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Heartiest *Congratulations* to All

1. POLITY & GOVERNANCE

1.1   SUPREME COURT ON TRIBUNALS REFORMS

Context

- The Supreme Court has recently highlighted severe systemic issues within the tribunal system, describing it as a "mess" due to a lack of accountability, executive overreach, and operational flaws.

About Tribunals

- Tribunals are **quasi-judicial institutions** established by law to handle disputes in specific areas.
- They are designed to be a faster, cheaper, and more accessible alternative to traditional courts, leveraging domain expertise for effective adjudication.
- **Constitutional Basis:** Tribunals were incorporated into the Constitution via the **42nd Amendment Act, 1976**, which added **Part XIV-A**.
  - **Article 323A:** Empowers Parliament to create **Administrative Tribunals** for resolving disputes related to the recruitment and service conditions of public servants.
  - **Article 323B:** Allows Parliament and State Legislatures to establish tribunals for other specific matters like taxation, industrial and labour disputes, land reforms, and foreign exchange.
- **Key Features:**
  - Operate on principles of **natural justice**, not strictly bound by the rigid Code of Civil Procedure or the Indian Evidence Act.
  - Composed of both **judicial and technical members** to ensure legal and domain expertise.
  - Decisions are legally binding, but subject to the power of **judicial review** by the High Courts and the Supreme Court.

Systemic Issues Undermining Tribunals

- **Executive Dominance:** The executive's control over appointments, service conditions, and tenure of tribunal members undermines the principle of separation of powers and judicial independence.
- **Lack of Accountability & Malpractice:** The SC has noted a "breakdown of judicial discipline," with technical members allegedly outsourcing judgment writing.
- **High Vacancies and Pendency:** Government's failure to fill vacancies in a timely manner leads to huge backlogs, defeating the goal of speedy justice.
  - Nearly **38,000 cases** are pending in the Armed Forces Tribunals.
  - Commercial tribunals face a backlog of **356,000 cases**, valued at **7.5% of GDP (2024-25)**.
- **Lack of Domain Expertise:** Technical members are sometimes appointed without the necessary specialized knowledge in complex fields (e.g., environmental law), undermining the expert body's purpose.
- **Erosion of Authority:** Overlapping tribunal jurisdictions and frequent appeals to higher courts weaken the finality and authority of tribunal decisions.

The Supreme Court's Role in Shaping Tribunal Jurisprudence

- **L. Chandra Kumar vs Union of India (1997):** Declared that the power of **judicial review** of High Courts (Art. 226/227) and the Supreme Court (Art. 32) over tribunal decisions are part of the **Basic Structure** and cannot be excluded.
- **Union of India vs. R. Gandhi (2010):** Ruled that judicial members must not be outnumbered by technical members on any bench to preserve the judicial character of the tribunal.

- **Rojer Mathew vs. South Indian Bank Ltd (2019):** Struck down rules giving the executive excessive control over the removal of members. Highlighted that short tenures undermine judicial independence.
- **Madras Bar Association Cases (2020, 2025):** Pushed for the creation of an independent **National Tribunals Commission (NTC)**. Struck down provisions in the Tribunals Reforms Act, 2021, like a minimum age of 50 and a four-year tenure, as they were arbitrary and hindered independence.

Way Forward

- **Establish a National Tribunals Commission (NTC):** An independent body is essential to manage all aspects of tribunals, including appointments, administration, infrastructure, and performance evaluation. This will insulate them from executive interference.
- **Ensure Judicial Independence:** The appointment and removal processes must be free from executive discretion. Following

judicial precedents on tenure and service conditions is non-negotiable.
- **Fill Vacancies Promptly:** A transparent and efficient mechanism is needed to fill vacancies to tackle the backlog of cases.
- **Dedicated Financial Autonomy:** Allocating a dedicated budget for tribunals will ensure they have the necessary infrastructure and resources to function effectively.
- **Adherence to SC Directives:** Government must implement the directions laid down by the Supreme Court in its various judgments and refrain from re-enacting provisions that have already been struck down.

Conclusion

- Tribunals offer specialized and fast justice, but **executive interference and structural issues hurt their efficacy,** the Supreme Court has proposed a National Tribunals Commission (NTC) to ensure independence and restore credibility.

1.2   PRIVATE MEMBER'S BILL ON JUDICIAL DIVERSITY

Context

- A Private Member's Bill in Parliament has raised concerns about the higher judiciary's lack of social diversity in appointments and advocated for regional benches of the Supreme Court to enhance access to justice.

What are the Key Proposals of the Bill?

- **Proportional Representation:** The Bill mandates that appointments to the Supreme Court and High Courts must provide due representation to **Scheduled Castes (SC), Scheduled Tribes (ST), Other Backward Classes (OBC), religious minorities, and women**, in proportion to their population.
  - o Data indicates that between **2018 and 2024**, only about **20%** of appointees to the higher judiciary were from SC, ST, and OBC communities.

  - o Women and religious minorities accounted for less than **15%** and **5%** of appointments, respectively.
- **Time-Bound Appointments:** It proposes a strict deadline of **90 days** for the Central Government to notify appointments recommended by the collegium, aiming to prevent administrative delays.
- **Regional Benches of the Supreme Court:** The Bill suggests establishing permanent regional appellate benches in **New Delhi, Kolkata, Mumbai, and Chennai**. While these benches would handle regular appeals, the main **Constitution Bench in Delhi** would continue to hear matters of national and constitutional importance exclusively.

Constitutional Framework for Judicial Appointments

- **Article 130:** Specifies that the Supreme Court shall sit in **Delhi**, or in other places as the

Chief Justice of India (CJI) may decide with the President's approval.

- **Article 124:** Governs the appointment of Supreme Court judges by the President after consultation with the CJI and other judges.
- **Article 217:** Governs the appointment of High Court judges by the President after consultation with the CJI, the Governor, and the Chief Justice of the concerned High Court.
- **Article 127:** Allows the CJI to appoint a High Court judge as an **ad-hoc judge** of the Supreme Court to meet quorum requirements, with the President's consent.
- **Article 128:** Allows the CJI to request a retired Supreme Court judge to act as a judge, with the President's consent.

Challenges Hindering Diversity in the Judiciary

- **Lack of Transparency:** The opaque Collegium system for judicial appointments lacks public criteria, risking the perpetuation of unconscious biases and limiting the inclusion of diverse candidates.
- **Socio-Economic Barriers:** The "Uncle Judge" syndrome (nepotism) favors those from established legal families, excluding first-generation and marginalized lawyers. The Constitution does not mandate reservations (for SC, ST, or OBC) in the higher judiciary, unlike other public employment.
- **Gender Disparity:** A "leaky pipeline" sees women's representation drop sharply at higher judicial levels, constituting only about 14% of High Court judges.
  - Systemic hurdles like the demanding nature of litigation, caregiving expectations, and lack of institutional support contribute to this exclusion.
- **Geographical Barriers:** The Supreme Court's single location in New Delhi creates financial and logistical difficulties for talented lawyers from distant regions to gain the visibility necessary for judicial appointment consideration.

Way Forward to Enhance Diversity

- **Activate Article 130 for Regional Benches:** As recommended by the **229th Law Commission Report (2009)**, the CJI can establish regional benches without a constitutional amendment, using the existing powers under Article 130.
- **Reform the Appointment Process:** Amend the **Memorandum of Procedure (MoP)** to include diversity (caste, gender, region, religion) as a key criterion for judicial appointments.
  - Reformed and more transparent version of the **National Judicial Appointments Commission (NJAC)** that includes representatives from the executive, judiciary, and civil society to democratize the selection process.
- **Improve Workplace Infrastructure:** Providing essential facilities like crèches, safe washrooms, and robust anti-harassment mechanisms in courts can help retain more women in the legal profession.
- **Establish Formal Mentorship Programs:** Create institutional support systems to guide and mentor first-generation lawyers from Dalit, Adivasi, and minority communities, helping them build their practice and gain visibility.

Conclusion

- Ensuring diversity in the higher judiciary through structural reforms like regional benches and transparent appointments is essential for strengthening the rule of law and public trust.

1.3   ANTI-DEFECTION LAW (TENTH SCHEDULE)

Context

- The Supreme Court issued a final deadline to the Telangana Assembly Speaker to decide on pending disqualification petitions against defecting MLAs.

What is Anti-Defection Law?

- **Constitutional Basis**: The law was introduced through the **52nd Constitutional Amendment Act, 1985**, to combat the problem of political defections.
- **Key Amendment**: The **91st Constitutional Amendment Act, 2003**, strengthened the law by removing the provision that allowed a 'split' in a legislative party if one-third of its members defected. It only retained the 'merger' provision.
- **Primary Objectives**: To provide stability to governments by preventing horse-trading, enforce party discipline through the 'whip', and strengthen democracy by curbing politically motivated defections.
- **Grounds for Disqualification:** A Member of Parliament (MP) or a Member of a Legislative Assembly (MLA) can be disqualified under the following conditions:
  o If they **voluntarily give up the membership** of their political party.
  o If they **vote or abstain from voting** in the House contrary to the direction (whip) issued by their political party.
  o If an **independently elected member joins** any political party after their election.
  o If a **nominated member joins** any political party after the expiry of six months from the date they take their seat in the House.
- **Exceptions from Disqualification**
  o **Merger:** A legislator is not disqualified if their original political party merges with another party, provided that at least **two-thirds of the legislators** of the party have agreed to the merger.
  o **Presiding Officer**: If a member, after being elected as the Speaker or Chairman,

voluntarily gives up the membership of their party, they will not be disqualified. This allows them to function in a neutral and impartial manner.

Key Issues and Criticisms

- **No Time Limit for Adjudication**: The law does not specify a time frame within which the Presiding Officer (Speaker/Chairman) must decide a disqualification case. This allows for indefinite delays.
- **Partisan Role of the Speaker**: Speakers often belong to the ruling party, leading to allegations of bias and partiality. They may delay decisions on disqualification petitions against defectors who support the ruling government.
- **Suppression of Dissent**: The law restricts legislators' freedom of speech and expression. It forces them to follow the party line, preventing them from voting based on their conscience or the interests of their constituency.
- **Undermines Intra-Party Democracy**: It strengthens the hold of the party leadership over members, discouraging internal debate and criticism of party policies.

Key Supreme Court Judgements

- **Kihoto Hollohan vs Zachillhu (1992):** Upheld the validity of the Tenth Schedule but ruled that the **Speaker's decision is subject to judicial review** on grounds of mala fide intent, perversity, or procedural irregularities.
- **Ravi S. Naik vs Union of India (1994):** Clarified that "voluntarily giving up membership" is a broad term and can be inferred from the conduct of a member, not just formal resignation.
- **Keisham Meghachandra Singh vs Speaker, Manipur Legislative Assembly (2020):** The SC held that Speakers should decide disqualification pleas within a **reasonable period of three months**. It also suggested that

Parliament should consider creating an **independent tribunal** to decide defection cases.

- **Padi Kaushik Reddy vs State of Telangana (2025):** The SC urged for parliamentary reforms to re-examine the Speaker's role in deciding defection cases to ensure timely and impartial adjudication.

Way Forward

- **Independent Adjudicating Authority:** Various bodies, including the **Dinesh Goswami Committee** and the **Law Commission**, have suggested that the power to decide defection cases should be transferred from the Speaker to an independent authority like the **Election Commission of India (ECI)** or a special tribunal headed by retired judges.
  - The **2nd ARC** recommended that the President/Governor should decide cases based on the ECI's advice.
- **Time-Bound Disposal:** A specific time limit (e.g., three months, as suggested by the SC)

should be incorporated into the law for deciding disqualification cases to prevent intentional delays.

- **Limit the Scope of the Whip:** The whip should be made applicable only to critical votes that threaten the stability of the government, such as **no-confidence motions or money bills**. On other legislative matters, legislators should be free to vote as they see fit.
- **Promote Intra-Party Democracy:** Encouraging internal party debates and democratic decision-making can reduce the need for dissent to manifest as defection.

Conclusion

- The Anti-Defection Law, intended for political stability but criticized for suppressing dissent, urgently requires reforms, such as an independent adjudicating body and a fixed timeline, to strengthen democratic accountability in India.

1.4   SHORT ARTICLES

Renaming Kerala to "Keralam"
Context

- The Union Cabinet has approved a proposal to rename the State of Kerala to **'Keralam'**, respecting a resolution passed by the Kerala Legislative Assembly in 2024.

Constitutional Procedure for Renaming a State

- The Parliament has the **exclusive power to alter the name of any existing state under Article 3 of the Constitution**, a process **not considered a constitutional amendment under Article 368**.

Step-by-Step Process

1. **State Initiative:** The process begins when the State Legislative Assembly passes a resolution requesting a name change.
2. **MHA Examination:** The proposal is sent to the **Union Ministry of Home Affairs (MHA)**, which examines it and seeks No Objection Certificates (NOCs) from key central agencies like the Ministry of Railways, Intelligence

Bureau, Department of Posts, and Survey of India.

3. **President's Recommendation:** After receiving clearance, a bill for altering the name can only be introduced in Parliament with the **prior recommendation of the President**.
4. **Referral to State Legislature:** The President must refer the bill to the concerned State Legislature to express its views within a specified time frame.
5. **Parliament's Supremacy:** Parliament is **not bound by the views** of the State Legislature. It can either accept or reject the opinions expressed by the state.
6. **Passage in Parliament:** The bill needs to be passed in both Houses of Parliament by a **simple majority**.
7. **Presidential Assent:** Once passed, the bill is presented to the President for assent, after which the name change becomes law.

8. **Amending the Constitution:** Following the assent, the **First Schedule** of the Constitution, which lists the names of states and union territories, is formally amended to reflect the new name.

Historical and Linguistic Origins of 'Keralam'

- **Epigraphic Evidence:** Earliest known reference is found in Emperor Ashoka's Rock Edict II (257 BCE), which mentions the region as **"Keralaputra"** (land of the Chera sons).
- **Etymological Roots:** Scholar suggested that 'Keralam' evolved from **"Cheram"** or **"Cheralam."** The word **"cher"** means 'to join,' and **"alam"** means 'land,' signifying the integrated land formed by geographical processes.
- **Political Consolidation:** The **Aikya Kerala Movement** (United Kerala Movement) in the 1920s campaigned for a unified state for Malayalam-speaking people from Malabar, Kochi, and Travancore.
- **State Formation:** On **November 1, 1956**, based on the recommendations of the States Reorganisation Commission, the modern state was formed. However, the anglicized version **"Kerala"** was adopted in the Constitution instead of the native **"Keralam."**

Removal of The Lok Sabha Speaker

Context

- Over 100 MPs submitted a removal notice against Lok Sabha Speaker Om Birla, citing his **"partisan conduct"** and denial of speaking rights to the Leader of Opposition (LoP).

About Lok Sabha Speaker

- The Speaker is the presiding officer and the highest authority of the lower house of Parliament, responsible for maintaining order, interpreting procedural rules, and representing the House.
- **Article 94** of the Constitution outlines the conditions under which the Speaker vacates their office. These include:
  - **Ceasing to be a Member:** The Speaker automatically vacates the office if they are no longer a member of the Lok Sabha.

- **Resignation:** The Speaker may resign at any time by submitting a written resignation to the Deputy Speaker.
- **Removal by Resolution:** The House can remove the Speaker by passing a resolution.

Procedural Requirements for Removal

The detailed procedure for moving a resolution to remove the Speaker is laid out in **Rules 200-203** of the Rules of Procedure and Conduct of Business in Lok Sabha.

- **Notice of Motion:** A written notice must be given to the Secretary-General of the Lok Sabha at least **14 days** in advance.
- **Admission of Motion:** To be admitted for discussion, the motion must gain the support of at least **50 members** of the House who must rise in their places to signify their approval (known as 'leave of the House').
- **Content Guidelines:** Resolution must contain specific, precise, and clearly expressed charges. It must not contain arguments, inferences, defamatory statements, or ironic expressions.
- **Discussion & Voting:** Discussion in the House is strictly limited to the charges mentioned in the resolution.
- **Passing the Resolution:** Resolution must be passed by an **Effective Majority** (majority of all the then members of the House).
- **Speaker's Role During Removal Proceedings:** As per **Article 96** of the Constitution, when a resolution for the removal of the Speaker is under consideration in the House:
  - The Speaker **cannot preside** over the sitting.
  - The Speaker has the right to **speak and participate** in the proceedings.
  - The Speaker is entitled to **vote in the first instance** as a regular member but **loses the right to a casting vote** in case of a tie.
- **Historical Attempts:** A resolution for the removal of the Speaker has been moved only three times in India's history, and none have been successful.

Menstrual Health as a Fundamental Right

Context

- The Supreme Court, in *Dr. Jaya Thakur vs. Government of India*, mandated the central government to create a uniform national menstrual hygiene policy, recognizing Menstrual Health and Hygiene (MHH) as a constitutional right tied to fundamental rights like life, dignity, equality, and education.

Constitutional Foundation for MHH Rights

- **Article 21 (Right to Life & Dignity):** Inaccessibility to menstrual facilities leads to stigma and humiliation, violating a person's right to live with dignity and maintain bodily autonomy.
- **Article 14 (Right to Equality):** The judgment highlighted "substantive equality," noting that ignoring unique biological needs like menstruation creates "structural exclusion" that prevents girls from competing equally with male peers.
- **Article 21A (Right to Education):** The Court redefined "free education" to include the removal of financial barriers like "menstrual poverty," ruling that lack of access to sanitary products leads to absenteeism and dropouts.

Mandatory Directions for Schools

The Supreme Court issued a **continuing mandamus**—a judicial order to monitor ongoing compliance—directing all government and private schools to provide:

- **Free Sanitary Products:** Schools must provide free oxo-biodegradable sanitary napkins (meeting ASTM D-6954 standards), preferably via vending machines.
- **Sanitation Infrastructure:** Functional, gender-segregated toilets with 24/7 running water and soap are now a mandatory substantive requirement.
- **MHM Corners:** Dedicated spaces stocked with spare innerwear, uniforms, and disposable bags for menstruation-related emergencies.
- **Safe Waste Disposal:** Schools must have environmentally compliant disposal mechanisms, such as incinerators, per Solid Waste Management Rules.

Social & Administrative Accountability

- **Sensitization:** The Court mandated that **NCERT and SCERTs** incorporate gender-responsive curricula to educate both boys and male teachers, aiming to end harassment and stigma.
- **Inspections:** District Education Officers (DEOs) must conduct annual inspections and collect **anonymous student feedback** to verify the ground reality.
- **Penalties:** Private schools failing to comply with these standards face **de-recognition**.

1.5   SNIPPETS

Topics	Details
ECI-SEC National Declaration 2026	**The Election Commission of India (ECI)** and **State Election Commissioners (SECs)** adopted the **National Declaration 2026** to enhance **federal coordination** in electoral processes. "Pure electoral rolls" (updated/error-free) are recognized as the foundation of democracy and transparent elections. **ECI and SECs will align laws and procedures** for local bodies (Panchayats/Municipalities) with Parliamentary/Assembly elections, aiming for harmonized, efficient, and transparent processes. ECI will offer SECs access to the **ECINET portal** (roll management), **EVM infrastructure**, and **IIIDEM training facilities**. The National Round Table Conference will be held annually. The publication "A Confluence of Democracies" was released.
Substantive Motion in Lok	An MP moved a Substantive Motion in the Lok Sabha against the LoP, seeking their disqualification and a lifetime election ban over alleged anti-national conduct.

Sabha	A **motion** in parliamentary procedure is a formal proposal for a House decision. The **Speaker decides** the **admissibility of motions**. Under **Lok Sabha Rule 186**, a motion must be a single, definite issue; be factual and not defamatory; address a **recent occurrence**; not be **Sub-judice**; and primarily concern the **Government of India**. Motions in parliamentary procedure are classified based on their independence and purpose; **Substantive motions** are independent, self-contained proposals (e.g., resolutions, impeachments) that express a decision. **Substitute motions** act as alternatives to original motions, while **subsidiary motions** depend on other motions for meaning.
SC Affirms Spectrum as Public Resource	The Supreme Court ruled that telecom spectrum is a public resource owned by the Union of India, not a corporate asset of Telecom Service Providers (TSPs) for sale or restructuring under the Insolvency and Bankruptcy Code (IBC) 2016. Spectrum use is a **limited, conditional, and revocable privilege**, not proprietary ownership. This right is subject to statutory requirements, license conditions, and public interest. While **licensing rights** are **intangible assets** reflecting **control over future economic benefits**, the **legal title remains exclusively with the Union of India**. The Court held that the **Insolvency and Bankruptcy Code (IBC)** regime cannot restructure spectrum usage rights and liabilities, as these are governed exclusively by the **Telecommunications Act, 2023, and the Telecom Regulatory Authority of India (TRAI) Act, 1997.**
Ad Hoc Judges	**To tackle judicial pendency,** the **Supreme Court Collegium** approved appointing retired judges as ad hoc judges in the Allahabad High Court. Ad hoc judges are **retired judges appointed temporarily** (usually 2–3 years) to High Courts under Article 224A or the Supreme Court under Article 127/128 to reduce massive case backlogs. They are **appointed with the President's consent when vacancies exceed 20% or cases are >5 years old.** They hold the **same powers as regular judges, earning salaries/allowances, but are not deemed permanent.**
Frontier Nagaland Territorial Authority	The Union Government, Nagaland State Government, and the **Eastern Nagaland People's Organisation (ENPO)** signed a **tripartite agreement** to create the **Frontier Nagaland Territorial Authority (FNTA)** to address the political and developmental needs of Eastern Nagaland. The Frontier Nagaland Territorial Authority (FNTA) is an **autonomous, elected body** established in February 2026 for **six economically underdeveloped districts in Eastern Nagaland** (Mon, Tuensang, Longleng, Kiphire, Shamator, and Noklak). It **aims to provide financial autonomy and local decision-making power over 46 subject**s. It includes a mini-Secretariat, with its effectiveness subject to review after 10 years. The agreement **does not affect Article 371(A) of the Constitution,** ensuring that the state's existing special provisions remain intact.

1.6 ADDITIONAL TOPICS FOR READING FROM IASGYAN WEBSITE

Topic Name	Date
Highlights Of The 16th Finance Commission Recommendations	3rd February 2026
Niti Aayog Report On Viksit Bharat And Net Zero	14th February 2026
Supreme Court On Special Law For Hate Crimes	19th February 2026
Special Intensive Revision (Sir) Of Electoral Rolls	20th February 2026

2. INTERNATIONAL RELATIONS

2.1   INDIA-ISRAEL STRATEGIC PARTNERSHIP

Context

- India-Israel relations have been elevated to a **"Special Strategic Partnership for Peace, Innovation & Prosperity"** following a recent high-level state visit of the Indian Prime Minister to Israel. .

Key Outcomes of the Recent State Visit

Technology and Digital Cooperation

- **Cyber Security:** Agreement to establish an **Indo-Israel Cyber Centre of Excellence (CoE)** in India to enhance digital resilience and promote collaboration between government, academia, and industry.
- **Artificial Intelligence (AI):** MoUs to promote ethical AI development, integrate AI in education, and use AI-driven tools for strategic foresight and sustainable mineral exploration.
- **Critical & Emerging Technologies:** Initiative on Critical and Emerging Technologies, led by their National Security Advisors, and elevated the Joint Commission on Science and Technology to the Ministerial level.

