

CURRENT PULSE

JANUARY 2026



ESSENTIAL, THAT
WILL BOOST YOUR
PREPARATION

CHANAKYA IAS ACADEMY
SECTOR 25 CHANDIGARH

WE HAVE COMPILED THIS MAGZINE FROM ONLINE SITES AND NEWSPAPERS

Regulation of social media in India



The Ministry of Electronics and Information Technology (MeitY) has send notice to 'X' over misuse of its AI tool 'Grok' to generate obscene, indecent, sexually explicit synthetic images/videos of women and children.

Issues flagged by Government

- **Non-compliance with Indian IT laws:** Failure to meet **due-diligence obligations** under IT Act, 2000 and IT Rules, 2021.
- **Violation of privacy and dignity:** AI-generated content undermining **women's privacy, dignity, and safety.**

Regulation of social media in India

- **Information Technology Act, 2000**
 - **Section 66E:** Punishes violation of privacy (**capturing/transmitting private images without consent**).
 - **Section 67:** Punishes **publishing or transmitting obscene material** in electronic form.
 - **Section 67A:** Punishes **sexually explicit content in electronic form.**
 - **Section 67B:** Specifically covers **sexual content involving children.**
- **IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 (under IT Act, 2000)**
 - **Rule 3 (Due diligence by intermediaries):** Platforms must **remove unlawful content, stop hosting obscene/sexual content.**
 - **Rule 4 (Additional rules for Significant Social Media Intermediaries):** They must appoint **Chief Compliance Officer, Grievance Officer, enable traceability of unlawful content etc.**
 - **Non-compliance risks loss of 'safe harbour protection'** (which shields from liability for user-generated content).
- **Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023:** Platforms must inform police when they detect serious **cognisable offences especially involving women or children.**

Census 2027



House listing operations (first phase of Census) will be conducted between April and September 2026 across all States and Union Territories.

- **Population Enumeration (second phase of Census)** is scheduled for February 2027.
 - For the Union Territory of Ladakh and snow-bound non-synchronous areas of the Union Territory of Jammu & Kashmir and states of Himachal Pradesh and Uttarakhand, the population enumeration will be conducted in September 2026.

Key Features in the 16th Census (2027):

- **India's First Digital Census:** Enumerators will primarily use mobile apps for data collection.
- **Historic Caste Enumeration:** This Census will include the first nationwide caste enumeration in independent India (last done in 1931) for all communities (beyond just Scheduled Castes and Scheduled Tribes).
- **Digital Features:**
 - **Self-Enumeration Portal:** A secure platform where citizens can independently complete questionnaires;
 - **Census Management and Monitoring System (CMMS):** Digital portal allowing supervisors and district officers to track enumeration progress.
 - **Houselisting Block (HLB) Creator:** A satellite-based web mapping application that enables Charge Officers to create precise digital enumeration blocks.
 - **Census as a Service (CaaS):** Provides ministries with a clean, machine-readable and queryable database to facilitate evidence-based policy planning.

About Census in India:

- **Conducted by:** Office of the Registrar General and Census Commissioner, Ministry of Home Affairs (decennially)
- **Legal Backing:** Census Act, 1948 and Census Rules, 1990.
- **Census 2027** will be the 16th Census in the country and 8th after independence.
 - The 1st synchronous Census started in the year 1881 (by W.C. Plowden).

POCSO Act

Court highlighted the misuse of the Protection of Children from Sexual Offences (POCSO) Act in consensual adolescent relationships, the Supreme Court has urged the Centre to consider a “Romeo–Juliet clause” to balance child protection with personal liberty.



Key Highlights of Judgement

- **Misuse of Law:** Court highlighted the instances where the **age of the victim is misrepresented** to make the incident fall under the stringent provisions of POCSO and where **law has been used by families in opposition to relationships** between young people.
- **Introducing Romeo–Juliet Clause:** To exempt **genuine consensual adolescent relationships**, where age difference between parties is minimal, from the harsh application of POCSO.
 - Ignoring consensual nature of relationship can lead to **wrongful imprisonment**.

About POCSO Act

- **Purpose:** Enacted to protect children (**below 18 years**) from sexual assault, sexual harassment, and pornography.
- **Gender-Neutral:** Defines a child as any person **below 18 years** and applies irrespective of the gender of the child or offender.
- **Categorisation of Offences:** It classifies sexual offences against children into **penetrative and non-penetrative assault, aggravated forms etc.** prescribing stringent punishments ranging from imprisonment to life sentence.
- **Special Courts:** That ensure speedy, **in-camera trials within a year**, safeguards children from exposure to the accused or hostile questioning, and mandates compensation and rehabilitation for child victims.

Verdict on Validity of Corruption Act amendment



In **Centre for Public Interest Litigation v. Union of India** judgment, the court delivered a split verdict on the constitutionality of Section 17A of the Prevention of Corruption Act (1988), inserted by the 2018 amendment.

- Section 17A mandates that there should be a prior sanction from the Government to launch an investigation against a public servant under the Act.

Key aspects of judgment

- **Split verdict:**
 - **Justice Viswanathan:** Section 17A is constitutionally valid subject to the condition that the sanction must be decided by the Lok Pal or the Lok Ayukta of the State.
 - **Justice BV Nagarathna:** Section 17A of the Act is in **violation of Article 14 of the Constitution** inasmuch as it seeks to protect only a class of public servants.
- Placed before the Chief Justice of India for the constitution of an appropriate bench to decide the issue.

About Prevention of Corruption Act, 1988

- **Definition of Corruption:** Acceptance or solicitation of gratification (other than legal remuneration) by a public servant for performing or not performing an official act.
- **Penalties:** Maximum imprisonment of 5 years.
- **Prevention of Corruption (Amendment) Act, 2018**
 - To ensure that the public servants can **discharge their public duty** without fear of harassment and prosecution.
 - Criminalizes the act of offering bribes to foreign public officials.

Other provisions to curb corruption

- **Lokpal and Lokayuktas Act, 2013:** Inquire into allegations of corruption against certain public functionaries including Prime Minister.
- **Central Vigilance Commission (CVC) Act, 2003:** It aims to bring about transparency and responsiveness in public administration.
- **Right to Information (RTI) Act, 2005:** Provides for the smoother and greater access to information to Indian citizens.
- **United Nations Convention Against Corruption (UNCAC):** Ratified by India in 2011, it is a legally binding global treaty against corruption.

Right to Education Act, 2009

The Supreme Court ruling aims to ensure that all schools make available 25% free seats for children from weaker and disadvantaged sections as per Section 12(1)(c) of the RTE Act.



Key Directions

- Central/State Governments to **frame and notify rules under Section 38 of RTE Act** for implementing Section 12(1)(c).
- Rulemaking to be done in consultation with National Commission for Protection of Child Rights (NCPCR), State Commissions (SCPCR), and National/State Advisory Councils.
 - NCPCR and SCPCR, constituted under **Commissions for Protection of Child Rights Act, 2005**, are responsible for reviewing, monitoring and grievances redressal under RTE Act, 2009.

About Right of Children to Free and Compulsory Education Act or RTE Act

- Enacted to give effect to **Article 21A** of the Constitution.
- **Section 3** grants right of every child (6–14 years) to **free and compulsory education** in a **neighbourhood school** till completion of elementary education.
- **Duty of appropriate Government and local authority** to establish **neighbourhood schools**.
- **Duty of Government and Local Authorities** to provide schools, infrastructure, teachers and learning facilities.
- Schools are entitled to **reimbursement of per-child expenditure** by the State.

Significance of Ruling

- **Promotes substantive equality and social integration from early childhood.**
- **Gives enforceable and operational meaning to fraternity** as a core constitutional principle.
- **Reinforces the Common School System** envisioned by the **Kothari Commission**.

Constitutional Provisions related to Right to Education

- **Fundamental Right:** **Article 21A** provides right to **free and compulsory education** of all children (6 -14 years).
- **Fundamental Duty:** **Article 51A(k)** specifies duty of parents to **provide opportunities for education** to child (6-14 years)
- **Directive Principles of State Policy (DPSP):** **Article 45** directs the state to provide early childhood care and education to children **below 6 years**.

Gig Worker's Nationwide Strikes

Delivery workers of the platforms like Swiggy, Zomato, Blinkit, and Zepto went on strikes on New Year's Eve, calling for a ban on 10-minute deliveries.



About Gig Economy in India

- As per **Code on Social Security, 2020**, it means a person who performs work or participates in a work arrangement and earns from such activities **outside of traditional employer-employee relationship**.
- Broadly classified into 2 categories:
 - **Platform based**: Whose work is based on online software apps or digital platforms. E.g., delivery workers of Zomato.
 - **Non-platform based**: Casual wage workers in conventional sectors, working part-time or full-time. E.g., domestic workers.
- **Scale**: India has around **10 million gig and platform workers**, which is expected to rise to **23.5 million by 2029-30**.
- **Drivers of growth**:
 - **Demand-side**: **Urban consumption**, proliferation of **quick commerce** digital platforms, etc.
 - **Supply-side**: **Flexible work models**, attractive **remunerations**.

Challenges with Gig Economy

- **Income Volatility**: Declining per-order payouts and **low base pay** lead to **reduced income stability**.
- **Occupational Hazards**: Aggressive delivery timelines (e.g., 10 minute delivery) **increase accident risks and stress**.
- **Social Vulnerability**: Absence of assured health insurance, accident cover, and pensions.
- **Coverage Gaps**: Existing social security proposals (like the **90-day rule**) are criticized for being restrictive.
- **Algorithmic Management**: **Algorithmic Opacity** in order allocation, "**de-platforming**" workers, and **limited collective bargain**.

Steps taken for welfare of Gig Workers

- **Code on Social Security (2020)** provides a **formal safety net**.
 - **Inclusion Criteria (90-day rule)**: gig workers engaged for **at least 90 days a year (or 120 days across multiple platforms)** are now **eligible for formal social security benefits** like health and accident insurance via the e-Shram portal and Ayushman Bharat.
- **Pradhan Mantri Suraksha Bima Yojana (PMSBY)**: All eligible registered unorganised workers including gig workers are entitled to get benefit of an accidental insurance cover of Rs. 2.0 Lakh for a year.
- **Legal interventions by State Governments**: Rajasthan Platform-Based Gig Workers Act, 2023, etc.

Duopolies dominating Indian Market

The recent Indigo fiasco in the aviation sector highlighted the issues and concerns faced due to duopoly in delivery of commodities and services.



What is Duopoly?

- It refers to a scenario in which **two suppliers dominate the market for a commodity or service**.
- In India, markets with just two suppliers in operation are becoming more common. E.g., **Duopoly of Ola and Uber in cab services**.
- **Reason for Rise of Duopoly**
- **High capital requirements:** Makes entry and survival difficult for smaller firms. E.g., **Aviation sector**.
- **Network effects:** Big firms spend early on to acquire customers, squeezing out competitors. E.g., **Telecom sector**
- **Regulatory Gaps:** Allows dominance to deepen.

Challenges posed by Duopoly

- **Inflated Pricing and Reduced Affordability:** Lack of competitive pressure lets dominant firms raise prices with little resistance, increasing consumer costs. E.g., **Food delivery**.
- **Limited Consumer Choice and Market Options:** Shrinks the presence of smaller players leaving consumers with very few alternatives.
- **Stagnation in Innovation:** Innovation is driven by staying slightly ahead of the lone rival, not by fear of disruptive new entrants. E.g., **Telecom sector**.
- **Excessive Lobbying Power and Regulatory Influence:** Powerful duopolistic firms can use their significant influence to protect their interests and block new technologies. E.g., **e-commerce sector**.
- **Systemic Vulnerability and Capacity Failures:** Failure of one player in a duopoly can lead to economy-wide losses and unsatiated demand. E.g., **Recent Indigo crisis in aviation sector**.

Conclusion:

India's rising duopolies need preventive regulation rather than delayed action. This requires stronger ex-ante powers for the Competition Commission of India, better coordination with sector regulators, easier market entry for new players, and transparent pricing with data portability to protect consumer choice.

NOTE

Existing Regulatory Mechanism

- **The Competition Act, 2002:** Provides the legal framework to prevent market distortion by prohibiting anti-competitive agreements and the abuse of a dominant market position.
 - Competition Commission of India (CCI) acts as the statutory watchdog responsible for enforcing competition laws.
- **Role of Sectoral Regulators:** TRAI (in Telecom sector), DGCA (in aviation sector), among others.

RBI releases Financial Stability Report



FSR is a biannual publication (June and December) by RBI that incorporates inputs from Financial Stability and Development Council (FSDC) subcommittee on current and emerging risks to the stability of Indian financial system.

Key Highlights of Report:

- **Fiscal Health:** Sovereign debt remains sustainable, supported by an S&P rating upgrade to 'BBB', favorable interest rate-growth differential and low level of foreign currency liabilities.
- **AI Optimism:** While markets are buoyed by Artificial Intelligence prospects, this optimism may mask underlying vulnerabilities and susceptibility to global spillovers.
- **Fintech Risks:** Lending in the fintech sector grew by 36.1%, but the RBI flagged concerns regarding elevated impairment among borrowers who have taken unsecured loans from five or more lenders.
- **Stablecoins:** The report warns that the widespread adoption of foreign-currency-denominated stablecoins could undermine India's monetary sovereignty, weaken policy transmission, and facilitate money laundering.
- **Currency Performance:** The Indian rupee experienced depreciation against the US dollar, influenced by falling terms of trade, higher tariffs compared to trading partners, and a slowdown in capital flows.
- **Banking Health:** Scheduled Commercial Banks (SCBs) maintain robust capital buffers; notably, the GNPA ratio declined to a multi-decadal low of 2.2% as of September 2025.

About the Financial Stability and Development Council (FSDC):

- **Nature:** Apex, non-statutory council under the Ministry of Finance established in 2010 to strengthen financial stability mechanisms.
- **Composition:** Chaired by the Union Finance Minister with members including the RBI Governor, heads of SEBI, IRDAI, PFRDA, IBBI etc. along with several government secretaries and Chief Economic Adviser.
- **Functions:** Coordinates macro-prudential supervision, promotes inter-regulatory coordination, financial sector development, inclusion and literacy.
- **FSDC Sub-Committee:** Chaired by the RBI Governor; provides inputs to FSR and deliberates on systemic risks.

Export Promotion Mission

These pilot schemes form part of NIRYAT PROTSAHAN component of the Export Promotion Mission.



About New Schemes

- **Interest Subvention for Pre- and Post-Shipment Export Credit:** Provides interest subvention of **2.75%** (as base rate) on rupee export credit.
 - **Additional incentive** for exports to **notified under-represented or emerging markets**.
 - **Annual cap:** ₹50 lakh for FY 2025–26.
 - **Eligibility:** restricted to exports **under a notified positive list of tariff lines** (at HS 6-digit level), covering ~75% of India's tariff lines.
- **Collateral Support for Export Credit:** Implemented in partnership with the **Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)**.
 - It provides **guarantee coverage**:
 - Up to **85%** for **Micro and Small exporters**.
 - Up to **65%** for **Medium exporters**.
 - **Maximum limit:** ₹10 crore outstanding guaranteed exposure per exporter in a financial year.
 - **Eligibility:** same as above.

