

CURRENT AFFAIRS

SEPTEMBER 2026
CIVIL SERVICES PREPARATION



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INDIAN POLITY



Editorial

An 850-seat Lok Sabha means more MPs, less Parliament

This editorial 'An 850-seat Lok Sabha means more MPs, less Parliament' was published in The Indian Express on 30th Jul 2026, highlights how an oversized Lok Sabha could weaken legislative deliberation, scrutiny and executive accountability.

Risks of Enlargement

- ❖ The proposed delimitation may expand the Lok Sabha from 543 seats, fixed in 1972, to 824–850, but numerical representation could worsen federal tensions and institutional efficiency.
- ❖ Large legislatures become unwieldy beyond a threshold; the U.S. House has remained capped at 435 seats since 1929 despite population rising from 120 million to over 335 million.

Deliberative Consequences

- ❖ With only limited Question Hour or debate time, merely 15–20 members among 850 may participate, further silencing backbenchers and smaller parties.
- ❖ Most MPs could complete five-year terms without asking questions, introducing Private Members' Bills or joining substantive debates, becoming silent placeholders governed by party commands.
- ❖ Declining parliamentary sittings, rapid voice-vote passage of Bills, weak committee scrutiny and Opposition marginalisation already erode Parliament; additional members would deepen this institutional decline.
- ❖ An oversized House would weaken individual legislators and strengthen executive dominance, resembling performative legislatures incapable of genuine negotiation; resources should instead support MPs through better offices, staff and committee systems.

Institutional Alternative

- ❖ MPs are national lawmakers responsible for legislation, foreign policy, macroeconomic governance and Union accountability, while local grievances belong to MLAs and institutions created under the 73rd and 74th Amendments.
- ❖ Population growth should be addressed by expanding State legislatures and empowering local governments,

while retaining a compact Lok Sabha focused on national governance and effective legislative scrutiny.

BEYOND EDITORIAL

Constitutional Roadmap for Delimitation

- ◆ **Constitutional trigger:** The 84th Amendment froze interstate seat allocation until figures from the first census after 2026 are published.
- ◆ **Historical precedent:** The 87th Amendment enabled the 2008 redrawing of constituency boundaries using the 2001 Census without changing State-wise Lok Sabha seats.
- ◆ **Demographic divergence:** NFHS-5 found above-replacement fertility only in five States, explaining lower-fertility States' concerns over population-based seat allocation.
- ◆ **Legislative scrutiny:** The Delimitation Bill, 2026, introduced on April 16, requires parliamentary examination and structured consultation with States.
- ◆ **Inclusive representation:** The 2022 Jammu and Kashmir delimitation created a 90-member Assembly and reserved nine seats for Scheduled Tribes.
- ◆ **Women's reservation:** The 106th Amendment links one-third reservation for women with delimitation following publication of post-amendment census figures.
- ◆ **Public consultation:** Assam's 2023 delimitation used draft publication and public hearings, offering a model for transparent objections and regional participation.

Are regional parties losing relevance in India?

This editorial 'Are regional parties losing relevance in India?' was published in The Hindu on 12th Aug 2026, highlights that regional parties retain substantial electoral support despite fewer governments, electoral setbacks and organisational stress.

Electoral setbacks and organisational stress

- ❖ The Trinamool Congress's 2026 West Bengal defeat and widespread defections have renewed questions about regional parties' relevance.
- ❖ Defections affecting the TMC, AAP and NCP (Sharad Pawar) expose organisational vulnerabilities, not necessarily declining voter support.
- ❖ Voters prefer regional parties more strongly in Assembly elections than Lok Sabha polls, reflecting durable State-level identities.

CONDITIONS FOR RECOGNITION AS A NATIONAL PARTY

A political party is eligible for recognition as a **National party** in a State, if any of the following conditions is fulfilled:

- 1**  Recognised as State party in **at least four States**.
- 2**  In the Lok Sabha election, party must win **minimum two percent** of the total number of seats (**11 seats**) from **at least 3 states**.
- 3**  In minimum four States, at Lok Sabha or State Legislative Assembly election, party must get **minimum six percent** of the total valid votes polled in each of those States and win **minimum 4 seats in Lok Sabha**.

★ CONDITIONS FOR RECOGNITION AS A STATE PARTY ★

A political party is eligible for recognition as a **State party** in a State, if any of the following conditions is fulfilled:

 BASED ON PERCENTAGE OF VOTES	 8% Votes: In the election to Lok Sabha or State Legislative Assembly, party must get minimum eight percent of the total valid votes polled in the State.
 BASED ON NUMBER OF SEATS	 3% seats or 3 seats: In the State Legislative Assembly election, party must win minimum three percent of the total number of seats or three seats, whichever is more.  1 seat per 25 seats: In the Lok Sabha election, party must win minimum one seat for every 25 seats.
 BASED ON PERCENTAGE OF VOTES AND NUMBER OF SEATS	 6% Votes and two seats: In the State Legislative Assembly election, party must get minimum six percent of the total valid votes polled in the State and win minimum two seats.  6% Votes and one seat: In the Lok Sabha election, party must get minimum six percent of the total valid votes polled in the State and win minimum one seat from that state.

Changing distribution of political power

- ❖ The BJP independently governs 11 States, Congress three and regional parties four, their lowest tally in nearly 25 years.
- ❖ Regional parties independently governed nine States during 2015–2020, indicating declining governmental control amid sustained electoral support.
- ❖ Regional parties dominate four coalition governments with BJP support, while the BJP leads six others involving regional allies.
- ❖ Congress remains a junior coalition partner in Jharkhand, Jammu and Kashmir and Tamil Nadu, reflecting reduced national-party dominance there.

- ❖ India's first-past-the-post system magnifies victories and defeats; fewer regional governments therefore do not prove vote-share decline.

Vote-share evidence and continuing relevance

- ❖ National parties' combined Lok Sabha vote share remained broadly stable, ranging between 60.04% and 68.15% during 2009–2024.
- ❖ Their share was 63.59% in 2009 and 62.72% in 2024, despite major shifts in seats and governing coalitions.
- ❖ Regional parties consistently secured about one-third of votes: 31.22% in 2009, 35.85% in 2014, 28.1% in 2019 and 33.53% in 2024.
- ❖ Regional parties won 190 Lok Sabha seats in 2024, recovering from 142 in 2019 and demonstrating continuing electoral resilience.
- ❖ In 2024, their vote shares remained particularly strong in Sikkim, Andhra Pradesh and Tamil Nadu, despite substantial State-wise variation.
- ❖ Tamil Nadu shows that one regional party's setback may benefit another, indicating intra-regional competition rather than declining regional politics.

BEYOND EDITORIAL

Regional Parties as Pillars of Federalism

- ◆ **Regional representation:** The DMK's rise through Tamil linguistic mobilisation helped preserve Tamil Nadu's two-language policy and resist perceived Hindi-centric homogenisation.
- ◆ **Federal bargaining:** After the 2024 Lok Sabha election, TDP's coalition leverage contributed to Union support for Amaravati's development and completion of the Polavaram project.
- ◆ **Coalition moderation:** Regional parties shaped the United Front governments during 1996–98 and later UPA and NDA coalitions, compelling negotiation across diverse State interests.
- ◆ **Policy innovation:** Tamil Nadu's 1982 nutritious meal programme under the AIADMK preceded the national school meal programme launched in 1995.
- ◆ **Constitutional integration:** The 1986 Mizo Accord brought the Mizo National Front into democratic politics, followed by Mizoram's statehood and an elected MNF government.
- ◆ **Competitive federalism:** Odisha's cyclone shelters, evacuation planning and disaster-response institutions developed under BJD governments became widely recognised governance practices.
- ◆ **Fiscal federalism:** Regional party-led governments influence taxation through the GST Council, where States collectively possess two-thirds of the weighted voting power.

Monsoon Session was arid, Parliament fell short

This editorial 'Monsoon Session was arid, Parliament fell short' was published in The Indian Express on 14th Aug 2026, highlights Parliament's failure to deliberate on student grievances and respond meaningfully to deeper education and employment concerns."

Legislative and deliberative failure

- ❖ The Monsoon Session followed nationwide student protests, a Union minister's resignation and a police crackdown on students marching towards Parliament.
- ❖ The Lok Sabha passed 11 Bills, but nine saw no participation from any MP except the concerned minister, according to PRS Legislative Research.
- ❖ Only the Public Examinations Amendment Bill, 2026 received detailed debate, lasting nearly 11 hours with 48 MPs participating.
- ❖ Although the Bill strengthens the 2024 law against examination irregularities, it inadequately addresses structural problems shaping students' future prospects.
- ❖ By neglecting deeper student concerns, Parliament missed an opportunity to bridge the widening divide between sadak and sansad, weakening democratic responsiveness.

Political responsibility and unresolved concerns

- ❖ Both sides share responsibility for the disruption, but the government bears greater responsibility for ensuring parliamentary functioning and legislative debate.
- ❖ An arithmetic majority should not replace deliberation through voice votes; effective House management requires political accommodation and constructive engagement.
- ❖ The Prime Minister and Home Minister remained absent, Amit Shah's offer for discussion came late, and rival MPs engaged in placard protests outside Parliament.
- ❖ Undebated concerns persist, including accountability for excessive police force, alleged theft of Ayodhya temple donations and long-term education and employment crises.
- ❖ Parliament's democratic promise rests not merely on representation or delimitation numbers, but on representatives remaining responsible, responsive and willing to listen.

BEYOND EDITORIAL

Reforming Parliamentary Deliberation

- ◆ **Public consultation:** The Pre-Legislative Consultation Policy, 2014 provides for publishing draft Bills for 30 days with their rationale, financial implications and expected impact.

- ◆ **Committee scrutiny:** The three criminal law Bills introduced in 2023 underwent Standing Committee examination, stakeholder consultations and Reports 246, 247 and 248 before enactment.
- ◆ **Consensus building:** The three farm laws enacted in 2020 were repealed in November 2021, demonstrating the political costs of major reforms lacking durable stakeholder acceptance.
- ◆ **Debate safeguards:** The 2021 Bill repealing the farm laws passed the Lok Sabha without discussion and the Rajya Sabha after only a brief intervention, weakening legislative scrutiny.
- ◆ **Opposition space:** The British House of Commons reserves 20 Opposition Days per session, offering a comparative model for guaranteed debate on non-government priorities.
- ◆ **Legislative freedom:** The Law Commission's 170th Report recommended limiting party whips to votes threatening government stability, allowing legislators greater independence on ordinary Bills.
- ◆ **Disruption accountability:** During the 2023 Winter Session, 146 MPs were suspended and major criminal laws passed afterward, underlining the need for proportionate discipline without disabling scrutiny.

Mains Articles

Right to Protest

Context

Recent police action against protesters in New Delhi revived debate over the right to protest and the use of Section 163 of the BNSS.

About Right to Protest in India

- ❖ A constitutional right allowing citizens to peacefully express dissent, assemble, and demand accountability, subject to reasonable restrictions.
- ❖ The Constitution does not explicitly mention the right to protest. These rights promote public discourse, government accountability, and democratic participation.
 - ◆ **Article 19(1)(a):** Protects freedom of speech and expression.
 - ◆ **Article 19(1)(b):** Guarantees peaceful and unarmed assembly.
 - ◆ **Article 19(1)(c):** Protects the right to form associations or unions.
 - ◆ **Article 21:** Safeguards life, liberty, dignity, and the expression of grievances.

Significance of the Right to Protest

- ❖ **Democratic participation:** Articles 19(1)(a) and 19(1)(b) enable peaceful expression and assembly, exemplified by the 2011 anti-corruption movement demanding an effective Lokpal.
- ❖ **Government accountability:** Sustained public mobilisation can compel policy reconsideration, as the year-long farmers' protests preceded the Farm Laws Repeal Act, 2021.
- ❖ **Rights protection:** Protest enables marginalised communities to claim dignity and equality, as the Mahad Satyagraha of 1927 challenged caste-based denial of public water access.
- ❖ **Social transformation:** Collective action challenges harmful practices and reshapes public policy, as the Chipko Movement strengthened forest conservation and community participation.
- ❖ **Democratic safety valve:** Peaceful protest channels grievances constitutionally and reduces alienation; the Ramlila Maidan judgment (2012) affirmed peaceful assembly subject to reasonable restrictions.
- ❖ **Public awareness:** Protests draw attention to neglected issues, as the 2012 Nirbhaya protests prompted the Justice Verma Committee and contributed to criminal-law reforms in 2013.

Supreme Court Judgments on Right to Protest

- ❖ **Himat Lal K. Shah v. Commissioner of Police (1973):** The State may regulate public meetings on streets but cannot impose blanket prohibitions or exercise unguided discretion over peaceful assemblies.
- ❖ **Ramlila Maidan Incident, In Re (2012):** Citizens possess a fundamental right to peaceful protest; restrictions must be lawful and reasonable, while excessive police force violates constitutional freedoms.
- ❖ **Mazdoor Kisan Shakti Sangathan v. Union of India (2018):** A complete ban on protests at Jantar Mantar was impermissible; authorities must balance protest rights with residents' peaceful enjoyment.
- ❖ **Amit Sahni v. Commissioner of Police (2020):** Peaceful protest is constitutionally protected, but public roads and spaces cannot be occupied indefinitely, particularly when essential movement is obstructed.
- ❖ **Anuradha Bhasin v. Union of India (2020):** Section 144 cannot suppress legitimate grievances or democratic rights; restrictions must disclose material facts, remain proportionate, and permit judicial review.

Issues in Exercising the Right to Protest

- ❖ **Constitutional limits:** The right to protest is not absolute; Article 19(2) permits specified restrictions on speech, while Article 19(3) allows reasonable restrictions on assemblies for sovereignty, integrity, or public order.
- ❖ **Preventive-order misuse:** Repeated or blanket orders under Section 163 BNSS, intended for urgent dangers, can normalise exceptional restrictions and suppress legitimate dissent.
- ❖ **Permission barriers:** Unguided refusals or blanket bans can extinguish assembly rights; Himat Lal (1973) rejected arbitrary discretion, while MKSS (2018) opposed complete prohibition.
- ❖ **Police excesses:** Disproportionate lathi charges, tear gas, or forced dispersal may violate Articles 19 and 21, as demonstrated by the Ramlila Maidan Incident (2012).
- ❖ **Criminalisation of dissent:** FIRs following anti-CAA demonstrations highlighted the need to distinguish peaceful participation from provable violence, unlawful assembly, or property damage.
- ❖ **Digital restrictions:** Internet shutdowns obstruct mobilisation, communication, and reporting; Anuradha Bhasin (2020) required such restrictions to be temporary, necessary, and proportionate.
- ❖ **Public disruption:** Indefinite road blockades restrict commuters' rights; Amit Sahni (2020) held that demonstrations should use designated places without continuously occupying public ways.

Safeguarding Peaceful Democratic Dissent

- ❖ **Rights-based regulation:** Authorities should facilitate peaceful assemblies and adopt the least restrictive measures, reflecting MKSS (2018), which favoured regulation and safeguards over blanket prohibition.
- ❖ **Emergency restraint:** Section 163 BNSS orders should state material facts, undergo periodic review, and follow statutory time limits; repetitive orders must not suppress democratic rights.
- ❖ **Uniform operational standards:** Nationwide SOPs should establish permission timelines, graded use of force, prior warnings, safe dispersal routes, medical assistance, and video documentation.
- ❖ **Police accountability:** State and district Police Complaints Authorities, directed in Prakash Singh (2006), should independently investigate excessive force and misconduct during protests.

- ❖ **Institutional dialogue:** Permanent liaison mechanisms among organisers, police, residents, and administrators can resolve disputes over routes, duration, crowd size, and public inconvenience.
- ❖ **Protest infrastructure:** Accessible and visible venues modelled on Jantar Mantar should provide water, sanitation, medical aid, transport access, and adequate space for peaceful demonstrations.

- ❖ **Disciplinary disclosure:** Only Jammu and Kashmir and Tripura publish information on disciplinary action against district judges.
- ❖ **Rankings:** Himachal Pradesh led institutional governance and Tripura personnel disclosure; Meghalaya and Bombay lagged in budgets and public access. The Supreme Court performed strongly in governance but moderately in process and personnel transparency.

Judicial Transparency Index Report

Context

The Justice Access and Lowering Delays in India (JALDI) initiative of the Vidhi Centre for Legal Policy released the first-of-its-kind Judicial Transparency Index, assessing the Supreme Court and 25 High Courts.

Key Findings

- ❖ **Collegium decisions:** Supreme Court resolutions cite generic factors like merit and integrity; the last five transfer resolutions gave no reasons.
- ❖ **RTI compliance:** Fifteen High Courts prescribe additional exemptions beyond Section 8, often using vague, broad, or contradictory language.
- ❖ **Financial transparency:** Eight High Courts do not publish budgets, while none publish audit reports.
- ❖ **Judicial processes:** Thirteen High Courts adopted live-streaming rules, but only Chhattisgarh, Gujarat, Telangana, and Gauhati streamed over 75% of proceedings. No court publishes bench-allocation criteria or clear recusal and disciplinary policies.
- ❖ **Asset disclosures:** About 90% of Supreme Court judges disclosed assets after the 2025 resolution; disclosure varied across High Courts, including Kerala 90%, Delhi 13.6%, and Madras 11%.
- ❖ **Institutional strength:** Nineteen High Courts publish updated judicial strength, but only five publish staff strength. Allahabad, Calcutta, Manipur, Patna, and Tripura disclose both.
- ❖ **Registry and appointments:** All High Courts list registry officials, 23 provide contacts, and 20 specify roles. Twenty-four publish district-judge shortlists, but only 14 disclose marks.
- ❖ **Transfers:** All 25 High Courts publish transfer orders, 18 provide reasons, and 14 have formal policies. The Supreme Court publishes resolutions but lacks a transfer policy.
- ❖ **Code of conduct:** No High Court publishes a judicial conduct code. The Supreme Court publishes the Restatement of Values of Judicial Life but lacks complaint and sanction procedures.

ABOUT THE COLLEGIUM SYSTEM

- ◆ **Meaning:** The Collegium recommends appointments and transfers of Supreme Court and High Court judges; formal appointments are made by the President. It is not expressly mentioned in the Constitution.
- ◆ **Supreme Court Collegium:** For Supreme Court appointments, it comprises the CJI and four senior-most judges; High Court recommendations are examined by the CJI and two senior-most Supreme Court judges.
- ◆ **High Court Collegium:** Appointment proposals originate from the concerned High Court's Chief Justice and two senior-most judges before undergoing executive inputs and Supreme Court-level scrutiny.
- ◆ **Constitutional provisions:** Article 124 governs Supreme Court appointments, Article 217 High Court appointments, Article 224 additional judges, and Article 222 transfers of High Court judges.
- ◆ **Judicial evolution:** The First Judges Case (1981) favoured executive primacy, the Second Judges Case (1993) established judicial primacy, and the Third Judges Case (1998) expanded and clarified the Collegium.
- ◆ **Appointment process:** The government may return a recommendation for reconsideration, but it must accept the proposal if the Supreme Court Collegium reiterates it.
- ◆ **NJAC judgment:** The 99th Constitutional Amendment and NJAC Act, 2014 sought to replace the Collegium, but the Supreme Court invalidated them by a 4:1 majority in 2015 for violating judicial independence.

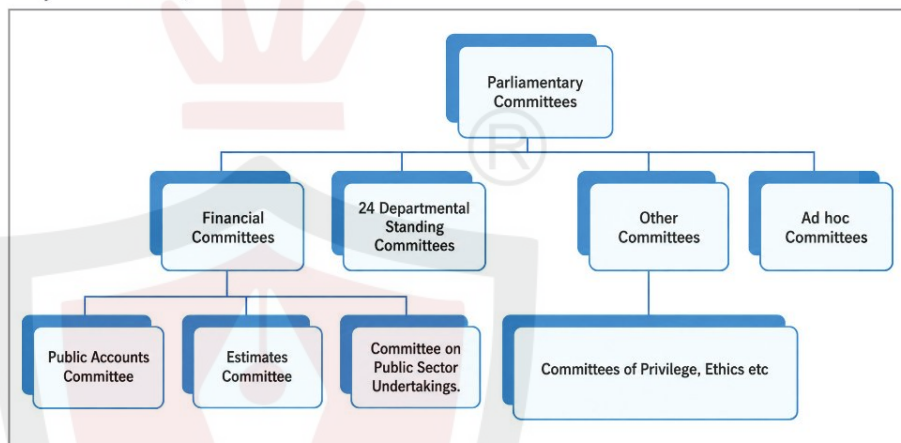
Issues in Judicial Transparency

- ❖ **Unclear recusal process:** No High Court publishes recusal criteria; only the Delhi High Court indicates a procedure for seeking recusal.
- ❖ **Live-streaming gap:** Despite the Swapnil Tripathi judgment, the Supreme Court has not published formal live-streaming rules on its website.
- ❖ **Budgetary opacity:** Eight High Courts disclose no budget details, while 15 provide no expenditure data for current or previous years.
- ❖ **Incomplete asset disclosure:** No High Court publishes asset declarations of all its judges; only seven report disclosures by any judges.

- ❖ **Opaque appointments:** Courts provide limited reasons for recommending Supreme Court judges or transferring High Court judges.
- ❖ **Opaque case allocation:** No court publishes clear criteria for constituting benches or assigning cases, raising concerns about administrative discretion.

Roadmap for Transparent Judiciary

- ❖ **Collegium transparency:** Record candidate-specific reasons for appointments and transfers, consistently implement the 2017 transparency resolution, and publish measurable selection criteria while protecting legitimate confidentiality.
- ❖ **Roster transparency:** Publish stable policies for bench constitution, case categorisation, and allocation, while recording reasons for significant departures from established roster norms.
- ❖ **Reasoned transfers:** Provide institutionally meaningful reasons for High Court transfers, subject to necessary confidentiality, to reduce perceptions of arbitrariness or punitive action.
- ❖ **RTI compliance:** Apply only statutory exemptions; the Subhash Chandra Agarwal judgment (2019) confirmed the CJI's office as a public authority while balancing transparency with privacy.
- ❖ **Open justice:** Expand live streaming under Swapnil Tripathi (2018), publish timely cause lists and transcripts, and clearly identify proceedings excluded for privacy or security.
- ❖ **Ethical accountability:** Establish credible complaint mechanisms, enforce the Restatement of Values of Judicial Life, and institutionalise periodic public disclosure of judges' assets.
- ❖ **Administrative modernisation:** Regularly publish vacancies, staffing, recruitment marks, budgets, and audits; adopt a judicial AI policy and release anonymised case data for research.



About the Committee on Subordinate Legislation

- ❖ It is a Parliamentary Standing Committee, with separate 15-member committees in the Lok Sabha and Rajya Sabha.
 - A Minister is not nominated to this Committee.
- ❖ It examines whether powers to frame rules, regulations, bye-laws and other statutory instruments are exercised within the authority delegated by the Constitution or Parliament.

Key Observations and Recommendations

Area	Committee's observation	Recommendation
Regulatory review	Competition law must respond to emerging digital-economy challenges.	Periodically review CCI regulations and benchmark them against global practices.
MSME protection	Large corporations may misuse market power against MSMEs and startups.	Strengthen antitrust enforcement and conduct targeted competition advocacy.
Repeat offences	Firms may treat penalties as merely a cost of doing business.	Treat repeated contraventions as aggravating factors under the Monetary Penalty Guidelines.
Transparency	Many CCI penalties are stayed or quashed during appeals.	Provide detailed mathematical penalty calculations and strengthen evidence-gathering.

Prelims News

257th Report of the Committee on Subordinate Legislation

Context

The Rajya Sabha's Committee on Subordinate Legislation examined regulations framed by the Competition Commission of India (CCI) in 2024.

Regulatory coordination	Modern competition issues often overlap with multiple sectoral regulators.	Establish formal mechanisms, including MoUs, for information-sharing and policy coordination.
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About the Competition Commission of India

- ❖ The Competition Commission of India is a statutory body established under the Competition Act, 2002.
- ❖ It functions under the Ministry of Corporate Affairs.
- ❖ It eliminates anti-competitive practices, protects consumer interests and promotes fair market competition.
- ❖ It regulates anti-competitive agreements, abuse of dominant position and combinations, including mergers and acquisitions.

Prevention of Insults to National Honour (Amendment) Bill, 2026

Context

Parliament has passed the Bill to extend legal protection to Vande Mataram by penalising obstruction or disturbance during its singing.

Key Provisions of the Bill

- ❖ The Bill amends the Prevention of Insults to National Honour Act, 1971 to include Vande Mataram within its scope.
 - It penalises intentionally preventing its singing or disturbing an assembly engaged in its rendition.
 - The offence may attract imprisonment of up to three years, a fine, or both.
 - Repeat offenders face a minimum imprisonment of one year.
- ❖ The Bill recalls the 24 January 1950 Constituent Assembly proceedings, when Dr. Rajendra Prasad accorded Vande Mataram equal status with Jana Gana Mana.
 - It recognises the National Song's historic role in the freedom struggle.
 - It bridges the legal gap arising from the absence of statutory protection comparable to the National Anthem.

Prevention of Insults to National Honour Act, 1971

- ❖ **Section 2** prohibits burning, defacing, desecrating or otherwise insulting the National Flag or the Constitution of India.
 - The offence is punishable with imprisonment of up to three years, a fine, or both.
 - Lawful criticism intended to secure constitutional amendment or alteration of the National Flag is not an offence.
- ❖ **Section 3** prohibits intentionally preventing the singing of the National Anthem or disturbing an assembly during its singing.
 - The offence is punishable with imprisonment of up to three years, a fine, or both.
- ❖ **Section 3A**, inserted through the 2003 amendment, prescribes minimum imprisonment of one year for second and subsequent convictions under Sections 2 or 3.

Supreme Court Directions on Digital Arrest Scams

Context

The Supreme Court directed governments, financial regulators, telecom authorities and investigating agencies to coordinate action against digital arrest scams and expedite victims' money recovery.

Key Directions of the Supreme Court

- ❖ The Reserve Bank of India must adopt an SOP within four weeks for temporary debit holds on accounts linked to mule activity and cyber-enabled fraud.
 - The final SOP must be shared with I4C and the Registrars General of all High Courts.
 - RBI must also implement delayed-transaction safeguards and customer-protection measures in electronic banking.
- ❖ States, Union Territories and law-enforcement agencies must operationalise grievance-redressal and money-restoration modules under the Ministry of Home Affairs' SOP.
 - High Courts must inform courts and adjudicating authorities dealing with the freezing of accounts about the grievance mechanism.
 - Recovered money must be expeditiously disbursed through courts, consumer forums, the RBI Ombudsman and enforcement agencies.

- ❖ Remaining States and Union Territories must establish State Cyber Crime Coordination Centres and adopt the e-Zero FIR mechanism within four weeks.
 - e-Zero FIRs were operational in 19 States, while only 14 States had notified coordination centres.
- ❖ The Inter-Departmental Committee must examine technological safeguards, shared liability, victim compensation and a possible time-based kill switch for fraudulent audio and video calls.
- ❖ The CBI must consider lowering its ₹10-crore investigation threshold and aggregating frauds committed by the same organised network.
- Existing legal proceedings involving Kerala will continue with Keralam substituted as the State's name.
- Governments may adapt existing laws within one year without altering their substance.
- ❖ The change will take effect after Presidential assent and from the date appointed by the Central Government.

Constitutional Procedure for Renaming a State

- ❖ Article 3 empowers Parliament to form new States or alter the area, boundaries or name of an existing State.
 - Such a Bill can be introduced in Parliament only with the President's prior recommendation.
 - The President must refer it to the concerned State Legislature for expressing its views within a specified period.
 - The State Legislature's views are not binding on Parliament.
- ❖ Article 4 allows laws made under Article 3 to amend the First and Fourth Schedules and include consequential provisions.
 - Such laws are not treated as constitutional amendments under Article 368.
 - The Bill can therefore be passed by a simple majority in Parliament.
- ❖ Earlier State renamings include Uttaranchal to Uttarakhand in 2007 and Orissa to Odisha in 2011.

About Digital Arrest Scams

- ❖ A digital arrest is a cyber scam in which fraudsters impersonate police, courts or investigative agencies to frighten victims into transferring money.
 - Victims are falsely linked to criminal cases and threatened with arrest, account freezing or prolonged interrogation.
 - Fraudsters use spoofed numbers, video calls, forged warrants and fake official documents to appear credible.
 - Victims are pressured to pay a fictitious fine or security deposit, although digital arrest has no legal recognition.

Kerala (Alteration of Name) Bill, 2026

Context

Parliament has passed the Bill paving the way for Kerala to be officially renamed Keralam, reflecting the State's name in Malayalam.

Key Provisions of the Bill

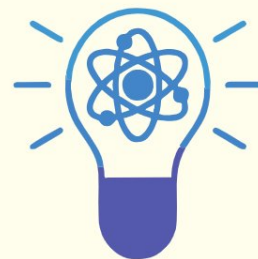
- ❖ The Bill changes the State's constitutional name from Kerala to Keralam from an appointed date.
 - It follows a unanimous resolution passed by the Kerala Legislative Assembly on 24 June 2024.
 - The name reflects Kerala's Malayalam linguistic identity and the legacy of the Aikya Kerala movement.
- ❖ It replaces references to Kerala in Articles 31A and 290A and the First and Fourth Schedules of the Constitution.

Historical Background of Keralam

- ❖ Ashoka's Major Rock Edict II mentions the Keralaputras, generally associated with the ancient Chera region.
- ❖ Linguist Hermann Gundert linked "Keralam" with "Cheram" or "Cheralam," though the name's precise etymology remains debated.
- ❖ The Aikya Kerala movement gained momentum during the 1920s and demanded a unified Malayalam-speaking State.
- ❖ Modern Kerala was created on 1 November 1956 following linguistic reorganisation.
 - The day is celebrated as Kerala Piravi.
 - The Constitution used the anglicised name "Kerala," while "Keralam" continued in Malayalam.