Economic Integration and Financial Cooperation

- **UPI Integration:** MoU to enable cross-border payments and remittances using **Unified Payments Interface (UPI)**.
- **Financial Services:** MoU between India's **IFSCA** and the **Israel Securities Authority (ISA)** to facilitate cooperation in fintech and regulatory frameworks.
- **Labour Mobility:** Protocols signed to create regulated channels for Indian workers to be employed in Israel's commerce, manufacturing, and restaurant sectors.

Agriculture and Allied Sectors

- **Innovation Centre:** MoU to establish the **India-Israel Innovation Centre for Agriculture (IINCA)** to advance precision farming and irrigation.
- **Villages of Excellence:** India announced a new initiative to create "Villages of Excellence" to replicate Israeli agricultural best practices at the grassroots level.
- **Fisheries & Aquaculture:** A new Centre of Excellence will be set up to promote sustainable, tech-driven practices in fisheries and mariculture.

Culture and Academic Exchange

- **Maritime Heritage:** Israel will collaborate in developing the **National Maritime Heritage Complex (NMHC)** at Lothal, Gujarat.
- **University Partnership:** An MoU between Nalanda University and the Hebrew University of Jerusalem will facilitate student and faculty exchange programs.

India-Israel Relations

- **Early Years (1950-1992):** India officially recognized Israel in **1950** but established full diplomatic relations only in **1992** due to Cold War alignments and its traditional support for the Palestinian cause.
- **De-hyphenation Policy:** In 2017, Prime Minister Modi became the first Indian PM to visit Israel, formalizing a "de-hyphenation" policy that separates ties with Israel from those with Palestine
- **Current Status:** Relationship is a deep strategic partnership, strengthened by participation in minilateral platforms like **I2U2 (India, Israel, USA, UAE)** and the **India-Middle East-Europe Economic Corridor (IMEC)**.

Key Pillars of Bilateral Cooperation

- **Economic & Commercial:** Bilateral trade has grown from $200 million (1992) to **$3.75 billion (FY25)**. India is Israel's second-largest trade partner in Asia. The **India-Israel**

Industrial R&D and Innovation Fund (I4F) supports joint ventures.

- **Defence:** India is a major importer of Israeli defence technology, including **Phalcon AWACS**, Heron drones, and Spyder missile systems. The two nations have also co-developed systems like the **Barak-8 missile**.
- **Agriculture:** 43 **Indo-Israel Centres of Excellence (CoEs)** are operational in India, transferring advanced Israeli agri-tech to improve crop yields and water efficiency.
- **Water Management:** A 2016 MoU drives cooperation in water conservation, desalination, wastewater recycling, and drip irrigation, offering solutions for India's water-scarce regions.

Significance of the Relationship
For India

- **Defence Modernisation:** Access to advanced Israeli military technology strengthens India's defence capabilities and supports the **Atmanirbhar Bharat** initiative through joint development.
- **Food & Water Security:** Israeli expertise in arid agriculture and water management provides sustainable solutions for India's agricultural challenges.
- **Geopolitical Balancing:** Strong ties with Israel allow India to maintain strategic autonomy and pursue a multi-aligned policy in West Asia.
- **Connectivity:** Participation in projects like **IMEC** and **I2U2** enhances India's access to global markets and strengthens its geo-economic influence.

For Israel

- **Strategic Depth:** Partnership with India, a major global power, expands Israel's diplomatic reach in Asia and the Global South.
- **Economic Resilience:** India serves as a large, reliable market for Israel's high-tech defence industry and a source of skilled labour.

Challenges in India-Israel Relations

- **The Iran Dilemma:** India's strategic partnership with Iran, particularly concerning **Chabahar Port**, conflicts with Israel's perception of Iran as a primary security threat.

- **The Palestinian Stance:** India's official support for a **two-state solution** requires a delicate diplomatic balancing act, especially during regional conflicts.
- **The China Factor:** China's economic and investment footprint in Israel raises security concerns for India regarding the safety of shared defence and technology assets.
- **IPR and Tech Transfer:** Differences in Intellectual Property Rights (IPR) regimes and Israel's reluctance to transfer core technology hinder India's "Make in India" goals in defence.
- **Regional Instability:** Ongoing conflicts in West Asia pose a direct threat to the viability and security of ambitious connectivity projects like IMEC.

Way Forward

- **Strengthen Minilateral Frameworks:** Institutionalise cooperation under **I2U2** and **IMEC** to focus on food security, renewable energy, and maritime security.
- **Shift to Co-Production in Defence:** Move beyond a buyer-seller model to joint R&D and co-production of defence systems for domestic use and export.
- **Accelerate Economic Agreements:** Conclude the **FTA** to diversify the trade basket and fast-track the operationalisation of the UPI linkage and Cyber CoE.
- **Deepen Innovation Ties:** Promote collaboration in new-age sectors like semiconductors, green hydrogen, and sustainable technologies.
- **Enhance People-to-People Connect:** Expand academic partnerships, research collaborations, and Track 1.5 diplomacy to build resilience in the relationship beyond geopolitical shifts.

Conclusion

- The India-Israel relationship is a mature, future-oriented partnership leveraging innovation, technology, and strategic thinking for national interests, regional stability, and economic growth.

2.2 NEW DELHI DECLARATION ON ARTIFICIAL INTELLIGENCE 2026

Context

- The **India-AI Impact Summit 2026** concluded with the adoption of the **New Delhi Declaration on AI**.

Highlights of the New Delhi Declaration

- This **non-binding declaration** was signed by **89 countries** and international organizations, including the USA and China.
- It is rooted in the Indian principle of **"SarvajanHitaya, SarvajanSukhaya"** (for the welfare and happiness of all), aiming for the equitable sharing of AI's benefits.
- **Democratizing AI Resources:** Ensure equitable and affordable access to digital infrastructure and AI tools for all nations. Guided by the principle of **Vasudhaiva Kutumbakam**, it promotes the **Charter for the Democratic Diffusion of AI**.
- **Economic Growth & Social Good:** Promote open and accessible AI solutions to enhance scalability. It introduces the **Global AI Impact Commons**, a platform to share successful AI use cases.
- **Secure and Trusted AI:** Develop responsible and adaptable AI through shared tools and best practices. This is supported by the **Trusted AI Commons**, a voluntary platform.
- **Science and Research:** Accelerate scientific innovation by removing barriers and expanding AI research infrastructure through the **International Network of AI for Science Institutions**.
- **Social Empowerment:** Facilitate the exchange of knowledge and scalable practices to advance AI adoption for social empowerment through a collaborative platform.
- **Human Capital Development:** Prepare the global workforce for an AI-driven economy through robust skilling, reskilling, and AI literacy programs.
- **Resilience and Efficiency:** Promote the development of energy-efficient and resilient AI systems to manage growing resource demands, guided by principles on **Resilient, Innovative, and Efficient AI**.

What are India's Strategic Outcomes from the Summit?

- **Geopolitical Alignment:** India formally joined the US-led **Pax Silica coalition** to secure semiconductor supply chains and reduce reliance on single sources for critical minerals.
- **Investment Inflow:** Secured major investment commitments, including over **$250 billion** for infrastructure (data centers, semiconductor plants) and **$20 billion** for deep-tech venture capital.
- **Compute Power Expansion:** Announced a plan to add **20,000 GPUs** to its existing capacity, with a target of crossing **100,000 GPUs** by the end of 2026.
- **National AI Strategy:** Launched **IndiaAI Mission 2.0** and introduced the **MANAV Vision** (Moral, Accountable, National Sovereignty, Accessible, Valid), a human-centric framework for AI development.
- **MSME Empowerment:** Plans to create a **UPI-style AI Playbook** to offer standardized, affordable AI solutions for Micro, Small, and Medium Enterprises (MSMEs).
- **Sovereign AI Capabilities:** Promoted indigenous foundation models through companies like **Sarvam AI**. **BharatGen** launched the Param2 model supporting 22 Indian languages.

What are the Implementing Challenges?

- **Non-Binding Nature:** The declaration's commitments are **voluntary**, lacking an enforcement or verification mechanism to ensure compliance.
- **Absence of Redlines:** Unlike the EU AI Act, it does not prohibit high-risk AI applications like biometric surveillance or predictive policing.
- **Labor Disruption:** The summit lacked a structured dialogue on the immediate threat of AI to the IT workforce, especially in entry-

level roles vulnerable to automation by Generative AI.

- **Infrastructure and Sustainability:** India faces a deficit in advanced computing infrastructure and semiconductor manufacturing, risking becoming a "data colony."
  - The massive water consumption of data centers (around **1.1 million litres per day according to the International Energy Agency**) poses environmental challenges in water-scarce regions.

Way Forward for India

- **Operationalize Core Principles:**
  - **People:** Implement the **MANAV Vision** by embedding ethical guardrails in all public-sector AI projects.
  - **Planet:** Promote **Green AI** by incentivizing energy-efficient algorithms and powering data centers with renewable energy.
  - **Progress:** Launch the **MSME AI Stack** to provide small businesses with accessible AI tools.

- **Build a Self-Reliant Ecosystem:** Align the AI mission with the **India Semiconductor Mission (ISM 2.0)** to develop indigenous AI chips and reduce foreign dependency.
- **Institutionalize Governance:** Move from non-binding principles to interoperable safety standards through the **Trusted AI Commons** and establish cross-border regulatory sandboxes.
- **Address the Skills Gap:** Massively scale up reskilling initiatives like **Bodhan AI** to make the workforce "AI-ready" and mandate a "Glass Box" approach for transparency in AI-driven governance.

Conclusion

- The New Delhi Declaration, while a diplomatic win for India as a proponent of "Democratic Diffusion" of technology for the Global South, must translate its voluntary frameworks into enforceable actions to ensure the inclusive and sustainable benefits of AI.

2.3 INDIA-BRAZIL STRATEGIC PARTNERSHIP

Context

- Brazilian President Lula da Silva and Prime Minister Modi held bilateral conversations in New Delhi to strengthen the India-Brazil Strategic Partnership.

Key Outcomes of the Recent bilateral conversations

The visit reinforced the strategic partnership, focusing on five priority pillars established in the Brasilia Joint Statement 2025: defense, food security, energy transition, digital transformation, and industrial partnerships.

- **Digital & AI Partnership:** Launched the **Open Planetary Intelligence Network (OPIN)** and agreed to leverage Digital Public Infrastructures (DPIs) for sustainable development.
- **Trade & Economic Cooperation:** Set a new bilateral trade target of **USD 30 billion by 2030**. They also agreed to expand the scope

of the **India-MERCOSUR Preferential Trade Agreement (PTA)** to boost economic ties.
- **Critical Minerals:** Signed an MoU on cooperation in rare earth elements and critical minerals, vital for future technologies and energy sectors.
- **Climate and Energy:** India commended Brazil for hosting **COP30 in Belem (2025)** and its "Tropical Forests Forever Facility" initiative. They reaffirmed the **"Belém 4x Pledge" to expand sustainable fuel use.**
- **Science & Technology:** Agreed to enhance Intellectual Property (IP) cooperation, granting Brazil access to India's **Traditional Knowledge Digital Library (TKDL).**

Core Pillars of India-Brazil Cooperation

- **Trade and Investment:** Brazil is India's largest trading partner in Latin America. Bilateral trade reached **USD 15.21 billion in 2025**.

- o **Major Indian Exports:** Processed petroleum products, agro-chemicals, pharmaceuticals, engineering goods.
  - o **Major Brazilian Imports:** Crude oil, soybean oil, gold, raw sugar, cotton, iron ore.
- **Defence Cooperation:** Defence ties are guided by a **Defence Cooperation Agreement (2003)**. Key institutional mechanisms include the Joint Defence Committee (JDC) and the **2+2 Political-Military dialogue**.
- **Energy Transition and Biofuels:** India's **National Biofuel Policy** and Brazil's **Renova Bio Program** share common goals of increasing biofuel blending, creating strong synergy in the clean energy sector.
- **Multilateral Governance & G4 Reform:** India and Brazil form a unified "diplomatic bloc" demanding reforms in global institutions.
  - o As key members of the **G4 group** (along with Germany and Japan), they advocate for a "text-based negotiation" strategy to secure permanent seats on an expanded **UN Security Council (UNSC)**, reflecting contemporary geopolitical realities.

Challenges Limiting the Partnership

- **Geographical Distance:** Over 14,000 km distance and lack of direct shipping and air routes lead to high transportation costs, making trade less competitive.
- **Trade Asymmetry:** Trade basket is dominated by primary commodities, making it vulnerable to global price fluctuations and lacking depth in high-value, intra-industry trade.
- **The "China Factor":** China is Brazil's largest trading partner, creating a strategic imbalance. This economic dominance makes it challenging for Indian businesses to compete effectively in the Brazilian market.

- **Nascent Defence Cooperation:** Despite recent progress, defence ties remain limited, with few joint exercises or major technology transfer agreements compared to India's relations with other partners.

Way Forward to Strengthen Relations

- **Diversify Trade:** Move beyond commodities to focus on high-value manufactured goods, IT services, and pharmaceuticals. Encourage joint ventures in aerospace, biofuels, and automotive sectors.
- **Enhance Connectivity:** Establish direct maritime corridors and air flights between major cities like Delhi/Mumbai and Sao Paulo to reduce costs and boost trade, tourism, and people-to-people ties.
- **Foster Tech Cooperation:** Launch joint initiatives in emerging technologies like **Artificial Intelligence, semiconductors, and DPIs** to build resilient supply chains.
- **Institutionalize Defence Production:** Move from buyer-seller relationships to joint development and production of defence equipment, such as drones and aircraft components.
- **Coordinate Multilateral Strategy:** Deepen coordination in forums like the **G20, BRICS, and G4** to amplify their collective voice as leaders of the Global South and push for reforms in global governance.

Conclusion

- The India-Brazil Strategic Partnership can achieve significant growth and solidify global leadership by addressing challenges in connectivity and trade diversification while expanding cooperation in defence and emerging technologies.

2.4   INDIA–US TRADE DEAL 2026

Context
- The US de-escalated trade tensions with India by reducing the effective tariff on Indian goods from a peak of nearly 50% (including punitive duties) to 18%.

Key Highlights of the Agreement
- The deal involves reciprocal commitments from both nations, moving beyond mere tariff adjustments to encompass strategic shifts in energy and procurement policies.

Party	Commitments & Concessions
United States	• **Tariff Reduction:** The reciprocal tariff on Indian imports has been lowered from 25% to **18%**. • **Removal of Punitive Duty:** A crucial **25% punitive tariff**, imposed in August 2025 over India's purchase of Russian oil, has been removed.
India	• **Energy Shift:** A major diplomatic concession to significantly reduce or halt the purchase of discounted Russian crude oil and pivot towards US and Venezuelan energy sources. • **Market Access:** A commitment to reduce tariffs and non-tariff barriers on US goods, with the eventual goal of reaching **"zero"**. This is expected to boost US exports of agricultural products like tree nuts, cotton, and soybean oil. • **"Buy American" Policy:** India has agreed to a stronger "Buy American" stance for government and large-scale industrial procurements, potentially amounting to **USD 500 billion**.

Evolution of Tariffs
- **"Tariff King" Narrative:** The US has criticized India's high import duties, leading to the imposition of a **25% reciprocal tariff** in mid-2025.
- **Russian Oil Friction:** India's continued oil imports from Russia during the Ukraine conflict led the US to add a **25% punitive "extra duty"** in August 2025, raising the total tariff to nearly 50%.
- **India's Concessions:** To improve relations, India had earlier slashed duties on items like heavy motorcycles and bourbon whisky and passed the **SHANTI Act, 2025**, to open up its nuclear power sector.

India-US Trade Relations (FY25)
- **Bilateral Trade:** Stood at a record **USD 132 billion** in FY25.
- **Trade Surplus:** India maintained a trade surplus of **USD 40.82 billion** with the US.

- **Key Imports from US:** Mineral fuels, precious stones, nuclear reactors, and machinery.
- **Key Exports to US:** Electrical machinery, pharmaceuticals, precious stones, and mechanical appliances.
- **Investment:** The US is the 3rd largest investor in India, with cumulative FDI inflows of **USD 70.65 billion** (2000-2025).
- **'Mission 500':** An initiative under the **US-India COMPACT (2025)** framework aiming to increase bilateral trade to **USD 500 billion by 2030**.

Significance of the Tariff Rationalization
For India
- **Boost to Exports:** Tariff reduction restores competitiveness for key Indian sectors like textiles, apparel, and pharmaceuticals, which operate on thin margins.
- **Competitive Edge:** At 18%, India gains a more favorable tariff rate compared to regional

competitors like Vietnam (20%) and China (30-35%).

- **Economic Stability:** The deal averts a potential trade war, which can help stabilize the Rupee and encourage Foreign Direct Investment (FDI).

For the US

- **Market Access for High-Tech Goods:** Paves the way for US firms to enter India's nuclear power and defense sectors, deepening the **US-India Initiative on Critical and Emerging Technology (iCET)**.
- **Energy Exports:** With India pivoting away from Russia, the US energy sector (oil, LNG, coal) secures a massive, long-term customer. India's crude import dependence was **88.2% in FY25**.
- **Digital Dominance:** Tax holidays announced in India's Union Budget 2026-27 for data centers directly benefit US tech giants, cementing their position in India's digital infrastructure.

Challenges and Concerns for India

- **Compromise on Strategic Autonomy:** Reduced reliance on Russia for energy challenges India's multi-alignment policy and its strategic partnership with Moscow.
- **Impact on Domestic Agriculture:** Zero tariffs on US agricultural goods could harm India's dairy and poultry sectors due to competition from subsidized US products, potentially causing rural distress.
- **Economic Risks:** Shifting to costlier US oil from discounted Russian oil could worsen the **Current Account Deficit (CAD)** and increase inflation.
- **Potential Chinese Retaliation:** Closer alignment with the US risks retaliatory trade measures from China, a key source of critical imports (Rare Earths, APIs).
- **Non-Tariff Barriers:** The deal doesn't fully resolve US **Sanitary and Phytosanitary (SPS)**

standards, which impede Indian agricultural and pharma exports.

- **Digital Trade Friction:** Disagreements over **data localisation** (India's DPDP Act, 2023) persist, as US tech firms advocate for free data flow.

Way Forward

- **Balance Geopolitics with Energy Security:** While aligning with the US, India must accelerate its domestic energy transition through initiatives like the **National Green Hydrogen Mission** and nuclear energy (Small Modular Reactors) to ensure long-term energy security.
- **Diversify Export Markets:** To reduce over-dependence on the US market, India should fast-track Free Trade Agreements (FTAs) with other regions like the Gulf nations and ASEAN.
- **Protect Domestic Interests:** Calibrate the "zero tariff" commitment carefully with product-specific safeguards to protect vulnerable sectors like agriculture and MSMEs.
- **Leverage "Friendshoring":** Use this opportunity to attract supply chains moving out of China, positioning India as a stable manufacturing hub for the world under the "Make in India" initiative.
- **Promote Innovation-Led Growth:** Utilize frameworks like **iCET** to foster collaboration in AI, space, and other high-tech industries, positioning India as a global R&D hub.

Conclusion

- The US tariff reduction to 18% provides India with a "strategic window" and temporary advantage to deepen its geopolitical ties, but long-term success requires navigating challenges and building a resilient, self-reliant economic base (Atmanirbhar Bharat).

India-France Double Taxation Avoidance Convention (DTAC) Amendment

Context

- India and France have signed an amending protocol to their 1992 Double Taxation Avoidance Convention (DTAC) to provide greater tax certainty, prevent tax evasion, and promote bilateral investment and technology transfer.

What is the Double Taxation Avoidance Convention (DTAC)?

- It is a bilateral tax treaty between two countries to ensure that individuals and businesses earning income in one country while residing in another are not taxed twice on that same income.

Key Objectives

- **Eliminating Double Taxation**: Prevents the "juridical" double taxation that occurs when both the source country (where income is earned) and the residence country (where the taxpayer lives) claim taxing rights.
- **Promoting Investment**: Encourages cross-border trade and Foreign Direct Investment (FDI) by providing a clear and stable tax environment.
- **Preventing Evasion**: Includes provisions for the exchange of information between tax authorities to curb tax evasion and "treaty shopping".

Key Changes Introduced by the Protocol

- **Capital Gains Taxation:** The protocol grants **full taxing rights** over capital gains from the sale of a company's shares to the country where that company is a resident. This simplifies jurisdiction and prevents disputes.
- **Taxation of Dividends:** The previous single tax rate of 10% on dividends is replaced with a **split-rate structure**:
  - A lower rate of **5%** applies if the recipient holds at least 10% of the capital of the company paying the dividend.

  - A rate of **15%** applies in all other cases.
- **Permanent Establishment (PE):** The definition of PE has been expanded to include a **'Service PE'**. This means that if a foreign enterprise provides services in the other country for a specified period, it can be considered to have a taxable presence there.

International Criminal Court (ICC)

Context

- The International Criminal Court (ICC) initiated a pre-trial hearing against former Philippine President Rodrigo Duterte for alleged crimes against humanity during his anti-drug campaign.

About the ICC

- **Origin:** The ICC is the world's first permanent international tribunal established by the **Rome Statute**, which was adopted in 1998, and came into force in **2002**.
- **Core Function:** The court prosecutes **individuals**, not states, for grave international offenses.
- **Headquarter:** The Hague, Netherlands.
- **Follow Principle of Complementarity**: The ICC intervenes only when a national judicial system is **unwilling or unable** to prosecute serious crimes.
- **Jurisdiction:** The ICC has jurisdiction over four core international crimes committed after July 1, 2002: Genocide, Crimes against Humanity, War Crimes, and the Crime of Aggression (activated in 2018).
- **Membership:** There are **125 countries** that are States Parties to the Rome Statute. However, several major countries, including **India, the USA, China, and Israel**, are not members.
- **India's objections to joining the ICC include:** India asserts its domestic judicial system is strong enough to handle crimes and opposes the UNSC's power to refer cases to the ICC, seeing it as potentially subject to politically motivated abuse by permanent members.

- **How is ICC's Jurisdiction Triggered?:** An investigation by the ICC can be started either through a referral from a State Party to the Rome Statute, a referral from the UN Security Council, or by the ICC Prosecutor's own initiative (*proprio motu*) with authorization from the Pre-Trial Chamber.

- **Enforcement:** The ICC has **no police force** of its own. It relies entirely on the **voluntary cooperation of member states** to arrest suspects, surrender them to the court, and enforce sentences.

ICJ vs. ICC

	International Court of Justice (ICJ) La Cour Internationale de Justice (CIJ)	International Criminal Court (ICC) La Cour pénale internationale (CPI)
Year Court Established	1946	2002
UN-Relationship	Official court of the U.N., commonly referred to as the "World Court."	Independent. May receive case referrals from the UN Security Council.
Location	The Hague, The Netherlands	The Hague, The Netherlands
Types of Cases	Contentious between parties & Advisory opinions	Criminal prosecution of individuals
Subject Matter	Sovereignty, boundary, & maritime disputes, trade, natural resources, human rights, treaty violations, treaty interpretation, and more.	Genocide, crimes against humanity, war crimes, crimes of aggression
Funding	UN-funded.	Assessed contribution from state parties to the Rome Statute; voluntary contributions from the U.N.; voluntary contributions from governments, international organizations, individuals, corporations and other entities.