About Export Promotion Mission (EPM)

- **Launched:** In November 2025, for **6 years (FY 2025-26 to 2030-31)** with financial outlay of ₹25,060 crore.
- **Objective:** Providing **affordable trade finance**, specifically for MSMEs, labour-intensive sectors (e.g. Textile), etc.
- **Mission Architecture:** Two distinct but integrated pillars:
 - **Niryat Protsahan (Financial Support):** through instruments like **interest subvention, collateral guarantees, and credit cards** for e-commerce exporters.
 - **Niryat Disha (Non-Financial Support):** support for **export quality, compliance, international branding, and logistics**.

Significance of EPM

- Enhancing Indian exporters' **global competitiveness** through
 - Lowering the **cost of exporting** and expand **access to finance**,
 - Strengthening **India's export brand** and **diversify export markets** through **compliance, certification, and international branding**.
- Boosting **job creation** by supporting labour intensive industries and first time exporters.

Geo-Economics

India is facing challenges as the traditional boundaries of geopolitics are being redrawn by geo-economics.



- **Geopolitics:** Power through traditional factors like **geography and military**.
- **Geo-economics:** Use of **economic instruments** (trade, sanctions) to promote and defend national interests and produce beneficial geopolitical results.

How Geo-economics is shaping Geopolitics?

- **Energy and Resource Diplomacy:** E.g. the U.S. recently launched the "**Pax Silica**" initiative to secure supply chains for semiconductors, AI, and critical minerals; **India was excluded** from the nine-member group.
- **Weaponization of Interdependence:** E.g. use of **financial sanctions** by the US like cutting off Russian banks from SWIFT.
- **Trade Policy as Strategic Tool:** E.g. "**Trade War**" between the US and China, involving **technological supremacy** (e.g. semiconductors).
- **Geo-economic Fragmentation:** E.g. EU's **Carbon Border Adjustment Mechanism (CBAM)** that shifts the burden of emission reductions onto the Global South.

India's Key Challenges in the Geo-economic Arena

- **Mineral and Technology Gaps:** Despite a **geology comparable to Australia**, India has only explored **25-30 percent** of its potential, leading to a 100 percent import dependence for critical minerals like lithium.
- **Low R&D & Tech Ecosystem:** India spends **just about 0.6-0.7% of its GDP** on the R&D Sector, significantly lower than the **2.5–3% spent by China and the US**.
- **Policy & Governance Gaps:** such as bureaucratic red-tapism which limits private sector participation and investment in mineral exploration.

Way Ahead for India

- **Forging More Geo-economic Partnerships:** such as **Supply Chain Resilience Initiative (SCRI)** with Japan, Australia, and USA and **Global Biofuels Alliance** to create a geo-economic alternative to traditional fossil fuel blocks like OPEC.
- **Ramping Up Innovation & R&D:** E.g. Research Development and Innovation (RDI) Scheme.
- **Critical Infrastructure & Connectivity:** Fast tracking the **India-Middle East-Europe Economic Corridor (IMEC)** as a geo-economic bridge that secures India's trade routes and energy interests.

India becomes world's largest rice producer



Union Agriculture Minister also released 184 new high-yielding seed varieties for 25 crops.

Status of Rice Production and export:

- **Major producers of rice:** India (150 MT), China, Indonesia, Bangladesh, Japan, Sri Lanka and Egypt.
- **State wise Production in India (2024-25):** Uttar Pradesh (13.8%), Telangana (11.6%), West Bengal (10.6%), Punjab (9.5%), Chhatisgarh (7%) etc.
- **Export:** India is the world's **largest rice exporter** (exporting 20.1 million metric tonnes of rice in 2024–25).
- **Major export destinations of India's Rice:** Saudi Arabia, Iran, Iraq, Benin, United Arab Emirates etc.

About Rice Crop

- **Type:** Major **food crop** of the world and **staple diet** of the tropical and sub-tropical regions.
- **Growth Conditions:**
 - Rice is grown under varying conditions in India from **8°N to 30°N latitude** and from **sea level to about 2,500 metre altitude**.
 - Grown in **variety of soils including silts, loams and gravels** and can tolerate acidic as well as alkaline soils.
 - Abundant rainfall (100-150cm), high humidity and high temperature (**30°C** during day and **20°C** at night).
 - Paddy is a **semi-aquatic plant** that requires standing water (averaging 10–15 cm) for three-quarters of its growing season.
 - It grows best in **impermeable subsoil** with a pH between **5.5 and 6.5**.
- **Cropping Seasons in India:** Rice is grown in three distinct seasons based on the region:
 - **Aman (Winter rice):** Sown in June–July and harvested in November–December.
 - **Aus (Autumn rice):** Sown in May–June and harvested in September–October.
 - **Boro (Summer rice):** Cultivated between November and May, often in areas that remain moist during winter.

CAG releases 'State Finances 2023-24' Report



It is the 2nd edition which presents an overview of the finances of all 28 States in FY 2023-24.

- The first edition of the report, 'State Finances 2022-23' was released in September 2025.

Key Highlights of Report

- **Public Debt of States:** ₹67.87 lakh crore (~23% of GSDP) as of March 31, 2024.
- **Fiscal Deficit:** 18 states exceeded the 3.0% of GSDP benchmark recommended by the 15th Finance Commission for FY 2023-24.
 - **Extreme Fiscal Rigidity:** lack of "fiscal space" for new development as **committed expenditure** (salaries, pensions, interest, etc.) consume ~60% of total revenue expenditure.
- **Reliance on the Union Tax Devolution:** rising from ~21% (2014-15) to ~30% (2023-24) for revenue.
 - This makes State budgets **highly vulnerable to national economic fluctuations**.
- **Low Capital Expenditure:** Revenue expenditure (maintenance and salaries) continues to dominate at ~83%, while Capital Expenditure (Capex) is only ~16%, as states are prioritizing **immediate consumption over long-term investment**.
 - In several states, like Punjab and Andhra Pradesh, **debt is being used to pay for daily expenses** rather than building assets.
- **Transparency Gaps:** The "Shadow Budgeting" problem in form of administrative practices, such as **misclassification**, is obscuring the true state of finances.

CAG's Recommendation

To address persistent lack of uniformity in how states classify spending, the CAG has mandated the **harmonisation of Object Heads** across the Union and States to be adopted by FY 2027-28.

Delhi Government Signs MoU with RBI to Manage Borrowings and Cash Flows



Memorandum of understanding (MoU) will enable the Reserve Bank of India to function as the banker, debt manager and financial agent of the Delhi government.

- Functions such as the **management of the public debt of the state** are carried out by RBI in terms of the **agreement entered** into with the State Governments.
 - As of now, such agreements exist between RBI and all the State Governments **except Government of Sikkim**.

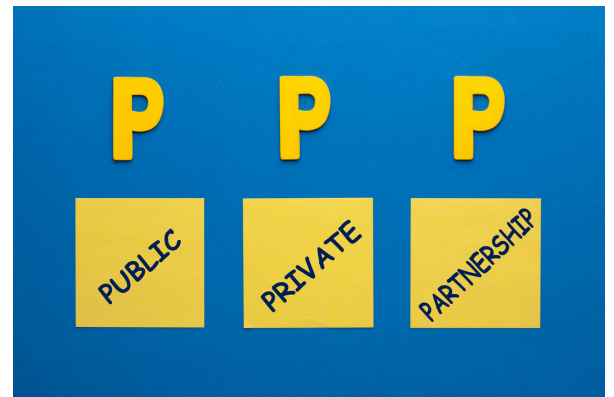
Role of RBI as Banker to Government

- **For Central government:** RBI has the obligation to **undertake the receipts and payments** and to carry out the **exchange, remittance and other banking operations**, including the **management of the public debt** of the Union (Under Section 20 of RBI Act, 1934).
- **Issue Securities:** RBI helps raise finances through government securities.
 - The **Central Government** can issue both, **treasury bills and bonds (or dated securities)**.
 - While the **State Governments** can issue **only bonds (or dated securities)**, which are called the **State Development Loans (SDLs)**.
- **RBI also maintains the Principal Accounts** of Central as well as **State Governments** at its Central Accounts Section, Nagpur.

Other functions of RBI

- **Monetary Authority:** Formulates, implements and monitors the monetary policy.
- **Prescribes broad parameters of banking operations** within which the country's banking and financial system functions.
- Manages the **Foreign Exchange** under FEMA act, 1999.
- **Issues, exchanges and destroys currency notes** as well as puts into circulation coins minted by Government of India.
- Regulator and Supervisor of **Payment and Settlement Systems**.
- **Banker to banks:** maintains banking accounts of all scheduled banks.

Ministry of Finance creates three-year PPP project pipeline



The pipeline provides early visibility of potential PPP projects to enable investors, developers, and other stakeholders to undertake more informed planning and investment decisions.

- The pipeline comprises 852 projects worth over ₹17 lakh crore to accelerate infrastructure development across sectors.

About the Public Private Partnership (PPP)

- PPP is a long-term contractual arrangement between a government or public authority and a private sector entity for the provision of public infrastructure or services.
- **Key PPP Models**
 - **Build Operate Transfer (BOT):** Private entity finances, designs, build, and operate a facility for a set period (earning via user fees) before transferring ownership to the public sector.
 - **Design Build Finance Operate (DBFO):** Private party handles the entire lifecycle from design to operation. The government retains ownership throughout, paying the private party via service fees or collected user tolls.
 - **Engineering Procurement and Construction (EPC):** The government funds the project and retains management. The private entity is strictly a contractor responsible for design and construction.
 - **Hybrid Annuity Model (HAM):** A mix of EPC and BOT. The government pays 40% of the cost in milestone-linked installments; the developer raises the remaining 60% and recovers it through annuities.

Need for PPP

- **Bridging the Infrastructure Financing Gap:** India will require an estimated \$4.5 trillion in infrastructure investment by 2030.
- **Reducing Fiscal Burden on Government:** Frees up public tax revenue for social welfare (healthcare and education) by shifting the burden of physical asset creation to the private sector
- **Access to Advanced Technology and Innovation:** Integrates cutting-edge private-sector expertise and global best practices.
- **Other:** Improving Efficiency and Timely Project Delivery, etc.

Initiative taken to Promote PPP

- **Viability Gap Funding Scheme (VGF)**
- **India Infrastructure Project Development Fund (IIPDF) and India Infrastructure Finance Company Limited**
- **Foreign Direct Investment (FDI)** (allowed 100% FDI in equity of SPVs in the PPP sector is allowed on the automatic route for most sectors)

Affordable Housing Report by NITI Ayog

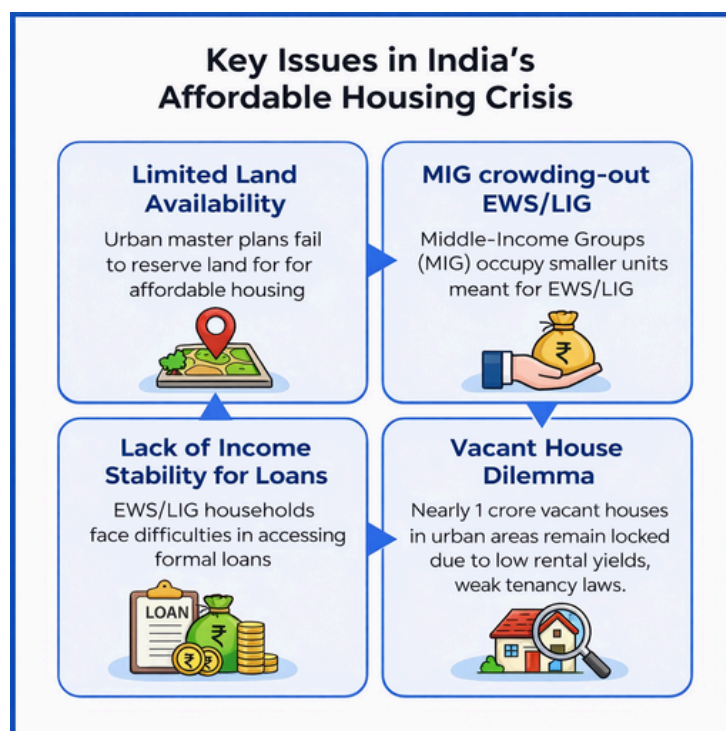
The reports offers a working definition for Affordable House as a dwelling unit with a carpet area and value of up to 60 sq. m. and ₹60 lakh (metropolitan cities) and 90 sq. m. and ₹45 lakh (non-metropolitan areas)



- **Pradhan Mantri Awas Yojana Urban (PMAY- U) 2.0, 2024** defines affordable housing with the same carpet area as above and value **not exceeding ₹45 lakh**.

Key Recommendations on Affordable Housing

- **Zoning Reforms:** Designate **Affordable Housing Zones** within city Master Plans and Town Planning Schemes, with at least 10% of all residential land marked for affordable housing E.g. **Vienna and South Korea** adopts such approach.
- **Transit-oriented development (TOD):** Cities should **earmark areas near metro and mass transit stations** exclusively for mixed-use development, combining offices, commercial spaces, and affordable housing.
- **Reservation for EWS/LIG housing:** Mandatory **reservation of 10-15% of the built-up area for EWS/LIG housing** in all housing & commercial projects exceeding 10,000 sqm built-up area or 5,000 sqm plot area.
- **Reforms in rental housing legal framework:** States should adopt **dedicated rental housing stock policies through Public–Private Partnership (PPP) models**, in line with PMAY-U 2.0 Affordable Rental Housing (ARH) vertical.



Gross Non-Performing Assets

According to the Report on Trend and Progress of Banking in India 2024-25 of RBI, the NPA of Indian banks has reached a multi-decade low, with the gross NPA ratio dropping to 2.1% by late 2025.



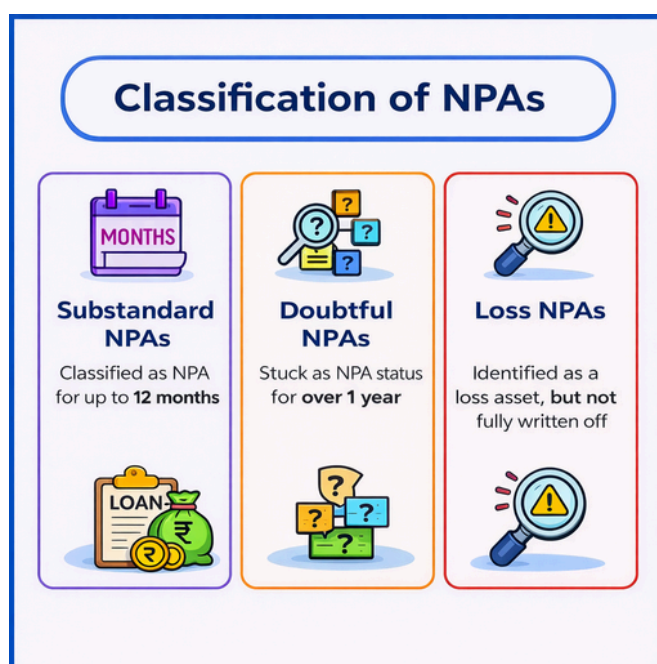
- The **net NPA (NNPA)** ratio also declined to 0.5 % at the end of March 2025
- **GNPA** ratio of banks started reached its peak in 2018 at 11.18%.

