
- Adapted to cold, oxygen-rich mountain streams.
- Possesses a streamlined body suitable for swift river currents.
- Plays an important role in maintaining the ecological balance of freshwater ecosystems.

Ecological Importance

- Acts as an **indicator species** for healthy river ecosystems.
- Contributes to nutrient cycling in freshwater habitats.
- Serves as a food source for larger aquatic animals and local communities.
- Helps maintain biodiversity in Himalayan River systems.

Threats

- **Habitat Degradation:** Hydropower projects, dams, pollution, sand mining, and climate change.
- **Overfishing:** Unsustainable harvesting reduces fish populations.
- **Invasive Species:** Compete with native fish for habitat and food.

Latest Conservation in India

- **Community Conservation Initiative:** The Sangno clan of East Kameng district, Arunachal Pradesh, has launched a community-led conservation programme to protect the Transcaspiian marinka (*Schizothorax pelzami*), locally known as Ngarsing.
- **Restocking the Species:** As part of the initiative, 52 fingerlings of the species were released into a mahseer-free stretch of the Richaso stream to support its survival and population recovery.

21ST DESIGNATED REPOSITORY

The Ministry has notified Mizoram's Natural History Museum as India's 21st Designated Repository under the provisions of the Biological Diversity Act, 2002.

About Designated Repositories

- **Statutory Basis:** Section 39, Biological Diversity Act, 2002.
- **Notified by:** Central Government.
- **Nodal Authority:** National Biodiversity Authority (NBA).
- **Designated Repositories (DRs)** are institutions notified by the **Central Government** under **Section 39 of the Biological Diversity Act, 2002** (retained under the Biological Diversity (Amendment) Act, 2023).
- They are authorized to **receive, preserve, maintain, and catalogue biological resources** and their associated information.
- **Designated Repositories** are a key component of India's biodiversity governance framework, responsible for preserving authenticated biological specimens for scientific research, documentation, and conservation.
- **Any person discovering a new taxon** is required to notify the designated repository and deposit the corresponding **voucher specimens**, which are maintained in safe custody as permanent scientific reference material.

Functions

- **Specimen Preservation:** Conserves biological specimens for long-term preservation.

- ➔ **Scientific Documentation:** Maintains authenticated records and biodiversity databases.
- ➔ **Research & Conservation:** Supports research, education, and biodiversity conservation.

Significance

- ➔ The designation strengthens **ex situ conservation efforts** by contributing to **National Biodiversity Target 4** under India's **National Biodiversity Strategy and Action Plan (NBSAP) 2024–2030**.
- ➔ It is also aligned with **Target 4 of the Kunming–Montreal Global Biodiversity Framework (KMGBF)**, which focuses on conserving threatened species, preventing extinctions, and maintaining genetic diversity.

Mizoram's Natural History Museum

- ➔ **Established in 2022** under the aegis of Mizoram University, the Natural History Museum is located within the **Indo-Burma Biodiversity Hotspot** and has specialised taxonomic expertise.
- ➔ **Features:** Situated within the **Indo-Burma Biodiversity Hotspot**, one of the world's richest biodiversity regions. Serves as a repository for **authenticated biological specimens** from Mizoram and the North-East.
- ➔ **The museum will maintain authenticated specimens of:**
 - ♦ **Flora:** Pteridophytes (ferns and allies), macrofungi.
 - ♦ **Fauna:** Reptiles, amphibians, fishes, moths, beetles, and butterflies.
- ➔ The museum specializes in pteridophytes, macrofungi, moths, beetles, and other lesser-studied taxa, addressing critical gaps in India's network of Designated Repositories.
- ➔ It enhances the scientific documentation, conservation, and long-term preservation of the rich biodiversity of the North-East and the Indo-Burma Biodiversity Hotspot.

ZEBRA FINCHES COMMUNICATION

Dr. Julie Elie, an American researcher at the University of California, has received the **Coller Dolittle Challenge Award** for advancing the understanding of zebra finch communication.

About Zebra Finches

- ➔ **Scientific Name:** *Taeniopygia guttata*
- ➔ **Family:** Estrildidae (Waxbills and Grass Finches)
- ➔ **Known For:** Vocal learning and complex social communication
- ➔ **Conservation Status:** IUCN – Least Concern (LC)



Distribution

- ➔ Native to Australia, especially its arid and semi-arid regions.

- ➔ Also found in Indonesia (Lesser Sunda Islands).
- ➔ Widely bred in captivity across the world as a pet and laboratory bird.

Habitat

- ➔ Grasslands, savannas, shrublands, open woodlands, and agricultural landscapes.
- ➔ Usually found near water sources.

Key Characteristics

- ➔ Small bird measuring 10–12 cm in length.
- ➔ Highly social, living in flocks.
- ➔ Females are comparatively duller and lack the bright cheek patches.
- ➔ Males have distinctive orange cheek patches, black-and-white barred throat and breast, and chestnut flanks with white spots

Behaviour

- ➔ Feeds mainly on grass seeds, along with insects during the breeding season.
- ➔ Forms lifelong pair bonds.
- ➔ Builds dome-shaped nests using grasses.
- ➔ Known for its complex vocal communication, especially male courtship songs.

Scientific Importance

- ➔ **Widely Studied Species:** One of the best-studied birds in neuroscience and behavioural biology.
- ➔ **Model Organism:** Used to study vocal learning, brain development, social behaviour, genetics, and animal cognition.

Note

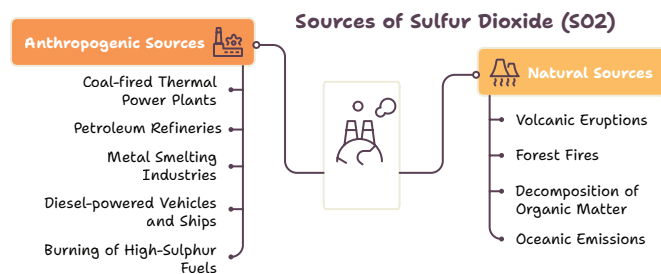
- ➔ The Zebra Finch is not native to India.
- ➔ Not Protected under the Wildlife (Protection) Act, 1972: Since it is an exotic species, it is not included in the schedules of India's Wildlife (Protection) Act, 1972.

SULPHUR DIOXIDE (SO₂)

The study highlights that nearly four-fifths (81%) of sulphur dioxide (SO₂) emissions around Delhi-NCR are generated by coal power plants that are exempted from installing emission control systems.

About SO₂

- ➔ Sulphur dioxide (SO₂) is a **colourless, toxic gas** with a sharp, pungent odour. It is a **major air pollutant** and a precursor to **acid rain** and **secondary particulate matter (PM_{2.5})**.
- ➔ It is classified as a **criteria air pollutant** monitored under India's National Ambient Air Quality Standards (NAAQS).
- ➔ It forms whenever fuel containing sulphur is burnt, and it's one of the **oldest air pollutants** tracked by regulators, dating back to the days of London's coal-smoke smogs.



Sources of SO₂

➤ Environmental Impact:

- ♦ **Acid Rain:** Forms H₂SO₄, causing acid rain.
- ♦ **Air Quality:** Increases PM_{2.5} and reduces visibility.
- ♦ **Ecosystem Damage:** Harms soil, water, crops, forests, aquatic life, and infrastructure.

➤ Health Impacts:

- ♦ **Respiratory Irritation:** Affects the eyes, nose, throat, and lungs.
- ♦ **Asthma & Bronchitis:** Triggers asthma and worsens bronchitis.
- ♦ **Reduced Lung Function:** Lowers lung capacity, especially in children and the elderly.
- ♦ **Chronic Health Risks:** Increases cardiovascular and respiratory diseases.

➤ Control Measures:

- ♦ **Flue Gas Desulphurisation (FGD) System:** Removes SO₂ emissions using limestone slurry (gypsum by-product).
- ♦ **Cleaner Fuels:** Promotes low-sulphur coal and cleaner fuels.
- ♦ **Clean Energy Transition:** Expands renewable energy and natural gas use.
- ♦ **Stricter Regulations:** Enforces emission norms and Continuous Emission Monitoring Systems (CEMS).
- ♦ **Energy Efficiency:** Adopts cleaner and energy-efficient industrial technologies.

➤ Indian Initiatives:

- ♦ **SO₂ Emission Norms (2015):** Mandated FGD installation in coal-based thermal power plants.
- ♦ **National Clean Air Programme (NCAP):** Targets air pollution reduction in major cities.
- ♦ **Continuous Emission Monitoring Systems (CEMS):** Ensures real-time emission monitoring by industries.
- ♦ **Commission for Air Quality Management (CAQM):** Coordinates air pollution control in the Delhi–NCR region.

➤ International Initiatives:

- ♦ **Convention on Long-range Transboundary Air Pollution (CLRTAP) – UNECE framework** to reduce transboundary air pollutants, including SO₂.
- ♦ **Paris Agreement:** Encourages a shift to cleaner energy sources, indirectly reducing SO₂ emissions.

Exempted from installing Emission Control Systems

- **Exempted from installing emission control systems"** means that certain industries or power plants have been **granted permission by the government not to install pollution-control equipment** that is otherwise required under environmental regulations.
- It refers to **power plants that are temporarily or permanently relieved from the mandatory requirement to install devices that reduce harmful emissions**, such as FGD systems for controlling sulphur dioxide (SO₂).
- **Common Emission Control Systems:**
 - ♦ **Flue Gas Desulphurisation (FGD):** Removes SO₂.
 - ♦ **Electrostatic Precipitators (ESP):** Capture particulate matter.
 - ♦ **Selective Catalytic Reduction (SCR):** Reduces NO_x.
 - ♦ **Bag Filters:** Trap fine dust and particulate emissions.
- **Governments may grant exemptions based on factors:**
 - ♦ The plant is **scheduled for retirement or decommissioning**.
 - ♦ It has **limited remaining operational life**.
 - ♦ It operates **infrequently** or as a backup facility.
 - ♦ Cost-benefit considerations or delays in compliance.

EGYPTIAN VULTURE

The Egyptian Vulture has undergone a substantial population decline in India over the years.

About

- **Scientific Name:** *Neophron percnopterus* (Accipitridae)
- One of the smallest Old World vultures.
- Commonly known as the **"White Scavenger Vulture"** or **"Pharaoh's Chicken"**.
- It is a **diurnal scavenger**, feeding mainly on carrion, but also consumes small vertebrates, insects, eggs, and organic waste.
- It is among the few birds known to use tools, such as throwing stones to break ostrich eggs.

Conservation Status

- **IUCN Red List:** Endangered
- **CITES:** Appendix II
- **Wild Life (Protection) Act, 1972 (India):** Schedule I (*under the Wild Life (Protection) Act, 1972, as amended by the 2022 Act*)

Distribution

- Found across **southern Europe, North Africa, the Middle East, Central Asia, and the Indian subcontinent**.
- In India, it occurs in **plains, semi-arid regions, agricultural landscapes, villages, and rocky cliffs**.

Habitat

- It lives in open lowland and mountain areas and eats a wide variety of food including carrion, insects, organic waste, small animals, eggs and faeces.
- Open grasslands and scrublands.
- Semi-desert regions.
- Rocky cliffs for nesting.
- Human settlements and agricultural landscapes.

Ecological Importance

- **Scavenging & Disease Control:** Rapidly disposes of carcasses, preventing diseases such as anthrax and rabies.
- **Ecosystem Services:** Maintains ecological balance through nutrient recycling and reduces the need for carcass disposal.

Major Threats

- **Veterinary NSAIDs:** The use of **veterinary non-steroidal anti-inflammatory drugs (NSAIDs)**, particularly **diclofenac**, has been a major cause of the steep decline in vulture populations, as vultures die after feeding on carcasses of treated livestock.
- **Poisoning & Food Scarcity:** Contaminated carcasses, diclofenac, pesticides, and reduced carcass availability.
- **Habitat & Infrastructure Threats:** Habitat degradation, breeding disturbance, and power line collisions/electrocution.

Conservation Measures in India

- **Ban on veterinary diclofenac** and promotion of safer alternatives such as **meloxicam**.
- Establishment of **Vulture Safe Zones (VSZs)**.
- Vulture Conservation Breeding Centres (VCBCs).
- **National Action Plan for Vulture Conservation (2020–2025)** to address poisoning, habitat protection, and population recovery.
- Monitoring of nesting sites and public awareness initiatives

Current Status in South India

- India is home to the **resident subspecies *Neophron percnopterus ginginianus***, while migratory populations from **Africa and the Middle East** winter in the country.
- The resident population in **Karnataka and Tamil Nadu** has declined drastically, with **fewer than 150 individuals** remaining across both states.

HASDEO-ARAND FORESTS

MoEFCC has cleared coal mining in the Kente Extension Coal Block of Hasdeo-Arand (Chhattisgarh), raising concerns over forests, biodiversity, and tribal rights.

About

- Located in the **northern part of Chhattisgarh**, covering parts of **Surguja, Surajpur, and Korba** districts.

- One of the **largest contiguous stretches of dense forests** in central India. It is named after the **Hasdeo River**, a major tributary of the **Mahanadi River**.
- Spread over approximately **1,70,000 hectares** of forest landscape.
- Predominantly consists of **tropical moist deciduous forests**, with **Sal (*Shorea robusta*)** as the dominant species.
- They are considered the **Green Lungs of Central India**.
- They are home to around 640 plant species and nine schedule-1 wildlife species, which are accorded highest legal protection.

Ecological Significance

- **Ecological Importance:** Known as the "Lungs of Chhattisgarh", it is a key elephant corridor and a biodiversity hotspot.
- **Environmental Role:** Supports climate regulation, groundwater recharge, soil conservation, and watershed protection.

Tribal Significance

- Home to tribal communities such as: **Gond; Oraon; Baiga**
- **Livelihood Dependence:** Communities rely on forests for MFP, agriculture, grazing, and cultural practices.
- **Legal Protection:** Rights are safeguarded under the Forest Rights Act, 2006 (FRA) and PESA Act, 1996.

Major Environmental Concerns

- **Ecological Impact:** Causes deforestation, habitat fragmentation, biodiversity loss, and increased human–elephant conflict.
- **Social & Climate Impact:** Displaces tribal communities, affects livelihoods, and increases greenhouse gas emissions.

Geographical Distribution of Coal in India

- **Gondwana Coal:** Accounts for nearly **98% of India's total coal reserves** and was formed during the **Gondwana geological period**.
- **Major Coal-Bearing States:** Chhattisgarh, Jharkhand, Odisha, Madhya Pradesh, Telangana, Andhra Pradesh, Maharashtra, and West Bengal.

Major Gondwana Coalfields:

- **Damodar Valley Coalfields (Jharkhand & West Bengal):** Major mining centres include Jharia, Bokaro, Dhanbad, Raniganj, Durgapur, and Daltonganj.
- **Son Valley Coalfields:** Located in the Son River basin; Singrauli is the principal mining centre.
- **Mahanadi Valley Coalfields:** Spread across the Mahanadi basin (including Hasdeo and Ib rivers); major centres are Korba, Jhilmili, and Talcher.
- **Godavari & Wardha Valley Coalfields:** Located in the Godavari and Wardha basins; key mining areas include Singareni, Kothagudem (Telangana), and Kamptee Valley (Maharashtra).

KUTKI CULTIVATION

Farmers in Himachal Pradesh's Mandi district have pioneered sustainable Kutki cultivation, conserving the endangered Himalayan herb while reducing pressure on wild populations and enhancing rural mountain livelihoods through medicinal plant-based agriculture.

About Kutki

- ➔ **Scientific name:** *Picrorhiza kurroa*
- ➔ **Family:** Plantaginaceae
- ➔ **Common names:** Kutki, Katuki
- ➔ **Habitat:** High-altitude Himalayan regions (around 2,700-4,500 meters) elevation
- ➔ It is reported to be an ingredient in **more than 2,000 herbal formulations**
- ➔ **Distribution:** Found in India, Nepal, Bhutan and parts of Tibet.

Conservation Status of Kutki

- ➔ **IUCN Status:** Kutki (*Picrorhiza kurroa*) is classified as an **Endangered species** on the IUCN Red List due to habitat loss and overexploitation.
- ➔ **CITES Protection:** It is listed under **Appendix II of CITES** to regulate international trade.
 - ♦ Trade is permitted only under controlled conditions with mandatory export permits to ensure sustainable utilization and conservation.

Benefits

- ➔ **Medicinal Importance of Kutki:**
 - ♦ **Traditional & Therapeutic Uses:** Widely used in Ayurveda and Sowa-Rigpa for liver-related ailments, digestive disorders, and fever due to its medicinal properties.
 - ♦ **Bioactive Compounds:** Contains key active constituents such as Picroside I and Picroside II, which contribute to its hepatoprotective and therapeutic effects.
- ➔ **Biodiversity Conservation:** Reduces harvesting pressure on wild Kutki populations.
- ➔ **Farmer Income Enhancement:** Provides high-value crop opportunities in difficult Himalayan terrain.
- ➔ **Promotion of Traditional Medicine:** Ensures a stable supply chain for herbal industries.
- ➔ **Climate-resilient Agriculture:** Encourages cultivation of native Himalayan medicinal plants.

Challenges in Kutki Cultivation

- ➔ **Production & Knowledge Constraints:** Long cultivation cycle, limited availability of quality planting material, and inadequate technical awareness among farmers hinder large-scale adoption.
- ➔ **Market & Value Chain Gaps:** Lack of organised markets, proper certification, and traceability systems restrict commercialization and sustainable growth of medicinal plant cultivation.

NEW CONSERVATION PROJECTS

The National CAMPA Governing Body has sanctioned four new wildlife conservation initiatives focusing on the river dolphin, snow leopard, wild water buffalo, and Indian rhinoceros, along with continued funding for the conservation of the Sangai deer in Manipur.

1. WILD WATER BUFFALO (BUBALUS ARNEE)

- ➔ **Scientific Name:** *Bubalus arnee* (Bovidae)
- ➔ **Common Name:** Wild Water Buffalo or Asiatic Wild Buffalo
- ➔ **Diet:** Herbivorous; feeds mainly on grasses, aquatic plants, sedges, reeds, and other vegetation.
- ➔ **Lifespan:** Around **18–25 years** in the wild.
- ➔ **Activity Pattern:** Mostly diurnal and highly dependent on water bodies for wallowing and thermoregulation.

2. INDIAN RHINOCEROS

- ➔ **Scientific Name:** *Rhinoceros unicornis*
- ➔ **Family:** Rhinocerotidae
- ➔ **Common Name:** Greater One-Horned Rhinoceros or Indian Rhinoceros
- ➔ **Diet:** Herbivorous; feeds on grasses, aquatic plants, leaves, fruits, shrubs, and crops.
- ➔ **Lifespan:** Around 35–40 years in the wild.
- ➔ **Activity Pattern:** Mostly solitary, although small groups may gather around water bodies; primarily active during the early morning, late afternoon, and night.

3. SNOW LEOPARDS (PANTHERA UNCIA)

- ➔ Population estimation under **Snow Leopard Population Assessment in India (SPAI)**.
- ➔ Conservation initiatives under **Project Snow Leopard**.
- ➔ Inclusion in **CAMPA-funded conservation projects**.
- ➔ Climate change and habitat conservation issues in the Himalayan region

Key Features

- ➔ **Scientific Name:** *Panthera uncia* (Felidae)
- ➔ **Common Name:** Ghost of the Mountains
- ➔ **Diet:** Primarily preys on **blue sheep (bharal), ibex, Himalayan tahr, marmots**, and occasionally livestock.
- ➔ **Lifespan:** Approximately **15–18 years** in the wild.
- ➔ **Activity Pattern:** Mostly **solitary** and **crepuscular**, being most active during **dawn and dusk**.
- ➔ They inhabit the high-altitude mountain ranges of **12 Asian countries, including India, Afghanistan, Bhutan, China, Kazakhstan, Kyrgyzstan, Mongolia, Nepal, Pakistan, Russia, Tajikistan, and Uzbekistan**.

4. RIVER DOLPHINS

River dolphins are freshwater cetaceans adapted to life in rivers. India is home to **two species** of river dolphins.

➤ Ganges River Dolphin:

- ♦ **Scientific Name:** *Platanista gangetica*
- ♦ **Common Name:** Ganges River Dolphin (Susu)
- ♦ **Distribution:** Ganga–Brahmaputra–Meghna and Karnaphuli–Sangu river systems in **India, Nepal, and Bangladesh.**

➤ Indus River Dolphin:

- ♦ **Scientific Name:** *Platanista minor*
- ♦ **Common Name:** Indus River Dolphin
- ♦ **Distribution:** Primarily the **Indus River system in Pakistan**, with a small population in the **Beas River (Punjab, India).**

Features

- **Family:** Platanistidae
- **Habitat:** Freshwater rivers, tributaries, deep pools, and meandering channels.
- **Diet:** Fish, prawns, crustaceans, molluscs, and small aquatic animals.

➤ **Lifespan:** Approximately **28–35 years.**

➤ **Activity Pattern:** Mostly solitary or found in small groups.

Unique Adaptations

- Nearly **blind**; rely on **echolocation** to navigate and hunt.
- Long, slender snout with numerous sharp teeth.
- Flexible neck, unlike most marine dolphins.
- Surface every **30–120 seconds** to breathe.
- Indicator species of healthy freshwater ecosystems.

5. BROW-ANTLERED DEER

➤ **Sangai** (*Rucervus eldii eldii*), also known as the **Manipur Brow-antlered Deer**, is an endemic deer subspecies found only in **Manipur.**

- It is exclusively found in the **Keibul Lamjao National Park**, the world's only floating national park.
- The Sangai is the State Animal of Manipur.
- It is popularly known as the **"Dancing Deer"** because of its graceful and delicate gait while walking on the floating **phumdis** (floating vegetation mats) of its marshy habitat.