Board of Peace

Context

- India attended the Board of Peace meeting, in Washington D.C , as an observer to stay engaged in West Asian stability efforts while maintaining a flexible, non-binding diplomatic stance.

About Board of Peace on Gaza

- The **Board of Peace (BoP)** is a US-led international organization established in 2026 to oversee the reconstruction, governance, and long-term stability of the Gaza Strip following the 2025 ceasefire.
- Chaired by **Donald Trump**, the board operates as a centralized alternative to traditional United Nations (UN) mediation and is authorized under **UN Security Council Resolution 2803**.

Core Mission and Objectives

- **Gaza Reconstruction:** Coordinating rebuilding effort for the territory, which has an estimated damage cost of $70 billion.
- **Governance Transition:** Supervising the **National Committee for the Administration of Gaza (NCAG)**, a transitional body of Palestinian technocrats.
- **Security & Demilitarization:** Deploying an **International Stabilization Force (ISF)** consisting of approximately 20,000 troops to maintain peace and oversee the disarmament of Hamas.

- **Global Ambition:** While initially focused on Gaza, its charter allows for expansion to other global "hotspots" to resolve conflicts through a "nimble" international body.

Structure, Membership and Funding

- The board has a **three-tier hierarchy concentrating power** in the Chairman (Donald Trump, named Chairman for life), followed by the seven-member Board of Peace Executive Board (including the World Bank President), and the 11-member operational Gaza Executive Board.

- **Participants:** Over 25 countries have signed the charter as of early 2026, including **Israel, Qatar, Turkey, Saudi Arabia, UAE, Indonesia, and Argentina**.

- **Funding Model:** Membership is free for the first three years, but permanent status requires a **$1 billion contribution** to the reconstruction fund.

- **Pledges:** At the inaugural summit in February 2026, member states pledged approximately **$7 billion**, with an additional **$10 billion** pledged by the United States.

2.6   SNIPPETS

Topics	Details
India-Sweden SITAC Partnership	The IndiaAI Mission and Business Sweden signed a Statement of Intent (SoI) at the India AI Impact Summit 2026 to enhance bilateral cooperation in AI and digital technologies. The **Sweden–India Technology and Artificial Intelligence Corridor (SITAC)** is a platform for **structured engagement** between government, industry, **startups**, and academia. It prioritizes the **development** and **deployment of AI solutions** for real-world industrial and societal outcomes, driving **innovation**, **economic growth**, and **sustainable development** while mitigating risks. The partnership combines the **IndiaAI Mission's goal** of building a **national AI ecosystem** (compute, data, talent) with **Sweden's strengths** in **industrial innovation**, **advanced R&D**, and responsible AI.
International Mother Language Day	International Mother Language Day is observed annually on February 21 to promote linguistic diversity, cultural heritage, and multilingualism. International Mother Language Day was proclaimed by the **United Nations Educational, Scientific and Cultural Organization (UNESCO)** in **1999** and first observed globally in **2000**. It **commemorates the Bangla Language Movement in Dhaka (then East Pakistan) on 21st February 1952**, when students advocating for the official recognition of their mother language, Bangla, were killed. The UN estimates that **one language vanishes every two weeks**, an alarming trend often intensified by globalization and the economic pressure to prioritize foreign languages. The **theme** for International Mother Language Day **2026** is **"Youth Voices on Multilingual Education."**
Ottawa Convention	Poland has officially withdrawn from the 1997 Anti-Personnel Mine Ban Treaty (Ottawa Convention) to enhance security on its borders with Russia and Belarus, reversing its 2012 ratification. The Ottawa Convention is a **legally binding** agreement that prohibits the production, stockpiling, transfer, and use of anti-personnel landmines. It mandates the destruction of stockpiled mines, clearing of mined areas within 10 years, and assistance to victims. The core provisions include a **comprehensive ban on anti-personnel mines**, destruction obligations for stockpiled and emplaced mines, and

	mandated victim assistance, all applying without exception. 164 states are party to the treaty, however, major military powers, including the **United States, Russia, China, India, Pakistan, and Iran**, are not signatories.
India–Netherlands Green Hydrogen Partnership	India and the Netherlands launched the Hydrogen Fellowship Programme to strengthen clean energy cooperation. The **Department of Science and Technology (DST) has launched a Fellowship Programme**, a national capacity-building initiative for Indian doctoral, postdoctoral, and faculty researchers, to enhance the country's readiness in deploying **hydrogen technologies**. It focuses on key areas like system integration, safety, and techno-economic analysis, particularly for hard-to-abate sectors. It aligns with the **National Green Hydrogen Mission**, **Energy Independence 2047 vision**, and **Net-Zero 2070** targets, aiming to strengthen research and human capital for the global hydrogen economy.
Arctic Sentry Mission	North Atlantic Treaty Organization (NATO) launched the "Arctic Sentry" mission to increase its presence in the Arctic. "Arctic Sentry" is a new **multi-domain NATO mission** focused on strengthening collective defence and stability in the **Arctic region.** It will enhance surveillance and security, modelled on initiatives like **Baltic Sentry and Eastern Sentry**. Major exercises such as **Exercise Cold Response** and the **UK-led Lion Protector**, designed to **train allied forces for Arctic operations**. The Arctic, north of the Arctic Circle (66°34′ N) and centred on the North Pole, **comprises the Arctic Ocean and parts of eight countries: Canada, Denmark (Greenland), Finland, Iceland, Norway, Russia, Sweden, and the USA (forming the Arctic Council)**. It is geopolitically significant due to its mineral and rare earth reserves, emerging sea routes, resource potential, and strategic location near major powers.
Corruption Perception Index 2025	Transparency International released the Corruption Perception Index (CPI) 2025, evaluating 182 countries on public sector corruption with a scale of zero (highly corrupt) to 100 (very clean). Global CPI average fell to a decade low of **42/100**; **122 of 182 countries** scored below **50**, indicating serious corruption. High performers (scoring **>80**) shrank from **12 to 5** (**Denmark, Finland, Singapore, New Zealand, Norway**). **Denmark (89)** topped the list for the 8th time, while **Somalia** and **South Sudan (9)** were at the bottom. **India** ranked **91st** with a score of **39/100** in **2025** (up from 96th in 2024), tied with the **Maldives** (91st rank). Neighbouring nations: **Bhutan (18)**, **China (76)**, **Sri Lanka (107)**, **Nepal (109)**, **Pakistan (136)**, **Bangladesh (150)**, **Afghanistan** and **Myanmar (169)**. There's a strong correlation between democracy and corruption control: **full democracies average 71**, **flawed democracies 47**, and **authoritarian regimes 32**.
India as Chair of the Kimberley Process 2026	India has assumed the chair of the Kimberley Process (KP) for 2026, positioning it at the forefront of global diamond governance. The Kimberley Process (KP), initiated by Southern African nations in 2000, is an international forum regulating the rough diamond trade. Its primary goal is to prevent the use of "conflict diamonds" to finance armed conflicts while safeguarding legitimate trade. The KP is an informal arrangement, not a legally binding treaty, relying on its **60 participants (representing 86 countries)**, which account for about **99.8% of global rough diamond production**, to implement rules via national laws.

India Joins U.S. - Led 'Pax Silica' Coalition	India has joined **'Pax Silica'**, a United States-led strategic technology alliance, to secure and diversify the global supply chains for critical technologies. 'Pax Silica' Coalition is a **"coalition of capabilities"** designed to create a secure and integrated value chain for high-technology industries. The objective is to build a resilient economic order for technology supply chains, covering everything from **mineral extraction to AI deployment**, free from monopolistic control or geopolitical coercion. The alliance includes the **USA, India, Australia, Greece, Israel, Japan, Qatar, Republic of Korea, Singapore, UAE, and the UK.** It strategically connects resource-rich nations (e.g., Australia), capital-rich nations (e.g., UAE, Qatar), and technology leaders (e.g., USA, Japan, India) into a unified and cooperative ecosystem.

2.7   ADDITIONAL TOPICS FOR READING FROM IASGYAN WEBSITE

Topic Name	Date
New START Treaty Expiry: Impact on India & World	4th February 2026
India-Malaysia Comprehensive Strategic Partnership	16th February 2026
International Solar Alliance Launches Global Ai-For-Energy Mission	19th February 2026
India To Join International Energy Agency (IEA)	23rd February 2026
India-Israel Relations: A Special Strategic Partnership	27th February 2026
Indian Ocean as the New Global Flashpoint	28th February 2026
India–Bhutan Cooperation On Trans-Boundary Rivers And Hydropower Projects	28th February 2026

3. ECONOMY

3.1   VISIBLE PROGRESS, INVISIBLE EXCLUSION

Context

- Union Budget 2026–27 reflects a shift toward a borrowing-led development strategy driven by large public capital expenditure (₹12.2 lakh crore) and a fiscal deficit target of 4.3% of GDP.
- While infrastructure-led growth signals macroeconomic stability, concerns are emerging about weak employment outcomes and rising exclusion.

Emergence of a New Growth Doctrine

- Since 2020–21, capital expenditure has become the core of fiscal policy rather than a residual after revenue spending.
- Capex share in total expenditure increased from about 12% to over 22%.
- Objective: crowd in private investment, improve productivity and generate jobs.
- However, labour indicators show weak transmission:
  - Youth NEET rate remains around 23–25%, indicating limited employment absorption.

Structural U-Turn in Employment Trends
Construction Sector
- Traditionally labour-intensive, but job creation per unit of investment has declined.
- Employment elasticity fell from 0.59 (pre-COVID) to 0.42 (post-COVID).

Agriculture Sector
- Instead of releasing labour, agriculture is reabsorbing workers.
- Employment elasticity rose sharply, suggesting distress-driven fallback into low-productivity work.

Implication:
- India is modernising infrastructure while labour shifts back toward subsistence activities.

Capital Intensity and Wage Divergence
- Growth increasingly driven by capital-intensive production.
- Productivity gains rising faster than wages, widening inequality between labour income and profits.
- Large firms benefit more from new infrastructure, while MSMEs struggle to scale and integrate into supply chains.

Emerging Dual Economy
- Upper tier: High-productivity, capital-heavy sectors driving GDP growth.
- Lower tier: Informal, self-employed or low-wage workforce with limited income growth.
- Result: Visible macroeconomic progress but invisible labour market exclusion.

Concerns
- Weak link between public capex and employment generation.
- Rising inequality between productivity gains and wages.
- Structural shift away from labour-intensive growth.

Way Forward
- Promote labour-intensive manufacturing and MSME integration into supply chains.
- Align infrastructure investment with skill development and job creation strategies.
- Strengthen wage growth through productivity-sharing mechanisms.
- Improve labour market participation via education, training and formalisation initiatives.

3.2 INDIA'S POWER SECTOR

Context

- NITI Aayog's report "Scenarios Towards Viksit Bharat and Net Zero" outlines electricity transition pathways up to 2070.
- Two pathways analysed: Current Policy Scenario (CPS) and Net Zero Scenario (NZS) aligned with India's net-zero goal.

Present Electricity Landscape

- Coal still dominates electricity generation (~74%), ensuring base-load stability.
- Installed capacity (Dec 2025): ~513 GW
  - Renewable: ~50%
  - Fossil fuels: ~48%
  - Nuclear: ~1.7%
- Despite high renewable capacity, actual generation share remains about 22% due to intermittency.

Structural Constraints in Renewable Energy

- Low capacity utilisation factor (CUF) of solar and wind.
- Weather dependence causing variability and grid balancing issues.
- Transmission bottlenecks and limited system flexibility.
- Lack of long-duration energy storage.

Electricity Mix Projections to 2070

- **CPS:**
  - Renewables exceed 80% of generation by 2070.
  - Coal share declines from 74% to about 6–10%.
  - Nuclear grows to around 5–8%.
- **NZS:**
  - Coal-based generation may fall to zero by 2070.
  - Renewables become dominant backbone earlier.

Massive Storage Expansion Required

- Battery Energy Storage Systems projected to reach:
  - ~1,300–1,400 GW (CPS)
  - ~2,500–3,000 GW (NZS) by 2070.
- Pumped Storage Plants expected to rise significantly for long-duration balancing.
- Storage becomes central to grid reliability and round-the-clock renewable supply.

Nuclear Power as a Strategic Pillar

- Nuclear capacity projected to grow from 8.18 GW (2025) to:
  - 90–135 GW (CPS)
  - 295–320 GW (NZS) by 2070.
- Provides firm low-carbon base-load, supports hydrogen production and grid stability.
- Focus on advanced reactors and Small Modular Reactors (SMRs).

Coal's Continuing Role

- Coal remains critical in medium term due to:
  - High storage costs
  - Long gestation of nuclear projects
  - Land and grid challenges for renewables.
- Deep decarbonisation through Carbon Capture, Utilisation and Storage (CCUS) may extend coal's role.

Alternative Pathway Risks

- Limited nuclear expansion could require extremely high solar capacity (>5,500 GW).
- Higher storage needs may increase financial and infrastructure pressures.

Challenges and Way Forward

- Scale up storage technologies and domestic manufacturing.
- Modernise grid infrastructure and expand transmission networks.
- Accelerate nuclear deployment including SMRs.
- Plan transition carefully to avoid stranded coal assets.

3.3 INDIA'S NEW CONSUMER PRICE INDEX (CPI)

Context
- Ministry of Statistics and Programme Implementation released a new CPI series.

Understanding CPI in India
- CPI measures retail inflation by tracking price changes in a basket of goods and services consumed by households.
- It guides RBI monetary policy, affecting interest rates, wages, pensions and welfare schemes.
- Periodic revision is required to reflect evolving consumption patterns.

Features of the New CPI Series
- Updated Base Year: Shift from older base to 2024 for more relevant inflation measurement.
- Revised Consumption Basket: Removal of obsolete items like CDs/DVDs; inclusion of modern electronics such as headphones and Bluetooth devices.
- January Inflation: Reported at 2.75%, but not directly comparable with earlier CPI data due to methodological changes.

The Comparability Issue
- Inflation figures under the new series cannot be directly compared with old data because:
  - Item weights have changed.
  - Basket composition has been revised.
  - Data collection methods differ.
- A provisional back-series from 2013 has been released, but experts consider it only a technical adjustment rather than a full reconstruction.

Changes in Weightages
- Food Weight Reduced: Reflects diversification of consumption towards services and non-food items; may reduce inflation volatility.
- Gold and Silver:
  - Earlier: Gold 1.08%, Silver 0.11%.
  - New basket: Gold/diamond/platinum jewellery 0.62%, Silver jewellery 0.31%.
- Commodity price spikes can still influence headline inflation significantly.

Implications for Monetary Policy
- More accurate reflection of real consumption patterns.
- Lower food weight may stabilise headline inflation trends.
- Provides clearer signals on core inflation for RBI policy decisions.
- Transitional confusion likely until a detailed historical back-series is fully developed.

3.4 SHORT ARTICLES

RBI Keeps Policy Rates Unchanged
Context:
- The Monetary Policy Committee (MPC) of the Reserve Bank of India kept the repo rate unchanged at 5.25% and retained a neutral stance.

Details
- GDP growth forecast for FY2026 revised upward to 7.4%, while retail inflation projection stands at 2.1%.
- Decision follows cumulative 125 bps rate cuts in 2025, signalling a pause after monetary easing.
- Why the RBI Chose to Hold Interest Rates Steady
  - Domestic demand remains resilient, supported by consumption growth (~7%).
  - Inflation remains within tolerance band, allowing RBI policy flexibility.

- o Union Budget measures such as tax cuts and GST rationalisation expected to boost demand.
- o Recent trade agreements with the US, EU, Oman and New Zealand likely to enhance exports and investment flows.
- o Geopolitical tensions, crude oil volatility and global monetary divergence require a cautious approach.
- o Neutral stance allows RBI to respond quickly if conditions change.

Merchandise Trade Indices
Context:
- The Directorate General of Commercial Intelligence and Statistics has revised the base year of India's Merchandise Trade Indices from FY 2012–13 to FY 2022–23 to better reflect evolving trade composition and global economic patterns.

Details
- About the Indices: These indices measure changes in unit values (prices) of exports and imports over time, helping analyse external sector price movements rather than trade volume.
- Coverage of Revised Series: Includes Export/Import Unit Value Indices (monthly, quarterly, annual), indices by Principal Commodity classification, Broad Economic Categories (BEC), bilateral and region-wise indices of top trading partners, and Terms of Trade indicators.

US Imposes Duties on Indian Solar Panels
Context
- The United States Department of Commerce has imposed 126% preliminary Countervailing Duties (CVD) on Indian crystalline silicon photovoltaic cells and modules over alleged unfair subsidies.

Details
- Capacity Context: India's solar module manufacturing capacity exceeds 140 Gigawatts (expected 165 GW by 2027), while annual installations are only 45–50 Gigawatts Direct Current → structural surplus.
- Export Dependence: Over 90% of India's solar photovoltaic exports (2021–2024) went to the United States; exports valued at USD 792.6 million in 2024.
- Impact: U.S. market may become commercially unviable → excess supply in India, price fall, margin pressure on Original Equipment Manufacturers, possible impact on Power Purchase Agreements and project financing.
- Strategic Implication: India may need to diversify export markets, boost domestic demand, or invest in overseas manufacturing to protect its renewable energy target of 500 GW non-fossil capacity by 2030.

National Agricultural Cooperative Marketing Federation of India (NAFED)
Context:
- Union Minister for Agriculture and Farmers' Welfare recently reviewed the functioning of NAFED in New Delhi.

Details
- NAFED is an apex organization of cooperative marketing societies in India, established in 1958 to promote trade in agricultural and forest produce; it is registered under the Multi State Co-operative Societies Act.
- Headquartered in New Delhi with regional offices in Delhi, Mumbai, Chennai and Kolkata; works under the Ministry of Agriculture and Farmers Welfare.

New GDP Series
Context:
- MoSPI has shifted the GDP base year from 2011–12 to 2022–23 to reflect structural changes and improved data coverage. Under the new series, FY26 growth is estimated at 7.6% (up from 7.4%) and Q3 FY26 at 7.8%. Past growth rates have also been revised (FY24 lowered; FY25 raised).

Details

- The major reform is the shift from the single-deflator method to the double-deflation method for calculating real Gross Value Added.
- This adjusts input and output prices separately for more accurate real growth measurement. The new series incorporates data from Goods and Services Tax (GST), e-Vahan vehicle registration database, Annual Survey of Unincorporated Sector Enterprises (ASUSE), and Periodic Labour Force Survey (PLFS). It also integrates national accounts with Supply and Use Tables (SUTs) to reduce discrepancies.
- Sectoral Trends:
  o Manufacturing-led growth: Secondary sector 9.5% (Manufacturing 12.5%).
  o Services strong: 8.9% growth (Trade & Finance ~10%).
  o Agriculture slowdown: Primary sector at 2.8%.
- Nominal GDP & Fiscal Impact: Nominal GDP for FY26 revised downward (~₹345.47 lakh crore), raising fiscal ratios.
  o Fiscal deficit now 4.51% of GDP (vs 4.36%).
  o Debt-to-GDP ratio projected at 57.5%, making fiscal consolidation targets steeper.

Industrial Relations Code (Amendment) Bill, 2026

Context

- Lok Sabha passed the Industrial Relations Code (Amendment) Bill, 2026 to remove legal ambiguity regarding repeal of earlier labour laws under the Industrial Relations Code, 2020.

Details

- The Industrial Relations Code, 2020 consolidated three major labour laws:
  o Trade Unions Act, 1926
  o Industrial Employment (Standing Orders) Act, 1946
  o Industrial Disputes Act, 1947
- Why the Amendment?

  o Concerns arose over whether repeal of old laws happened automatically or required executive notification.
  o The amendment clarifies that repeal occurred through Section 104 itself.
  o Strengthens savings clauses to ensure continuity of past actions and prevent future legal disputes.

Transitioning to Green Steel

Context

- India's net-zero 2070 goal requires decarbonising the steel sector, a major industrial emitter. The Ministry of Steel formed 14 task forces to design pathways for low-carbon steel production.

Details

- A key hurdle is the "green premium" — higher initial costs of producing green steel.
- Steel accounts for about 18% of infrastructure project costs; even with a 30% premium, total project costs may rise only around 5.5%.
- Limited adoption (20%) would raise public infrastructure costs by roughly 1.1%.
- Green steel helps avoid EU carbon tariffs and reduces dependence on imported coking coal.
- India introduced a Green Steel Taxonomy with 3-, 4- and 5-star emission ratings.
- Global examples include Japan's green procurement model and California's Buy Clean standards.
- Procurement mandates are under consideration but face cost and verification challenges.

Great Nicobar Project Gets NGT Nod

Context

- The National Green Tribunal approved the ₹81,000-crore Great Nicobar infrastructure project, citing its strategic importance while noting environmental safeguards.

Details

- The project aims to develop Great Nicobar into a strategic and economic hub but raises ecological and social concerns.

- Located on Great Nicobar Island (910 sq km), India's southernmost territory near Indira Point.
- Total project area is about 166 sq km with major forest diversion and large-scale land reclamation.
- Implemented by Andaman and Nicobar Island Integrated Development Corporation Ltd (ANIIDCO).

Framework for Compensation in Digital Fraud Cases

Context

- RBI released a draft framework proposing compensation of up to ₹25,000 for victims of small-value digital frauds, including certain cases involving user error.

Details

- Rapid growth of UPI and digital banking has increased exposure to phishing, OTP scams and social-engineering frauds.
- Existing 2017 guidelines focused on customer liability, not direct compensation.
- Key Features of the Proposed Framework
  - Compensation Cap: Up to ₹25,000 per fraudulent transaction.
  - Scope: Small-value digital frauds where recovery is difficult.
  - User Error Clause: Compensation possible even if OTP/credentials were shared under deception.
  - Consultative Approach: Draft rules open for public feedback before finalisation.
  - Shift from liability-based regulation to consumer-protection-oriented compensation.

Securities Transaction Tax (STT)

Context

- The Finance Minister has proposed increasing the STT on futures and options trading by up to 150% to regulate derivatives activity and enhance revenue.

Details

- STT is a direct tax levied on the purchase and sale of securities traded on recognised stock exchanges in India.
- Introduced through the Finance Act, 2004 to simplify taxation and reduce tax evasion in capital markets.
- Governed by the Securities Transaction Tax Act and collected by the Central Government.
- Charged on the transaction value, irrespective of profit or loss.
- Deducted at the time of trade, similar to Tax Deducted at Source (TDS).
- Applicable to equities, equity derivatives, and equity-oriented mutual fund units.
- Not applicable to off-market trades, commodities or currency transactions.

Basic Customs Duty (BCD)

Context

- Union Budget 2026–27 proposed full exemption of BCD on 17 cancer and rare-disease drugs to reduce treatment costs and improve access to medicines.