What is Non-Performing Assets (NPAs)?

- **NPAs** are loans or advances for which the principal or interest payment remains overdue for a period of more than 90 days.
 - **Gross NPA** is the total value of loans where interest or principal remains overdue and **Net NPA** is obtained by subtracting provisions (the funds the bank sets aside to cover expected losses) from GNPA.
- **Key Drivers of NPA:** Economic slowdowns, fraudulent borrowers, poor monitoring, etc.
- **Challenges associated with NPAs:** high provisioning, reduced lending capacity, etc.

Key initiatives that have played a crucial role in reducing NPAs

- **Insolvency and Bankruptcy Code (IBC), 2016:** Created a time-bound and creditor-driven resolution framework for stressed assets
- **Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI Act):** It allows secured creditors to take possession of collateral, against which a loan had been provided, upon a default in repayment.
- **Asset Reconstruction Companies (ARCs):** Banks continued to clean their balance sheets by selling NPAs to ARCs
- **Other:** Indradhanush plan (launched for revamping PSBs, envisaging infusion of capital in PSBs), Debt Recovery Tribunals (DRTs), etc.



Board of Trade

BoT highlighted slowing exports due to the steep US tariffs of 50 %.



Board of Trade

- **About:** It is apex advisory body on policy measures related to the Foreign Trade Policy aimed at strengthening India's trade ecosystem.
- **Chairman:** Minister for Commerce & Industry.
- **Members:** Comprise ministers in charge of trade and commerce in state governments and union territories, export promotion councils, industry associations etc.
- It was reconstituted in 2019 through the merger of the Council for Trade Development and Promotion with the BoT.

Payments Regulatory Board

RBI Governor chaired the first meeting of Payments Regulatory Board.



About Payments Regulatory Board

- Set up in 2025 by the **Reserve Bank of India** under the **Payment and Settlement Systems Act, 2007**.
- **Mandate:** Regulation and supervision of **all payment systems** such as electronic/non-electronic, domestic and cross-border.
- **Replaced** Board for Regulation and Supervision of Payment and Settlement Systems (**BPSS**).
- **Composition:** Chaired by the **Reserve Bank of India Governor**, with **two RBI representatives** and **three Central Government nominees** as members.

Advance Estimates Of GDP

National Statistics Office (NSO) released First Advance Estimates of GDP for the Financial Year (FY) 2025-26.



Key Highlights:

- **Real GDP:** Estimated to grow by **7.4%** in FY 2025-26 (6.5% during 2024-25).
 - Real GDP or GDP at Constant Prices is estimated to attain a level of ₹201 lakh crore in FY 2025-26
- **Nominal GDP:** Estimated to grow at **8.0%** in FY 2025-26.
 - Nominal GDP or GDP at Current Prices is estimated to attain a level of ₹357 lakh crore in the FY 2025-26

Growth of Indian Fertilizer Sector

Growth in domestic production is driven by establishing new and reviving old plants and assured availability of raw materials.



Status of Fertilizer Production in India

- **Record Output:** Total domestic production (Urea, DAP, NPKs, and SSP) touched **524.62 Lakh Metric Tonnes (LMT)** in 2025.
- **Growth Trajectory:** Production has shown a **consistent upward trend**. (see infographic)
- **Reduced Import Dependence:** 73% of total fertilizer requirement is met through **domestic production** in 2025.

Significance of Growth of Indian Fertilizer Industry

- **Fiscal Prudence:** Reduced imports **significantly lower** the Current Account Deficit (CAD) and the fertilizer **subsidy burden**.
- **Price Stability:** Shielding Indian farmers from **global price volatility** and ensures **stable input costs and food inflation control**.
- **Food Security:** Assured availability of fertilizers is vital for sustaining crop yields and **meeting the food requirements** of the population.

Initiatives for Increasing Domestic Fertilizer Production

- **Revival of Closed Units:** E.g., Gorakhpur, Ramagundam, Sindri, Barauni etc. to **significantly ramp up urea capacity**.
- **Strategic Sourcing:** Long-Term Agreements (LTAs) for **key raw materials** (like rock phosphate) to ensure uninterrupted manufacturing.
- **Diversification of supply sources:** Mitigating risks associated with single-source dependency.
- **Indigenous Technology:** Promotion of 'Make in India' through **liquid Nano Urea and Nano DAP** to enhance nutrient efficiency.

Gig Economy

Major delivery aggregators agree to remove the 10 minute delivery deadline for gig workers.



- The move is aimed at ensuring **greater safety, security** and improved working conditions for gig workers.

Gig Economy

- A gig economy is **characterized by temporary, contract, and freelance jobs** rather than permanent positions.
- The Code on Social Security, 2020, defines a gig worker as a **person who works outside a traditional employer-employee relationship**.
- **Challenges:** Work-life balance, Income Volatility, lack of social security, limited career development etc.
- **Initiatives for gig workers:** Code on Social Security, 2020, Code on wages 2019, e-Shram Portal, Pradhan Mantri Suraksha Bima Yojana (PMSBY) etc.

Reinvention of Coal as Next-Gen Fuel



The Centre has earmarked ₹5,925 crore for the exploration of coal and lignite over the next five-year period starting FY27.

- Government is also taking steps to reduce the polluting impact of coal based energy.

Status of Coal Sector in India

- **Coal Reserves:** India holds the **5th largest coal reserves in the world**, with a total estimated coal resource of about 401 billion tonnes as of April 2025.
- **Coal production:** It has **doubled to 1047.523 Million Tonne (MT)** in FY 2024-25 from 565.77 MT in FY 2013-14.
- **Future Outlook:** Demand for coal is projected to rise to approximately **1.5 billion tonnes by 2030**.

Why is coal so significant for India?

- **Primary Energy Source:** Coal plants still supply 72% of electricity. Despite its pollution related challenges, it ensures a **reliable base-load 24x7**.
- **Support to Critical Industries:** Coal fuels steel, cement, and heavy industries, driving economic growth.
 - For instance, it is central to the **National Steel Policy's target of 300 MT** of crude steel by 2030.
- **Energy Security:** Domestic coal production reduces imports, **saving approx. \$8 billion in 2024-25**.
- **Economic Development:** Coal expansion creates jobs and attracts major investments.

Steps taken to reduce polluting impact of coal

- **Mission Green (Grow, Restore, Enrich, and Empower Nature)** to balance coal usage with environmental sustainability.
- **Coal Gasification** (to convert coal into cleaner gas fuel). The **National Coal Gasification Mission** targets gasifying **100 MT of coal by 2030**.
- **First Mile Connectivity (FMC):** To transport coal from pitheads to dispatch points via conveyor belts and rail to reduce **dust and pollution from road transport**.
- **Renewable Energy Integration:** Coal PSUs are diversifying into green energy with a target to install **22.5 GW of renewable capacity by 2030**. Currently, over 2 GW of solar power has been installed.
- **Sustainable Mine Closure:** New frameworks like **LIVES (Land and technical reclamation)** and **RECLAIM** have been launched to ensure scientific closure of mines and ecological restoration.
- **Carbon Management:** The **ARTHA Framework** has been introduced to map carbon credit opportunities and drive green financing in the mining sector.

India's Fish production doubled from FY 2013-14 to FY 2024-25



India is the world's second-largest fish producer, contributing 8% to global output, providing livelihoods to approx. 3 crore fishers and fish farmers.

- Fish production has increased to 197.75 lakh tonnes (FY 2024-25) from 95.79 lakh tonnes (FY 2013-14), contributing 7.43% to the Agriculture Gross Value Added (GVA), highest among agriculture and allied sectors.
- Average aquaculture productivity has increased to 4.77 tonnes per hectare.
- India exported 16.98 Lakh tons of seafood during 2023-24.

Key Initiatives behind growth in fisheries sector

- **Pradhan Mantri Matsya Sampada Yojana (PMMSY):** A flagship scheme driving the "Blue Revolution", it focuses on filling infrastructural gaps, with approvals for cages, Biofloc units, recirculatory aquaculture systems (RAS), and brood banks.
- **Fisheries & Aquaculture Infrastructure Development Fund (FIDF):** Setup in 2018-19, for creation of fisheries infrastructure facilities both in marine and inland fisheries sectors and to augment the fish production to achieve the target of 15 million tonnes by 2020.
- **Integrated Aquaparks:** The development of 11 Integrated Aquaparks has been approved with a sanctioned cost of Rs 682.60 crore
- **Satellite Technology Integration: Vessel Communication and Support System,** application of Oceansat, etc.
- **Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PMMKSSY):** It is a Central Sector Sub-scheme under the PMMSY in 2024 for a period of 4 years to address the inherent weaknesses of the sector through identified financial and technological intervention.

Challenges to be addressed for further growth

- **Environmental:** Overfishing, habitat destruction and climate change.
- **Economic:** Market fluctuations; Illegal, Unreported, and Unregulated (IUU) fishing and limited access.
- **Social issues:** Food security, gender inequality and community displacement.
- **Technology (e.g. GPS, Sonar, mobile Apps, etc.)** needs to be further integrated for the benefit of small fishermen to increase their productivity.

RBI proposes resumption of Licensing of UCBs

Recently, RBI has released a discussion paper exploring the potential resumption of licensing for Urban Co-operative Banks (UCBs) prompted by positive developments in the sector, increased demand from stakeholders, and a strengthened regulatory framework under the RBI.



- Since 2004, licensing for Urban Co-operative Banks (UCBs) had been paused as it was found that a large number of the newly licensed UCBs became financially unsound within a short period.

Arguments for resumption of Licensing

- **Financial Inclusion:** UCBs play an important role in serving remote and small towns, contributing to financial inclusion.
- **Enhanced Regulatory Powers:** The RBI's supervisory capabilities have been considerably strengthened by the 2020 amendment to the Banking Regulation Act.
- **Institutional Support:** Newly functional Umbrella Organisation (NUCFDC) is expected to provide critical capital, knowledge, and technology support, further strengthening the sector.

About UCBs

- UCBs are a co-operative society registered under any State Co-operative Societies Act or under the Multi-State Co-operative Societies Act that has been given a banking license as a primary co-operative bank under the Banking Regulation Act, 1949.
- **Current status of UCBs in India:**
 - **Total UCBs:** 1457 (as of March 31, 2025).
- **Regulatory Framework (Dual Control)**
 - **Reserve Bank of India (RBI):** Since 1966, RBI regulates banking functions including licensing, capital adequacy, loan policies, prudential norms and financial stability.
 - **Registrar of Co-operative Societies (RCS):** State or Central Governments regulate administrative and management aspects through the RCS.
 - **Tiered Regulatory Structure:** UCBs are classified by the RBI into four tiers based on deposit size, enabling proportionate regulation and supervision.

Export Preparedness Index

EPI 2024 has been released by the NITI Aayog



About EPI

- EPI is a **comprehensive assessment** of **export readiness** across India’s States and Union Territories (UTs).
- It is aligned with India’s **USD 1 trillion merchandise export** target by 2030.
- Key Pillars & Indicators:** Structured around four pillars, further disaggregated into 13 sub-pillars and 70 indicators.
 - Pillars and Weightage:** Export Infrastructure (20%), Business Ecosystem (40%), Policy & Governance (20%) and Export Performance (20%)
 - Sub-indicators:** Trade & Logistics Infrastructure, Human Capital, etc.

Key Findings		
Category	Ranking of Large States	Ranking of Small States, North Eastern States & UTs
 Leaders (States/UTs demonstrating relatively high export preparedness)	1. Maharashtra 2. Tamil Nadu 3. Gujarat	1. Uttarakhand 2. Jammu and Kashmir 3. Nagaland
 Challengers (States/UTs with moderate preparedness and scope for improvement)	1. Madhya Pradesh 2. Haryana 3. Kerala	1. Meghalaya 2. Ladakh 3. Delhi
 Aspirers (States/UTs at early stages of export ecosystem development)	1. Odisha 2. Chhattisgarh 3. Rajasthan	1. Arunachal Pradesh 2. Andaman and Nicobar Islands 3. Mizoram

Deflation

Food prices slipped into deflation (-0.2%) for the first time since 2014.



About Deflation

- Also called as negative inflation, it refers to a sustained decrease in the **general price levels of goods and services**.
- The major causes of deflation include decreased **aggregate demand**, **increased productivity**, and **shifts in monetary policy**.

India's RCEP advantage without 'China-risk'



Once the FTA with New Zealand comes into force, India would have trade deals with all RCEP countries except China.

About Regional Comprehensive Economic Partnership (RCEP)

- It is a comprehensive free trade agreement among **15 Asia-Pacific countries**.
- **Members: 10 ASEAN Member States** - Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam along with **five of ASEAN's major trade partners**: Australia, China, Japan, South Korea, and New Zealand.
 - India **withdrew from the RCEP negotiations in 2019**.

Reason for India to opt out of RCEP

- **The "China Risk" and Trade Imbalances:** RCEP would provide China virtually duty-free access to the Indian market leading to a massive influx of superior and more competitive Chinese manufactured goods
- **Protection of Domestic Industry and Agriculture:** Safeguarding sensitive sectors such as dairy and agriculture.
- **Unaddressed Technical and Legal Demands:** India's concerns on tariff base rates, modification of MFN status and recognition of its federal structure in investment decisions were not addressed.
- **Threat to Self-Reliance:** Joining RCEP was seen as potentially undermining domestic programs like Atmanirbhar Bharat (Independent India), Make in India, and Vocal for Local.

How India secured RCEP's advantages?

- **The "RCEP minus China" Formula:** By late 2025, India signed FTAs with all RCEP members except China, securing market access while retaining tariff control over Chinese imports.
- **Selective Liberalization and Safeguards:** Bilateral agreements allow India to exclude sensitive sectors such as dairy and agriculture.
- **Preventing indirect entry:** Staying out of RCEP prevented the indirect entry of Chinese goods.

Conclusion

- India's decision to stay out of RCEP reflects a carefully balanced trade strategy. By choosing selective bilateral FTAs over a China-centric bloc, India protected sensitive sectors, retained tariff autonomy, reduced risks, and pursued openness without weakening economic security.

US' strikes on Venezuela



The strikes, codenamed 'Operation Absolute Resolve', highlighted issues such as violations of international law, violation of national sovereignty, unilateral armed aggression, and US imperialism, among other.

- **India is unlikely to be impacted** due to weakened bilateral engagement post 2019 US sanctions.