Conservation Projects for Threatened Species

Parameter	Snow Leopard	Wild Water Buffalo	Indian Rhinoceros	River Dolphins
Scientific Name	<i>Panthera uncia</i>	<i>Bubalus arnee</i>	<i>Rhinoceros unicornis</i>	<i>Platanista gangetica</i> / <i>P. minor</i>
Habitat	Alpine & sub-alpine Himalayas	Grasslands, wetlands & marshes	Floodplains & tall grasslands	Freshwater rivers
Ecological Role	Apex & umbrella species	Keystone grazer	Mega-herbivore & flagship species	Apex predator & river health indicator
Major Threats	Habitat loss, climate change, poaching	Habitat loss, hybridisation, disease	Poaching, habitat loss, floods	Pollution, dams, fishing nets
Key Conservation Project	Project Snow Leopard (2009)	CAMPA Conservation Project	Project Rhino / IRV 2020	Project Dolphin (2020)
Other Initiatives	SPA, SECURE Himalaya, GSLEP	IDWH, Species Recovery Programme	National Rhino Conservation Strategy (2019)	NMCG, CAMPA Dolphin Project
Major Protected Areas	Hemis NP, Kibber WLS, Pin Valley NP	Kaziranga NP, Manas NP, Udanti–Sitanadi TR	Kaziranga NP, Pobitora WLS, Manas NP	Vikramshila Dolphin Sanctuary, National Chambal Sanctuary, Beas Conservation Reserve
IUCN Status	Vulnerable	Endangered	Vulnerable	Endangered
CITES	Appendix I	Appendix III	Appendix I	Appendix I
Wildlife (Protection) Act, 1972	Schedule I	Schedule I	Schedule I	Schedule I

BLACK SEA

India strongly condemned the attack on the commercial cargo vessel **MV OMORFI** in the Black Sea, reaffirming the importance of maritime security and the protection of civilian shipping.

About

- The Black Sea is a semi-enclosed marginal sea located between Eastern Europe and Western Asia.
- It is the **largest inland body of water** and is also the **largest meromictic basin**, which means the **movement of water between the lower and upper layers of the Sea is rare**.
- The Black Sea deeper water is devoid of oxygen and rich in hydrogen sulfide, which makes it **unsuitable for most marine life**.
 - ◆ The Black Sea does have marine life in its upper, oxygen-rich layers.
- It is connected to the Mediterranean Sea through the Turkish Straits System:
 - ◆ Bosphorus Strait → Sea of Marmara → Dardanelles Strait → Aegean Sea → Mediterranean Sea.
- It is connected to the Sea of Azov through the Kerch Strait.



- **Bordering Countries:** The Black Sea is bordered by (GTB-RRU) Georgia, Türkiye, Bulgaria, Russia, Romania and Ukraine.
- **Major Rivers:** Major rivers draining into the Black Sea include the **Danube, Dnieper, Dniester, Don (via the Sea of Azov), and Kuban**, making it one of Europe's most important drainage basins.

Significance

- Serves as a vital maritime corridor linking **Europe, the Caucasus, and West Asia**, facilitating global trade in **grain, oil, and natural gas**.
 - ◆ The Black Sea is also important for fishing, energy resources (including natural gas and oil), and shipping.

- Holds immense geopolitical and military importance, with the **Montreux Convention (1936)** regulating the passage of warships through the **Turkish Straits**, influencing regional naval security.

Important Ports around the Black Sea

- **Port of Constanța (Romania):** Largest port on the Black Sea and a major hub for grain exports, container traffic, and energy trade.
- **Port of Novorossiysk (Russia):** Russia's largest Black Sea port, serving as a key center for crude oil exports and naval operations.
- **Port of Odesa (Ukraine):** Major commercial port and an important gateway for grain exports.
- **Port of Samsun (Türkiye):** Significant trade and logistics hub on Türkiye's Black Sea coast.
- **Port of Varna (Bulgaria):** Bulgaria's principal Black Sea port for cargo handling and passenger services.
- **Port of Poti (Georgia):** Strategic gateway linking the Caucasus and Central Asia with European markets.

MV OMORFI

- **MV OMORFI** is a **merchant/commercial cargo vessel** that gained attention after being **struck by a Russian drone while transiting the Black Sea**.
- The vessel was carrying **grain** from a Ukrainian port, highlighting the security risks to commercial shipping amid the Russia-Ukraine conflict.

MANASBAL LAKE

Manasbal Lake in Jammu & Kashmir is witnessing ecological recovery, marked by the resurgence of migratory birds, indicating improvement in its wetland health and biodiversity.

About

- Manasbal Lake is a freshwater lake located in Ganderbal district of Jammu & Kashmir, situated in the Jhelum Valley around 30 km north of Srinagar.
- It is among the deepest freshwater lakes in India, with a depth of about 13 metres, and forms part of the Jhelum River basin.
- The lake derives its name from **Manasarovar Lake of Tibet**.
- **Nearby important lake:** Wular Lake (one of Asia's largest freshwater lakes)
- **Ecological Significance:** Surrounded by the Himalayan landscape, Manasbal Lake is an important **wetland ecosystem**

of the **Kashmir Valley**, renowned for its abundant lotus growth and ecological importance.

- **The Mughal garden**, called the **Jaroka** built by Nur Jahan overlooks the lake.
- Manasbal Lake provides a vital habitat for over 46 bird species belonging to 23 families, including both resident and migratory birds.
- Important bird species found here include Mallard, White-headed Duck, Eurasian Hoopoe, Lesser Pied Kingfisher, Golden Eagle, Grey-backed Shrike, and Tickell's Thrush.
- **Ecological challenges:** Eutrophication, pollution, Encroachment, and Excessive weed growth, threatening its ecological balance.
- Manasbal Lake is a major tourist attraction known for its scenic beauty and lotus blooms, while supporting local livelihoods through fisheries, tourism, and boating activities.
- Manasbal Lake is classified as a warm monomictic lake, meaning it does not freeze and undergoes complete water circulation once a year for a short period while remaining thermally stratified during most of the year.

FALKLAND ISLANDS

Argentina's post-match celebration sparked controversy after a banner claimed Falkland Islands as Argentine territory, highlighting the dispute over the Overseas Territory in South Atlantic, comprising East and West Falkland islands.

About

- The Falkland Islands are a group of islands located in the South Atlantic Ocean, about 480 km east of Patagonia (Argentina).
- **They consist of two main islands:**
 - ◆ East Falkland
 - ◆ West Falkland
- The capital and largest settlement is **Stanley**.
- **Climate:** Cool oceanic climate with strong winds.
- **Vegetation:** Dominated by grasslands and peatlands.
- **Biodiversity:** Important habitat for seabirds, penguins, seals, and marine species.
- The economy of the Falkland Islands is primarily based on fishing (especially squid), sheep farming and wool production, tourism, and potential offshore oil and gas exploration.



Political Status

- The Falkland Islands are a British Overseas Territory.
- The United Kingdom administers the islands, while Argentina claims sovereignty over them and refers to them as Islas Malvinas.
- The sovereignty dispute remains a major issue in UK–Argentina relations

Islands Sovereignty Dispute History

- The Falkland Islands (Islas Malvinas in Argentina) remain a long-standing sovereignty dispute between Argentina and the United Kingdom.
- Britain reasserted control over the islands in 1833, while Argentina claims sovereignty based on inheritance from Spain after independence in 1816.
- **Falklands War (1982):**
 - ◆ A military conflict between the United Kingdom and Argentina over control of the Falkland Islands:
 - ◆ The war lasted 74 days and resulted in 649 Argentine and 255 British casualties.
 - ◆ The conflict ended with a British victory, and the UK retained control over the Falkland Islands.
- In a 2013 referendum, most islanders voted to remain a British Overseas Territory, a decision rejected by Argentina.

Importance

- **Geopolitical Location:** Located in the South Atlantic, providing strategic influence over maritime routes.
- **Maritime Resources:** Surrounding waters are rich in **fisheries resources** and have potential **oil and gas reserves**.
- **Military Importance:** The UK maintains a military presence on the islands.

INDIRA POINT

The Directorate of Lighthouses and Lightships at Sri Vijaya Puram (Port Blair) has approached the Andaman and Nicobar Coastal Zone Management Authority and the Environment Ministry seeking approval for protection and development work at Indira Point.

About

- Indira Point is the southernmost point of India, located on the Great Nicobar Island in the Andaman and Nicobar Islands.
- It lies in the Nicobar district of the Union Territory of Andaman and Nicobar Islands.
 - ◆ **south of Galathea Bay**, where the proposed Great Nicobar mega infrastructure project is being developed.
- It is named after former Prime Minister **Indira Gandhi**.
- The Indira Point Lighthouse, established in 1972 on 11.5 hectares of land, is a 35-metre-tall cast iron structure that serves as a crucial navigational aid for ships operating near the Malacca Strait region.

Geographical Significance of Indira Point

- **Southernmost Point of India:** Indira Point marks the southern extremity of Indian territory and is located near the equator, approximately 40 km north of Indonesia's Sumatra Island.
- **Strategic Maritime Location:** Its strategic location near major international sea routes strengthens India's maritime security, enhances surveillance in the Indian Ocean region, and supports the protection of island territories.
- **Navigation and Shipping Support:** The Indira Point Lighthouse plays a vital role in guiding vessels through the strategically significant waters of the Bay of Bengal and the Andaman Sea.

Impact of 2004 Indian Ocean Tsunami

- The 2004 Indian Ocean earthquake and tsunami caused severe damage to Indira Point.
- **Major impacts included:**
 - ♦ Submergence of coastal areas.
 - ♦ Damage to lighthouse infrastructure.
 - ♦ Land subsidence due to tectonic changes.
- The event highlighted the vulnerability of low-lying coastal regions to climate and geological hazards.

Indira Point and Coastal Zone Management

- The Directorate of Lighthouses and Lightships has approached the Andaman and Nicobar Coastal Zone Management Authority (ANCZMA) and the Ministry of Environment, Forest and Climate Change (MoEFCC) for approval of protection and development works at Indira Point.
- **The proposals aim to strengthen:**
 - ♦ Coastal protection infrastructure.
 - ♦ Lighthouse-related facilities.
 - ♦ Maritime safety.

Need for Environmental Clearance under Island Coastal Regulation Zone (ICRZ)

- The proposed development at Indira Point requires environmental clearance as the project area falls under ecologically sensitive Island Coastal Regulation Zone (ICRZ) categories.

Restrictions under ICRZ-IA

- ICRZ-IA areas have stringent protection norms and prohibit most developmental activities.
- **Limited exceptions are allowed for:**
 - ♦ Eco-tourism activities.
 - ♦ Roads, including elevated roads constructed on stilts.
 - ♦ Defence, strategic, or public utility projects in exceptional cases, subject to detailed environmental impact assessment.

Permitted Activities under ICRZ-IV

- ICRZ-IV zones allow certain regulated activities related to coastal management, including:
 - ♦ Land reclamation.
 - ♦ Construction of bunds.
 - ♦ Erosion control and coastal protection measures.



PAIZHEN FAULT

Chinese geologists have raised concerns over the stability of the proposed Yarlung Tsangpo Hydropower Project in Tibet, as the active Paizhen Fault lies beneath the project area along the Brahmaputra's upstream stretch.

About

- Paizhen Fault is part of the active tectonic fault network of the eastern Himalayas, formed due to the ongoing collision between the Indian and Eurasian plates. It lies within the reservoir area of the Yarlung Tsangpo downstream hydropower project, raising concerns over seismic risks.
- **Geological activity:** Studies indicate that the fault has remained active since the Pleistocene epoch and shows evidence of movement during the Holocene period.
- Geological dating of ancient lake sediments indicates that the fault remained tectonically active until around 9,500 years ago, highlighting its seismic significance.

Yarlung Zangbo

- It becomes Siang as it flows into India's Arunachal Pradesh, after egressing the autonomous region of Tibet.
- It flows further southwards through Assam as the Brahmaputra and enters Bangladesh as Jamuna river.



INTERNAL SECURITY

MHA CLASSIFIES 23 INDIVIDUALS AS TERRORISTS UNDER UAPA

The Ministry of Home Affairs (MHA) has officially added 23 individuals to the "terrorist" list under the Unlawful Activities (Prevention) Act (UAPA).

About the UAPA

Origin and Core Function

- **Primary Anti-Terror Law:** Enacted in 1967, it serves as India's main legal framework against terrorism and unlawful associations.
- **Strict Legal Measures:** The law allows law enforcement to detain accused individuals for up to 180 days without a formal chargesheet under specific circumstances.

The 2019 Individual Designation Power

- **Section 35 Amendment:** A major amendment in 2019 introduced Section 35 to the UAPA.
- **Targeting Individuals:** Previously, the government could only ban entire organizations. This amendment allows the Central Government to name specific individuals in the Fourth Schedule of the Act if they are suspected of terror links.

National Investigation Agency (NIA)

Mandate and Operations

- **Establishment:** Formed under the NIA Act of 2008 following the 26/11 Mumbai terror attacks.
- **Role:** It acts as India's specialized, central counter-terrorism law enforcement agency, headquartered in New Delhi.

Expanded Powers (2019 Amendment)

- **Global Jurisdiction:** The agency can now investigate terror offenses committed outside India if they affect Indian citizens or national interests.
- **Broader Scope:** Its investigative mandate includes modern threats such as cyber-terrorism, human trafficking, and offenses under the Arms and Explosive Substances Acts.

Judicial Infrastructure

- **Specialized Courts:** A network of 52 NIA Special Courts manages these cases across the country.
- **Exclusive Tribunals:** Three of these courts are located in Mumbai, Jammu, and Ranchi. These are dedicated exclusively to NIA cases to ensure swift trials.

CHIEF OF THE ARMY STAFF (COAS)

General Dhiraj Seth assumed charge as the 31st Chief of the Army Staff (COAS), succeeding General Upendra Dwivedi.

About COAS

- The **Chief of the Army Staff (COAS)** is the professional head and highest-ranking serving officer of the Indian Army, holding the rank of a four-star General.
- The COAS is responsible for the Army's command, administration, training, discipline, operational preparedness, modernisation, and capability development.
- **Under Article 53(2) of the Constitution**, the President of India is the Supreme Commander of the Armed Forces.
- The COAS functions within the civilian-led defence structure under the **Ministry of Defence and the Cabinet Committee on Security (CCS)**.

Appointment

- The COAS is appointed by the **Appointments Committee of the Cabinet (ACC)** and formally appointed by the **President of India**.
- The **senior-most Army Commander** is generally considered, although seniority is not a constitutional requirement.
- The tenure is **three years or up to the age of 62 years**, whichever is earlier.

Key Functions

- Advises the Government on **land warfare, military strategy, and national security**.
- Ensures **combat readiness, border security**, and preparedness for conventional and emerging threats.
- Leads **force modernisation**, doctrine development, military training, and personnel welfare.
- Promotes **jointness** with the **Chief of Defence Staff (CDS)**, Navy, and Air Force.
- Represents the Indian Army in **defence diplomacy**, international military engagements, and **Humanitarian Assistance and Disaster Relief (HADR)** operations.

General Dhiraj Seth

- Commissioned into the **2nd Lancers (Gardner's Horse)** in **1986**, he is the first **Armoured Corps** officer to become COAS since **1997**.
- He has commanded the **Southern Command**, **South Western Command**, and **XXI Sudarshan Chakra Corps**, besides serving as the **49th Vice Chief of Army Staff**.
- He launched the **VIJAY** roadmap, focusing on **Vigilance, Innovation, Jointness, Atmanirbharta, and Yodha First**, to transform the Army into a **technology-driven and future-ready force** aligned with **Viksit Bharat 2047**.



PINAKA LONG RANGE GUIDED ROCKET

The Defence Research and Development Organisation (DRDO) successfully flight-tested the Pinaka Long Range Guided Rocket (LRGR) at the Integrated Test Range (ITR), Chandipur, Odisha, validating its minimum precision strike range of 60 km.

About

- Pinaka is an indigenous **Multi Barrel Rocket Launching System (MBRL)** named after the mythical bow of Lord Shiva.
- It was developed by DRDO to replace the **Russian-origin Grad rocket system** and was first used operationally during the **1999 Kargil War**.
- The LRGR is an **all-weather** guided rocket designed to strike **enemy positions, artillery sites, bunkers and logistics hubs** from a stand-off distance across an operational range of **60–120 km**.

Key Features

- The latest test confirmed accurate engagement across the **entire 60–120 km range**. It demonstrated the rocket's ability to **shed energy**, perform **steep in-flight manoeuvres**, and operate without any significant **dead zone**.
- The rocket was fired from an **in-service Pinaka launcher**, proving that the same launcher can deploy **multiple Pinaka variants** without requiring a separate weapon system.
- It was designed by the **Armament Research and Development Establishment** with support from the **High Energy Materials Research Laboratory**, **Defence Research and Development Laboratory**, and **Research Centre Imarat**.
- A **truck-mounted**, highly mobile launcher fires **12 rockets in about 44 seconds**, while a battery of **six launchers** can fire **72 rockets**, saturating nearly **one square kilometre**. Its **shoot-and-scoot** capability enables rapid relocation after firing to avoid enemy retaliatory strikes.

Significance

- The successful trial strengthens **India's indigenous long-range artillery capability**.
- It builds on the **Pinaka system's operational use** since the **1999 Kargil War**.
- It supports the development of **300 km and 450 km variants**.
- It also reinforces the system's **export potential**. **Armenia** became its **first foreign customer**.

INS MAHENDRAGIRI (F38)

The Indian Navy has commissioned INS Mahendragiri (F38), the sixth indigenous stealth frigate under Project 17A, at Visakhapatnam.

About

- INS Mahendragiri is a **Nilgiri-class (Project 17A)** highly automated, multi-role stealth frigate named after the Mahendragiri Hills in the Eastern Ghats.

- It was designed in-house by the **Indian Navy's Warship Design Bureau** and built by **Mazagon Dock Shipbuilders Limited (MDL)**, Mumbai, using advanced modular construction.
- It is designed to protect India's maritime boundaries and **Sea Lines of Communication (SLOCs)** across the **Indian Ocean Region (IOR)** by engaging air, surface and sub-surface threats simultaneously.

Key Features

- It is powered by a **Combined Diesel or Gas (CODOG)** propulsion system, using diesel engines for efficient long-range cruising and gas turbines for high-speed tactical operations.
- Built with over **75% indigenous content**, it reflects the Aatmanirbhar Bharat initiative through extensive use of domestic steel, components, electronics and MSMEs.
- Its stealth design reduces **Radar Cross Section (RCS)**, infrared and acoustic signatures, improving survivability against enemy detection.
- Its weapon suite includes **BrahMos supersonic cruise missiles**, **Barak-8 Long-Range Surface-to-Air Missiles**, heavy-weight torpedoes, anti-submarine rockets and a main deck gun.
- An indigenous **Combat Management System (CMS)** integrates active phased-array radar, electronic warfare suites, and hull-mounted and towed sonar for coordinated combat operations.

PROJECT 17A (NILGIRI-CLASS PROGRAMME)

THE NEXT GENERATION STEALTH FRIGATES OF THE INDIAN NAVY

OVERVIEW

- Project 17A is the Nilgiri-class follow-on programme to the Project 17 (Shivalik-class) frigates.
- It comprises seven advanced stealth frigates.
- Designed for enhanced stealth, survivability and multi-mission capabilities.




DISPLACEMENT
6,670 TONNES


LENGTH
149 METRES


TOP SPEED
28 KNOTS


ACCOMMODATION
225 PERSONNEL

BUILT BY



MAZAGON DOCK SHIPBUILDERS LIMITED (MDL), MUMBAI
4 SHIPS

BUILT BY



GARDEN REACH SHIPBUILDERS & ENGINEERS (GRSE), KOLKATA
3 SHIPS

NILGIRI-CLASS FRIGATES

 INS NILGIRI (F34)	 INS HIMGIRI (F35)	 INS UDAYGIRI (F36)	 INS DUNAGIRI (F37)	 INS MAHENDRAGIRI (F38)	 INS TARAGIRI (F41)	 INS VINDHYAGIRI (F42)
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ASTRA MISSILE

Indonesia became the first foreign customer to sign an agreement for India's Astra missile, which will arm its Su-30 fighter aircraft fleet.

About

- Astra Mk 1 is an indigenous, all-weather Beyond-Visual-Range Air-to-Air Missile (BVRAAM) developed by the Defence Research and Development Organisation (DRDO) with Bharat Dynamics Limited (BDL).
- It is designed to provide long-range stand-off air combat capability by intercepting highly agile supersonic aerial targets before they enter visual combat range.

Key Features

- The missile has an effective engagement range of 80–110 km (over 100 km), operates from sea level to 20 km altitude, and exceeds Mach 4.5 in speed.
- Its advanced guidance and navigation system ensures high-precision engagement through a three-phase guidance mechanism. It uses pre-programmed navigation after launch, receives mid-course radio updates from the launch aircraft, and finally activates an Radio Frequency (RF) seeker for autonomous target tracking, even under electronic jamming.
- A smokeless solid-fuel rocket motor leaves no visible vapour trail, reducing the chances of detection.
- The missile is operational on the Su-30 MKI and is being integrated with the Light Combat Aircraft (LCA) Tejas Mk 1A and Rafale fighter aircraft.



Variants and Significance

- Astra Mk 2 extends the range to 200 km using a dual-pulse solid rocket motor, while Astra Mk 3 (Gandiva) is under development with Solid Fuel Ducted Ramjet (SFDR) technology for a range exceeding 350 km.
- The missile strengthens India's indigenous air combat capability, supports Aatmanirbhar Bharat in defence production, and demonstrates the growing global acceptance of India's defence systems.