Details

- BCD is a tax imposed on goods imported into India under the Customs Act, 1962.
- Duty rates are specified in the First Schedule of the Customs Tariff Act, 1975.
- It is generally levied on an ad-valorem basis (percentage of the value of imported goods).
- Purpose: Protect domestic industries from unfair foreign competition. Regulate imports and trade flows.
- How BCD is Calculated
  - Classification of Goods: Items are classified using Harmonized System (HS) codes.
  - Assessment of Value: Based on transaction value (Cost + Insurance + Freight).
  - Application of Duty Rate: Applicable BCD rate is applied to the assessed value to determine payable duty.

o The Central Government may grant exemptions or reductions for specific goods.

Bharat Taxi

Context

- The Union Cooperation Minister launched "Bharat Taxi", India's first cooperative-based ride-hailing platform, at Vigyan Bhavan, New Delhi.

Details

- Bharat Taxi is a cooperative-led ride-hailing platform registered under the Multi-State Cooperative Societies Act, 2002, developed by the Ministry of Cooperation with the National e-Governance Division (NeGD).
- Drivers become shareholders and co-owners of the platform, promoting income security and participatory governance.
- Zero commission model, transparent pricing without surge charges, and direct fare transfer to drivers.
- Promoted by institutions such as National Cooperative Development Corporation, Indian Farmers Fertiliser Cooperative Limited, AMUL, Krishak Bharati Cooperative Limited, National Agricultural Cooperative Marketing Federation of India Limited, NABARD; integrated with national digital platforms like DigiLocker, UMANG and API Setu while following government cybersecurity and data protection norms.

'CHAKRA' – Centre of Excellence

Context

- The State Bank of India has launched 'CHAKRA' – Centre of Excellence to support financing of sunrise sectors vital for India's economic growth and sustainability goals.

Details

- A knowledge-driven platform aimed at enabling structured funding for technology-led, next-generation and green industries.
- Will provide advisory support to SBI's project finance teams and the wider financial ecosystem.

UP Ban on Fertilisers

Context

- Uttar Pradesh banned the sale of non-subsidised fertilisers by urea manufacturers, highlighting concerns over heavy regulation in India's fertiliser sector.

Details

- Structure of the Industry
  o Highly regulated sector crucial for food security.
  o Urea Maximum Retail Price (MRP) fixed at about ₹266.5 per 45-kg bag since 2012.
  o Di-Ammonium Phosphate (DAP), Muriate of Potash (MOP) and Nitrogen-Phosphorus-Potassium (NPK) complexes are "partially decontrolled" but remain indirectly price-regulated through subsidies.
- Department of Fertilisers prepares allocation and movement plans.
- Companies must follow state-wise and district-wise dispatch schedules.
- Non-Subsidised / Speciality Fertilisers: Includes water-soluble fertilisers, calcium nitrate, zinc sulphate, bentonite sulphur, micronutrients and bio-stimulants. These products are notified under the Fertiliser Control Order (FCO), 1985.

India's Energy Shift through the Green Ammonia Route

Context

- At India Energy Week, investment opportunities worth ~USD 500 billion were announced, signalling a shift from energy security to energy independence — anchored in green hydrogen and green ammonia.

Details

- What is Green Ammonia? Ammonia produced using hydrogen generated from renewable electricity; unlike grey ammonia (fossil-fuel based), it is largely carbon-free and supports decarbonisation goals.
- Strategic Advantage: Easier to liquefy, store, and transport than hydrogen → acts as a

practical hydrogen carrier; usable in fertilisers, shipping fuel, power generation, and industry.

Distribution Companies (DISCOMs) in India

Context

- India's electricity DISCOMs have shown significant financial improvement, recording profits and reduced losses, though concerns remain about long-term sustainability.

Details

- DISCOMs handle the last-mile delivery of electricity to consumers.
- India has about 72 DISCOMs (State utilities, private firms and power departments).
- Key financial indicators:
  - AT&C Losses: Technical losses, theft and billing inefficiencies.
  - ACS-ARR Gap: Difference between cost of supply and revenue realised.
- Legacy of Financial Stress
  - Rooted in earlier State Electricity Boards with political interference and subsidised tariffs and delayed subsidy payments by States.
  - Accumulated losses rose to ₹6.47 lakh crore, and debt to ₹7.26 lakh crore by 2024-25.
- Role of Policy Reforms
  - Revamped Distribution Sector Scheme (RDSS): Performance-linked funding and infrastructure modernisation.
  - Late Payment Surcharge Rules: Structured repayment of legacy dues.
  - Debt discipline reduced unpaid liabilities and restored confidence in the power supply chain.

Sovereign Gold Bonds (SGBs)

Context

- Union Budget 2026–27 proposed a 12.5% retrospective Long-Term Capital Gains (LTCG) tax on Sovereign Gold Bonds (SGBs) from April 2026.

Details

- The move has revived concerns about tax certainty, investor confidence and policy credibility in India.
- Introduced in 2015–16 to:
  - Reduce physical gold imports and improve Current Account Deficit (CAD).
  - Offer "paper gold" with 2.5% annual interest.
  - Provide capital gains tax exemption if held till maturity (earlier understanding).
- Scheme discontinued in 2024 before a global surge in gold prices.

Employees' State Insurance Corporation (ESIC)

Context

- ESIC began celebrations marking its 75th Year of Service at Bharat Mandapam, New Delhi.

Details

- A statutory body established under the Employees' State Insurance Act, 1948; functions under the Ministry of Labour and Employment, Government of India.
- Administers the Employees' State Insurance Scheme, providing medical care, maternity benefits, disability compensation, and financial support to workers in the organised sector and their families.
- Chaired by the Union Minister of Labour; a Director General acts as Chief Executive Officer; includes representatives of employers, employees, Central and State Governments, Parliament, and the medical profession.

3.5   SCHEMES IN NEWS

IndiaAI Mission 2.0

Context

- IndiaAI Mission 2.0 was announced at the India AI Impact Summit 2026, shifting focus from infrastructure creation to AI research, innovation and large-scale adoption, especially for MSMEs.

Details

- MSME-Focused AI Stack: Government plans a UPI-like digital platform offering ready-to-use AI tools so small businesses can easily adopt AI solutions across sectors.
- Around 20,000 additional GPUs will be added to existing capacity to democratise compute access and avoid concentration of AI power in a few firms.
- Sovereign AI Vision: Goes beyond building models to include indigenous chips, infrastructure, control systems and scalable applications to reduce external dependence.
- Economic and Policy Aspects: Push for workforce upskilling, collaboration between industry and academia, and proposals for fair remuneration to news publishers through possible blanket licensing for AI training data.

Urban Challenge Fund (UCF)

Context

- The Union Cabinet has approved the ₹1 lakh crore Urban Challenge Fund to support large-scale urban infrastructure and reform-driven city development.

Details

- The initiative aims to catalyse nearly ₹4 lakh crore of total investment in the urban sector.
- It is a centrally sponsored scheme of the Ministry of Housing and Urban Affairs.
- Designed to build resilient, inclusive, productive and climate-responsive cities.
- Operates on a challenge-based model where projects compete for funding based on reforms and impact.
- Shift from grant-based urban funding to a market-linked, outcome-oriented framework.
- Coverage and Eligible Cities
  - Cities with population above 10 lakh.
  - All State and Union Territory capitals.
  - Major industrial cities with population above 1 lakh.
  - Special support for smaller urban local bodies in hilly and North-Eastern States through a Credit Repayment Guarantee mechanism.
- Project Focus Areas
  - Cities as Growth Hubs: Greenfield development, trunk infrastructure and transit-linked growth corridors.
  - Creative Redevelopment: Retrofitting old infrastructure, heritage revitalisation and pedestrian-friendly planning.
  - Water and Sanitation: Water supply, sewerage, waste management and integrated urban water systems.
- Funding Structure
  - 25% central assistance from the UCF.
  - Minimum 50% funding from market sources such as municipal bonds, bank loans and public–private partnerships.
  - Remaining share from States, UTs, Urban Local Bodies or other stakeholders.

Startup India Fund of Funds 2.0

Context

- The Union Cabinet has approved Startup India Fund of Funds 2.0 (FoF 2.0) to strengthen India's venture capital ecosystem and support innovation-driven startups.

Details

- Launched under the Startup India initiative, the scheme aims to mobilise long-term domestic capital and accelerate the next phase of India's startup growth.
- Key Features:
  - Targeted funding for deep-tech and advanced manufacturing sectors requiring patient capital.
  - Support for early-growth stage founders to reduce funding gaps.
  - Focus on pan-India investment, encouraging startups beyond major metros.
  - Addresses high-risk capital needs in priority sectors linked to self-reliance.

Lead Bank Scheme (LBS)

Context
- The Reserve Bank of India released draft revised guidelines for the Lead Bank Scheme for public consultation.

Details
- LBS was introduced in 1969 on the recommendations of the Nariman Committee to strengthen institutional credit delivery at the district level.
- Key Features:
  - One bank is designated as the Lead Bank for each district.
  - Responsible for coordinating banks, government agencies and development institutions.
  - Prepares and monitors District Credit Plans.
- Institutional Mechanism:
  - Lead District Manager oversees implementation and coordination at the district level.

Mahatma Gandhi Gram Swaraj Initiative

Context
- Announced in Union Budget 2026–27, the Mahatma Gandhi Gram Swaraj Initiative aims to strengthen India's traditional sectors such as khadi, handloom and handicrafts.

Details
- Key Features
  - Focuses on improving global market access, branding and market linkages for rural artisans and weavers.
  - Targets weavers, village industries, rural youth and beneficiaries of the One District One Product (ODOP)initiative.
  - Addresses structural issues like fragmented supply chains, inconsistent quality standards and limited market connectivity.

SHE Marts

Context
- The Finance Minister recently announced SHE-Mart, a new initiative aimed at strengthening women entrepreneurship by creating community-owned retail platforms.

Details
- SHE (Self-help Entrepreneur) Marts are proposed community-owned retail outlets to be established through cluster-level federations of Self-Help Groups (SHGs).
- They aim to provide women entrepreneurs with market access, branding support and sustainable income opportunities.
- Builds on the Lakhpati Didi initiative of the Ministry of Rural Development, which supports rural women SHG members to earn at least ₹1 lakh annually.
- Provides skill training (e.g., tailoring, LED making, drone repair) and income-generation opportunities to promote financial independence.

PM Surya Ghar: Muft Bijli Yojana

Context
- Rooftop solar installations have crossed 30 lakh households (since February 2024)under PM Surya Ghar: Muft Bijli Yojana.

Details
- Launched in 2024 to promote rooftop solar adoption and provide up to 300 units of free electricity per month to households through subsidy support.
- Subsidy Structure:
  - 60% subsidy for systems up to 2 kilowatt (kW) capacity
  - 40% subsidy for additional cost between 2–3 kW
  - Subsidy capped at 3 kW capacity
- Implemented through a National Programme Implementation Agency (NPIA)and State Implementation Agencies (SIAs); Distribution Companies (DISCOMs) act as SIAs, ensuring net metering, inspection, commissioning, and performance-linked incentives.
- Other Components & Eligibility: Includes Model Solar Village (one per district) and incentives of ₹1,000 per installation to Urban Local Bodies (ULBs) and Panchayati Raj Institutions (PRIs); eligible households must own a suitable roof, have a valid electricity connection, and not have availed other solar subsidies.

4. DEFENSE & SECURITY

4.1   PRAHAAR: INDIA'S NATIONAL COUNTER-TERRORISM STRATEGY

Context
- The Ministry of Home Affairs (MHA) introduced the first comprehensive National Counter-Terrorism Policy and Strategy, named '**PRAHAAR**'.

About PRAHAAR Framework
The framework is structured as an acronym where each letter represents a core pillar of the strategy:
- **P – Prevention:** Focuses on intelligence-guided operations to stop terror attacks before they happen, using platforms like the Multi Agency Centre (MAC).
- **R – Response:** Ensures swift and proportionate action, with local police as first responders backed by elite units like the National Security Guard (NSG).
- **A – Aggregation:** Seeks a "whole-of-government" approach by pooling the capacities of central and state agencies.
- **H – Human Rights:** Mandates that all operations and threat mitigation processes adhere to the rule of law and human rights standards.
- **A – Attenuation:** Aims to weaken the conditions that allow terrorism to thrive, specifically targeting radicalisation through community engagement.
- **A – Alignment:** Focuses on shaping and aligning international counter-terrorism efforts through treaties and global partnerships.
- **R – Recovery:** Emphasises building societal resilience and ensuring quick recovery through a "whole-of-society" approach.

Implementation Challenges of PRAHAAR
- **Federal Friction**: Since 'Police' and 'Public Order' are State subjects, centralizing anti-terror efforts could lead to jurisdictional conflicts and delays.
- **Capacity Asymmetries**: State police forces, as first responders, often lack the advanced technology, cyber-training, and funding required to counter modern threats effectively.
- **Subjectivity in De-radicalization**: Measuring radicalization is subjective and lacks clear legal benchmarks, which could lead to arbitrary application or profiling.
- **Concerns over Stringent Laws**: Reliance on stringent laws like UAPA raises concerns about potential misuse, prolonged pre-trial detentions, and low conviction rates.
- **Inter-Departmental Silos**: Overcoming historical institutional turf wars to ensure seamless real-time intelligence sharing and operational synergy remains a significant hurdle.

Way Forward: Strengthening the PRAHAAR Strategy
- **Enhance Federal Coordination**: Strengthen institutional mechanisms for seamless intelligence sharing and joint operations between central and state agencies.
- **Build Uniform Capacity**: Invest in modernizing and standardizing State and UT Anti-Terrorism Squads (ATS) with advanced training, resources, and investigation methods.
- **Leverage Technology**: Invest in countermeasures to address threats from drones, cryptocurrency, and the dark web. Partner with the private sector to develop big data and machine learning tools for pre-emptive analysis.

- **Strengthen Legal Prosecution**: Create a dedicated cadre of federal prosecutors specialized in cyber forensics and anti-terror laws to improve conviction rates.
- **Boost Global Cooperation**: Pursue fast-track international agreements for real-time access to encrypted data and evidence during critical investigations.

Conclusion

- The 'PRAHAAR' strategy is India's evolved zero-tolerance, proactive national security doctrine that combines hard security and de-radicalization, with its success dependent on center-state coordination, capacity building, and balancing security with fundamental rights.

4.2   SHORT ARTICLES

Framework for Space Cyber Security

Context

- The **Indian Computer Emergency Response Team (CERT-In)** issued an advisory framework to ensure a "secure-by-design" philosophy, enhancing the security of space assets.

Key Provisions of the Framework

- The Framework mandates comprehensive security measures for the entire space ecosystem (government, private, operators).
- **Threat Assessment:** Addressing risks like jamming, spoofing, unauthorized uploads, ground compromise, and firmware manipulation.
- **Segment-wise Security:** Enforcing robust authentication, encryption, access control, and intrusion detection across the **Space, Ground, Communication Links, and User Terminals** segments.
- **Incident Response:** Clear protocol for detecting, responding to, and reporting cyber security incidents, aligned with CERT-In Directions.
- **Governance:** Mandatory appointment of a Chief Information Security Officer (CISO) to oversee the security of their satellite communication systems.
- **Supply Chain Security:** Risk assessment and equipment certification to prevent the introduction of vulnerabilities.

About CERT-In

- **Statutory Body:** It is designated under **Section 70B of the Information Technology Act, 2000.**

- **Nodal Agency:** It serves as the national agency for responding to cyber incidents like hacking and phishing.
- **Parent Ministry:** It operates under the **Ministry of Electronics and Information Technology (MeitY)**.
- **Core Functions:** It provides a 24x7 incident response help desk and offers services related to security management and prevention of cyber threats.

Bioterrorism and the Threat Of Ricin

Context

- Bioterrorism is the deliberate release of biological agents to cause illness or death, an emerging threat highlighted by a recent National Investigation Agency (NIA) probe into a doctor accused of weaponizing the highly lethal toxin, Ricin.

What is Ricin?

- **Definition:** A type of protein (lectin) that inactivates ribosomes, the protein-making machinery within cells.
- **Source:** Extracted from the seeds of the castor bean plant (**Ricinus communis**). Can be extracted from the waste mash left after producing castor oil, using common industrial solvents like **acetone**.
- **Mechanism of Action:** It works by **blocking the ability of cells to synthesize essential proteins**. This cellular damage leads to tissue injury, organ failure, and eventually death.
- **Toxicity & Antidote:** Extremely toxic even in minute doses. It can be fatal through

inhalation, ingestion, or injection. Currently, there is **no known antidote** for ricin poisoning.

- **International Classification:** Due to its high potential for misuse, Ricin is classified as a **Schedule 1 substance** under the **Chemical Weapons Convention (CWC)**. This classification signifies that it has little to no peaceful application and poses a high risk.

- **Operational History:** Ricin has been used in small-scale, targeted assassinations but has **never been successfully deployed in a mass-casualty event**.

4.3   SNIPPETS

Topics	Details
Anjadip Vessel	The Indian Navy commissioned INS Anjadip, an indigenous Anti-Submarine Warfare Shallow Water Craft (ASW-SWC), at Chennai Port. INS Anjadip is the **third of eight ships in the ASW-SWC project**, an initiative under 'Aatmanirbhar Bharat' for self-reliant defence manufacturing. **Built by Garden Reach Shipbuilders & Engineers (GRSE) in Kolkata**. **Nicknamed the "Dolphin Hunter,"** the vessel is optimised for littoral waters, capable of detecting, tracking, and destroying enemy submarines near the coast using advanced indigenous systems like the Hull Mounted Sonar 'Abhay', Lightweight Torpedoes, and ASW Rockets.
Exercise Vajra Prahar	The 16th edition of the India-US joint special forces exercise 'Vajra Prahar' held at Bakloh, Himachal Pradesh. **Exercise Vajra Prahar** is a joint military training exercise conducted annually between the **Special Forces of India and the United States**. The exercise began in **2010** as part of a strategic effort to enhance defense cooperation between the two nations. The aim is to improve **interoperability** and shared tactical expertise in special operations.
Dharma Guardian Exercise	The 7th edition of the annual joint military exercise 'Dharma Guardian' between the Indian Army and the Japan Ground Self-Defense Force (JGSDF) held in Chaubattia, in Uttarakhand. Exercise **Dharma Guardian** is an annual bilateral military exercise conducted between the **Indian Army** and the **Japan Ground Self-Defense Force (JGSDF)**. First started in 2018, it has become a key pillar of the "Special Strategic and Global Partnership" between India and Japan.
P-8I Anti-Submarine Warfare	The Defence Procurement Board (DPB) approved the acquisition of six additional Boeing P-8I Poseidon aircraft from the US to enhance the Indian Navy's surveillance and combat capabilities in the Indian Ocean Region. The deal is pursued via an **India–US Inter-Governmental Agreement (IGA)** under the **Defence Acquisition Procedure (DAP) 2020**, which removes **offset requirements** for IGAs. The deal excludes **technology transfer or co-production**, prioritizes **strategic urgency** over 'Make in India' domestic participation. The **Boeing P-8I** is a multi-mission maritime patrol aircraft for **Anti-Submarine Warfare (ASW), Anti-Surface Warfare, Intelligence, Surveillance and Reconnaissance (ISR), Maritime Domain Awareness, and Search and Rescue**.
Exercise Vajra Ghaat	The Indian Army's **Exercise Vajra Ghaat** at the **Pokhran Field Firing Range** demonstrated the combat readiness of the **K9 Vajra** self-propelled artillery gun system in desert warfare. **The exercise aimed to validate refined Tactics, Techniques, and Procedures (TTP)** for better battlefield survivability and operational effectiveness. The **K9 Vajra** is a **self-**

	propelled howitzer, based on South Korea's K9 Thunder. Designed for long-range, accurate fire, it uses Indian and **NATO**-standard ammunition and has all-welded steel armor. It was acquired under the **'Buy Global' Defence Procurement Procedure.**
Exercise MILAN 2026	**The Indian Navy** set up a **MILAN village** in Visakhapatnam for cultural and social exchanges during the **13th Exercise MILAN 2026**), which includes over **70 participating countries**, such as first-timers **Germany**, the **Philippines**, and the **UAE**. **MILAN** is the **biennial multilateral naval exercise** hosted by the **Indian Navy**. Initiated in **1995** by the **Andaman and Nicobar Command**. It aims to build mutual understanding, trust, and professional interaction to promote a **free, open, inclusive, and rules-based maritime order**. The exercise has two phases: the **Harbour Phase** (seminars, exchanges) and the **Sea Phase** (focusing on **interoperability, Humanitarian Assistance and Disaster Relief (HADR), anti-submarine warfare, and tactical manoeuvres**).
Exercise KHANJAR	The 13th edition of the India-Kyrgyzstan Joint Special Forces Exercise KHANJAR held in Missamari, Assam. **Exercise KHANJAR**, an **annual** India-Kyrgyzstan joint Special Forces exercise since **2011**, to exchange best practices in **counter-terrorism and Special Forces operations** across **urban and mountainous terrain**, focusing on **sniping, building intervention, and high-altitude/mountain warfare**. Kyrgyzstan, a **landlocked Central Asian country with capital Bishkek, borders Kazakhstan, China, Tajikistan, and Uzbekistan**. It shares the strategically sensitive **Fergana Valley** with Uzbekistan and Tajikistan, a region vital for India's long-term energy security due to its rich hydrocarbon resources.

5. ENVIRONMENT & ECOLOGY

5.1   THE FADING OF INDIA'S ENVIRONMENTAL JURISPRUDENCE

Context

- India's environmental governance is witnessing a shift where development priorities increasingly override ecological safeguards.
- Judicial and regulatory trends indicate a gradual dilution of earlier environmental protections, raising constitutional and ethical concerns.

Policy Shifts and Judicial Retreat

- Recent regulatory changes allow Environmental Impact Assessments (EIA) without clear project specifics, weakening prior scrutiny.
- Recall of key judgments restricting retrospective environmental clearances reflects a trend toward procedural flexibility over ecological protection.
- Environmental law risks being treated as a compliance formality rather than a substantive safeguard.

Aravalli Controversy (Ecological Reductionism)

- The Aravalli ranges play a crucial ecological role in preventing desertification and supporting biodiversity.
- A height-based (100-metre) definition of the Aravallis ignores hydrology and ecological continuity.
- Departure from the precautionary principle undermines earlier jurisprudence that emphasised irreversible ecological harm.

Constitutional Implications

- Article 21: Right to life includes the right to a healthy environment.
- Article 48A & 51A(g): Duty of the State and citizens to protect nature.
- Article 14: Arbitrary classifications in environmental protection violate equality.

- Weakening safeguards risks hollowing out constitutional environmental rights.

Erosion of Environmental Deterrence

- Growing reliance on post-facto or conditional approvals weakens compliance norms.
- Earlier rulings rejecting legalisation of violations are being diluted, reducing the deterrent effect of environmental regulation.

Coastal Ecosystems and Mangroves

- Mangroves act as carbon sinks and flood buffers.
- Judicial approvals for felling/transplantation in infrastructure projects overlook ecological science; compensatory afforestation cannot replicate mature ecosystems.