Probable reasons for the Strikes

- **Resurrection of the Monroe Doctrine:** To re-establish U.S. hegemony in the Americas.
- **Countering China's expansion in Latin America:** China (world's largest crude importer) has been biggest buyer of Venezuelan oil.
- **Controlling Venezuela's resources:** It has the **world's largest oil reserves**, large gas reserves, largest gold reserves in South America, etc.
- **Others:** To counter state-sponsored drug trafficking, spread of socialism, mass immigration, etc.

Potential consequences of the US Imperialism

- **Historical Parallel:** The 2003 invasion of Iraq, which was launched on "false premises to depose a dictator and 'export' democracy" but instead resulted in the destabilization of West Asia and the rise of groups like ISIS.
- **Violations of International Law and Norms:** The "apprehension and forced exile" of Venezuelan President is condemned as a "flagrant violation of international law" and a direct contravention of **Article 2 of the UN Charter**.
 - **Article 2** of UN charter legally mandated **states to refrain from use of force** with some exception such as self-defence.
- **Bypassing the UN Security Council:** The U.S. has circumvented the UN Security Council, positioning itself as "judge and executioner."
- **Warning to International community:** Failure of the **post-Cold War hope for a "stable liberal order"** is underscored by the actions of both the US and Russia (e.g., the ongoing conflict in Ukraine).

India-Pakistan Non-attack Agreement



India and Pakistan exchanged lists of nuclear installations under 'Agreement on Prohibition of Attacks against Nuclear Installations and Facilities' (or India-Pakistan Non-attack Agreement).

About the India-Pakistan Non-attack Agreement

- **Signed:** 31st December 1988, and entered into force on January 27, 1991.
 - It requires both nations to **exchange information on January 1st each year** regarding the location of their nuclear installations.
- **Aim:** Refrains both sides from directly or indirectly causing the destruction of, or damage to, **any nuclear installation or facility in the other country.**
- **Significance:** Considered a key measure for **reducing nuclear risk** between India and Pakistan.

OPEC+

OPEC+ has agreed in principle to maintain steady oil output despite rising geopolitical tensions.



About Organization of the Petroleum Exporting Countries (OPEC) and OPEC+

- OPEC is a **permanent intergovernmental organization** of 12 oil-exporting developing nations.
 - **India is not a member.**
- **Genesis:** Baghdad Conference in 1960, by Iran, Iraq, Kuwait, Saudi Arabia and Venezuela.
- **Objective:** To co-ordinate and **unify petroleum policies** among Member Countries, in order to secure **fair and stable prices** for petroleum producers.
- **HQ:** Vienna (Austria)
- **OPEC+:** In response to falling oil prices driven by significant increase in the US shale oil output, **OPEC signed an agreement** with 10 other oil-producing countries in 2016 to create **OPEC+.**

UN Security Council



UN Security Council

Five countries Bahrain, Colombia, the Democratic Republic of the Congo, Latvia, and Liberia; elected to serve as non-permanent members of UNSC for 2 year term.

About UN Security Council

- **Genesis:** Established in 1945 through the UN Charter as one of the 6 principal organs of the UN.
- **Purpose:** Maintaining international peace and security.
- **Members:** 5 permanent members (P5) and 10 non-permanent members.
 - P5 includes China, France, Russia, USA and UK.

OECD Finalises Agreement on Global Minimum Tax



OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS) have agreed on a side by side arrangement package for the co-ordinated operation of global minimum tax arrangements.

- **Global Minimum Tax:** It is based on **Global Anti-Base Erosion (GloBE) Model Rules**. It aims to ensure that **large multinational enterprises pay a minimum level of tax on their income in each jurisdiction where they operate**, thereby reducing the incentive for profit shifting and placing a floor under tax competition, bringing an **end to the race to the bottom** on corporate tax rates.
 - BEPS refers to **tax planning strategies that multinational enterprises use to exploit loopholes in tax rules to artificially shift profits to low or no-tax locations as a way to avoid paying tax**. (E.g. through deductible payments like interest or royalties).

Global Min Tax Package

- **The package includes five key components**
 - **Simplification measures:** Reduces compliance burdens for multinational enterprises (MNEs) and tax authorities.
 - MNEs are groups of companies and generally operate worldwide through locally incorporated subsidiaries or permanent establishments.
 - **Tax incentive alignment:** Introduces a targeted **substance-based tax incentive safe harbour** to align global treatment of tax incentives.
 - **Safe harbours for qualifying MNEs:** Available to MNE Groups with ultimate parent entities in eligible jurisdictions meeting minimum taxation requirements.
 - **Level playing field:** Includes **evidence-based stocktake process** to ensure fair treatment for all Inclusive Framework Members.
 - **Domestic minimum tax protection:** Reinforces qualified domestic minimum top-up tax regimes as the primary mechanism for protecting local tax bases, particularly in developing countries.

OECD/G20 Inclusive Framework on BEPS

- **Launched: 2016**
- **Led by: OECD and G20**
- **Objective:** To tackle **Base Erosion and Profit Shifting (BEPS)** by multinational enterprises.
- **Membership: 147 countries and jurisdictions.** (India is a member).
- **Key Pillars:**
 - **Pillar One:** Reallocates **taxing rights** to market jurisdictions where profits are generated.
 - **Pillar Two:** Introduces a **global minimum corporate tax (15%)** to curb tax competition.

IRAN

India has issued an advisory urging its nationals to avoid any non-essential travel to Iran until further notice amid the ongoing protests.

Iran (Capital: Tehran)

Political Features

- **Member of:** BRICS, SCO, OPEC.
- **Land Boundaries:** Armenia, Azerbaijan, and Turkmenistan (North); Afghanistan and Pakistan (East); Iraq and Turkey (West).
- **Maritime Boundaries:** Caspian Sea (North), Persian Gulf and Gulf of Oman (South).

Geographical Features

- **Lake Urmia**, an endorheic salt lake, is the largest lake in the Middle East.
- **Resource Potential**
 - Natural Gas (2nd position in the world)
 - Proven Crude Oil Reserves (4th)



e-Business Visa

- India has introduced an **e-Production Investment Business Visa** called **e-B-4 Visa** for Chinese businessmen which will be issued in about 45 to 50 days, with permission to stay in India for up to six months.
- Chinese businessmen can apply for specific business activities such as:-
 - installation and commissioning of equipment.
 - quality check and essential maintenance
 - supply chain development for empanelling vendors

Rangelands and Pastoralists

United Nations has declared 2026 as 'International Year for Rangelands and Pastoralists'.



About Rangelands and Pastoralists

- **Rangelands:** Cover around half of Earth's land surface like grasslands, savannas and shrublands, deserts, wetlands or mountain areas.
 - **Key Examples:** The steppes of Central Asia, African savanna, Alps and the Pyrenees in Europe, Andes in South America and the Great Plains of the United States.
 - **Significance:** Preserve unique fauna and flora and provide essential services including carbon storage and water regulation.
- **Pastoralists:** Raise animals, contribute to food security, hold diverse cultural heritage and local and indigenous knowledge.

Strategic Importance of Greenland

Danish PM rejected the claims of US President over Greenland.



Strategic Importance of Greenland

- **Military and Security Infrastructure:** Greenland is a cornerstone of **North American and NATO defense** due to its geographical position. E.g. crucial for the **U.S. ballistic missile early-warning system**.
 - It is also **ideal for ground stations that track polar-orbiting satellites** used for intelligence, navigation, etc.
- **Critical Minerals and Natural Resources:** contains massive, largely **untapped deposits of rare earth minerals**.
- **Emerging Arctic Shipping Routes:** Melting ice is opening the **Transpolar Sea Route**.
 - These routes could **significantly shorten travel times between the Atlantic and Pacific oceans**, bypassing traditional chokepoints like the **Panama and Suez canals**.

Venezuela

UN chief deeply concerned over 'possible intensification of instability' in Venezuela.



Venezuela (Capital -Caracas)

UN chief deeply concerned over 'possible intensification of instability' in Venezuela.

Political features

- **Location:** Located at the **northern South America**.
- **Boundary:**
 - Guyana to the **east**, **Brazil** to the **south**, and **Colombia** to the **southwest and west**.
 - The boundaries of Brazil, Venezuela, and Guyana meet at Mount Roraima
 - It is bounded by the **Caribbean Sea and the Atlantic Ocean to the north**.

Geographical Features

- **Physical features:** Andes Mountains, Maracaibo Lowlands and Guiana Highlands.
- **Major river:** Orinoco river (empties in Atlantic ocean), Rio Negro, Lake Maracaibo etc.
- **Highest waterfall in the world:** Angel fall on Churún River.
- **Grassland Plain:** llanos
- **Resources:** It has the world's **largest oil reserves**
 - Most of Venezuela's heavy oil reserves are found in the **Faja Petrolifera del Orinoco** (also known as the **Faja**, or **Orinoco Oil Belt**).

Liechtenstein

Union Minister of Commerce and Industry of India visited Liechtenstein to accelerate implementation of India–EFTA Trade and Economic Partnership Agreement (TEPA).



Liechtenstein (Capital: Vaduz)

Union Minister of Commerce and Industry of India visited Liechtenstein to accelerate implementation of India–EFTA Trade and Economic Partnership Agreement (TEPA).

- TEPA is India's first free trade agreement with a developed group of EFTA countries (Iceland, Liechtenstein, Norway, and Switzerland).

Political Features:

- It is the **only doubly-landlocked country in Europe**.
- It is **not a member** of European Union.
- **Bordering Countries:** Austria (North and East) and Switzerland (West and South).

Geographical Features:

- **Mountain Range:** Alps with Grauspitz as highest point.
- **Major Rivers:** Rhine, Samina.

UNDESA

Recently, 'World Economic Situation and Prospects 2026' report, released by UNDESA, projected India's GDP growth at 7.2% in 2025-26.



About UNDESA (HQ: New York City)

- It is a **UN Secretariat entity** responsible for **the development pillar** of the United Nations.
- **Aim:** helps countries around the world meet their economic, social and environmental goals.
- **Headed by:** Under-Secretary-General for Economic and Social Affairs, **appointed by the UN Secretary-General**.
- **Major publications:** World Social Report, Sustainable development goals report, World Population Prospects etc.

Pax Silica

India will be invited to join Pax Silica.

About Pax Silica

- It is an U.S. led initiative to build a secure, resilient, innovation-driven technology ecosystem
- The program covers the full technology supply chain, spanning:
 - Semiconductors and AI infrastructure
 - Critical minerals and energy inputs
 - Advanced manufacturing and high-end hardware
 - Compute and data logistics
- **Objectives:**
 - Reduce coercive dependencies.
 - Protect sensitive technologies and build trusted digital infrastructure.
- **Members:** Japan, South Korea, Singapore, United Kingdom, Israel, etc.



India assumes BRICS chairmanship



Brazil has formally handed over the BRICS presidency to India for 2026. India's chairmanship is structured around four pillars - Resilience, Innovation, Cooperation and Environmental Stability / Sustainability.

Significance of India's BRICS Presidency:

- **Reform of Global Governance:** India's call to reform and not replace International Institutions to avoid Western dominance.
- **Global South Leadership and support for multipolar world order:** India as a bridge between Global South and West, to represent the concerns of Global South.
- **Promotion of Digital public infrastructure:** As a scalable development model for the Global South.
- **Strategic Autonomy & Multi-alignment:** India to balance engagement with Western-led groupings and China while preserving strategic autonomy.

About BRICS

- **Genesis:** British economist **Jim O' Neill** in 2001 coined the acronym '**BRIC**' representing the emerging economies of **Brazil, Russia, India, and China**.
 - BRIC started functioning as a formal grouping on the margins of the G8 Outreach Summit in 2006. The 1st BRIC Summit was held in **Russia in 2009**.
 - BRIC became **BRICS with the inclusion of South Africa in 2010**.
- **Aim:** To reform global governance and provide alternatives to Western-dominated institutions (IMF, World Bank, UNSC).
- **Chairmanship:** Rotates annually among member countries.
- **Three pillars of Cooperation of BRICS:** Political and security; Economic and financial; and Cultural and people-to-people cooperation.
- **Represents:** Approximately 49.5 % of the global population, around 40% of the global GDP and around 26% of global trade.
- **Members:**
 - **Initial members (BRICS):** Brazil, Russia, India, China, South Africa.
 - **New members (BRICS+):** Egypt, Ethiopia, Iran, Indonesia, Saudi Arabia, and the United Arab Emirates.

Withdrawal of US from international organisations



US presidential memorandum directs withdrawal of US from 66 international organisations

The order instructs US agencies and departments to **cease participation in and funding for 35 non-UN organisations and 31 UN entities.**

- As per US, these entities operate contrary to U.S. national interests, security, economic prosperity, or sovereignty.
- US earlier withdrew from Paris Climate Agreement, WHO, and UN Human Rights Council (UNHRC).

Important Organizations from which the United States is withdrawing:

- **United Nations (UN) Organizations:** UN Framework Convention on Climate Change, UN Conference on Trade and Development, Peacebuilding Commission, Intergovernmental Panel on Climate Change, UN Register of Conventional Arms etc.
- **Non-UN organizations:** International Energy Forum, International Solar Alliance, International Union for Conservation of Nature, 24/7 Carbon-Free Energy Compact etc.

Potential Impact of US withdrawal

- **Climate change:** Hinder global efforts to curb greenhouse gases because it gives other nations the excuse to delay their own actions and commitments.
- **Fragmenting Multilateralism:** US withdrawal will further weaken international governance, enhance power rivalries, leading to shift towards protectionism and smaller ad-hoc regional blocs.
- **Halting Development:** U.S. has historically played a dominant role in global institutions, and funding cuts subsequent to US withdrawal will deteriorate already diminishing international humanitarian and development aid.
- **Global Peace:** Absence of US contribution for Peacebuilding Commission, will hamper peace efforts in conflict-ridden areas (e.g. in Africa or the Caribbean).

500% tariff over Russia oil trade

The Bill titled 'The Sanctioning Russia Act of 2025', once enacted, will enable the US administration to impose steep tariffs and secondary sanctions on countries buying Russian oil, gas, and uranium, etc.



- The US President retains the **power to waive these tariffs for up to 180 days** if it is deemed in the U.S. national security interest.

Potential Implications for India

- **Trade Halting:** such high **tariffs** on goods and potentially services could effectively **halt India's \$120 billion annual exports** to the United States.
- **Sectoral Damage:** **Labour-intensive sectors** such as **textiles, footwear and marine products**, already burdened by US tariffs of up to 50%, could face further erosion of competitiveness and export viability.
- **Weakened Bargaining Power:** Can negatively affect **future trade pacts negotiations** with various entities, including the European Union, the Gulf Cooperation Council etc.
- **Other:** Dent on India- US relations, effect on economic growth, etc.

Way Ahead for India

- **Diversifying Exports:** **Diversify goods exports away from the US** to reduce vulnerability to unilateral tariff hikes.
- **Export Promotion Mission:** Increase outlay to **strengthen India's export ecosystem** impacted by tariff escalations.
- **Accelerating Trade Deals** such as India-EU FTA negotiations.
- **Simplified regulatory processes** and rationalised duties on critical raw materials like cotton, leather, and gem inputs.