BUREAU OF PORT SECURITY (BoPS)

The Union Home Minister reviewed the establishment of the Bureau of Port Security (BoPS) and directed that only licensed private security guards trained by the Central Industrial Security Force (CISF) be deployed at ports.

About BoPS

- The Bureau of Port Security (BoPS) is a statutory body established under Section 13 of the Merchant Shipping Act, 2025.
- It is headed by a Director General, functions under the Ministry of Ports, Shipping and Waterways, and is modelled on the Bureau of Civil Aviation Security (BCAS).
- It will serve as the single statutory security authority for the security of ships and port facilities.

Functions

- It regulates and inspects the security of ships and port facilities.
- It ensures the timely collection, analysis and sharing of security-related information.
- A dedicated division safeguards the IT infrastructure of ports against cyber threats.
- It enforces the International Ship and Port Facility Security (ISPS) Code across all Indian ports.
- It promotes coordination among the Indian Coast Guard, Central Industrial Security Force (CISF), Indian Navy, and State Police.
- The Central Industrial Security Force (CISF) has been designated as a Recognised Security Organisation (RSO) to conduct security assessments and prepare port security plans.

Significance

- The Bureau strengthens maritime and port security, improves cyber resilience, and aligns with the objectives of Maritime India Vision 2030.

EÄRENDIL-1 MISSION

The U.S. Federal Communications Commission (FCC) has granted Reflect Orbital a limited two-year licence to launch and operate Eärendil-1, a pioneering proof-of-concept technology demonstration satellite that will test orbital sunlight reflection technology.

About

- Eärendil-1 is developed by Reflect Orbital, a California-based commercial aerospace startup.
- It is named after Eärendil, the legendary mariner who carried a shining Silmaril in J.R.R. Tolkien's *The Silmarillion*.
- The satellite is designed to function as an adjustable space mirror, testing the commercial and mechanical viability of redirecting sunlight from space.

- Its objective is to redirect **sunlight** to selected locations after sunset, extend the usable hours of **solar panels**, provide illumination during **critical operations**, **disaster relief**, **rescue**, and **humanitarian missions**, and support recovery efforts.

Key Features

- It will operate in a **non-geostationary Low Earth Orbit (LEO)** at an altitude of about **625 km** with an **88° orbital inclination**, providing near-polar coverage and access to **solar installations** across much of the globe.
- It carries a **deployable, highly specular, mirror-like thin-film reflector** that remains folded during launch and automatically **unfurls** after deployment in space.
- The **motorised reflector** can be remotely steered to different orientations to capture sunlight and precisely redirect it towards selected locations on Earth's night side.

Significance

- The technology could extend **solar power generation** after sunset, reduce dependence on **battery storage**, improve the **efficiency** and **revenues** of **solar farms**, and strengthen emergency and humanitarian response capabilities.

Concerns

- The project raises concerns over **orbital debris**, ownership of **reflected solar energy**, and **light pollution**.
- Scientists caution that large-scale orbital mirrors could brighten the **night sky**, interfere with **astronomical observations**, and threaten naturally **dark skies**.

ASW SHALLOW WATER CRAFT-MALVAN

The Indian Navy is set to commission Malvan, the second Mahe-class Anti-Submarine Warfare Shallow Water Craft (ASW-SWC), enhancing coastal anti-submarine capabilities and replacing the ageing Abhay-class corvettes.

About

- **Malvan** is the **second Mahe-class ASW-SWC**, indigenously designed and constructed by **Cochin Shipyard Limited, Kochi**.
- It is named after the historic coastal town of **Malvan** in **Maharashtra** and commemorates the erstwhile **INS Malwan**, an Indian Naval minesweeper that remained in service until **2003**.
- With over **80% indigenous content**, it marks a milestone in **indigenous warship construction** and reflects India's growing self-reliance in **warship design**, **construction**, and **systems integration** under **Aatmanirbhar Bharat**.

Key Features

- The **Mahe-class** vessels are designed to operate effectively in **coastal** and **shallow waters**, strengthening the Navy's **Anti-Submarine Warfare (ASW)** capability.

- The vessel has a **displacement of 1,100 tonnes** and is **waterjet-propelled**, powered by a **twin-shaft diesel propulsion** system generating over **6 MW** of power.
- It has a maximum speed of **25 knots**, a range of **1,800 nautical miles** at **14 knots**, and an endurance of **14 days**.
- It is equipped with **torpedoes**, **multifunctional anti-submarine rockets**, and **state-of-the-art sensors**, including **advanced radars** and **sonar systems**.
- The vessel is capable of **underwater surveillance**, **Anti-Submarine Warfare (ASW)**, **Low Intensity Maritime Operations (LIMO)**, and **mine warfare**.

OPERATION VAJRA

The Central Bureau of Narcotics (CBN) foiled the illegal trafficking of high-strength Tramadol Hydrochloride (250 mg) tablets under "Operation Vajra."

Seizure Details

- Conducted between **10 and 20 July 2026** across **Bengaluru, Delhi and Kochi**, the operation led CBN to seize **12 crore tablets**, weighing nearly **30 metric tonnes**, and arrest **three suspects**.
- The consignment was declared for export to **Guinea-Bissau** but was actually intended for diversion to **Libya**; CBN detected this through its **risk-based export-control mechanism**, working with the **International Narcotics Control Board**.

Why This Seizure Matters

- Tramadol is a **synthetic opioid painkiller**, popularly called the '**Fighter Drug**,' reportedly misused by combatants, including **ISIS militants**, to suppress pain and fatigue.
- Though it has legitimate medical uses, illegal diversion can cause **dependence** and poses **public health and security risks**.
- In **2018**, India brought Tramadol under the **Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985**, making unapproved production and sale illegal.
- The seizure highlights **Asia's larger drug-trafficking challenge**, given its two major illicit-drug-producing regions: the **Golden Crescent** and the **Golden Triangle**.

About CBN

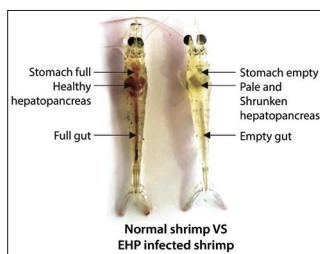
- Administered by the **Department of Revenue, Ministry of Finance**, with headquarters at **Gwalior, Madhya Pradesh** (shifted from **Shimla in 1960**).
- Responsibilities include supervising **licit opium poppy cultivation**, investigating **NDPS Act** cases, **tracing and freezing** illegally acquired property, licensing synthetic narcotic drug manufacture, and issuing **export/import authorisations** for narcotic and psychotropic substances.
- India is a signatory to the **UN Conventions of 1961, 1971 and 1988** on narcotic and psychotropic drug control, which obligate members to **monitor implementation** of these conventions.

WHITE GUT DISEASE

White Gut Disease (WGD), also known as White Feces Disease (WFD), has been reported in West Godavari shrimp farms, raising concerns over shrimp production, exports, and farmers' livelihoods.

About

- White Gut Disease (WGD) is a syndrome affecting farmed shrimp, particularly the Pacific white shrimp (*Litopenaeus vannamei*), which is widely cultivated in India.
- It is not caused by a single pathogen, but results from a combination of microsporidian infection and bacterial infestation.
- The disease mainly affects the hepatopancreas and digestive tract, leading to poor growth and mortality.



Causative Agents

- **Primary pathogen:** *Enterocytozoon hepatopenaei* (EHP), a microsporidian parasite.
- Secondary bacterial infections, especially species of *Vibrio*, aggravate the condition.
- Environmental stress such as poor water quality, high stocking density, and improper farm management increase susceptibility.

Symptoms

- **Digestive abnormalities** such as a white or pale intestinal tract, empty stomach, and reduced feed intake are common early signs of the disease.
- It is characterized by the **appearance of floating white fecal strings** in shrimp ponds and **discoloration of the shrimp intestine**.
- **Growth and survival are adversely affected**, leading to stunted and uneven growth, soft shells, lethargy, and reduced survival with higher mortality in severe infections.
- **Transmission:**
 - ◆ Through infected shrimp stocks.
 - ◆ Contaminated pond water and sediments.
 - ◆ Poor-quality seed (post-larvae).
 - ◆ Equipment and farm-to-farm transmission.

Prevention and Management

- **Strengthen biosecurity and farm management** by using Specific Pathogen-Free (SPF) shrimp seed, maintaining good

pond hygiene, avoiding overstocking, and following Best Management Practices (BMPs).

- **Ensure optimal pond conditions** through regular monitoring of water quality parameters such as pH, dissolved oxygen, ammonia, and salinity, while preventing excessive feeding.
- **Adopt effective disease surveillance and control** by promptly removing infected shrimp, using probiotics where appropriate, and screening broodstock and seed through molecular diagnostic techniques such as PCR.

Impact of White Gut Disease (WGD) on India

- **Threatens India's shrimp industry:** As one of the world's largest producers and exporters of farmed shrimp, with *Litopenaeus vannamei* dominating aquaculture, WGD poses a serious risk to the sector.
- **Reduces productivity and farmer incomes:** The disease lowers shrimp survival and production, causing substantial economic losses and increasing expenditure on disease management.
- **Affects exports and the Blue Economy:** Declining shrimp output reduces export earnings, weakens India's global competitiveness, and hampers the growth of the **Blue Economy**.

Major Shrimp Diseases

- **White Gut Disease (WGD):** Caused by EHP + bacterial infection (mainly *Vibrio*); results in poor growth, white intestine, and mortality.
- **White Spot Disease (WSD):** Caused by White Spot Syndrome Virus (WSSV); leads to rapid mass mortality.
- **Acute Hepatopancreatic Necrosis Disease (AHPND):** Caused by toxin-producing *Vibrio parahaemolyticus*; causes severe hepatopancreatic damage and early mortality.
- **Infectious Myonecrosis (IMN):** Caused by Infectious Myonecrosis Virus (IMNV); results in muscle necrosis and reduced growth.

FINERENONE

Finerenone has gained attention due to its expanding role in the management of Chronic Kidney Disease (CKD) associated with Type 2 Diabetes Mellitus (T2DM) and its potential to reduce cardiovascular complications.

About

- Finerenone is a non-steroidal Mineralocorticoid Receptor Antagonist (MRA) used to treat adults with chronic kidney disease associated with Type 2 Diabetes Mellitus (T2DM).

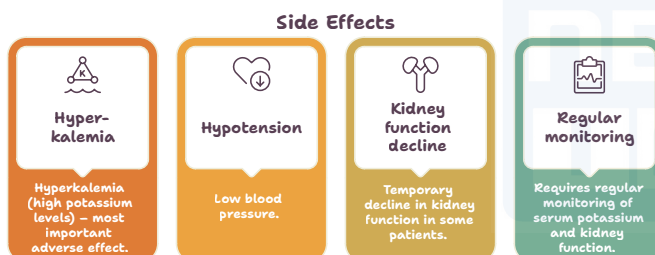
- It helps slow the progression of kidney disease and reduces the risk of cardiovascular events such as heart failure and heart attack.

Mineralocorticoid Receptor Antagonist (MRA)

- **Mineralocorticoid Receptor Antagonists (MRAs)** are a class of drugs that **block the action of aldosterone**, a mineralocorticoid hormone produced by the adrenal glands.
- By inhibiting **mineralocorticoid receptors (MRs)**, they reduce **sodium and water retention**, prevent **potassium loss**, and limit **inflammation and fibrosis** in the heart, kidneys, and blood vessels.
- MRAs are primarily used in the treatment of **heart failure**, **hypertension**, **primary hyperaldosteronism**, and **chronic kidney disease** associated with **Type 2 Diabetes Mellitus (T2DM)**.
- **Examples:** Finerenone (non-steroidal), Spironolactone, and Eplerenone (steroidal).

Working Mechanism

- Blocks mineralocorticoid receptors, preventing the harmful effects of excess aldosterone.
- Reduces inflammation and fibrosis in the kidneys and heart.
- Lowers albuminuria (protein leakage in urine) and slows kidney damage.



Significance

- Provides dual protection by slowing the progression of CKD while reducing the risk of cardiovascular events.
- Reduces inflammation and fibrosis, helping protect the kidneys, heart, and blood vessels from long-term damage.
- More selective than older steroidal MRAs, resulting in fewer hormonal side effects and better tolerability.
- Can be used alongside standard therapies, including ACE inhibitors, ARBs, and SGLT2 inhibitors, under medical supervision for improved treatment outcomes.
- Addresses the growing burden of diabetes-related kidney disease, improving long-term renal and cardiovascular outcomes while reducing disease complications.

UN'S FIRST SCIENTIFIC REPORT ON AI

The United Nations released its first Scientific Report on Artificial Intelligence (AI), providing a global assessment of AI's opportunities, risks, governance challenges, and its role in achieving sustainable development.

About the Report

- It is the **UN's first comprehensive scientific assessment** of Artificial Intelligence.
- The report aims to provide **evidence-based guidance** to policymakers on the safe, inclusive, and responsible development of AI.
- It highlights the need for **global cooperation** to ensure that AI benefits all countries while minimizing associated risks.

Objectives

- Assess the **current state and future trajectory** of AI technologies.
- Promote **ethical, trustworthy, and human-centric AI**.
- Support the achievement of the **Sustainable Development Goals (SDGs)** through responsible AI deployment.
- Bridge the **global AI divide**, particularly between developed and developing countries.

Major Findings

- **Transformative potential of AI:** AI can revolutionize **healthcare, education, agriculture, climate action, scientific research, and public service delivery**, accelerating progress towards sustainable development.
- **AI development is outpacing governance:** Rapid advances in **frontier AI models and autonomous AI systems** have exceeded current scientific understanding and regulatory frameworks, increasing the risk of unintended harm.
- **Fragmented global AI governance:** Existing AI regulations and ethical frameworks remain **weak, fragmented, and largely influenced by a few corporations**, with limited mechanisms for independent assessment of AI capabilities and risks.
- **Growing global compute divide:** AI leadership increasingly depends on access to **advanced semiconductors, computing infrastructure, cloud facilities, and high-quality datasets**. The **United States accounts for nearly 75% of global AI computing capacity and China about 15%**, leaving the rest of the world with only around **10%**, widening global technological inequalities.
- **Concentration of AI power:** Control over the AI value chain—from advanced chips and cloud infrastructure to foundation models and deployment platforms—is becoming concentrated in a handful of countries and companies, limiting competition and innovation.
- **Rising societal and democratic risks:** Poorly governed AI systems can amplify **bias, discrimination, misinformation, deepfakes, privacy violations, cybersecurity threats, and manipulation of democratic processes**, undermining public trust.
- **Need for responsible AI governance:** The report stresses that **transparency, accountability, human oversight, and international cooperation** are essential to ensure the safe, ethical, and inclusive development of AI.
- **Geopolitical and strategic implications:** Dependence on a few AI powers may weaken countries' **strategic autonomy** in critical sectors such as healthcare, defence, public services, and digital infrastructure.

- **Implications for India:** The findings underscore the importance of strengthening initiatives such as the **IndiaAI Mission**, expanding domestic AI computing infrastructure, semiconductor capabilities, and AI research to reduce long-term technological dependence and bridge the global AI divide.

Recommendations

- **Strengthen global AI governance** by developing **harmonised, inclusive, and internationally coordinated regulatory frameworks** to ensure AI is safe, ethical, transparent, and beneficial for all.
- **Enhance scientific oversight and accountability** through **independent assessments of AI capabilities and risks**, while applying **human rights and child rights impact assessments** to AI systems.
- **Build sovereign AI capabilities** by encouraging governments to invest in **domestic AI models, computing infrastructure, research ecosystems, and skilled human resources**, reducing dependence on a few global AI powers.
- **Promote equitable access and international cooperation** by expanding access to **scientific knowledge, datasets, advanced computing infrastructure, and capacity-building initiatives**, particularly for developing countries.
- **Foster open, competitive, and responsible AI innovation** by supporting **open scientific research**, fair competition, strong data protection, transparency, accountability, and public-interest AI aligned with **human rights, democracy, and sustainable development**.

India's AI Policy and Governance Framework for Inclusivity

- **India AI Governance Guidelines (2025):** Introduce a people-centric framework for AI governance based on the principles of fairness, accountability, transparency, safety, and inclusivity, with the aim of reducing bias, preventing exclusion, and ensuring responsible AI decision-making.
- **AI Governance and Economic Group (AIGEG):** Constituted by the Ministry of Electronics and Information Technology (MeitY) as a high-level inter-ministerial body to serve as India's central institutional mechanism for AI governance, policy formulation, coordination, and oversight.

IndiaAI Mission (2024):

- Flagship AI initiative with an outlay of **₹10,300 crore**.
- Aims to build indigenous AI capabilities and democratize AI access.
- **Key pillars include:**
 - ♦ IndiaAI Compute (high-end GPU infrastructure)
 - ♦ IndiaAI Innovation Centre
 - ♦ IndiaAI Datasets Platform
 - ♦ IndiaAI FutureSkills
 - ♦ IndiaAI Startup Financing
 - ♦ Safe and Trusted AI

National Strategy for Artificial Intelligence (NSAI):

- **Launched by NITI Aayog in June 2018**, the **National Strategy for Artificial Intelligence (NSAI)** is guided by the vision of **"AI for All"**, leveraging AI to improve the accessibility, affordability, and quality of essential services.
- The strategy prioritises **healthcare, agriculture, education, smart mobility, and smart cities & infrastructure** as key sectors to drive **AI-led innovation, inclusive growth, and socio-economic development**.

IndiaAI Safety Institute:

- Established to promote **safe, secure, and trustworthy AI**.
- Focuses on AI risk assessment, testing, evaluation, and responsible AI development.

Digital Personal Data Protection (DPDP) Act, 2023:

- Provides the legal framework for **personal data protection**.
- Strengthens privacy safeguards while enabling responsible AI innovation.

Digital India Programme:

- Expands digital infrastructure, digital public services, and digital literacy, creating an enabling ecosystem for AI adoption.

National Data Governance Framework Policy:

- Facilitates access to quality datasets for research and innovation while ensuring privacy and security.

INSULIN ICODEC (AWIQLI): NEW MILESTONE IN DIABETES CARE

Insulin Icodec, marketed under the brand name Awiqli, is the world's first once-weekly basal insulin, offering a convenient alternative to daily basal insulin injections for the management of diabetes.

About Icodec (Awiqli)

- Insulin Icodec is a long-acting (basal) insulin analogue designed for once-weekly subcutaneous injection.
- It provides stable blood glucose control throughout the week, reducing the need for daily insulin injections.
- It is primarily indicated for the treatment of diabetes mellitus requiring basal insulin therapy.

Mechanism of Action

- Mimics the action of natural basal insulin, facilitating glucose uptake by cells and reducing glucose production by the liver.
- It has a prolonged half-life of about one week, allowing sustained insulin release and once-weekly dosing.

Advantages of Insulin Icodec (Awiqli)

- **World's first once-weekly basal insulin**, administered through **subcutaneous injection**, providing effective blood glucose control for up to **seven days**.

- **Significantly reduces injection burden**, lowering the number of insulin injections from **365 to around 52 per year**, thereby improving patient convenience.
- **Enhances treatment adherence and quality of life** by offering a simpler dosing schedule compared to daily basal insulin therapy.
- **Provides glycaemic control comparable to daily long-acting basal insulins**, making it an effective option for eligible patients requiring basal insulin.

Adverse Effects of Insulin Icodec (Awiqli)

- **Hypoglycaemia (low blood sugar)** is the **most common adverse effect**, affecting **around 1 in 10 patients**; however, experts consider its overall risk to be **comparable to that of conventional daily basal insulin**.
- The risk of **hypoglycaemia may become more noticeable** as insulin effectively lowers previously elevated blood glucose levels, particularly during the initial phase of treatment.
- Other adverse effects include **injection-site reactions**, **weight gain** in some patients, and **rare allergic reactions**.
- **Concomitant use of certain oral antidiabetic drugs** may further increase the risk of hypoglycaemia, necessitating careful monitoring of blood glucose levels.

Role of Insulin in Diabetes

- **Type 1 Diabetes (T1D)**: The pancreas produces little or no insulin due to autoimmune destruction of insulin-producing beta cells; therefore, lifelong insulin therapy is essential for survival.
- **Type 2 Diabetes (T2D)**: The body initially produces insulin but cannot use it effectively (insulin resistance). While many patients are managed with lifestyle changes and oral antidiabetic drugs, around 25–30% eventually require insulin therapy as the disease progresses and insulin production declines.

Do You Know?

- India has an estimated 101 million people living with diabetes and another 136 million with pre-diabetes, making it one of the countries with the highest diabetes burden globally.
- **Around 20–30% of individuals with Type 2 diabetes are likely to require insulin therapy** over the course of the disease, representing a potential patient pool of nearly **20 million**.
- **Despite this need, only about 6 million Indians currently use insulin**, indicating significant underutilisation of insulin therapy in the country.