Infrastructure in Fragile Ecosystems

- Projects like the Char Dham highway highlight tensions between strategic development and ecological fragility.
- Increased landslide risks raise questions about intergenerational justice and sustainable development.

Procedural Inequality and Corporate Advantage

- Large corporations often navigate clearances more easily than local communities.
- Public hearings and objections are increasingly marginalised, eroding procedural fairness and public trust.

Changing Role of the Judiciary

- Earlier jurisprudence emphasised doctrines like public trust and precautionary principle.
- Need for institutional reforms such as dedicated environmental benches and stronger scientific evaluation.

5.2   SHORT ARTICLES

World Wetlands Day 2026

Context:

- World Wetlands Day 2026 focuses on the theme "Wetlands and Traditional Knowledge: Celebrating Cultural Heritage".

Details

- Celebrated annually on 2 February to mark the signing of the Ramsar Convention in Ramsar, Iran, in 1971.
- First observed in 1997 and recognised as a UN International Day since 2022.
- The Ramsar Convention is one of the oldest global environmental agreements and the only one dedicated entirely to wetlands, with 172 Contracting Parties.
- Patna Bird Sanctuary (Uttar Pradesh) and Chhari-Dhand (Gujarat) were recently added as Ramsar Sites, taking India's total to 98 wetlands of international importance.
- Patna Bird Sanctuary (Uttar Pradesh): Comprises freshwater marshes, grasslands and woodland habitats surrounded by agricultural landscapes. Recognised as an Important Bird and Biodiversity Area (IBA) by BirdLife International.
- Chhari-Dhand Wetland (Kutch, Gujarat): A seasonal saline wetland located between the Banni grasslands and the salt flats of Kutch. Serves as a major wintering ground for migratory waterfowl.

Carbon Capture Utilisation and Storage (CCUS)

Context:

- The Union Budget announced an outlay of ₹20,000 crore over five years to promote CCUS technologies as part of India's decarbonisation strategy.

Details

- CCUS refers to a group of technologies that capture carbon dioxide (CO_2) emissions from industrial sources or the atmosphere and either reuse them or store them safely underground to reduce greenhouse gas emissions.
- Methods of CO_2 Capture
  - Post-combustion: CO_2 removed from flue gas after fuel is burnt.
  - Pre-combustion: Fuel converted into hydrogen and CO_2 before burning.
  - Oxy-fuel combustion: Fuel burned with pure oxygen to produce concentrated CO_2 for easier capture.

Peatlands

Context

- Lakes Mai Ndombe and Tumba in the Democratic Republic of the Congo are releasing ancient carbon stored in surrounding peatlands of the Congo Basin.

Details

- What are Peatlands? Waterlogged terrestrial wetlands where incomplete decomposition of plant material leads to peat accumulation, making them major long-term carbon sinks.
- Peat stores carbon for thousands of years; when drained or dried, decomposition resumes and releases carbon dioxide back into the atmosphere.
- Though Congo Basin peatlands cover only 0.3% of Earth's land surface, they hold about one-third of tropical peatland carbon stocks; globally concentrated in boreal and temperate Northern Hemisphere, with tropical peatlands in Southeast Asia, Africa, and Latin America.

FRA Cells

Context

- Centre has expanded the mandate of Forest Rights Act (FRA) Cells to strengthen implementation of the Forest Rights Act, 2006 at State/UT level.

Details

- Institutional Basis: FRA Cells were sanctioned under Dharti Aaba Janjatiya Gram Utkarsh

Abhiyaan (2024) and are funded by the Ministry of Tribal Affairs.
- Role: Provide technical support for claim processing, digitisation, awareness, and convergence of forest villages into revenue villages — without interfering in statutory decision-making.

International Climate Initiative (IKI)

Context:
- India and Germany launched a €20 million Large Grant project under Germany's IKI to support India's climate and biodiversity goals.

Details
- Established in 2008, IKI is part of Germany's international climate finance under the UNFCCC and Convention on Biological Diversity (CBD) frameworks, supporting developing countries in implementing their Paris Agreement NDCs.
- Focus Areas: Climate mitigation (net-zero by 2050 pathway), adaptation & resilience, preservation of carbon sinks, and biodiversity conservation aligned with the Global Biodiversity Framework.

5.3   SNIPPETS

PROTECTED AREAS IN NEWS

Topic	Details
Kolleru Wildlife Sanctuary	• Reports of new illegal aquaculture tanks inside Kolleru Wildlife Sanctuary have raised conservation concerns. • Situated in West Godavari and Krishna districts of Andhra Pradesh, the sanctuary protects the Kolleru Lake wetland, which was designated a Ramsar Site in 2002. • The lake is fed by the Budameru and Tammileru rivers and linked to the Krishna–Godavari river systems. • Characterised by rich aquatic vegetation, it supports numerous bird species such as egrets, herons and kingfishers.
Nandhaur Wildlife Sanctuary	• The Uttarakhand Forest Department has recorded smooth-coated otters in Nandhaur Wildlife Sanctuary for the first time. • Situated in Uttarakhand within the Terai Arc Landscape; it forms part of the Shivalik Elephant Reserve and links Corbett–Rajaji in the west with Pilibhit–Dudwa and Nepal's Terai in the east. • Bounded by the Gola River in the west and Sharda River in the east, and intersected by the Nandhaur River; supports riverine and forest ecosystems. • Dominated by tropical moist deciduous & mixed deciduous forests. • Hosts Asian elephants, tigers, leopards, Asiatic black bear and sloth bear along with diverse wildlife.
Bandhavgarh Tiger Reserve	• The Madhya Pradesh High Court has asked the Field Director of Bandhavgarh Tiger Reserve to submit a report on recent tiger deaths within the reserve and nearby areas. • Located in Madhya Pradesh across the Vindhya hills, featuring steep ridges, undulating forests and open grasslands; the reserve also contains caves with Pali inscriptions and ancient stupas and statues dating to around the 1st century BCE. • Dominated by sal forests in valleys and bamboo on lower slopes; important tree species include saj, dhaora, tendu, arjun, amla and palas. • Known for very high tiger density; also supports leopards, gaur, sambar, chital,

	nilgai, wild boar, sloth bear, wolves, jackals and primates along with more than 250 bird species.
Papikonda National Park	• A male tiger named 'Explorer' was reintroduced into Papikonda National Park, Andhra Pradesh, under Operation Stripes. • Situated in Andhra Pradesh along the banks of the Godavari River; recognised as an Important Bird and Biodiversity Area by BirdLife International. • Dominated by tropical moist deciduous forests with patches of semi-evergreen and dry deciduous vegetation. • Major species include teak, rosewood, sandalwood, bamboo, eucalyptus, sal and mahua. • Hosts Bengal tiger, leopard, sloth bear and dhole; region is also known for the local dwarf goat breed "kanchumekha."
Hollongapar Gibbon Wildlife Sanctuary	• Recently, a male hoolock gibbon was found electrocuted inside Hollongapar Gibbon Wildlife Sanctuary in Assam, highlighting concerns over wildlife safety. • It is located in Jorhat district of Assam and is the only sanctuary in India named after a gibbon due to its high density of hoolock gibbons. • The Bhogdoi River forms waterlogged areas along the sanctuary boundary. • Vegetation includes hollong trees dominating the upper canopy, nahar in the middle canopy, and evergreen shrubs in the lower layers. • Key fauna include hoolock gibbon, Bengal slow loris (northeast India's only nocturnal primate), elephants, tigers, leopards, civets, macaques and squirrels.
Kapilash Wildlife Sanctuary	• NBWL approved diversion of 4.68 hectares of forest land from Kapilash Wildlife Sanctuary for the Capital Region Ring Road (CRRR) project. • Location: Dhenkanal district, Odisha. • Eastern Highlands moist deciduous forest dominated by sal, along with amla, teak and kadamba. • Fauna: Elephants, sloth bear, jungle cat, spotted deer, jackal; birds like peacock and junglefowl; species such as pangolin and porcupine.
Rajaji National Park	• The Supreme Court allowed construction of a road through Rajaji National Park with the condition that commercial vehicles will not be permitted. • Situated in Uttarakhand, between the Shivalik ranges and the Indo-Gangetic plains. • Formed by merging Rajaji, Motichur and Chilla Wildlife Sanctuaries; named after freedom fighter C. Rajagopalachari. • The Ganga River divides the park into two parts. • Includes Moist Shivalik Sal forests, Moist Mixed Deciduous forests, Northern Dry Mixed Deciduous forests and Khair-Sissoo forests. • Fauna: Asian elephant, tiger, leopard, Himalayan black bear, sloth bear, civet, marten, jackal and hyena.
Bhadra Tiger Reserve	• A rare sighting of a black panther and a leopard together was recorded at Bhadra Tiger Reserve. • Situated in Karnataka; also designated as an Elephant Reserve and drained by the Bhadra River and its tributaries. • Includes dry deciduous, moist deciduous, semi-evergreen forests and shola patches. • Dominant species include teak, rosewood, mathi, honne, nandi and several medicinal plants.

	• Home to tiger, leopard, dhole, leopard cat, Indian civet and ungulates such as gaur, sambar and barking deer.
Sahyadri Tiger Reserve	• A third tigress was recently released into Sahyadri Tiger Reserve in Maharashtra. • Situated in the Sahyadri ranges (Western Ghats), comprising Koyana Wildlife Sanctuary and Chandoli National Park; Shivsagar (Koyana River) and Vasant Sagar (Warana River) reservoirs lie in the core area. • Features moist evergreen, semi-evergreen, moist and dry deciduous forests with extensive climax vegetation and low anthropogenic pressure. • Rich biodiversity including teak, bamboo and medicinal plants; fauna includes tiger, leopard, wild dog, gaur, sambar, mouse deer, giant squirrel and endemic birds like hornbills.
Karimpuzha Wildlife Sanctuary	• A recent faunal survey in Karimpuzha Wildlife Sanctuary has significantly enriched biodiversity records of Kerala's youngest protected area. • Situated on the western slopes of the Nilgiris in Kerala; named after the Karimpuzha River, a tributary of the Chaliyar. • It forms part of the Nilgiri Biosphere Reserve and Nilambur Elephant Reserve, sharing boundaries with Mukurthi National Park (Tamil Nadu) and Silent Valley National Park (Kerala). • Home to the nomadic Cholanaikan tribe, recognised as a Particularly Vulnerable Tribal Group (PVTG). • Unique for containing all seven forest types found in Kerala.

Pakhal Wildlife Sanctuary	• Scientists from the Botanical Survey of India recently discovered a new flowering plant species, Diclipterapakhalica, in Pakhal Wildlife Sanctuary.
	• Situated in Telangana; the sanctuary includes the historic Pakhal Lake, excavated in 1213 AD during the Kakatiya ruler Ganapati Deva's reign.
	• Dominated by mixed deciduous forests with bamboo, teak and Mohua species.
	• Hosts leopard, hyena, sloth bear, chital, wild boar, blackbuck and other wildlife.
	• Diclipterapakhalica:
	   o A newly identified flowering plant belonging to the Acanthaceae family.
	   o Found along stream banks and rocky habitats inside the sanctuary.

Dholpur–Karauli Tiger Reserve	• The Rajasthan Minister of State for Forest, Environment & Climate Change recently stated in the Assembly that residents of villages inside Dholpur–Karauli Tiger Reserve will not be displaced without their consent. • Situated in Rajasthan; ecologically connected with Ranthambhore Tiger Reserve to the west and bordered by the Chambal River in the east. • Dominated by dry deciduous forests with species such as dhok, khair, tendu and babool. • Hosts tiger, leopard, sloth bear, Indian wolf, striped hyena, and herbivores like chital, sambar, nilgai, chinkara and wild boar along with smaller mammals.
Nalsarovar Bird Sanctuary	• The latest census at Nalsarovar Bird Sanctuary recorded over five lakh birds across 200 species — a 21% rise from 2024 — attributed to reduced tourism activity, minimal noise pollution and absence of boating. • Situated in Gujarat; "Nal Sarovar" means 'Tap Lake'. It is a designated Ramsar Wetland of International Importance. • Dominated by aquatic vegetation such as locally known pilu trees bearing edible red berries. • Major habitat for migratory birds arriving from Europe and Siberia; commonly

	seen species include pelicans, ducks, herons and storks.
Mehao Wildlife Sanctuary	• The Arunachal Pradesh government recently permitted the capture of a tiger after a fatal incident along the Roing–Mayodia road inside Mehao Wildlife Sanctuary. • Situated in Arunachal Pradesh; named after Mehao Lake in the sanctuary's core area. • Hilly landscape (400–3,560 m altitude) with four forest types — tropical evergreen, sub-tropical & temperate, temperate broadleaf and conifer forests. • Species include Hollock, Khokan, Mekai, Simul and abundant bamboo (*Dendrocalamushamiltonii*). • Hosts rich biodiversity such as clouded leopard, marbled cat, Himalayan black bear, wild dog and red panda; several perennial streams like Ashupani and Deopani flow through it.
Veerangana Durgavati Tiger Reserve	• The Standing Committee of the National Board for Wildlife has recommended diversion of about 272 hectares of forest land in the core area of Veerangana Durgavati Tiger Reserve, Madhya Pradesh, for the Kopra medium irrigation project. • Situated in Madhya Pradesh, covering parts of Nauradehi Wildlife Sanctuary and Durgavati Wildlife Sanctuary; lies across the Narmada and Yamuna river basins. • Dominated by dry deciduous forests with species such as teak, saja, dhaora, ber and amla. • Hosts tiger, leopard, wolf, jackal, Indian fox, striped hyena, nilgai, chinkara, chital, sambar, blackbuck, langur and rhesus macaque. • Important habitat for critically endangered vultures like the White-rumped vulture and Indian vulture.
Dalma Wildlife Sanctuary	• The Jharkhand Tourism Minister recently launched a jungle safari and laid the foundation for 30 eco-cottages at Dalma Wildlife Sanctuary in East Singhbhum district. • Situated around the Dalma Hills on the Chotanagpur Plateau in Jharkhand; the forest lies within the catchment of the Subarnarekha River and Dimna Lake. • Dominated by Dry Peninsular Sal and Northern Dry Mixed Deciduous forests that shed leaves in summer and regenerate during the monsoon. • Rich in medicinal plants like Anantmul, Satawari and Sarpagandha; wildlife includes elephants, barking deer, wild boar, pangolin, sloth bear and giant squirrel, along with birds such as grey hornbill and paradise flycatcher. • Named after the local deity "Dalma Mai"; includes scenic waterfalls like Sitaguldi and Dassam.
Kole Wetlands	• A scientific survey recorded 12 species of pygmy grasshoppers— small grasshopper relatives lacking sound/hearing organs and typically laying eggs singly in soil grooves. • Located in Kerala; declared a Ramsar Site (2002); part of the Central Asian Flyway; recognised as an Important Bird Area by BirdLife International. • Low-lying, monsoon-flooded wetland with saltwater ingression; water drained and bunds erected for cultivation; surrounded by coconut and arecanut plantations. • 300-year-old paddy cultivation tradition; name 'Kole' (Malayalam: bumper crop)

	reflects high productivity; among Kerala's largest and most threatened wetlands.

FAUNA IN NEWS

Topics	Details
Indian Star Tortoise	• A ground fire in Amrabad Tiger Reserve (Telangana) led to the rescue and relocation of an Indian Star Tortoise. • Indian Star Tortoise (Geochelone elegans): A medium-sized terrestrial tortoise known for its star-patterned shell, which provides camouflage. It is native to India, Pakistan and Sri Lanka, inhabiting dry scrub and forest areas; listed as Vulnerable on the IUCN Red List. • Amrabad Tiger Reserve: Situated in the Nallamala Hills of the Eastern Ghats, it is among India's largest tiger reserves and was earlier part of the Nagarjunasagar-Srisailam Tiger Reserve. The Krishna River and streams here feed major reservoirs like Srisailam and Nagarjunasagar dams. • The reserve has dry deciduous forests with teak, bamboo and acacia; supports tigers, leopards, gaur, deer, and rich birdlife, and is home to the Chenchu tribal community.
Black-Necked Crane	• The Black-Necked Crane is facing rising threats from habitat loss due to expanding settlements, agriculture and infrastructure in high-altitude wetlands • It is a medium-sized crane, locally called "cha thung-thung" (Ladakh) and "thungdung karma" (Arunachal Pradesh); found mainly in Tibetan Plateau wetlands and eastern Ladakh, with wintering populations in Sangti and Zimithang valleys. • Inhabits high-altitude marshes and lakes; has an omnivorous diet. • Listed as Near Threatened (IUCN), CITES Appendix I, Schedule I of Wildlife Protection Act, 1972, and covered under the Convention on Migratory Species
Gentoo Penguins	• Gentoo penguins have become the first bird species confirmed to be infected with H5 avian influenza in an Australian territory. • Gentoo penguin (Pygoscelispapua) belongs to the genus Pygoscelis and is closely related to the Adélie and Chinstrap penguins. • Found along shorelines of the Antarctic Peninsula, sub-Antarctic islands and Falkland Islands; occurs only in the Southern Hemisphere between about 45° and 65° south latitude. • Known as the fastest underwater swimmer among penguins; diurnal and highly social, breeding in colonies; carnivorous and mainly feeds on fish and marine organisms. • Conservation Status: IUCN Red List – Least Concern.
Spinosaurus mirabilis	• A new carnivorous dinosaur species, Spinosaurus mirabilis, has been discovered in the Sahara Desert. • It is a meat-eating dinosaur belonging to the Spinosaurus genus; fossils were found in the Jengueb fossil region of Niger. • Lived around 95 million years ago and likely inhabited forested inland areas with river systems. • It is the second identified species of Spinosaurus after Spinosaurus

	aegyptiacus, whose fossils were first discovered in Egypt in 1915.
Galathea balasubramaniani	• Scientists have discovered a new tiny crab species, Galathea balasubramaniani, from the coral reefs of Agatti in the Lakshadweep Islands. • It belongs to the genus Galathea, a group of small reef-dwelling anomuran crabs commonly called squat lobsters, known for their lobster-like appearance. • These crabs live in coral and rocky crevices, helping recycle organic matter and acting as prey for fish and other marine organisms. • The species differs from its close relative Galathea mauritiana in leg structure and other morphological traits, supported by genetic differences.
Indian Grey Hornbill	• The Indian Grey Hornbill was selected as the 'Bird of Tirupattur' district in Tamil Nadu through a public poll conducted by the Forest Department. • It is a common arboreal hornbill of the Indian subcontinent, usually seen in pairs and spending most of its time on tall trees. • Appearance: Grey body with a pale belly; dark curved bill with a casque; males and females look similar. • Found in deciduous forests, open woodlands, thorn forests, farmlands and urban gardens across most of India, except Assam; also occurs in parts of Pakistan, Nepal and Bangladesh. • Mainly frugivorous, especially figs; acts as an important seed disperser in forest ecosystems. • Conservation Status: IUCN Red List – Least Concern.
Alpheus madhusoodanai	• Scientists have discovered a new pistol shrimp species, Alpheus madhusoodanai, in the Kochi backwaters of Kerala, marking the first alpheid shrimp recorded from an estuarine habitat in the region. • It belongs to the family Alpheidae and is a burrowing snapping shrimp that plays a role in maintaining mangrove ecosystem health by releasing trapped toxic gases from swampy soils. • Found in estuarine backwaters; its burrowing behaviour improves sedimentation and supports mangrove ecology. • Pistol or snapping shrimps possess an oversized claw that produces a powerful bubble "snap," used mainly for hunting prey.

Malabar Pied Hornbill	• Hornbill feeding sites ("hornbill restaurants") are being created in UdantiSitanadi Tiger Reserve, Chhattisgarh to support Malabar Pied Hornbill populations.
	• It is a medium-sized hornbill with black-white plumage and a prominent casque.
	• Found in evergreen and moist deciduous forests; occurs in Western Ghats, Himalayan foothills, Satpuda Hills and Sri Lanka.
	• Mostly frugivorous; important seed disperser.
	• IUCN Near Threatened; threatened by habitat loss and fragmentation.
	• UdantiSitanadi Tiger Reserve: formed by merging Udanti and Sitanadi Wildlife Sanctuaries.
	   o Mahanadi with tributaries Udanti, Sitanadi, Indravan and Pairi.
	   o Tropical dry and moist deciduous forests.