Global Economic Prospects

The World Bank released the **Global Economic Prospects (GEP) report for January 2026**.

- **Published twice a year** (January and June) assessing global growth prospects.

Key highlights

- **Revision in India's growth forecast:** 7.2% for fiscal year 2025-26 from 6.3% projected last June.
 - **Reasons:** Robust local demand, strong private consumption, tax reforms and rising real household incomes in rural areas.
- **Global trade growth:** Projected to **decelerate from 3.4% in 2025 to 2.2% in 2026**.
- **Record Debt Levels:** Government debt in emerging market and developing economies (EMDEs) has climbed to a 55-year high of nearly **70% of GDP**.

India-Germany Relations



India and Germany signed various agreements to boost relations

The agreements were signed during the visit of the German Chancellor.

- The visit coincided with a milestone phase in bilateral ties, as India and Germany celebrated **25 years of their Strategic Partnership in 2025** and marking 75 years of diplomatic relations in 2026.

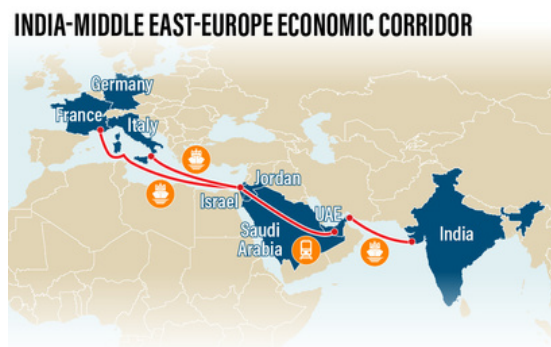
Key outcomes

- **Defence and Security:** Signed **Joint Declaration of Intent to develop a Defence Industrial Cooperation Roadmap** was signed, emphasising technology partnerships, co-development, and co-production of defence platforms.
 - Germany's expressed intent to participate in Indian Naval Exercise **MILAN** of, **Indian Ocean Naval Symposium**, Air Combat Exercise **Tarang Shakti** etc.
 - **Track 1.5 Foreign Policy and Security Dialogue** was also established
 - **Track 1.5 Diplomacy** occurs when government representatives and non-governmental experts engage in dialogue in less formal ways
- **Trade and economy:** To ensure **supply chain resilience**, agreements were signed focusing on the **Semiconductor, Critical Minerals**, etc.
- **Visa and Mobility:** Germany announced a **visa-free transit facility** for Indian passport holders.
- **Other:**
 - Announced a new bilateral **Indo-Pacific** consultation mechanism.
 - **Education and skilling- Indo-German Comprehensive Roadmap on Higher Education** was adopted.

Other Key aspects of Indo- German Relations

- **Economic Relations -**
 - Indo-German bilateral trade surpassed USD 50 billion in 2024 (Germany accounts for over 25% of India's trade with the European Union)
 - **FDI status:** Germany is **9th largest** foreign direct investor in India (2024)
- **Environment- Green and Sustainable Development Partnership (GSDP)** is partnership between India and Germany to align their climate cooperation to the Paris Climate Agreement
- **Technology and Innovation:** E.g., Indo-German Science and Technology Centre (IGSTC)

India-Middle East-Europe Economic Corridor



About IMEC

- A multi-modal connectivity project, formalized by an MoU signed between India, the European Union, France, Germany, Italy, Saudi Arabia, the UAE, and the US at the G20 Summit (2023) in New Delhi.
- **Objective:** Developing infrastructure of ports, railways, roads, sea lines and pipelines to enhance trade between India, the Arabian Peninsula, the Mediterranean region, and Europe.

Significance of IMEC for India

- **Trade Route Diversification:** IMEC diversifies India–EU connectivity by reducing dependence on the Suez Canal.
 - E.g., Houthi attacks on commercial shipping led to the Red Sea crisis of 2023-24
- **Lower Logistics Cost and Time:** IMEC is expected to reduce transit time by up to **40%** and logistics costs by around **30%**, helping exporters avoid delays.
- **Port Optimization:** It promises higher throughput for **India's west coast ports** (like Mumbai and Mundra) by integrating them more deeply into **Mediterranean and Gulf logistics** ecosystems.
- **Upgradation in Global Value Chains:** Improved connectivity with Europe enables India to move from low-value assembly to higher-value manufacturing and services.

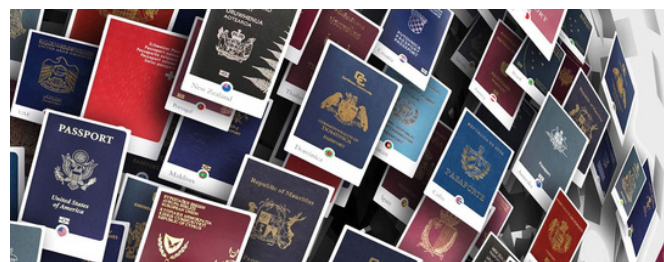
Challenges

- **Geopolitical tensions:** E.g., Hamas–Israel war
- **Port Capacity Mismatches:** E.g., while the Jebel Ali port in the UAE can handle 90 million tonnes annually, Haifa port in Israel is limited to approximately 30 million tonnes.
- **Financing Gaps:** IMEC spans multiple countries with uneven fiscal capacities and credit profiles, making it difficult to secure traditional public funding.

To succeed, the IMEC requires a sophisticated financing structure that combines public investment, sovereign wealth capital, and multilateral guarantees, etc.

Hanley Passport Index

India's ranking improved in the Henley Passport Index 2026 to 80, compared to the 85th rank the country had in 2025.



Henley Passport Index

- It is the **original, authoritative ranking of all the world's passports** according to the number of destinations their holders can access **without a prior visa**.
- The index is based on **exclusive data from the International Air Transport Association (IATA)**.
- In 2026 edition, **Singapore** has retained its position as the **world's most powerful passport**.

Global Risk Report 2026 Released



Released by the World Economic Forum (WEF), the report identifies **geoeconomic confrontation** as the most significant global risk.

Key Highlights of the Report

- **In the current and immediate term (2026) and the short-to-medium term (up to 2028)**, the report highlights major risks such as **geoeconomic confrontation**, **state-based armed conflicts**, **extreme weather events**, **rising societal polarisation**, etc.
- **In the long term (up to 2036)**, the most significant risks identified include **extreme weather events**, **biodiversity loss and ecosystem collapse**, etc.
- **Major Risk faced by India:** Cyber insecurity, Inequality (wealth, income), Insufficient public services and social protections (incl. education, infrastructure, pensions), etc.

What is Geoeconomic Confrontation?

- Refers to strategic use of economic instruments by global or regional powers to reshape cross-border economic relations by restricting trade, technology, services, capital, or knowledge flows aimed at promoting self-reliance, constraining geopolitical rivals, and consolidating spheres of influence.
- **Tools** include sanctions, trade controls, investment restrictions, subsidies, state aid and currency measures.
- **Recent Examples:** Tariff imposition by the US, Ban on the export of critical minerals by China, etc.
- **Potential Consequences:** Erosion of multilateralism, Disruptions to a **systemically important supply chain**, Concentration of strategic resources and technologies, Economic downturn, State-based armed conflict, etc.

Actions Recommended: Economic inducements that foster mutual gains should be prioritized, Reinforce existing multilateral institutions, Invest in local resilience, etc.

Wolf Supermoon

A Wolf Supermoon occurred recently.

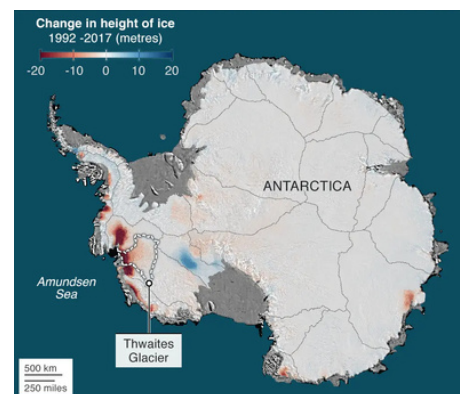


About the Wolf Supermoon:

- The **Wolf Moon** is the traditional name for the first full moon of January.
- A **Supermoon** is a full moon that occurs when the Moon is closest to Earth (**at perigee**), making it appear slightly larger and brighter than usual.
- Therefore, a **Wolf Supermoon** is the January full moon that coincides with the Moon's perigee.

Doomsday glacier

A study shows growing cracks in the Doomsday Glacier's ice, indicating a possible collapse of the Antarctic ice shelf.



Doomsday glacier

- The Thwaites Glacier, commonly known as the '**Doomsday Glacier**'.
- It is called so because its **potential to significantly add to worldwide sea levels, is one of the fastest changing ice-ocean systems on the planet.**
- The complete melting of the glacier could add 65 cm to global sea levels.

Silver

Global Trade Research Initiative (GTRI) highlighted that India must enhance silver processing and diversify imports to reduce reliance on finished silver.



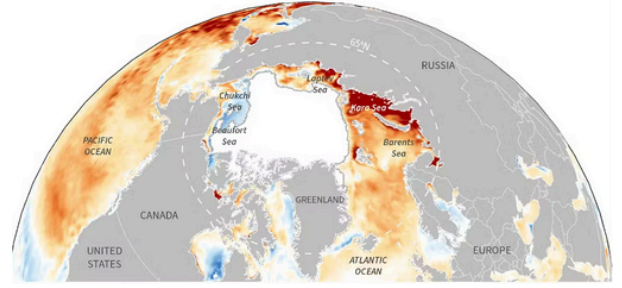
- India **imported about 21.4% of global silver trade in 2024**, making it the world's largest consumer of finished silver.

About Silver

- It is a relatively **soft, shiny metal**.
- **Applications:** Highest electrical and thermal conductivity makes it indispensable for **electronics, circuit boards, connectors, batteries, and automotive systems**.
 - Silver's **antibacterial properties** are used in wound dressings, medical-device coatings, catheters, surgical instruments, water purification systems, and pharmaceutical compounds.
- **Natural Abundance:** Silver occurs in ores such as argentite and chlorargyrite (horn silver).

Arctic Report Card (ARC) 2025

Released by National Oceanic and Atmospheric Administration, it clearly highlights that the region is warming far faster than the rest of the planet.



Key Highlights

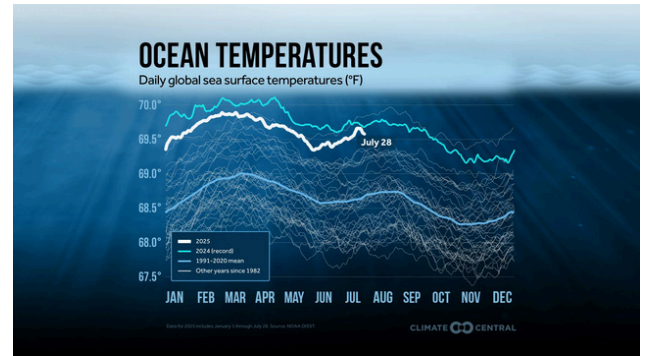
- **Arctic Surface Air Temperatures:** It was **highest on record** during the past year (October 2024-September 2025) since 1900.
 - The last 10 years are the 10 warmest on record in the Arctic.
- **Atlantification:** An influx of **anomalous water properties and biota** from lower latitudes to central Arctic Ocean.
 - It weakens the **Arctic Ocean stratification** enhancing heat transfer, melting sea ice, and threatening ocean circulation patterns.
- **Rusting of Rivers:** In Arctic Alaska, surface waters have changed from **clear to orange** in over 200 watersheds due to **iron release** from thawing permafrost soils, impacting both fishes and water supplies to local communities.
- **Greening of the Arctic:** First detected in the late 1990s, it is a **long-term increase in the productivity and abundance of tundra vegetation**.
- It has far-reaching impacts to **Arctic landscapes, wildlife habitats, biodiversity, permafrost conditions, and the livelihood of Arctic people**.

Key Geopolitical Implications of the Arctic Melting

- **New Shipping Routes:** Previously impassable regions like **Northern Sea Route (NSR)**, along Russia's Arctic coast from the Kara Sea to the Bering Strait, has become **increasingly viable**.
- **Role of Arctic Council:** As a leading intergovernmental forum to **enhance cooperation and protection for indigenous communities**.
 - Established in **1996**, it **comprises eight member states** including Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, USA.
- **Importance for India:** With its **Research Station, Himadri and Arctic Policy**, India could enhance engagement and research in the region.

Record ocean warming in 2025

The study highlighted that global ocean warming continued unabated in 2025 in response to increased greenhouse gas concentrations and reductions in sulfate aerosols.

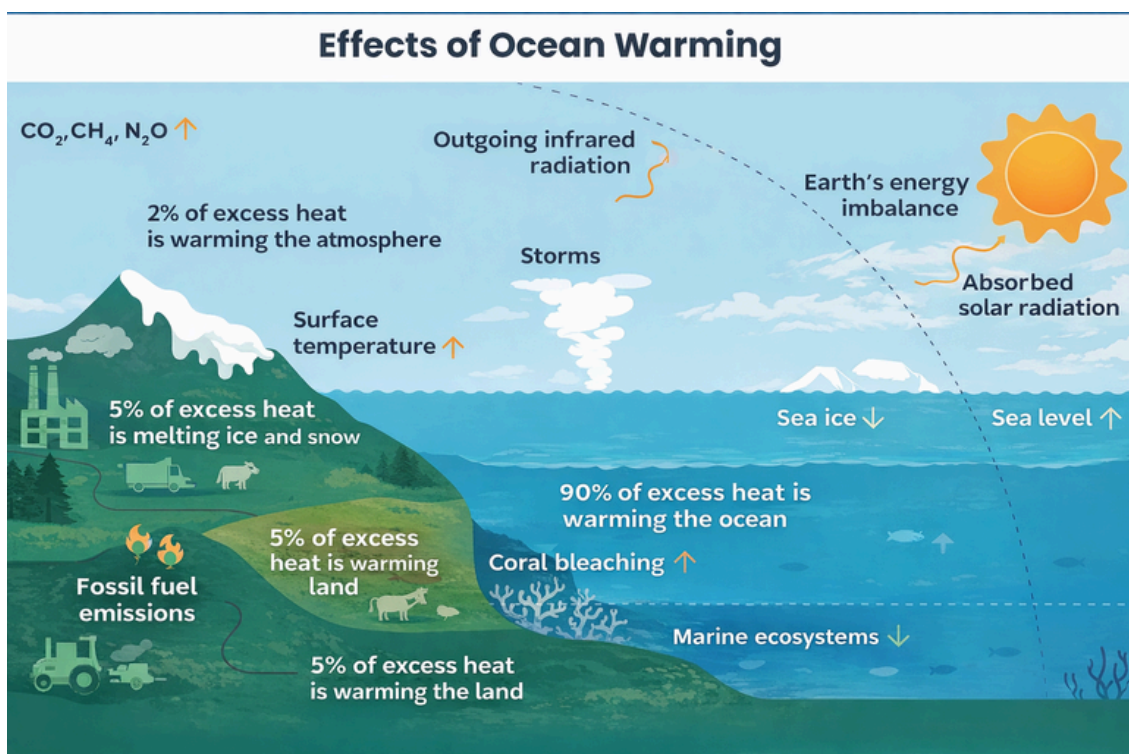


Key Findings of the Study

- In 2025, oceans absorbed additional **23 zettajoules (ZJ) of heat**, the highest ever recorded since the 1960s.
- Nearly **90% of excess heat** trapped by greenhouse gases is absorbed by the oceans, which confirms oceans as the **primary buffer of global warming**.
- Global average **Sea Surface Temperatures (SSTs)** in 2025 were among the highest ever recorded (approximately **0.5°C** above the 1981–2010 average).