SCIENCE AND TECHNOLOGY



Editorial

A new compact between AI & agriculture: An Andhra Pradesh opportunity

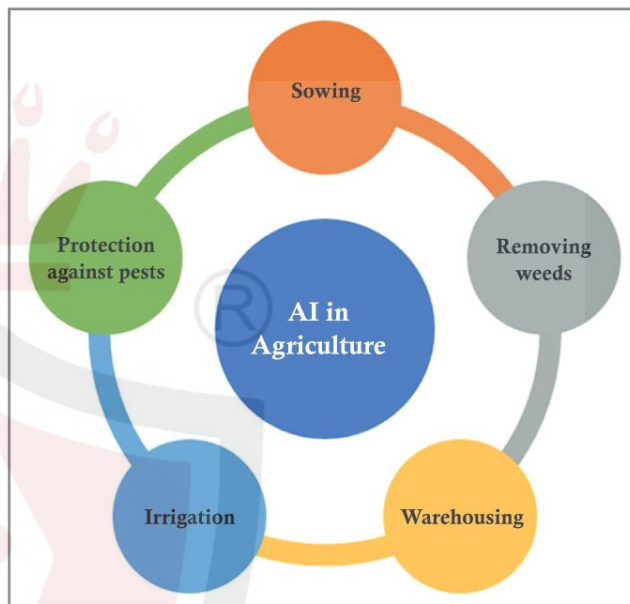
This editorial 'A new compact between AI & agriculture: An Andhra Pradesh opportunity' was published in The Indian Express on 3rd Aug 2026, highlights how agrivoltaics can meet AI data centres' energy needs while making farmers co-owners of clean-energy infrastructure.

Energy challenge and agrivoltaic opportunity

- ❖ Google's proposed \$15-billion, one-gigawatt Visakhapatnam AI data centre, expected by 2028, will require 24 GWh of electricity daily.
- ❖ Diverting existing power could hurt agriculture and consumers, while additional thermal generation would impose environmental costs.
- ❖ Andhra Pradesh's Deemed Distribution Licence permits hyperscale operators to procure and manage their own power, enabling captive renewable-energy solutions.
- ❖ Agrivoltaics combines farming and elevated solar panels on the same land, allowing farmers to produce food and electricity while diversifying incomes.
- ❖ Farmers should retain land ownership and hold equity in community-based special-purpose vehicles, making them co-owners of the solar enterprise powering Google.

Financing and operational model

- ❖ Solar cooperatives modelled on milk cooperatives could aggregate farmers, while panels installed 10–12 feet high would permit cultivation beneath them.
- ❖ Google could provide low-interest long-term debt, supplemented by a modified PM-KUSUM subsidy and credit guarantees from the Credit Guarantee Trust for Micro and Small Enterprises.
- ❖ Under the DDL framework, Google could use open-access and banking arrangements as a long-term offtaker, giving farmer utilities a creditworthy customer.
- ❖ ICRIER pilots suggest solar can become a third crop, raising farm income eight to ten times while supporting irrigation, shade-loving crops, processing and electricity sales.



Scale and wider benefits

- ❖ The proposed 5,000 one-megawatt agri-photovoltaic systems, costing about ₹4 crore each, would create 5 GW capacity through an estimated ₹20,000-crore investment.
- ❖ Blended finance and guaranteed electricity buyback could mobilise funds with minimal pressure on government budgets.
- ❖ Farmers gain crops, electricity income and dividends; Google secures competitive clean power and social licence, while the state avoids conflict over land and electricity.
- ❖ Unlike land acquisition that leaves farmers with one-time rent, the co-ownership model retains land as an asset and makes the data centre a dependable customer.

BEYOND EDITORIAL

Implementation risks of agrivoltaics

- ◆ **Crop suitability:** ICAR-IARI's 100-kWp pilot is testing crop combinations because shading and productivity effects vary across agro-ecological regions.
- ◆ **Yield safeguards:** Japan requires solar-sharing projects to retain 80% of reference crop yield, while Germany uses a 66% benchmark.

- ◆ **Capital burden:** Elevated horticultural systems generally cost more than interspace designs, increasing dependence on subsidies and concessional finance.
- ◆ **Inclusive ownership:** PM-KUSUM permits participation by farmers, cooperatives, panchayats, FPOs and water-user associations, limiting concentration among large landowners.
- ◆ **Operational complexity:** Panel soiling, corrosion, pesticide exposure and machinery damage require specialised maintenance and compatible farm equipment.
- ◆ **Revenue security:** PM-KUSUM uses 25-year power-purchase agreements, mandatory DISCOM procurement and escrow arrangements to reduce payment and offtake risks.
- ◆ **End-of-life liability:** Odisha requires PM-KUSUM projects to follow e-waste rules after PPA termination, supporting proper decommissioning and land restoration.

AI and cyber, the double helix of today's security threats

This editorial 'AI and cyber, the double helix of today's security threats' was published in The Hindu on 4th Aug 2026, highlights how the convergence of artificial intelligence and cyber threats is transforming warfare, redistributing power and outpacing global safeguards.

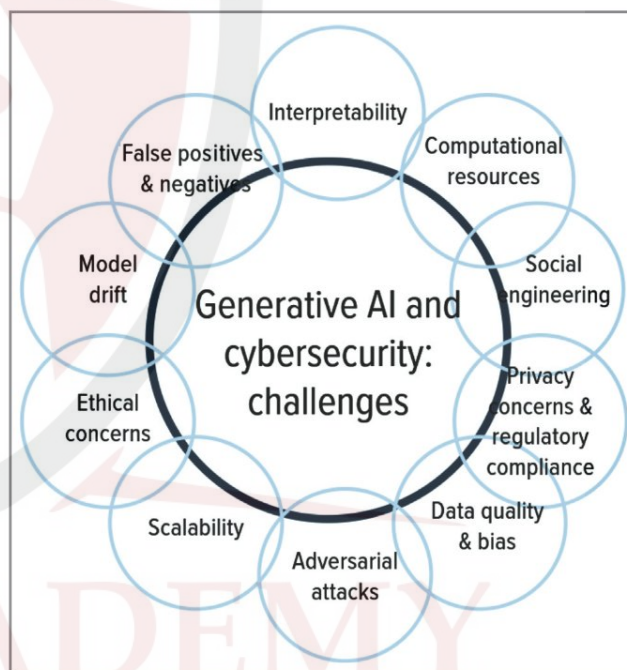
Converging security threats

- ❖ Growing digital interconnectedness makes AI and cyber risks mutually reinforcing, threatening every level of global security and economic stability.
- ❖ AI-powered malware can adapt to environmental changes, evade traditional antivirus systems and make cyberattacks harder to detect and mitigate.
- ❖ Malicious autonomous agents can undermine Zero Trust protocols and aggravate insider threats, exposing weaknesses in existing security architecture.
- ❖ The Ukraine war shows how emerging technologies create asymmetric advantages capable of disrupting conventional military calculations.
- ❖ Governments are combining innovation, policy coherence and strategic realism, but their cyber preparedness continues to lag behind sophisticated digital adversaries.

Agentic AI and changing power structures

- ❖ Businesses are rapidly adopting Large Language Models without adequate training or human-interface adaptation, making Agentic AI implementation increasingly complex.
- ❖ Anthropic's Mythos reportedly detects zero-day vulnerabilities across major operating systems, exposing the limits of legacy systems.

- ❖ In the Russia-Ukraine and U.S.-Israel-Iran conflicts, AI-enabled systems have tracked missile trajectories and extracted intelligence from images, text, radio and electromagnetic signals.
- ❖ Autonomous munitions such as Goalkeeper and Whiplash can identify and strike targets independently, raising concerns over human control and civilian safety.
- ❖ The World Economic Forum warns that AI may strengthen cyber defence while enabling sophisticated automated attacks that could weaken Zero Trust systems.
- ❖ Advanced autonomous agents may give rogue groups capabilities once restricted to states, redistributing military and economic power towards AI leaders.
- ❖ Anthropic, Palantir and comparable ecosystems increasingly control advanced technology, while rules governing AI concentration and its use remain underdeveloped.



Governance, reliability and geopolitical risks

- ❖ Existing cyber rules may require rewriting as Agentic Autonomous Operations become more capable, autonomous and difficult to contain through present governance frameworks.
- ❖ AI hallucinations, subjective judgments and embedded algorithmic bias can produce distorted decisions and encourage algorithmic radicalisation.
- ❖ U.S. allegations that China's Moonshot copied Anthropic's Fable model, rejected by China, reflect

intensifying U.S.-China competition over frontier AI capabilities.

- ❖ If advanced models can outperform most humans in finding and exploiting vulnerabilities, threats could extend across operating systems, cryptographic software and critical infrastructure.
- ❖ Defence AI may generate unreliable or nationally biased warnings; retaining human oversight and linking alerts with accurate situational understanding are therefore essential.

BEYOND EDITORIAL

India's preparedness for AI-enabled cyber warfare

- ◆ **Rising threat load:** CERT-In handled over 29.44 lakh cyber incidents in 2025 and issued 1,530 alerts, demonstrating the scale confronting India's cyber-defence system.
- ◆ **Institutional foundation:** The Defence AI Council and Defence AI Project Agency were created to accelerate military AI adoption, but require closer tri-service and civilian coordination.
- ◆ **Indigenous capacity:** The ₹10,371.92-crore IndiaAI Mission has onboarded over 38,000 GPUs, providing a base for domestic models and secure defence-grade computing.
- ◆ **Realistic exercises:** Bharat NCX 2025 simulated autonomous malware, deepfake manipulation and critical-infrastructure attacks, improving operational preparedness for AI-enabled cyber crises.
- ◆ **Model assurance:** The IndiaAI Safety Institute and 13 Responsible AI projects cover bias, privacy, explainability and risk assessment, which can inform military AI testing.
- ◆ **Specialised workforce:** The CSPAI programme trains cybersecurity professionals to secure AI systems, providing a model for similar capacity-building across defence and critical infrastructure.
- ◆ **International cooperation:** The 2026 Australia-India partnership covers cybercrime, malicious cyber activity, security norms and critical infrastructure, supporting collective resilience against cross-border threats.

- ❖ The Supreme Court directed the RBI to frame standard procedures for temporary debit holds on suspected mule accounts.
- ❖ States must establish cybercrime coordination centres and operationalise e-Zero FIRs for quicker registration and investigation.
- ❖ An interdepartmental committee will examine victim compensation, while advisories from banks, telecom operators and police have reduced senior citizens' victimisation.
- ❖ Advisories remain inadequate for youth and professionals, while low convictions despite investigations expose slow and ineffective law enforcement.

Evolving Methods and Financial Recovery

- ❖ Scammers use SIM boxes to display Indian numbers, interstate mule accounts for swift transfers and deepfakes during video calls.
- ❖ The Court prioritised financial restitution, completed in 36,290 cases involving ₹18.05 crore, alongside faster disposal of account-freeze cases.
- ❖ MuleHunter.AI, deployed across over 20 banks, helps limit financial damage even when overseas perpetrators remain unidentified or unconvicted.

Transnational Scam Networks

- ❖ Rare convictions reflect operations from overseas scam compounds across Myanmar, the Golden Triangle and Cambodia, often protected through official patronage.
- ❖ Myanmar's raids remained largely ineffective as scam centres shifted into conflict zones, staying ahead of domestic investigators.
- ❖ After China's 2023 crackdown, networks targeted other countries and trafficked Indians into committing digital crimes under coercion and torture.
- ❖ India must coordinate diplomatic pressure with China, the U.S. and ASEAN to compel Myanmar and Cambodia to dismantle scam networks.

Stop the scam

This editorial 'Stop the scam' was published in The Hindu on 7th Aug 2026, highlights India's progress, enforcement gaps and transnational challenges in combating digital-arrest scams.

Declining Complaints and Institutional Response

- ❖ Cybercrime complaints fell from 1,23,672 in 2024 to 58,249 in 2025 and 16,377 during 2026's first half, showing encouraging progress.

BEYOND EDITORIAL

Safeguarding Civil Liberties in Cybercrime Enforcement

- ◆ **Proportionate freezing:** In Dr. Sajeer v. RBI (2024), the Kerala High Court limited account restrictions to the disputed amount rather than the entire balance.
- ◆ **Procedural safeguards:** In Shabeer v. Federal Bank (2026), the Court required police to specify the disputed amount within one month or lift the freeze.

- ♦ **Innocent-account protection:** In Aboobacker Sidhique (2026), the Court permitted account operations beyond the ₹28,000 placed under lien through three police requisitions.
- ♦ **Privacy protection:** The Puttaswamy judgment (2017) requires legality, necessity and proportionality in state intrusion, including financial and telecom data-sharing.
- ♦ **Algorithmic accountability:** RBIH's MuleHunter.AI, launched in December 2024, should support human verification rather than automatically penalising customers through pattern-based suspicion.
- ♦ **Time-bound redressal:** I4C's January 2026 SOP provides a grievance mechanism for account holders affected by cybercrime-related freezes, liens or payment holds.
- ♦ **Judicial supervision:** Kerala High Court directions place disputed funds before the jurisdictional Magistrate, balancing victim restitution with account holders' property rights.

Mains Articles

AI as the Next Digital Public Infrastructure (DPI)

Context

Public policy experts propose AI as India's next Digital Public Infrastructure, using low-cost inference and open-source models inspired by Aadhaar, UPI, and DEPA.

About Commoditising AI as India's Next DPI

- ❖ **Core idea:** Commoditising AI means making computing capacity, AI models and inference affordable, accessible and interoperable, like public digital infrastructure rather than an expensive proprietary service.

- ❖ **DPI model:** It would build on Aadhaar, UPI and DEPA through shared computing resources, open models, trusted datasets and standard interfaces available to governments, researchers, start-ups and MSMEs.
- ❖ **Objective:** Lowering the cost of AI access can support applications such as local-language education, agricultural advisory, rural healthcare and citizen services, while reducing dependence on foreign AI platforms.

Rationale for AI as India's Next DPI

- ❖ **Natural extension of India Stack:** Aadhaar enables digital identity, UPI provides interoperable real-time payments, and DEPA supports consent-based data sharing; shared AI capabilities could become the next enabling layer.
- ❖ **Lowering entry barriers:** The ₹10,371.92-crore IndiaAI Mission has onboarded over 38,000 GPUs for subsidised access, reducing computing costs for start-ups, researchers, MSMEs and public institutions.
- ❖ **Democratising AI access:** Affordable inference can support rural healthcare, agricultural advisories and personalised education, while BHASHINI demonstrates the potential of shared AI tools for multilingual digital services.
- ❖ **Retaining domestic value:** India contributes substantial technical talent and data-processing capabilities, but foreign firms dominate frontier models and APIs; indigenous models can retain more intellectual and economic value within India.
- ❖ **Empowering application developers:** Shared compute, datasets and foundational models would

allow Indian developers to focus on sector-specific applications instead of repeatedly investing in expensive underlying AI infrastructure.

- ❖ **Strengthening technological sovereignty:** Dependence on proprietary foreign APIs exposes Indian users to external pricing, access and data-governance decisions; AIKosh and indigenous foundation-model programmes can reduce this vulnerability.



Challenges in India's AI Ecosystem

- ❖ **Dependence on imported AI hardware:** India does not yet manufacture frontier AI accelerators at scale; even the IndiaAI shared-compute network largely relies on imported GPUs and related components.
- ❖ **Inadequate energy planning:** AI data centres require large, continuous and geographically concentrated power and cooling capacity, demanding specialised grid planning, renewable-energy integration and efficient water management.
- ❖ **Foreign model concentration:** Many leading models and APIs, including GPT, Gemini and Claude, are controlled by overseas companies, exposing Indian users to external pricing, access and governance decisions.
- ❖ **Scarcity of representative datasets:** High-quality data remains limited for many Indian languages, dialects and cultural contexts, although BHASHINI, Project Vaani and AIKosh are addressing these gaps.
- ❖ **Costly proprietary APIs:** Dollar-denominated, per-token charges can make large-scale experimentation expensive for Indian start-ups, while exchange-rate movements and unilateral pricing changes create additional uncertainty.

BUILDING BLOCKS OF INDIA'S DIGITAL INFRASTRUCTURE

- ◆ **IndiaAI Mission:** Approved in 2024 with an outlay of ₹10,371.92 crore, it supports shared computing, indigenous models, AIKosh datasets, applications, skills, start-ups and responsible AI.
- ◆ **Digital India Programme:** Launched in 2015, it expanded digital connectivity, e-governance and citizen services, creating the institutional foundation for population-scale digital infrastructure.
- ◆ **Aadhaar-enabled DBT:** Aadhaar authentication and verified bank accounts facilitate direct welfare transfers while helping governments identify duplicate or ineligible beneficiaries and reduce leakages.
- ◆ **Unified Payments Interface:** UPI provides interoperable instant bank payments and processed about 23.66 billion transactions worth ₹29.88 lakh crore in July 2026.
- ◆ **DigiLocker:** This secure cloud-based platform enables citizens to access, store, share and verify authentic digital documents issued by government and authorised institutions.
- ◆ **Open Network for Digital Commerce:** ONDC uses open protocols to connect buyers, sellers and logistics providers across different applications, reducing dependence on closed e-commerce platforms.
- ◆ **Ayushman Bharat Digital Mission:** Through ABHA numbers, professional registries and consent-based health records, ABDM seeks to create an interoperable national digital health ecosystem.

Roadmap for India's AI Token Economy

- ❖ **Integrate compute into power planning:** Include AI data-centre demand in the National Electricity Plan; the IEA projects global data-centre electricity consumption to nearly double between 2025 and 2030.
- ❖ **Expand affordable public compute:** Build on the IndiaAI Compute Portal, which offers eligible users access to over 38,000 GPUs at subsidised rates of about ₹65 per hour.
- ❖ **Promote open-weight models:** Require publicly funded AI models to release reusable weights and documentation, subject to privacy and security safeguards, following initiatives such as BharatGen and AIKosh.
- ❖ **Build a Unified Intelligence Interface:** Create an interoperable gateway, similar to UPI or API Setu, enabling applications to access multiple public and private AI models through common standards.
- ❖ **Introduce freemium token allocations:** Provide verified start-ups, students, educators and researchers with limited monthly inference credits, using transparent eligibility criteria, usage ceilings and periodic audits.
- ❖ **Support Indian-language innovation:** Reserve token credits for applications using BHASHINI, Project Vaani and AIKosh, particularly in education, agriculture, healthcare and citizen-service delivery.
- ❖ **Finance AI skilling:** Earmark part of existing innovation, education and industrial-skilling budgets for token access through IndiaAI FutureSkills, without weakening essential welfare subsidies.

Knowledge paper on "AI in MedTech: Revolutionizing Healthcare Through Artificial Intelligence"

Context

The Union Health Minister released the knowledge paper "AI in MedTech: Revolutionizing Healthcare Through Artificial Intelligence," highlighting India's potential to lead responsible AI-enabled MedTech through its clinical diversity and manufacturing strength.

Growing Role of AI in MedTech

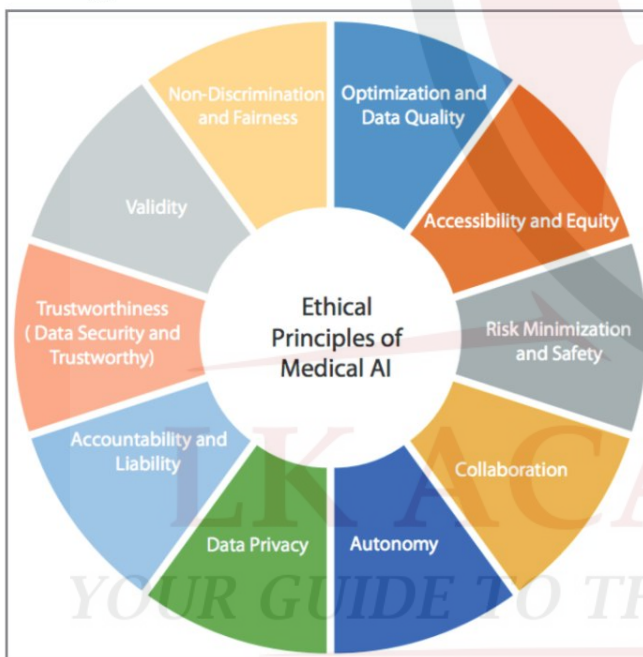
- ❖ **Mainstream clinical adoption:** AI is entering routine healthcare workflows, with AMA surveys reporting physician use rising from 38% in 2023 to 81% in 2026.
- ❖ **Expansion of medical devices:** By January 2025, the U.S. FDA had authorised over 1,000 AI-enabled medical devices, particularly in radiology and cardiology.
- ❖ **Rapid market growth:** One industry estimate projects the global healthcare-AI market to grow from \$26.6 billion in 2024 to \$187.7 billion by 2030.

Applications of AI in MedTech

- ❖ **Diagnosis and medical imaging:** AI analyses X-rays, CT scans, MRIs and retinal images to help detect tuberculosis, cancers, strokes, cardiac abnormalities and diabetic retinopathy.
- ❖ **Rare-disease detection:** Tools such as Face2Gene analyse facial features to identify possible genetic syndromes, supporting but not replacing genetic testing and specialist diagnosis.
- ❖ **Predictive healthcare:** AI combines medical histories, vital signs and laboratory results to estimate risks such as sepsis, readmission and clinical deterioration.
- ❖ **Personalised medicine:** Machine learning analyses genomic data, biomarkers, tumour profiles and treatment responses to support the selection of suitable therapies and dosages.
- ❖ **Clinical decision support:** AI combines clinical rules with patient data to flag drug interactions, recommend further tests and assist diagnosis or referral decisions.
- ❖ **Drug discovery:** AI identifies biological targets and promising compounds, while AlphaFold's database of over 200 million predicted protein structures supports biomedical research.

populations, disease patterns, equipment or workflows change; the FDA therefore emphasises site-specific validation and continuous post-market monitoring.

- ❖ **Bias in training data:** Underrepresentation of certain ages, sexes, ethnicities, skin tones or healthcare settings can reduce accuracy and produce unequal clinical outcomes.
- ❖ **Privacy and data governance:** Medical records, genomic information and diagnostic images require informed consent, purpose limitation, encryption, access controls and protection against unauthorised reuse.
- ❖ **Healthcare-system integration:** Incompatible data formats and legacy EHR systems can disrupt workflows; standards such as HL7 FHIR support interoperable health-information exchange.
- ❖ **Patient and clinician trust:** Poorly explained recommendations may cause rejection or excessive reliance, requiring disclosure of intended use, performance limitations and meaningful human oversight.
- ❖ **Liability and accountability:** Responsibility may be unclear among developers, manufacturers, hospitals and clinicians when an AI recommendation or software update contributes to patient harm.
- ❖ **Regulatory and adoption barriers:** Clinical evidence, cybersecurity, approval, staff training and financial viability remain essential; the EU AI Act treats medical-purpose AI systems as high-risk.



- ❖ **Documentation and administration:** NLP extracts information from clinical notes, while AI tools support coding, summarisation, scheduling, claims processing and clinical documentation.

Challenges of AI in MedTech

- ❖ **Clinical reliability:** Performance may decline as patient

WHO'S SIX CORE PRINCIPLES FOR AI IN HEALTH

- ◆ **Protect human autonomy:** Humans must retain control over healthcare systems and medical decisions, while privacy, confidentiality and informed consent remain fully protected.
- ◆ **Promote well-being and safety:** AI must meet standards of safety, accuracy and effectiveness, supported by quality control and continuous improvement mechanisms.
- ◆ **Ensure transparency and explainability:** Information about an AI system's design and deployment should be available before use, enabling informed consultation and public debate.
- ◆ **Foster responsibility and accountability:** AI should be used by trained professionals under appropriate conditions, with clear mechanisms for review, responsibility and redress.
- ◆ **Ensure inclusiveness and equity:** AI should promote equitable access regardless of age, sex, gender, income, race, ethnicity, disability or other protected characteristics.
- ◆ **Remain responsive and sustainable:** AI systems require continuous real-world assessment, reduced environmental impact and adequate preparation of healthcare workers for technological change.

ICMR's FOUR PRIORITIES FOR AI IN HEALTH

- ◆ **Collate quality data:** Standardise and combine reliable health datasets across research institutions to support representative AI development, validation and evidence-based policymaking.
- ◆ **Build private-sector partnerships:** Collaborate with hospitals, MedTech companies and start-ups to translate research into scalable AI tools under appropriate public-interest safeguards.
- ◆ **Generate real-world evidence:** Use ICMR's network of institutes to test AI systems across diverse populations, diseases and healthcare settings before wider deployment.
- ◆ **Develop an interdisciplinary workforce:** Integrate doctors, nurses and public-health professionals into AI training alongside data scientists, engineers and biomedical researchers.

India-Specific Way Forward

- ❖ **Use AI selectively:** Prioritise applications that reduce diagnostic delays, improve clinical decisions or widen access according to local healthcare needs.
- ❖ **Build interoperable systems:** Integrate validated AI tools with EHRs and ABDM platforms using FHIR standards for secure health-information exchange.
- ❖ **Ensure inclusive adoption:** Connect AI tools with eSanjeevani, Ayushman Arogya Mandirs and BHASHINI to support underserved and multilingual communities.

Prelims News

General Science

Borophene-Based Green Lubricant

Context

Researchers at IASST, Guwahati, have demonstrated the first use of borophene as a high-performance additive in castor oil-based lubricant.

About Borophene

- ❖ Borophene is a two-dimensional nanomaterial composed entirely of boron atoms.
- ❖ It possesses high mechanical strength, electrical conductivity and chemical reactivity.
- ❖ Its potential applications include batteries, super-capacitors, fuel cells and advanced lubrication technologies.

Key Findings of the Research

- ❖ Castor oil is renewable and biodegradable, but

requires suitable additives to improve its lubrication performance.

- Reducing friction and wear can lower industrial energy losses and prevent premature equipment failure.
- ❖ Adding only 0.1% borophene by weight reduced castor oil's average coefficient of friction by about 42%.
 - The coefficient of friction declined from 0.059 to 0.034 compared with pure castor oil.
- ❖ Borophene dispersed uniformly in castor oil without requiring chemical modification.
 - During operation, it formed a protective tribofilm containing iron oxides, carbonaceous residues and boron-based compounds.
 - The film reduced shear stress, improved load-bearing capacity and minimised surface wear.

Blueball and X(2370)

Context

The BESIII Collaboration has presented strong evidence that X(2370) contains a dominant glueball component, making it a leading candidate for the long-predicted particle.

About Strong Force and Gluons

- ❖ The strong force is one of the four fundamental forces and is described by Quantum Chromodynamics (QCD).
 - It binds quarks together inside protons, neutrons and other hadrons.
 - Its residual interaction also helps bind protons and neutrons inside atomic nuclei.
- ❖ The strong force is mediated by particles called gluons.
 - Unlike photons, gluons carry colour charge and can therefore interact with one another.
 - This self-interaction allows gluons to form composite particles without valence quarks.

About Glueballs

- ❖ Glueballs are short-lived, colour-neutral composite particles composed predominantly of bound gluons.
 - They differ from conventional mesons, which primarily contain a quark-antiquark pair.
- ❖ Glueballs are difficult to identify because they decay rapidly into lighter particles.
 - They can also mix with ordinary hadrons possessing similar quantum properties, obscuring their gluonic identity.

Evidence from X(2370)

- ❖ The X(2370) particle was first observed by BESIII in radiative J/ψ meson decays in 2011.
 - Such decays provide a gluon-rich environment suitable for searching for glueballs.
- ❖ Later analysis determined its spin-parity quantum numbers as 0^{-+} , consistent with a pseudoscalar glueball.
 - Its mass of approximately 2.37 GeV also agrees with lattice-QCD predictions.
- ❖ Analysis of around 10 billion J/ψ events found a suppressed decay into $(K^{*}(892)\bar{K})$, indicating that X(2370) is a flavour-singlet state.
 - Its mass, quantum numbers, production rate and decay pattern collectively favour a dominant glueball component over alternative explanations.

Space Technology

Falcon 9

Context

A discarded SpaceX Falcon 9 upper stage struck the Moon on 5 Aug 2026, creating a new crater and ejecting lunar material.

About the Lunar Impact

- ❖ The upper stage was launched on 15 January 2025 carrying Firefly Aerospace's Blue Ghost 1 and ispace's RESILIENCE lunar landers.
 - After deploying the landers, it remained in an uncontrolled high-Earth orbit for nearly 19 months.
 - Solar activity and gravitational forces gradually redirected it towards the Moon.
- ❖ The stage struck near the Einstein crater at approximately 5,400 miles per hour.
 - It created a crater about 18 metres wide and less than 3 metres deep.
 - The impact excavated lunar dust and rocks, producing contrasting bright and dark ejecta patterns.
- ❖ South Korea's Danuri orbiter first photographed the site, followed by NASA's Lunar Reconnaissance Orbiter.
 - LRO captured detailed images between 11 and 12 August 2026.
- ❖ The artificial impact can help scientists study lunar crater formation, subsurface material and techniques for tracking space debris.

About SpaceX

- ❖ Space Exploration Technologies Corporation, commonly called SpaceX, is an American private aerospace company founded by Elon Musk in 2002.

- ❖ It develops launch vehicles, spacecraft and satellite systems to reduce launch costs and expand access to space.
- ❖ Its major systems include Falcon 9, Falcon Heavy, Starship, Dragon and the Starlink satellite constellation.

About Falcon 9

- ❖ Falcon 9 is a partially reusable, two-stage orbital rocket developed by SpaceX and first launched in 2010.
 - Its first stage uses nine Merlin engines and can land for reuse.
 - Its expendable upper stage uses a Merlin Vacuum engine to place payloads into their intended trajectories.
- ❖ It launches satellites, Dragon spacecraft and other payloads into low-Earth orbit, geostationary transfer orbit and interplanetary trajectories.
- ❖ Reusing its first-stage booster has reduced launch costs and enabled a high frequency of space missions.

EVEREST Rocket Engine

Context

Bengaluru-based Astrobase Space Technologies unveiled EVEREST, India's first privately developed 800 kN Full-Flow Staged Combustion LOX-methane engine.



About EVEREST

- ❖ EVEREST is an 80-tonne-class liquid rocket engine designed for reusable medium-lift launch vehicles.
 - It generates 800 kN vacuum thrust, provides around 340 seconds specific impulse and supports 50%–110% throttling.
 - Wide throttling enables precise thrust control during ascent, descent and reusable-vehicle recovery.
- ❖ The engine uses liquid oxygen as the oxidiser and liquid methane as the fuel, together called methalox.
 - Methane burns more cleanly than kerosene and produces less soot, reducing inspection and refurbishment requirements.

- Core engine components are manufactured using advanced metal 3D printing.

About Full-Flow Staged Combustion Technology

- ❖ In an FFSC engine, the entire flows of fuel and oxidiser pass through separate pre-burners and turbopumps before combustion.
 - Fuel-rich and oxidiser-rich gases drive their respective turbopumps.
 - Both gas streams then enter the main combustion chamber, ensuring fuller propellant utilisation.
- ❖ The system supports high chamber pressure, greater efficiency and reduced thermal stress on turbine components.
 - Its efficiency and cleaner methalox combustion make it suitable for repeated flight cycles.