Lepidocampasikkimensis	• Zoological Survey of India scientists discovered a new Diplura species, Lepidocampasikkimensis, in Ravangla, Sikkim. • It is a small, wingless, soil-dwelling arthropod belonging to Diplura, a primitive group of blind hexapods. • Identified by distinctive body scales, bristle patterns (chaetotaxy) and specialised appendages. • Diplurans help maintain soil health by aiding nutrient cycling and improving soil structure. • First Lepidocampa species described by an Indian team with DNA barcode data; the study also rediscovered the rare subspecies Lepidocampajuradii bengalensis after nearly five decades.
Loggerhead Turtle	• Rising ocean temperatures and declining food availability are affecting the migration, reproduction and body size of loggerhead turtles. • Loggerhead turtle is an oceanic sea turtle of the family Cheloniidae, named for its large head and strong jaws; it is the second-largest living turtle after the leatherback. • Found across the Atlantic, Indian and Pacific Oceans and the Mediterranean Sea; occurs in open seas as well as bays, lagoons and coastal waters; uses Earth's geomagnetic field for navigation. • Omnivorous, mainly feeds on bottom-dwelling invertebrates such as molluscs and crustaceans. • IUCN status: Vulnerable
White-bellied Sea Eagle	• Nest monitoring in Kerala's Kannur and Kasaragod districts recorded 17 active nesting sites of the White-bellied Sea Eagle this season. • Also called white-breasted sea eagle, it is a large diurnal raptor of the family Accipitridae. • Mainly found near coasts, estuaries and large water bodies; distributed across India, Sri Lanka, southern China, Southeast Asia, New Guinea and Australia. • Shows sexual dimorphism with females slightly larger; communicates mainly through loud vocal calls. • Carnivorous, feeding on fish and other aquatic animals; acts as an apex predator and indicator of coastal ecosystem health. • IUCN Red List: Least Concern
Spot-bellied Eagle-Owl	• Context: The rare Spot-bellied Eagle-Owl, often called the "Ghost of the Forest," was recently photographed in Uttarakhand's Corbett Reserve. • It is a large nocturnal bird of prey known for its powerful build and deep, human-like calls. • Found across India, Nepal, Bhutan, Bangladesh, Sri Lanka and parts of Southeast Asia; inhabits tropical forests, woodlands and savannas. • One of the longest owl species; dark chocolate-brown plumage with white spotting; solitary and territorial in behaviour. • IUCN Red List: Least Concern.
Army Ant Species	• Two new army ant species — Aenictuschittoorensis and Aenictuslankamallensis — were discovered in the Eastern Ghats of Andhra Pradesh. • Army ants are nomadic ants belonging to the subfamily Dorylinae; they

	• do not build permanent nests and instead form temporary living structures called bivouacs. • Found mainly in tropical forests; highly aggressive social predators that move in large coordinated colonies and conduct mass raids. • Practically blind; rely on chemical pheromones for navigation and communication; possess strong mandibles; colonies organised around a single queen with worker ants performing foraging and care duties. • Act as keystone predators by controlling arthropod populations and influencing forest biodiversity.
Cheer Pheasant	• Hunting and habitat degradation continue to threaten the ground-dwelling Cheer Pheasant in the Western Himalayas. • Also called Wallich's pheasant or chir pheasant, belongs to the family Phasianidae. • Found on steep grassy slopes with scrub and rocky hillsides across the Western Himalayas — northern Pakistan, Jammu & Kashmir, Himachal Pradesh, Uttarakhand and central Nepal. • Ground-nesting bird with simple scrape nests. • Shows strong natal philopatry (returns to birthplace to breed). • Feeds on roots, tubers, seeds, bulbs, insects and earthworms. • IUCN Red List – Vulnerable • CITES – Appendix I • Wildlife (Protection) Act, 1972 – Schedule I.
Lion-Tailed Macaque	• Researchers warn that rising lion-tailed macaque presence in human areas is linked to easy food access from human settlements. • Also called the "beard ape," is a small Old World monkey endemic to the Western Ghats. • Arboreal, diurnal and highly territorial; mainly found in evergreen rainforests. • Omnivorous. • IUCN Red List – Endangered • CITES – Appendix I • Wildlife (Protection) Act, 1972 – Schedule I
Himalayan Tahr	• Rising garbage and waste in Himalayan regions is emerging as a new threat to the Himalayan Tahr's alpine habitat. • It is a large hoofed mountain mammal adapted to high-altitude environments of the Himalayas. • Found across southern Tibet, northern India, Nepal and western Bhutan, mainly on steep alpine slopes and rocky terrain. • Thick reddish woolly coat with dense underfur for cold climates. • Males and females have differently shaped horns. • IUCN Red List – Near Threatened.
White-rumped Vulture	• A critically endangered White-rumped Vulture was recently rescued in Nilambur, Kerala, highlighting ongoing conservation concerns. • White-rumped vulture, also called Indian white-backed vulture, is a small Old World scavenger native to South and Southeast Asia. • Mostly found in plains across India, Pakistan, Nepal, Bangladesh, Bhutan,

	• Myanmar and parts of Southeast Asia. • Feeds primarily on animal carcasses; locates food by soaring on thermals and following other scavengers. • Severe population decline due to diclofenac, a veterinary drug that causes kidney failure in vultures. • IUCN Red List – Critically Endangered.
Himalayan Griffon	• The Himalayan Griffon Vulture, typically a high-altitude species, was recently spotted in Melghat (Maharashtra) following the release of captive-bred vultures in the region. • It is an Old World vulture and one of the nine vulture species found in India. • Distribution includes the Himalayan region, Tibetan plateau and Central Asian mountains, with occasional altitudinal migration to northern India. • Nests are built on rocky ledges or caves; pairs are monogamous and return to the same nesting and roosting sites. • IUCN status: Near Threatened.
Ferruginous Pochard	• A Ferruginous Pochard was recently spotted at Amoor Lake in Chennai. • Also called ferruginous duck, white-eyed pochard or common white-eye. • A medium-sized diving duck native to the Eurosiberian region. • Prefers shallow freshwater wetlands with rich aquatic vegetation and dense emergent plants. • Found across Europe, Asia and parts of Africa. • Feeds mainly on aquatic plants, along with molluscs, insects and small fish. • IUCN Red List Status: Near Threatened.
Sarus Crane	• As per a recent government census across 68 forest divisions of Uttar Pradesh, the population of Sarus cranes has increased by 634 individuals (about 3.1%) in one year. • The Sarus crane is the tallest flying bird in the world, commonly found in wetlands such as marshes, canals, ponds and flooded agricultural fields. • Occurs in South and Southeast Asia and northern Australia; in India, mainly along the Gangetic plains and eastern Rajasthan. • It is largely non-migratory and usually seen in pairs or small groups. • IUCN – Vulnerable, CITES – Appendix II, Wildlife (Protection) Act, 1972 – Schedule IV.
Peregrine Falcon	• A Siberian subspecies of the Peregrine Falcon has been recorded in Central Australia for the first time, marking a historic sighting outside its known range. • A large cosmopolitan raptor belonging to the family Falconidae, found on all continents except Antarctica. • Prefers open landscapes such as tundra, grasslands, meadows and coastal cliffs, where it nests in crevices and rocky ledges. • Known for its high-speed hunting stoop, making it the fastest bird — and fastest animal — in the world. • A top predator regulating bird populations like pigeons and doves. • IUCN Status – Least Concern.
New Marine Worm	• Researchers from the Zoological Survey of India recently discovered two

Species	new marine worm species — Namalycastissolenotognatha and Nereis dhritiae — from the Nereidid family along the coasts of West Bengal. • Namalycastissolenotognatha: Found in extreme mangrove environments such as sulfide-rich mudflats, decomposing mangrove wood and hardened clay substrates. • Nereis dhritiae: Discovered inside wooden dock piles on sandy beaches, especially in areas submerged during high tide.
Reticulated Python	• A giant female reticulated python discovered in Sulawesi, Indonesia, has been confirmed by the Guinness World Records as the longest measured snake in the world at about 7.22 metres. • A giant non-venomous constrictor belonging to the python family. • Recognised as the longest snake species globally and the third heaviest after the green anaconda and Burmese python. • Native to South and Southeast Asia; found in tropical forests of India, Indonesia, the Philippines and neighbouring regions. • IUCN Red List – Least Concern.
Assamese Spiny Ant	• A new ant species, *Polyrhachisgarbhangaensis*, was recently discovered in the Garbhanga Reserve Forest near Guwahati, Assam. • Newly identified ant named after its discovery site. • Belongs to the rare mucronata group of spiny ants and is only the third species of this group recorded in India. • Bright yellow-orange abdomen (unlike the usual black relatives) and curved protective body spines.
Titanidiopskolhapurensis	• Researchers from the Thackeray Wildlife Foundation and Shivaji University, Kolhapur, recently discovered a new trapdoor spider species, *Titanidiopskolhapurensis*, in the grasslands of Kolhapur district, Maharashtra. • Newly identified trapdoor spider that constructs vertical or slanted burrows in grassy meadows with well-camouflaged entrances. • Lives underground; its burrow openings blend with soil, making them almost invisible to predators and prey. • Trapdoor Spiders: Large-bodied burrowing spiders that build silk-hinged "trapdoors" and ambush insects passing nearby.
Eurasian Otter	• The Eurasian Otter, earlier believed to have disappeared from Jammu and Kashmir, has recently been recorded again in the Sindh River of Ganderbal district. • Also called European Otter or Old-World Otter; a semi-aquatic carnivorous mammal native to Eurasia, found in rivers, lakes, marshes, swamp forests and coastal areas. • IUCN – Near Threatened, CITES – Appendix I, Wildlife Protection Act, 1972 – Schedule II.
Giant Phantom Jellyfish	• Scientists on a deep-sea expedition off the coast of Argentina recently documented the rare Giant Phantom Jellyfish. • A rare deep-sea jellyfish with a ghostly, translucent body; one of the largest known jellyfish species. • Belongs to the **Ulmaridae** family. • Believed to occur widely across the world's oceans, except the Arctic

	Ocean. • Unlike most jellyfish, it lacks tentacles and instead uses long ribbon-like arms to capture plankton and small fish.
Lyriothemiskeralensis	• Researchers recently confirmed a new dragonfly species, *Lyriothemiskeralensis*, from the low-lying coastal regions of Kerala (commonly called the *Slender Bombardier)*. • Unlike forest-dwelling dragonflies, it prefers human-modified landscapes, especially agricultural areas. • Found in irrigation ecosystems such as pineapple and rubber plantations, shaded canals and seasonal pools.
Paraleocrates indica	• Researchers have discovered a new species of marine worm, *Paraleocrates indica*, in the muddy banks of the Champa Estuary in the Bay of Bengal — the first record of this rare group in Indian waters. • A muddy bristle worm belonging to the family **Hesionidae**, a group of marine polychaete worms. • Found in estuarine muddy substrates. • Known for colourful bodies and potential symbiotic relationships with marine organisms such as starfish.
Smew	• First-ever sighting recorded in Kaziranga Tiger Reserve during the 7th Waterbird Count at Rowmari-Donduwabeels (Laokhowa buffer). • What is Smew? A small diving duck. • Breeds in the northern taiga of Europe and the Palearctic; winters along sheltered Baltic and Black Sea coasts and inland lakes; prefers fish-rich lakes and slow rivers; nests in tree cavities. • Listed as Least Concern on the IUCN Red List.
Contariniaicardiflores	• Scientists from the Indian Council of Agricultural Research – Directorate of Floricultural Research (ICAR-DFR), Pune discovered a new blossom midge species. • A newly identified blossom midge — small insects known as serious pests of ornamental and food crops; larvae feed inside flower buds, causing yield loss.
Fishing Cat	• First scientific assessment identifies Kaziranga National Park and Tiger Reserve as a stronghold of the Fishing Cat. • Medium-sized wild cat native to South and Southeast Asia; inhabits wetlands, mangroves, swamps, and marshes. In India, found in Sundarbans, Himalayan foothills (Ganga–Brahmaputra plains), and the Western Ghats. • Excellent swimmer; preys mainly on fish and can dive underwater; shows strong sexual dimorphism (males larger). • Vulnerable on IUCN Red List; listed under Schedule I of the Wildlife (Protection) Act, 1972 (highest legal protection in India).
Nilgiri Wood Pigeon	• A recent study warns that climate change may shrink the habitat of the Nilgiri Wood Pigeon — an endemic Western Ghats species. • Found in high-elevation wet evergreen, semi-evergreen forests and *sholas* of the Western Ghats — mainly Nilgiris and Anamalai Hills, with isolated populations in Biligirirangan Hills, Nandi Hills and parts of northern Maharashtra.

	• Conservation & Threats: Frugivorous canopy bird; threatened by deforestation, plantations, hunting and climate change. • IUCN: Least Concern | Wildlife Protection Act, 1972: Schedule I.

FLORA IN NEWS

Topics	Details
Red Sanders	• Rising smuggling of Red Sanders along the Tirupati pilgrimage route in south Andhra Pradesh highlights conservation challenges. • Red Sandalwood is an endemic tree of India, thriving in rocky red-soil areas with hot, dry climatic conditions mainly in the Eastern Ghats. • Its heartwood yields 'santalin' natural dye used in pharmaceuticals, textiles, leather and food colouring; the wood is also valued in perfume and traditional medicine — driving illegal trade. • Overexploitation and international demand have made it Endangered (IUCN); listed under CITES Appendix II and protected under Schedule IV of the Wildlife (Protection) Act, 1972.
Arisaema siahaense	• Researchers have discovered Arisaema siahaense, a new species of Cobra Lily, in the misty mountainous region of Siaha district, Mizoram. • It is an evergreen herb belonging to the Cobra Lily group, named for its cobra-hood-like flowering structure (spathe). • A distinctive feature is its long, slender spadix appendix emerging from the flower. • Unlike related species from China and Southeast Asia, it grows from a rounded tuber (not creeping rootstock) and has leaves divided into exactly three segments. • Currently listed as Data Deficient
Indian Sandalwood	• A report by the Sandalwood Development Committee states that global annual demand for sandalwood is about 5,000–6,000 tonnes. • Indian Sandalwood (Santalum album), also called Chandan or Srigandha, is a valuable aromatic tree known for its fragrant heartwood and oil. • Prefers slightly alkaline soil (pH 6.7–7.5), hot and humid climate, temperatures between 12°C and 35°C, and well-drained land; heartwood formation takes nearly 20 years. • Mainly grown in Karnataka, Andhra Pradesh, Telangana, Tamil Nadu, Gujarat, Bihar, Madhya Pradesh and Maharashtra.
Mangrove Clam	• The ICAR–Central Marine Fisheries Research Institute has achieved captive breeding of the mangrove clam. • It is a burrowing bivalve mollusc found in muddy, brackish to near-freshwater areas of mangrove swamps across the Indo-Pacific region. • Commonly called mud clam or 'Kandal Kakka' in Kerala; belongs to the genus Polymesoda/Geloina.

6. SCIENCE & TECHNOLOGY AND HEALTH

6.1   INDIA'S NEXT INDUSTRIAL SHIFT

Context
- Global industry is moving from fossil-fuel combustion ("molecules") to electricity-driven production ("electrons").China has advanced rapidly in this transition, while India faces structural constraints but also significant opportunities.

Conceptual Framework
- Traditional industry relies on burning coal, oil or gas for heat and motion.
- Electrified systems use electric motors and digital processes powered by grids.
- Key advantages of electrification:
  o Energy efficiency above 90% (vs ~35% in combustion engines).
  o Greater automation and precision.
  o Easier decarbonisation as electricity becomes cleaner.
- Each increase in electrification reduces fossil fuel dependence disproportionately.

China's Electron-First Industrial Strategy
- Nearly half of China's industrial energy now comes from electricity.
- Enabled by heavy investments in:
  o Ultra-high-voltage transmission
  o Grid storage
  o Renewable generation.
- Sectoral examples:
  o Steel: Expansion of electric arc furnaces supported by policy incentives.
  o Cement: Electrified processes, waste heat recovery and carbon capture pilots.
- Outcome: stronger competitiveness in carbon-conscious global markets.

Indian Scenario
- Rapid expansion of electricity capacity and solar power leadership.
- Yet:
  o Industrial electricity share remains low (~one-quarter of energy use).
  o Clean electricity penetration in industry is limited.

Constraints
- Legacy dependence on on-site fossil fuel combustion.
- Uneven power quality and reliability.
- Policy focus more on generation capacity than industrial electrification.

Sectoral Pathways for India
Steel
- Existing electric arc furnace capacity provides a base.
- Scrap recycling and clean power incentives can accelerate adoption.
- Relevant for exports facing carbon-border measures like the EU's CBAM.

Cement:
- Electrified kilns, waste heat recovery and carbon capture can reduce fuel intensity.

MSMEs
- Major users of coal boilers and diesel generators.
- Require concessional finance, renewable power access and technical support.

Digitalisation and Industrial Clusters
- Smart factories, demand-response systems and emissions tracking can improve efficiency and compliance with global standards.

Strategic Importance Beyond Climate Goals
- Electrification enhances:
  o **Export competitiveness** in low-carbon supply chains.

- o **Energy security** by reducing fuel import dependence.
- o **Economic sovereignty**, enabling industry location based on skills and logistics.

Way Forward

- Invest in grid reliability, storage and transmission infrastructure.
- Mandate electrification in new industrial corridors and clusters.
- Provide targeted support for MSMEs to adopt electric technologies.
- Align industrial policy with trade realities and ESG standards.

6.2   DELHI AI DECLARATION

Why in News?

- At the AI Impact Summit 2026 in New Delhi, 88 countries and international organisations adopted the New Delhi Declaration on AI, promoting democratic access, safe development and global cooperation in artificial intelligence.

Evolution of Global AI Summits

- 2023 – Bletchley Park (UK): Focus on AI safety and risk governance.
- 2024 – Seoul: Continued multilateral dialogue.
- 2025 – Paris AI Action Summit: Shift toward innovation-driven AI growth.
- 2026 – New Delhi: Emphasis on inclusivity, Global South priorities and AI democratisation.

Key Outcomes

- Diplomatic and Strategic Gains: Broad global consensus, including participation from the US, China, France and the UK. India joined the Pax Silica initiative to strengthen electronics and critical minerals supply chains.
- Indigenous AI Progress: Sarvam AI launched India's first domestically trained multi-billion parameter large language models under the IndiaAI Mission.
- Investment Announcements:
  - o Reliance Industries and Adani Group pledged large-scale investments in AI infrastructure.

- o Google expanded its AI ecosystem investment, including subsea connectivity.
- o Partnerships involving OpenAI–Tata Group and Anthropic–Infosys signalled growing industry collaboration.
- o Yotta Data Services announced major expansion of GPU-powered data centres.

Challenges

- Logistical issues, protests and misrepresentation of imported technology highlighted governance and event management concerns.

New Delhi Declaration on AI

- Democratic Diffusion of AI: Promote inclusive access and prevent concentration of technological power.
- Institutional Platforms
  - o Global AI Impact Commons: Shared repository of AI use cases.
  - o Trusted AI Commons: Tools, benchmarks and best practices.
  - o International AI for Science Network: Collaboration among research institutions.
- Social and Workforce Focus
  - o AI for Social Empowerment platform.
  - o Workforce reskilling principles and development playbooks.
  - o Guidelines for resilient and efficient AI systems.

India's Approach to AI
- At the AI Impact Summit 2026 in New Delhi, the Prime Minister outlined India's AI vision and announced the New Delhi Frontier AI Impact Commitments.
- India emphasised AI as a global common good focused on collaboration, inclusion and responsible innovation.
- India views AI as an opportunity rather than a threat, promoting open-source development and shared innovation.
- The approach contrasts with closed, strategic AI models adopted by some countries and companies.

MANAV Framework for AI Governance
- Moral and Ethical Systems: AI must follow ethical principles.
- Accountable Governance: Transparent oversight and regulation.
- National Sovereignty: Data ownership remains with citizens and nations.
- Accessible and Inclusive: AI should benefit society widely.
- Valid and Legitimate: AI systems must be lawful and verifiable.

6.3 COWORK PLUGINS TRIGGER A SaaS MARKET SHOCK

Why in News?
- Anthropic released Claude Cowork plugins and the Claude Opus 4.6 model, enabling autonomous AI agents to perform complex workplace tasks.
- Markets reacted sharply, with global SaaS firms and Indian IT stocks falling amid fears that AI could disrupt traditional software and outsourcing business models.

About SaaS (Software as a Service)
- Cloud-based model where software is hosted online and accessed via subscription.
- Offers automatic updates, scalability and pay-as-you-use pricing.
- Examples include enterprise tools for finance, HR, legal and marketing.

'SaaSpocalypse'
- Autonomous AI agents can complete workflows without traditional software interfaces.
- Challenges the per-user licence model of SaaS companies.
- Investors fear AI may replace multiple software tools and reduce workforce dependency.

- Indicates a structural shift in how software value is created and monetised.

Real-World AI Disruption Across Sectors
- Finance: AI agents automating research, compliance and onboarding tasks.
- Legal: Contract review and regulatory tracking increasingly handled by AI.
- Healthcare: Agentic AI managing claims processing and supply chains.
- Shift from AI-assisted tools to AI-operated autonomous systems is unsettling markets.

India Inc's AI Pivot
- Indian IT firms are responding cautiously through incremental AI adoption.
- Outsourcing models based on large workforces face pressure as AI automates repetitive tasks.
- Future competitiveness may depend on:
  o AI deployment partnerships
  o Domain expertise integration
  o Moving beyond headcount-driven services

Jobs at Risk and Changing Roles

- Entry-level IT roles in testing, compliance and maintenance are most vulnerable.
- Hiring freezes and automation trends emerging.

- New opportunities include:
  o Human-in-the-Loop (HITL) oversight roles
  o AI governance and compliance
  o Designing and supervising AI systems

6.4 INDIAN SCIENTIFIC SERVICE

Context
- India's governance system still relies largely on a generalist civil service model created after Independence.
- With rising technological, environmental and public health challenges, there is growing debate on creating an Indian Scientific Service (ISS) to integrate scientific expertise into policymaking.

Historical Role of the Generalist Civil Service
- After Independence, administrative stability and coordination were the primary goals.
- Generalist civil servants ensured policy uniformity, institutional continuity and national integration.
- Today's governance challenges involve complex scientific systems requiring specialised knowledge.

Administrator–Scientist Paradox
- Administrators focus on coordination and implementation, while scientists rely on research, experimentation and peer review.
- Scientists in government are often assessed under administrative rules, limiting independent inquiry and professional growth.

- This mismatch reduces the influence of scientific evidence in decision-making.

Impact of Existing Service Rules
- Central Civil Services (Conduct) Rules, 1964 emphasise hierarchy and neutrality.
- Scientific work requires open documentation of evidence and uncertainty, which current frameworks may discourage.
- As a result, science is often used reactively during crises rather than shaping long-term policy.

International Experience
- Countries like the US, UK, Germany, France and Japan maintain dedicated scientific cadres.
- These systems protect scientific integrity while leaving final decisions with elected governments.

Indian Scientific Service (ISS)
- A specialised all-India cadre working alongside existing civil services.
- Scientists embedded in ministries and regulatory bodies to provide risk assessment, technical analysis and long-term planning.
- Separate service rules to ensure professional independence and transparent advice.

6.5 SHORT ARTICLES

Tetanus and Adult Diphtheria (Td) Vaccine

Context:
- The Union Minister for Health and Family Welfare is set to launch the Tetanus and Adult Diphtheria (Td) vaccine at the Central Research Institute (CRI), Kasauli.

Details
- Td vaccine protects against both tetanus and diphtheria; it contains purified diphtheria toxoid and tetanus toxoid, with aluminium phosphate as an adjuvant and thiomersal as a preservative; it is heat and freeze sensitive.

- Tetanus: Caused by Clostridium tetani; leads to muscle stiffness, spasms, lockjaw, breathing difficulty and high fatality if untreated.
- Diphtheria: Caused by Corynebacterium diphtheriae; spreads through respiratory droplets and can cause breathing problems, heart failure, paralysis and death.

India's AI Applications Stack

Context:

- The Economic Survey 2026 highlights that India's AI growth will depend on scalable applications delivering real-world social impact across sectors such as healthcare, agriculture and education.

Details

- Healthcare: niramai (ai-based thermal breast cancer screening), qure.ai (x-ray and ct scan analysis), aisteth (ai stethoscope for cardiac and respiratory diagnosis).
- Agriculture: neoperk (instant soil health testing), cottonace by wadhwani institute for artificial intelligence (ai pest advisory), niqo robotics (precision spraying robots), cropin (digital farming and climate-smart analytics platform).
- Education: padhaiwithai (personalised math learning), rocket learning's appu (early childhood ai companion), belagavi smart city adaptive ai ebooks (deep learning reading tools).

Bharat EduAI Stack

Context

- The Centre plans to introduce AI tools in classrooms from the next academic session through Bodhan AI and the Bharat EduAI Stack.

Details

- Anchored at the Centre of Excellence in AI for Education at IIT Madras with ₹500 crore support.
- Bodhan AI, a not-for-profit entity, will build core AI infrastructure tailored to Indian education needs.
- Designed as a foundational AI layer similar to India's digital public infrastructure model.

- Includes Indian-language AI models, speech recognition, speech synthesis and learning diagnostics.
- Edtech firms and state governments can build applications on top of this sovereign infrastructure.

Refurbished Medical Devices Market in India

Context

- The government has formed a committee to frame policy guidelines for refurbished medical devices, focusing on safety standards, lifecycle assessment and disposal norms.

Details

- Refurbished Medical Devices: Previously used medical equipment restored to original performance standards and resold at lower cost.
- Includes high-end technologies such as MRI, CT scanners, PET-CT systems, endoscopy units and robotic surgical devices.
- Offer significant cost advantages, improving access to advanced diagnostics in Tier-2 and Tier-3 cities.
- No specific licensing pathway under Medical Devices Rules, 2017.
- Devices regulated as "drugs" under the Drugs and Cosmetics Act since 2020.
- Imports governed mainly by Hazardous and Other Wastes Rules, 2016.