Major Implications of Ocean Warming

- **Increased ocean stratification:** Warmer surface waters reduce mixing of water layers, leading to **lower oxygen supply** to deeper waters, **reduced nutrient transport to the surface** and **decline in ocean productivity**.
- **Increase in Marine Heat Waves:** It can lead to **coral bleaching**, **coral diseases**, **changes in migration** and **breeding of marine species** etc.
- **Intense Storms:** Warmer oceans provide **more heat and moisture** to the atmosphere which can lead to **more intense cyclones and hurricanes**, bringing heavier rainfall and flooding.
- **Threat to Marine Ecosystems:** Reduced nutrients **threaten phytoplankton**, the **base of marine food chains**.



Tsunami

A NASA satellite observation has challenged the conventional understanding of tsunami behavior.



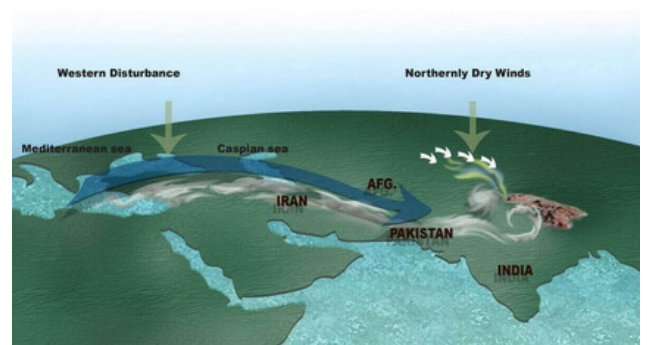
- It suggests that tsunamis exhibit a **complex pattern of wave dispersion and interaction** as against the **conventional** understanding of tsunami as a **single, stable and “non-dispersive” wave**.

About Tsunami

- Tsunamis are giant **waves caused by earthquakes or volcanic eruptions** under the sea.
- In the depths of the ocean, tsunami waves do not dramatically increase in height but as the **waves travel inland**, they build up to **higher heights as the depth of the ocean decreases**.
- The **speed of tsunami waves depends on ocean depth** rather than the distance from the source of the wave.

Western Disturbances

Himalayan hill stations remain snowless due to feeble Western Disturbances.



About Western Disturbances

- **Extra-tropical cyclones** originating over east Mediterranean Sea and travelling eastwards across West Asia, Iran, Afghanistan and Pakistan reaching northwestern India.
- They are **embedded within subtropical westerly jet stream** lying over Himalayan and Tibetan highlands.
- On their way, **moisture content gets augmented** from Caspian Sea in north and Persian Gulf in south.
- Amount of precipitation **decreases from west to east in plains** and from **north to south in mountains**.
- Causes rainfall in **Punjab, Haryana, Delhi and western Uttar Pradesh**, highly **beneficial for rabi crops**.

Walker and Hadley Circulations

Unusual cold seen across East, Central and South India, possibly linked to La Niña induced strengthening of Walker and Hadley circulation.

Walker Circulation

- **Type:** East–West (zonal) atmospheric circulation over the tropical **Pacific**
- **Mechanism:** Warm air rises over the western Pacific, moves eastward aloft, sinks over the eastern Pacific, and returns westward as trade winds
- **Impact:** Influences global weather patterns, including monsoons and winter anomalies.

Hadley Circulation

- **Type:** North–South (meridional) atmospheric circulation
- **Mechanism:** Warm air rises near the equator, moves poleward aloft, sinks around 30° latitude, and returns equatorward at the surface
- **Impact:** Redistributes heat, shapes trade winds, deserts and tropical rainfall patterns

Wildfires as a Growing Disaster Risk

According to the 2025 Global Assessment Report on Disaster Risk Reduction (GAR 2025), global wildfires caused about USD 106 billion in total economic losses.



What is Wildfire?

- Any **unplanned and uncontrolled vegetation fire** that, **regardless of ignition source**, may negatively affect **social, economic or environmental values**, and **require suppression response or other action** according to agency policy (FAO).
- They play a natural ecological role by **linking land ecosystems with the atmosphere, recycling nutrients, supporting soil health, and aiding plant regeneration**.
- **Adverse impacts of Wildfire:**
 - **Environmental:** Massive CO₂ emissions, especially from peatlands and rainforests; Climate feedback loop: fires -> warming -> more fires; loss of biodiversity; etc.
 - **Human and Social:** Respiratory and cardiovascular disorders; displacement of communities; etc.

Why is Wildfires increasing?

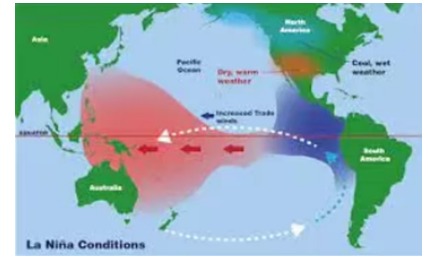
- **Climate Change:** Hotter temperatures, prolonged droughts, dry lightning leading to longer and more intense fire seasons.
- **Land-Use Change:** Deforestation, monoculture plantations, peatland drainage further drives the Wildfire risk.
- **Human activities:** Fires are often started **accidentally or intentionally through agricultural burning, land clearing etc.**, can **rapidly turn into wildfires under extreme weather conditions**.
- **Fuel Availability:** large amounts of dry, fine, and continuous fuels such as **grasses, leaves, and shrubs** enable rapid fire spread, high intensity, and reduced effectiveness of suppression efforts.

Initiatives taken in India

- **National Action Plan on Forest Fires (NAPFF):** The approach is preventive, community-based, technology-supported, and institutionally coordinated.
- **Forest Fire Alert System (FFAS):** Generated by Forest Survey of India based on Near Real-Time fire hotspot data.
- **Van Agni Geo-portal:** India acts as a single point of information on forest fire.
- **Community participation:** Promoted through Joint Forest Management Committees (JFMCs) and Eco-Development Committees (EDCs).

Warmest La Nina

Berkeley Earth's Annual Temperature Report finds 2025 warmest La Nina year on record



This is significant because **La Nina is the "cooler" phase of the El Nino Southern Oscillation (ENSO)** and typically has a cooling effect on global temperatures.

About El Nino Southern Oscillation (ENSO):

- It is a **recurring natural phenomenon characterised by fluctuating ocean temperatures in the equatorial Pacific**, coupled with changes in the atmosphere
- El Nino and La Nina are the oceanic components, while the Southern Oscillation is the atmospheric counterpart of the system.

La Nina Phase

Meaning: This cold phase of ENSO occurs when trade winds strengthen, pushing warm water further west toward Asia and allowing cold water to rise in the eastern Pacific.

Impact on India:

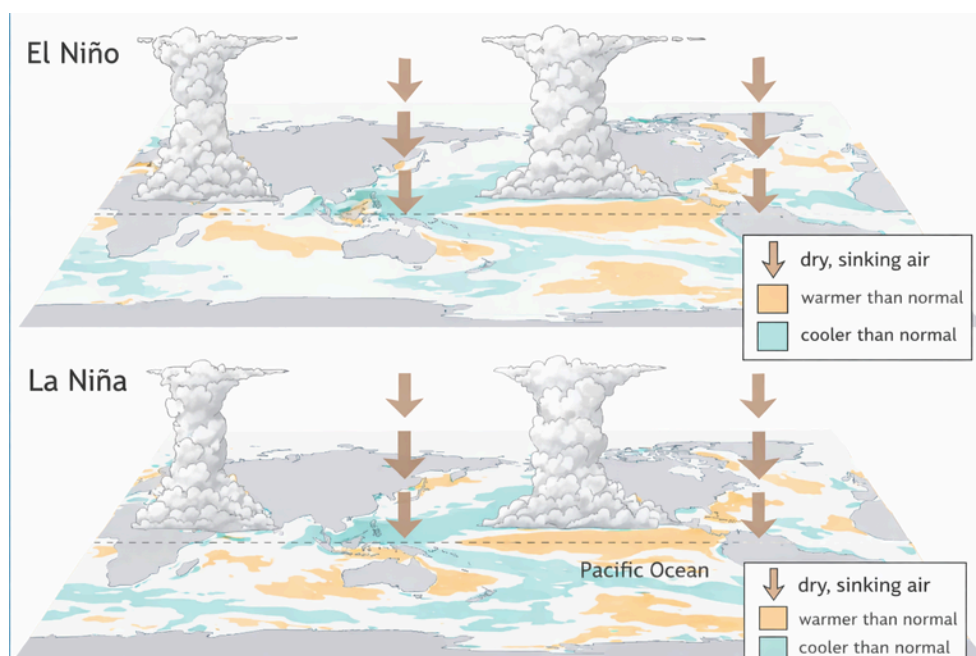
- **Monsoon:** Generally beneficial, bringing normal to above-normal rainfall, which supports agriculture.
- **Winter:** Triggers colder-than-normal winters and frequent cold waves in northern India.
- **Extreme Events:** Increased risk of floods and severe cyclonic activity in the Bay of Bengal.

El Nino Phase

Meaning: This warm phase of ENSO occurs when trade winds weaken, allowing warm water to move toward South America.

Impact on India:

- **Monsoon:** Typically weakens the southwest monsoon, often leading to below-normal rainfall or droughts.
- **Agriculture:** Suppresses yields for summer crops like rice, sugarcane, and oilseeds, which can increase food prices.
- **Heat:** Associated with harsher summers and increased heat stress.



Secondary Pollutants

A recent analysis by Centre for Research on Energy and Clean Air (CREA) found that at least one-third of the Delhi's annual PM2.5 pollution can be attributed to Secondary pollutants, mostly Ammonium Sulphate.



About Secondary Pollutants

- These pollutants are **not emitted directly from a source** (like vehicles or power plants).
- Instead, they form as a result of the **pollutants emitted from these sources reacting with molecules in the atmosphere to form a new pollutant**. E.g., Ammonium Sulphate, Ozone, NO_x, etc.
 - Pollutants that are emitted into the environment from a source are called **primary pollutants**.
- **Formation of Ammonium Sulfate:** Sulphur Dioxide (SO₂) gas gets oxidised in the atmosphere to form sulfate. This sulfate then reacts with ammonia to form ammonium sulfate.

Carbon border adjustment mechanism

The EU implemented the world's first carbon tax (CBAM) from January 1, 2026, imposing a carbon-related levy on imports of carbon-intensive goods.



About Carbon border adjustment mechanism (CBAM)

- It is the European Union's (EU) policy to impose a **carbon tax** on imports of certain products from countries with less stringent climate policies. E.g. Steel.
- CBAM, **implemented in 2023**, moves from transitional phase to full enforcement by **2026**.
- **Objective:** Prevent Carbon Leakage by stopping firms from shifting production to countries with weaker climate rules.
- **Sectors Covered:** Cement, aluminium, fertilisers, iron and steel, hydrogen and electricity.
- **Trade Impact:** Indian exports of steel, aluminium, cement may face higher costs.

Stingless Bees

Amazon's stingless bees become the first insect to be granted legal rights.



About Stingless Bee

- **Ancient origin:** The world's oldest bee lineage, existing for nearly 80 million years.
- **Anatomy:** They possess stingers, but these are **highly reduced** and functionally useless for defense.
- **Diversity:** Nearly **500 species** exist globally, with over **170 found specifically within Peru**.
- **Healing:** Their "liquid gold" honey is prized for its potent antibacterial and anti-inflammatory properties.
- **Significance:** These ancient pollinators **sustain 80% of Amazonian flora**, including cacao and coffee.

Galaxy Frog

According to a recent study, a group of seven galaxy frogs vanished from the Western Ghats due to rise in photo tourism.



About Galaxy frog

- **Location:** The only known species of its genus (*Melanobatrachus indicus*), it is **endemic to the Western Ghats** of south-western Ghats.
 - It is mostly found in **high-altitude evergreen forest** and **shola forest**.
- **Characteristics:**
 - It is a rare frog with a **slender, elongated body** of uniform width.
 - This species is **terrestrial** and **associated** with leaf-litter, rocks and another ground cover of moist evergreen tropical forests.
- **IUCN status:** Vulnerable

Access and Benefit Sharing

National Biodiversity Authority disbursed ₹45 lakh to red sanders farmers from Andhra Pradesh under Access and Benefit Sharing.

About Red Sanders

- It is an **Indian endemic tree species**, with a restricted geographic range in the Eastern Ghats specifically to the forest in the state of **Andhra Pradesh**.
- **IUCN:** Endangered

About Access and Benefit Sharing (ABS)

- A framework under the **Convention on Biological Diversity (1992)** and **Nagoya Protocol (2010)** for fair benefit sharing from genetic resources and traditional knowledge.
- **In India:** governed by the **Biological Diversity Act, 2002** and **2025 Access and Benefit Sharing (ABS) Regulations**.

White-bellied heron



Union Environment Ministry panel has recommended environmental clearance for Kalai-II hydroelectric project on Lohit River in Arunachal Pradesh despite protest to conserve white-bellied heron bird.

About White-bellied heron

- **Other names:** Imperial Heron, Great White-bellied Heron
- **Features:** Second-largest living heron species with distinct white belly,
 - Non-migratory but shows local/post-breeding dispersal.
- **Habitat:** Undisturbed rivers and wetlands in the foothills of the Eastern Himalayas
- **Distribution:** Indian subcontinent to Southeast Asia (India (Arunachal Pradesh, Assam), Bhutan, Bangladesh etc.)
- **Conservation Status**
 - IUCN Red List: Critically Endangered
 - India: Placed in Schedule I under Wildlife Protection Act, 1972

Bannerghatta National Park



Central Empowered Committee (CEC) on Bannerghatta National Park (BNP) has recommended withdrawal of 2020 government notification that diluted the Eco Sensitive Zone (ESZ) and restoration of wider ESZ as provided in 2016 draft notification.

- **ESZ** are areas notified by the MoEFCC around Protected Areas, National Parks and Wildlife Sanctuaries to create some kind of “shock absorbers” to the protected areas by regulating and managing the activities around such areas.