Timeline: Evolution of Insulin and Diabetes Treatment

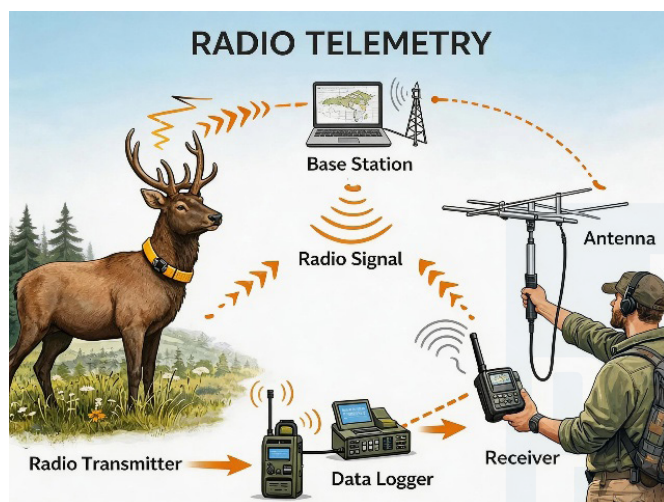
Year/Period	Milestone	Significance
Before 1921	Diabetes managed through starvation diets and severe calorie restriction	Type 1 Diabetes was almost always fatal.
1921	Insulin discovered by Frederick Banting and Charles Best	First effective treatment for Type 1 Diabetes.
1922	First successful insulin therapy in humans	Marked the beginning of insulin therapy in clinical practice.
1923–1980s	Animal-derived insulin (porcine and bovine) widely used	Improved survival but had issues such as allergic reactions and batch variability.
1960s	Molecular structure of insulin elucidated	Enabled the development of synthetic and modified insulin preparations.
1978	First recombinant human insulin produced using recombinant DNA technology	Eliminated dependence on animal sources and improved safety and purity.
1982	First commercially available recombinant human insulin	Revolutionized diabetes treatment through large-scale production.
1990s–2000s	Development of insulin analogues (rapid-acting and long-acting)	Better glycaemic control with reduced risk of hypoglycaemia.
2000s–Present	Insulin pens, pumps, and Continuous Glucose Monitoring (CGM)	Improved convenience, precision, and diabetes management.
2023–Present	Insulin Icodec (Awiqli) introduced as the world's first once-weekly basal insulin	Reduced injection frequency from daily to weekly, improving treatment adherence and quality of life.

RADIO TELEMETRY

The recent death of a radio-tagged white-rumped vulture has highlighted the importance of radio telemetry in wildlife conservation for tracking animal movements, behaviour, survival, and identifying conservation threats.

About Radio Telemetry

- **Radio telemetry** is a **wireless tracking technique** that uses **radio transmitters attached to animals** to transmit signals, enabling researchers to monitor their **location, movement, behaviour, and physiological parameters** from a distance.
- It is widely used in **wildlife research, conservation biology, veterinary science, and fisheries management**.



Components

- **Radio transmitter (tag/collar):** Attached to the animal and emits radio signals.
- **Receiving antenna:** Detects the transmitted signals.
- **Radio receiver:** Processes the signals to determine the animal's location and movement.
- **Power source:** Usually a battery that determines the operational life of the transmitter.

Working Mechanism

- A lightweight **radio transmitter** is fitted to the animal as a collar, harness, implant, or ear tag.
- The transmitter emits radio signals at fixed intervals.
- Researchers use a **receiver and directional antenna** to detect and locate the signal.
- The collected data are analysed to study movement patterns, habitat use, migration, and behaviour.

Types of Radio Telemetry

- **VHF (Very High Frequency) Telemetry:** Requires field tracking using directional antennas; economical and widely used.
- **GPS Radio Telemetry:** Uses satellite-based positioning to provide precise location data.

- **Satellite Telemetry:** Suitable for long-distance migration studies across continents and oceans.
- **Acoustic Telemetry:** Uses sound waves to track aquatic animals.

Significance for India

- Widely used for monitoring **tigers, elephants, snow leopards, rhinos, vultures, dolphins, and sea turtles**.
- Supports conservation programmes under initiatives such as **Project Tiger, Project Elephant**, and species recovery programmes.
- Helps reduce **human-wildlife conflict** by tracking animal movements near settlements.

INDIGENOUS PLACENTA-ON-A-CHIP

Researchers from the ICMR-National Institute for Research on Women's Health, Mumbai, and IIT Bombay have developed an indigenous placenta-on-a-chip platform, replicating key placental functions to advance pregnancy, fetal development, and drug safety research while reducing animal testing.

About Placenta-on-a-Chip

- Placenta-on-a-Chip is an **organ-on-a-chip** device that replicates the maternal-fetal interface of the human placenta using living human cells and microfluidic technology.
- It mimics the structure and physiological functions of the placenta, including the exchange of nutrients, oxygen, hormones, and waste products between the mother and the fetus.

What is Organ-on-a-Chip?

- **Organ-on-a-Chip (OoC)** is a **microfluidic cell-culture technology** that recreates the structure and functions of human organs on a small chip.
- It combines **living human cells**, biomaterials, and controlled fluid flow to simulate organ physiology for research and drug testing.

Working

- The device contains **microchannels** lined with **human placental and blood vessel cells**.
- These channels simulate **maternal and fetal blood circulation** under controlled laboratory conditions.
- Continuous fluid flow recreates the **biochemical and mechanical environment** of the placenta, allowing researchers to study transport and cellular interactions in real time.

Human Placenta

- The **placenta** is a vital organ that develops during pregnancy and plays a crucial role in supporting fetal growth and development.
- **Functions of the Placenta:**
 - Supplies **oxygen and essential nutrients** from the mother to the developing fetus.

- ♦ Removes **carbon dioxide and metabolic waste products** from the fetal bloodstream.
 - ♦ Produces **pregnancy-supporting hormones** necessary for maintaining a healthy pregnancy.
 - ♦ Acts as a **selective barrier**, regulating the transfer of nutrients, antibodies, medicines, and harmful substances between the mother and the fetus.
- ➔ The efficiency of placental function directly affects fetal growth, pregnancy outcomes, and the safety and effectiveness of medications administered during pregnancy.

Significance and Advantages of Placenta-on-a-Chip

- ➔ Closely replicates the **structure and functions of the human placenta**, enabling realistic studies of maternal-fetal interactions in real time.
- ➔ Provides a **reliable, reproducible, and ethically acceptable** alternative to animal testing for placental research.
- ➔ Enhances the **accuracy of drug safety and toxicity assessments** during pregnancy, supporting the development of safer medicines for pregnant women.
- ➔ Improves understanding of **placental function, fetal development, and pregnancy-related disorders**, aiding early diagnosis and better treatment strategies.
- ➔ Advances **maternal and fetal healthcare**, while contributing to **precision medicine** and next-generation biomedical research.

HELIUM

China's Ministry of Commerce and the General Administration of Customs have imposed a temporary ban on helium exports to prioritise domestic demand amid global supply uncertainties and rising strategic requirements.

About Helium

- ➔ **Helium (He)** is a colourless, odourless, inert, non-toxic, and non-flammable noble gas belonging to Group 18 of the periodic table.
- ➔ **Atomic Number: 2;** it is the second lightest and second most abundant element in the universe.
- ➔ **State:** Helium exists as a gas at room temperature and becomes a liquid only at temperatures close to absolute zero.
- ➔ **Unique Property:** It has the lowest boiling point (-268.9°C) of any element and does not solidify under normal atmospheric pressure, even at absolute zero.
- ➔ **Occurrence:** On Earth, helium is a non-renewable resource, recovered mainly from natural gas fields.
- ➔ **Formation:** It is produced deep within the Earth through the radioactive decay of uranium and thorium, which emit alpha particles that capture electrons to form helium atoms.

How is Helium Obtained?

- ➔ Helium is extracted as a **by-product** of natural gas processing. Commercial extraction becomes viable only when **helium concentration exceeds 0.3% by volume**.
- ➔ It is separated from other gases based on its extremely **low boiling point (-269°C)**.
- ➔ Commercial-grade helium generally requires **99.997% purity**.

Importance of Helium

- ➔ **Semiconductors:** Cooling, leak detection, and ultra-clean chip manufacturing.
- ➔ **Healthcare:** MRI cooling, eye surgery lasers, and heart surgery support.
- ➔ **Space & Research:** Rocket systems, cryogenics, particle accelerators, and NMR research.
- ➔ **Industrial Applications:** Arc welding, fibre-optics, and precision leak detection.
- ➔ **Deep-Sea Diving:** Heliox mixture reduces nitrogen narcosis at high pressure.
- ➔ **Preservation:** Creates an inert atmosphere to protect valuable documents.

Global Helium Scenario

- ➔ **Major producers:** United States, Qatar, Algeria, Russia, and Canada.
- ➔ Helium production is concentrated in a few countries, making global supply vulnerable to geopolitical disruptions.
- ➔ China remains a major consumer and relies significantly on imported helium despite increasing domestic production.

China Ban Helium Exports

- ➔ To ensure adequate domestic supply for strategic industries.
- ➔ To address global supply disruptions caused by geopolitical tensions.
- ➔ To strengthen industrial and technological security in critical sectors such as semiconductors and aerospace.

Impact on India

- ➔ India imports most of its helium requirements.
- ➔ **The ban could:** Increase costs for semiconductor manufacturing. Raise operational expenses for hospitals using MRI scanners. Affect research laboratories and space applications.
- ➔ **Highlights the need to:** Diversify helium imports, build strategic reserves, and strengthen domestic semiconductor and critical technology ecosystems.

Challenges in the Global Helium Market

- ➔ **Highly Concentrated Supply:** Helium production is concentrated in a few countries, making supplies vulnerable to disruptions.
- ➔ **Rising Demand:** Growing use in AI, semiconductors, MRI, space, and research is increasing global helium demand.

INDIA'S FIRST HYDROGEN TRAIN

India launched its first indigenously developed hydrogen fuel cell-powered passenger train on the Jind-Sonapat route (Haryana) on 17 July 2026, joining the nations operating hydrogen-powered trains.

About

- The train operates on the Jind-Sonapat section in Haryana, marking India's entry into the group of countries operating hydrogen-powered trains.
- A dedicated hydrogen production, storage and refuelling facility has been established at Jind, Haryana, to support train operations.
- Fully **designed and developed in India**, it is built on a **Broad Gauge** platform and is currently the **world's longest hydrogen-powered train with 10 coaches**.
- The **Research Design and Standards Organisation (RDSO)** is leading the **design, testing, validation, and certification** of India's hydrogen train project.
- The project involves **converting two 1,600 HP diesel power cars into hydrogen fuel cell-powered coaches**.

Features

- **Type:** Hydrogen-Electric Multiple Unit (HEMU).
- **Developed by:** Indian Railways, with the train manufactured by the Integral Coach Factory (ICF), Chennai.
- **Configuration:** 10-coach train comprising:

- ◆ 2 Hydrogen Driving Power Cars (DPCs)
- ◆ 8 Passenger Trailer Coaches
- **Propulsion:** 1200 kW hydrogen fuel cell propulsion system.
- **Maximum operational speed:** 75 km/h (*design speed:* 110 km/h).
- **Passenger capacity:** Around 2,600 passengers.

Major Components of the Hydrogen Train

- **Proton Exchange Membrane (PEM) Fuel Cells:** Generate electricity through the electrochemical reaction of hydrogen and oxygen.
- **Lithium Iron Phosphate (LFP) Batteries:** Store excess electricity and supply additional power during acceleration and peak demand.
- **High-Pressure Hydrogen Storage Cylinders:** Safely store compressed hydrogen fuel for continuous operation.
- **Electric Traction Motors:** Convert electrical energy into mechanical energy to propel the train.
- **Advanced Safety Systems:** Equipped with **hydrogen leak detectors** and **flame detection sensors** for continuous monitoring and safe operation at hydrogen production, storage, and dispensing facilities.

Working

- Hydrogen stored in onboard tanks is supplied to **fuel cells**.
- Inside the fuel cell, **hydrogen combines with oxygen from the atmosphere** through an electrochemical reaction.



- This reaction produces **electricity**, which powers the train's traction motors.
- The only emissions from the process are **water vapour and heat**, making it a zero tailpipe emission technology.
- **Lithium-ion batteries** provide additional power during acceleration and store energy recovered through **regenerative braking**, improving overall energy efficiency.

Hydrogen Fuel Cell Technology

- A **hydrogen fuel cell** converts the chemical energy of **hydrogen and oxygen directly into electricity** through an electrochemical reaction, without combustion.
- **By-products:** Only **water vapour and heat**, making it a zero tailpipe emission technology.
- **Key components:** Anode, cathode, electrolyte membrane, and catalyst.
- **Hydrogen is a** chemical element with **chemical symbol H and atomic number 1**.
- Hydrogen is the lightest of all elements and the most common chemical material in the universe, accounting for around **75%** of all normal matter.
- It is a **non-toxic, colourless, odourless, tasteless** and extremely inflammable gas.

WHITE RABBIT TECHNOLOGY BASED NETWORK DEMONSTRATION

As part of the "One Nation, One Time" initiative, Union Minister Pralhad Joshi launched the White Rabbit Technology-based IST Distribution Demonstration Network at Regional Reference Standards Laboratory (RRSL), Jakkur, Bengaluru.

About "One Nation, One Time" Initiative

- Establishes a **single, accurate, secure, and indigenous source of Indian Standard Time (IST)** to ensure uniform timekeeping across all sectors in India.
- Provides **uniform and traceable time synchronisation** for critical infrastructure, including telecommunications, power grids, banking, defence, and transportation.
- Reduces dependence on foreign **Global Navigation Satellite Systems (GNSS)** such as GPS by enabling an indigenous and resilient time dissemination network.

White Rabbit Technology

- White Rabbit (WR) is a **high-precision Ethernet-based time synchronisation technology** that enables **sub-nanosecond (less than one-billionth of a second)** accuracy over **optical fibre networks**.
- It combines:
 - ♦ **Precision Time Protocol (PTP – IEEE 1588)** for precise clock synchronisation.

- ♦ **Synchronous Ethernet (SyncE)** for frequency synchronisation.
- ♦ **Optical fibre communication and digital phase detection techniques** to achieve ultra-low latency and highly accurate time transfer.
- It is designed for applications requiring **ultra-precise, reliable, and deterministic network synchronisation**.
- **Organisations Involved:**
 - ♦ **C-DOT:** Lead organisation under the **Department of Telecommunications (DoT)**.
 - ♦ **C-DAC:** Technical partner.
 - ♦ **TCIL:** Implementation partner.

Features

- **Ultra-Precise Synchronisation:** Achieves **sub-nanosecond (less than one nanosecond)** clock synchronisation across distributed devices.
- **Long-Distance & Reliable:** Delivers highly reliable and secure time distribution over **long-distance optical fibre networks**.
- **Standards-Based:** Operates on **standard Ethernet infrastructure**, integrating **PTP (IEEE 1588)** and **Synchronous Ethernet (SyncE)**.
- **Open-Source Technology:** Originally developed at **CERN** for particle physics experiments and now widely adopted for **industrial, telecom, scientific, and national timing applications**.

Significance

- **Strengthens technological self-reliance** by reducing dependence on foreign timing and synchronisation technologies, supporting **Atmanirbhar Bharat** in strategic telecom infrastructure.
- **Enables next-generation digital infrastructure** by enhancing the reliability of communication networks and supporting emerging technologies such as **5G, 6G, AI, IoT, and Industry 4.0**.

Working of Indian Standard Time Distribution Network

- **Generation of Reference Time:** India's official time (**IST = UTC +5:30**) is generated and maintained by the **National Physical Laboratory (NPL), New Delhi** using highly accurate **Cesium Atomic Clocks** and **Hydrogen Masers**.
- **Primary Time Standard:** NPL establishes the **national reference time**, which is continuously calibrated against **Coordinated Universal Time (UTC)** through the **Bureau International des Poids et Mesures (BIPM)**.
- **Time Distribution Network:** The reference time is transmitted through a **nationwide optical fibre network** using **White Rabbit (WR) technology**, ensuring ultra-precise synchronization.
- **High-Precision Synchronisation:** White Rabbit combines **Precision Time Protocol (PTP – IEEE 1588)** and **Synchronous Ethernet (SyncE)** to achieve **sub-nanosecond synchronization accuracy** over long distances.
- **Regional Time Nodes:** The precise time signal is distributed to **regional timing centres** and synchronized network nodes across the country, ensuring uniformity.

- **End-User Distribution:** Sectors such as **telecommunications, power grids, financial systems, defence, scientific laboratories, and data centres** receive synchronized IST through the fibre network.
- **National Significance:** The indigenous IST distribution network enhances **accuracy, security, and resilience**, reduces dependence on foreign timing systems (e.g., GPS-based timing), and supports **5G/6G, smart grids, AI, IoT, and critical national infrastructure**.

INDIA'S FIRST POINT-IN-SPACE (PINS) INSTRUMENT APPROACH SYSTEM

India launched its first PinS procedure at Kedarnath Helipad and approved the first private PinS at Undavalli Heliport, improving helicopter safety and reliability.

About PinS (Point-in-Space)

- PinS (Point-in-Space) is an instrument flight procedure (IFP) specifically designed for helicopter operations.
- It enables helicopters to fly safely under Instrument Flight Rules (IFR) in areas where conventional airport runways are unavailable.
- PinS procedures use **advanced satellite-based navigation technology** to enable helicopters to conduct safe and precise instrument approaches to helipads that do not have conventional instrument landing infrastructure.
- PinS is **particularly beneficial during adverse weather conditions** and in areas where **ground-based navigation aids are not available**.

Implementing Agencies

- It was developed by the **Airports Authority of India (AAI)** and approved by the **Directorate General of Civil Aviation (DGCA)**.
- It has been designed in accordance with DGCA regulations and the **International Civil Aviation Organization (ICAO) Standards**.

Features

- Uses **Global Navigation Satellite System (GNSS)** and **Performance-Based Navigation (PBN)** technologies.
- Improves flight safety during **poor visibility, fog, rain, or cloud cover**.
- Particularly suitable for **hilly, remote, and disaster-prone regions**.
- Reduces the risk of **Controlled Flight Into Terrain (CFIT)** by providing precise navigation guidance.
- Enhances the regularity and reliability of helicopter operations.

PELLET GUNS

Pellet guns came under scrutiny after allegations of use during the CJP-led student protest in Delhi, denied by police. The Supreme Court permitted only exceptional, accountable, and proportionate use under strict protocols.

About Pellet Guns

- A less-lethal (non-lethal) crowd-control weapon.
- Usually a 12-bore pump-action shotgun that fires cartridges containing hundreds of small metal pellets.
- Unlike a rifle bullet, pellets spread over a wide area, reducing precision but increasing the chance of multiple injuries.
- Pellet guns were introduced in India in 2010 during the Jammu and Kashmir unrest as a less-lethal crowd-control measure to reduce civilian deaths compared to live ammunition.
- Standard Operating Procedures (SOPs) mandate the use of minimum necessary force, and if firing is unavoidable, personnel should aim below the waist.
- Besides crowd control, pellet guns are also used for **hunting and pest control**.

Purpose

- To disperse violent mobs when there is a threat to public order.
- Considered an alternative to live ammunition to reduce fatalities.
- Used by security forces in situations involving stone-pelting, riots, and violent protests.

Concerns

- Can cause permanent blindness, eye injuries, facial trauma, fractures, and disability.
- Lack of precision may injure bystanders.
- Raises concerns regarding human rights, proportionality, and accountability.
- Excessive use may undermine the constitutional right to peaceful protest.

Alternatives to Pellet Guns

- **Public announcements & negotiation:** Verbal warnings and dialogue to disperse crowds peacefully.
- **Water cannons:** High-pressure water jets used to disperse crowds.
- **Tear smoke/Tear gas:** Chemical irritants causing temporary eye and respiratory irritation.
- **PAVA (Capsicum) shells:** Pepper-based irritant shells causing temporary burning and discomfort.
- **Dye-marker rounds:** Projectiles that mark individuals with colored dye for later identification.
- **Stun grenades:** Devices producing a loud bang and bright flash to temporarily disorient people.
- **Rubber bullets:** Less-lethal projectiles used to control violent crowds under strict SOPs.

BOROPHENE-BASED GREEN LUBRICANT

Borophene-based lubricants offer ultra-low friction, improved machine efficiency, energy savings, and sustainable industrial performance.

About Borophene

- **Borophene** is a **two-dimensional (2D) crystalline material** made up of boron atoms arranged in a hexagonal or triangular lattice.
- It is considered a counterpart of graphene but with distinct properties due to boron's electronic structure.
- It is **lightweight, highly conductive, mechanically strong, and chemically active**.
- **Borophene as a Lubricant Additive:** Researchers incorporated **0.1% borophene into castor oil**, a biodegradable and renewable lubricant, achieving around **42% reduction in friction** compared to pure oil.
- **Friction Reduction Mechanism:** Borophene forms a **tribofilm on contact surfaces**, reducing shear stress, minimizing friction and wear, and enhancing protection of machinery components.

Properties of Borophene

- **High strength and flexibility:** Provides durability under extreme mechanical stress.
- **Low friction coefficient:** Enables smoother movement between contacting surfaces.
- **High thermal conductivity:** Helps dissipate heat generated during operation.
- **Lightweight nature:** Suitable for advanced engineering applications.
- **Chemical tunability:** Properties can be modified for specific industrial uses.

Borophene-Based Green Lubricant

- A lubricant where **borophene nanosheets are added as additives** to conventional lubricating fluids. Borophene nanosheets form a **sliding layer** between surfaces.
- Borophene layers act as a protective coating between moving surfaces, reducing direct contact and friction. They reduce wear by preventing surface-to-surface contact.
- Their high strength helps maintain lubrication under high pressure and temperature conditions.

Advantages

- **Energy Efficiency:** Reduces frictional losses and improves machine efficiency.
- **Lower Carbon Footprint:** Enhances fuel efficiency and reduces energy consumption.
- **Longer Equipment Life:** Minimises wear and tear of mechanical components.
- **Sustainable Alternative:** Reduces dependence on petroleum-based lubricants.

Significance for India

- Supports development of **advanced materials and clean technologies**.

- Can contribute to energy conservation and industrial efficiency.
- **Aligns with India's goals of:** Green manufacturing, Sustainable mobility, Reduced carbon emissions

NOTE

- **Borophene:** Two-dimensional allotrope of boron.
- **Graphene:** Two-dimensional allotrope of carbon.
- **Green lubricants** aim to reduce friction, energy consumption, and environmental pollution.

VIKRAM-1

Skyroot Aerospace's **Vikram-1**, India's first privately developed orbital launch vehicle, will carry six payloads during Mission Aagaman, reflecting the expanding private role in India's space sector.