About Reusable Launch System

- ❖ Astrobase is developing a two-stage reusable launch vehicle powered by EVEREST engines.
 - Its first stage is planned to use return-to-launch-site recovery.
 - The company's current vehicle architecture lists a capacity of 8 tonnes to a 200-km low-Earth orbit.

Defence Technology

INS Malvan

Context

The Indian Navy commissioned INS Malvan, the second Mahe-class Anti-Submarine Warfare Shallow Water Craft, at Karwar on 22 Jul 2026.



About INS Malvan

- ❖ INS Malvan is the second of eight Mahe-class vessels being built by Cochin Shipyard Limited, Kochi.
 - It is the sixth of the 16 ASW-SWCs planned for induction into the Indian Navy.
 - The vessel contains over 80% indigenous content.

- ❖ It is named after Malvan, a Maharashtra coastal town associated with the maritime legacy of Chhatrapati Shivaji Maharaj.

- It continues the legacy of an earlier Indian Navy inshore minesweeper decommissioned in 2003.
- Its crest carries the Bagh Nakha, while its motto is "Silent Claws."

- ❖ The vessel can detect, track and engage underwater threats in shallow coastal waters.

About the Mahe Class

- ❖ Mahe-class vessels are indigenously designed for anti-submarine and surveillance operations in coastal waters.
 - They will replace the Indian Navy's Abhay-class ASW corvettes.
 - They are fitted with indigenously developed sonars for underwater surveillance.
- ❖ Each vessel is approximately 78 metres long and displaces about 896 tonnes.
 - It can attain a maximum speed of 25 knots and has an endurance of about 1,800 nautical miles.
 - The class uses a diesel engine-waterjet propulsion system.

Kusha Long-Range Surface-to-Air Missile

Context

DRDO conducted the maiden flight test of the Kusha LR-SAM from Dr APJ Abdul Kalam Island, Odisha, on 23 July 2026.



About Project Kusha

- ❖ Project Kusha is an indigenous, long-range air-defence system being developed by DRDO with Indian industry partners.
- ❖ It is a fully automated and scalable system designed to detect, track and intercept aerial threats at different ranges and altitudes.
- ❖ Its weapon architecture includes interceptor missiles, long-range radars, command-and-control centres and automated battle-management systems.
- ❖ It can counter fighter aircraft, cruise missiles, unmanned aerial vehicles and large surveillance or support aircraft.
- ❖ Its reported design incorporates AESA radars, precision seekers, hit-to-kill capability and proximity-fuze interception.
- ❖ It is often compared with Russia's S-400, but is intended to complement India's existing air-defence systems rather than serve as a ballistic-missile defence system.
- ❖ The system is planned with three interceptors for creating a layered engagement envelope:
 - M1 with a reported range of up to 150 km.
 - M2 with a reported range of up to 250 km.
 - M3 with a reported range of about 350 km.
- ❖ The missile successfully intercepted an electronic target simulating a high-speed, high-altitude aerial threat.

Agni-4 Ballistic Missile

Context

India successfully test-fired the Agni-4 ballistic missile from the Integrated Test Range, Chandipur, Odisha, validating all operational and technical parameters.



About Agni-4

- ❖ Agni-4 is an indigenously developed, nuclear-capable, surface-to-surface ballistic missile of India's Agni series.
- ❖ Developed by DRDO, it is approximately 20 metres long and has a range of about 4,000 km.
- ❖ It can carry a payload of around 1,000 kg and uses a two-stage solid-propellant system.
- ❖ Its road-mobile launcher improves deployment flexibility and survivability.
- ❖ Advanced avionics, onboard computers and inertial navigation systems provide accuracy and flight stability.
- ❖ It incorporates a Ring Laser Gyro-based navigation system and a composite rocket motor.
- ❖ The test was conducted by the Strategic Forces Command, which manages India's strategic nuclear forces.
- ❖ The successful launch reaffirmed operational reliability and strengthened India's credible strategic-deterrence capability.

Health and Diseases

QDENG

Context

India approved its first dengue vaccine amid an eleven-fold rise in reported cases over two decades.

About QDENG

- ❖ QDENG (TAK-003) is a tetravalent dengue vaccine developed by Japanese pharmaceutical company Takeda.
- ❖ It is manufactured by Takeda GmbH, Germany, and imported by Takeda Biopharmaceuticals India.
- ❖ The Central Drugs Standard Control Organisation (CDSCO) granted marketing authorisation after evaluating its quality, safety and efficacy.
- ❖ Approval was granted under the Drugs and Cosmetics Act, 1940 and Drugs Rules, 1945.
- ❖ It is a recombinant, live-attenuated and tetravalent vaccine covering DENV-1, DENV-2, DENV-3 and DENV-4.
- ❖ Individuals aged 4–60 years can receive it irrespective of previous dengue infection.
- ❖ Unlike some earlier vaccines, it requires no pre-vaccination blood test, simplifying administration.

- ❖ QDENGA has World Health Organization prequalification, approval in over 40 countries and over 32 million distributed doses.

About Dengue

- ❖ Dengue is a mosquito-borne viral disease caused by four serotypes of the genus *Flavivirus*.
- ❖ It is transmitted mainly by infected female *Aedes aegypti* mosquitoes.
- ❖ The same mosquito also transmits chikungunya, yellow fever and Zika virus.
- ❖ Symptoms include high fever, severe headache, pain behind the eyes, and intense muscle and joint pain.
- ❖ Around 39 crore infections occur annually worldwide, including nearly 9.6 crore symptomatic cases.

Chandipura Virus

Context

Nine Chandipura virus (CHPV) deaths were confirmed in Gujarat and Rajasthan at the time of reporting, including two girls from Rajasthan.

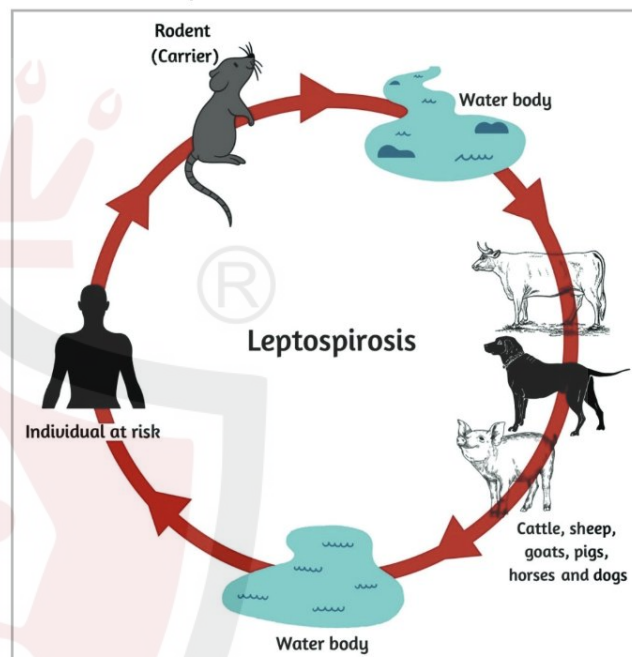
About Chandipura Virus

- ❖ CHPV is a vector-borne virus belonging to the *Rhabdoviridae* family, which also includes the rabies-causing *Lyssavirus*.
- ❖ It causes Acute Encephalitis Syndrome (AES), involving rapid and potentially fatal inflammation of brain tissues.
- ❖ The virus was first isolated in 1965 in Chandipura village, Maharashtra.
- ❖ Major outbreaks occurred during 2003–04 in Andhra Pradesh, Maharashtra and Gujarat, recording high case-fatality rates.
- ❖ CHPV occurs mainly in western, central and southern India, particularly rural and tribal regions.
- ❖ CHPV is transmitted primarily by infected *Phlebotomine* sandflies, particularly *Phlebotomus papatasi*.
 - ✱ Mosquitoes and ticks may also transmit the virus, while human-to-human transmission remains unreported.
- ❖ The disease predominantly affects children below 15 years and peaks during the monsoon season.
- ❖ Death may occur within 24–48 hours of hospitalisation, making early medical intervention critical.
- ❖ No approved antiviral medicine or preventive vaccine is currently available against CHPV.

Leptospirosis

Context

Reported in Kerala since 1989, leptospirosis has become endemic and records the State's highest communicable-disease mortality.



About Leptospirosis

- ❖ Leptospirosis is a bacterial zoonotic disease affecting both humans and animals.
- ❖ It is caused by *Leptospira* bacteria, which survive in contaminated water, soil and mud.
- ❖ The disease is common in tropical and subtropical regions experiencing high humidity and heavy rainfall.
- ❖ Flooding increases infections by spreading animal urine-contaminated water across human settlements.
- ❖ Infection occurs through contact with water, soil or food contaminated by infected animal urine.
- ❖ Direct contact with an infected animal's urine or body fluids can also transmit the disease. Person-to-person transmission is rare.
- ❖ Outdoor workers, animal handlers, gardeners and people entering floodwater or contaminated freshwater face greater risk.
- ❖ Untreated infection can cause kidney damage, meningitis, liver failure, respiratory distress and death.
- ❖ Mild infections are treated with antibiotics such as doxycycline or penicillin.

Biotechnology

Raygun and Protein Language Models

Context

Duke University scientists developed Raygun, an artificial intelligence system that can shrink, enlarge and extensively redesign proteins. The study was published in Nature.

About Protein Language Models

- ❖ A Protein Language Model (pLM) studies amino-acid sequences to understand protein structure and function.
- ❖ It treats amino acids as words and the complete protein sequence as a sentence.
- ❖ By analysing millions of sequences, pLMs learn the underlying biological grammar governing proteins.
- ❖ They predict missing amino acids, similar to language models predicting a missing or subsequent word.
- ❖ Learned patterns connect protein sequences with their three-dimensional structures and biological functions.
- ❖ These patterns are discovered automatically without being explicitly taught established biological rules.

About Raygun

- ❖ Raygun builds upon pLMs to create shorter, longer or extensively modified proteins.
- ❖ It redesigns existing proteins while preserving important structural and functional features.
- ❖ Raygun can shrink proteins by 10–25%, and sometimes by over 50%.
- ❖ The system could support customised proteins for biological research, biotechnology and targeted medicines.

Applications of Protein Language Models

- ❖ pLMs predict protein structure, stability, binding ability and cellular functions, helping interpret mutations.
- ❖ They design enzymes for plastic degradation and biofuel production, besides developing therapeutic proteins.
- ❖ In medicine, they accelerate drug discovery and explain how genetic variations alter protein functions.
- ❖ In biotechnology, they support better enzymes, sustainable materials, diagnostic tools and industrial manufacturing.

Non-Mendelian Epigenetic Inheritance

Context

A Nature Genetics study found that some DNA

methylation patterns can pass across mouse generations without changing the underlying DNA sequence.

Key Findings

- ❖ Researchers examined around 7,600 genomic regions, finding approximately 93% followed Mendelian inheritance.
- ❖ Around 7%, representing at least 522 regions, showed non-Mendelian epigenetic inheritance.
- ❖ The results indicate that inherited biological information may extend beyond the DNA sequence.
- ❖ Researchers identified 305 sex-specific regions, all in liver tissue and nearly all more methylated in females.
- ❖ At least five previously unidentified genes displayed parent-of-origin-specific genomic imprinting.
- ❖ Natural intergenerational paramutation was confirmed at the Capn11 gene, associated with testicular meiosis and fertility.
- ❖ Two additional probable paramutation cases involved intracisternal A particles (IAPs), which are endogenous retroviral elements.
- ❖ IAPs can resist normal germ-cell demethylation, allowing epigenetic marks to persist across generations.

About Epigenetics and its Mechanisms

- ❖ Epigenetics studies heritable changes in gene expression occurring without alterations in DNA sequence.
- ❖ The epigenome functions like cellular software, determining which genes are activated or silenced.
- ❖ Epigenetic differences enable genetically identical liver, brain and muscle cells to perform distinct functions.
- ❖ Diet, stress, ageing, exercise and toxins can modify epigenetic markers and influence biological outcomes.
- ❖ DNA methylation adds methyl groups to cytosine bases, often reducing gene transcription near promoters.
- ❖ Histone modifications control DNA packing; tightly packed chromatin silences genes, while loose chromatin enables transcription.
- ❖ Non-coding RNAs regulate gene expression by interacting with coding RNA and preventing protein production.

Information and Communication Technology (ICT)

BitChat Takedown

Context

The Indian Cyber Crime Coordination Centre (I4C) directed GitHub to remove BitChat repositories over public-order and surveillance concerns.

About BitChat and GitHub

- ❖ Developed by Jack Dorsey, BitChat uses Bluetooth mesh networking without internet, servers, SIM cards or phone numbers.
- ❖ Each device acts as a client and server, relaying messages through peer-to-peer connections.
- ❖ It supports communication during internet shutdowns, disasters and low-connectivity situations.
- ❖ GitHub provides code repositories, version control and collaborative software-development tools.
- ❖ Removing open-source repositories cannot disable installed applications or prevent subsequent code redistribution.

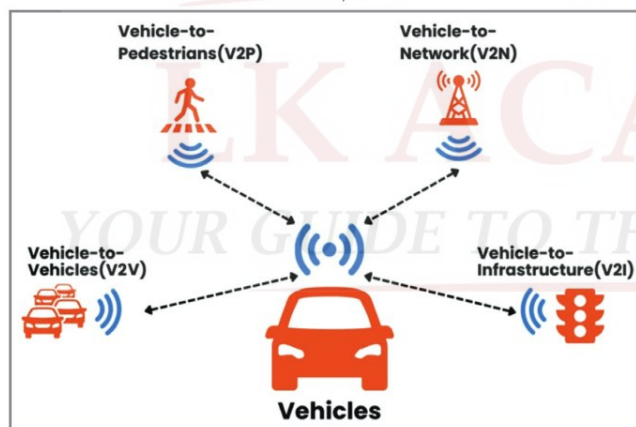
Legal and Constitutional Issues

- ❖ I4C invoked Section 79(3)(b) of the IT Act and Rule 3(1)(d) of the IT Rules, 2021.
- ❖ The government argues BitChat obstructs lawful interception and user identification, potentially threatening public order.
- ❖ Critics note Section 79 concerns intermediary safe harbour, while blocking ordinarily proceeds under Section 69A.
- ❖ Shreya Singhal requires a court order or valid government direction for intermediary takedowns.
- ❖ Citing Anuradha Bhasin, the Internet Freedom Foundation demanded restrictions satisfy necessity, proportionality and limited duration.

Vehicle-to-Vehicle Communication

Context

The Ministry of Road Transport and Highways proposed phased V2V implementation through amendments to the Central Motor Vehicles Rules, 1989.



About Vehicle-to-Vehicle Technology

- ❖ Vehicle-to-Vehicle (V2V) technology wirelessly

exchanges nearby vehicles' speed, position, direction, acceleration and braking data.

- ❖ Unlike conventional sensors, it identifies non-line-of-sight hazards around blind junctions, curves and obstructing vehicles.
- ❖ Factory-fitted On-Board Units communicate directly through Cellular Vehicle-to-Everything technology without towers or cloud servers.
- ❖ It uses the licence-exempt 5.875–5.925 GHz band, allocated for Intelligent Transportation System applications.

Proposed Rollout

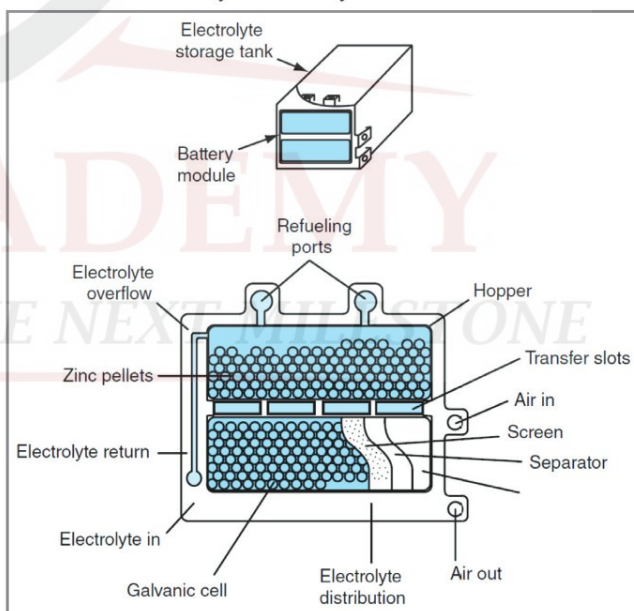
- ❖ AIS-230 specifies technical, positioning, electromagnetic compatibility, performance and cybersecurity requirements.
- ❖ From 1 October 2027, voluntarily fitted V2V systems in L, M and N vehicles must follow AIS-230.
- ❖ From 1 October 2028, AIS-230-compliant systems become mandatory for newly manufactured L, M and N vehicles.
- ❖ V2V complements Advanced Driver Assistance Systems by providing early warnings beyond onboard sensors' visual range.

Emerging Technologies

Nanofluid Electrolyte for Zinc-Air Batteries

Context

SASTRA Deemed University scientists developed a nanofluid electrolyte improving rechargeable zinc-air batteries' efficiency and safety.



About the News

- ❖ The electrolyte disperses inexpensive silica and zinc-oxide nanoparticles within a conventional aqueous electrolyte.
- ❖ It suppresses zinc corrosion and hydrogen evolution while improving oxygen reactions at the air cathode.
- ❖ Stable for over three months, the patented technology supports grid storage and electric mobility.
- ❖ Zinc-air batteries offer high theoretical energy density, low cost and safer water-based chemistry.

About Zinc-Air and Zinc-Ion Batteries

- ❖ Zinc-air batteries use a zinc anode and atmospheric oxygen, unlike zinc-ion batteries.
- ❖ Zinc-ion batteries transfer zinc ions (Zn^{2+}) between a metallic-zinc anode and manganese/vanadium-oxide cathode.
- ❖ During discharge, zinc oxidises and enters the cathode; charging reverses this movement.
- ❖ Zinc-ion batteries provide low cost, enhanced safety, environmental benefits and long cycle life.

Agri-Photovoltaics

Context

Agri-voltaics helps reconcile expanding solar-energy requirements with agricultural land and food-security needs.

About Agri-Photovoltaics

- ❖ Agri-photovoltaics (AgriPV) combines solar-power generation and crop cultivation on the same land.
- ❖ Panels are elevated above crops, spaced between rows, installed vertically or integrated into greenhouses.

- ❖ Crop selection remains region-specific: turmeric and tulsi tolerate shade, while cereals require wider panel spacing.

Benefits and Business Models

- ❖ Farmers gain income through electricity savings, surplus power sales and continued agricultural production.
- ❖ Reduced evapotranspiration improves water-use efficiency, particularly in arid Rajasthan and Gujarat.
- ❖ Panels protect crops from heatwaves, heavy rainfall and hail while powering cold storage and food processing.
- ❖ Projects may be farmer-owned, cooperative or Farmer Producer Organisation-based, leased or revenue-shared.

Miscellaneous

Modified Mix Seal Surfacing Plus Technology

Context

CSIR-Central Road Research Institute showcased its indigenous MSS+ road technology to the Rajasthan Government.

Key Features

- ❖ Modified Mix Seal Surfacing Plus (MSS+) supports sustainable, cost-effective road construction and preventive maintenance.
- ❖ Its live demonstration was conducted on a Jaipur city road on 7 August 2026.
- ❖ MSS+ Smart Mix Pro is India's first indigenous automatic mobile plant designed for this technology.

❖ Automated proportioning and mixing ensure consistent quality, faster execution and reduced manual intervention.

❖ MSS+ extends pavement life while reducing emissions, energy use, material wastage and maintenance costs.

❖ Already used across 100 km of roads in Uttar Pradesh, it is being considered for Rajasthan.



- ❖ Panel shade reduces heat stress and water loss, while plant transpiration cools panels and improves efficiency.



ENVIRONMENT/ ECOLOGY/GEOGRAPHY/ CLIMATE CHANGE ISSUE



Editorial

SC has nurtured environmental law. Do its decisions look distant today?

This editorial 'SC has nurtured environmental law. Do its decisions look distant today?' was published in The Indian Express on 14th Aug 2026, highlights the Supreme Court's foundational role in environmental jurisprudence and the need for consistent judicial scrutiny of development projects.

Constitutional foundations

- ❖ India initially lacked a precise environmental policy, but the Stockholm Conference shaped the country's emerging environmental philosophy.
- ❖ The 42nd Constitutional Amendment, 1976 inserted Article 48A, directing the State to protect the environment, and Article 51A(g), imposing a corresponding fundamental duty on citizens.

Evolution of environmental jurisprudence

- ❖ The Bhopal gas tragedy galvanised judicial intervention, with the Supreme Court developing absolute liability for inherently hazardous enterprises causing harm.
- ❖ The polluter pays principle, introduced internationally at the 1992 Rio Summit, was first applied in India in Indian Council for Enviro-Legal Action v. Union of India.
- ❖ In Vellore Citizens' Welfare Forum, the Court held that the precautionary principle requires anticipating and preventing environmental degradation at its source.
- ❖ The same judgment recognised the precautionary principle and polluter pays principle as essential elements of sustainable development and customary international law.
- ❖ In the Vanashakti review judgment, precaution was placed above monetary reparation because preventing ecological damage is preferable to applying polluter pays afterward.
- ❖ In M.C. Mehta v. Kamal Nath, the Court developed the public trust doctrine, imposed polluter-pays liability and affirmed inter-generational equity.

- ❖ These judgments established the Supreme Court as the principal institution nurturing India's environmental jurisprudence through doctrines supporting sustainable development.

Contemporary judicial inconsistency

- ❖ Justice Gautam Patel observed that the Court generally supported environmental challenges by NGOs but showed greater judicial reluctance when petitions questioned infrastructure projects.
- ❖ Inconsistent decisions contradict the Court's own environmental principles and may intensify existing ecological threats and weaken legal certainty.
- ❖ Environment and development are not inherently opposed; Vellore Citizens' Welfare Forum recognised their reconciliation through sustainable development three decades ago.
- ❖ Courts should reject genuinely frivolous petitions without treating every environmental challenge as abusive, since closing judicial access leaves committed environmentalists without an effective remedy.
- ❖ Judicial scrutiny should focus on whether projects comply with environmental norms, ensuring that all development activities, regardless of scale, meet legal safeguards.

BEYOND EDITORIAL

Limits of Court-led Environmental Governance

- ◆ **Legislative mandate:** The Environment Protection Act, 1986 and CAQMA Act, 2021 show that elected institutions must create enforceable standards and specialised regulatory bodies.
- ◆ **Judicial dependence:** The M.C. Mehta Delhi pollution case required four decades of continuing supervision before its closure in 2026, reflecting persistent administrative dependence on judicial directions.
- ◆ **Specialised adjudication:** The Supreme Court affirmed the NGT's suo motu powers in Municipal Corporation of Greater Mumbai v. Ankita Sinha (2021), strengthening specialised environmental enforcement.
- ◆ **Scientific assessment:** In the Char Dham project litigation, the Supreme Court-directed High-Powered Committee examined the cumulative and independent impacts of road construction across Himalayan valleys.

- ◆ **Community participation:** In the Niyamgiri case, the Supreme Court referred tribal cultural and forest-right claims to Gram Sabhas, with all 12 consulted villages rejecting bauxite mining.
- ◆ **Regulatory enforcement:** CPCB identified 351 polluted river stretches in 2018, illustrating why continuous monitoring and State-level enforcement are indispensable after courts pronounce environmental principles.
- ◆ **Preventive coordination:** CAQM invoked Stage III of GRAP in January 2026 when Delhi's AQI was 354 but forecast to become severe, demonstrating forecast-based administrative action.

Losing forest for trees

This editorial 'Losing forest for trees' was published in The Hindu on 18th Aug 2026, highlights how India's plantation-focused approach has increased tree counts without restoring ecologically functional forests.

Green India Mission's implementation failure

- ❖ A CAG performance audit found that the Green India Mission achieved little despite operating for nearly a decade.
- ❖ Against its target of improving 1.4 million hectares, GIM covered only 0.11 million hectares, while forest expansion reached barely 4%.
- ❖ Intended convergence with CAMPA and MGNREGS funds for afforestation and land restoration largely failed to materialise.
- ❖ As a NAPCC pillar, GIM was meant to restore biodiversity, water security, carbon sequestration and habitats while supporting India's Paris commitment.

Plantation numbers versus forest restoration

- ❖ Launched in 2024, 'Ek Ped Maa Ke Naam' reported 140 crore saplings, but plantation totals cannot represent forest quality.
- ❖ The India State of Forest Report 2023 recorded 1,445 sq km additional green cover, but only 156 sq km was true forest.
- ❖ The remaining 1,289 sq km comprised tree cover outside forests, while dense canopies within recorded forests continued degrading into scrubland.
- ❖ In the Aravallis, fresh plantations cannot reverse mining, encroachment and invasive vilayati kikar or recreate a complex native ecosystem.
- ❖ Ecological restoration requires reviving biodiversity, habitats and natural processes, whereas plantation drives primarily produce measurable hectares and sapling counts.
- ❖ The CAG framework can measure expenditure and implementation gaps but cannot fully assess the ecological value of a living forest.

BEYOND EDITORIAL

Community-led ecological restoration

- ◆ **Statutory authority:** Section 5 of the Forest Rights Act empowers Gram Sabhas to protect, regenerate, conserve and manage recognised community forest resources.
- ◆ **Local knowledge:** Community forest plans developed in Maharashtra incorporated village-level understanding of native vegetation, resource use and local ecological conditions into restoration decisions.
- ◆ **Livelihood incentives:** Restoring Maharashtra Gram Sabhas' authority to issue transit permits for minor forest produce strengthened community rights and women's livelihood opportunities.
- ◆ **Women's participation:** Coastal women's groups in Odisha have combined mangrove restoration with climate-resilient livelihoods, linking ecosystem protection with household economic security.
- ◆ **Institutional foundation:** Uttarakhand's Van Panchayats and Joint Forest Management committees demonstrate that community stewardship can complement formal Forest Department administration.
- ◆ **Scalable model:** Maharashtra expanded a successful community forest-resource management model to another 100 villages across seven districts in the Konkan and Vidarbha regions.
- ◆ **Ecological accountability:** Community forest plans using baselines, survival monitoring and documentation can assess regeneration and habitat recovery more meaningfully than plantation numbers alone.

BRICS is working for a future that puts people and planet first

This editorial 'BRICS is working for a future that puts people and planet first' was published in The Indian Express on 20th Aug 2026, highlights India-led BRICS cooperation for people-centric, inclusive and implementation-oriented environmental governance.

BRICS environmental vision

- ❖ The 12th BRICS Environment Ministers' Meeting, held in New Delhi on August 18, advanced collective environmental action under India's chairship.
- ❖ BRICS represents 49.5% of global population, nearly 40% of GDP and 26% of trade, giving it substantial influence over global cooperation.
- ❖ India promoted a people-centric approach centred on Global South concerns and the principle of "Humanity First".
- ❖ Mission LiFE and Ek Ped Maa Ke Naam integrate ecological restoration, community participation, biodiversity conservation, resilience and livelihood enhancement.

Environmental priorities

- ❖ Sustainable lifestyles promote responsible consumption and production, behavioural change, citizen awareness and knowledge-sharing through Mission LiFE principles.
- ❖ Landscape resilience combines afforestation, land restoration, wildfire preparedness, early-warning systems, remote sensing and artificial intelligence.
- ❖ The circular economy replaces the unsustainable “take-make-dispose” model while supporting green employment, innovation, technology transfer and capacity-building.
- ❖ Community-based adaptation integrates traditional, indigenous and local knowledge with modern science for context-specific and culturally appropriate climate solutions.
- ❖ CBDR-RC and equity recognise developing countries’ disproportionate vulnerabilities and remain essential for a balanced global environmental response.

Outcomes and implementation

- ❖ India’s chairship produced practical principles on sustainable lifestyles, landscape management, forest-fire preparedness and community adaptation, alongside technical reports and cooperation platforms.
- ❖ These outcomes reflect sustained consensus-building and demonstrate multilateral cooperation’s value in addressing shared environmental challenges.
- ❖ India reduced its emissions intensity by 37.38% during 2005–2022, while non-fossil sources reached 54.18% of installed electricity capacity by June 2026.
- ❖ India’s 2031–2035 NDC seeks to advance climate action alongside inclusive development and energy security.
- ❖ BRICS success must be judged through strengthened ecosystems and livelihoods, not merely adopted principles or declarations.

BEYOND EDITORIAL

Implementation barriers facing BRICS climate cooperation

- ◆ **Divergent priorities:** China consumed 58% of global coal in 2024, while Brazil relies heavily on hydropower, complicating common transition pathways within BRICS.
- ◆ **Financing deficit:** UNEP estimated developing-country adaptation needs at \$310–365 billion annually by 2035, against only \$26 billion in international public flows during 2023.
- ◆ **Technology concentration:** The IEA found China dominated refining for 19 of 20 strategic minerals in 2025, creating asymmetric dependence within clean-technology supply chains.

- ◆ **Institutional weakness:** BRICS lacks a founding charter, permanent secretariat and common operational fund, making implementation dependent upon rotating presidencies and sustained political consensus.
- ◆ **Data incompatibility:** India targets a 45% emissions-intensity reduction by 2030, whereas Brazil targets a 59–67% absolute reduction by 2035, complicating comparative monitoring.
- ◆ **Geopolitical friction:** The New Development Bank continued reporting new Russian transactions as suspended in 2025, illustrating how geopolitical restrictions can constrain BRICS financing.
- ◆ **Local capacity:** UNEP’s Adaptation Gap Report 2024 found adaptation planning advancing faster than implementation, reflecting persistent shortages of finance, skills and institutional capacity.

Mains Articles

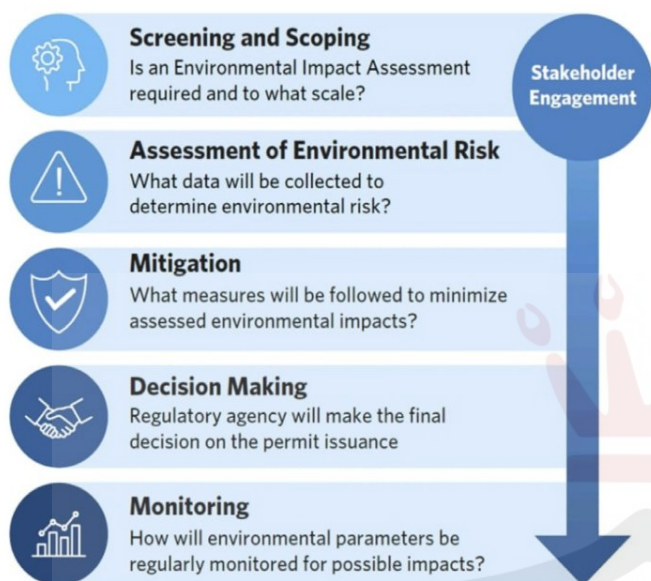
Government Notifies Amendments to the Environment Impact Assessment (EIA) Framework

Context

The Union Ministry of Environment, Forest and Climate Change (MoEFCC) notified amendments to the EIA framework to reduce delays in state-level project appraisal.