About Bannerghatta National Park

- **Location:** Bengaluru (Karnataka).
- **Four ranges:** Anekal, Bannerghatta, Harohalli and Kodihalli wildlife ranges.
- **Flora:** Medri bamboo.
- **Fauna:** Panther, elephant, sloth bear, spotted deer, grey langur, bonnet macaque, wild boar, jackal etc.

Urban Wastewater Management in India



Mixing of sewage with drinking water highlights the concern related to urban wastewater management in India and its potential to turn into a health crisis.

Urban Wastewater Management (UWM) in India

- **Status:** The estimated wastewater generation is approx. **72,368 Million Litres per Day (MLD)** in urban areas for the year 2020-21 (NITI Ayog).
 - **72% of this wastewater remains untreated** and is disposed of in rivers / lakes / groundwater.
- **Potential Health Impacts:** Cholera, diarrhoea, dysentery, hepatitis A, typhoid and polio etc.
- **Treatment Systems:**
 - **On-site systems:** It retains wastewater in the vicinity of the toilet in a pit or tank, and the produced sludge is removed periodically.
 - **Off-site systems:** It comprises a sewerage network to transport sewage to a sewage treatment plant (STP).

Challenges faced by UWM in India

- **Institutional:** Government departments operate in silos, often duplicating efforts and Urban Local Bodies (ULBs) primarily responsible for wastewater management lack capacity.
- **Archaic Infrastructure:** Lack of periodic maintenance and rehabilitation, limited land availability for setting up new treatment plants etc.
- **Economic:** Most urban water service providers face financial challenges due to high non-revenue water, unrealistic tariffs, low tariff collection rate, and inadequate cost recovery.
- **Technological:** Absence of new affordable and efficient technologies, and lack of mapping of connectivity of sewage drainage systems.

Solutions for Sustainable UWM

- **Decentralized Treatment Systems:** From an ecological perspective, treating wastewater as close as possible to its source is beneficial.
- **Urban and Industrial Waste Reforms:** Mandate Zero Liquid Discharge (ZLD), regulate landfills, and enforce penalties for illegal discharges.
- **Modernize Monitoring:** Integrate water quality data with health surveillance systems like Health Management Information System (HMIS) for early detection.
- **Nature Based Solutions:** Include constructed wetlands, green roofs, living walls, waste stabilization ponds, vermifiltration etc.

NGT issued notice on environmental violations around Taj Mahal



The National Green Tribunal (NGT) notice to centre and UP government highlighted concerns over non-compliance with environmental norms in the protected Taj Trapezium Zone.

- Rampant construction and felling of trees have resulted in the **destruction of green cover** and **disturbance to the habitat of birds and butterflies** in the region.
- Over the years, air and water pollution caused the **Taj Mahal's white marble to turn yellow and darken** due to airborne particulates, a phenomenon known as “**stone cancer**.”

About Taj Trapezium Zone (TTZ)

- TTZ is a **protected Eco-sensitive zone** of 10,400 sq. km around the Taj Mahal. It was established under **MC Mehta Case, 1996** that also **includes Agra Fort and Fatehpur Sikri**.
 - **Taj Trapezium Zone Pollution (Prevention and Control) Authority** was also created under the judgement of 1996 (under the Environment Protection Act, 1986) to **regulate industries, construction, and emissions** around the Taj Mahal.
- Further, under **MC Mehta Case (2015)**, **SC banned felling of trees within a 5 km aerial distance from the Taj Mahal** without its prior permission of the Supreme Court.

About NGT

- NGT is a **statutory body** set up under the **National Green Tribunal Act in 2010** to ensure **speedy disposal of environmental protection**.
- **Enforcement:** Strengthens compliance with environmental laws such as the **Environment (Protection) Act 1986, Water Act 1974, and Air Act 1981, etc.** through effective judicial oversight.
 - **Exceptions:** **Wildlife (Protection) Act, 1972, the Indian Forest Act, 1927, and the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.**

Key Judgements of NGT

- **Vardhaman Kaushik Case (2014-15):** 10-year diesel vehicle ban and 15-year petrol vehicle ban in Delhi NCR to curb air pollution.
- **M.C. Mehta (Ganga pollution) Case (1988):** Environmental compensation on States for failure to treat sewage and control industrial effluents.

Pesticides Management Bill, 2025



The draft Bill seeks to modernize India's pesticide regulatory framework by replacing the Insecticides Act, 1968 and the Insecticides Rules, 1971.

Key provisions of Draft Pesticide Management Bill, 2025:

- **Central Pesticides Board:** A multi-sectorial body to advise the government on safety standards, disposal criteria, and the inclusion of new molecules in the official Schedule.
- **Registration Committee:** A technical committee tasked with scrutinizing pesticide applications in a mandatory digital mode before granting a certificate of registration.
- **Digital Transparency:** Provisions for a National Register of Pesticides and online tracking of manufacture, stock, and sales records to curb the distribution of falsified products.
- **Deemed Registration:** To prevent bureaucratic delays, if committee fails to decide on a complete application for a "generic pesticide" within 18 months, certificate is deemed to have been granted.
- **Surveillance and Protection:** A defined framework for reporting and analyzing poisoning occurrences and a dedicated plan for medical facilities to handle such exigencies.
- **Quality of pesticide:** Provides for mandatory accreditation of testing laboratories, ensuring that only quality pesticides are available to farmers.
- **Worker Welfare:** It mandates standards for training and working conditions for workers involved in handling toxic pesticides, addressing a critical gap in occupational health.

Pesticides and its Usage in India

- Pesticides are used to kill, prevent, reduce, destroy or repel a pest. It broadly constitutes **insecticides, fungicides, herbicides, bio-pesticides etc.**
- Herbicides (kill/control the growth of weeds) have the largest market share at 44% (as of 2023)
- India's pesticide consumption is 0.5 kg/hectare (compared to 17 kg/hectare in some countries) (2023)
- **States with highest Consumption:** Maharashtra, Uttar Pradesh, Punjab, and Telangana

Valley of Flowers

A fire was reported near the Valley of Flowers, a UNESCO World Heritage Site (Natural).



About Valley of Flowers National park

- **Location:** Chamoli district of Uttarakhand.
- It forms **one of 2 core zones** (the other being the Nanda Devi National Park) of the **Nanda Devi Biosphere Reserve** which is part of **UNESCO's Man and the Biosphere Programme (MAB)**.
 - Both encompass a unique transition zone between the mountain ranges of **Zaskar and Great Himalaya**.
- **Forest Type:** Sub-alpine forests birch
- **Flora:** Rhododendron, **Brahma Kamal, blue poppy, cobra lily, saxifrages etc.**
- **Fauna:** **Snow leopard**, Asiatic black bear, Himalayan musk deer, brown bear, blue sheep.

Union Government eased rules for private afforestation work on leased forest land

The change was enacted by amending the consolidated guidelines of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 (formerly the Forest Conservation Act).

Key Amendments

- It allows **assisted natural regeneration including afforestation/plantation**, carried out by Government or non-Government entities to be treated as “**forestry activities**”.
- Consequently, on such activities, the requirements of **Compensatory Afforestation and payment of Net Present Value (NPV) shall not be applicable** to such activities.
 - **Compensatory Afforestation (CA)**: CA means afforestation done in lieu of diversion of forest land for non-forest purposes.
 - It compensates the loss of 'land by land' and loss of 'trees by trees' and is done on non-forest land.
 - **Net Present Value (NPV)**: NPV is a mandatory fee intended to compensate for the loss of ecosystem services like carbon sequestration, water recharge, and biodiversity.
 - **Funds collected** towards CA and NPV are deposited in **State Compensatory Afforestation Fund Management and Planning Authority (CAMPA)**, established under the Compensatory Afforestation Fund (CAF) Act, 2016.
- State government can devise a framework for **utilization of such plantations** and for **revenue sharing**.

Van (Sanrakshan Evam Samvardhan) Adhiniyam 1980

The Forest (Conservation) Amendment Act, 2023, renames the Forest (Conservation) Act, 1980. Other key amendments include:

- **Applicability**: Limits the Act to the land that has been declared or notified as a forest in accordance with the provisions of the Indian Forest Act, 1927.
- **Strategic Exemptions**: Removes restrictions on forest land within 100 km of international borders for national security projects.
- **Permitted Activities**: Reclassifies eco-tourism, zoos, and silvicultural operations as "forestry activities," exempting them from certain non-forest use restrictions.

Dhruv-NG Helicopters

Dhruv-NG (New Generation) recently completed its inaugural flight in Bengaluru.



About Dhruv-NG Helicopters

- **Platform:** Hindustan Aeronautics Limited's ALH Dhruv is an indigenously developed, **twin-engine multi-role helicopter**.
- **Variant:** Dhruv-NG is the new-generation **civilian version** with **modern avionics and systems**.
- **Roles:** Designed for transport, air ambulance, disaster relief, tourism, and utility missions.

Pralay Missiles

DRDO conducts launch of two Pralay missiles from the Odisha coast.



About Pralay Missile

- It is an indigenous, short-range, surface-to-surface quasi ballistic missile designed to carry various types of warheads and engage multiple target profiles.
- **Developed by:** Defence Research and Development Organisation (DRDO) for the Indian Armed Forces.
- **Range:** 150 to 500 km

Skilling for AI Readiness

President of India to Grace SOAR Programme and Confer AI Certificates.

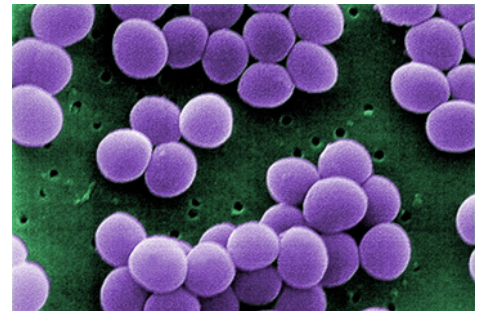


About Skilling for AI Readiness (SOAR)

- It is a national skilling initiative **launched in July 2025** under skill India Mission.
- **Ministry:** Ministry of Skill Development and Entrepreneurship (MSDE).
- **Objective:** Integrate **Artificial Intelligence competencies** into India's education and skilling ecosystem.
- **Target Groups:** **School Students** from classes 6 to 12 and **educators** from government and private schools.

Staphylococci

Researchers found high levels of antibiotic-resistant staphylococci in both the indoor and outdoor environment in parts of Delhi.



About Staphylococcus

- They are gram positive cocci (spherical-shaped bacterium) that occur in groups in clusters.
- It was first observed in humans by Von Recklinghausen.
- They showed tolerance to penicillin and resistances to all clinical useful antibiotics like erythromycin, tetracycline, aminoglycosides
- **Types:** Staphylococcus aureus and Staphylococcus epidermidis.

World Health Organization's Pharmacovigilance Database

India has moved to 8th position (in 2025) from 123rd (in 2014) in contributions to the World Health Organization's pharmacovigilance database under the WHO Programme for International Drug Monitoring (WHO PIDM).



World Health Organization

- The improvement in rankings has been attributed to the **Pharmacovigilance Programme of India (PvPI)**.
- Launched in 2010, **PvPI** is Government of India's **flagship drug safety monitoring programme**, which analyses drug-related adverse events and sends recommendations to CDSCO for taking appropriate regulatory actions.

About WHO Programme for International Drug Monitoring (WHO PIDM)

- **Established:** in 1968
- **Aim:** to put medicines and vaccine safety at the heart of global healthcare.
- **VigiBase:** WHO global database of adverse event reports for medicines and vaccines.

Suryastra

Indian Army has signed a ₹293 crore contract with private defence manufacturer NIBE Limited, in collaboration with Israel, for the supply of an advanced long-range rocket launcher system Suryastra.



About Suryastra

- It is **India's first Made in India universal multi-calibre rocket launcher**,
- Capable of executing **precision surface-to-surface strikes** at ranges extending up to 300 km.
- **Capabilities**
 - Can engage **multiple targets simultaneously** at varying ranges.
 - Can integrate **multiple rocket types**.
 - Accuracy of less than **5 meters**.
 - Can fire **loitering munitions** up to 100 km.

OSIRIS-REx and Asteroid Bennu

Analysis of samples returned by NASA's OSIRIS-REx mission from asteroid Bennu shows the presence of Sugars, Amino acids, all five nucleobases of DNA & RNA, etc., signalling complete molecular inventory needed for life.



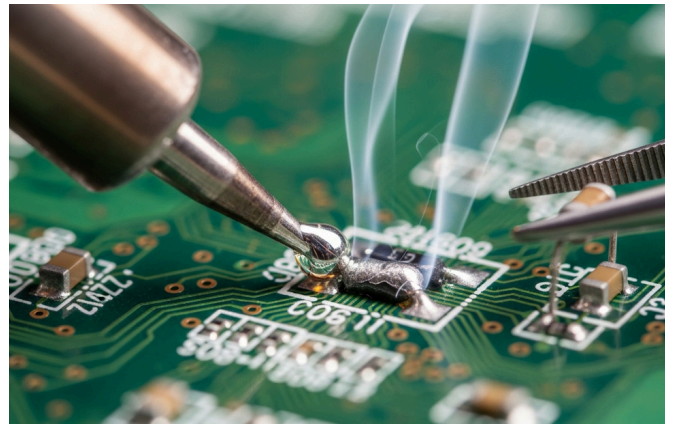
About OSIRIS-REx (Origins, Spectral Interpretation, Resource Identification and Security-Regolith Explorer)

- It is the **first US mission** to collect a sample from an asteroid.
- **Returned:** Sep 24, 2023, to drop off a capsule with material from asteroid Bennu.
- **New Mission:** Spacecraft was renamed **OSIRIS-APEX** and sent to explore asteroid **Apophis** in 2029.

About Asteroid Bennu

- **Origin:** The rocks composing Bennu formed **~4.6 billion years ago**, during the early formation of the Solar System; part of a **primeval parent body** that was later **destroyed by a massive collision**.
- **Formation zone:** Likely formed in the **main asteroid belt between Mars and Jupiter** and later drifted towards earth.
- **Orbital proximity:** Bennu makes its **closest approach to Earth every 6 years**.

Electronics Component Manufacturing Scheme



These approvals include manufacturing of segment products with cross sectoral applications such as mobile manufacturing, telecom, consumer electronics, strategic electronics, automotive and IT hardware products.