VoicERA

Context

- The Ministry of Electronics and Information Technology launched VoicERA at the India AI Impact Summit 2026 to strengthen India's multilingual Voice AI ecosystem.

Details

- It is an open-source, end-to-end Voice AI stack deployed on the BHASHINI National Language Infrastructure, acting as a national execution layer for multilingual voice and language technologies.

- Designed to be open, interoperable, modular and cloud or on-premise deployable; enables secure and scalable voice solutions for government, research and innovation sectors.

Exposome

Context

- Scientists have launched a global effort to map the human exposome to better understand how lifelong environmental exposures influence disease risk.

Details

- The exposome refers to the total set of environmental, chemical, biological and social exposures a person experiences from conception throughout life, and their impact on health.
- Includes internal factors such as metabolism and microbiome, and external influences like air quality, lifestyle, nutrition and psychosocial conditions.
- Exposomics: The scientific study of the exposome using biomarker analysis, omics technologies (genomics, proteomics, metabolomics, etc.) and data analytics to link exposures with disease outcomes.

GPUs Explained

Context:

- Nvidia launched the GeForce 256 in 1999, the first GPU, originally for gaming graphics.

Details

- Over time, GPUs have become central to AI, data centres and high-performance computing due to their parallel processing ability.
- A Graphics Processing Unit (GPU) is a specialised processor designed for large-scale parallel calculations.
- Unlike Central Processing Units (CPUs) that handle fewer complex tasks, GPUs process many repetitive operations simultaneously, making them ideal for graphics and AI workloads.
- **Where Is the GPU Located?:**

- Significance: Reduces duplication and vendor lock-in; expands BHASHINI beyond translation into real-time speech systems, conversational AI and multilingual telephony at large scale.

  - As a silicon chip on a dedicated graphics card with VRAM and cooling systems.
  - Integrated with CPUs in laptops, smartphones and system-on-chip devices.

AI-Powered Distributed Renewable Energy (DRE)

Context:

- At the India AI Impact Summit, policymakers discussed how AI can accelerate Distributed Renewable Energy (DRE) and build a citizen-centric India Energy Stack.

Details

- **DRE:** Small-scale, decentralised renewable systems located near consumers. Includes rooftop solar, solar pumps, biomass units and small wind systems.
- Encourages local generation, decentralisation and prosumer participation.
- Grid challenges due to rise of prosumers and variable renewable energy.
- AI enables weather forecasting, predictive maintenance, load management, asset monitoring and grid stability.
- Moves governance from reactive to predictive decision-making.

Semaglutide

Context

- CDSCO has approved Hyderabad-based Natco Pharma to manufacture and market a generic semaglutide injection in India.

Details

- About: Semaglutide is a glucagon-like peptide-1 receptor agonist (GLP-1 RA) that mimics the natural GLP-1 hormone released after meals.

- Mechanism of Action: It stimulates insulin release, lowers blood glucose levels, slows gastric emptying and helps regulate appetite.
- Medical Uses: Management of type 2 diabetes by controlling blood sugar. Reduces risk of heart attack, stroke and cardiovascular death in high-risk patients.

AI Content Labelling Norms

Context:
- MeitY has amended the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.

Details
- New rules mandate labelling of AI-generated content and reduce takedown timelines, effective from February 20.
- Social media platforms must clearly label synthetically generated images and videos.
- Platforms with over 5 million users must obtain user declarations and verify AI content before publishing.
- Exemptions include basic photo retouching and film special effects.
- Prohibited synthetic content includes deepfake impersonation, child exploitation material, forged documents and harmful technical information.
- Government or court orders: removal within 2–3 hours (earlier 24–36 hours).
- Sensitive user complaints: deadline reduced to 36 hours.
- General complaints such as misinformation: response within one week.
- Platforms must notify users of policies every three months.

National Large Solar Telescope

Context
- In the Union Budget, the government approved two new observatories — the National Large Solar Telescope and the National Large Optical-Near Infrared Telescope — to advance India's solar and space research capabilities.

Details
- About National Large Solar Telescope:

  - It will be established at Merak near Pangong Tso Lake in Ladakh and will operate in visible and near-infrared wavelengths to study the Sun.
  - Aim is to understand solar dynamics, magnetism, energetic solar events and space-weather processes that affect satellites, communication and space missions.
  - It will become India's third ground-based solar observatory after Kodaikanal Solar Observatory (Tamil Nadu) and Udaipur Solar Observatory (Rajasthan).
  - The telescope will strengthen India's capability in solar physics research and monitoring of space-weather risks.
- About National Large Optical-Near Infrared Telescope:
  - It will be built at Hanle in Ladakh and will use segmented mirror technology made of multiple hexagonal mirrors.
  - It will be among the world's largest optical–infrared telescopes for studying exoplanets, stellar evolution, supernovae and origins of the universe.

Wet Dress Rehearsal

Context
- NASA recently detected a hydrogen leak during a wet dress rehearsal conducted ahead of the Artemis II mission launch.

Details
- It is the final full-scale practice run before a rocket launch where cryogenic fuel is loaded into the rocket.
- The term "wet" refers to filling tanks with liquid hydrogen and liquid oxygen to simulate real launch conditions.
- It helps detect technical issues such as fuel leaks, seal failures, and ground-system faults that appear only under cryogenic temperatures.
- Dry Dress Rehearsal: A rehearsal without fuel loading, focusing on system checks, communication flow, and simulated countdown operations.

National Medicinal Plants Board

Context

- The National Medicinal Plants Board organised a Chintan Shivir at Vigyan Bhawan to discuss growth and policy direction for India's medicinal plants sector.

Details

- It functions under the Ministry of AYUSH.
- Mandate: To coordinate among ministries, departments and organisations for the development, conservation and sustainable use of medicinal plants at national and international levels.
- Objective: Strengthen the medicinal plants sector through policy support, inter-agency coordination and promotion of cultivation and research.

Moltbook Platform

Context

- A new technology platform called Moltbook has emerged as the first social network designed specifically for artificial intelligence (AI) agents to interact autonomously.

Details

- What is Moltbook: An online machine-to-machine platform where AI agents post, reply and exchange information without continuous human intervention.
- Launched by developer Matt Schlicht.
- What are AI Agents: Software entities capable of performing tasks, analysing environments, making decisions and adapting based on experience.

NeophyteID App

Context

- The Kerala Chief Minister recently launched NeophyteID, an AI-powered mobile application aimed at identifying and tracking invasive plant species in the state.

Details

- Developed by the Malabar Botanical Garden and Institute for Plant Sciences (MBGIPS), the app helps detect invasive (neophyte) plants that threaten native biodiversity.
- Uses YOLOv11 machine learning with image recognition and geospatial tracking to identify plants from photos and map their distribution.

Model Context Protocol (MCP)

Context

- The National Statistics Office under the Ministry of Statistics and Programme Implementation recently launched the beta version of a MCP server for the eSankhyiki portal to enable AI-based access to official datasets.

Details

- What is MCP: A technology standard that allows Large Language Models (LLMs) and AI applications to directly connect with datasets, tools and workflows.
- eSankhyiki Portal: Developed to provide real-time official statistics for planners, policymakers, researchers and the public.

Bharat GenAI

Context

- The Ministry of Science & Technology recently announced that the Bharat GenAI Large Language Model will complete text models in all 22 scheduled Indian languages, strengthening India's sovereign AI capabilities.

Details

- BharatGen is India's first government-supported national initiative to develop sovereign foundational AI models tailored to Indian languages and societal needs.
- Developed under the National Mission on Interdisciplinary Cyber-Physical Systems and implemented through the TIH Foundation for IoT and IoE at IIT Bombay, involving a network of 25 Technology Innovation Hubs.
- Covers text (LLMs), speech technologies (Text-to-Speech and Automatic Speech Recognition) and vision-language systems.

National Science Day 2026

Context

- Chairperson of the ISRO participated in National Science Day celebrations in Shivamogga and released a biography of former ISRO scientist B. N. Suresh.

Details

- Observed every year on 28 February to commemorate the discovery of the Raman Effect (1928) by Sir Chandrasekhara Venkata Raman, who received the Nobel Prize in Physics (1930) for this work.
- Declared in 1986 by the Government of India; first celebrated in 1987; observed annually with a specific theme.
- Theme 2026: *"Women in Science: Catalysing Viksit Bharat"* — highlighting women's role in India's scientific and developmental progress
- What is the Raman Effect: It refers to the change in wavelength of light when it is scattered by molecules.

Staphylococcus aureus

Context

- An institute under the Department of Science and Technology developed a novel biosurfactant effective against *Staphylococcus aureus*.

Details

- What is it? A Gram-positive, non-motile, round-shaped bacterium (cocci) of the family Staphylococcaceae; appears in grape-like clusters; infects humans and other mammals.
- Transmission: Spreads through respiratory droplets, direct contact, contaminated objects, and animal-to-human transmission.
- Diseases Caused: Ranges from minor skin infections (pimples, boils, impetigo) to cellulitis, abscesses, scalded skin syndrome, and severe conditions like pneumonia.

SUJVIKA Portal

Context

- Launched by the Union Minister of Science and Technology during the 40th Foundation Day of the Department of Biotechnology.

Details

- What is SUJVIKA? An AI-driven Biotech Product Data Portal, developed with industry body Association of Biotechnology Led Enterprises (ABLE); functions as a Trade Statistics Digital Intelligence Platform.
- Provides authenticated biotechnology import data (biochemicals, industrial enzymes, etc.); helps identify high-value imports, assess import dependency, and guide indigenisation and R&D priorities.

Chicory

Context

- FSSAI directed that chicory content must be prominently displayed on coffee powder packs from 1 July.

Details

- What is Chicory? *Cichorium intybus*, a perennial plant of the Asteraceae family, cultivated mainly in temperate regions; leaves, flowers, and roots are edible.
- Used as a coffee additive for darker colour and earthy flavour; naturally caffeine-free and cheaper than pure coffee.

Tetrodotoxin (TTX)

Context

- Suspected cause of severe seafood poisoning in Vizhinjam, Kerala — likely contamination with TTX, a potent marine neurotoxin.

Details

- What is it? An extremely powerful marine neurotoxin, found naturally in fish of the family Tetraodontidae (e.g., puffer fish, porcupine fish, ocean sunfish) and some newts/salamanders.
- Blocks nerve signal transmission by interfering with sodium channels → causes progressive muscle paralysis; over 1000 times more toxic than sodium cyanide.

Lenacapavir

Context

- Zimbabwe has begun rolling out Lenacapavir, a long-acting injectable drug for Human Immunodeficiency Virus (HIV) prevention.

Details

- What is it? The first twice-yearly injectable Pre-Exposure Prophylaxis (PrEP) medicine — an alternative to daily oral pills for HIV-negative individuals at risk of infection.
- Efficacy: Clinical studies show ~99.9% effectiveness in preventing HIV transmission. Developed by Gilead Sciences and marketed as Yeztugo.
- Mechanism of Action: A capsid inhibitor — blocks the HIV virus's protein shell (capsid), preventing replication; administered once every six months for long-acting protection.

6.6   SNIPPETS

CONCEPTS IN NEWS

Topics	Details
Quorum Sensing	• Scientists are exploring quorum sensing as a potential target for new therapies that disrupt bacterial communication instead of killing bacteria with antibiotics. • Quorum sensing is a biological communication system through which bacteria regulate gene expression based on population density using chemical signal molecules called autoinducers.

MATERIALS IN NEWS

Topics	Details
Nitric oxide	• A recent study found that high-dose inhaled nitric oxide reduced drug-resistant Pseudomonas infections in an ICU model, highlighting its medical potential. • Nitric oxide (NO) is a colourless gaseous compound made of one nitrogen and one oxygen atom; formed naturally through lightning or industrially by burning ammonia. • Toxic, non-combustible gas that can accelerate combustion; present both in the environment and within the human body.
Bio-based chemicals	• Bio-based chemicals and enzymes have been identified as priority sectors under the Department of Biotechnology's BioE3 policy to promote sustainable industrial growth. • Bio-based chemicals are industrial chemicals produced from biological feedstocks such as sugarcane, corn, starch or biomass residues, often through fermentation or enzymatic processes. • Examples: Organic acids (e.g., lactic acid), bio-alcohols, solvents, surfactants and intermediates used in plastics, cosmetics and pharmaceuticals.
Molybdenum Disulfide (MoS$_2$)	• Scientists recently created an ultra-thin electronic system using molybdenum disulfide, only a few atoms thick, capable of withstanding high-energy particle exposure without damage. • It is an inorganic compound composed of molybdenum and sulfur, naturally occurring as the mineral molybdenite. • Used as a dry lubricant in aerospace components, engines and gun barrels to reduce friction.

Aluminium Phosphide (Celphos)	• Doctors at PGIMER recently reported a major breakthrough in treating aluminium phosphide poisoning using intravenous lipid emulsion therapy, offering hope against a highly fatal toxic exposure. • What is Aluminium Phosphide: A cheap and widely used pesticide/fumigant, commonly known as Celphos. • Releases phosphine gas when exposed to moisture or stomach acid. • Phosphine gas is highly toxic and flammable.
Myoglobin	• Researchers have recently developed a flexible, low-cost biosensor capable of detecting myoglobin, an important early biomarker associated with heart attacks. • What is Myoglobin: An oxygen-binding protein mainly found in striated muscles — skeletal muscle and cardiac muscle.
Vitamin B3	• Scientists found that Vitamin B3 supplementation may treat NAD(P)HX dehydratase (NAXD) deficiency, a rare genetic neurometabolic disorder. • What is Vitamin B3? Also called Niacin, a water-soluble vitamin; exists as nicotinic acid and niacinamide; partly synthesised in the body from the amino acid tryptophan. • Acts as a coenzyme in metabolism; helps convert nutrients into energy, supports cholesterol and fat synthesis, DNA repair, and antioxidant activity. • NAD(P)HX Dehydratase: An essential cellular enzyme that repairs damaged metabolic molecules, ensuring normal energy production.

SPACE IN NEWS

Topics	Details
Characterising ExO Planet Satellite (CHEOPS)	• ESA's CHEOPS mission recently identified a four-planet system where the outermost planet is small and rocky, challenging earlier expectations of a gas giant. • CHEOPS is a European Space Agency space telescope designed to study known exoplanet systems by observing how planets transit in front of bright nearby stars. • It makes high-precision measurements of planet size, especially for super-Earth to Neptune-sized planets, helping scientists understand planetary structure.
Mons Mouton	• Scientists from ISRO's Space Applications Centre identified Mons Mouton near the Moon's south pole as a potential landing site for Chandrayaan-4, India's first lunar sample return mission. • It is a mountain located in the south circumpolar region of the Moon, near the South Pole-Aitken basin. • The peak has relatively flat terrain and long-duration sunlight, making it suitable for landing and operations. • The region allows stable communication with Earth and offers important clues about lunar geology and resources.
Air-Ships Based High-Altitude Pseudo-Satellite (AS-HAPS)	• The Defence Acquisition Council granted Acceptance of Necessity for procuring Air-Ships Based High-Altitude Pseudo-Satellite systems for the Indian Air Force. • High-Altitude Pseudo-Satellites (HAPS) are solar-powered unmanned aerial platforms that operate in the stratosphere, roughly twice the cruising altitude of commercial aircraft, offering satellite-like services without entering orbit. • Indigenous HAPS development is underway through the National Aerospace Laboratories, Bengaluru.
SPHEREx	• NASA's SPHEREx mission recently observed the interstellar comet 3I/ATLAS.

Mission	• SPHEREx (Spectro-Photometer for the History of the Universe, Epoch of Reionization and Ices Explorer) is a NASA astrophysics mission launched in 2025 to study the universe using optical and near-infrared observations. • Objective: To map the sky and create a three-dimensional map of the universe, helping scientists understand galaxy formation, the early universe and cosmic evolution.
Copernicus Sentinel-2 Mission	• The European Space Agency's Copernicus Sentinel-2 mission recently released high-resolution images of the 2026 Winter Olympic venues in northern Italy. • Sentinel-2 is an Earth observation mission under the European Union's Copernicus Programme, focused on monitoring land surface changes. • Consists of two polar-orbiting satellites in the same sun-synchronous orbit, providing high-resolution multispectral imagery from visible to shortwave infrared wavelengths.
Vikko Sat-1	• Vikko Sat-1 is a 600-gram mini satellite designed and launched by Class XI students of Ariyakudi Government Higher Secondary School, Tamil Nadu, as a stratospheric research experiment. • Developed to detect fungal spores in the stratosphere using five specialised sensors, helping study their role in agriculture and environmental cycles.

TECHNOLOGY IN NEWS

Topics	Details
Solid Fuel Ducted Ramjet (SFDR) Technology	• DRDO recently conducted a successful demonstration of SFDR technology from the Integrated Test Range (ITR), Chandipur, Odisha. • SFDR: An advanced air-breathing propulsion system that uses a solid fuel gas generator; developed by DRDL, Hyderabad with other DRDO labs. • Unlike conventional rockets, it does not carry an oxidiser and relies on atmospheric oxygen, making missiles lighter, more efficient and capable of sustained thrust with thrust modulation.
AI Stack	• India is promoting the vision of "AI for Humanity", where building a strong AI Stack is seen as both a technological priority and a social commitment to enable inclusive digital innovation. • An AI stack is the complete ecosystem of technologies, tools and infrastructure that together build, train and run Artificial Intelligence applications in the real world.

DISEASES IN NEWS

Topics	Details
Panama disease	• Scientists have recently identified a gene that could help protect bananas from Panama disease. • Panama disease, also called fusarium wilt, is a severe banana disease caused by the soil-borne fungus Fusarium oxysporum f. sp. cubense, which can survive in soil for many years.
Lymphedema	• Researchers have identified a new cellular mechanism that may help develop better treatments for lymphedema, a chronic swelling disorder. • Lymphedema is swelling caused by dysfunction of the lymphatic system, which

	normally drains excess fluid, proteins and toxins from tissues back into the bloodstream.
Osteoporosis	• New research has identified a biological mechanism explaining how exercise strengthens bones, offering hope for improved osteoporosis treatments. • Osteoporosis is a condition where bones become weak, brittle and more prone to fractures due to loss of bone density. • Often called a "silent disease" as early stages show no symptoms; later signs include back pain, loss of height, stooped posture and easy fractures, especially in the hip, spine and wrist.
Lysosomal Storage Disorders (LSDs)	• India's first government-supported national biobank for Lysosomal Storage Disorders has been created. • What are LSDs? Rare genetic metabolic disorders where harmful substances accumulate inside cells due to defective lysosomes. • Lysosomes: Membrane-bound organelles containing digestive enzymes that recycle worn-out cell components.
Human Papillomavirus Vaccination Drive	• The Government of India is launching a nationwide 90-day single-dose Human Papillomavirus vaccination drive for 14-year-old girls to reduce cervical cancer burden. • Persistent Human Papillomavirus infection causes nearly 90% of cervical cancer cases. India contributes ~20% of global cases. • Cervical Cancer: A malignant tumour of the cervix primarily caused by persistent infection with high-risk strains of the Human Papillomavirus and is the second most common cancer among women in India.
Avoidant / Restrictive Food Intake Disorder (ARFID)	• ARFID is a mental health eating disorder where a person severely limits the amount or types of food consumed — not due to body image concerns or weight-loss motives. • Causes & Risk Factors: Linked to food texture aversion, low appetite, fear of choking/vomiting, or sensory sensitivity; often associated with anxiety disorders, autism spectrum disorder (ASD), ADHD, and may have a genetic component.
Meningococcal infection	• Meghalaya issued a public health advisory after cases of meningococcal infection — a rapidly progressing bacterial disease — were reported. • Caused by Neisseria meningitidis, leading to meningitis or meningococcemia. Spread through close contact via respiratory/throat secretions; less contagious than flu but dangerous in crowded settings. • Symptoms & Treatment: High fever, severe headache, stiff neck, non-blanching rash. Treated with prompt antibiotics; severe cases may require oxygen support, BP stabilisation and surgical care.

SCHEMES/INITIATIVES IN NEWS

Topics	Details
SAHI and BODH	• The Union Health Minister launched SAHI and BODH at the India AI Summit. • SAHI (Strategy for Artificial Intelligence in Healthcare for India): A national guidance framework for safe, ethical and evidence-based adoption of AI in healthcare. • BODH (Benchmarking Open Data Platform for Health AI): Developed by IIT Kanpur with the National Health Authority; a privacy-preserving platform that evaluates AI models using real-world health data without sharing raw datasets.

Yuva AI for All Initiative	• MeitY launched Kaushal Rath under the National AI Literacy programme "Yuva AI for All" to promote AI awareness and skills among citizens. • Yuva AI for All is a free AI literacy initiative under the IndiaAI Mission aimed at introducing Artificial Intelligence concepts to students, professionals and general learners.
Science Based Targets initiative (SBTi)	• SBTi leadership highlighted India's growing role in shaping corporate climate action and global business response to climate risks. • About: A global corporate climate action initiative helping companies set emission reduction targets aligned with the Paris Agreement. • Mission: Promote science-based climate targets consistent with limiting warming to 1.5°C. • Functions: Develops standards and tools, validates GHG reduction targets and guides industry best practices. • Partners: World Resources Institute, CDP, United Nations Global Compact and World Wide Fund for Nature.
Biopharma SHAKTI	• Announced in Union Budget 2026–27, Biopharma SHAKTI(Strategy for Healthcare Advancement through Knowledge, Technology & Innovation) aims to position India as a global hub for biopharmaceutical manufacturing. • Focus on strengthening domestic production of biologics and biosimilars. • Establishment of 3 new NIPERs and upgradation of 7 existing NIPER institutes. • Creation of a nationwide clinical trials network to support research and innovation. • Promotion of advanced biomanufacturing infrastructure and next-generation therapies.
Bharat-VISTAAR	• The Union Finance Minister recently proposed Bharat-VISTAAR as a new AI-driven digital initiative to support India's agriculture sector. • Bharat-VISTAAR (Virtually Integrated System to Access Agricultural Resources) is a multilingual AI-based platform designed to provide integrated agricultural advisory services. • It will combine AgriStack digital infrastructure with ICAR's scientific agricultural practice packages using artificial intelligence.
State Innovation Mission	• The State Innovation Mission (SIM) was launched in Tripura by the Atal Innovation Mission (AIM), NITI Aayog under AIM 2.0 to build state-specific innovation ecosystems. • Objective: Establish a long-term institutional framework to strengthen state innovation strategy, policy support, startup infrastructure, partnerships, and funding access aligned with national and local priorities.

7. CULTURE & HISTORY

7.1 SHORT ARTICLES

Chincha Kingdom

Context

- New research suggests that seabird guano (nutrient-rich bird droppings) played a major role in the agricultural prosperity of Peru's precolonial Chincha Kingdom.

Details

- About: The Chincha Kingdom was a powerful coastal state in present-day Peru that flourished between 900 CE and 1450 CE during the Late Intermediate Period, ruling the Chincha Valley before the rise of the Inca Empire.
- Society and Economy: Organised into specialised groups such as fisherfolk, farmers and merchants; prosperity linked to intensive agriculture supported by guano fertiliser, which boosted maize production.
- Architecture and Culture: Known for adobe-built temples, palaces and fortresses decorated with stucco figures of marine birds and fish; important site includes La Centinela near Chincha Alta.
- Decline: Conquered by the Inca Empire around 1476 CE and later weakened by Spanish colonisation and disease in the 16th century.