ABOUT ENVIRONMENT IMPACT ASSESSMENT FRAMEWORK

- ◆ **Meaning:** EIA is a prior appraisal process that predicts environmental impacts and identifies avoidance, mitigation or compensation measures before project approval.
- ◆ **Legal basis:** The EIA Notification, 2006, issued under the Environment (Protection) Act, 1986, requires prior environmental clearance for projects listed in its Schedule.
- ◆ **Category A:** Projects meeting higher impact or capacity thresholds are appraised by a Central Expert Appraisal Committee, with clearance granted or rejected by MoEFCC.
- ◆ **Category B:** Projects falling within specified lower thresholds are considered by the SEIAA, based on recommendations from the State Expert Appraisal Committee.
 - **Sub-category B1:** These projects generally require a detailed EIA report and public consultation, unless specifically exempted under the notification.
 - **Sub-category B2:** These projects do not require a detailed EIA report and are ordinarily exempt from public consultation, but follow prescribed appraisal requirements.
- ◆ **Assessment process:** It includes screening for Category B projects, scoping, public consultation, appraisal and clearance decisions, followed by post-clearance compliance monitoring.



JUDICIAL INTERVENTIONS

- ◆ **Vellore Citizens' Welfare Forum v. Union of India (1996):** The Court recognised the precautionary principle and polluter-pays principle as essential features of sustainable development.
- ◆ **Narmada Bachao Andolan v. Union of India (2000):** The Supreme Court permitted the Sardar Sarovar Project subject to environmental safeguards and rehabilitation, applying sustainable development.
- ◆ **Hanuman Laxman Aroskar v. Union of India (2019):** The Court held that EIA public consultation must meaningfully address stakeholder concerns, ensuring informed and accountable decision-making.

Challenges Faced by the EIA Process

- ❖ **Procedural delays:** CAG Report No. 39 of 2016 found that 89% of examined clearances exceeded the prescribed timeline; the average delay in 2015 was 238 days.
- ❖ **Weak appraisal quality:** Poor baseline data and inadequate impact analysis undermine decisions; in Hanuman Laxman Aroskar (2019), the Supreme Court faulted deficiencies in the Mopa airport appraisal.
- ❖ **Conflict of interest:** EIA consultants are hired by project proponents, creating incentives to understate adverse impacts despite accreditation requirements intended to improve assessment quality.
- ❖ **Weak public consultation:** Technical documents may remain inaccessible or untranslated; the CAG found shortcomings in public hearings and inadequate mechanisms for addressing community concerns.
- ❖ **Poor post-clearance monitoring:** Regulators often fail to verify compliance with clearance conditions, creating a gap between environmental commitments on paper and implementation on the ground.
- ❖ **Regulatory dilution:** The Draft EIA Notification, 2020 proposed reducing the public-hearing notice period from 30 to 20 days and exempting additional B2 projects from consultation.
- ❖ **Post-facto regularisation:** The Draft Notification allowed projects operating without prior clearance to seek approval later, weakening the precautionary principle when environmental damage may be irreversible.
- ❖ **Limited transboundary assessment:** India's EIA framework inadequately addresses cross-border environmental impacts, while India is not a party to the 1991 Espoo Convention on transboundary EIA.

Key Features of Notified Amendments

- ❖ **State-level fallback bodies:** MoEFCC constituted SAEIA and SCEIA for every State and Union Territory to temporarily process Category B projects when regular SEIAA or SEAC bodies are non-functional.
- ❖ **Limited operational period:** Each standing body may function for six months initially, extendable once by another six months, rather than receiving an automatic one-year tenure.
- ❖ **Defined composition:** SAEIA consists of senior administrators and forest officials, while SCEIA includes environment, wildlife, health, pollution-control and IIT, NIT or NEERI representation.
- ❖ **Extended tenure:** The tenure of EAC, SEAC and SEIAA appointees increased from three to four years, with a maximum of two terms and advance reconstitution planning.
- ❖ **Age and removal provisions:** The appointment age is capped at 70 years, extendable to 75 exceptionally; early removal requires proven charges, which may include appraisal delays.
- ❖ **Changed fallback mechanism:** Category B proposals will no longer shift automatically to the Central level when State bodies lapse, as SAEIA and SCEIA will handle them locally.
- ❖ **Expertise concern:** Critics argue that the standing bodies have greater bureaucratic representation and narrower expertise than SEACs, although SCEIA includes and may co-opt domain experts.

INITIATIVES TAKEN

- ◆ **EIACP, formerly ENVIS:** This decentralised network collects and disseminates environmental information, supporting researchers, policymakers, students and public awareness through subject-specific centres.
- ◆ **PARIVESH Portal:** This single-window digital platform enables online submission, appraisal and tracking of environmental, forest, wildlife and CRZ clearances, improving transparency and administrative efficiency.
- ◆ **Proposed SEIAA Star Rating:** The 2022 scheme proposed rating SEIAAs on timelines, proposal disposal, complaints and site visits; however, MoEFCC withdrew it in 2025, making it inoperative.

Strengthening the EIA Framework

- ❖ **Strengthen expert bodies:** Reconstitute SEIAAs and SEACs promptly through transparent selection of multidisciplinary experts, reducing vacancies and dependence on temporary bureaucratic arrangements.
- ❖ **Independent compliance monitoring:** Establish an autonomous regulator and publish project-wise compliance reports; the EU EIA Directive mandates monitoring for projects causing significant adverse effects.
- ❖ **Inclusive public participation:** Provide adequate notice, regional-language summaries and accessible technical information, while recording how community concerns influenced the final clearance decision.
- ❖ **Enact a standalone EIA law:** A dedicated statute would provide legal stability and accountability, following China's Environmental Impact Assessment Law, 2002, which covers plans and projects.
- ❖ **Adopt strategic assessments:** Strategic Environmental Assessment should evaluate policies, plans and programmes, while social and health assessments should examine livelihoods, culture, displacement and public health.
- ❖ **Improve report quality:** Randomly allocate accredited consultants, conduct independent peer reviews and penalise fabricated data to reduce conflicts arising from proponent-funded EIA studies.
- ❖ **Use technology and landscape-level planning:** Satellite imagery, remote sensing, AI and public dashboards can track compliance and assess the cumulative impacts of multiple regional projects.

Flash Floods

Context

Recent flash floods in Assam and Gujarat, amid hundreds of annual deaths, highlight India's growing climate vulnerability.

About Flash Floods

- ❖ Flash floods are sudden floods characterised by a rapid rise and recession of water levels, usually developing within six hours of intense rainfall or other triggering events.
- ❖ Nearly 75% of flash-flood events in the country occur during the Southwest Monsoon season from June to September.
- ❖ The number of recorded events increased from 132 in 2020 to 184 in 2022, according to the Union Ministry of Jal Shakti.
- ❖ Flash floods frequently affect the Himalayan region, western coast and central India.
- ❖ The Brahmaputra basin records the highest number of events, followed by the Ganga and Krishna basins.

Driving Factors of Flash Floods

Natural Factors	Anthropogenic Factors
<ul style="list-style-type: none"> ◆ Extreme rainfall events: Only 25% of flash floods are attributed solely to extreme precipitation; intense rainfall and cloudbursts contributed to the 2013 Kedarnath disaster. ◆ Soil saturation: Wet or saturated soil reduces water absorption and produces immediate runoff, as preceding rainfall intensified the 2023 Himachal Pradesh flash floods. ◆ Topography and slope: Steep Himalayan slopes and narrow valleys accelerate water flow, as demonstrated by the 2021 Rishiganga flash flood in Uttarakhand. 	<ul style="list-style-type: none"> ◆ Changing hydrology: Dam operations, canal systems and water diversions alter natural flows; the 2019 Tiware Dam breach produced sudden flooding across downstream villages. ◆ Encroachment: Floodplain construction, wetland loss and inadequate drainage obstruct water flow, as seen during the severe 2015 Chennai floods. ◆ Climate change: Rising temperatures intensify rainfall and glacier melting, increasing flood frequency and intensity; the 2023 South Lhonak GLOF illustrates growing Himalayan risks.

Climate-Driven Flash Floods

- ❖ **Atmospheric moisture:** Every 1°C of warming increases atmospheric moisture capacity by about

7%, intensifying rainfall and flash-flood risks, as seen during the 2023 Himachal Pradesh disaster.

- ❖ **Extreme rainfall:** Pre-monsoon extreme rainfall events during 1981–2020 nearly doubled compared with 1951–1980, with the May 2022 Assam floods illustrating growing vulnerability.
- ❖ **Expanding risk:** Most recorded flash floods occur in the Brahmaputra, Ganga and Krishna basins, while rising extreme precipitation in less-prone sub-basins signals shifting hotspots.
- ❖ **Cryospheric instability:** Warming destabilises glaciers and mountain slopes, as demonstrated by the 2021 Chamoli rock-ice avalanche and the 2023 South Lhonak GLOF.

Impacts of Flash Floods

- ❖ **Property damage:** Flash floods destroy homes, roads, bridges and agricultural land; the 2021 Chamoli disaster severely damaged two hydropower projects.
- ❖ **Economic losses:** Asset destruction disrupts livelihoods and raises reconstruction costs, as seen after the 2023 Sikkim GLOF damaged dams, roads and bridges.
- ❖ **Environmental damage:** Rapid flows cause soil erosion, sediment deposition and water contamination; the 2013 Kedarnath disaster deposited enormous debris across the Mandakini Valley.
- ❖ **Human casualties:** Sudden onset and high velocity leave little evacuation time; the 2013 Uttarakhand disaster caused thousands of deaths and missing persons.
- ❖ **Population displacement:** Floods force communities into temporary shelters and disrupt food, water, healthcare and education, as witnessed during the 2022 Assam floods.
- ❖ **Disease outbreaks:** Contaminated water and poor sanitation increase diarrhoeal and vector-borne diseases; Kerala's 2018 floods were followed by increased leptospirosis cases.

MEASURES TO TACKLE FLASH FLOODS IN INDIA

- ◆ **South Asia FFGS:** IMD and WMO provide real-time flash-flood forecasts and early warnings across South Asia.
- ◆ **SACHET portal:** NDMA's Common Alerting Protocol and SACHET app deliver location-specific disaster alerts.
- ◆ **NDMA flood guidelines:** Standardise vulnerability mapping, preparedness, evacuation, and emergency-response planning.
- ◆ **Safety protocols:** NDMA's landslide guidelines address slope risks, while the Dam Safety Act, 2021 strengthens dam surveillance and emergency planning.

Adaptation Strategies for Flash Floods

- ❖ **Localised planning:** Design regional strategies using topography, soil conditions, rainfall and sub-basin vulnerability, recognising that Himalayan terrain and western-coast hydrology require different responses.
- ❖ **Scientific mapping:** Prepare hazard maps, identify emerging hotspots and designate vulnerable zones, building upon the NRSC-ISRO Flood Affected Area Atlas.
- ❖ **Early warning:** Expand AWS, Doppler radars, satellite monitoring and real-time forecasting; IMD's South Asia Flash Flood Guidance System provides watershed-level threats and district-level risks.
- ❖ **Preparedness:** Strengthen evacuation plans, awareness, emergency communication and local response capacity through initiatives such as NDMA's Aapda Mitra community-volunteer scheme.
- ❖ **Climate-sensitive development:** Enforce floodplain zoning, regulate land use, build resilient infrastructure and improve reservoir management; the Dam Safety Act, 2021 mandates downstream warning systems and emergency plans.
- ❖ **Nature-based solutions:** Restore wetlands, forests, mangroves and natural drainage systems to slow runoff; Chennai's Pallikaranai Marsh demonstrates the flood-buffering value of urban wetlands.

Prelims News

No Transition Without Justice Report

Context

The United Nations Environment Programme (UNEP) report explains how environmental rule of law enables a just transition.

About Just Transition

It is a fair, inclusive and rights-based transformation towards sustainable, resilient economies without leaving vulnerable groups behind.

Role of Environmental Rule of Law

- ❖ Strong laws balance environmental protection with social safeguards, as under the Forest Rights Act, 2006.
- ❖ Rights-based participation protects environmental defenders and includes Indigenous and marginalised communities in decision-making.
- ❖ Transparent transition finance supports affected workers, exemplified by the European Union Just Transition Fund.

- ❖ Coordinated governance is reflected in Jharkhand's task force involving 17 State departments.
- ❖ Responsive justice protected Dongria Kondh rights through Gram Sabha decisions in the Niyamgiri mining case.
- ❖ Context-specific strategies include restrictions on Meghalaya's unsafe rat-hole mining.

- ❖ India argues EPI overlooks development levels, population, historical emissions and Common but Differentiated Responsibilities.
- ❖ Yale maintains the index measures current environmental outcomes, not historical responsibility or future policy commitments.

Glaw Lake: India's 101st Ramsar Site

Context

Glaw Lake became India's 101st Ramsar Site and Arunachal Pradesh's first; India's tally rose from 26 in 2014 to 101 in 2026.

About Glaw Lake

- ❖ It is a pristine freshwater lake within Kamlang Tiger Reserve and Wildlife Sanctuary in the Eastern Himalayas.
- ❖ Fed by perennial mountain streams, it is surrounded by dense natural vegetation.
- ❖ Its wetland and catchment support over 150 tree species and 49 orchid species.
- ❖ The designation promotes biodiversity conservation, water and climate security, and sustainable livelihoods.

Ramsar Convention

- ❖ Adopted at Ramsar, Iran, in 1971, it promotes the conservation and wise use of wetlands; UNESCO is its depositary.
- ❖ It entered into force for India on 1 February 1982.
- ❖ A wetland must meet at least one of nine ecological, hydrological or biodiversity criteria for designation.
- ❖ The Montreux Record lists Ramsar Sites facing actual or likely adverse changes in ecological character.

Mining Restrictions Around Wetland Reserves

Context

The Supreme Court indicated that safeguards applied around Asan Wetland may extend to similar conservation reserves nationwide.

About Supreme Court's Directions

- ❖ Its February 2024 order requires prior approval for mining within 10 km of Asan Wetland.
- ❖ Permission must come from the Standing Committee of National Board for Wildlife or the Environment Ministry.
- ❖ These safeguards may apply to other wetland and community conservation reserves for parity.

Recommendations

- ❖ States should redress historical Indigenous harms, institutionalise rights-based due diligence and integrate traditional knowledge.
- ❖ Businesses should follow the UN Guiding Principles and ensure equitable benefit-sharing with affected communities.
- ❖ Financial institutions should embed just-transition standards and prioritise inclusive, low-emission development.
- ❖ Governments should replace siloed policies with integrated cross-sectoral governance anticipating unintended consequences.

Environmental Performance Index 2026

Context

India ranked 176th among 177 countries in the Environmental Performance Index 2026, ahead only of Laos.

About the Index

- ❖ The biennial index is prepared by Yale University in collaboration with Columbia University.
- ❖ It assesses 177 countries through 47 indicators across 12 environmental categories.
- ❖ Indicators cover Environmental Health, Ecosystem Vitality and Climate Change policy objectives.
- ❖ It tracks progress towards the Sustainable Development Goals, Paris Agreement and Global Biodiversity Framework.

India's Performance

- ❖ India scored 22.46, ranking 176th globally and 8th among eight Southern Asian countries.
- ❖ Estonia topped with 74.79, while Laos ranked last with 21.78.
- ❖ India's rankings were 141st in 2016, 180th in 2022, and 176th in 2024 and 2026.
- ❖ Major weaknesses include air quality, environmental health, biodiversity, tree cover and pesticide pollution.
- ❖ Relative improvement was observed in some climate, sanitation and waste-management indicators.

- ❖ Expert authorities must determine whether the Asan Wetland extends into Himachal Pradesh before applying restrictions.

About Asan Wetland and Regulatory Framework

- ❖ Asan Wetland lies at the Asan–Yamuna confluence in Uttarakhand and became a Ramsar Site in 2020.
- ❖ Neither the Ramsar Convention nor the Wetlands Rules, 2017 prescribes a uniform statutory buffer.
- ❖ The 2017 Rules empower State Wetland Authorities, replacing the detailed prohibitions contained in the 2010 Rules.
- ❖ Mining is prohibited within one kilometre of national parks and sanctuaries unless a larger Eco-Sensitive Zone applies.
- ❖ Mining on forest land requires Central approval and generally an environmental clearance under the 2006 notification.

Thamirabarani River

Context

The Madras High Court held that religious ceremonies do not confer any right to dump ritual waste into the Thamirabarani River.

About Thamirabarani River

- ❖ Thamirabarani is a rare perennial river flowing entirely within Tamil Nadu.
- ❖ Also called Tamraparni and Porunai, its name refers to the copper-like colour of its waters.
- ❖ It originates from Agastyarkoodam Peak in the Pothigai Hills of the Western Ghats.
- ❖ The river flows nearly 128 km, initially northward and then eastward through Tirunelveli and Thoothukudi.
- ❖ It drains into the Gulf of Mannar and receives water from both southwest and northeast monsoons.
- ❖ Major tributaries include Servalar, Manimuthar, Gadananathi, Pachaiyar, Chittar, Ramanathi and Koraiyar.
- ❖ It forms Banatheertham, Agasthiyar and Kalyana Theertham waterfalls along its upper course.
- ❖ Important dams include Papanasam, Karaiyar, Manimuthar, Servalar and Gadananathi.
- ❖ The river has exceptionally rich fish diversity and is particularly noted for native snakehead fishes.
- ❖ It supports India's three otter species: Eurasian, smooth-coated and Asian small-clawed otters.



Editorial

Handloom — weaving India's heritage into global growth

This editorial 'Handloom — weaving India's heritage into global growth' was published in The Hindu on 7th Aug 2026, highlights transforming India's handloom heritage through policy, technology and global market integration.

Strategic and Socio-economic Significance

- ❖ Handloom advances Viksit Bharat 2047 by combining cultural heritage with self-reliance, sustainability, rural enterprise and global competitiveness.
- ❖ India's textile legacy spans Indus Valley cotton, Bengal muslin, Banarasi silk, Kanchipuram weaves and Pochampally Ikat, supporting Brand India.
- ❖ Rising demand for authentic, sustainable products offers India an opportunity to export craftsmanship, innovation and trust through handwoven products and resilient supply chains.
- ❖ India's largest cottage industry supports over 35 lakh weavers and allied workers, nearly 72% women, strengthening inclusive livelihoods.

Policy and Institutional Support

- ❖ The Raw Material Supply Scheme, 797 clusters and over 1.24 lakh upgraded looms have strengthened production infrastructure.
- ❖ Skill programmes have trained nearly 97,000 artisans, while Producer Companies and GI-tagged products support organisation and market identity.
- ❖ The Handloom Mark, India Handmade certification, Urban Haats and Design Resource Centres promote authenticity, visibility and market access.
- ❖ Twenty-nine Weavers' Service Centres provide training, design, materials and market linkages, while 11 institutes expand advanced handloom training.
- ❖ The National Handloom and Handicraft Programme will strengthen 1,800 clusters across over 500 districts, benefiting 65 lakh artisans and building the Handmade in India brand.

Technology-led Global Transformation

- ❖ Innovations from Gandhi's Ambar Charkha to Assam's Maina Loom and Chitraranjan Handloom have improved productivity and self-reliance.
- ❖ The Centre of Excellence is developing lighter,

stronger and accessible looms, while Handloom 4.0 pilots AI-based monitoring on 100 looms.

- ❖ Technology must empower artisans; VisioNXT can forecast demand, authenticate products, identify trends and connect weavers with global markets.
- ❖ Premium silk, natural fibres, sustainable materials and innovative blends can create high-value products and unlock new market segments.
- ❖ Better branding, value addition and direct sales can raise weavers' incomes towards ₹50,000 monthly while preserving their entrepreneurial role.

BEYOND EDITORIAL

Persistent Structural Challenges in the Handloom Sector

- ◆ **Income distress:** The Fourth Handloom Census found 66.3% of weaver households earned below ₹5,000 monthly, despite handloom's cultural and economic importance.
- ◆ **Underemployment:** Weavers averaged only 208 working days annually, falling to 201 days in rural areas against 262 in urban areas.
- ◆ **Production fragmentation:** About 73.2% of handloom workers operated independently, while only 6.3% worked through cooperatives, weakening collective bargaining and procurement capacity.
- ◆ **Market exclusion:** Nearly 64.1% sold through open markets and 17.6% through master weavers, while e-commerce and export participation remained negligible.
- ◆ **Powerloom imitation:** Despite the Handlooms Reservation Act, 1985, cheaper machine-made versions continue competing with authentic products such as Banarasi sarees.
- ◆ **Social vulnerability:** The census recorded 60.2% of handloom-worker households in kuchha homes, while only about 4% of workers had insurance coverage.
- ◆ **Generational decline:** The share of rural weavers aged 18–35 fell from 50% in 2009–10 to 43% in 2019–20, threatening skill transmission.

The MSME opportunity lies in clustering them

This editorial 'The MSME opportunity lies in clustering them' was published in The Indian Express on 11th Aug 2026, and highlights cluster-based ecosystem development as the key to transforming MSMEs into engines of employment, productivity and exports.

MSME Potential and Structural Constraints

- ❖ Rising youth unemployment and AI-driven disruption

make MSMEs crucial for generating large-scale employment.



- ❖ The MSME Development (Amendment) Bill, 2026 addresses delayed payments, dispute resolution and compliance burdens, but leaves deeper structural weaknesses unresolved.
- ❖ India's 63 million MSMEs employ over 320 million people and contribute 31% of GDP, 35% of manufacturing output and 49% of exports.
- ❖ Despite their scale, MSMEs remain informal and fragmented, concentrated in low-value activities with limited access to affordable credit.
- ❖ Smaller enterprises face heavy compliance burdens involving GST, labour, environmental and taxation requirements.

Economic Benefits of Industrial Clusters

- ❖ The US and China built industrial strength through dense clusters connecting suppliers, workers, research institutions and capital, rather than supporting isolated firms.
- ❖ North Carolina's Research Triangle linked universities and industry, creating strong biotechnology and pharmaceutical ecosystems.
- ❖ Guangdong's industrial zones combined land, infrastructure and tax incentives, enabling dense supplier networks and rapid designing, fabrication and prototyping.
- ❖ Clusters generate knowledge spillovers through worker mobility, informal interaction and shared service providers while attracting specialised talent.
- ❖ Shared testing laboratories, treatment plants, cold storage and logistics reduce fixed costs and improve smaller firms' competitiveness.
- ❖ China's Little Giant programme supports technically capable niche firms through finance, taxation and research assistance.

Required Shift towards Ecosystem Building

- ❖ Existing initiatives such as the MSME Cluster Development Programme and PM MITRA parks often provide infrastructure without building complete industrial ecosystems.

- ❖ India should replace generic industrial estates with specialised clusters for sectors such as auto components in Pune and electronics in Sriperumbudur.
- ❖ An Indian Little Giant programme should identify hidden champions and offer dedicated credit, faster patents, R&D support and procurement preference.
- ❖ Cluster-based lending can assess shared collateral, buyer-supplier relations and collective performance, reducing information asymmetry and financial risk.
- ❖ The Tiruppur textile cluster model could be expanded through SIDBI and NBFCs focused specifically on cluster financing.
- ❖ Universities must anchor MSME clusters by supplying skilled talent, laboratory infrastructure and innovation, following successful Chinese and American models.

BEYOND EDITORIAL

Climate-Resilient MSME Clusters

- ◆ **Common green infrastructure:** MSE-CDP supports shared testing centres and effluent-treatment facilities, making environmental compliance affordable for small cluster-based enterprises.
- ◆ **Circular production:** MSE-SPICE provides a 25% capital subsidy for circular-economy investments, encouraging recycling, material recovery and productive waste reuse.
- ◆ **Green finance:** MSE-GIFT offers 2% interest subvention for adopting green technologies, reducing the financing burden on resource-constrained micro and small enterprises.
- ◆ **Climate-risk planning:** NITI Aayog's 2026 MSME roadmap highlights resource scarcity, rising insurance costs and supply disruptions, requiring cluster-level vulnerability assessments.
- ◆ **Export preparedness:** Carbon accounting and cleaner production can protect MSMEs from exclusion as global buyers increasingly impose sustainability requirements across value chains.
- ◆ **Technology adoption:** ADEETIE covers 14 energy-intensive sectors across 60 industrial clusters, providing audits, bankable project reports and 3–5% interest subvention.
- ◆ **Quality transition:** The MSME Sustainable ZED programme provides eligible units up to ₹2 lakh for consultancy and ₹3 lakh for technology upgrades.

Decoding India's growth in merchandise exports

This editorial 'Decoding India's growth in merchandise exports' was published in The Hindu on 18th Aug 2026, highlights how India's nearly 20% merchandise export growth was driven predominantly by petroleum products rather than broad-based diversification.

Export performance and sectoral drivers

- ❖ India's merchandise exports reached \$44.2 billion in July 2026, rising nearly 20% year-on-year despite the West Asia conflict.
- ❖ The trade deficit widened from nearly \$28 billion to \$32 billion because imports grew faster than exports.
- ❖ Petroleum products contributed \$2.8 billion, or 39% of incremental exports, followed by electronics at 30% and engineering goods at 25%.
- ❖ During April-July 2026, petroleum exports rose 42.6% from \$21 billion to \$30 billion, reflecting higher prices after the Iran conflict.
- ❖ Engineering exports increased 18.2% to \$46.4 billion, while electronic goods grew 30.7% to \$21.2 billion, supporting limited sectoral diversification.
- ❖ Marine products grew nearly 18%, meat, dairy and poultry products 41%, and handicrafts 16%, indicating broader but smaller export gains.

Market composition and diversification

- ❖ Despite new tariffs, the United States remained India's largest market with nearly one-fifth of exports, while Singapore's share rose from 2.7% to 4.7%.
- ❖ China's share remained broadly stable, while the UAE's share fell from 8.5% to 6.5% because of the West Asia crisis.
- ❖ Exports grew fastest to South Africa, Tanzania, Sri Lanka, Malaysia and Kenya, but this market expansion was driven mainly by refined petroleum.
- ❖ Tanzania's share in India's exports nearly doubled from 1.1% to 2%, although petroleum dominated the increase in its export value.
- ❖ Rising exports to Vietnam and Taiwan were not petroleum-led; any easing of regional tensions will reveal the true extent of export diversification.

BEYOND EDITORIAL

Deepening domestic value addition in exports

- ◆ **Value-added measurement:** Smartphones became India's largest individual export in 2025–26, but electronics' domestic value addition remained around 18–20%, revealing substantial imported-input dependence.
- ◆ **Component ecosystem:** The Electronics Components Manufacturing Scheme seeks to deepen local production of sub-assemblies and parts, moving exports gradually beyond final-stage assembly.
- ◆ **Pharmaceutical upgrading:** Bulk-drug PLI support helped India move from a ₹1,930 crore trade deficit in 2021–22 to a ₹2,280 crore surplus by 2024–25.

- ◆ **GVC integration:** RBI previously estimated India's global value-chain participation at 34% of gross exports, compared with 45.9% for ASEAN economies.
- ◆ **MSME capability:** With 176 MSMEs participating in PLI schemes by November 2024, expanded testing, certification and technology support can integrate smaller firms into export supply chains.
- ◆ **Branding potential:** A 2026 parliamentary committee recommended promoting designer jewellery, branded products and laboratory-grown diamonds to shift gems exports towards higher-value segments.
- ◆ **Trade architecture:** Rules of origin under the India-EU trade agreement require specified domestic processing, encouraging exporters to build local value rather than merely re-export imported inputs.

Mains Articles

Securities Markets Code Bill, 2025

Context

The Parliamentary Standing Committee on Finance recommended key amendments to the Securities Markets Code Bill, 2025.

Key Provisions of the Securities Markets Code Bill, 2025

- ❖ **Legal consolidation:** The Bill consolidates, rationalises, and replaces the Securities Contracts (Regulation) Act, 1956, SEBI Act, 1992, and Depositories Act, 1996 with a unified framework.
- ❖ **Expanded SEBI Board:** The Board will increase from 9 to 15 members, including the Chairperson, one RBI officer, two government officials, and 11 other members, with at least five serving full-time.
- ❖ **Delegated registration:** SEBI may delegate parts of its registration functions to MIIs and SROs, enabling specialised institutions to support more efficient market regulation.
- ❖ **Simplified framework:** The Bill removes obsolete provisions, reduces duplication, simplifies legal language, and promotes uniform regulatory procedures across securities markets.
- ❖ **Broader securities definition:** The definition covers hybrid instruments, electronic gold receipts, zero-coupon zero-principal instruments, and onshore rupee bonds issued by multilateral institutions.
- ❖ **Conflict safeguards:** SEBI members must disclose personal and family interests, recuse from related matters, and may be removed if financial interests compromise their functions.
- ❖ **Functional separation:** The Bill separates investigation

from adjudication, addressing concerns that both powers currently operate within the same regulatory organisation.

- ❖ **Proportionate penalties:** Serious market abuse, including insider trading and investor fraud, retains criminal liability, while minor or technical violations shift to civil penalties.

ABOUT THE SECURITIES AND EXCHANGE BOARD OF INDIA

- ◆ It was formed in April 1988 as a non-statutory body, SEBI gained statutory status on 12 April 1992 under the SEBI Act.
- ◆ It is India's principal securities-market regulator and capital-market watchdog under the Ministry of Finance.
- ◆ It is headquartered in Mumbai, SEBI has regional offices in Ahmedabad, Kolkata, Chennai, and Delhi.
- ◆ Its nine members include the Chairperson, two Finance Ministry officials, one RBI representative, and five government-appointed members, including at least three whole-time members.