About Vikram-1

- It is India's first privately developed **orbital-class rocket**.
- Vikram-1 is developed by Skyroot Aerospace, an Indian space-tech start-up.

Features of Vikram-1

- **Type:** Small Satellite Launch Vehicle (SSLV-class private launch vehicle).
- **Developer:** Skyroot Aerospace, Hyderabad-based space startup.
- **Launch Capability:** Designed to place small satellites into **Low Earth Orbit (LEO)**.
 - ♦ Vikram-1 can deploy up to **350 kg into low Earth orbit (LEO)** and **260 kg into a sun-synchronous orbit (SSO)**.
 - ♦ **Configuration:** Three-stage rocket with solid-fuel propulsion stages, while a hypergolic liquid upper stage allows for precise orbital manoeuvres.
- **Payload Capacity:** Capable of carrying small satellites for commercial and scientific missions.
- **Technology:** Incorporates advanced materials such as **carbon fibre structures** and 3D-printed components.

Technology Demonstration Payloads

- **Robotic Arms:** Developed by CosmoServe for in-space robotic applications.
- **SOLARAS:** Developed by Grahha Space for space-based solar technology applications.
- **SCOPE:** Developed by Skyroot Aerospace as a space payload.
- **International Payload:** *uD3PP* and *mD3RN* developed by Germany-based Dcubed GmbH, representing international participation.

Payloads Highlighting Creativity and India's Scientific Legacy

- **Cosmic Bloom:** Developed by Cosmos Diamonds, it features a diamond jewellery artwork mounted on an aluminium base plate, combining luxury craftsmanship with space innovation.

- **MicroArt:** An 18K gold miniature rocket carrying micro-sculptures of renowned Indian scientists — Sir C.V. Raman, Dr. Vikram Sarabhai, and Dr. A.P.J. Abdul Kalam — each smaller than a grain of rice, showcasing India's scientific heritage and artistic excellence.

Significance for India

- **Boosts Private Space Sector:** Promotes private participation and commercialisation of space activities.
- **Affordable Space Access:** Enables low-cost satellite launches and strengthens India's global launch market.
- **Innovation & Indigenous Capability:** Encourages indigenous technology, private investment, and innovation.
- **Strategic Importance:** Enhances independent space access for communication, Earth observation, disaster management, and defence.
- **Government Support:** Backed by ISRO (technical support) and IN-SPACe (private sector authorisation).

MISSION DRISHTI

GalaxEye launched Mission Drishti to advance Earth observation, though its OptoSAR satellite encountered a LEOP anomaly due to a geomagnetic solar storm.

About

- **Mission Drishti** is a 190 kg Earth observation satellite designed to provide **advanced remote sensing** capabilities.
- It is among the first operational platforms to **integrate Electro-Optical (EO) and Synthetic Aperture Radar (SAR) sensors** on a single satellite, enabling all-weather, day-and-night imaging.
- The satellite carries a **multispectral camera and SAR imager**, allowing enhanced data collection and analysis across diverse conditions.
- Mission Drishti offers **high-resolution Earth imaging**, with future satellite versions planned to achieve sub-metre resolution for more precise observations.
- Mission Drishti is **GalaxEye's first commercial Earth observation satellite mission**.

Features

- **Multi-Sensor Imaging:** Integrates **Synthetic Aperture Radar (SAR)** and **Electro-Optical (EO)** imaging in a single satellite.
- **All-Weather Capability:** SAR enables imaging through clouds, rain, haze, and darkness.
- **High-Resolution Data:** Produces detailed imagery for accurate monitoring and analysis.
- **AI-Enabled Processing:** Uses artificial intelligence for faster interpretation and decision-making.
- **Near Real-Time Monitoring:** Enables rapid data delivery for time-sensitive applications.

About Synthetic Aperture Radar (SAR)

- An **active remote sensing technology** that transmits microwave signals and records their reflections from the Earth's surface.
- Functions **independently of sunlight** and penetrates clouds, making it suitable for continuous observation.

Significance

- **Strengthens Space Ecosystem:** Promotes indigenous satellite technology and private-sector innovation.
- **Disaster Management:** Enables rapid disaster assessment and early response.
- **Agriculture:** Monitors crops, soil moisture, and supports precision farming.
- **National Security:** Enhances border surveillance and all-weather intelligence.
- **Environmental Monitoring:** Tracks forests, glaciers, wetlands, and coastal changes.

Government Support

- Indian National Space Promotion and Authorisation Centre (IN-SPACe) facilitate private participation.
- Indian Space Research Organisation (ISRO) provides technical support and launch infrastructure.

NIDAR 2.0

Recently, the Ministry of Electronics and Information Technology (MeitY), in partnership with the Drone Federation India (DFI), launched NIDAR 2.0 (2026-27), the second edition of the National Innovation Challenge for Drone Application and Research, under the SwaYaan initiative.

NIDAR 2.0

- A **national-level innovation hackathon** for engineering students.
- Aims to promote **indigenous design and development** of autonomous drone technologies.
- Focuses on developing the **"brain" of drones** (avionics, processors, flight controllers) rather than merely assembling drones.

Objectives

- **Promotes Self-Reliance:** Develops indigenous drone technologies under Atmanirbhar Bharat.
- **Strengthens Innovation:** Fosters industry-academia collaboration and a skilled drone workforce.
- Supports indigenous drones for disaster management, agriculture, logistics, and infrastructure inspection.

Features

- **Drone Innovation Track:** Focuses on developing autonomous drones for **disaster response, medical supply delivery, and GPS-denied indoor navigation**.
- **Component Innovation Track:** Teams must design and develop an indigenous flight controller and autopilot system.

NIDAR 1.0 (2025–26)		FEATURE	NIDAR 2.0 (2026–27)
 March 2025	 LAUNCH		 July 2026
 MeitY + Drone Federation of India (DFI) under SwaYaan	 ORGANISERS		 MeitY + Drone Federation of India (DFI) under SwaYaan
 Develop autonomous drones for real-world applications	 PRIMARY FOCUS		 Develop next-generation autonomous drones and indigenous drone electronics
 1. Disaster Management (Scout & Deliver) 2. Precision Agriculture (Scan & Spray)	 INNOVATION THEMES / MISSIONS		 1. RescueSwarm 2. AirMouse (GPS-denied indoor navigation) 3. VEGAPilot (indigenous autopilot using VEGA processor)
 Drone applications	 TECHNOLOGY FOCUS		 Drone applications plus indigenous flight controllers, avionics, and autopilot systems
 Not a major component	 INDIGENOUS CHIP		 Uses VEGA processor developed by C-DAC under the DIR-V programme
 ₹40 lakh	 PRIZE POOL		 ₹65+ lakh
 Mentorship, startup incubation, cloud credits, internships	 INDUSTRY SUPPORT		 Expanded mentorship, VEGA development kits, startup support, software tools, internships
 Expected participation from over 100 student teams	 SCALE / PARTICIPATION		 First edition attracted 3,448 students from 22 States, 4 UTs, and 109 cities. 2.0 builds on that success with a larger national outreach.
 Promote drone innovation for agriculture and disaster management	 STRATEGIC GOAL		 Achieve Atmanirbhar Bharat by developing the “brain of the drone” through indigenous hardware and software



NIDAR 1.0 focused on building application-oriented autonomous drones for agriculture and disaster management.

VS

NIDAR 2.0 expands the challenge to include indigenous drone electronics, VEGA-based autopilot systems, GPS-denied navigation, and advanced autonomous capabilities, strengthening India's self-reliance in drone technology.



NIDAR is a national innovation challenge by MeitY under the SwaYaan initiative to build India's drone ecosystem and promote Atmanirbhar Bharat.

using the VEGA processor and other indigenous electronic components.

- ➔ The top 100 teams will receive **VEGA processor development kits** to support prototype development, testing, and validation.
 - ♦ **Indigenous Technology:** Leverages the **VEGA microprocessor**, developed by **C-DAC** under MeitY's **Digital India RISC-V (DIR-V) programme**, to promote **self-reliance in critical drone electronics**

Skilling for Unmanned Aircraft Systems

- ➔ **About SwaYaan:** A MeitY initiative (approved in 2022) to strengthen India's indigenous drone ecosystem through skill development and innovation.
- ➔ **Implementation:** Executed by IISc, IITs, IIITs, NITs, C-DAC, and NIELIT.
- ➔ **Focus Areas:** Drone electronics, aeromechanics, Guidance, Navigation & Control (GNC), autonomous systems, and drone applications.
- ➔ **Objectives:** Promotes industry-academia collaboration, research, innovation, and a skilled drone workforce under Atmanirbhar Bharat, Digital India, and Make in India.
- ➔ **Flagship Initiative:** NIDAR (National Innovation Challenge for Drone Application and Research).

- ➔ **India's College Graduates to build collaborative autonomous drones** for defined problem statements.

- ➔ It drew 3,448 students from 22 States, 4 Union Territories and 109 cities, who built autonomous drone solutions for **Disaster Management and Precision Agriculture**.

MURICATACIN

Researchers achieved the laboratory synthesis of muricatacin using an easier, cost-effective method that converts readily available fatty acids.

About

- ➔ **Natural source:** *Annona muricata* (Soursop/Laxman Phal), particularly in its seeds.
- ➔ **Chemical family:** Annonaceous acetogenin
- ➔ Muricatacin is a naturally occurring bioactive compound
- ➔ Chemically, it is a lactone (ring-shaped organic compound) with the molecular formula $C_{17}H_{32}O_3$.

Significance

- ➔ Exhibits **anticancer (cytotoxic)** activity against certain cancer cell lines in laboratory studies. Serves as an important **building block (gateway molecule)** for synthesizing more complex acetogenins and other pharmaceutical compounds.

- Natural extraction is highly inefficient: Around **15 kg of plant material yields only about 15 mg** of muricatacin, making laboratory synthesis highly valuable.

IIT Bombay Breakthrough

- Researchers developed a **direct method** to convert **straight-chain fatty acids into ring-shaped molecules**, avoiding lengthy multi-step synthesis.
- **The method:**
 - ♦ Reduces the number of synthesis steps.
 - ♦ Lowers cost and chemical waste.
 - ♦ Enables rapid production of muricatacin and similar bioactive molecules for drug discovery.

Conversion of Fatty Acids

- **Fatty acids** are straight-chain carbon compounds and are among the most abundant naturally occurring organic chemicals.
- Many **biologically important molecules**, including several medicines, possess **ring-shaped molecular structures**, making them more functionally significant.
- Converting readily available fatty acids into these ring-shaped compounds generally requires **multiple chemical synthesis steps**, making the process complex and time-consuming.

i-DRONE INITIATIVE

The Indian Council of Medical Research (ICMR) has successfully demonstrated drone-assisted transport of tuberculosis (TB) sputum samples under the i-DRONE initiative to improve diagnosis in remote areas.

About i-DRONE

- **i-DRONE (Drone Response and Outreach in North East)** was launched by the **Indian Council of Medical Research (ICMR)** in **2021**.
- It was initially designed to deliver **vaccines** and **medical supplies** to remote areas of **Manipur, Nagaland**, and the **Andaman and Nicobar Islands** during the **COVID-19** pandemic.
- The initiative later expanded across India to transport blood bags, blood products, essential medicines, ophthalmic biomaterials, TB sputum samples, and Directly Observed Treatment, Short-course (DOTS) medicines under the National TB Elimination Programme (NTEP).
- In **Telangana**, it established a **hub-and-spoke** drone network linking **60 sub-centres**, **11 Primary Health Centres (PHCs)**, and **4 TB units**.

Key Outcomes

- The **median diagnosis time** declined from **15 days to 5 days**.
- The average **out-of-pocket expenditure (OOPE)** reduced from **₹9,451** to about **₹91**.

- **76.3%** of patients received test results the **next day**, while only **16.3%** waited for more than two days.
- Patients living **10–30 km** from diagnostic centres only need to visit their nearest **Primary Health Centre (PHC)** or **sub-centre**, improving last-mile healthcare access.

Tuberculosis (TB)

- TB is caused by **Mycobacterium tuberculosis** and primarily affects the **lungs**.
- It spreads through the **air** when an infected person **coughs, sneezes, or speaks**.
- The **Bacillus Calmette–Guérin (BCG) vaccine** protects against severe forms of TB, especially in children.
- India aims to eliminate TB by **2025** under the **National TB Elimination Programme (NTEP)**.

WORLD ARTIFICIAL INTELLIGENCE COOPERATION ORGANISATION (WAICO)

China formally launched the World Artificial Intelligence Cooperation Organisation (WAICO) at the 2026 World Artificial Intelligence Conference (WAIC) in Shanghai.

About WAICO

- WAICO is an **independent intergovernmental organisation** for Artificial Intelligence (AI) cooperation, capacity building, and shared governance in the civilian domain. Its headquarters is in **Shanghai**.
- It is the first permanent AI institution dedicated to the Global South and has 29 founding member countries (excluding India).
- China will provide 5,000 AI training opportunities, establish AI cooperation centres with Association of Southeast Asian Nations (ASEAN), African Union (AU), BRICS, Shanghai Cooperation Organisation (SCO), League of Arab States, and Community of Latin American and Caribbean States (CELAC), and support open-source AI, technology sharing, and AI infrastructure over the next five years.
- Members following the WAICO framework will not require AI regulations aligned with the European Union Artificial Intelligence Act (EU AI Act), Organisation for Economic Co-operation and Development (OECD) AI Principles, or Group of Seven (G7) Hiroshima Process.

Significance

- It strengthens **China's** role in **Global AI governance** and serves as the first institutional alternative to Western-led AI frameworks for the **Global South**.

Need for Global AI Governance

- Addresses the **compute divide**, AI risks, **cross-border** challenges, and **human and child safety** concerns.

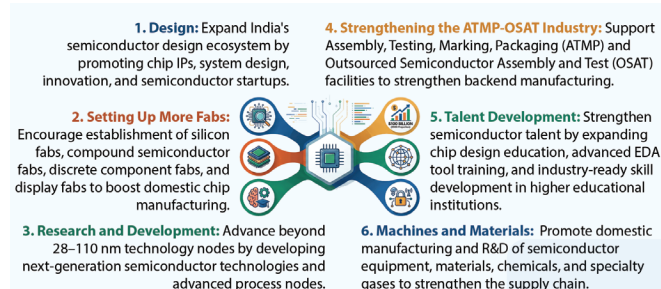
Major Global Initiatives

- G7 Hiroshima Process, Global Partnership on Artificial Intelligence (GPAI), Bletchley Declaration, and the United Nations Global Digital Compact.

SEMICON 2.0

The Semicon 2.0 programme, approved by the Union Cabinet with an outlay of ₹1,27,500 crore, seeks to establish India as a global hub for semiconductor design and manufacturing.

Pillars of Semicon 2.0



Strategically Important

- **Foundation of the Digital Economy:** Semiconductors are the building blocks of modern electronic devices and the growth of the digital economy.
- **National Security:** Semiconductor chips are critical for defence systems, satellites, surveillance, cybersecurity, and secure communication networks.
- **Industrial Competitiveness:** A strong semiconductor industry enhances technological leadership, innovation, and global industrial competitiveness.

- **Technological Sovereignty:** Domestic semiconductor manufacturing reduces import dependence, strengthens self-reliance, and improves supply chain resilience.

Indigenous Microprocessors and Core Semiconductor Technologies

- **Microprocessors are the foundation of modern digital infrastructure**, powering sectors such as telecommunications, mobility, healthcare, industry, defence, and space.
- **India is strengthening indigenous capabilities in advanced processor design** as a key pillar of semiconductor self-reliance.
- **DHRUV64**, a fully indigenous **64-bit microprocessor** developed by **C-DAC** under the **Microprocessor Development Programme (MDP)**, marks a major milestone in this effort.

Schemes under ISM

- **Semiconductor Fabs Scheme:** Provides up to **50 per cent fiscal support** for setting up semiconductor wafer fabrication units, covering advanced and mature technology nodes.
- **Display Fabs Scheme:** Offers up to **50 per cent financial support** to establish **AMOLED** and **LCD display fabrication units** in India.
- **Compound Semiconductors and ATMP/OSAT Scheme:** Supports compound semiconductor and chip assembly, testing and packaging units with up to **50 per cent capital assistance**.
- **Design Linked Incentive Scheme:** With an outlay of **₹1,000 crore**, supports chip design startups and MSMEs through R&D support and incentives of up to **₹15 crore per company**.

Comparison of ISM 1.0 vs ISM 2.0

India Semiconductor Mission (ISM) 1.0	India Semiconductor Mission (ISM) 2.0
Launched in 2021 under the Ministry of Electronics and Information Technology (MeitY).	Announced in the Union Budget 2026–27 under MeitY.
Aims to develop a comprehensive semiconductor and display manufacturing ecosystem in India.	Focuses on building a self-reliant semiconductor ecosystem by strengthening the entire value chain.
Backed by a ₹76,000 crore incentive package with up to 50% fiscal support for eligible projects.	Expands focus to semiconductor equipment, materials, indigenous IP, and resilient supply chains.
Supports silicon fabs, compound semiconductors, display fabs, ATMP/OSAT units, and chip design.	Emphasises more fabs, semiconductor equipment, materials, advanced packaging, R&D, and talent development.
12 semiconductor projects approved with an investment pipeline of about ₹1.64 lakh crore.	Aims to strengthen India's position in the global semiconductor ecosystem.
Focused on establishing the manufacturing base for semiconductors in India.	Built around six pillars: Design, Machines & Materials, More Fabs, ATMP-OSAT, R&D, and Talent Development.

BHUBANESWAR DECLARATION

The Bhubaneswar Declaration was adopted by Tribal Research Institutes (TRIs) on 8 July 2026 with the objective of transforming TRIs into Centres of Excellence and strengthening their role in evidence-based tribal policymaking.

Highlights

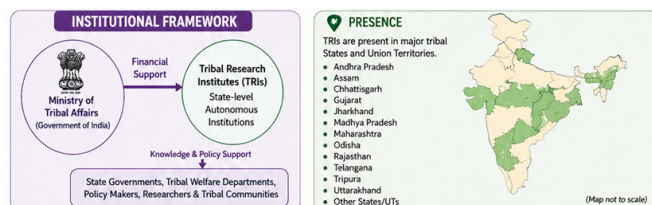
- ➔ Adopted by **Tribal Research Institutes (TRIs)** across India.
- ➔ Seeks to transform TRIs into Centres of Excellence for tribal research, documentation, policy analysis, and capacity building.
- ➔ Aims to provide evidence-based inputs for the National Tribal Development Policy (2027–2032).
- ➔ Focuses on preservation of tribal culture, languages, traditional knowledge, and heritage.
- ➔ Encourages **technology-driven research**, digital documentation, and creation of comprehensive tribal databases.
- ➔ Promotes collaboration among TRIs, universities, research institutions, and government agencies.
- ➔ Strengthens community participation to ensure research reflects the needs and aspirations of tribal communities.

Significance

- ➔ **Strengthens Tribal Governance:** Improves tribal policymaking through research and institutional capacity.
- ➔ **Promotes Tribal Development:** Preserves tribal heritage and supports inclusive, sustainable development.

About Tribal Research Institutes (TRIs)

NODAL INSTITUTIONS FOR TRIBAL RESEARCH, POLICY SUPPORT & DEVELOPMENT



- ➔ Established by **State Governments** with support from the **Ministry of Tribal Affairs**.
- ➔ **Function** as nodal institutions for research, documentation, evaluation of tribal welfare schemes, training, capacity building, and policy support related to tribal societies and issues.
- ➔ Present in **tribal-majority States and Union Territories** and serve as key knowledge institutions for tribal development.

MANUAL SCAVENGING

The Government informed Parliament that 332 sanitation workers died (2021–2026), reaffirming its commitment to eradicate manual scavenging and enforce accountability.

About

- ➔ **Hazardous Cleaning Deaths:** 332 sanitation workers died during sewer and septic tank cleaning (Jan 2021–June 2026).
- ➔ **Government Action:** 193 FIRs registered in five years to enforce the ban on hazardous manual scavenging.

Highlights

- ➔ The Government reiterated its zero-tolerance policy towards manual scavenging.
- ➔ **Focus areas include:** Strict enforcement of the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 (MS Act, 2013).
 - ♦ Rehabilitation of affected persons.
 - ♦ Promotion of mechanised sewer and septic tank cleaning.

Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013

- ➔ **Came into force:** 6 December 2013.
- ➔ **Objective:** Eliminate manual scavenging and rehabilitate manual scavengers.
- ➔ **Prohibits:** Employment or engagement of any person as a manual scavenger. Hazardous manual cleaning of sewers and septic tanks without prescribed safety measures.
- ➔ **Penalty (Section 8):** Imprisonment up to 2 years; fine up to ₹1 lakh or both.

Data Reported in Parliament

- ➔ 332 sanitation worker deaths reported during hazardous sewer and septic tank cleaning.
- ➔ **Period:** 1 January 2021 – 30 June 2026.
- ➔ **Coverage:** 18 States and Union Territories.
- ➔ **Source:** National Commission for Safai Karamcharis (NCSK).

Mechanisation Status

- The Government stated that no separate evaluation has been conducted on the implementation of mechanised sewer cleaning across States and Union Territories.

Survey Findings

- Recent district-level surveys did not identify any person currently engaged in manual scavenging.
- The Government attributed this to sustained legislative, administrative, and rehabilitation efforts.

National Commission for Safai Karamcharis (NCSK)

Background:

- **Established:** 12 August 1994
- **Legal Basis:** National Commission for Safai Karamcharis Act, 1993 (*Ministry of Social Justice and Empowerment*).
- Initially constituted as a **statutory body** for a period of 3 years. The Act lapsed in **2004**, after which NCSK functions as a **non-statutory body** through periodic extensions by the Government.