Ancient Indian Names in Egyptian Pharaohs' Tombs

Context

- A recent study by scholars from École Française d'Extrême-Orient (EFEO) and the University of Lausanne documented about 30 Tamil-Brahmi, Sanskrit, and Prakrit inscriptions (1st–3rd century CE) inside Egypt's Valley of the Kings, revealing deeper Indo-Mediterranean mobility and cultural exchange.

Details

- Key inscriptions and names: repeated Tamil name cikāikorran (appears eight times); inscription "kopān came and saw"; other names include cātan and kiran, showing strong links with ancient Tamilagam and Sangam-age traditions.
- Linguistic diversity: about 20 Tamil-Brahmi inscriptions alongside Sanskrit, Prakrit and Gandhari-Kharosthi texts; one inscription refers to an envoy of a Kshaharata ruler, indicating the presence of traders as well as political elites.
- Mobility beyond ports: earlier evidence centred on Red Sea port Berenike, but the valley of the Kings graffiti shows Indian travellers moving deep into the Nile valley and participating in shared Roman-era tourist practices.

Devnimori Relics of Lord Buddha

Context

- India plans to showcase the sacred Devnimori Relics of Lord Buddha in Sri Lanka as part of cultural diplomacy and spiritual outreach.

Details

- The relics were found at the Devnimori archaeological site near Shamlaji in Gujarat's Aravalli district; first explored in 1957 by archaeologist Prof. S. N. Chowdhry.
- Excavations revealed Buddhist stupas and structures indicating the spread of Buddhism in western India during the early centuries CE.
- Relic Casket: Made of green schist, inscribed in Brahmi script and Sanskrit with the phrase "dashabalashariranilay" (abode of the Buddha's bodily relic).
- A copper box containing sacred organic remains, holy ashes, silk cloth and beads, reflecting ancient Buddhist ritual practices.

7.2   SNIPPETS

TEMPLES IN NEWS

Topics	Details

Chennakeshava Temple	• The Prime Minister's new office complex, Seva Teerth, draws architectural inspiration from the 12th-century Chennakeshava Temple.
	• Chennakeshava Temple, also known as Keshava or Vijayanarayana Temple, is a 12th-century Hindu temple dedicated to Lord Vishnu at Belur in Karnataka.
	• Commissioned by Hoysala king Vishnuvardhana in 1117 CE after his victory over the Cholas; located on the banks of the Yagachi River.
	• Architecture:
	  o Classic example of Hoysala architecture built using soft soapstone.
	  o Raised on a jagati (platform) and enclosed by a prakara with a Vijayanagara-style gopura.
	  o Known for intricate carvings of deities, mythological scenes and ornate Madanika sculptures.
	• Special Features: Includes a stepped well within the temple complex; part of the UNESCO World Heritage listing of the Hoysala sacred ensembles.

PERSONALITIES IN NEWS

Topics	Details
Wajid Ali Shah	• A recent biography claims Nawab Wajid Ali Shah was not exiled to Calcutta but had travelled there intending to go to London to submit a petition to the British Crown. • Nawab Wajid Ali Shah (1822–1887) was the tenth and last ruler of Awadh (Oudh) in present-day Uttar Pradesh. • He succeeded Nawab Amjad Ali Shah and ruled until the British annexed Awadh in 1856, an event that became one of the causes of the Revolt of 1857. • A poet, playwright, dancer and major patron of arts; wrote under the pen name 'Qaisar'. • Authored Ishqnamah, a poetic autobiographical work in Urdu. • Contributed to the revival and development of Kathak dance. • Built the Qaiser Bagh palace complex in Lucknow. • His wife Begum Hazrat Mahal played a major role during the Revolt of 1857.
Guru Ravidas	• The Prime Minister recently renamed Adampur Airport in Punjab after Sri Sant Guru Ravidas Ji to honour the revered Bhakti saint and social reformer on his birth anniversary. • Guru Ravidas (1377–1527 CE) was a prominent saint of the Bhakti Movement, known for devotional poetry and social reform. • Born at Sir Gobardhanpur near Varanasi (Uttar Pradesh); his birthplace is now the Shri Guru Ravidass Janam Asthan. • Also known as Raidas, Rohidas and Ruhidas; believed to be a disciple of Ramananda and a contemporary of Kabir.

	• Many of his hymns are included in the Guru Granth Sahib and the Panch Vani of the Dadu Panthi tradition. • Rejected caste hierarchy and promoted equality, dignity and spiritual freedom. • Advocated nirguna bhakti (worship of a formless divine). • Imagined an ideal society called "Begumpura" — free from sorrow, fear and discrimination. • Influenced figures like Meera Bai, who is believed to have considered him her spiritual guide.
Michelangelo	• A foot sketch by Michelangelo was recently sold for £16.9 million, drawing renewed attention to one of the greatest artists of the Renaissance. • He was an Italian Renaissance sculptor, painter, architect and poet, regarded as one of the most influential figures in Western art history. • His iconic creations include the marble David in Florence, the frescoes of the Sistine Chapel ceiling, and the grand dome of St. Peter's Basilica in Rome. • Known for anatomical precision, emotional depth and monumental scale, shaping Renaissance and later European art traditions. • His works became enduring symbols of humanism, artistic genius and cultural achievement during the Renaissance period.
C. Rajagopalachari	• President Droupadi Murmu unveiled a statue of C. Rajagopalachari at Rashtrapati Bhavan, replacing British architect Edwin Lutyens — symbolising recognition of Rajaji's nationalist and reformist legacy. • Close associate of Mahatma Gandhi; led the Vedaranyam Salt Satyagraha (1930) in South India; proposed the Rajaji (C.R.) Formula (1944) suggesting a plebiscite-based settlement with the Muslim League. • As Premier of Madras, piloted the Temple Entry Authorisation and Indemnity Act (1939)enabling Dalits' entry into temples, including the historic opening of Meenakshi Amman Temple. • Initially introduced compulsory Hindi (1938) but later opposed its imposition (1965), advocating English as a neutral link language. • Founder of the Swatantra Party (1959); criticised centralised planning under Jawaharlal Nehru; only Indian Governor-General (1948); awarded Bharat Ratna (1954).

ARCHITECTURE IN NEWS

Topics	Details
Kondaveedu Fort	• The Union Minister of State recently announced plans for the comprehensive development and conservation of the historic Kondaveedu Fort in Andhra Pradesh. • Built during the Telugu Chodas, strengthened by the Kakatiyas, and later ruled by Prolaya Vema Reddy, Gajapathis, Bahmani Sultans, Vijayanagara Empire, Golconda Sultanate, Mughals, French and British. • Constructed mainly with granite and lime mortar, featuring a blend of Hindu and Islamic styles; main entrances include KolepalliDarwaza and Nadella Darwaza. • Known for an advanced ancient water conservation system with ponds supplying water to inhabitants.

SCHEMES IN NEWS

Topics	Details
PRASHAD Scheme	• The Union Civil Aviation Minister announced plans to develop tourist destinations around major temples in Andhra Pradesh under the Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive (PRASHAD) scheme. • Launched in 2014–15 by the Ministry of Tourism as a Central Sector Scheme for integrated development of pilgrimage and heritage sites. • Objective: Creation of modern tourism infrastructure (roads, amenities, illumination, interpretation centres, etc.) to improve pilgrim experience and promote spiritual tourism. • Funding & Implementation: 100% Central Government funding for approved components; implemented through a dedicated Mission Directorate in coordination with States and Union Territories; also leverages Corporate Social Responsibility (CSR) and Public Private Partnership (PPP) support.

8. GEOGRAPHY AND DISASTER MANAGEMENT

8.1   NDMA GUIDELINES FOR DISASTER VICTIM IDENTIFICATION

Context
- The **National Disaster Management Authority (NDMA)** released the first-ever national guidelines on **Disaster Victim Identification (DVI)** to establish a scientific and dignified process for identifying victims and managing human remains during mass fatality incidents.

Why were these Guidelines Needed?
- **Past Disasters:** Recent tragedies like the Air India crash (Ahmedabad), the Sangareddy chemical factory explosion (Telangana), and flash floods in Uttarakhand exposed gaps in victim identification.
- **Procedural Gaps:** India lacked **Standard Operating Procedures (SOPs)**, trained manpower, and the necessary infrastructure for efficient DVI.
- **Outdated Methods:** Traditional identification methods proved insufficient, highlighting the need for advanced forensic techniques like DNA and dental analysis.
- **Humanitarian & Legal Imperative:** The guidelines address the need to uphold the **dignity of the dead**, provide legal closure (for inheritance, insurance), and offer emotional closure to the families of victims.

Highlights of the NDMA DVI Guidelines
The guidelines mandate a systematic, four-stage protocol for identification, drawing inspiration from **INTERPOL's DVI standards** while adapting them to Indian conditions.
1. **Systematic Recovery:** Carefully retrieve and document human remains and property. Tag, photograph, and secure personal effects.
2. **Post-Mortem (PM) Data Collection:** Gather identifying data from the deceased: fingerprints, DNA, dental records, and physical markers (scars/tattoos).
3. **Ante-Mortem (AM) Data Collection:** Gather information from the missing person's family, including medical/dental records, photos, physical descriptions, and DNA samples from relatives.
4. **Reconciliation:** Scientifically match Post-Mortem and Ante-Mortem data, using DNA, fingerprints, and dental records for positive identification before releasing remains.

Other Key Recommendations:
- **National Dental Data Registry:** Centralized registry for dental records, crucial for identification of decomposed or fragmented bodies.
- **Advanced Forensics:** Focus on **Forensic Archaeology** (recovering old remains) and **Forensic Odontology** (dental identification).
- **No Mass Autopsies:** Prioritize identification over physical autopsies in mass fatality events.
- **Cultural and Emotional Sensitivity:** Respect cultural/religious customs; provide psychological support for families.
- **Implementation:** NDMA to set up state-level DVI teams and provide targeted training.

Existing Challenges in DVI in India
- **Environmental Factors:** India's hot and humid climate leads to rapid decomposition, making visual identification unreliable within hours.
- **State of Remains:** Bodies are often charred, fragmented, or mingled in disasters, making individual identification extremely difficult.

- **Logistical & Infrastructure Gaps:** There is a severe shortage of mortuary space, cold storage facilities, and refrigerated transport to preserve remains.
- **Coordination Issues:** A lack of a unified command structure among multiple responding agencies (local, state, central) often leads to chaos at disaster sites.
- **Lack of Centralised Data:** Absence of pre-existing, centralised databases (like dental or DNA records) makes matching unidentified victims with missing persons a slow process.

Measures to Strengthen DVI

- **Pre-Disaster Public Data Repository:** Linking the **Ayushman Bharat Health Account (ABHA)** with optional biometric data like dental scans or surgical implant serial numbers could create a powerful real-time identification database.
- **Integration of Digital Forensics:** Leveraging digital footprints from smartphones, smartwatches (heart-rate patterns, biometric locks), and cloud health data can aid in rapid preliminary identification. **AI-based facial reconstruction** from damaged remains offers a modern alternative to traditional methods.
- **Portable DNA Labs:** Deploying portable **Rapid DNA** machines at disaster sites can generate a DNA profile in approximately 90 minutes, drastically reducing the waiting time for families compared to sending samples to distant central labs.
- **Blockchain for Chain of Custody:** Using a **Blockchain-based ledger** to track the handling of human remains and samples can create an immutable, transparent, and legally admissible record, preventing tampering and ensuring integrity.
- **International Cooperation:** Establishing pre-negotiated DVI treaties with neighbouring countries to facilitate the instant and seamless sharing of biometric data and forensic information during cross-border incidents.

8.2   SNIPPETS

Topics	Details
Total Lunar Eclipse	- A total lunar eclipse occurred on 3rd March 2026. - A total lunar eclipse occurs when the **Earth passes directly between the Sun and the Moon, causing Earth's umbra (darkest shadow) to completely cover the lunar surface during a full moon**. The moon appears reddish, or a "blood moon," because Earth's atmosphere filters sunlight, scattering blue light while bending red light onto the moon.
Thwaites Glacier	- Rapid thinning and retreat of Thwaites Glacier in West Antarctica raise concerns about long-term global sea-level rise. - The Thwaites Glacier, a fast-moving, ice mass (1.9 lakh sq. km) in Antarctica, is popularly known as the **"Doomsday Glacier."** Its complete collapse could raise **global sea levels by over 0.5 metres**, and it currently contributes nearly 4% to annual global sea-level rise. It rests on a downward-sloping bedrock below sea level, allowing **warm ocean water to melt it from beneath.** Its destabilisation threatens to **intensify coastal flooding, erosion, and storm surges** globally.
Sawalkot Hydroelectric Project	- Pakistan officially requested information and consultations from India regarding the Sawalkot hydroelectric project on the River Chenab. - The Sawalkote Hydroelectric Project is a 1,856 MW **run-of-the-river project on the Chenab River** in the Ramban district of Jammu & Kashmir. Though initiated in 1984, the long-delayed project, featuring a **concrete gravity dam**, is expected to

	generate over **7,000 million units** of electricity annually.
Strait of Hormuz	• Iran temporarily closed parts of the Strait of Hormuz for live-fire naval drills named "Smart Control of the Strait of Hormuz."
	• The Strait of Hormuz is a vital, narrow chokepoint (55–95 km wide) connecting the **Persian Gulf (West)** with the **Gulf of Oman and the Arabian Sea (East)**, located between **Iran (north)** and **Oman/UAE (south)**. It is critical for **global energy security**, with **approximately 20% of the world's oil and gas** passing through its lanes. Major exporters like Saudi Arabia, Iran, Iraq, Kuwait, UAE, and Qatar rely on it, with over **80% of the oil heading to Asian markets** (India, China, Japan, South Korea).

8.3   ADDITIONAL TOPICS FOR READING FROM IASGYAN WEBSITE

Topic Name	Date
Antarctic Tipping Points	18th February 2026
Rising Urban Heat And Economic Vulnerability In India	18th February 2026

9. GOVERNMENT SCHEMES

9.1 SHORT ARTICLES

Sankalp Scheme

Context

- The Public Accounts Committee (PAC) criticized the implementation of the SANKALP scheme, based on the findings of a Comptroller and Auditor General (CAG) report.

Key PAC and CAG Findings

- **Poor Fund Utilization:** Only **44%** of the total budgeted provision was disbursed between 2017-18 and 2023-24 (as of October 2023).
- **Idle World Bank Assistance:** Out of ₹1,606.15 crore disbursed by the World Bank in the first tranche, the Ministry utilized only **₹850.71 crore** (approx. 53%) by December 2023.
- **Lack of Preparedness:** The CAG attributed delays to the Ministry's **"non-preparedness"** before the loan period began, leading to a sluggish pace across all components.
- **Monitoring Gaps:** The PAC highlighted the absence of a **robust central monitoring mechanism** to track real-time progress across states.
- **Education Misalignment:** Members flagged the lack of a clear roadmap to integrate skilling into school curriculums from primary to higher secondary levels.

About SANKALP Scheme

- **SANKALP** (Skill Acquisition and Knowledge Awareness for Livelihood Promotion) is an outcome-oriented programme of the **Ministry of Skill Development and Entrepreneurship (MSDE)**.
- Launched in 2018, as a **Centrally Sponsored Scheme** supported by a **World Bank** loan to strengthen skill development ecosystem.
- **Key Objectives:** The scheme aims to improve both the quality and quantity of short-term skill training through:
  o **Institutional Strengthening:** Building capacity at National, State, and District levels, including strengthening **District Skill Committees (DSCs)**.
  o **Quality Assurance:** Standardising certifications, assessments, and trainer quality through initiatives like **Training of Trainers (ToT)**.
  o **Inclusion:** Ensuring access to skill training for marginalised groups, including **women, SC/ST communities, and Persons with Disabilities (PwD)**.
  o **Market Relevance:** Aligning training with industry needs to improve employability and self-employment outcomes.

PM RAHAT Scheme

Context

- The **PM RAHAT (Prime Minister - Road Accident Victim Hospitalisation and Assured Treatment)** scheme launched to provide immediate, cashless medical treatment to road accident victims.

About PM Rahat Scheme

- The PM RAHAT (Road Accident Victim Hospitalization and Assured Treatment) Scheme launched by the **Ministry of Road Transport and Highways (MoRTH)**.
- It aims to provide immediate, free, and cashless medical treatment to victims of road accidents to minimize fatalities and disabilities.
- The scheme focuses on the **'Golden Hour'**— the critical first hour post-injury. Prompt, proper medical care during this period greatly boosts the victim's survival chances.

Key Features and Benefits

- **Cashless Treatment:** Provides cashless treatment up to a limit of **₹1.5 lakh per victim** for the first **7 days** of hospitalization.
- **Universal Coverage:** The scheme is applicable to accidents occurring on any road in India, including **National Highways, State Highways, and city/rural roads**.

- **Guaranteed Stabilization Care:** The scheme ensures mandatory stabilization care for victims, which is subject to police authentication:
  - **Up to 24 hours** for non-life-threatening injuries.
  - **Up to 48 hours** for life-threatening injuries.
- **Funding Mechanism:** All reimbursements to hospitals under this scheme will be made through the **Motor Vehicle Accident Fund (MVAF)**.
- **Emergency Services Integration:** The scheme integrates with the nationwide **Emergency Response Support System (ERSS - Dial 112)**, allowing easy ambulance calls and locating the nearest designated hospital for victims or Good Samaritans.
- **District-Level Accountability:** A **Grievance Redressal Officer**, nominated by the **District Road Safety Committee** (chaired by the District Collector/Magistrate/Deputy Commissioner), will be designated in each district to address grievances.

Bharat Vistaar
Context
- **The Ministry of Agriculture** launched the AI-based 'Bharat VISTAAR' scheme in Jaipur to digitally empower farmers.

About Bharat-VISTAAR
- **Bharat-VISTAAR** (Virtually Integrated System to Access Agricultural Resources) is an AI-powered, multilingual digital platform.
- **Unified Access**: It consolidates fragmented information from multiple sources like weather forecasts, market (mandi) prices, and government schemes into one platform.
- **Personalised Advisory**: It uses AI to deliver farm-specific advice based on individual farm profiles, including crop health, soil conditions, and pest alerts.
- **Empowerment**: It aims to reduce farmer dependence on intermediaries by providing direct, real-time data through simple voice or chat interactions.

Key Features
- **Voice-First & Multilingual**: Farmers can interact with a talking AI assistant named **'Bharati'** in their own language.
- Initially launched in **Hindi and English**. Planned expansion to **11 languages** in the next phase and eventually **22+ regional languages**.
- **Accessibility**: Can be accessed without a smartphone via a toll-free helpline (**155261**) or through an Android app and website.
- **Integration with AgriStack**: It connects with the national **AgriStack** system, utilizing digital **Farmer Identity Cards** to store land and crop data for precise recommendations.
- **Scientific Backing**: It integrates the "Package of Practices" from the **Indian Council of Agricultural Research (ICAR)**, providing research-backed guidelines for farming.

SAHI & BODH Health Ai Initiatives
Context
- The union Health minister launched SAHI and BODH to establish a secure, ethical, and standardized framework for AI adoption in the healthcare ecosystem.

About SAHI (Strategy for AI in Healthcare for India)
SAHI is a **national governance framework** and policy roadmap designed to guide the ethical adoption of AI across the health sector.
- **Purpose**: It acts as a "policy compass" to ensure AI use is transparent, accountable, and people-centric.
- **Key Focus Areas**:
  - **Governance & Ethics**: Establishing safety foundations and regulatory oversight for AI deployment.
  - **Data Infrastructure**: Strengthening secure, interoperable digital health systems.
  - **Workforce Capacity**: Training healthcare professionals to work with AI tools.
  - **National Alignment**: Guiding states and private partners to align AI efforts with public health priorities.

About BODH (Benchmarking Open Data Platform for Health AI)

BODH is a **privacy-preserving validation platform** developed by **IIT Kanpur** in collaboration with the **National Health Authority (NHA)**.

- **Purpose**: It provides a structured mechanism to test and validate AI models using real-world data before they are deployed at scale.
- **How it Works**:
  - **Privacy-Preserving**: It allows developers to evaluate their AI models against diverse, anonymized health datasets **without sharing or exposing** the underlying patient data.
  - **Benchmarking**: It assesses models for performance, accuracy, robustness, and potential algorithmic bias.
  - **Integration**: It functions as a digital public good under the Ayushman Bharat Digital Mission (ABDM) framework.

Vibrant Village Programme

Context

- The Vibrant Villages Programme Phase-II (VVP-II) was formally launched by the Union Home Minister.

About Vibrant Villages Programme

- It is an Initiative for **comprehensive development of villages along international land borders,** overseen by the Ministry of Home Affairs.
- It aims to improve living standards, create livelihood opportunities, and encourage residents to stay in border areas—effectively making them the "eyes and ears" of the border guarding forces.
- The programme is implemented in two phases:
  - **VVP-I (2023):** A ₹4,800 crore Centrally Sponsored Scheme targeting 662 villages in the Northern border states and UTs.
  - VVP-II launched in February 2026.

Key Details of VVP-II Expansion

- **Geographic Scope**: The program now includes **1,954 strategic villages** across 334 blocks in **15 States and 2 Union Territories**.
- **Borders Covered**: Expansion extends to borders with **Pakistan, Nepal, Bangladesh, Bhutan, and Myanmar**.
- **Financial Outlay**: A total budget of **₹6,839 crore** has been allocated for implementation through **FY 2028-29**.
- **Funding Model**: Unlike Phase-I (Centrally Sponsored), VVP-II is a **Central Sector Scheme**; **100% funded by the Union Government**.
- **Investment per Village**: The government proposes an expenditure of approximately **₹3 crore per village**.

9.2   SNIPPETS

Topics	Details
Bodhan AI & Bharat EduAI Stack	- The government launched **Bodhan AI** to create the open-source **Bharat EduAI Stack**, embedding **AI** across the entire **education system**, from kindergarten through research. - Bodhan AI, a non-profit organization **established under the Ministry of Education**, was developed by IIT Madras. Its objective is to **create the Bharat EduAI Stack,** which will serve as an AI-enabled Digital Public Infrastructure (DPI) for the education sector. The open-source **Bharat EduAI Stack** is a **digital public infrastructure** designed to deploy AI across the **education ecosystem**, to provide **personalised AI tutors,** AI support for **teacher training** and administration, and enable **data-driven policy-making** utilizing large learning datasets.
AI-Preneurs of India	- The Atal Innovation Mission (AIM), under NITI Aayog, launched the coffee table book "AI-Preneurs of India" at the India AI Impact Summit

	2026.
	• The book profiles the **entrepreneurial journeys of 45 AI startups supported by Atal Incubation Centres (AICs) across India**, covering over 30 sectors like healthcare, education, and deep tech. It employs a "founder-first" narrative, emphasizing the entrepreneurs' motivations, challenges, and perseverance.