Concerns Regarding the Bill

- ❖ **Concentration of powers:** SEBI retains rule-making, executive, investigative, and adjudicatory authority, raising concerns about separation of powers, institutional checks, and possible misuse.
- ❖ **Excessive delegation:** Core matters such as regulatory scope, registration, penalties, exemptions, and the definition of securities are left to subordinate legislation.
- ❖ **Weak parliamentary oversight:** Broad discretion for the executive and SEBI may reduce Parliament's role from substantive law-making to merely establishing an enabling framework.
- ❖ **Coercive enforcement:** Powers of search, seizure, property attachment, bank-account freezing, and ex parte interim orders may be exercised without adequate procedural safeguards.

Recommendations of the Parliamentary Standing Committee

- ❖ **Sharper Preamble:** Revise the Preamble to clearly emphasise investor protection, market development, and effective regulation as the Bill's central objectives.
- ❖ **Parliamentary control over offences:** Remove SEBI's power to create criminal offences through regulations, ensuring that only Parliament defines criminal liability through legislation.
- ❖ **Prior investigation notice:** Make prior notice the general rule, except where it could enable destruction, concealment, or manipulation of evidence.
- ❖ **Ombudsperson timeline:** Require investor complaints

before the ombudsperson to be ordinarily resolved within 120 days, ensuring timely grievance redressal.

- ❖ **SEBI surplus transfer:** Retain the transfer of part of SEBI's surplus to the Consolidated Fund of India, while protecting its institutional independence and accountability.

Cities as Growth Engines

Context

The Federation of Indian Chambers of Commerce and Industry (FICCI) and Ernst & Young (EY) released the report "Cities as Growth Engines."

Status of Urbanisation in India

- ❖ **Settlement pattern:** India has a multi-tiered urban system comprising major metropolitan centres and over 7,400 cities and towns.
- ❖ **Economic contribution:** Cities house nearly one-third of the population but generate 60% of GDP, projected to reach 75% by 2050.

Cities as Engines of Regional Growth

- ❖ **Regional clusters:** Satellite cities extend metropolitan economies. Noida and Greater Noida are major industrial and business hubs within Delhi NCR.
- ❖ **Innovation ecosystems:** Universities and technology parks promote research and start-ups. Hyderabad's Genome Valley hosts over 200 life-sciences companies from 18 countries.
- ❖ **Service-led growth:** Bengaluru, Delhi and Hyderabad attract skilled workers, creating deep labour markets in information technology, finance and professional services.
- ❖ **Regional connectivity:** Pune and Ahmedabad metro systems improve mobility. The Delhi-Mumbai Expressway strengthens market access and interstate economic integration.
- ❖ **Sustainable development:** Rainwater harvesting, green buildings and smart water systems improve resource efficiency. All 100 Smart Cities established data-driven command and control centres.
- ❖ **Real-estate investment:** Construction generates employment and capital formation. Colliers estimated institutional real-estate inflows at US\$6.5 billion in 2024, supported by RERA and GST.
- ❖ **Policy support:** AMRUT improves water and sewerage services, while transit-oriented development integrates transport and land use, as reflected in urban projects in Bhopal and Varanasi.

Issues Faced by Indian Cities

- ❖ **Financial constraints:** Cities need nearly US\$2.4 trillion by 2050 for climate-resilient infrastructure,

while municipal revenues remain around 0.6% of GDP, limiting investment in essential services.

- ❖ **Limited capital access:** Only 20 municipal corporations have accessed capital markets, raising about US\$476 million; Vadodara's 2024 green municipal bond demonstrates the potential of innovative financing.
- ❖ **Infrastructure deficit:** Nearly 70% of urban infrastructure required by 2047 remains unbuilt, while the World Bank estimates investment needs of US\$840 billion over 15 years.
- ❖ **Uneven urbanisation:** The top ten cities generate nearly 30% of GDP, while rapid migration, including illegal immigration, and climate hazards such as Delhi heatwaves and Bengaluru floods intensify urban pressures.
- ❖ **Transport congestion:** Inadequate public transport and rising private vehicle ownership reduce productivity and worsen pollution in Mumbai, Bengaluru, Delhi, and Pune.
- ❖ **Waste-management crisis:** Poor segregation and recycling overwhelm landfills; Delhi generates over 10,000 tonnes daily, burdening Ghazipur, Bhalswa, and Okhla. Way Ahead: Six Strategic Shifts.
- ❖ **Governance fragmentation:** Overlapping agencies and bureaucratic delays weaken accountability and slow projects, as seen in Mumbai's metro and coastal-road development.

Way Ahead: Six Strategic Shifts

- ❖ **Service delivery to economic leadership:** Urban institutions should attract investment, foster innovation and generate employment alongside civic services; GIFT City demonstrates how planned urban ecosystems can become global financial hubs.
- ❖ **Concentrated to polycentric growth:** Develop Tier II and Tier III cities as regional growth centres; the expansion of Software Technology Parks in cities such as Coimbatore, Indore and Guwahati supports distributed growth.
- ❖ **Fiscal dependence to investment-ready cities:** Strengthen municipal creditworthiness, capital-market access and asset monetisation; Indore Municipal Corporation raised ₹244 crore through green bonds in 2023 for a solar-power project.
- ❖ **Infrastructure creation to competitiveness:** Assess projects by productivity, mobility, employment and quality-of-life outcomes, not merely assets constructed; the Ease of Living Index represents such outcome-based urban assessment.
- ❖ **Data collection to economic intelligence:** Apply AI and advanced analytics to generate planning and investment insights; the UMEED dashboard already

aggregates performance data from over 2,000 urban local bodies.

- ❖ **Climate vulnerability to resilience:** Integrate heat, flood and water risks into urban planning to protect residents and investments; Ahmedabad's Heat Action Plan, introduced in 2013, provides an early-warning model.

Prelims News

Index of Core Industries: New 2022–23 Series

Context

The Office of Economic Adviser, under the Department for Promotion of Industry and Internal Trade, released the first provisional ICI under the 2022–23 base-year series.

About Index of Core Industries

- ❖ The Index of Core Industries (ICI) measures monthly production across India's foundational industrial sectors.
- ❖ The provisional index is normally released on the 20th of the following month or next working day.
- ❖ The 2022–23 series replaces the 2011–12 series and applies retrospectively from April 2023.
- ❖ Core industries now carry 32.88% weight in the Index of Industrial Production, against 40.27% earlier.

S. No.	Sector	Weight (%)
1	Coal	5.596
2	Natural Gas	3.841
3	Crude Oil	7.430
4	Refinery Products	22.572
5	Fertilizers	2.731
6	Steel	17.584
7	Cement	4.410
8	Electricity	30.932
9	Iron Ore	4.905
	Overall Index	100.000

Changes in the New Series

- ❖ Inclusion of iron ore expands core industries from eight to nine sectors.
- ❖ These cover coal, crude oil, natural gas, refinery products, fertilizers, steel, cement, electricity and iron ore.
- ❖ The steel index now uses gross production instead of net production, aligning it with the revised IIP.
- ❖ Only raw coal is retained; washed coal and coal middling are excluded to prevent double counting.

- ❖ Sectoral weights are derived from the 2022–23 IIP series and proportionately normalised to 100.
- ❖ Electricity (30.93%), refinery products (22.57%) and steel (17.58%) carry the highest weights.
- ❖ Other weights are crude oil (7.43%), coal (5.59%), iron ore (4.90%), cement (4.41%), natural gas (3.84%) and fertilizers (2.73%).
- ❖ The overall linking factor is 1.47, enabling comparison between the old and new series.
- ❖ It equals the ratio of the old-series to new-series geometric mean of monthly ICI during 2022–23.

- ❖ Developed with the Ahimsagain Foundation, it follows the Ahimsa Investment Movement (AIM) Framework.
- ❖ The framework classifies companies into Green, Orange and Red categories based on animal-related business practices.
- ❖ Only Green-category companies within the Nifty 500 at the review date qualify for inclusion.
- ❖ Each constituent's weight is determined through its free-float market capitalisation.
- ❖ Its base date is 1 April 2016, with a base value of 1,000.
- ❖ The index is reviewed semi-annually in March and September.
- ❖ It initially comprised 326 stocks across a diversified range of economic sectors.
- ❖ Automobiles led with 13.05%, followed by capital goods (12.20%), information technology (11.80%) and financial services (10.35%).
- ❖ Other sectors include metals, telecommunications, power, fuels, construction materials, consumer durables, healthcare and services.
- ❖ Leading constituents include Bharti Airtel, Infosys, Mahindra & Mahindra, Tata Consultancy Services, Maruti Suzuki, NTPC, BSE, Tata Steel, Hindalco and Adani Ports.

WTO Agreement on Fisheries Subsidies

Context

India became the 123rd WTO Member to accept the Agreement on Fisheries Subsidies, becoming a formal Party to it.

About Agreement on Fisheries Subsidies

- ❖ It is the first WTO agreement primarily focused on environmental sustainability.
- ❖ Adopted by consensus at the 12th WTO Ministerial Conference, Geneva, in June 2022.
- ❖ It entered into force on 15 September 2025 after acceptance by two-thirds of WTO Members.
- ❖ It establishes binding rules preventing government subsidies from undermining the sustainability of marine fisheries resources.
- ❖ It covers marine wild-capture fishing and fishing-related activities conducted at sea.
- ❖ Aquaculture and inland fisheries remain outside the Agreement's scope.
- ❖ It prohibits subsidies supporting illegal, unreported and unregulated fishing and fishing of overfished stocks.
- ❖ It provides appropriate flexibilities for developing and least-developed countries, particularly traditional and small-scale fishers.
- ❖ Curtailing harmful subsidies to large industrial fleets promotes fairer competition and sustainable fishing.

FDI in Inventory-Based E-Commerce for Exports

Context

The Government has permitted 100% Foreign Direct Investment (FDI) in inventory-based e-commerce exclusively for exporting Indian-made goods.

About Models of E-Commerce

- ❖ Under the inventory-based model, the e-commerce entity owns goods and sells them directly to consumers.
- ❖ Under the marketplace model, the entity connects independent sellers with buyers without owning inventory.

About Revised FDI Policy

- ❖ Foreign-funded inventory entities may export only goods manufactured or produced in India.
- ❖ The prohibition on foreign-funded inventory-based domestic business-to-consumer retail remains unchanged.
- ❖ The relaxation clarifies that inventory restrictions apply to domestic retail, not exclusively export-oriented operations.
- ❖ Since 2016, 100% FDI under the automatic route has been allowed in marketplace e-commerce.

Nifty 500 Ahimsa Index

Context

NSE Indices, a subsidiary of the National Stock Exchange, launched the index to provide an Ahimsa-based ethical investment benchmark.

About Nifty 500 Ahimsa Index

- ❖ It tracks Nifty 500 companies whose products, services and practices minimise intentional harm to animals.

- ❖ FDI has been permitted in business-to-business e-commerce since 2000.
- ❖ The policy expands global-market access for Indian manufacturers and MSMEs, particularly in Tier-II and Tier-III cities.

Ease of Doing Business in India

Context

The Parliamentary Standing Committee on Commerce released a report on Ease of Doing Business (EoDB), which seeks to minimise unnecessary regulatory burdens across the business lifecycle.

Key highlights of the Report

- ❖ India's World Bank Doing Business rank improved from 142nd in 2015 to 63rd in 2020 among 190 economies.
- ❖ India rose six places to 37th among 63 economies in the IMD World Competitiveness Index 2022.
- ❖ Recognised startups increased from 502 in 2016 to over 2.23 lakh by 2026, creating 23.3 lakh formal jobs.
- ❖ Districts as Export Hubs extends regulatory simplification and supply-chain infrastructure to the district level.

Issues and Recommendations

Issue	Recommendation
Regulatory fragmentation through overlapping laws, licences and compliances raises business costs.	Merge licences, introduce One Licence, One Renewal and adopt risk-based regulation.
Weak State and local reforms limit improvements outside major commercial centres.	Expand the District Business Reform Action Plan and integrate approvals with the National Single Window System.
Approval delays affect licences, no-objection certificates and renewals.	Introduce time-bound processing, deemed approvals and automatic renewals.
Uneven State implementation creates gaps between reported reforms and business experience.	Make the Business Reform Action Plan outcome-based through ground-reality verification and third-party audits.
MSME credit constraints arise from collateral requirements and extensive documentation.	Expand Udyam registration, credit guarantees, collateral-free lending and cash-flow-based financing.

Export and customs bottlenecks delay clearances through fragmented procedures.

Digitise trade processes and upgrade Indian Customs Electronic Gateway with artificial intelligence-driven clearances.

Floating-Rate Loans

Context

The Reserve Bank of India proposed the Interest Rates on Loans and Advances Directions, 2026, strengthening transparency and regulation of floating-rate loans.

About Floating-Rate Loans

- ❖ Their interest rate changes periodically according to movements in a specified internal or external benchmark.
- ❖ The applicable rate generally comprises the benchmark rate plus a lender-determined spread.
- ❖ The repo rate may serve as an external benchmark for loans offered by regulated lenders.
- ❖ Also called variable or adjustable-rate loans, they commonly apply to mortgages and consumer loans.

Fixed-Rate and Floating-Rate Loans

Basis	Fixed Interest Rate	Floating Interest Rate
Meaning	Remains unchanged during the specified loan period.	Changes according to the benchmark rate and market conditions.
Repayment impact	Provides predictable instalments and repayment schedules.	Changes in rates may alter instalments or loan tenure.
Major advantage	Protects borrowers from rising interest rates and supports financial planning.	Allows borrowers to benefit when benchmark rates decline.
Main limitation	Borrowers may not benefit when market rates decline.	Rising rates can increase instalments or extend repayment tenure.
Suitability	Suitable for borrowers prioritising repayment certainty.	Suitable for borrowers willing to accept fluctuations for potential savings.

SOCIAL ISSUES



Editorial

Analysing the SC's judgment on sex work

This editorial 'Analysing the SC's judgment on sex work' was published in The Hindu on 3rd Aug 2026, highlights the Supreme Court's rights-based approach to sex work and the institutional barriers to its implementation.

Constitutional significance

- ❖ The May 29, 2026 judgment recognises that anti-trafficking measures have enabled forced rescue, indefinite detention, child separation and threats to sex workers' lives.
- ❖ The nearly 300-page judgment recognises that agency and vulnerability can coexist and rejects conflating migration with trafficking.
- ❖ Sex workers retain constitutional rights despite social disapproval; consenting adults cannot be forcibly rescued, and intervention must begin by establishing consent.
- ❖ Directions issued under Article 142 give legal force to this rights-based framework, but the Court overlooks contributions by sex workers and collectives such as the National Network of Sex Workers.

Institutional assumptions and omissions

- ❖ The judgment assumes clearer legal standards will overcome institutional prejudice in policing, adjudication, shelters and access to legal aid.
- ❖ Caste discrimination and economic marginalisation shape encounters with the state, particularly for Dalit and Adivasi women, even after their rights are judicially recognised.
- ❖ One woman wrongly labelled a trafficker spent seven years reporting to the police and attending hearings without her statement being recorded, exposing entrenched bureaucratic injustice.
- ❖ The Court recognises caste as a structural driver of sex work but insufficiently examines how it also shapes institutional implementation.
- ❖ The anti-trafficking industry, including civil society organisations involved in raids and shelters, can perpetuate carceral rescue through funding incentives, weak accountability and authority over confined women.

- ❖ Indefinite shelter confinement can become another form of coercive control, making rescue itself a source of violence rather than protection.

Implementation priorities

- ❖ Sex workers' unions should draft guidelines, monitor compliance, shape police training and establish shelter standards.
- ❖ The NGO sector requires scrutiny where organisations participate in coercive rescues while enjoying limited community accountability, funding oversight and legal immunity.
- ❖ India's existing welfare architecture must become accessible to sex workers as rights-bearing citizens, without creating additional institutions.

BEYOND EDITORIAL

Global regulatory models for sex work

- ◆ **Legalisation model:** The Netherlands permits consensual adult sex work under municipal licensing but criminalises forced and underage prostitution.
- ◆ **Buyer-criminalisation model:** Sweden criminalised purchasing, but not selling, sexual services in 1999; Ireland adopted a similar model in 2017.
- ◆ **Decriminalisation model:** New Zealand's Prostitution Reform Act, 2003 decriminalised adult sex work while retaining certification, safety rules and anti-exploitation penalties.
- ◆ **Partial-criminalisation model:** England and Wales permit selling sex but criminalise soliciting, brothel-keeping, controlling prostitution for gain and exploitative purchasing.
- ◆ **Localised regulation:** Nevada permits prostitution only in licensed brothels authorised by eligible counties, combining local regulation with wider restrictions.
- ◆ **Public-health evidence:** WHO estimates that decriminalisation could reduce new HIV infections among sex workers by 46% over ten years.
- ◆ **Indian relevance:** In Budhadev Karmaskar (2022), the Supreme Court upheld sex workers' dignity and protected consenting adults from police harassment during raids.

SC safeguards for live-in partners are overdue

This editorial 'SC safeguards for live-in partners are overdue' was published in The Indian Express on 6th Aug

2026, highlights the Supreme Court's extension of criminal-law protection against domestic cruelty to marriage-like live-in relationships.

Expansion of legal protection

- ❖ The Supreme Court extended Section 498A IPC and Section 85 BNS to live-in relationships founded on a genuine intention to marry.
- ❖ The ruling adopts a substance-over-form approach, recognising that domestic abuse remains equally harmful without formal solemnisation.
- ❖ Women already receive civil remedies under the Domestic Violence Act, 2005, while the judgment additionally enables criminal-law protection.
- ❖ The accused's existing marriage cannot automatically exclude cruelty charges by rendering the subsequent marriage-like relationship legally invalid.

Rationale and safeguards

- ❖ Domestic abuse arises from unequal power and coercion, requiring legal protection responsive to evolving social relationships.
- ❖ The NFHS found that over 22% of ever-married women experienced physical, sexual or emotional partner violence.
- ❖ Financial and social compulsions cause severe under-reporting, while women in live-in relationships face additional legal, procedural and social barriers.
- ❖ *D. Velusamy v. D. Patchaiammal* (2010) and *Indra Sarma v. V.K.V. Sarma* (2013) identified duration, permanence and commitment as tests for marriage-like relationships.
- ❖ Applying safeguards prescribed in *Arnesh Kumar v. State of Bihar* balances victim protection with prevention of arbitrary arrests and legal misuse.

BEYOND EDITORIAL

Unresolved rights of live-in partners

- ◆ **Fragmented framework:** The Domestic Violence Act recognises marriage-like relationships, while Uttarakhand mandates registration, creating uneven rights across States.
- ◆ **Recognition uncertainty:** *Dhannulal v. Ganeshram* (2015) presumed marriage after prolonged cohabitation, but shorter or private relationships remain difficult to prove.
- ◆ **Maintenance access:** *Lalita Toppo v. State of Jharkhand* (2018) permitted live-in partners to claim monetary relief under the Domestic Violence Act.
- ◆ **Property insecurity:** Live-in separation lacks a comprehensive asset-division framework, leaving ownership dependent on titles, documented contributions and cohabitation agreements.

- ◆ **Children's status:** *Tulsa v. Durghatiya* (2008) protected children from long cohabitation, but inheritance may still require proving a marriage-like relationship.
- ◆ **Inclusivity gap:** *Supriyo v. Union of India* (2023) left same-sex couples without equal inheritance, joint-adoption and spousal-benefit protections.
- ◆ **Privacy concerns:** Uttarakhand's mandatory registration provides recognition and maintenance rights but raises concerns over privacy, autonomy and familial surveillance.

Due diligence

This editorial 'Due diligence' was published in *The Hindu* on 20th Aug 2026, highlights the need to curb surrogate advertising through celebrity accountability while ensuring evidence-based and proportionate enforcement.

Regulatory action and legal threshold

- ❖ The Maharashtra FDA targeted celebrity endorsers to disrupt marketing that sustains manufacturers' brand recall while externalising consumer-health costs.
- ❖ The FDA alleges that Vimal Elaichi lacks an independent market identity and indirectly promotes tobacco through endorsements by Shah Rukh Khan, Ajay Devgn and Tiger Shroff.
- ❖ Under the COTPA Rules, such brand-linked promotion may constitute surrogate advertising, but regulatory suspicion must be supported by demonstrable evidence.
- ❖ In *DGHS v. Som Pan Product Pvt. Ltd.* (2024), the Delhi High Court placed the burden of proving surrogate advertising upon the state.
- ❖ Neither an old brand registration automatically proves surrogate promotion nor a technically legal product guarantees unrestricted advertising rights.
- ❖ FDA inquiries under COTPA and the Food Safety and Standards Act, 2006 must therefore withstand rigorous legal and evidentiary scrutiny.

Consumer protection and enforcement challenges

- ❖ India's oral-cancer burden justifies treating tobacco-linked promotions as unfair trade practices with serious public-health consequences.
- ❖ The Consumer Protection Act, 2019 imposes endorser liability and penalties, weakening celebrities' ability to plead ignorance of manufacturers' intentions.
- ❖ Requiring endorsers to explain their due diligence logically extends enforcement responsibility across the entire promotional chain.
- ❖ Similar concerns affect unsubstantiated claims involving "immunity boosters" and misleading educational or financial products.

- ❖ India's fragmented regulation across multiple Acts and Rules often requires overlapping administrative action and judicial intervention.
- ❖ Fair penalties can restrict surrogate advertising, but arbitrary enforcement risks regulatory overreach and may strengthen the practices being targeted.

BEYOND EDITORIAL

Digital ecosystem enabling surrogate advertising

- ◆ **Influencer migration:** A March 2024 government advisory warned celebrities and influencers against directly or indirectly promoting offshore betting platforms through branded digital content.
- ◆ **Algorithmic amplification:** WHO's 2024 assessment found that digital platforms use online activity and personal data to target unhealthy-product advertising, increasing repeated consumer exposure.
- ◆ **Brand-extension ambiguity:** The 2022 CCPA Guidelines treat shared logos, colours or layouts as possible surrogate promotion, while clarifying that a common brand name alone is insufficient.
- ◆ **Disclosure limitations:** ASCI's 2021 influencer guidelines require prominent advertising labels, but such disclosures do not reveal whether the promoted product masks a restricted brand.
- ◆ **Platform accountability:** The 2024 government advisory invoked Section 79 of the IT Act, warning intermediaries to promptly remove notified unlawful betting promotions.
- ◆ **Cross-border evasion:** Offshore betting platforms targeting Indian users prompted repeated government advisories between 2022 and 2024, exposing the jurisdictional limits of domestic regulation.
- ◆ **Media literacy:** A 2026 WHO regional action framework recommended social-media awareness campaigns and school-level digital literacy to counter disguised tobacco promotion among youth.

Mains Articles

Social Media Ban

Context

France became the first EU country to pass an under-15 social media ban, but its Constitutional Council struck it down. Australia was the first country to enforce such a ban, followed by Indonesia.

Global Restrictions on Children's Social Media Access

- ❖ **Australia:** The world's first nationwide under-16 restriction took effect in December 2025, with no parental exception. Non-compliant platforms face fines up to A\$54.6 million.

- ❖ **Indonesia:** Since March 2026, children under 16 cannot hold accounts on high-risk platforms, including TikTok, YouTube, Instagram, X, and Roblox.
- ❖ **France:** Parliament approved an under-15 ban, but the Constitutional Council struck it down in August 2026 over freedom-of-expression and privacy concerns.
- ❖ **United States:** States such as Utah and Arkansas enacted parental-consent and age-verification laws, but court challenges have restricted their enforcement.
- ❖ **China:** Rather than imposing a complete ban, China requires youth-oriented controls that limit screen time and restrict unsuitable content.
- ❖ **United Kingdom:** The Online Safety Act, 2023 requires age assurance and protection from harmful content, but does not impose a blanket social-media ban.
- ❖ **India:** Karnataka announced an under-16 ban, while Andhra Pradesh proposed restrictions for children under 13; these remain State-level initiatives.

India's Regulatory Framework for Young Social Media Users

- ❖ **DPDP Act, 2023:** Children are those below 18 years. Platforms require verifiable parental consent and cannot track, monitor, or target advertisements at children. Violations may attract ₹200 crore penalties.
- ❖ **IT Rules, 2021:** Online content is classified as U, U/A 7+, U/A 13+, U/A 16+, and A, with parental locks and age verification for restricted content.
- ❖ **Platform Duties:** Unlawful content must be removed within three hours of valid official orders and specified intimate or morphed content within two hours of complaints. The 2026 amendments require labels for AI-generated content.
- ❖ **Child-Protection Laws:** The POCSO Act, IT Act, and Juvenile Justice Act address online sexual harassment, grooming, child sexual abuse material, trafficking, mandatory reporting, and rehabilitation.

Towards Safer Social Media for Children

- ❖ **Child-safe design:** Require private accounts, age-appropriate content, restricted algorithms, disabled location sharing, blocked stranger messages and no targeted advertising. The UK's Age Appropriate Design Code offers a model.
- ❖ **Tiered access:** Apply strict rules below 13, supervised access for ages 13–15 and safeguarded access above 16. The United States' COPPA already provides stronger protections for under-13s.

- ❖ **Platform accountability:** Mandate legal duties, risk assessments, independent audits and proportionate penalties. The European Union's Digital Services Act requires annual audits of very large platforms.
- ❖ **Digital literacy:** Schools should teach algorithm awareness, misinformation detection, privacy, screen-time management and cyberbullying response. The Economic Survey 2025–26 proposed a Digital Wellness Curriculum.
- ❖ **Parental support:** Train parents to establish screen-time rules and maintain open communication. Tools such as Google Family Link enable application controls, content filters and supervised access.
- ❖ **International coordination:** The United Nations and Group of Twenty should align safety, privacy and age-verification standards. The UN's General Comment No. 25 provides a common child-rights framework.

Arguments in Favour of an Age-Based Social Media Ban	Arguments Against an Age-Based Social Media Ban
<ul style="list-style-type: none"> ◆ Protection of developing minds: Children have limited impulse control, making them vulnerable to addictive designs. TikTok's endless feed and YouTube autoplay can disrupt sleep, studies and daily routines. ◆ Mental health: Excessive use is associated with anxiety, depression, low self-esteem, social comparison and sleep disorders. The Economic Survey 2025–26 highlighted digital addiction, while NIMHANS operates the SHUT Clinic. ◆ Online safety: Restrictions can reduce cyberbullying, predatory contact, harmful content and continuous harassment. Australia's under-16 restriction aims to shield children from such account-based risks. ◆ Control of misinformation: Algorithms can amplify sensational health, political and public-safety claims. During COVID-19, the World Health Organization documented widespread false cures, anti-vaccine messages and misleading treatments online. ◆ Reduced polarisation: Echo chambers can reinforce extreme views and contribute to offline hostility. A UN investigation identified over 10,000 anti-Rohingya hate-speech posts linked to Myanmar's military network on Facebook. ◆ Data protection: Children may not understand consent, profiling or permanent digital footprints. In 2022, Ireland fined Meta €405 million over Instagram's processing of children's personal data. 	<ul style="list-style-type: none"> ◆ Freedom of expression: Social media enables children to access information and share views. For example, France's Constitutional Council blocked an under-15 ban in 2026, citing expression and privacy concerns. ◆ Social connection: Online communities support isolated, LGBTQ+ and remotely located children. TrevorSpace, a moderated platform for LGBTQ+ youth, has over 700,000 members globally. ◆ Enforcement challenges: Children can use false details, borrowed accounts or virtual private networks. Australia's regulator specifically addresses false IDs, deepfakes and VPN-based evasion in its enforcement guidance. ◆ Educational access: Social media provides expert lectures and learning communities. NPTEL's YouTube courses, developed by the Indian Institutes of Technology and Indian Institute of Science, illustrate this educational value. ◆ Civic participation: Platforms help young people campaign on climate change and social justice. Fridays for Future expanded globally after Greta Thunberg shared her school strike online. ◆ Parental autonomy: Blanket bans may override family judgment. Tools such as Google Family Link allow parents to set screen-time limits, filter content and supervise applications.

Global Employment Trends for Youth 2026 Report

Context

The International Labour Organization released Global Employment Trends for Youth 2026: Back to the Future, warning of rising youth unemployment and inactivity worldwide.

Key Findings

- ❖ **Rising Youth Unemployment:** Global youth unemployment rose to 12.4% in 2025, leaving around 67 million people aged 15–24 without work.
- ❖ **Growing NEET Population:** Youth not in employment, education or training increased from 19.7% in 2023 to 20% in 2025, reaching 257 million globally.
- ❖ **Persistent Gender Gap:** The female NEET rate reached 27.4%, more than twice the male rate of 13.1%; women constituted over two-thirds of all NEET youth.
- ❖ **Dominance of Informal Work:** Nearly nine in ten young workers in low and lower-middle-income countries remained informally employed, often without social security, income stability, or labour protection.

Factors Behind the Job Crisis

- ❖ **Declining Middle-Skilled Jobs:** Entry-level roles in clerical work, administration, sales and manufacturing are shrinking, weakening the transition from education to employment.
- ❖ **Artificial Intelligence Exposure:** About 6.1% of youth jobs held by those aged 15–29 face high exposure to task replacement or transformation.
- ❖ **Gender Barriers:** Unpaid care work, discrimination and limited access to quality employment continue to restrict young women's participation in the labour market.
- ❖ **Weak economic growth:** Slower growth and limited job creation affect new entrants most. Youth unemployment increased or remained unchanged in eight of eleven global subregions during 2023–2025.
- ❖ **Skills mismatch:** Weak alignment between education and employment causes joblessness or overqualification. For example, technology and healthcare vacancies often require practical skills absent from general academic courses.

Structural Barriers to Youth Employment

- ❖ **Informality Trap:** Nearly nine in ten young workers in low- and lower-middle-income countries lack formal contracts and social protection, complicating labour-law enforcement and benefit delivery.
- ❖ **Experience Inflation:** Digital recruitment expands applicant pools, enabling employers to demand prior experience and advanced skills even for entry-level jobs, creating an experience paradox for first-time jobseekers.
- ❖ **Digital Divide:** Poor connectivity, costly digital tools and inadequate training restrict access to emerging jobs. The International Labour Organization has identified persistent digital-skills mismatches in South Africa.
- ❖ **Gender Exclusion:** Unpaid care work, inadequate childcare and discrimination restrict women's employment, especially in Southern Asia, Northern Africa and the Arab States. Young women's global NEET rate reached 27.4% in 2025.
- ❖ **Demographic Pressure:** Rapid youth-population growth is outpacing formal job creation in developing regions. Around 10–12 million young Africans enter the labour market annually, against only about three million formal jobs.
- ❖ **Unequal National Capacity:** Low-income countries lack sufficient fiscal and administrative capacity to create formal jobs and manage technological transitions. They spend only around 2% of GDP on social protection, including healthcare.