Objectives:

- **Protects Safai Karamcharis:** Safeguards their rights, dignity, safety, and rehabilitation.
- **Promotes Welfare:** Recommends and monitors social, educational, and economic welfare measures.

Functions:

- **Policy Recommendations:** Recommend time-bound programmes to remove inequalities in status, facilities and opportunities for Safai Karamcharis.
- **Monitoring Welfare Schemes:** Review the implementation of schemes related to social rehabilitation, economic empowerment, and the welfare of sanitation workers.
- **Grievance Redressal:** Investigate complaints and take suo motu cognizance of non-implementation of welfare schemes, violation of laws related to Safai Karamcharis, and hardships faced by sanitation workers.
- **Reporting:** Submit periodic reports to Central and State Govts. regarding difficulties faced by Safai Karamcharis.
- **Composition:** Consists of a Chairperson, Vice-Chairperson, and Members appointed by the Central Government.
- **Status:** Chairperson holds the rank of Minister of State, while the Vice-Chairperson and Members hold ranks equivalent to senior government officials.

Important Laws Related to Safai Karamcharis:

- Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.
- **Article 17 of the Constitution:** Abolishes **untouchability** and prohibits its practice.
- **Article 46:** Directs the State to promote the educational and economic interests of weaker sections.

MANAS (MADAK PADARTH NISHEDH ASOOCHNA KENDRA)

The National Narcotics Helpline MANAS is strengthening India's fight against drug abuse and drug trafficking through a secure, technology-driven platform for reporting drug-related activities and accessing counselling and rehabilitation services.

About

- **MANAS (Madak Padarth Nishedh Asoochna Kendra)** was launched on **18 July 2024** as India's **National Narcotics Helpline** under the **Narcotics Control Bureau (NCB)**, **Ministry of Home Affairs**, in collaboration with the **Digital India Corporation (DIC)**.
- It supports the vision of **Digital India** and the mission of **Nasha Mukh Bharat**.
- The platform is accessible through **helpline 1933**, the **official portal**, **email**, and the **UMANG** app.

Key Features

- It enables citizens to **confidentially** report **drug trafficking**, **drug peddling**, **illegal cultivation**, and other drug-related activities without revealing their identity.
- It provides **counselling** and **de-addiction support**. Relevant calls are transferred to the **Ministry of Social Justice and Empowerment** helpline **14446**.
- It uses **digital ticket generation**, **workflow management**, **report tracking**, and **data analytics** to strengthen **inter-agency coordination**, identify hotspots, and accelerate response.
- **MANAS** connects citizens with **30 NCB Zonal Units** and **36 State/Union Territory Anti-Narcotics Task Forces** for **coordinated anti-drug action**.

India's Anti-Drug Framework

- **Article 47** directs the State to prohibit the consumption of **intoxicating drinks** and **drugs injurious to health**, except for **medicinal purposes**.
- India is a party to the **1961 Single Convention on Narcotic Drugs**, the **1971 Convention on Psychotropic Substances**, and the **1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances**.
- The legal framework includes the **Drugs and Cosmetics Act, 1940**, the **Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985**, and the **Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances (PITNDPS) Act, 1988**.
- Other initiatives include the **NIDAAN Portal** for **monitoring drug cases** and the **Nasha Mukh Bharat Abhiyan** for **awareness, prevention, and rehabilitation**.

Significance

- **MANAS** strengthens **secure reporting**, improves **counselling and rehabilitation access**, promotes **digital governance**, enhances **inter-agency coordination**, and encourages **citizen participation** in achieving a **Nasha Mukh Bharat**.

LokOS PLATFORM

Self-Help Entrepreneur-Livelihoods and Enterprise Application for Prosperity and Sustainability (SHE-LEAPS) was recently launched under the LokOS platform to empower women Self-Help Group (SHG) entrepreneurs through digital enterprise management.

About

- LokOS (Lok = People; OS = Operating System) is a web and mobile platform under the Deendayal Antyodaya Yojana–National Rural Livelihoods Mission (DAY-NRLM).
- It was developed by the Digital India Corporation (DIC) under the Ministry of Rural Development (MoRD) and launched in 2022.
- It provides a comprehensive digital solution for managing Self-Help Groups (SHGs) and Community-Based Organizations (CBOs).
- It supports enterprise creation, business management, performance tracking, and both farm and non-farm enterprises, thereby strengthening a sustainable and resilient rural economy.
- It also supports the Lakhpati Didi initiative through large-scale outreach, beneficiary tracking, and digital monitoring.

Key Features

- The web application enables administrators, e-bookkeepers, and transaction approvers to create and approve SHGs, Village Organizations (VOs), Cluster Level Federations (CLFs), and their members.



- The mobile application supports field-level recording and management of Community-Based Organization (CBO) activities.
- It generates Aadhaar- and bank-linked digital IDs, and records savings, loans, repayments, and other financial transactions.
- It captures livelihood profiles to support planning and convergence with government schemes.
- It enables user management, approvals, monitoring, reporting, real-time dashboards, and one-click reports for data-driven decision-making.

Coverage

- The platform covers 34 States and Union Territories and has enabled large-scale digital integration of Cluster Level Federations (CLFs), Village Organizations (VOs), Self-Help Groups (SHGs), and SHG members across India.

UNIFIED DISTRICT INFORMATION SYSTEM FOR EDUCATION PLUS REPORT 2025–26

The Ministry of Education released the Unified District Information System for Education Plus (UDISE+) Report 2025–26 on school education in India.

About UDISE+

- UDISE+ is among the world's largest education management information systems. It covers over 14.8 lakh schools, 1.02 crore teachers, and 26 crore students.
- It functions under the Department of School Education and Literacy as the primary high-fidelity data repository for school education.
- UDISE+ enables evidence-based decision-making by providing comprehensive, real-time school-level data for monitoring educational performance and planning interventions.
- It helps track educational indicators, allocate fiscal resources, and refine policies in line with the National Education Policy (NEP).

Major Findings

- The number of teachers increased by 8.3% compared with 2022–23.
- The Pupil-Teacher Ratio reached 10, 12, 17, and 21 at the Foundational, Preparatory, Middle, and Secondary levels respectively. These ratios are below the NEP benchmark of 30:1.
- Dropout rates declined from 2.3% to 1.8% at the Preparatory level and from 8.2% to 7% at the Secondary level.
- Retention increased from 82.8% to 83.7% at the Middle level and from 47.2% to 51.9% at the Secondary level.
- The Secondary-level Gross Enrolment Ratio rose from 68.5% to 71.7%.
- Transition rates improved across school stages, reducing educational discontinuity.

Educational Indicators	2022–23	2023–24	2024–25	2025–26
Girls Enrolment (%)	48.0	48.1	48.3	48.4
Female Teachers (%)	52.3	53.3	54.2	54.9

- Women constitute 54.9% of teachers, while girls account for 48.4% of enrolment.
- 95% of schools have electricity, 98.5% have girls' toilets, and 97.2% have boys' toilets. Drinking-water access is also widespread.
- Schools with computers increased from 64.7% to 69.9%, while internet connectivity also expanded.
- Rationalisation reduced single-teacher and zero-enrolment schools, improving resource use and administrative efficiency.

Key Challenges

Secondary retention remains only 51.9%, indicating a significant drop-off.

Functional playground availability has declined slightly, affecting physical development and sports participation.

More than 40% of schools lack adequate facilities for Children with Special Needs. Only about 30% have rainwater-harvesting systems.

Over 1 lakh schools still have only one teacher, increasing teaching and administrative burdens.

NAMASTE SCHEME

89,915 Sewer and Septic Tank Workers and 2,81,117 Waste Pickers have been validated under the NAMASTE scheme.

About

- Launched in **July 2023** as a **Central Sector Scheme**, **NAMASTE (National Action for Mechanised Sanitation Ecosystem)** replaced the earlier **Self-Employment Scheme for Rehabilitation of Manual Scavengers (SRMS)**.
- Jointly implemented by the **Ministry of Social Justice and Empowerment** and the **Ministry of Housing and Urban Affairs**, it ensures the **safety, dignity and social security** of sanitation workers. It aims to end **hazardous manual cleaning** of sewers and septic tanks by promoting **mechanised practices**.
- Workers receive **PPE, health insurance** under **Ayushman Bharat**, **occupational safety training**, **skill development**, **financial assistance for self-employment**, and access to **modern mechanised equipment**.
- The scheme targets **zero fatalities** in sanitation work and eliminating **direct human contact** with hazardous waste, while building a **skilled workforce** and promoting **entrepreneurship** through **Self-Help Groups**.

GUWAHATI DECLARATION

BRICS nations adopted the Guwahati Declaration to strengthen cooperation against the evolving threat of illicit drug trafficking and related transnational organised crime.

Adoption

- The Declaration was adopted at the conclusion of the two-day **BRICS Heads of Anti-Drug Agencies Meeting** held in **Guwahati, Assam**.

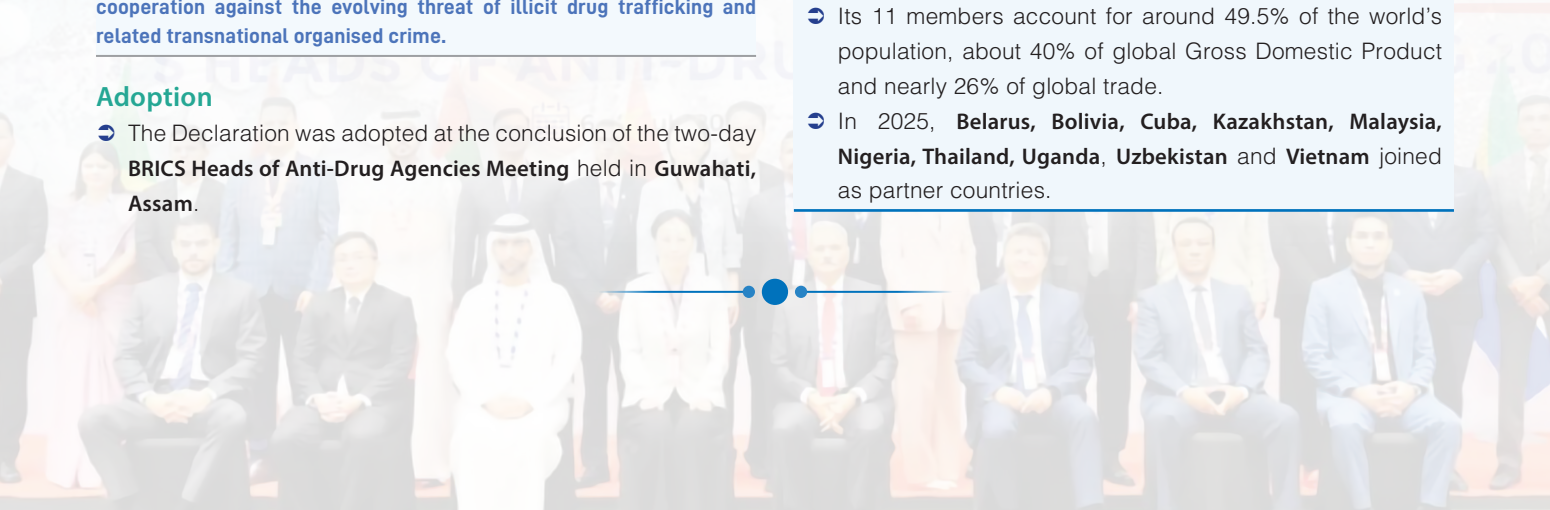
- The meeting was organised under **India's 2026 BRICS Chairship**. Its theme was **"Building for Resilience, Innovation, Cooperation and Sustainability."**
- It brought together representatives from **Brazil, China, Ethiopia, India, Indonesia, Iran, Russia** and the **United Arab Emirates**.
- The participants discussed coordinated strategies to counter global drug trafficking.

Key Provisions

- The Declaration calls for closer cooperation against illicit drug trafficking and related transnational organised crime.
- It promotes the timely exchange of **information, intelligence and best practices**, in accordance with national laws and international obligations.
- It expresses concern over the spread of **synthetic drugs** and **New Psychoactive Substances**.
- It also highlights the misuse of emerging technologies and digital platforms, along with the exploitation of maritime routes by transnational criminal syndicates.
- It supports the use of innovative technologies, digital tools and data-driven approaches to improve law enforcement and regulatory measures against drug trafficking.
- It stresses drug-demand reduction, healthy lifestyles and protection of vulnerable groups, especially children and young people, through evidence-based and people-centred strategies.

BRICS

- BRICS is an intergovernmental organisation of major emerging economies.
- It seeks greater economic and geopolitical integration and coordination among members.
- The term **BRIC** was coined by **Jim O'Neill** in 2001 for **Brazil, Russia, India and China**. South Africa joined in 2010, creating BRICS.
- **Egypt, Ethiopia, Iran, Saudi Arabia** and the **United Arab Emirates** joined in 2024.
- **Indonesia** joined in 2025.
- Its 11 members account for around 49.5% of the world's population, about 40% of global Gross Domestic Product and nearly 26% of global trade.
- In 2025, **Belarus, Bolivia, Cuba, Kazakhstan, Malaysia, Nigeria, Thailand, Uganda, Uzbekistan** and **Vietnam** joined as partner countries.





CULTURE & HISTORY

DR. SYAMA PRASAD MOOKERJEE (1901–53)

Prime Minister Narendra Modi paid tributes to Dr. Syama Prasad Mookerjee on his 125th birth anniversary (6 July), recalling his contributions to national unity, education, industrial development, and nation-building.

Early Life and Academic Career

- Born in **Calcutta (Kolkata)**, he was the son of **Sir Ashutosh Mookerjee**, a renowned educationist and former **Vice-Chancellor of Calcutta University**.
- He represented **Calcutta University** at the **Conference of the Universities of the British Empire** in **England** and became its **youngest Vice-Chancellor** at the age of **33** in **1934**.
- He founded the Bengali journal **Bang Wani** (**1922**) and the English daily **The Nationalist** in the **1940s**.

Political Career

- He initially joined the **Indian National Congress** but later resigned over ideological differences and joined the **Hindu Mahasabha** in the **1930s**.
- He played a key role in forming the **Progressive Coalition Government** in **Bengal** (**1937**) and served as **Finance Minister** (**1941–42**) in the **Fazlul Haq Ministry**.
- He became the **acting President** of the **Hindu Mahasabha** in **1940**, advocated **complete independence** for India, presided over its **Bilaspur Session**, met **M.A. Jinnah** to explore a solution to the Hindu–Muslim issue, and strongly opposed the **Muslim League** and the **Partition of India**.
- After Independence, he served as **Minister for Industry and Supply** in the **Interim Government** (**1947–50**) before resigning over differences.
- In **1951**, he founded the **All India Bharatiya Jana Sangh**, the ideological predecessor of the **Bharatiya Janata Party (BJP)**.

Contributions and Legacy

- He was instrumental in establishing the **Chittaranjan Locomotive Factory**, **Sindri Fertilizer Corporation**, and **Hindustan Fertilizer Corporation**.
- He advocated nationalism, Hindu cultural identity, economic self-reliance, and a united India. He opposed Article 370, asserting that one nation cannot have two constitutions, two heads, or two flags, and opposed the linguistic division of India, favouring administrative efficiency, security, and economic prosperity.
- He was arrested during a protest against the special status of Jammu & Kashmir and died under mysterious circumstances in **1953**.

- He is remembered as a staunch nationalist, educationist, advocate of cultural unity, and "**The Lion of Parliament**."

HUL DIWAS

Hul Diwas is observed every year on **30 June** to commemorate the **Santhal Hul (Santhal Rebellion)** of **1855**, one of the earliest tribal and peasant uprisings against **British colonial rule**. It was recently celebrated in **Jharkhand**.

About

- In the **Santhali** language, "**Hul**" means **revolution**, **uprising**, or **resistance**.
- The day honours the courage of the **Santhal** community and is observed across **Jharkhand**, **West Bengal**, **Odisha**, **Assam**, and **Bihar**.

Santhal Hul (1855)

- The uprising began on **30 June 1855** at **Bhognadih** village in present-day **Sahibganj district, Jharkhand**, and continued until **3 January 1856**.
- It was led by **Sidho Murmu**, **Kanho Murmu**, **Chand Murmu**, **Bhairav Murmu**, with active participation of **Phulo Murmu** and **Jhano Murmu**. Around **60,000 Santhals** fought the **East India Company** through **guerrilla warfare**.
- The revolt opposed **British rule**, the **feudal-zamindari system**, and exploitation by **zamindars**, **moneylenders**, **darogas**, upper castes, and outsiders collectively known as "**dikus**".

Background

- In **1832**, the British created **Damin-i-Koh** in present-day **Jharkhand** for Santhal settlement.
- Later, land alienation, economic exploitation, loss of tribal autonomy, interference in traditional governance, and British apathy triggered the uprising.

Impact

- **Sidho** was executed in **1855**, followed by **Kanho** in **1856**.
- The movement led to the **Santhal Parganas Tenancy Act, 1876** and the **Chotanagpur Tenancy Act, 1908**, which sought to protect **tribal land rights**, restrict transfer of **Adivasi** land to non-Adivasis, and preserve **tribal cultural autonomy**.

PRAMBANAN TEMPLE COMPLEX

The Prime Minister of India, along with the President of Indonesia, visited the **Prambanan Temple Complex**, a **UNESCO World Heritage Site**, in **Yogyakarta, Indonesia**, highlighting the shared civilisational heritage of the two countries.

About

- Prambanan is the largest **Hindu temple** complex in **Indonesia**, located at **Sleman, Yogyakarta**, on the border of Yogyakarta and Central Java in **Southern Java**.
- It is locally known as **Roro Jonggrang** (Temple of the Slender Virgin).
- It was built during the 9th century by the **Sanjaya Dynasty** in the **Mataram Kingdom** period and was inscribed as a UNESCO World Heritage Site in 1991.
- The complex is primarily dedicated to Lord Shiva and honours the Hindu Trimurti, i.e. **Shiva, Vishnu, and Brahma**.

Architecture

- The complex follows a **three concentric square** layout based on the **Hindu cosmological concept of the universe** and reflects both **indigenous Javanese** and **South Indian Pallava** architectural influences.
- It comprises **240 temples**. The **raised central compound** contains **eight main** and **eight minor towering temples**, with the **47-metre-high Shiva Temple** as the largest and centrally located shrine.
- The temple galleries contain **bas-relief carvings** depicting the **Ramayana**, reflecting the spread of **Indian cultural traditions** in **Southeast Asia**. **Buddhist temples and shrines** surround the Hindu temple complex.



ABATHSAHAYESWARAR TEMPLE

The 12th-century Abathsahayeswarar Temple at Thukkachi, Tamil Nadu, was restored after decades of neglect. On 6 December 2024, the project received the UNESCO Asia-Pacific Award of Distinction for Cultural Heritage Conservation.

About

- Also called the **Thukkachi Abatsahayesvar Temple**, it is a **Lord Shiva** temple situated on the **Arasalar River** near **Kumbakonam**, in **Thanjavur district**.
- Its origins date to the **10th–11th-century Chola period**. It is an important later Chola monument associated with **Kulotunga I** and **Vikrama Chola**, whose inscriptions record that they maintained it. The Cholas also promoted **Shaivism** across southern India.

- Designed as a **Kara Kovil**, the temple resembles a **chariot** and houses one of the oldest images of **Lord Sarabeshwarar**.

Architecture and Restoration

- Its Chola-style plan includes a **garbhagriha**, an east-facing **gopuram** aligned with solar symbolism, carved outer walls, finely crafted pillars, and inscriptions valuable for studying Chola cultural and religious traditions.
- Restoration combined **Sthapatya Veda**, **Agama Shastra**, and **lime mortar** with drone surveys, digital mapping, photogrammetry, and structural engineering. Each granite block was numbered, dismantled, and restored to its original position, preserving heritage authenticity and structural integrity.

JAGANNATH RATH YATRA

The world-famous Jagannath Rath Yatra recently commenced in Puri, Odisha. The annual festival commemorates the ceremonial journey of Lord Jagannath, Lord Balabhadra, and Devi Subhadra from the Jagannath Temple to the Gundicha Temple.

About Rath Yatra

- Also known as **Gundicha Jatra**, **Ghosa Jatra**, **Navadina Jatra**, and the **Festival of Chariots**, it is an ancient **Vaishnavite** festival dedicated to **Lord Jagannath**, an incarnation of **Lord Vishnu**, with origins rooted in **Hindu traditions and scriptures**.
- The festival begins on **Ashadha Shukla Dwitiya** and continues for **nine days**. The three sibling deities give **darshan** from their chariots while travelling about **3 km** to the **Gundicha Temple**, believed to be their **maternal aunt's abode**, and return on the **same chariots** during the **Bahuda Yatra (Return Car Festival)**.
- The festival gained prominence after the construction of the **Jagannath Temple** and is regarded as one of the **oldest and largest religious festivals** in India. It is celebrated across **Odisha, Uttar Pradesh, Gujarat**, and other states, attracting millions of devotees.

Major Rituals

- The important rituals include **Snana Purnima** (108 sacred water pots), **Anavasara**, **Nava Jaubana Darshan**, **Pahandi Bijje**, **Chhera Pahanra** (the Gajapati King sweeps the chariots with a golden broom), **Rath Yatra**, **stay at Gundicha Temple**, **Hera Panchami**, **Bahuda Yatra**, **Suna Besha**, and **Niladri Bijay**.

Significance

- According to tradition, **Devi Subhadra** wished to visit her aunt's house, accompanied by **Lord Jagannath** and **Lord Balabhadra**, giving rise to the annual Rath Yatra.
- The festival symbolises **family bonds**, **equality**, **devotion**, **compassion**, **inclusiveness**, and the **cyclical nature of life**. Pulling the chariots is believed to bring **spiritual merit**, **prosperity**, and **divine blessings**.