Policy Priorities for Youth Employment

- ❖ **Job Creation:** Adopt gender-responsive employment policies and expand opportunities for young women in green industries and entrepreneurship. India's National Green Hydrogen Mission could create over six lakh jobs by 2030.
- ❖ **Skills Development:** Expand quality apprenticeships, technical education and lifelong learning while combining technical, social and adaptive skills. Germany's dual-training system integrates vocational education with workplace experience.
- ❖ **Employment Transition:** Modernise Public Employment Services (PES) through career guidance, hiring incentives and wage subsidies. The European Union's Youth Guarantee offers eligible youth employment, education or training within four months.
- ❖ **Social Protection:** Extend portable benefits and labour rights to gig, platform, informal and first-time workers. India's e-Shram One-Stop Solution integrates welfare schemes for registered unorganised workers.
- ❖ **Human-Centred AI:** Require bias testing, transparency and human review in AI-based recruitment, alongside reskilling against unfair displacement. The European Union AI Act classifies employment-related AI systems as high-risk.

Prelims News

State of Food Security and Nutrition in the World 2026

Context

The SOFI 2026 report revealed that Africa surpassed Asia for the first time in the absolute population facing hunger. It is jointly published by FAO, IFAD, UNICEF, WFP and WHO and tracks SDG Targets 2.1 and 2.2.

Key Findings

- ❖ Global hunger declined for the third consecutive year, from 8.6% in 2022 to 7.8% in 2025.
- ❖ Despite improvement, 645 million people remained undernourished, exceeding pre-pandemic levels.
- ❖ Africa recorded 309 million hungry people (20%), surpassing Asia's 292 million (6%).
- ❖ By 2030, Africa may contain 56% of the world's undernourished population.
- ❖ Climate change, poverty, conflicts in Sudan and DR Congo, high food prices and geopolitical tensions worsen hunger.
- ❖ Rising energy, fertilizer and nutritious-food costs further restrict food production and access across Africa.

- ❖ Around 2.1 billion people (25.8%) faced moderate or severe food insecurity, still above pre-Covid levels.
- ❖ The Cost of a Healthy Diet (CoHD) rose to 4.28 purchasing-power-parity dollars daily in 2025.
- ❖ Around 2.69 billion people (32.7%) could not afford healthy diets; Africa recorded 66.6% unaffordability.
- ❖ In March 2025, MDD-C and MDD-W became official indicators for SDG 2.2's diet-quality dimension.
- ❖ Only 30.8% of children aged 6–23 months achieved dietary diversity, against 29.4% a decade earlier.
- ❖ Only 62.7% of women aged 15–49 years achieved dietary diversity, leaving nearly one-third inadequately nourished.
- ❖ Progress on stunting, wasting, anaemia, low birthweight and obesity remains inadequate for achieving 2030 targets.
- ❖ Low farm productivity, weak value chains, costly inputs, poor logistics and staple-focused policies raise nutritious-food costs.

India's Position

- ❖ India helped reduce Southern Asia's undernourishment from 13.9% in 2021 to 9.3% in 2025.
- ❖ Excluding India would convert the declining affordability trend among lower-middle-income countries into an increase.
- ❖ India supports Southern Asia's progress on child stunting and overweight, although maternal anaemia remains concerning.
- ❖ Rising fruit and vegetable prices disproportionately increase healthy-diet costs across South Asian markets.

Nutan Sakala

Context

The Odisha Government proposed Nutan Sakala (New Dawn) as a comprehensive State policy against trafficking of women and girls.

About Nutan Sakala

- ❖ It follows four pillars: prevention, protection, prosecution and partnership for a coordinated anti-trafficking response.
- ❖ Prevention will target vulnerable communities, schools, panchayats and digital spaces through life-skills education and migration registers.
- ❖ Integrated Victim Support Centres will provide medical care, legal aid, counselling and referrals through a single window.

- ❖ The dedicated, non-lapsable Nutana Sakala Corpus Fund will finance anti-trafficking measures and survivor rehabilitation.

Reimagining Care: Empowering Caregivers in Viksit Bharat@2047

Context

NITI Aayog's report proposes a professional, dignified and accessible caregiving ecosystem centred on quality care, workforce welfare and institutional support.

Care Economy in India

- ❖ The care economy covers paid and unpaid activities meeting physical, psychological, social and developmental needs.
- ❖ It includes childcare, healthcare, eldercare, disability support, education and domestic care across the life cycle.
- ❖ A formal caregiver is a trained professional, unlike informal and unpaid family caregivers.
- ❖ Paid workers include healthcare professionals, teachers, childcare workers, social workers, domestic workers and personal-care aides.
- ❖ Unpaid work includes cooking, cleaning, collecting water or fuel, childcare, eldercare and disability support.
- ❖ The global care economy provides 381 million jobs, representing 11.5% of total employment.
- ❖ Unpaid care work contributes an estimated US\$11 trillion annually to the global economy.
- ❖ India's Time Use Survey 2024 shows women disproportionately perform unpaid domestic and caregiving work.
- ❖ India's elderly population is about 104 million, while its share may reach 19.5% by 2050.
- ❖ Over 75% of elderly Indians have chronic diseases, increasing demand for long-term professional care.
- ❖ Formalising care work can improve female labour-force participation, employment creation and workers' social protection.
- ❖ India can become a global supplier of trained caregivers, similar to its success in nursing and information technology.

Key Recommendations

- ❖ Formulate a National Caregiving Policy integrating fragmented health, disability, social justice and skilling programmes.

- ❖ Establish a National Caregiver Council for regulation, standards, accreditation, workforce planning and grievance redressal.
- ❖ Create a verified National Caregiver Registry and digital portal connecting certified caregivers with families.
- ❖ Standardise curricula, competencies, certification and continuing professional development while accrediting training institutions.
- ❖ Develop specialised cadres for palliative and long-term care and expand curriculum-based and digital training.
- ❖ Extend labour protections, social security and occupational accident and disease insurance to caregivers.
- ❖ Use multilingual training, assistive technologies, mandatory reporting, blacklisting and grievance mechanisms to prevent abuse.
- ❖ Develop bilateral agreements covering training, ethical recruitment, qualification recognition, safe migration and worker reintegration.

Parliamentary Committee Report on Cybercrime in India

Context

The Department-related Parliamentary Standing Committee on Home Affairs presented its report recommending institutional, technological and legislative reforms to strengthen India's cybercrime response.

Key Observations and Recommendations

Key issue	Committee's recommendations
Grievance-redressal gaps: Platforms lack standard formats, complaint tracking, public statistics and data-protection integration.	Create an accessible, multilingual and data-protection-compliant system with unique tracking numbers, automatic escalation and anonymised statistics.
OTT content: Self-regulation inadequately protects minors from age-inappropriate content.	Establish an independent Post-Release Review Panel, technology-based age verification, parental controls and penalties for classification violations.
Deceptive offshore advertisements: Fraudulent advertisers evade reliable identity verification.	Require digital document checks, live-video identification and continuous monitoring based on zero-trust principles.
Mule accounts: Fragmented data limits detection of sophisticated payment-fraud networks.	Operationalise the Central Payment Fraud Information Registry as an interoperable, real-time threat-analysis platform.
CBI jurisdiction: Withdrawal of State consent delays inter-state and transnational investigations.	Promote Centre-State cooperation and amend the Delhi Special Police Establishment Act, 1946 for major cybercrime investigations without State consent.
Complaint-to-FIR delays: Manual registration obstructs quick fund recovery and victim refunds.	The Indian Cyber Crime Coordination Centre should automatically convert National Cyber Crime Reporting Portal complaints into electronic First Information Reports.
Weak cyber education: Schools lack consistent cyber-hygiene and online-safety instruction.	Introduce a graded, mandatory cyber-safety curriculum across boards, supported by teacher training and multilingual materials.
Outdated cyber laws: Rapid technological changes outpace existing regulatory frameworks.	Establish a permanent, multidisciplinary mechanism for the periodic review and updating of cyber laws.
Fragmented legislation: Cybercrime provisions across multiple laws complicate investigation and adjudication.	Enact unified, technology-neutral cybercrime legislation and establish an Integrated Cybercrime Task Force with national jurisdiction.



ART AND CULTURE



Prelims News

Dhimsa Dance

Context

A performance by over 13,000 tribal women and girl students at Alluri Sitarama Raju International Airport, Bhogapuram, received the Guinness record for the largest Dhimsa dance.



About Dhimsa Dance

- ❖ Dhimsa is performed by the Bagata, Valmiki, Poraja, Khond, Gadaba, Kondadora, Mukadora and Kotia tribes of Andhra Pradesh.
- ❖ Its origin is traced to the Koraput region, home of the Ghond tribe, and it has 12 varieties.
- ❖ It is performed during festivals, weddings and April's hunting festival, when communities dance for several hours.
- ❖ Groups generally comprise 15–20 women wearing colourful traditional sarees and ornaments.
- ❖ Dancers move synchronously in circles while male community members play traditional wind and percussion instruments.
- ❖ Foot and hand movements dominate, with limited emphasis on facial expressions or literary texts.
- ❖ Movements change with the music, accompanied by Mori, Thudum and Dappu.
- ❖ Its themes draw upon tribal mythology, folktales, customs, livelihoods, kinship and marital life.

Neeragunda Veeragallu Inscription

Context

A 12th-century Veeragallu with an Old Kannada inscription was discovered at Neeragunda, Karnataka, potentially clarifying Hoysala ruler Vishnuvardhana's death.



About Neeragunda Veeragallu

- ❖ It was found during restoration of the Hoysala-era Lakshmi Narayana Swamy Temple at Neeragunda.
- ❖ Marave erected it for her husband Boppa, a Hoysala soldier who died after Vishnuvardhana.
- ❖ The inscription records Vishnuvardhana's death at Bankapura, in present-day Haveri district.
- ❖ Its date, Ekadashi of Pushya Masa, Durmathi Samvatsara, Year 1064, corresponds to 11 December 1141 CE.
- ❖ If authenticated, it may replace earlier estimates placing Vishnuvardhana's death in 1149 or 1152 CE.

- ❖ Veeragallu or hero stones commemorate individuals dying while defending their king, village or cattle.
- ❖ Their three panels generally depict battle, ascent to heaven and deity worship, symbolising Moksha.
- ❖ They reflect the Hoysala Garuda tradition, involving extreme loyalty and self-sacrifice by royal bodyguards.

About Hoysalas

- ❖ Vishnuvardhana, originally called Bitti Deva, was among the greatest Hoysala rulers.
- ❖ His victory over the Cholas at Talakkad in 1116 CE strengthened Hoysala power.
- ❖ He consecrated Belur's Chennakeshava Temple in 1117 CE to commemorate this victory.
- ❖ The temple was originally called Vijaya Narayana Temple and exemplifies Hoysala architectural excellence.
- ❖ Influenced by Ramanujacharya, Vishnuvardhana adopted Srivaishnavism while patronising Jainism and Shaivism.
- ❖ The Hoysalas ruled parts of Karnataka, Tamil Nadu and Andhra Pradesh between the 11th and 14th centuries.
- ❖ Their capitals were Belur and later Halebidu, also called Dwarasamudra.
- ❖ Hoysala temples feature stellate plans, raised jagatis, tiered friezes and intricate soapstone carvings in Vesara style.
- ❖ The Sacred Ensembles of Belur, Halebidu and Somanathapura became a UNESCO World Heritage Site in 2023.

Vagdevi Idol

Context

At the BRICS Culture Ministers' Meeting in Bhopal, India renewed efforts to repatriate the 11th-century Vagdevi idol from London's British Museum.

About Vagdevi Idol

- ❖ The white-marble sculpture is associated with Bhojshala in Dhar and King Bhoja of the Paramara dynasty.
- ❖ Originally four-armed, the idol now has only two arms, with the remaining two broken.



- ❖ Its pedestal carries Sanskrit and Devanagari inscriptions mentioning King Bhoja, Vararuci and sculptor Manathala.

- Vararuci is identified with Dhanapala, the court poet associated with King Bhoja.

- ❖ Indian scholars identify it as Vagdevi or Saraswati, while the British Museum catalogues it as Jain deity Ambika.

- ❖ Major General William Kincaid excavated it in 1875 from Dhar's old city-palace ruins.

- ❖ The repatriation initiative follows a Madhya Pradesh High Court ruling recognising the disputed Bhojshala complex as a temple dedicated to the deity.

Vaishya Tekri Mound

Context

The Vaishya Tekri mound in Ujjain has regained archaeological attention nearly 90 years after excavations suggested a monumental Mauryan-era Buddhist stupa.



About Vaishya Tekri Mound

- ❖ Located in Ujjain, Madhya Pradesh, the site is associated with Emperor Ashoka's 3rd-century BCE reign.

- Ancient Ujjain was an important urban centre of the Avanti Mahajanapada with strong Mauryan connections.

- ❖ Excavations conducted during 1938–39 indicated a major Buddhist stupa, but investigations were later discontinued.

- ❖ The proposed structure measured approximately 100 feet high, potentially exceeding Sanchi's 54-foot Great Stupa.

- ❖ Its estimated 350-foot-diameter base suggests an exceptionally large and monumental structure.

- ❖ Earlier archaeologists reported unusual construction and engineering techniques differing from other known sites.

- ❖ Further excavation could clarify the spread of Buddhism and stupa architecture during the Mauryan period.
- ❖ Madhya Pradesh is seeking renewed investigation, with the Archaeological Survey of India involved in the process.
- ❖ Tagore sang it at the 1896 Kolkata Congress session; its first two verses became customary at Congress gatherings.
- ❖ It became a political slogan on 7 August 1905 during anti-partition student processions in Calcutta.

Vande Mataram

Context

For the first time, Vande Mataram was rendered at the Red Fort during India's 2026 Independence Day celebrations.

About Vande Mataram

- ❖ Also pronounced Bande Mataram, it was composed by Bankim Chandra Chatterjee.
- ❖ It first appeared in Bangadarshan on 7 November 1875 and was later included in Anandamath (1882).
- ❖ Set to music by Rabindranath Tagore, it symbolised unity, sacrifice and devotion to the motherland.
- ❖ In 1937, the Congress Working Committee adopted its first two verses as the National Song.
- ❖ On 24 January 1950, Rajendra Prasad declared it equally honoured with the National Anthem.
- ❖ The Constitution does not mention a National Song; Article 51A(a) requires respect for the Constitution, Flag and Anthem.
- ❖ The Bande Mataram Sampradaya, formed in October 1905, organised Sunday Prabhat Pheris and collected donations.
- ❖ The English daily Bande Mataram began under Bipin Chandra Pal in 1906, with Sri Aurobindo as joint editor.
- ❖ It was also sung during the proclamation of the Provisional Government of Azad Hind.
- ❖ The 1938 Vande Mataram Movement saw Hyderabad-Karnataka students face arrests and expulsions for defiant singing.
- ❖ In 1907, Madam Bhikaji Cama's Stuttgart flag carried the words Vande Mataram.
- ❖ Madan Lal Dhingra reportedly uttered "Bande Mataram" before execution; a similarly named magazine appeared from Geneva in 1909.

Role in the Freedom Struggle

- ❖ It became a nationalist battle cry, prompting colonial authorities to restrict its public singing and display.
- ❖ In 1912, Gopal Krishna Gokhale received a Cape Town welcome accompanied by Vande Mataram chants.

INTERNATIONAL RELATIONS



Editorial

India's foreign policy must look seaward

This editorial 'India's foreign policy must look seaward' was published in The Hindu on 25th Jul 2026, highlights the need for maritime diplomacy that protects Indian seafarers across borders, flags and jurisdictions.

A fragmented maritime protection system

- ❖ Indian seafarers often work through foreign employers on foreign-flagged ships across multiple jurisdictions, creating diffused responsibility during attacks, detention or abandonment.
- ❖ Of 14 Indians killed in attacks linked to the recent West Asia conflict, at least eight were commercial seafarers caught in wars they had not chosen, exposing gaps in consular protection.
- ❖ India had about 3.2 lakh seafarers in June 2025, nearly three times the 2014 figure, and supplied over 12% of the global workforce, ranking behind only the Philippines.
- ❖ Seafarers continually cross jurisdictions while India's consular system remains territorially organised; missions may learn of their presence only after seizure or abandonment, leaving no authority continuously responsible.
- ❖ The International Transport Workers' Federation recorded 1,125 abandoned Indian seafarers in 2025, the world's highest number, with responsibility dispersed among flag States, owners, insurers, ports and missions.

From emergency response to continuous protection

- ❖ The post-conflict Seafarer First response should track every Indian seafarer, ship and threat regardless of vessel flag, while assigning a liaison officer to each affected family.
- ❖ Risks extend beyond West Asia to missiles, drones and mines in the Black and Red Seas and piracy or hostage-taking around the Gulf of Aden and West Africa, requiring continuous risk-based monitoring.
- ❖ A tracking dashboard cannot compel owners or flag States to act; recruitment agencies must provide updated crew and route data whenever activated under a standing maritime protocol with clear responsibility after distress signals.

- ❖ Indian missions in major shipping centres need designated officers connected with ports, hospitals, insurers and lawyers because local response networks cannot be improvised after a maritime emergency.
- ❖ India should press flag States to enforce the Maritime Labour Convention when wages stop or crews require rescue, abandonment assistance and repatriation.

Diplomatic coordination and seafarers' rights

- ❖ India's bilateral maritime agreements recognise certificates and expand employment but inadequately address legal assistance, consular access, detention and repatriation.
- ❖ India, the Philippines and Indonesia should pursue common standards through the IMO and ILO, preventing shipowners from bypassing unilateral protections by recruiting elsewhere.
- ❖ India should oppose attacks on commercial shipping regardless of the perpetrator because civilian crews are not combatants and open sea lanes are essential for their safety.
- ❖ Before signing contracts, seafarers must know vessel ownership, route, sanctions exposure, insurance validity and abandonment history, with a right to refuse deployment to designated high-risk regions without penalty.
- ❖ The Directorate General of Shipping barred licensed agencies from placing Indians on 366 abandonment-linked vessels unless compliant; agencies must disclose this list before recruitment and face penalties for violations.

BEYOND EDITORIAL

Strengthening domestic seafarer protection law

- ◆ **Legal consolidation:** The Merchant Shipping Act, 2025 introduced safeguards against abandonment and strengthened regulation of agencies recruiting Indians for domestic and foreign vessels.
- ◆ **Unified registry:** India can link seafarer records with the IMO-ILO database, which identifies abandonment cases involving particular vessels, owners and flag States.
- ◆ **Agency accountability:** The Maritime Labour Rules, 2016 regulate recruitment agencies, while joint liability can deter fraudulent contracts and placement on unsafe vessels.

- ◆ **Financial security:** The Maritime Labour Convention requires financial guarantees covering unpaid wages, essential supplies and repatriation when shipowners abandon their crews.
- ◆ **Emergency assistance:** The Seafarers' Welfare Fund Society supports insurance and critical illnesses, providing an institutional base for an emergency repatriation fund.
- ◆ **Legal protection:** IMO's 2025 guidelines protect detained seafarers against arbitrary detention while preserving due process, wages, healthcare and repatriation rights.
- ◆ **Compliance oversight:** Global abandonment cases rose from 142 in 2023 to 310 in 2024, requiring audits, licence suspension and vessel blacklisting.

NATO enters a new strategic era of transformation

This editorial 'NATO enters a new strategic era of transformation' was published in The Hindu on 5th Aug 2026, highlights NATO's shift towards European defence responsibility, reduced American military dependence and emerging strategic opportunities for India.

America's Strategic Rebalancing

- ❖ The U.S. National Security Strategy 2025 retains NATO but expects Europe to assume primary responsibility for its conventional defence.
- ❖ Washington supports NATO's 5% GDP defence-spending target while repositioning itself as strategic enabler, nuclear guarantor and political convener rather than sole military backbone.
- ❖ After raising European troop strength to nearly 1,00,000 following Russia's 2022 invasion, the U.S. reduced it to 75,000–80,000, reflecting an Indo-Pacific pivot.
- ❖ The Ankara Summit 2026 reaffirmed Article 5, pledged €70 billion for Ukraine and promoted European long-range strike capabilities and defence production.

NATO's Evolution and European Capability Gaps

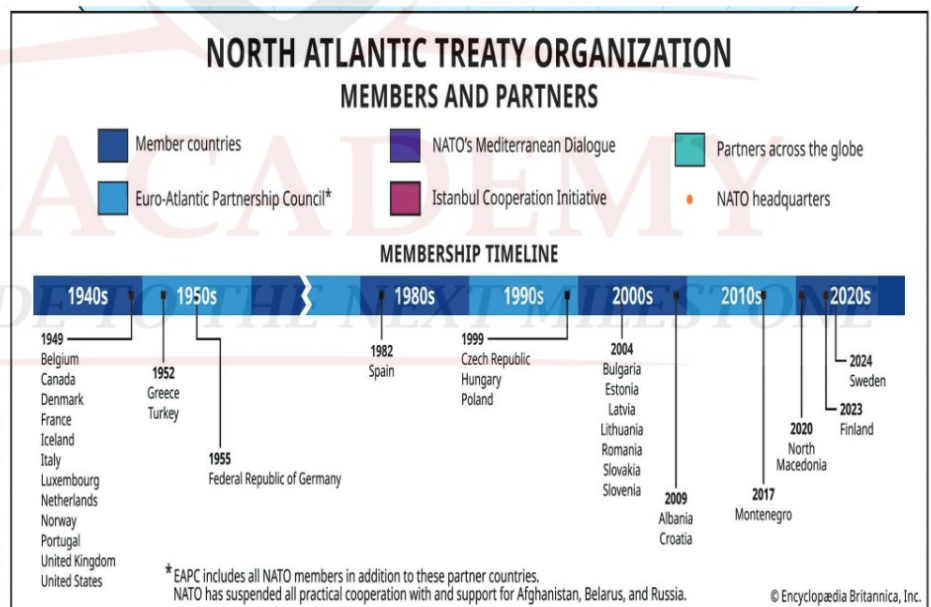
- ❖ NATO 1.0 (1949–1991) relied on American military and nuclear power to deter the Soviet Union and preserve transatlantic unity.
- ❖ NATO 2.0 (1991–2022) expanded eastward and conducted Balkan and

Afghan operations, while falling European expenditure increased dependence on U.S. capabilities.

- ❖ Post-Ukraine NATO 3.0 envisages Europe leading conventional defence while America provides nuclear deterrence, intelligence, precision strikes and global power projection.
- ❖ Under the Hague Summit 2025 commitment, members must raise core defence spending to 3.5% of GDP by 2035, with Germany targeting it by 2029.
- ❖ Europe still depends on American intelligence and surveillance, satellite support, airlift, missile defence, command systems, precision strikes and nuclear deterrence.
- ❖ Europe must therefore develop integrated capabilities that underpin NATO's effectiveness, aiming to become stronger than Russia rather than replicate American military power.

Strategic Implications for India

- ❖ Greater European responsibility would release American diplomatic attention, military resources and investment for the Indo-Pacific, strengthening regional balance against China.
- ❖ A stronger Europe could support India in defence manufacturing, advanced technologies, artificial intelligence, cybersecurity, semiconductors and space cooperation.
- ❖ India should treat NATO's transformation as a strategic opportunity, using complementary partnerships with America and Europe without compromising strategic autonomy.



BEYOND EDITORIAL

Strategic Risks for India

- ◆ **Strategic autonomy:** India simultaneously participates in the Quad and Shanghai Cooperation Organisation; close NATO alignment could weaken this flexible, issue-based multi-alignment strategy.
- ◆ **Russian partnership:** India's defence and energy ties with Russia, including BrahMos, S-400 systems and Kudankulam reactors, could face pressure from deeper NATO engagement.
- ◆ **Ukraine divergence:** India abstained from most UN resolutions condemning Russia and prioritised dialogue, contrasting with NATO's military assistance and sanctions-based approach.
- ◆ **China framing:** NATO's 2022 Strategic Concept describes Chinese policies as challenging allied interests; Indian cooperation could consequently be interpreted as participation in containment.
- ◆ **Eurasian imbalance:** NATO's pressure on Moscow has reinforced Russia-China convergence, identified at the 2024 Washington Summit as a major strategic concern.
- ◆ **Regional polarisation:** NATO's flagship Indo-Pacific projects with Australia, Japan, South Korea and New Zealand may import Euro-Atlantic bloc rivalry into Asian security.
- ◆ **Institutional asymmetry:** India has only consultative engagement with NATO, while Japan and other Indo-Pacific partners possess tailored programmes covering interoperability, cyber-defence and technology cooperation.

Internal contradictions and uncertain utility

- ❖ Saudi memories of Ottoman rule, Erdoğan's regional ambitions and the Khashoggi dispute complicate strategic trust between Riyadh and Türkiye.
- ❖ Türkiye's support for the Muslim Brotherhood, Hamas and Syrian militias conflicts with Gulf monarchies' security preferences and political outlook.
- ❖ Pakistan's reluctance to confront Iran, Yemen or Shia forces, alongside disputes over troop command, constrains its military commitment to Saudi security.
- ❖ Pakistan's Iran border, Shia population and tensions with India and Afghanistan further restrict its ability to fulfil expansive defence obligations.
- ❖ Riyadh faces asymmetric threats to oil infrastructure, the Strait of Hormuz and Bab al-Mandeb, which even U.S. Central Command could not fully neutralise.
- ❖ The partners offer substantial defence complementarity through Saudi financing, Turkish arms production and Pakistan's large military, enabling exercises, interoperability and co-production.
- ❖ The pact may grow during prolonged regional tensions but become irrelevant under peace or ineffective during an Iran conflict if Türkiye and Pakistan avoid direct intervention.
- ❖ Saudi security diversification is not a zero-sum departure from Washington because all three partners remain substantially constrained by U.S. influence.

Implications for India

- ❖ India should monitor Pakistan's efforts to mobilise the pact against it but avoid strategic overreaction, given the partners' conflicting interests and constraints.
- ❖ India's position as a major crude importer and Saudi Arabia's key trading partner supports durable economic complementarity and a shared status-quo orientation.
- ❖ Saudi Arabia is unlikely to support Pakistani adventurism against a strategically valuable India, making Islamabad's diplomatic and military posturing largely ineffective.

A new security triangle emerges with the Makkan Pact

This editorial 'A new security triangle emerges with the Makkan Pact' was published in The Hindu on 10th Aug 2026, highlights the uncertain strategic value of the Saudi Arabia–Türkiye–Pakistan defence pact and its implications for India.

The pact's strategic context

- ❖ The Makkah Joint Defence Agreement, signed on August 7, 2026, marks the first regional realignment after the U.S.–Iran war.
- ❖ Its collective-defence clause treats an attack on one member as an attack on all, echoing NATO's Article 5.
- ❖ The pact follows Saudi Arabia's bilateral defence agreement with Pakistan and the 14-country MMDA, reflecting Riyadh's search for security alternatives.
- ❖ Saudi Arabia denies forming a military or sectarian bloc, yet the pact remains silent on nuclear ambitions, arms competition and specific threats.
- ❖ A Muslim NATO remains improbable because of divisions over Israel, Iran and U.S. influence, while existing Arab-Islamic institutions remain excluded.

BEYOND EDITORIAL

Consequences for India's Maritime Energy Security

- ◆ **Chokepoint vulnerability:** India's 2026 coordination with Gulf countries for oil tankers' safe passage through Hormuz demonstrated its dependence on uninterrupted regional navigation.
- ◆ **Shipping disruption:** Gulf of Oman tanker attacks in 2019 prompted India to launch Operation Sankalp and deploy INS Chennai and INS Sunayna.

- ◆ **Escort requirement:** By 2022, Operation Sankalp had deployed 36 warships and escorted 453 Indian-flagged vessels carrying about 36.1 million tonnes of cargo.
- ◆ **Maritime surveillance:** The Gurugram-based IFC-IOR monitored Gulf shipping during the 2019 crisis, illustrating information-sharing's importance for protecting energy routes.
- ◆ **Reserve limitation:** India's 5.33-MMT strategic reserves at Visakhapatnam, Mangaluru and Padur provide a limited buffer against prolonged external supply disruptions.
- ◆ **Supplier diversification:** India imported crude from nearly 41 countries in 2026, reducing dependence on any single supplier during geopolitical or maritime crises.
- ◆ **Partner dependence:** The UAE remains a major source of India's crude oil, LNG and LPG, requiring stable Gulf relations despite emerging security blocs.

The first-ever presidential visits to both countries in July 2026 reflected India's expanding regional diplomacy.



Mains Articles

Moldova and North Macedonia

Context

- ❖ President Droupadi Murmu visited Moldova and North Macedonia in July 2026, becoming the first Indian President to undertake State Visits to both countries.

Key Highlights of the Visit to Moldova

- ❖ **Capacity Building:** India doubled Indian Technical and Economic Cooperation (ITEC) training slots for Moldovan professionals.
- ❖ **Economic Engagement:** The President addressed the India-Moldova Business Forum to promote trade, investment and resilient supply chains.
- ❖ **Strategic Profile:** Moldova is a landlocked Eastern European country between Romania and Ukraine, became a European Union candidate in 2022, and includes separatist-controlled Transnistria.

Key Highlights of the Visit to North Macedonia

- ❖ **Development Cooperation:** India doubled ITEC slots with an Artificial Intelligence focus and welcomed North Macedonia's intention to join ISA, CDRI and GBA.
- ❖ **Historical and Cultural Links:** The President honoured revolutionary Goce Delčev, while Skopje's connection with Mother Teresa strengthens cultural relations.
- ❖ **Strategic Profile:** This landlocked Balkan state borders five countries, adopted its present name in 2019, joined NATO and connects the Mediterranean with Central Europe.

Strategic Value of Moldova and North Macedonia

- ❖ **European Outreach:** Stronger ties diversify India's engagement across Eastern Europe and the Balkans.

- ❖ **Market Access:** Moldova has been a European Union candidate since 2022, while North Macedonia has held candidate status since 2005, providing Indian businesses useful connections with evolving European markets.
- ❖ **Economic Opportunities:** Pharmaceuticals, information technology, agriculture, textiles, tourism and renewable energy offer significant potential. India and North Macedonia have set a goal of doubling bilateral trade by 2030.
- ❖ **Supply-Chain Resilience:** Moldova's links with Romania and North Macedonia's position on European transport corridors can support diversified logistics, agro-processing and pharmaceutical networks serving neighbouring markets.
- ❖ **Technology Partnership:** India can share expertise in Digital Public Infrastructure, Artificial Intelligence and cybersecurity. It doubled ITEC training slots for both countries, including specialised courses in emerging technologies.
- ❖ **Climate Leadership:** Moldova already cooperates with India through the International Solar Alliance, while North Macedonia expressed interest in joining the ISA, CDRI and Global Biofuels Alliance.
- ❖ **Geopolitical Relevance:** Moldova provides insights into the Ukraine conflict and Transnistria, while North Macedonia's NATO membership and European Union aspirations strengthen India's understanding of Balkan and Euro-Atlantic affairs.
- ❖ **Soft-Power Influence:** Educational exchanges and capacity-building strengthen India's goodwill. The unveiling of Mahatma Gandhi's bust in Skopje and

the city's association with Mother Teresa reinforce cultural connections.