Three Chariots

- Lord Jagannath – Nandighosha (Red–Yellow canopy).
- Lord Balabhadra – Taladhawa (Red–Green canopy).
- Devi Subhadra – Darpadalana (Devadalana) (Red–Black canopy).
- The three **wooden chariots** are constructed anew every year using traditional methods and sacred wood.

Jagannath Temple, Puri

- Built in the 12th century CE by **King Anantavarman Chodaganga Deva** of the **Eastern Ganga Dynasty**, it is one of the Char Dham pilgrimage sites (Badrinath, Dwarka, Puri, and Rameswaram).
- It is popularly known as the **White Pagoda and Yamanika Tirtha**, where the influence of Yama, the god of death, is believed to be nullified by the presence of Lord Jagannath.
- Built in the **Kalinga style** of architecture, the temple features a curvilinear shikhara, elaborate carvings, and sculptural ornamentation. It comprises **Vimana (Deula), Jagamohana, Nata Mandira**, and **Bhoga Mandapa**.
- The complex is enclosed by **Kuruma Bheda** and **Meghnad Pachira** and has four gates facing the cardinal directions, Singhadwara (main entrance), Ashwadwara, Vyaghra Dwara, and Hastidwara, each bearing carvings of its respective animal.
- The sacred **Nilachakra (Blue Wheel)** is made of Ashtadhatu, and the 33-foot Aruna Stambha before the Singhadwara was originally located at the Konark Sun Temple.

RAVIDASSIA COMMUNITY

The Ravidassia community has renewed its demand for a separate "Ravidassia religion" category in the Census, seeking formal recognition of its distinct religious identity and accurate demographic enumeration.

Who are the Ravidassias?

- The **Ravidassias** are a distinct socio-religious **Dalit** community that follows the teachings, egalitarian philosophy, and mystic poetry of **Guru Ravidas**, a **15th–16th century Bhakti Movement** saint, mystic poet, and social reformer.
- **Guru Ravidas** preached **equality, social justice**, and devotion beyond caste distinctions. He envisioned **Begampura**, a society free from sorrow, exploitation, fear, discrimination, and caste barriers.
- The community is concentrated mainly in the **Doaba** region of **Punjab**, particularly **Jalandhar, Hoshiarpur, Kapurthala**, and **Shaheed Bhagat Singh Nagar (Nawanshahr)**. Nearly **12 lakh** Ravidassias live in this region.
 - ♦ Along with the **Ad Dharmi** movement, the population exceeds **30.95 lakh**, accounting for over **11%** of Punjab's population and forming a major share of its **32% Dalit** population.

Dera Sachkhand Ballan

- **Dera Sachkhand Ballan**, near **Jalandhar**, founded by **Baba Sant Pipal Das** in the early **20th century**, is the principal spiritual and organisational centre of the community.
- Though historically associated with **Sikhism**, it declared the **Ravidassia Panth** a separate religion in **2010** following the **2009 Vienna attack**, in which **Sant Ramanand** was killed.

Distinct Identity and Significance

- The community follows **Amritbani Guru Ravidas Ji**, containing **200 hymns** of **Guru Ravidas**, and maintains distinct places of worship, religious greetings, and the '**Har**' insignia. **Seer Goverdhanpur, Varanasi**, the birthplace of **Guru Ravidas**, is its major pilgrimage centre.
- A separate **Census** category would provide accurate demographic data, prevent administrative misclassification, and formally recognise the community's distinct religious identity.
- The community also holds significant electoral influence in **Punjab's Doaba** region and plays an important role in debates on **Dalit representation and identity**.

BIRTH ANNIVERSARY OF MANGAL PANDEY

Prime Minister Narendra Modi paid tribute to freedom fighter Mngal Pandey on his birth anniversary.

About

- He was born on **19 July 1827** in **Nagwa village, Ballia** (Uttar Pradesh), into a **Bhumihar Brahmin** family.
- At age **22**, he joined the **East India Company's army**, serving in the **34th Bengal Native Infantry**.

The Spark of Revolt

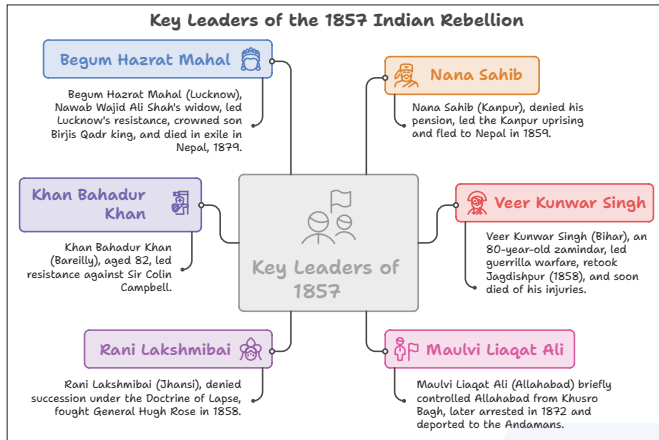
- The British had introduced the **Enfield rifle**, whose cartridges had to be bitten for opening.
- Word spread the cartridges were greased with **beef and pork fat**, deeply offending Hindu and Muslim sepoys alike.
- **Mangal Pandey** refused to use it, and on **29 March 1857** at **Barrackpore**, fired the first shot of rebellion at his **Sergeant Major**.
- That act triggered the **Revolt of 1857**, also called the **Sepoy Mutiny** or **India's First War of Independence**.
- Pandey was **court-martialled and hanged on 8 April 1857**; his regiment was disbanded.

Aftermath

- On **10 May 1857**, Meerut sepoys rose up, and the revolt quickly escalated nationwide.
- They marched to Delhi and persuaded **Bahadur Shah II**, the last Mughal emperor, to lead them symbolically.
- The British recaptured the **Red Fort by September 1857**; **Bahadur Shah** was exiled to **Rangoon**, dying there in **1862**.

Result

- ➔ The revolt ended **East India Company rule** for good.
- ➔ The British Crown took direct charge via **Queen Victoria's Proclamation** and the **Government of India Act**, both **1858**, replacing the Governor-General with a **Viceroy**.
- ➔ **Lord Canning** became India's first Viceroy.



KORKU COMMUNITY

The indigenous Korku community of Madhya Pradesh has demanded that the forest department and district administration remove encroachments from forest lands, reflecting its long-standing dependence on forest resources.

About

- ➔ The **Korkus** are an ancient, peaceful, rural-based **Adivasi** community recognised as a **Scheduled Tribe**. They are a **Munda** ethnic group living in close proximity to the **Dravidian-speaking Gond** tribe. The word **Korku** literally means "**human group**."
- ➔ They are concentrated chiefly in **Madhya Pradesh** and parts of **Maharashtra**, especially in **Khandwa**, **Burhanpur**, **Betul**, **Chhindwara**, and the **Melghat Tiger Reserve** region of **Amravati**. According to the **1991 Census**, their population was **4,52,149**.
- ➔ Traditionally, they were **hunter-gatherers** inhabiting the forests of the **Satpura Mountain Range** on both sides of the **Tapti River**, before gradually adopting **settled agriculture**.

Culture and Society

- ➔ They belong to the **Munda linguistic group** and speak **Korku**, an endangered language of the **Mon-Khmer (Austroasiatic)** family, generally written in the **Devanagari** script.
- ➔ Village affairs are managed by the **Korku Panchayat**, headed by a **Patel** and assisted by the **Padihar**, **Kotwar**, and village elders.
 - ♦ The community has **four sub-sects** and **16 gotras**, often named after natural elements and regulating marriage alliances.

- ➔ Their villages consist of **rows of thatched huts** with raised wooden platforms for storing harvests and cattle feed.
 - ♦ They practise **double-cropping** of cereals, pulses, and oilseeds, while **Bhainsdehi** is known for **potato** and **coffee** cultivation.
- ➔ **Ancestor worship** is central to their traditions, with memorial pillars called **Munda** erected for the deceased.
 - ♦ **Hari** and **Jitori** festivals promote **tree planting**, environmental conservation, and food security, while traditional dances remain closely linked to agriculture and forests.

NATIONAL MARITIME HERITAGE COMPLEX AT LOTHAL

India is setting up the National Maritime Heritage Complex (NMHC) at Lothal, Gujarat. It will showcase the country's 4,500-year-old maritime history and the legacy of the Indus Valley Civilisation.

About

- ➔ Lothal was a major city of the **Indus Valley Civilisation**, dating to around **2400 BCE**.
- ➔ In Gujarati, its name means "**the mound of the dead**."
- ➔ The **Archaeological Survey of India** excavated the site from **1955 to 1960**, led by archaeologist **S.R. Rao**, uncovering a highly developed urban settlement and trading centre.
- ➔ Archaeologists believe Lothal sat strategically along a major river system, on the old trade route linking **Sindh to Saurashtra** in Gujarat.
- ➔ Its most important find is the **oldest known man-made dockyard** in the world, alongside an **acropolis**, **lower town**, **bead factory**, **warehouses**, **markets** and a sophisticated **drainage system**.
- ➔ Harappan engineering skill is reflected in the city's planned **canals and dock facilities**.
- ➔ Lothal was one of the ancient world's most important trading ports, with evidence of trade links to **Mesopotamia**, **Egypt** and **Persia**.
- ➔ **UNESCO Nomination**: Lothal was nominated as a **UNESCO World Heritage Site in 2014**, and its application remains pending on UNESCO's **tentative list**.

National Maritime Heritage Complex

- ➔ A **Rs 4,000 crore** project, approved by the **Union Cabinet in 2024**, located about **80 km from Ahmedabad**.
- ➔ It will recreate **Harappan streets, markets, dockyards and civic spaces**, letting visitors experience ancient urban life beyond a traditional museum display.
- ➔ The museum's design follows **Harappan architecture**, featuring elevated **flood-resistant structures and ship-like forms**.
- ➔ The project aims to become a global cultural and educational destination, showcasing India's ancient maritime prowess and the technological advancement of **Harappan civilisation**.

TAJ MAHAL

The Allahabad High Court has issued notices to the Union Government and the ASI on a petition, originating from a 2015 Agra suit, seeking a survey of the Taj Mahal, claiming it is a Hindu temple called "Tejo Mahalaya."

The Tejo Mahalaya Claim

- Petitioners argue the Taj Mahal was originally a **Shiva temple** called Tejo Mahalaya, a theory popularised by **P.N. Oak** through his books *"Taj Mahal is a Temple Palace"* (1965) and *"Taj Mahal: The True Story"* (1989).
- **Historians have consistently rejected** this claim, citing the absence of contemporary records, archaeological evidence, inscriptions, or architectural proof linking the structure to a pre-Mughal Hindu temple.

About the Taj Mahal

- A **17th-century Mughal mausoleum** on the **Yamuna's right bank** in **Agra**, declared a **UNESCO World Heritage Site** in **1983**.

- Built by Emperor **Shah Jahan** in memory of his wife **Mumtaz Mahal** (Arjumand Bano Begum), construction ran from **1632 to 1648 AD**; Mughal records called it **"Rauza-i-Munavvara"** (Illuminated Tomb).
- Its chief architect was **Ustad Ahmad Lahori**; the land was acquired from **Mirza Raja Jai Singh of Amber**, whom Shah Jahan compensated.

Architectural Features

- The Taj Mahal represents the **zenith of Mughal architecture**, blending **Persian, Timurid and Indian** traditions.
- Key features include white **Makrana marble**, perfect **bilateral symmetry**, the **Charbagh garden layout**, **Quranic calligraphy**, and **Islamic funerary design elements**.
- It also features extensive **Pietra dura**, a technique inlaying semi-precious stones into marble to create intricate floral and geometric patterns.

Architectural Features of the Taj Mahal

White Makrana Marble

Built entirely of white Makrana marble, known for its purity and luminosity.

Perfect bilateral Symmetry

The entire structure is symmetrical along the central axis, symbolising harmony and balance.

Islamic funerary design elements

The central dome, minarets, arches and the overall layout reflect traditional Islamic funerary architecture.

Charbagh garden layout

The Persian-style charbagh garden symbolises paradise with water channels dividing the garden into four parts.

Quranic calligraphy

Verses from the Quran are beautifully inscribed on the entrance and other parts of the monument.

Pietra dura (stone inlay)

Intricate floral and geometric patterns created by inlaying semi-precious stones into marble.



White Makrana Marble



Perfect Bilateral Symmetry



Charbagh Garden Layout



Quranic Calligraphy



Pietra Dura (Stone Inlay)

'ANGEN' WINS NATIONAL AWARD

Jharkhand's Santhali film "Angen" (Invisible) has won the 72nd National Film Award for Best Debut Film of a Director in the Non-Feature category.

About the Film

- It is the **first Santhali film** to receive a National Film Award.
- Directed by **Ravi Raj Murmu**, an **FTII Pune** graduate from Jharkhand, it is a **12-minute-10-second** short film inspired by a mystical Jharkhand folktale.
- Santhali** is among the **22 languages** listed in the **Eighth Schedule** of the Constitution, which enumerates the Republic's official languages.
- Bodo, Dogri, Maithili and Santhali** were added to the Schedule by the **92nd Amendment Act, 2003**.

About the Santhals

- They are found mainly in **Jharkhand, West Bengal, Odisha, Bihar and Assam**, and also in **Bangladesh, Nepal and Bhutan**.
- Their language, **Santhali**, belongs to the **Munda branch** of the **Austroasiatic family**.
- Their script, **OI Chiki (OI Cemet')**, was developed by **Pandit Raghunath Murmu** in **1925**.
- The Santhals led the **Santhal Hul (Santhal Rebellion)** of **1855-56**, against British rule, oppressive zamindars and moneylenders.

National Film Awards

- Established in **1954**, the National Film Awards promote cinematic excellence and are presented annually to recognise the best films, performances and technical achievements across languages and genres.
- Films certified by the **CBFC** between **1 January and 31 December** of the previous year are eligible.
- A jury appointed by the **Directorate of Film Festivals** announces the awards, which the **President of India** presents.
- The first Best Actor and Best Actress awards went to **Uttam Kumar and Nargis** in **1968**, then called the **"Bharat"** and **"Urvashi"** awards respectively.

BATUKESHWAR DUTT

The government paid tribute to freedom fighter Batukeshwar Dutt on his death anniversary.

About

- Born on **18 November 1910** in **Burdwan district, Bengal**, he was an Indian revolutionary.
- He was a member of the **HSRA**.
- On **8 April 1929**, he and **Bhagat Singh** threw non-lethal bombs in the **Central Legislative Assembly**, protesting British bills.
- Convicted in the **Delhi Assembly Bomb Case** on **12 June 1929**, he spent **nine years** in prisons across India.

- In jail, he went on **hunger strikes**, twice fasting over a month, demanding humane treatment for political prisoners.
- After release, he joined the **Quit India Movement**, jailed again for **four years**.
- He died on **20 July 1965** at **AIIMS, Delhi**, after a long illness.
- He was cremated at **Hussainiwala**, near **Ferozepur, Punjab**, alongside Bhagat Singh, Rajguru and Sukhdev, cremated there earlier.

Hindustan Republican Association (HRA)
Founded in Kanpur (1924) by Ram Prasad Bismil, Ashfaqullah Khan, Sachindra Nath Bakshi, Sachindranath Sanyal and Jogesh Chandra Chatterjee, aiming at a federal republic via armed struggle and mass participation.

Hindustan Socialist Republican Association (HSRA), 1928
Founded at Feroz Shah Kotla, Delhi, leaders included Bhagat Singh, Sukhdev, Shiv Verma, Chandrashekhar Azad and Vijay Kumar Sinha. It aimed at a Socialist Republic, combining political freedom with socio-economic change.

LOKMANYA BAL GANGADHAR TILAK

Prime Minister Narendra Modi paid tributes to Lokmanya Bal Gangadhar Tilak on his birth anniversary.

Early Life

- Born on **23 July 1856** in **Ratnagiri, Maharashtra**, Tilak was a **freedom fighter, social thinker, philosopher and teacher**.
- He was among the earliest and strongest advocates of **Swaraj** (self-rule), famously declaring, **"Swaraj is my birthright, and I shall have it."**
- He organised two public festivals, **Ganeshotsav (1893)** and **Shiv Jayanti (1895)**, to build national consciousness and political mobilisation.

Political Career

- Tilak joined the **Indian National Congress** in **1890**.
- He opposed **Gopal Krishna Gokhale's** moderate views, and was backed by **Bipin Chandra Pal** in Bengal and **Lala Lajpat Rai** in Punjab; together, they were called **"Lal-Bal-Pal."**
- The trio mobilised Indians against the **Bengal Partition**, proposing the **Swadeshi movement** and boycott of foreign goods.
- In **1908**, Tilak was arrested for **sedition** and sentenced to **six years'** imprisonment in **Mandalay, Burma**.
- In **1916**, he founded the **Home Rule League** at **Belagavi** to spread political awareness, and was key Congress leader in the **Lucknow Pact** with **Mohammed Ali Jinnah** to promote **Hindu-Muslim unity**.
- The British called him **"the Father of Indian Unrest,"** while he was conferred the title **"Lokmanya"** (accepted by the people as their leader), and Gandhi called him **"the Maker of Modern India."**

Literary Work

- He launched two weeklies, **Kesari** (Marathi) and **Mahratta** (English), criticising British policies.
- His notable works include **The Orion (1893)** and **The Arctic Home in the Vedas (1903)**.
- In Mandalay jail, he wrote **Srimad Bhagavadgita Rahasya**, an original exposition of the Hindus' most sacred text.

CHANDRA SHEKHAR AZAD

Prime Minister Narendra Modi paid homage to Chandra Shekhar Azad on his birth anniversary.

About

- Born on **23 July 1906** in present-day **Madhya Pradesh**, Azad grew up in poverty and joined the freedom struggle as a teenager during the **Non-Cooperation Movement**.
- Arrested for protest activities, he famously declared his name as "**Azad**" and vowed never to be captured alive.

Role in the Freedom Struggle

- He joined the **Hindustan Republican Association (HRA)**, later transforming it with **Bhagat Singh** into the more radical **Hindustan Socialist Republican Association (HSRA)**.
- He took part in the **1925 Kakori Train robbery**, a **1926 attempt** to blow up the **Viceroy's train**, and the **1928 shooting** of British officer **J.P. Saunders**, avenging **Lala Lajpat Rai's** death.
- After the **1929 Central Assembly bombing** and the subsequent British crackdown, Azad stayed underground, trying to free **Bhagat Singh**.

Death and Legacy

- On **27 February 1931**, surrounded by police at Allahabad's **Alfred Park**, he helped a comrade escape, killed three policemen, and used his last bullet on himself to avoid capture.
- He died at just **24**, true to his name and vow, **Azad (free)**, until the end.
- Alfred Park is now renamed **Chandra Shekhar Azad Park** in his memory.
- His role in India's freedom struggle continues to inspire the country's youth to stand up for justice with courage and conviction.

WEST BANK, LEBANON SITES TO LIST OF WORLD HERITAGE IN DANGER

At its Busan meeting, UNESCO added Sebastia (West Bank) and five castles in Lebanon's Mount Amel region, including Beaufort Castle, to both the World Heritage List and the List of World Heritage in Danger.

About the Lists

- The **World Heritage List** recognises cultural, natural and mixed heritage sites of **Outstanding Universal Value**.

- The **List of World Heritage in Danger** covers sites threatened by **armed conflict, natural disasters, urbanisation, pollution, climate change or neglect**, to mobilise international attention and support.

- This emergency inscription reflects concern over the ongoing **Middle East conflict's** impact on these sites' conservation.

Sebastia

- Located near **Nablus, West Bank**, Sebastia is identified with **ancient Samaria**, capital of the biblical **Kingdom of Israel**.
- Its archaeological remains span the **Iron Age, Roman, Byzantine and Islamic periods**.

Mount Amel Castles

- The inscription covers five historic castles in Lebanon's **Mount Amel (Jabal Amel)** region: **Beaufort (Shaqif), Tibnin, Dubiyye, Deir Kifa and Chamaa**.
- These fortifications blend **Crusader, Ayyubid, Mamluk** and local traditions, spanning nearly nine centuries of military and cultural history.

SARNATH ADDED TO UNESCO WORLD HERITAGE LIST

India's ancient Buddhist site of Sarnath, Uttar Pradesh, was inscribed on the UNESCO World Heritage List on 25 July 2026, during the World Heritage Committee's 48th session in Busan, South Korea.

About the Inscription

- With **45 sites**, India ranks **6th globally** and **2nd in the Asia-Pacific region**; Sarnath is Uttar Pradesh's **fourth** site, after the **Taj Mahal, Agra Fort and Fatehpur Sikri**.
- The last addition was in **2024**, the **Maratha Military Landscapes** in Maharashtra and Tamil Nadu.

WORLD HERITAGE CONVENTION			
UNESCO adopted the World Heritage Convention in 1972 , in force from 1975 ; India ratified it in 1977 .			
It aims to identify, protect and transmit the heritage of Outstanding Universal Value (OUV) to future generations, and promote international conservation cooperation.			
Sites are classified as	Cultural (monuments, buildings, archaeological sites)	Natural (geological formations, threatened habitats)	Mixed (combination of cultural and natural)
Ratifying countries become States Parties , committing to protect sites within their territory.			
The 21-member World Heritage Committee , elected by UNESCO's General Conference, inscribes sites, maintains the Danger List, monitors conservation, and administers the World Heritage Fund.			
A site needs OUV and must meet at least one of ten criteria (six cultural, four natural), such as being a masterpiece of human creative genius.			
Inscribes Sites	Maintains Danger List	Monitors Conservation	Administers World Heritage Fund
6 Cultural Criteria		4 Natural Criteria	

About Sarnath

- **Location & Significance:** Near Varanasi, Sarnath is one of Buddhism's four major pilgrimage sites, alongside Lumbini, Bodhi Gaya and Kushinagar.