Constraints on Deepening Bilateral Relations

- ❖ **Limited Trade:** India–Moldova trade was only US\$11.17 million in 2025–26, while India–North Macedonia commerce remains small despite the goal of doubling bilateral trade by 2030.
- ❖ **Small Domestic Markets:** Each country has fewer than three million residents, limiting economies of scale and making them less attractive than larger European markets for Indian investors.
- ❖ **Connectivity Constraints:** Both countries are landlocked and lack strong direct transport links with India, increasing logistics costs and restricting trade, investment and tourist movement.
- ❖ **Thin Diplomatic Presence:** India's Ambassador in Bucharest is concurrently accredited to Moldova, while its Ambassador in Sofia covers North Macedonia, limiting continuous diplomatic and commercial engagement.
- ❖ **Regulatory Transition:** European Union accession requires extensive alignment with product, environmental, investment and data-protection standards, creating short-term compliance costs for Indian exporters and investors.
- ❖ **Regional Instability:** The Ukraine conflict and Transnistria affect Moldova, while North Macedonia's accession remains linked to constitutional amendments concerning its Bulgarian minority and bilateral commitments.
- ❖ **Limited Business Awareness:** Weak commercial networks, linguistic differences and small Indian

communities constrain engagement. The 2026 India–Moldova Business Forum, the first of its kind, highlighted the limited institutional interaction.

Framework for Stronger Bilateral Engagement

- ❖ **Institutionalised Dialogue:** Regularise Foreign Office Consultations, ministerial exchanges and business forums, supported by stronger resident diplomatic and commercial representation.
- ❖ **Trade Roadmap:** Create sectoral groups for pharmaceuticals, information technology, agriculture and renewable energy, using the CII–Invest Moldova agreement and North Macedonia's 2030 trade target.
- ❖ **Regional Strategy:** Use Moldova's European Union integration and North Macedonia's Balkan location to access wider Eastern European and European markets.
- ❖ **Improved Connectivity:** Strengthen logistics through Romania and Greece, simplify business visas and use the India–Moldova mobility framework to facilitate professional movement.
- ❖ **Regulatory Cooperation:** Establish export help desks to assist Indian businesses with European Union product, environmental, investment and data-protection standards.
- ❖ **Project-Based Cooperation:** Develop visible projects in Digital Public Infrastructure, Artificial Intelligence, healthcare and clean energy, following the Vulcănești–Chișinău transmission-line model.
- ❖ **People-to-People Relations:** Expand scholarships, university partnerships, tourism and student protection, supported by the doubling of ITEC training slots.

Quad (Quadrilateral Security Dialogue) Supports ASEAN Centrality

Context

The Quadrilateral Security Dialogue (Quad) Foreign Ministers reaffirmed support for implementing the Association of Southeast Asian Nations Outlook on the Indo-Pacific (AOIP), reinforcing ASEAN centrality and a free, open and inclusive region.



About ASEAN Centrality

It refers to ASEAN's leading role in shaping regional institutions, agendas and decision-making through mechanisms such as the East Asia Summit, ASEAN Regional Forum and ADMM-Plus.

Significance of ASEAN Centrality

- ❖ **Neutral Convener:** ASEAN-led platforms such as the East Asia Summit facilitate inclusive dialogue among competing regional and global powers.
- ❖ **Regional Security:** The ASEAN Regional Forum and ADMM-Plus promote confidence-building, defence dialogue and practical cooperation, including joint maritime and disaster-relief exercises.
- ❖ **Economic Integration:** The ASEAN-led Regional Comprehensive Economic Partnership strengthens regional trade, investment and supply chains across its 15 member countries.
- ❖ **Rules-Based Order:** The Treaty of Amity and Cooperation promotes sovereignty, non-interference, peaceful coexistence and negotiated settlement of regional disputes.
- ❖ **Strategic Balance:** ASEAN centrality helps prevent domination by any single power and preserves regional autonomy amid intensifying United States–China rivalry.
- ❖ **Functional Cooperation:** ASEAN mechanisms coordinate action on connectivity, counterterrorism and transnational crime, while the AHA Centre supports regional disaster management and humanitarian assistance.

Challenges to ASEAN Centrality

- ❖ **United States–China Rivalry:** Intensifying competition pressures ASEAN members to take sides, weakening unity and consensus within regional institutions.
- ❖ **Consensus Constraints:** Non-interference and consensus-based decision-making delay collective action during crises, as demonstrated by ASEAN's limited response to Myanmar's military coup.
- ❖ **Rise of Minilateralism:** Groupings such as the Quad and Australia–United Kingdom–United States (AUKUS) partnership may reduce ASEAN's regional agenda-setting role.
- ❖ **Divergent National Interests:** Unequal economic dependence on China and differing security concerns divide members, particularly over the South China Sea disputes.
- ❖ **Institutional Limitations:** ASEAN's weak enforcement powers and limited Secretariat capacity hinder implementation of agreements and coordinated regional responses.

QUAD

- ◆ The Quadrilateral Security Dialogue (Quad) is an informal strategic grouping comprising India, the United States, Japan and Australia.
- ◆ It supports a free, open, inclusive and prosperous Indo-Pacific based on international law and freedom from coercion.
- ◆ The grouping emerged from humanitarian coordination among the four countries following the 2004 Indian Ocean tsunami.
- ◆ Former Japanese Prime Minister Shinzo Abe articulated the idea in 2007; the Quad was revived in 2017 amid China's growing assertiveness.
- ◆ The 2021 Spirit of the Quad reaffirmed democratic values, rule of law and peaceful resolution of disputes.
- ◆ The Quad-at-Sea Ship Observer Mission promotes coast guard interoperability, while the Malabar Exercise strengthens naval coordination among Quad members.
- ◆ Quad Plus engagements with South Korea, New Zealand and Vietnam demonstrate scope for wider issue-based partnerships.

Relevance of Quad in the Contemporary Global Order

- ❖ **Strategic Counterbalance:** The Quad opposes coercive changes to the status quo, supports freedom of navigation and reinforces international law across the South China Sea, Taiwan Strait and wider Indo-Pacific.
- ❖ **Economic Security:** The Quad Critical Minerals Initiative and resilient infrastructure partnerships diversify supply chains, complement the China+1 strategy and strengthen India's manufacturing potential.
- ❖ **Emerging Technologies:** Cooperation in 5G and 6G, Open Radio Access Networks, Artificial Intelligence, cybersecurity and undersea cables strengthens secure digital connectivity.
- ❖ **Regional Public Goods:** Joint healthcare initiatives and Humanitarian Assistance and Disaster Relief (HADR) cooperation improve preparedness and rapid disaster response across the Indo-Pacific.

Making Quad Support for ASEAN Centrality Credible

- ❖ **AOIP Alignment:** Align Quad initiatives with the AOIP's four priorities: maritime cooperation, connectivity, Sustainable Development Goals and economic cooperation.
- ❖ **Institutional Anchoring:** Route major programmes through ASEAN-led platforms such as the East Asia Summit, ASEAN Regional Forum and ADMM-Plus.
- ❖ **Complementary Minilateralism:** Use initiatives such as IPMDA to address maritime-capacity gaps without creating parallel institutions that weaken ASEAN's regional role.

- ❖ **ASEAN Ownership:** Co-design projects with ASEAN members and institutions, ensuring that regional needs determine priorities rather than external strategic competition.
- ❖ **Public-Goods Delivery:** Coordinate disaster relief, healthcare and infrastructure programmes with institutions such as the AHA Centre and ASEAN's emergency-response mechanisms.
- ❖ **Inclusive Positioning:** Maintain transparent and non-exclusive cooperation, avoiding military-alliance perceptions or requiring Southeast Asian countries to align against China.
- ❖ **Implementation Credibility:** Attach predictable funding, timelines and local capacity-building to the 2026 Manila commitments, converting diplomatic assurances into measurable regional benefits.

Prelims News

US-Saudi Civil Nuclear Cooperation Agreement

Context

The United States and Saudi Arabia signed a 30-year civil nuclear agreement under Section 123 of the US Atomic Energy Act, alongside a bilateral safeguards agreement.

Key Provisions

- ❖ The agreement enables transfers of civil nuclear materials, equipment, technology and expertise to Saudi Arabia.
 - Its implementation requires Saudi Arabia to join the Abraham Accords and normalise relations with Israel.
- ❖ American companies will receive priority in developing Saudi Arabia's multi-billion-dollar civilian nuclear infrastructure.
- ❖ Saudi Arabia will initially import nuclear fuel for operating its proposed nuclear reactors.
- ❖ A two-year joint study will assess the commercial viability of domestic uranium enrichment.
- ❖ A proposed black-box arrangement would keep sensitive enrichment technology under American control.
- ❖ If viable, US companies would build and operate enrichment facilities without transferring sensitive technology to Saudi Arabia.
- ❖ Unlike the 2009 US-UAE agreement, Saudi Arabia need not permanently renounce enrichment or spent-fuel reprocessing.
- ❖ The agreement does not require adoption of the International Atomic Energy Agency Additional Protocol, limiting intrusive inspections.
- ❖ Critics warn that permitting dual-use technologies could weaken global nuclear non-proliferation norms.

Multinational Maritime Defense Alliance

Context

Fourteen countries established a maritime alliance to protect navigation through the Bab al-Mandeb Strait, Red Sea and Gulf of Aden.

About Multinational Maritime Defense Alliance

- ❖ It seeks to protect shipping, international trade routes and energy-supply lines across key West Asian waterways.
- ❖ The alliance promotes maritime defence cooperation and safeguards freedom of navigation.
- ❖ Members are Saudi Arabia, Yemen, Kuwait, Bahrain, Qatar, Pakistan, Türkiye, Egypt, Jordan, Bangladesh, Nigeria, Sudan, Djibouti and Somalia.
- ❖ Saudi Arabia is the founding and leading member and hosts the alliance's permanent headquarters.
- ❖ The coalition is purely defensive and operates in accordance with international law.

South China Sea Disputes

Context

China issued management measures for the Huangyan Dao National Nature Reserve around Scarborough Shoal, introducing routine patrols and penalties for unauthorised fishing or resource extraction.

About the South China Sea

- ❖ It is a strategic Western Pacific marginal sea connecting the Pacific and Indian Oceans through the Strait of Malacca.
- ❖ It is bordered by Brunei, Cambodia, China, Indonesia, Malaysia, the Philippines, Singapore, Taiwan and Vietnam.
- ❖ China's 1947 nine-dash line claims nearly 90% of the sea, overlapping several countries' maritime claims.
- ❖ The Permanent Court of Arbitration invalidated these claims under the United Nations Convention on the Law of the Sea in 2016; China rejected the ruling.
- ❖ The Paracel Islands, comprising about 130 islands and reefs, are China-controlled but claimed by Vietnam and Taiwan.
- ❖ The Spratly Islands, including Second Thomas Shoal, are claimed by China, Vietnam, Taiwan, the Philippines, Malaysia and Brunei.
- ❖ Scarborough Shoal lies within the Philippines' Exclusive Economic Zone but is claimed by China on historical grounds.



GOVERNANCE / PUBLIC POLICY/ GOVERNMENT SCHEMES



Editorial

Have fast-track courts delivered on the promise of speedy justice?

This editorial 'Have fast-track courts delivered on the promise of speedy justice?' was published in The Hindu on 31st Jul 2026, highlights how limited judicial capacity, procedural delays and resource shortages restrict fast-track courts from ensuring speedy justice.

Performance and Structural Limits

- ❖ Fast-track courts expedite selected cases but usually redeploy existing judges instead of expanding overall judicial capacity, shifting delays to other cases.
- ❖ Effective functioning requires adequate judges, support staff, timely witness depositions, coordinated stakeholders and fewer avoidable adjournments.
- ❖ The Delhi High Court created a fast-track court for paper-leak cases under the Public Examinations Act, 2024, renewing debate over their effectiveness.

Pendency and Data Gaps

- ❖ Fast-Track Special Courts face nearly 2.45 lakh pending cases because annual disposal consistently remains below fresh institution.
- ❖ In 2025, around 1.4 lakh cases were instituted but only 66,000 disposed, keeping the case-clearance rate below 100%.
- ❖ The National Judicial Data Grid lacks comparable FTSC disposal-time data, preventing transparent assessment of whether these courts deliver faster justice.
- ❖ FTSC pendency reflects wider judicial stress, with trial courts carrying nearly 4.8 crore cases, about 74% of them criminal.

Timelines and Equal Access

- ❖ The proposed Public Examinations Amendment Bill, 2026 prescribes two-month investigations and three-month trials, but institutional capacity may not support such rigid deadlines.
- ❖ Mandatory timelines in complex criminal cases can compromise the right to fair trial by limiting defence preparation, evidence assessment and witness management.

- ❖ Timelines should balance expeditious justice with procedural fairness; aspirational targets may improve disposal, but rigid mandates can reduce judicial quality.
- ❖ Assigning cases to fast-track courts must follow a rational and equitable basis under Article 14, not public sentiment or selective policy priorities.

Resource Deficits and Reforms

- ❖ FTSCs created in 2019 for rape and POCSO cases remain constrained by shortages of judges, prosecutors and operational resources.
- ❖ Public prosecutors often cover multiple courts, while understaffed forensic laboratories delay digital evidence analysis and weaken complex prosecutions.
- ❖ Speedy justice requires credible investigations, trained personnel, timely forensic assistance, adequate prosecution support and filled judicial vacancies.
- ❖ Advance scheduling, prompt court directions and fewer adjournments can reduce procedural delays without disrupting hearings.

BEYOND EDITORIAL

Alternatives to Fast-Track Adjudication

- ◆ **Case-flow management:** The Commercial Courts framework mandates early case-management hearings and fixed schedules for evidence and arguments, offering a model for regular courts.
- ◆ **Pre-litigation mediation:** Section 5 of the Mediation Act, 2023 enables disputes to be settled before filing, while excluding matters unsuitable for mediation.
- ◆ **Lok Adalats:** NALSA's Lok Adalats settle pending and pre-litigation disputes amicably, with awards treated as final and binding civil-court decrees.
- ◆ **Plea bargaining:** Section 290 of the BNSS permits eligible accused persons to seek plea bargaining within 30 days of charge-framing, reducing unnecessary full trials.
- ◆ **Virtual courts:** By December 2024, 27 virtual courts across 21 States and Union Territories had handled over 6.36 crore traffic cases.
- ◆ **Village-level justice:** India had 338 operational Gram Nyayalayas, including 111 in Uttar Pradesh and 89 in Madhya Pradesh, bringing minor disputes closer to rural litigants.
- ◆ **Judicial digitisation:** e-Courts Phase III has a ₹7,210 crore outlay for paperless courts, record digitisation, video conferencing and wider online adjudication.

Ten years later, looking back and ahead at a true GeM

This editorial 'Ten years later, looking back and ahead at a true GeM' was published in The Indian Express on 11th Aug 2026, highlights GeM's decade-long transformation of public procurement through transparency, efficiency and inclusive participation.

GeM's Procurement Transformation

- ❖ Launched on August 9, 2016, GeM connects 1.37 lakh government buyers with 25 lakh sellers and service providers.
- ❖ Government e-Marketplace integrates major procurement functions into one digital platform, supporting inclusive development and Viksit Bharat 2047.
- ❖ GeM replaced the opaque Directorate General of Supplies and Disposals, opening procurement previously dominated by privileged suppliers.
- ❖ End-to-end procurement digitisation, covering discovery, bidding, contracts and payments, reduces discretion and promotes fair competition.
- ❖ Every transaction creates an auditable trail, strengthening accountability, integrity and public trust in government procurement.
- ❖ Simplified registration, standardised processes and removal of Caution Money Deposit and transaction charges have reduced participation barriers.



Inclusive Growth and Self-Reliance

- ❖ Priority for domestic enterprises strengthens local value chains, indigenous production and economic self-reliance.
- ❖ Micro and small enterprises constitute nearly 60% of orders by volume and over 45% of GeM's Gross Merchandise Value.
- ❖ Direct access to government buyers enables start-ups and women-led enterprises to compete without intermediaries or established-market advantages.

- ❖ Democratised procurement makes small businesses active development partners, advancing entrepreneurship and equitable growth.
- ❖ Efficient procurement of medicines, vaccines, defence supplies, drones and infrastructure improves public-service delivery and resource utilisation.

Scale, Gains and Future Direction

- ❖ GeM crossed ₹5 lakh crore annual GMV in each of the last two financial years, taking cumulative value to about ₹20 lakh crore.
- ❖ The marketplace now covers 10,644 product categories and 350 service categories, reflecting its expanding procurement scope.
- ❖ An IIT Delhi study estimated monetised price and process-efficiency benefits of ₹86,571.69 crore over three financial years.
- ❖ GeM's second decade seeks a smarter and greener platform, globally benchmarked and powered by emerging technologies.
- ❖ Future expansion will deepen stakeholder participation, particularly among innovators, start-ups, women, youth, small-town entrepreneurs and disadvantaged groups.

BEYOND EDITORIAL

Safeguards against Digital Procurement Risks

- ◆ **Cybersecurity protection:** GeM should follow CERT-In's six-hour incident-reporting requirement and undertake periodic security audits to protect sensitive procurement and vendor data.
- ◆ **Algorithmic transparency:** Since GeM seller ratings can influence selection among multiple L1 offers, rating criteria must remain explainable, reviewable and bias-free.
- ◆ **Collusion detection:** GeM warns sellers against cartelisation, while CCI's Diagnostic Toolkit helps procurement officials identify suspicious bidding patterns and coordinated quotations.
- ◆ **Digital inclusion:** GeM already offers interactive seller-training courses in 12 languages; assisted onboarding can further include rural enterprises with limited digital capacity.
- ◆ **Data protection:** GeM's handling of financial and commercial information should follow the Digital Personal Data Protection Act, 2023, including purpose limitation and secure processing.
- ◆ **Market concentration:** Online Udyam verification enables MSE purchase benefits, but procurement analytics must prevent repeated contract capture by a few dominant vendors.
- ◆ **Grievance accountability:** GeM's Incident Management Policy and pending-payment escalation mechanism should ensure time-bound review of delisting, payment and contractual complaints.

In the way

This editorial 'In the way' was published in The Hindu on 12th Aug 2026, highlights how executive control over the proposed National Tribunals Commission undermines tribunal independence and judicial autonomy.

Tribunal purpose and judicial safeguards

- ❖ Tribunals enable specialised adjudication of technical disputes faster than ordinary courts, strengthening judicial efficiency.
- ❖ In S.P. Sampath Kumar (1987) and L. Chandra Kumar (1997), the Supreme Court retained High Court review because judicial review forms the basic structure.
- ❖ Tribunals remain structurally compromised because they are administered by the same government ministries whose decisions require independent review.
- ❖ In Rojer Mathew (2019), the Court recommended a statutory National Tribunals Commission to independently supervise tribunal selection and administration.

Legislative history and proposed reforms

- ❖ The Finance Act, 2017 expanded executive control over appointments, while the 2021 Ordinance reinstated service conditions already rejected judicially.
- ❖ In Madras Bar Association (2025), the Court struck down re-enacted objectionable provisions and directed establishment of the NTC within four months.
- ❖ Parliament passed the Tribunal Reforms Bill, 2026 without Lok Sabha discussion on August 10, followed by Rajya Sabha approval on August 11.
- ❖ The Bill restores five-year tenures, standardises service conditions, establishes a National Tribunals Data Grid and protects pending appointments.

Continuing institutional weaknesses

- ❖ Section 14 delegates qualifications, selection procedures, salaries and service conditions to executive rules, despite judicial opposition to such legislative delegation.
- ❖ Section 3 contains vague language, allowing the executive discretion inconsistent with the Bill's claimed adherence to the 2025 judgment.
- ❖ Under Section 16, the concerned Ministry screens complaints before NTC inquiry, preserving executive influence over removal proceedings.
- ❖ The Centre appoints all NTC members, merely consulting the CJI for judicial appointments, while retaining substantial financial and administrative control.

BEYOND EDITORIAL

Consequences for Access to Justice

- ◆ **Institutional credibility:** The Supreme Court repeatedly struck down executive-dominated tribunal rules in the Madras Bar Association cases, linking independence directly with public confidence.
- ◆ **Case delays:** NCLT vacancies and prolonged insolvency proceedings can defeat the IBC's 330-day resolution framework, delaying recovery for creditors and distressed businesses.
- ◆ **Litigation costs:** After L. Chandra Kumar, CAT decisions became reviewable by High Courts under Articles 226 and 227, adding another litigation stage when tribunal adjudication fails.
- ◆ **Adjudicatory quality:** NGT's combination of judicial and expert members enables informed decisions on technical matters such as pollution, forest conservation and environmental compensation.
- ◆ **Legal certainty:** Successive tribunal rules issued in 2017, 2020 and 2021 faced judicial invalidation, creating instability over appointments, tenure and service conditions.
- ◆ **Equal justice:** CAT permits government employees to file applications for a nominal ₹50 fee, illustrating how accessible tribunals can reduce formal court expenses.
- ◆ **Public accountability:** The National Judicial Data Grid demonstrates how digitised pendency and disposal data can support similar transparent performance monitoring across tribunals.

Mains Articles

Modernization of the Public Distribution System

Context

The Standing Committee on Consumer Affairs, Food and Public Distribution released a report assessing the government's digitisation and modernisation of the Public Distribution System (PDS) under the National Food Security Act (NFSA), 2013.

Achievements of the Public Distribution System

- ❖ **Extensive Coverage:** The PDS serves around 80.5 crore beneficiaries, making it one of the world's largest food-security networks.
- ❖ **Digital Records:** Nearly all beneficiary data have been digitised, creating a transparent registry of over 20.5 crore ration cards.
- ❖ **Aadhaar Integration:** Around 99.8% of ration cards are Aadhaar-seeded for at least one member, helping identify duplicate or ineligible beneficiaries.
- ❖ **FPS Automation:** About 99.6% of 5.43 lakh Fair Price Shops use electronic Point of Sale devices, with Aadhaar authentication covering over 97% of transactions.

- ❖ **Nationwide Portability:** One Nation One Ration Card enables migrant workers and beneficiaries to access entitled food grains from any participating Fair Price Shop nationwide.

ABOUT PUBLIC DISTRIBUTION SYSTEM

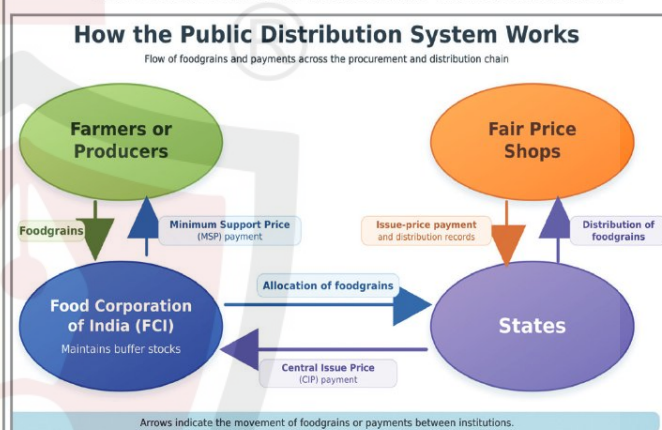
- ◆ **About:** The Public Distribution System (PDS) is India's flagship food-security network, providing essential commodities to eligible households at affordable, subsidised prices.
- ◆ **Central Government:** Through the Food Corporation of India (FCI), it procures rice and wheat at Minimum Support Prices, maintains buffer stocks, transports grains and allocates them to States and Union Territories.
- ◆ **State Governments:** They identify eligible households, issue ration cards, distribute food grains through Fair Price Shops (FPSs) and supervise last-mile delivery.

Evolution of Public Distribution System

- ◆ **1940s–1960s:** Originating in wartime rationing, the PDS expanded during the 1960s food shortages, supported by the Food Corporation of India and Agricultural Prices Commission, later renamed the Commission for Agricultural Costs and Prices.
- ◆ **1992:** The Revamped Public Distribution System extended food distribution to remote, backward and difficult-to-access areas.
- ◆ **1997:** The Targeted Public Distribution System introduced differentiated coverage and prices for Below Poverty Line and Above Poverty Line households.
- ◆ **2000:** The Antyodaya Anna Yojana provided highly subsidised food grains to the poorest households.
- ◆ **2013:** The National Food Security Act made food assistance a legal entitlement, covering up to 75% of rural and 50% of urban populations.

dealers, potentially encouraging closures or underweighing, such as providing 4.5 kg instead of 5 kg.

- ❖ **Nutritional Deficit:** The cereal-dominated PDS provides calories but limited dietary diversity; a six-state study found 80% of sampled households consumed inadequate protein.
- ❖ **ONORC Barriers:** Interstate portability faces dealer refusals, stock-allocation delays and authentication failures; interstate transactions remain substantially lower than intra-state portability transactions.
- ❖ **Digital Reliability:** SARTHAK-PDS depends on real-time connectivity; offline authentication protects access but delayed synchronisation weakens audit trails and increases fraudulent-transaction risks.



Key Recommendations of the Standing Committee

- ❖ **Beneficiary Verification:** Conduct a time-bound, mission-mode drive with mandatory field verification to correct beneficiary records.
 - ❖ **Inclusive Coverage:** Identify and include eligible but excluded households, particularly vulnerable and marginalised groups.
 - ❖ **Unified Digital System:** Implement SMART-PDS by integrating Central and State platforms to standardise operations and improve transparency, efficiency and service delivery.
 - ❖ **Last-Mile Connectivity:** Provide offline synchronisation and alternative authentication at Fair Price Shops (FPSs) in remote and no-network areas.
 - ❖ **FPS Modernisation:** Link electronic Point of Sale devices with weighing machines while strengthening grievance tracking and transactional transparency.
 - ❖ **Data Integration:** Connect PDS databases with the Food Corporation of India, Central Warehousing Corporation and Unique Identification Authority of India for seamless information sharing and monitoring.
 - ❖ **Supply-Chain Optimisation:** Implement the Artificial Intelligence-based Anna Chakra nationwide, integrate
- ❖ **Fiscal Pressure:** Free food grains for over 80 crore beneficiaries raised the 2025–26 revised food-subsidy estimate to about ₹2.28 lakh crore, potentially limiting investment in irrigation, cold chains and agricultural research.
 - ❖ **Leakages and Quality Risks:** An ICRIER estimate based on the 2022–23 Household Consumption Expenditure Survey found 28% grain leakage; digital authentication cannot prevent diversion or post-verification substitution with inferior stock.
 - ❖ **Inclusion Errors:** Census 2011-based ceilings exclude many new poor and urban migrants, while Aadhaar, biometric and connectivity failures can deny genuine beneficiaries access.
 - ❖ **FPS Viability:** Electricity, connectivity and electronic Point of Sale maintenance burden low-margin

Issues Associated with PDS Modernisation

it with PM Gati Shakti, and continuously monitor logistics to reduce transportation costs.

Public Examinations Amendment Act, 2026

Context

President Droupadi Murmu assented to the Public Examinations (Prevention of Unfair Means) Amendment Act, 2026, after Parliament passed the Bill.

Key Provisions of the Public Examinations Amendment Act, 2026

- ❖ **Individual Offences:** Paper leaks, impersonation or answer-sheet tampering attract 5–10 years' imprisonment and fines up to ₹50 lakh.
- ❖ **Organised Crime:** Examination syndicates and institutions involved in organised fraud face 7–10 years' imprisonment and a minimum ₹10 crore fine.
- ❖ **Service Providers:** Complicit information-technology vendors, printers or examination agencies face fines up to ₹5 crore and eight-year debarment.
- ❖ **Management Liability:** Responsible directors and senior managers of service providers face 5–10 years' imprisonment and fines up to ₹5 crore.
- ❖ **Time-Bound Investigation:** Police, central agencies or government-constituted Special Task Forces must complete investigations within two months.
- ❖ **Special Fast-Track Courts:** States and Union Territories must designate Sessions Courts, in consultation with High Court Chief Justices, for day-to-day hearings and three-month trials; pending cases under the 2024 Act will be transferred.
- ❖ **Appeals:** Appeals against judgments, sentences or bail orders ordinarily require filing within 30 days and disposal by a two-judge High Court Bench within three months.

HIGH-POWERED TASK FORCE ON EXAMINATION REFORMS

- ◆ The government constituted a six-member task force chaired by Nandan Nilekani, Infosys co-founder and founding Chairman of the Unique Identification Authority of India (2009–14).
- ◆ It will recommend technology-driven and institutional reforms to make public examinations reliable, transparent, secure, tamper-resistant and leak-proof.

Rationale for Reforming India's Testing Ecosystem

- ❖ **Centralised Vulnerabilities:** Centralised paper-setting, printing and physical transportation create single points of failure, where one breach can compromise an examination involving millions of candidates.

- ❖ **Outsourcing Risks:** The National Testing Agency's reliance on private technology vendors and examination centres creates uneven security standards, enabling server breaches, screen-sharing fraud, proxy candidates and organised "solver gangs."
- ❖ **Erosion of Meritocracy:** Examination fraud advantages organised syndicates and resource-rich candidates, undermining Article 14 on equality before law and Article 16 on equality of opportunity in public employment.
- ❖ **Economic and Employment Costs:** Paper leaks, cancellations and litigation delay recruitment and waste candidates' productive years. The International Labour Organization's India Employment Report 2024 noted that youth constituted nearly 83% of India's unemployed population, threatening the country's demographic dividend.
- ❖ **Coaching and Debt Burden:** Uncertain examination cycles have fuelled an estimated ₹50,000-crore-plus coaching industry, forcing many rural and lower-middle-income families to bear repeated fees, accommodation costs and prolonged indebtedness.
- ❖ **Psychological and Human Costs:** National Crime Records Bureau data indicate that student suicides increased by nearly 80% between 2014 and 2024, with examination failure among the recorded causes, highlighting the need for counselling and institutional support.
- ❖ **Technological Gaps:** The absence of uniform Zero-Trust security, encryption, access controls, real-time audit trails and secure question generation leaves examinations vulnerable to evolving cyberattacks and organised leak networks.

Building a Secure Public Examination System

Secure Technology

- ◆ **Just-in-Time Delivery:** Transmit encrypted papers through the National Knowledge Network, use dual-key decryption and print them locally only 15–30 minutes before examinations.
- ◆ **Question Randomisation:** Use Item Response Theory-based calibrated question banks to generate different papers of equal difficulty, making leaked answer keys ineffective.
- ◆ **Secure Digital Testing:** Conduct computer-based tests through air-gapped intranets, disable remote-access applications and maintain tamper-proof logs while protecting candidate data under the Digital Personal Data Protection Act, 2023.

Institutional Reform	<ul style="list-style-type: none"> ◆ Public Testing Network: Upgrade Kendriya Vidyalayas, Indian Institutes of Technology, National Institutes of Technology and approved public colleges into permanent testing hubs, reducing dependence on private centres. ◆ National Testing Agency Reform: Provide the agency with professional staff, independent funding and clear accountability instead of relying excessively on outsourced vendors. ◆ Independent Audits: Mandate Standardisation Testing and Quality Certification Directorate audits and ISO/IEC 27001 compliance, supported by an independent examination ombudsman for surprise inspections and whistle-blower complaints.
Procedural Reform	<ul style="list-style-type: none"> ◆ Multiple Examination Cycles: Replace single-day examinations involving nearly 24 lakh candidates, such as the National Eligibility cum Entrance Test, with multiple sessions and best-of-two or three scores, similar to the Joint Entrance Examination Main. ◆ Layered Identity Checks: Verify candidates at registration, entry and during computer-based tests using facial, iris or fingerprint authentication, with privacy safeguards and non-Aadhaar alternatives.
Long-Term Reform	<ul style="list-style-type: none"> ◆ Diversified Assessment: Strengthen Performance Assessment, Review and Analysis of Knowledge for Holistic Development to standardise school-board assessments and combine Class 12 performance with entrance scores. ◆ Coaching Regulation: Give statutory backing to the 2024 Coaching Centre Guidelines to ensure transparent fees, proportional refunds, counselling and penalties for misleading rank guarantees or involvement in examination fraud.

implementing the Prime Minister's Independence Day 2025 vision to unlock India's offshore energy potential.

About the Scheme

- ❖ It is a Central Sector Scheme of the Ministry of Petroleum and Natural Gas.
- ❖ It has an outlay of ₹84,084 crore until 2030–31 for deepwater, ultra-deepwater and frontier exploration.
- ❖ Offshore exploration requires five to ten years, while one deepwater well costs \$125–150 million.
- ❖ Existing oil and gas fields experience an annual natural production decline of approximately 6–7%.
- ❖ The scheme seeks to de-risk exploration, attract investment, increase production and reduce import dependence.
- ❖ It supports Viksit Bharat, Make in India and Atmanirbhar Bharat through domestic energy development.
- ❖ Activities include seismic-data acquisition and interpretation, scientific drilling and accelerated deepwater exploration.
- ❖ Infrastructure includes common production and evacuation hubs and an integrated oil and gas manufacturing-services zone.
- ❖ It also supports digital management, capacity building, technology adoption, stakeholder engagement and international cooperation.
- ❖ Allocation includes ₹43,200 crore for 60 wells, ₹28,534 crore for seismic surveys, ₹10,000 crore for infrastructure hubs and ₹2,000 crore for manufacturing-services zones.
- ❖ Government support covers 50% of eligible drilling costs, capped at ₹675 crore per well.
- ❖ Priority basins include Krishna-Godavari, Cauvery, Mahanadi and the Andaman region.

GOBARDhan National Circular Bioenergy Scheme

Context

The Union Cabinet approved the GOBARDhan National Circular Bioenergy Scheme to convert organic waste into clean energy and strengthen rural prosperity.

About the Scheme

- ❖ It converts animal waste, crop residue, kitchen waste and market waste into compressed biogas and bio-slurry.
- ❖ Approved on 6 August 2026, it will operate from 2026–27 to 2035–36 under the Petroleum Ministry.

Prelims News

Samudra Manthan: National Offshore Exploration Scheme

Context

The Union Cabinet approved Samudra Manthan,

- ❖ The scheme has an outlay of ₹23,731 crore, unifying the previously fragmented compressed-biogas ecosystem.
- ❖ Its six growth engines cover assured offtake, pricing, capital support, pipelines, credit guarantees and ecosystem development.
- ❖ It seeks to increase domestic compressed biogas production nearly tenfold and attract private investment.
- ❖ The circular bioeconomy will convert villages into clean-energy centres while supporting farmers and national energy security.
- ❖ India imports nearly half its natural gas; 55–60% of liquefied natural gas imports pass through the Strait of Hormuz.
- ❖ The GOBARDhan Unified Registration Portal registers existing and proposed compressed biogas or Bio-CNG plants for government support.
- ❖ By 6 August 2026, 1,908 plants were registered, including 217 commissioned and 339 under construction.
- ❖ Commissioned plants collectively produced 0.4 million metric standard cubic metres per day.

may invest in the share capital of cooperative-development entities.

- ❖ NCDC may exchange credit and related information with the Central Government, Reserve Bank of India, banks and notified financial institutions.

About National Cooperative Development Corporation (NCDC)

- ❖ NCDC is a statutory organisation established in 1963 under the NCDC Act, 1962, amended in 1973, 1974 and 2002 to expand its mandate and direct-financing powers.
- ❖ It functions under the administrative control of the Ministry of Cooperation.
- ❖ It promotes farmer cooperatives by financing production, productivity, processing, storage, cold chains, marketing and other post-harvest infrastructure.
- ❖ It also supports dairy, livestock, handloom, poultry and fisheries cooperatives, including those led by women and Scheduled Castes/Scheduled Tribes.
- ❖ NCDC disbursements increased from ₹5,735 crore in 2014–15 to ₹95,182 crore in 2024–25, reflecting its expanding rural-credit role.
- ❖ Under the National Cooperation Policy, 2025, NCDC supports transparent, technology-driven and professionally managed cooperatives aligned with Viksit Bharat 2047.
- ❖ Implementation involves institutions such as IFFCO, NAFED, Amul, KRIBHCO, NDDB, NCEL and NABARD, strengthening India's cooperative ecosystem.

National Cooperative Development Corporation (Amendment) Bill, 2026

Context

Parliament passed the Bill to amend the National Cooperative Development Corporation Act, 1962, expanding NCDC's financing and development mandate.

Key Provisions

- ❖ The National Cooperative Development Corporation (NCDC) may directly finance any cooperative society or entity engaged in cooperative development, subject to prescribed conditions.
- ❖ Earlier, direct loans and grants were limited to national-level and multi-State cooperatives.
- ❖ Financing through State Governments will continue alongside the expanded direct-financing channel.
- ❖ "Foodstuffs" now includes processed food and other items notified by the Central Government, widening eligibility.
- ❖ Industrial cooperatives, cottage and village industries and allied industries need no longer be located only in rural areas.
- ❖ With prior Central Government approval, NCDC

One Herb, One Standard Initiative

Context

The Ministry of Ayush and Ministry of Health and Family Welfare renewed their partnership under the initiative for three years.

About the Initiative

- ❖ The initiative establishes uniform quality and testing standards for medicinal plants used across different medical systems.
- ❖ It is jointly implemented by the Pharmacopoeia Commission for Indian Medicine & Homoeopathy and Indian Pharmacopoeia Commission.

- ❖ It harmonises monographs across the Indian Pharmacopoeia and Ayurveda, Siddha, Unani and Homoeopathic pharmacopoeias.
- ❖ Standards cover plant-based drugs used in Ayurveda, Siddha, Sowa-Rigpa, Unani and Homoeopathy.
- ❖ The first phase, initiated in 2022, successfully developed 50 single-herb monographs.
- ❖ International quality parameters are incorporated to improve the safety, quality and global credibility of Indian botanical products.
- ❖ A unified reference eliminates conflicting requirements for testing laboratories, regulators and manufacturers, supporting trade and compliance.

- ❖ State List Entry 23 covers mineral development subject to Union law, while Entry 50 permits taxation of mineral rights within parliamentary limits.
- ❖ State List Entry 49 authorises taxation of land, including mineral-bearing land.
- ❖ The Centre regulates major minerals and royalty rates; States grant leases, collect royalties and largely regulate minor minerals.
- ❖ In 2024, the Supreme Court held that royalty is a contractual payment for mineral rights, not a tax.

Supreme Court Directions on Electoral Black Money

Context

The Supreme Court held that eliminating black money from elections is a responsibility of the Election Commission of India (ECI).

Key Directions

- ❖ Seized cash or assets must be reported within 24 hours to the District Magistrate, Additional District Magistrate or competent court.
- ❖ The report must establish a prima facie connection between the seizure and suspected electoral offences.
- ❖ Investigations into election-related First Information Reports must ordinarily conclude within one year, with delays reported and justified to the ECI.
- ❖ Investigating Officers must furnish quarterly status reports on pending election-related black money cases to the ECI.
- ❖ Static Surveillance Teams must notify Income Tax authorities whenever detected cash exceeds ₹10 lakh.
- ❖ High Courts must facilitate speedy trials, including through designated courts wherever required.
- ❖ Criminal cases against candidates concerning an election cycle cannot be withdrawn without the concerned High Court's approval.
- ❖ The ECI and State Governments must submit compliance reports by 18 November 2026.

Mines and Minerals (Development and Regulation) Amendment Bill, 2026

Context

Parliament passed the Bill to establish a uniform fiscal framework by restricting State levies on mineral rights and mineral-bearing lands.

Key Provisions

- ❖ It amends the Mines and Minerals (Development and Regulation) Act, 1957, bringing mineral-bearing lands explicitly under Union regulation.
- ❖ New Section 9D bars States from taxing mineral rights or mineral-bearing lands except under conditions prescribed by the Centre.
- ❖ The restriction covers levies based on the quantity or value of minerals, royalty payments or other parameters.
- ❖ Unpaid or unrecovered past levies become invalid, while amounts already collected will not be refunded.
- ❖ Amended Section 13 empowers the Central Government to prescribe parameters for future State levies.

Current Framework Governing Minerals

- ❖ Union List Entry 54 permits parliamentary regulation of mines and mineral development in the public interest.



MISCELLANEOUS



Places in News

Sigur Elephant Corridor	<ul style="list-style-type: none"> ◆ The Sigur Plateau, also spelt Segur, lies in Tamil Nadu is an ecologically fragile corridor which connects Western and Eastern Ghats. ◆ It supports elephant movement and genetic diversity. Elephants traverse the plateau while searching for food, water and suitable habitats. ◆ It lies between the Nilgiri Hills in the southwest and the Moyar River Valley in the northeast. ◆ The plateau forms part of the Nilgiri Biosphere Reserve, included in UNESCO's World Network of Biosphere Reserves. ◆ The Supreme Court upheld the removal of all commercial activities from the Sigur Plateau, which has been declared an elephant corridor.
Black Sea	<ul style="list-style-type: none"> ◆ The Black Sea is a low-tidal, brackish intercontinental sea located between Europe and Asia. ◆ It is considered a marginal sea of the Atlantic Ocean. It is the world's largest meromictic basin, where deep and surface waters do not mix. ◆ Over 90% of its deeper waters are oxygen-deficient, severely limiting marine life. ◆ It is bordered by Russia, Ukraine, Türkiye, Bulgaria, Romania and Georgia. ◆ The Kerch Strait connects it with the Sea of Azov, while the Bosphorus Strait connects it with the Sea of Marmara. ◆ Major rivers draining into it include the Danube, Dnieper and Dniester. ◆ Four Indian crew members were killed in a Russian attack on a merchant vessel in the Black Sea off Ukraine's coast.
Ceuta Enclave	<ul style="list-style-type: none"> ◆ Ceuta is a Spanish autonomous city on the northern coast of Africa, bordering Morocco near the Strait of Gibraltar. ◆ It forms part of Spain and the European Union, although Morocco claims sovereignty over it. ◆ Ceuta and Melilla constitute the European Union's only land borders with Africa. ◆ At least 34 people died while attempting to cross from Morocco into Spain's Ceuta enclave.
Lake Mead	<ul style="list-style-type: none"> ◆ Lake Mead is an artificial reservoir situated in the Mojave Desert of the United States. ◆ It is the country's largest reservoir by water-storage capacity. ◆ It was created during the 1930s by constructing the Hoover Dam across the Colorado River. ◆ The Colorado River forms part of the international boundary between the United States and Mexico. ◆ Lake Mead has fallen to its lowest water level since it was filled nearly 90 years ago.
Rub' al Khali (Empty Quarter)	<ul style="list-style-type: none"> ◆ Rub' al Khali is the world's largest continuous sand desert, covering over 650,000 square kilometres. ◆ It lies mainly in southeastern Saudi Arabia and extends into Oman, the United Arab Emirates and Yemen. ◆ It is among Earth's driest regions, receiving less than 3 centimetres of annual rainfall. ◆ Summer temperatures can exceed 50°C, followed by sharp declines during the night. ◆ The desert has traditionally been inhabited and traversed by Bedouin communities. ◆ Oman and Saudi Arabia signed a cross-border freight agreement using the direct Rub' al Khali road as an alternative to maritime chokepoints such as the Strait of Hormuz.

Kuril Islands	<ul style="list-style-type: none"> ◆ The archipelago comprises 22 major islands, 36 smaller islets and several rocks, covering around 15,600 square kilometres. ◆ It extends between Russia's Kamchatka Peninsula and Japan's Hokkaido. ◆ The islands separate the Pacific Ocean in the east from the Sea of Okhotsk in the west. ◆ They form part of the Pacific Ring of Fire, which experiences frequent earthquakes and volcanic eruptions. ◆ The volcanic island chain contains stratovolcanoes formed through subduction, which also created the Kuril Trench. ◆ Japan protested the Russian President's visit to the Kuril Islands, reflecting continuing tensions over the disputed archipelago.
Hara Mangroves	<ul style="list-style-type: none"> ◆ The mangroves are located mainly around Qeshm Island, near the Strait of Hormuz in the Persian Gulf. ◆ They are dominated by the salt-tolerant <i>Avicennia marina</i>, or grey mangrove, locally called hara or harra. ◆ The ecosystem was designated a Ramsar Wetland in 1975 and a UNESCO Biosphere Reserve in 1976. ◆ It provides habitat for hawksbill and green turtles, Dalmatian pelicans and migratory birds. ◆ The mangroves also sustain fisheries, coastal protection and local livelihoods. ◆ A marine oil spill in the Persian Gulf contaminated Iran's Qeshm Island, threatening the ecologically sensitive Hara mangroves.
Banni Grasslands	<ul style="list-style-type: none"> ◆ Banni Grasslands lie along the northern boundary of Kachchh district in Gujarat. ◆ The landscape includes the Kutch Desert Wildlife Sanctuary and Chhari Dhand Conservation Reserve. ◆ It supports 22 ethnic communities, including the Maldharis, Rabaris, Jats, Mutwas and Meghwals. ◆ Gujarat released 20 blackbucks into Kutch's Banni Grassland to restore its native herbivore community and strengthen ecological processes.

Personality in News

Chandra Shekhar Azad (1906-1931)

Context

The PM Modi paid homage to revolutionary freedom fighter Chandra Shekhar Azad on his birth anniversary.



About Chandra Shekhar Azad

- ❖ Azad was born on 23 July 1906 at Bhavra village in present-day Madhya Pradesh.
- ❖ Arrested during the Non-Cooperation Movement in 1921, he declared his name as "Azad," meaning free.
- ❖ He joined the Hindustan Republican Association (HRA) and worked closely with Ram Prasad Bismil.
- ❖ He participated in the Kakori Train Robbery of 9 August 1925 to seize government funds for revolutionary activities.
- ❖ Along with Bhagat Singh, Sukhdev and Rajguru, he reorganised HRA as the Hindustan Socialist Republican Association (HSRA).

- ❖ Revolutionaries targeting James Scott for Lala Lajpat Rai's death mistakenly killed police officer John P. Saunders.
- ❖ Surrounded by police at Alfred Park, Allahabad, Azad shot himself on 27 February 1931.
- ❖ His life embodied courage, leadership, nationalism, equality and patriotism.

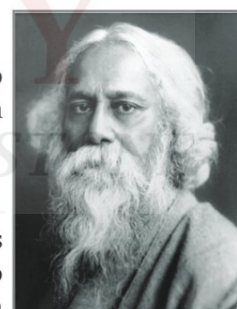
Rabindranath Tagore (1861-1941)

Context

The Home Minister paid tribute to Gurudev Rabindranath Tagore on his death anniversary.

About Rabindranath Tagore

- ❖ Born in Calcutta, Tagore was the youngest son of Brahmo Samaj leader Debendranath Tagore and was primarily home-educated.
- ❖ He published over 50 poetry volumes, including *Manasi*, *Sonar Tari* and *Gitanjali: Song Offerings*.



- ❖ In 1913, he became the first Indian and non-European recipient of the Nobel Prize in Literature for Gitanjali.
- ❖ He composed India's national anthem, "Jana Gana Mana," and Bangladesh's "Amar Shonar Bangla."
- ❖ He established an experimental school at Shantiniketan, which is now a UNESCO World Heritage Site.
- ❖ Knighted by the British in 1915, he renounced the honour after the Jallianwala Bagh Massacre of 1919.
- ❖ His life reflected humanism, patriotism, freedom of thought, creativity, peace and love for nature.

Species in News

Allographa

Context

Researchers identified five new species of lichen-forming fungi belonging to the genus *Allographa* in the Western Ghats.

About *Allographa*

- ❖ *Allographa* is a genus of script lichens with elongated fruiting bodies, belonging to the family Graphidaceae.
- ❖ It contains over 200 species, but its recorded diversity in India, particularly the Western Ghats, remains limited.
- ❖ These lichens are sensitive to pollution, climatic changes and habitat disturbance, making them reliable ecosystem-health indicators.
- ❖ The species identified are *A. keralensis*, *A. paraconsanguinea*, *A. persistinspersa* and *A. semicarbonisata*.

About Lichens

- ❖ Lichens are composite organisms formed through symbiosis between a fungus and a photobiont, usually algae or cyanobacteria.
- ❖ The fungus provides structure and protection, while the photobiont performs photosynthesis and produces food.
- ❖ Lichens support soil formation, insect food chains and pollution monitoring as natural bioindicators.

White-bellied Heron

Context

A proposed 1,200 MW hydropower project on Arunachal Pradesh's Lohit River threatens the habitat of the critically endangered White-bellied Heron.



About White-bellied Heron

- ❖ The White-bellied Heron (*Ardea insignis*), also called the imperial heron, belongs to the family Ardeidae.
- ❖ It is the world's second-largest heron, reaching nearly four feet in height, and is highly elusive.
- ❖ It inhabits undisturbed, fast-flowing eastern Himalayan rivers bordered by mature riparian forests, up to about 1,500 metres.
- ❖ It primarily catches fish in shallow rapids, making it sensitive to dams, flow alterations and increased water turbidity.
- ❖ Its flexible neck, serrated bill, compact body, shorter legs and extended toes are adapted to turbulent rivers.
- ❖ It is largely solitary, nests in tall riparian trees and produces deep croaks around dawn and dusk.
- ❖ Fewer than 60 individuals survive across Bhutan, India, Myanmar, China and Bangladesh, covering nearly 165,000 square kilometres.
 - Bhutan contains around 45% of the global population and 3–5 breeding pairs; it is extinct in Nepal and possibly Bangladesh.
- ❖ India has only 6–9 individuals, mainly in Arunachal Pradesh's Lohit, Anjaw and Changlang districts.
- ❖ They occur around Namdapha and Kamlang Tiger Reserves and along the Noa-Dehing, Lahm and Lohit rivers.
- ❖ The Lahm River basin supports nearly 70% of India's population, while Walong Cantonment is a known breeding site.
- ❖ It is Critically Endangered on the IUCN Red List and protected under Schedule I of the Wildlife Protection Act, 1972.

Pygmy Hog

Context

The Standing Committee of the National Board for

Wildlife recommended including the pygmy hog among critically endangered species covered under a Centrally Sponsored Scheme.



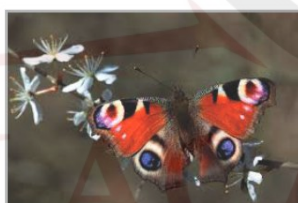
About Pygmy Hog

- ❖ The pygmy hog is the world's smallest and rarest wild pig and the only species of genus *Porcula*.
- ❖ It is classified as Endangered by the International Union for Conservation of Nature (IUCN).
- ❖ It is protected under Schedule I of the Wildlife (Protection) Act, 1972 and Appendix I of CITES.
- ❖ Its natural habitat comprises tall alluvial grasslands of the sub-Himalayan Terai-Duar region.
- ❖ Its wild population survives mainly in Assam's Manas National Park.
- ❖ Reintroduced populations occur in Orang National Park, Barnadi Wildlife Sanctuary and Sonai-Rupai Wildlife Sanctuary.
- ❖ It lives in small family groups and constructs distinctive grass-lined nests on the ground.

Lepidoptera

Context

The Zoological Survey of India completed India's first comprehensive catalogue of butterflies and moths after over 12 years of research.



About Lepidoptera

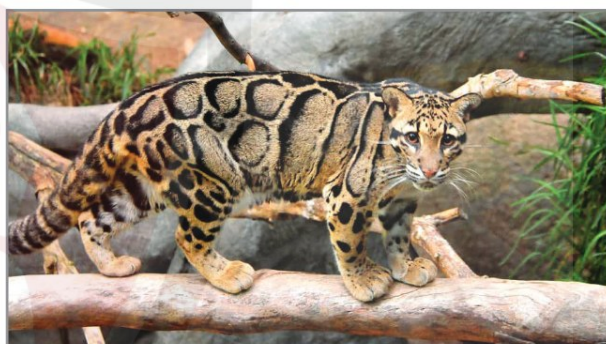
- ❖ The catalogue addresses century-old taxonomic gaps through field surveys, museum collections and scientific literature.
- ❖ It comprises 22 volumes, with the final volume published in the international journal *Zootaxa*. The concluding volume catalogued the remaining 1,689 species.
- ❖ India hosts 13,703 Lepidoptera species, representing nearly 8.25% of known global butterfly and moth diversity.

- India records 2,205 Geometroidea moth species, accounting for approximately 8.8% of their global diversity.
- Geometridae has 2,100 species, followed by Uraniidae with 95, Epicopeiidae with nine and Pseudobistonidae with one.
- The family Sematuridae is absent from India.
- ❖ Butterflies and moths function as pollinators, herbivores and detritivores and support birds, bats and other insectivores.

Clouded Leopard

Context

On International Clouded Leopard Day (4 August), India reaffirmed its conservation commitment through the newly launched Clouded Leopard Conservation Action Plan.



About Clouded Leopard

- ❖ The mainland clouded leopard is scientifically known as *Neofelis nebulosa*.
- The Sunda clouded leopard (*Neofelis diardi*) is a separate species restricted to Sumatra and Borneo.
- ❖ Its global range covers the Himalayan foothills, Southeast Asia and southern China.
- ❖ In India, it primarily inhabits subtropical and tropical evergreen forests of the Northeast.
- ❖ Its habitat extends from mangrove swamps to Himalayan forests at approximately 6,000–9,000 feet.
- ❖ It is the smallest member of the big-cat subfamily Pantherinae, weighing around 11–20 kilograms.
- ❖ Its hyoid-bone structure enables it to purr like smaller cats, but prevents it from roaring.
- ❖ It becomes nocturnal and arboreal around tigers and common leopards but is more active during daylight when they are absent.
- ❖ It is classified as Vulnerable by the International Union for Conservation of Nature. It is listed under

Appendix I of CITES and Schedule I of the Wildlife Protection Act, 1972.

- ❖ It is the official State Animal of Meghalaya.
- ❖ Tripura's Clouded Leopard National Park, within Sepahijala Wildlife Sanctuary, is India's first dedicated park for the species.
- ❖ It also occurs in Manas, Dampa and Pakke Tiger Reserves.

Asiatic Wild Water Buffalo

Context

Chhattisgarh plans to translocate wild buffaloes from Assam to revive its declining population.

About Asiatic Wild Water Buffalo

- ❖ The Asiatic wild water buffalo (*Bubalus arnee*) occurs in India, Nepal, Bhutan, Thailand and Cambodia.
- ❖ India hosts over 90% of the global population, estimated at 3,500–3,700 individuals.
- ❖ Major populations occur in Assam's Kaziranga National Park, with smaller populations in Meghalaya, Chhattisgarh and Maharashtra.
- ❖ It inhabits open grasslands, alluvial plains and marshes. It may use woodlands for shelter during extreme heat or heavy rainfall.
- ❖ It is classified as Endangered on the International Union for Conservation of Nature Red List.
- ❖ It is protected under Schedule I of the Wildlife Protection Act, 1972 and Appendix III of CITES.

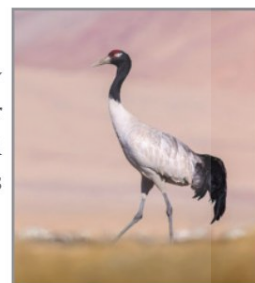


- ❖ In India, it occurs across the Gangetic plains, extending towards Himachal Pradesh, northern Odisha and Assam.
 - ✱ Outside India, it occurs in Bangladesh, Nepal, Myanmar and Cambodia.
- ❖ It has a long slender neck, pale underparts and a distinctive dark, narrow bill.
- ❖ It feeds on carrion, gathers near carcasses and uses efficient gliding flights to locate food.
- ❖ Its population declined mainly after consuming livestock carcasses containing diclofenac and other non-steroidal anti-inflammatory drugs.
- ❖ It is classified as Critically Endangered by the International Union for Conservation of Nature.
- ❖ It receives the highest legal protection under Schedule I of the Wildlife Protection Act, 1972.

Black-necked Crane

Context

The Bombay Natural History Society (BNHS) sterilised over 2,950 free-ranging dogs in Ladakh to protect crane nests and chicks in alpine wetlands.



About Black-necked Crane

- ❖ The Black-necked Crane (*Grus nigricollis*) is a medium-sized crane adapted to high-altitude wetlands.
- ❖ It is locally called “cha thung-thung” in Ladakh and “thungdung karma” in Arunachal Pradesh.
- ❖ It has a whitish-grey body, black head and upper neck, red eye patches and long wading legs.
- ❖ It inhabits high-altitude marshes and lakes across the Tibetan Plateau, Sichuan and eastern Ladakh.
 - ✱ Small wintering populations occur in Arunachal Pradesh's Sangti and Zimithang valleys.
- ❖ It has an omnivorous diet comprising sedge tubers, plant roots, earthworms, insects, invertebrates and frogs.
- ❖ It breeds at elevations of 2,600–4,900 metres, nesting with grasses and sedges in gently sloping wetlands.
- ❖ Major breeding areas include Changthang Cold Desert Wildlife Sanctuary, particularly Hanle, Tso Kar, Nyoma and nearby marshes.
- ❖ In Ladakh's Buddhist culture, it is regarded as a sacred symbol of peace, purity and good fortune.

Slender-billed Vulture

Context

Five captive-bred slender-billed vultures from the Bombay Natural History Society (BNHS) conservation facility in Assam were released into the wild.

About Slender-billed Vulture

- ❖ The slender-billed vulture (*Gyps tenuirostris*) is an Old World vulture native to the sub-Himalayan region.
- ❖ It inhabits wetlands, wooded areas and open countryside but generally avoids areas near human settlements.



Blackbuck

Context

Gujarat released 20 blackbucks into Kutch's Banni Grassland to restore its native herbivore community and ecological processes.



About Blackbuck

- ❖ The blackbuck is a fast, medium-sized diurnal antelope native to India and Nepal.
- ❖ It inhabits open grasslands, dry scrublands and sparsely forested areas.
- ❖ In India, it occurs across Rajasthan, Gujarat, Madhya Pradesh, Tamil Nadu, Odisha and much of peninsular India.
- ❖ It is the State Animal of Punjab, Haryana and Andhra Pradesh.
- ❖ It is classified as Least Concern by the International Union for Conservation of Nature.
- ❖ It is protected under Schedule I of the Wildlife Protection Act, 1972 and Appendix III of CITES.

Military Exercises in News

Operation Southern Readiness

Context

The Indian Navy hosted Operation Southern Readiness 26-2 at the Southern Naval Command in Kochi.

About Operation Southern Readiness

- ❖ It is a multinational maritime-security training exercise and the first Southern Readiness edition hosted in India.
- ❖ It is conducted under the Indian Navy-led Combined Task Force 154 (CTF 154).
- ❖ The exercise is organised in partnership with the Combined Maritime Forces (CMF).

- ❖ CMF is a 47-nation maritime partnership promoting security, stability and prosperity across international waters.
- ❖ It upholds the international rules-based order by countering illicit non-state actors on the high seas.

Explosive Ordnance Disposal Exercise

Context

The eighth India–United States Navy Explosive Ordnance Disposal (EOD) Exercise will be held at Southern Naval Command, Kochi.

About Explosive Ordnance Disposal Exercise

- ❖ The bilateral exercise focuses on underwater salvage, bomb disposal and explosive-ordnance neutralisation.
- ❖ It evolved from the joint salvage and EOD series conducted under the SALVEX banner since 2005.
- ❖ Specialist diving and EOD teams from the Indian and United States navies participate in the exercise.
- ❖ It strengthens operational interoperability, professional cooperation and tactical coordination between their specialist units.
- ❖ Subject-matter exchanges cover modern EOD techniques, operational concepts and safety protocols.

Exercise MAITREE-XV

Context

An Indian Army contingent departed for Surat Thani, Thailand, to participate in the 15th India–Thailand Joint Military Exercise MAITREE.

About Exercise MAITREE-XV

- ❖ MAITREE is a bilateral exercise between the Indian Army and Royal Thai Army, strengthening cooperation, trust and interoperability.
- ❖ It began in 2006 as the Thai-Indian Cooperation Field Exercise and was renamed MAITREE, meaning "Friendship," in 2013.
 - ❖ Hosted alternately by both countries, it resumed in 2024 following a five-year gap after 2019.
- ❖ The company-level exercise covers counter-insurgency and counter-terrorism operations in jungle and semi-urban terrain.
- ❖ Operations are conducted under Chapter VII of the United Nations Charter.
- ❖ Training includes field exercises, combat discussions, lectures, demonstrations, joint planning and tactical drills.





LK ACADEMY
YOUR GUIDE TO THE NEXT MILESTONE