- **First Sermon:** After enlightenment at Bodh Gaya, Buddha delivered his first sermon here around 528 BCE, known as Dhammachakrapravartana, establishing the Buddhist Sangha and the Noble Eightfold Path.
- **Major Monuments:** Includes the Dhamek Stupa, Chaukhandi Stupa, Dharmarajika Stupa, Ashokan Pillar, and ruins of ancient viharas and temples.
- **Ashoka's Contribution:** Emperor Ashoka visited Sarnath in the 3rd century BCE, building stupas and monasteries and inscribing edicts promoting Dharma.
- **National Emblem:** The Lion Capital of Ashoka, found at Sarnath, was adopted as India's national emblem in 1950.

Significance

- World Heritage status reinforces India's identity as **Buddhism's birthplace**.
- It also strengthens cultural diplomacy with **Japan, Thailand, Sri Lanka, Myanmar, Cambodia, Vietnam, South Korea and Mongolia**.
- It showcases India's expertise in **heritage conservation**.

RAVIDASSIA COMMUNITY

Guru Ravidas's 650th birth anniversary year commenced on Guru Purnima.

About

- A **15th–16th century Bhakti saint**, poet and social reformer, Guru Ravidas preached **equality, devotion and social justice**, opposing **caste-based discrimination**.
- He envisioned '**Beghumpura**' (a city without sorrow), a society free of suffering, fear and discrimination.
- He conveyed a broad message on **karma** through the saying "**Mann Changa to Kathauti Mein Ganga**" (if your mind is pure, the Ganges is in your tub).
- **41 of his hymns** feature in the **Guru Granth Sahib**, and his poems also appear in the **Panch Vani** of the **Dadu Panthi tradition**.
- **Dr. B.R. Ambedkar** embodied constitutional principles around the values Guru Ravidas expressed.

The Ravidassia Community

- The **Ravidassia community** has recently renewed its demand for a distinct "**Ravidassia religion**" Census category, seeking formal recognition and accurate demographic enumeration.
- Ravidassias are a distinct **socio-religious Dalit community** following Guru Ravidas's egalitarian teachings and mystic poetry. They are concentrated mainly in Punjab's **Doaba region, Jalandhar, Hoshiarpur, Kapurthala and Shaheed Bhagat Singh Nagar**; nearly **12 lakh** live there.
- Including the **Ad Dharmi movement**, their population exceeds **30.95 lakh**, over **11%** of Punjab's population and a major share of its **32% Dalit population**.
- **Dera Sachkhand Ballan**, near Jalandhar, founded by **Baba Sant Pipal Das** in the early 20th century, is their principal spiritual centre.

- Though historically linked to Sikhism, it declared the **Ravidassia Panth** a separate religion in **2010**, following the **2009 Vienna attack** that killed **Sant Ramanand**.
- The community follows the **Amritbani Guru Ravidas Ji** (200 hymns) and maintains distinct places of worship, greetings and the '**Har**' insignia.
- **Seer Goverdhanpur, Varanasi**, Guru Ravidas's birthplace, is its major pilgrimage centre.

Significance of the Census Demand

- A separate Census category would ensure **accurate demographic data**, prevent **administrative misclassification**, and formally recognise the community's distinct identity.
- The community also holds notable **electoral influence** in Doaba and figures prominently in debates on **Dalit representation**.

MUSEUM OF WORD

The Union Home Minister inaugurated the first phase of the 'Museum of Word' in Kolkata.

About

- The museum has been developed by the **National Library**, under the aegis of the **Union Culture Ministry**.
- It is the country's **first immersive language museum** and is also known as **Shabdalo**.
- It celebrates India's **22 official languages** and traces their journey, starting from **oral traditions and ancient manuscripts**, moving through **printed works**, and reaching **modern electronic texts**.
- The museum is spread across **nine galleries**, each exploring a different facet of the **history of languages** and their influence on India's **civilisation and culture**.
- Through these galleries, it seeks to present **language as a living entity** — one that has continuously shaped society while also being shaped by it.

Eighth Schedule

- The **Eighth Schedule** to the Constitution lists the **official languages** of the Republic.
- **Part XVII** of the Constitution, comprising **Articles 343 to 351**, deals separately with the official languages of the Union.
- The Eighth Schedule presently recognises **22 languages**: Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, Nepali, Odia, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, Urdu, Bodo, Santhali, Maithili and Dogri.
- Of these, **14 languages** were included at the time the Constitution was adopted.
- **Sindhi** was added in **1967**; **Konkani, Manipuri and Nepali** were added in **1992**; and **Bodo, Dogri, Maithili and Santhali** were added through the **92nd Amendment Act, 2003**.

Hindkesari Pedgaon Bailgada Sharyat

The Hindkesari Pedgaon Bailgada Sharyat (bullock cart race), held annually in Pedgaon, Satara, showcased Maharashtra's deep-rooted rural sporting tradition, attracting over 1,000 participants and thousands of spectators.



About



➔ Bailgada Sharyat is a traditional bullock cart race in which bulls or bullocks are tied to a cart with a wooden yoke, with or without a cartman.



➔ In Maharashtra, the sport is also known as Chhakadi and Shankarpath.



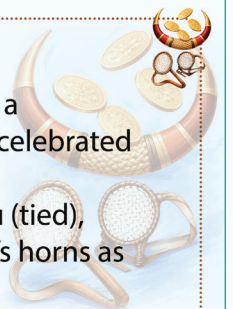
➔ It is organised every year in Pedgaon, Khatav Taluk, Satara district, Maharashtra.



JALLIKATTU



- ➔ Jallikattu, also known as **Eruthazhuvuthal**, is a traditional **bull-taming sport** of Tamil Nadu, celebrated during the **Pongal** harvest festival.
- ➔ The name derives from **Jalli** (coins) and **Kattu** (tied), referring to coins traditionally tied to the bull's horns as prizes.
- ➔ Participants attempt to hold the bull's hump and control it without weapons, while the bull runs through an open arena.
- ➔ The tradition has ancient roots, with references linked to early Tamil society and an ancient seal (2500–1800 BCE).
- ➔ **Pulikulam** and **Kangayam** are prominent bull breeds associated with the sport.
- ➔ Major variants include **Vadi Manjuvirattu**, **Vēli Virattu**, and **Vatam Manjuvirattu**.



KAMBALA



- ➔ Kambala is an annual **buffalo race** conducted between November and March by the farming community.
- ➔ It is held on two parallel **slushy tracks** and is traditionally sponsored by **Tuluva landlords** and households.
- ➔ The festival is celebrated in **Dakshina Kannada, Udupi, Bhatkal** (Karnataka), and **Kasaragod** (Kerala), collectively known as **Tulu Nadu**.



PERFORMANCE GRADING INDEX (PGI) 2.0

The Union Ministry of Education has released the Performance Grading Index for States/UTs (PGI-S) 2.0 and the Performance Grading Index for Districts (PGI-D) for 2025–26 to assess and compare school education performance across the country.

About

- The **Performance Grading Index (PGI)** is an assessment framework developed by the **Department of School Education and Literacy (DoSEL)** under the **Ministry of Education**.
- It evaluates the **relative performance** of **States/Union Territories** and **districts** on a **uniform scale**, categorises **States/UTs** into different **grades**, and encourages continuous improvement in school education.
- As per the framework, **PGI 2.0** is constructed using **73 indicators** under **2 categories** covering **6 domains**.

PGI-S (States/UTs)

- The **PGI-S** framework carries a total weightage of **1,000 points** across **70 indicators**.
- The indicators are grouped into 2 categories, i.e **Outcome and Governance & Management** which cover Learning Outcomes & Quality, Access, Infrastructure & Facilities, Equity, Governance Processes, and Teacher Education & Training.
- It is aligned with data from Unified District Information System for Education Plus (UDISE+), PARAKH Rashtriya Sarvekshan 2024, PM POSHAN Portal, PRABANDH Portal, and Vidyanjali Portal.

PGI-D (Districts)

- PGI-D assesses districts on a common parameter, with greater emphasis on the outcome measurement of educational policies.
- It carries 600 points across 70 indicators, grouped under 6 categories: Outcomes, Effective Classroom Transaction, Infrastructure, Facilities & Student Entitlements, School Safety & Child Protection, Digital Learning, and Governance Process.
- **The framework covers 11 domains:** Learning Outcomes & Quality (LOQ), Access Outcomes (AO), Teacher Availability & Professional Development Outcomes (TAPDO), Learning Management (LM), Learning Enrichment Activities (LEA), Infrastructure, Facilities & Student Entitlements (IF&SE), School Safety & Child Protection (SS&CP), Digital Learning (DL), Funds Convergence & Utilisation (FCU), Attendance Monitoring Systems (AMS), and School Leadership Development (SLD).

- The data are sourced from UDISE+, PARAKH Rashtriya Sarvekshan 2024, and the PRABANDH Portal.

7TH NATIONAL WATER AWARDS

The Ministry of Jal Shakti has launched the 7th National Water Awards on the Rashtriya Puraskar Portal of the Ministry of Home Affairs to recognise outstanding efforts in water conservation and management.

About

- The National Water Awards were introduced in 2018, with the first awards presented in 2019. They are instituted by the Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti.
- The awards recognise **exemplary contributions** towards the vision of **Jal Samridh Bharat**, promote water conservation, encourage a holistic approach to surface water and groundwater management, and motivate the adoption of best water-use practices.
- Eligible participants include **States, Districts, Urban Local Bodies, Dam Owning Agencies**, and **Industries** demonstrating excellence in water conservation and management.
- Winners receive a **Trophy and Citation**. Categories include **Best State, Best District, Best Urban Local Body, Best Implemented Project** in the Water Sector, and **Best Industry** for Corporate Social Responsibility (CSR) initiatives in the water sector.

ICC'S 'RETURN TO PLAY POST-PREGNANCY' GUIDELINES

The International Cricket Council (ICC) has issued the 'Return to Play Post-Pregnancy' Guidelines to help women cricketers make a safe and healthy return to competitive cricket after pregnancy and childbirth, while safeguarding the well-being of both mother and child.

About

- The guidelines provide a comprehensive **medical, physical, psychological**, and **logistical** welfare framework for women cricketers returning to elite sport.
- They serve as a **model policy** for **ICC member boards**, enabling them to frame their own policies in accordance with **local laws** and **employment regulations**.
- The guidelines recommend appointing a **case manager**—preferably a **doctor** or **physiotherapist**—to coordinate medical care, rehabilitation, and communication throughout pregnancy and the return-to-play process.

- They encourage **safe exercise** during pregnancy but recommend discontinuing **competitive cricket** after the **first trimester** due to limited scientific evidence for elite athletes.

6 Rs Return-to-Play Framework

- The phased recovery model comprises **Ready (0–6 weeks)**, **Review (6–8 weeks)**, **Restore (8–16 weeks)**, **Recondition (12–16+ weeks)**, **Return**, and **Refine**.
- It addresses physical recovery, fitness, mental health, performance progression, while the **Refine** stage also focuses on **childcare** and other social barriers affecting the player's **mental well-being**.

Significance

- The framework reduces the "**motherhood penalty**", improves **player retention**, protects experienced talent, and promotes the long-term growth of **women's cricket** through a more inclusive sporting ecosystem.
- Dedicated policies already exist in **Australia**, **New Zealand**, **South Africa**, **England**, **Pakistan**, and the **West Indies**, whereas **India**, **Sri Lanka**, and **Bangladesh** do not yet have dedicated norms.

ICC

- The ICC is the global governing and regulatory body for cricket.
- It frames and enforces the **Laws of Cricket** and the **Code of Conduct** for players and officials.
- It is headed by a Chairman, while day-to-day administration is managed by the **Chief Executive Officer (CEO)**.
- The Board of Directors comprises representatives of Full Member nations, with a few seats allocated to Associate Members.

DURAND CUP

President Droupadi Murmu unveiled and flagged off the trophies of the Durand Cup 2026, marking the start of the tournament's 135th edition.

About the Tournament

- Founded in **1888** by **Sir Mortimer Durand**, then India's Foreign Secretary; it is **Asia's oldest** and the **world's third-oldest** football tournament.
- First held in **Shimla**; the venue shifted to **New Delhi** in **1940**.
- Organised by the **Indian Army** on behalf of the **three Services**.

Trophies

- Winners receive three trophies: the **Durand Cup** and the **Shimla Trophy** (both rolling honours), and the **President's Cup**, freshly crafted each year as a **permanent keepsake**.

2026 Edition

- Features **24 teams** across **six groups**, including a new **Sri Lankan** side, hosted across **five cities**: **Kolkata**, **Guwahati**, **Imphal**, **Shillong** and **Ranchi**.

GLOBAL LIVEABILITY INDEX 2026

The Economist Intelligence Unit (EIU) has released the Global Liveability Index 2026.

Major Highlights

- Compiled annually by the EIU, the research arm of The **Economist Group**, the index scores **173 cities** on **30 indicators**, grouped under five categories: **stability, healthcare, culture and environment, education, and infrastructure**.
- **Copenhagen (Denmark)** remains the world's **most liveable city** for a second straight year, ahead of **Vienna (Austria)** and **Melbourne (Australia)**; **Sydney** and **Zurich** complete the top five.
- **New Delhi** ranks **120th**, followed by **Mumbai (121)**, **Chennai (123)** and **Bengaluru (127)**; no Indian city features in the **top ten**, **bottom ten**, or among the **biggest movers**, this year or last.
- **Western Europe** remains the strongest region, though its average score has stagnated, while **Asia's** average has risen, helped by healthcare gains in Chinese cities.
- **Karachi** held at **170th** and **Dhaka** at **171st** for a second consecutive year; **Damascus (Syria)** stays the world's **least liveable city**.
- **Caracas (Venezuela)** was the only city to exit the bottom ten, aided by a government change in January 2026.

FORWARD DEPLOYED ENGINEERING (FDE)

Forward Deployed Engineering (FDE) is fast becoming one of the buzziest roles in AI hiring.

About

- A **multidisciplinary role** blending **software engineering**, **AI implementation**, **solutions architecture**, and **business consulting**.
- Converts AI experiments into **secure, working systems** embedded in daily business operations.
- **FDEs embed directly with clients**, understand the real business problem firsthand, and build AI solutions that plug securely into the client's own, often **sensitive, data**.
- To enable different AI agents and platforms to interact, they rely on emerging standards such as **Model Context Protocol (MCP)** and **Agent2Agent (A2A)**.
- The role was **pioneered by Palantir**, which built its early growth around such client-embedded engineers.

DATA RECAP

- NTA is a **"Society" under the Societies Registration Act, 1860** while UPSC is a constitutional body under Article 315.
- Eighth Schedule lists **22 languages**. Sindhi was added in 1967; Konkani, Manipuri, Nepali were added in 1992; Bodo, Dogri, Maithili, Santhali were included via 92nd Amendment, 2003.
- **Vande Mataram** was first published on **7 November 1875**. It was declared National Song on 24 January 1950, same day as the National Anthem.
- **National Commission for Minorities** recognises 6 groups: Muslims, Christians, Sikhs, Buddhists, Parsis, Jains (Jains were added in 2014).
- Under **Article 151**, CAG submits three reports to the President: **Appropriation Accounts, Finance Accounts, Public Undertakings**.
- Article 22 allows preventive detention; under the **National Security Act, 1980**, detention can extend up to 12 months without trial.
- **BRICS**: "BRIC" was coined by **Jim O'Neill** in 2001 for Brazil, Russia, India, China; **South Africa joined in 2010**.
- **Simla Agreement (1972)** was signed by **Indira Gandhi and Zulfikar Ali Bhutto**, renamed the ceasefire line the **Line of Control**.
- **NATO (1949, Washington Treaty)**: Basic principle is 'an attack on one member is an attack on all' (Article 5). NATO now has 32 members.
- BIMSTEC was formed in 1997 via the **Bangkok Declaration**; HQ **Dhaka**; links South and Southeast Asia around the Bay of Bengal.
- **UNCITRAL** stands for the **United Nations Commission on International Trade Law**. It's a subsidiary body of the UN General Assembly, set up in 1966 and headquartered in **Vienna**, and its job is to modernise and harmonise international trade law.
- Shanghai Cooperation Organisation grew from the **1996 "Shanghai Five"**. It was renamed in 2001. India became a full member in **2017**.
- **Emergency Credit Line Guarantee Scheme (ECLGS)**, launched 2020 under Aatmanirbhar Bharat for COVID-hit MSMEs; version 5.0 now also covers airlines.
- **Jodhpur Mojari**, Rajasthan's handcrafted footwear, has received a **Geographical Indication (GI) tag**.
- Climate tipping points are irreversible thresholds; examples: **Amazon dieback, AMOC weakening, Arctic summer sea-ice loss**.
- **Egyptian Vulture** is **IUCN Endangered and Schedule I in India**; veterinary diclofenac caused its sharp decline.
- **Project Dolphin (2020)** protects the Ganges and Indus River Dolphins, both Schedule I and CITES Appendix I.
- **Gondwana coal** makes up nearly 98% of India's total coal reserves.
- **Black Sea**, the world's largest meromictic basin, links to the Mediterranean via **Bosporus–Marmara–Dardanelles**.
- **Romania's Danube Delta** is Europe's second-largest river delta. It became a UNESCO World Heritage Site in 1991.
- **Indira Point** is India's southernmost point. It is on **Great Nicobar Island** and its lighthouse dates to 1972.
- **Yarlung Tsangpo** becomes the **Siang** in Arunachal Pradesh, **Brahmaputra** in Assam, and **Jamuna** in Bangladesh.
- **Unlawful Activities (Prevention) Act (UAPA), 1967** is India's main anti-terror law. Its 2019 amendment lets the government designate individuals as terrorists.
- **National Investigation Agency (NIA)**, formed under the NIA Act, 2008 after the 26/11 attacks, gained **extraterritorial jurisdiction** via a 2019 amendment.
- **INS Mahendragiri (F38)**, sixth Nilgiri-class (Project 17A) stealth frigate, is over 75% indigenous, built by **Mazagon Dock**.
- **Pinaka** rocket system, named after **Lord Shiva's bow**, debuted in the 1999 Kargil War; **Armenia is its first export buyer**.
- India's first **hydrogen fuel-cell train** began running on the **Jind–Sonipat route**, Haryana, on **17 July 2026**.
- Helium has the lowest boiling point of any element (-268.9°C); it is a non-renewable natural-gas by-product.
- **Insulin Icodec (Awiqli)**, the world's first once-weekly basal insulin, cuts yearly injections from 365 to about 52.
- **IndiaAI Mission (2024)** has an outlay of **₹10,300 crore** to build indigenous AI infrastructure and skills.
- **Sarnath**, on **UNESCO's World Heritage List**, is where Buddha gave his **first sermon around 528 BCE**. Ashoka's lion capital at Sarnath became India's national emblem in 1950.
- **Guru Ravidas**, a 15th–16th century Bhakti saint, envisioned "**Begumpura**", a city free of sorrow and discrimination.
- **Jallikattu's** name comes from Tamil "**Salli Kaasu**" (coins) and "**Kattu**"; it appears on a Mohenjo-daro seal (2500–1800 BCE).
- **Manual Scavengers (Prohibition) Act, 2013** took effect 6 December 2013; Article 17 abolishes untouchability.
- **Falkland Islands**, a British Overseas Territory in the South Atlantic, saw a 74-day UK–Argentina war in 1982.

TEST YOURSELF

Objective Questions

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SUBJECTIVE QUESTIONS

1. "Legislative intent alone cannot guarantee implementation." Critically examine whether the Public Examination Amendment Bill, 2026 can secure exam integrity without restructuring bodies like the NTA.
2. Examine why examinations carry outsized significance for Indian youth, and discuss reforms needed to make the examination ecosystem tamper-resistant.
3. Discuss the achievements and challenges of women's representation in Panchayati Raj, including the "Sarpanch Pati" phenomenon.
4. Examine how the 73rd Amendment institutionalised women's grassroots leadership, and why formal representation hasn't ensured real decision-making power.
5. Discuss the key provisions and enforcement challenges of the Drugs (Tenth Amendment) Rules, 2026 on high-alcohol medicinal formulations.
6. Critically examine the structural weaknesses in India's drug regulatory architecture and suggest reforms for Centre-State coordination.
7. Discuss the significance of Civil Registration System data for governance and the challenges limiting its effectiveness.
8. Discuss the key features and implementation challenges of the Draft National Health Research Policy, 2026.
9. Discuss the Supreme Court's balance between the right to peaceful protest and public order in its recent observations on student protests.
10. Examine how India-Japan cooperation in critical technologies addresses the shared concern of resilient and diversified supply chains.
11. Discuss the key outcomes of the India-New Zealand Strategic Partnership visit and the unresolved issues constraining the relationship.
12. Critically examine the dairy market access and Khalistan-related irritants in India-New Zealand relations and suggest a way forward.
13. Discuss the significance of PACTS and the Maritime Security Collaboration Roadmap for India's Indo-Pacific strategy with Australia.
14. Examine the economic bottlenecks in India-Australia trade talks and suggest measures to fast-track a Comprehensive Economic Cooperation Agreement.
15. Discuss the key features of the India-UK CETA and its significance for India's trade architecture and Viksit Bharat goals.
16. Discuss the objectives and features of India's Carbon Credit Trading Scheme and its significance for the Net Zero target.
17. Examine how Carbon Neutrality Factors for biofuels under CAFE-III support India's Net Zero target while balancing consumer demand.
18. Examine the import dependence and manufacturing gaps constraining India's energy storage ambitions, and government initiatives to address them.
19. Examine the causes of rising human-wildlife conflict in India and the role of technology-driven interventions in managing it.
20. Discuss the Supreme Court's key observations on human-wildlife conflict and how protecting wildlife corridors can reconcile conservation with safety.