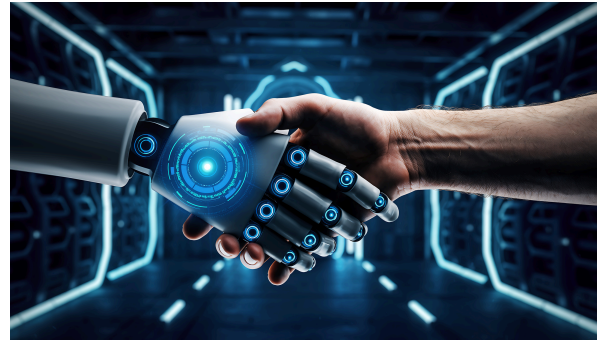
About ECMS

- **Genesis:** Notified in April 2025 with a total outlay of ₹22,919 crore.
- **Tenure:** Six years with an optional one-year gestation period.
- **Objective:** To develop robust **electronics component manufacturing ecosystem** by attracting investments (global/domestic) across the value chain by integrating its domestic electronic industry with the Global Value Chains (GVCs).
- **Target Segments:**
 - A - Sub-Assemblies (Display Module and Camera Module),
 - B - Bare Components (Electro-mechanicals, PCBs, Li-ion Cells etc.)
 - C - Selected Bare Components (HDI/Flexible PCB),
 - D - Supply Chain Ecosystem and Capital Equipment, and
 - E - Sub-Assembly – Telecom.
- **Types of Incentives:** Provides differentiated fiscal incentive on target segment products in terms of turnover:
 - **Turnover Linked Incentive:** On incremental turnover/sales for segment A, B and E.
 - Tenure of 6 years with an optional one-year gestation period.
 - **Capex Incentive:** On eligible capital investment for segment D.
 - Tenure of 5 years.
 - **Hybrid Incentive:** Both incentives based on industry needs for segment C.

India's Electronics Industry

- **Production:** India's electronics production has grown from ₹1.9 lakh crore in 2014–15 to ₹11.3 lakh crore in 2024–25, marking a six-fold increase.
 - India is now the world's second largest mobile phone manufacturer.
- **Export:** Electronics have emerged as **India's third largest and fastest growing export category** in 2024–25, with exports rising from ₹38,000 crore in 2014-15 to ₹3.27 lakh crore in 2024–25.
- **Vision:** Building a \$500 billion domestic electronics manufacturing ecosystem by 2030–31.

Centre relaxes norms for deep-tech



Government has removed condition of 3-year existence for deep-tech startups to qualify for recognition and avail financial aid under Department of Scientific and Industrial Research (DSIR)'s Industrial R&D Promotion Program (IRDPP)

- **IRDPP objectives** are to strengthen R&D infrastructure in industry and Scientific and Industrial Research Organizations (SIROs).
 - Entities recognized under the IRDPP scheme are eligible for several fiscal incentives and support measures.

What is DeepTech?

- It refers to the **cutting-edge** and often **disruptive technologies** that are built on profound scientific discoveries, engineering innovations, or advancements in research areas.
- **E.g.** AI, quantum computing, nano-tech, blockchain, robotics, advanced material sciences etc.
- **DeepTech startups** utilize existing advanced technologies to create novel-to-market solutions for complex and often unresolved problems or to invent even more advanced technologies.

Deep Tech Startup Ecosystem in India

- **India** is home to over **3,600 startups (2024)** and is expected to reach **10,000** by 2030 in the deeptech space, ranking **sixth** in the global deeptech ecosystem.
- **Challenges:** India's venture capital (VC) landscape prioritises quick returns over patient capital, Long Gestation Period, Limited Academia-Industry Collaboration etc.

Initiatives taken for DeepTech Startup in india

- **Draft National Deep Tech Startup Policy (NDTSP),2023:**To address the challenges confronting deep tech startups through definitive policy interventions to create a conducive ecosystem.
- **NECTAR:** Autonomous society under DST aims to harness and leverage niche frontier technologies.
- **Research Development and Innovation (RDI) Scheme:** It enables acquisition of strategically important technologies, and promotes the creation of a Deep-Tech Fund of Funds.
- **Indo-Israel Deep Tech & Life Sciences Mission:** This mission was launched in 2021 to promote collaboration between India and Israel in deep tech and life sciences.

India's data centre addition

India added 387 MW in data centre capacity in 2025, compared to 191 MW in 2024, reflecting a year-on-year growth of 103 per cent, according to a report.



- A **Data Centre** is a dedicated secure space where **computing and networking equipment** is concentrated for the purpose of collecting, storing, processing, distributing, or allowing access to large amounts of data.

Significance of Data Centres for India

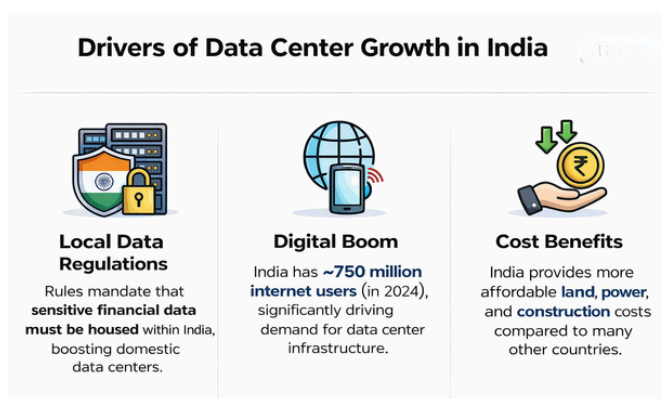
- **Key enablers to the digital revolution in India**, transforming **Government services** (Aadhar, UPI, ONDC) enabling remote work and education and fostering start-up innovation.
- **Integration of emerging technologies** such Artificial intelligence (AI), internet of things (IoT) etc. into different public services and judiciary.
- **Other:**
 - **Facilitating data localisation** (eliminating risk of foreign surveillance), and **enhancing National security** through access to data.
 - Protecting **privacy rights**, attracting **foreign investment**, creation of **jobs** etc.

Challenges for India

- **Regulatory:** Need for a **simplified and standardised regulatory framework** across India to attract global investors.
- **High operational expenses** due to high power consumption, infrastructure maintenance etc.
- **Environmental concerns** such as high consumption of **coal-based energy** and **ground-water**.
- **Other:** Skill Gap, concentration in metro cities like Chennai, Mumbai, etc.

Way ahead

Robust compliance, energy-efficient R&D, and Tier-2 data centre expansion can ensure sustainable, secure, and balanced growth of the data centre ecosystem.

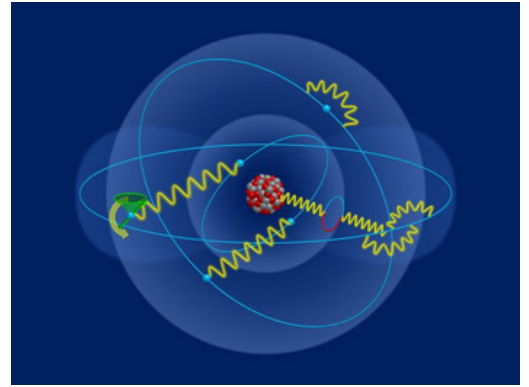


Initiatives to promote Data Centre Ecosystem in India

- **Draft Data Centre Policy (2020):** Seeks to promote domestic manufacturing of data centre-related products.
- **Infrastructure Status** to data centres with **more than 5 MW capacity** of IT load.
- **India's first hyperscale data centre 'Yotta D1'** has been set up in Greater Noida, Uttar Pradesh.
- **Telecom Regulatory Authority of India (TRAI):** Recommended Data Centre Incentivization Scheme (DCIS), Data Centre Economic Zones (DCEZs) etc.

Quantum electrodynamics

Researchers from National Institute for Fusion Science provided a first-principles formulation explaining how classical electromagnetic fields emerge directly from QED.



About Quantum electrodynamics (QED)

- **Quantum electrodynamics (QED)** is the relativistic quantum theory of electrically charged particles, mutually interacting by exchange of photons.
 - At the quantum level, the electromagnetic force is explained by Quantum Electrodynamics (QED).
- **The Nobel Prize in Physics 1965** was awarded jointly to **Sin-Itiro Tomonaga, Julian Schwinger and Richard P. Feynman** "for their fundamental work in quantum electrodynamics".
- **Applications:** Particle physics, Quantum optics, Semiconductor and laser technologies etc.

Mpemba Effect

Indian scientists developed first supercomputer-powered simulation to capture Mpemba effect.

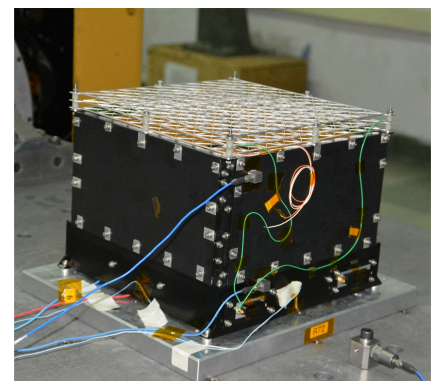


About Mpemba effect

- It is a **long-existing paradox** suggesting that **hotter substances can freeze faster than colder substances** under certain conditions.
- Most famously, observed with water, but the **effect is not limited to water** and shows up in other materials and physical systems, too.
- **Significance:** Heat engines and refrigeration systems, Quantum computing, Materials science etc.

Dust EXperiment

ISRO's maiden home-made dust detector detects interplanetary dust particles striking Earth every 1,000 seconds



About Dust EXperiment (DEX)

- It is the **first Indian-made instrument** designed to detect and study high-speed interplanetary dust particles.
 - **Interplanetary Dust Particles (IDPs)** are microscopic fragments originating from **comets** and **asteroids**.
- **Mission Deployment:** Flown on the **POEM (PSLV Orbital Experimental Module)** of PSLV-C58
- **Developed by:** Physical Research Laboratory (PRL), Ahmedabad

Bio-bitumen

India has become the first country in the world to commercially produce bio-bitumen in road construction.



About Bio-bitumen

- It is an alternative form of bitumen **manufactured from organic elements**. E.g. agricultural waste, lignin, Bio-char, bio-oil, etc.
 - **Bitumen is black substance produced through distillation of crude oil**, known for its adhesive properties.
- **Benefits:** Reduced crude oil imports, address the issue of stubble burning, boosting Bio-economy etc.
 - It can be used as an addition to bitumen or to reduce the quantity of bitumen in the binder mixture.
- **Applications:** Paving roads, water proofing etc.

Bio-Materials

Biomaterials provide sustainable alternatives to traditional, petroleum based products.



About Biomaterials:

- Biomaterials are materials **derived entirely or partially from biological sources** or created through biological processes.
- **Applications:** Bioengineering/Biomedicine, Packaging, Agriculture, Healthcare, Textiles etc.
- **Classification of Biomaterials:**
 - **Drop-in Biomaterials:** These are chemically identical to petroleum-based materials, allowing them to be used in existing manufacturing systems, such as bio-PET.
 - **Drop-out Biomaterials:** These are chemically different from traditional materials and require updated processing or disposal systems; an example is polylactic acid (PLA).
 - **Novel Biomaterials:** These offer unique properties not found in conventional materials, including self-healing capabilities and bioactive implants.

Water Vapor

Recent study highlighted that Water Vapour heats the atmosphere much more than aerosols do.



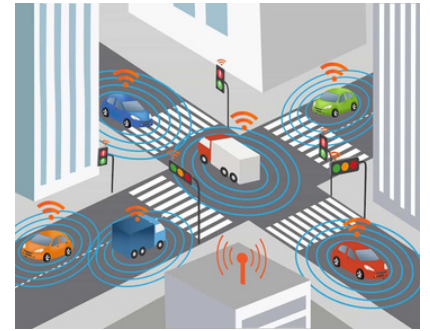
- Aerosols are small particles suspended in atmosphere often not or barely visible to human eye with Indo-Gangetic Plain (IGP) region regarded as global hotspot of aerosol loading.

About Water Vapour

- It is the **most abundant greenhouse gas**.
- It is **condensable** and can be changed from a gas into a liquid.
- Its **decreases with altitude** and also **decreases from equator towards the poles**.
- Account for **4% of the air by volume in warm tropics** and may be less than 1% in and dry and cold areas of desert and polar regions.

V2V Communication Technology

Union Road Transport and Highways Minister announced that India will roll out Vehicle-to-Vehicle (V2V) communication technology.

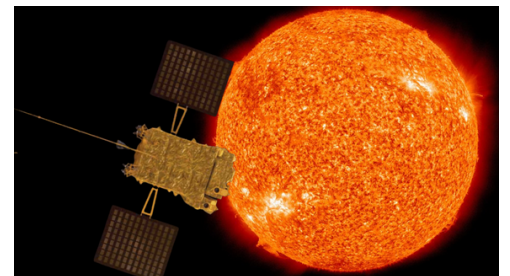


About V2V Communication Technology

- It is an **inter vehicle communication paradigm** that it **does not rely** on third party networks like cellular networks to communicate.
- **Significance: Increased safety** as it works across the front, rear and sides of vehicles, and will **factor in terrain and road curves**; **strengthen Advanced Driver Assistance Systems (ADAS)** by allowing vehicles to share warnings even when a hazard is not visible.

Aditya-L1's Findings on Solar Storms

ISRO's Aditya-L1 decoded the Impact of Powerful Solar Storm on Earth's Invisible Magnetic Shield.



- Aditya L-1 is the **first space based Indian mission** to study **Sun**, launched by **PSLV-C57** in 2023, placed in **halo orbit around Lagrange point 1 (L1)**.

Key Findings

- Storm was caused by **massive eruption of solar plasma material from Sun** with most severe effects occurring during turbulent region of storm.
- These region **strongly compressed Earth's magnetic field**, and exposed some satellites in geostationary orbit to harsh space conditions.
- **Significance:** Shows the importance of understanding **space weather**.
 - Space weather is a conditions caused by **transient activity on Sun**, like solar plasma eruptions, which can affect satellites, communication, etc.

Nipah Virus

Nipah virus has been detected among healthcare workers in West Bengal



About Nipah Virus

- It is a **zoonotic virus**.
- It can be transmitted to humans from animals such as bats or pigs, or contaminated foods and can also be transmitted directly from human-to-human.
- **Signs and symptoms:** Human infections range from asymptomatic infection to acute respiratory infection (mild, severe), and fatal encephalitis.
- Natural host: fruit bats
- Treatment: There are currently no drugs or vaccines specific for Nipah virus infection

Free Space Optical Communication



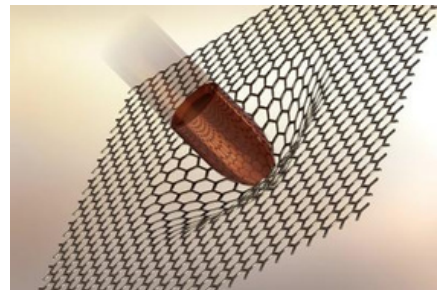
Scientists have achieved the world's first successful 2 Tbit/s Free-Space Optical (FSO) Communication using Small Optical Terminals mountable on Satellites and High-Altitude Platform Stations (HAPS).

About FSO Communication

- It is a **wireless data transmission** technology that uses **modulated laser/light beams** to transmit data through free space without optical fibre or cables.
- **Advantages:** High bandwidth, high data rates, enhanced security, and unlicensed spectrum.
- **Applications:** Inter-satellite links, satellite-to-ground communication, HAPS, last-mile connectivity, and disaster/emergency communication.
- **Key requirement:** Requires **clear line-of-sight** between transmitter and receiver.
- **Limitations:** Affected by **atmospheric conditions** such as fog, rain, dust, and turbulence.

Graphene

Researchers developed a low-cost, flexible sensor using pencil-drawn electrodes and graphene oxide.



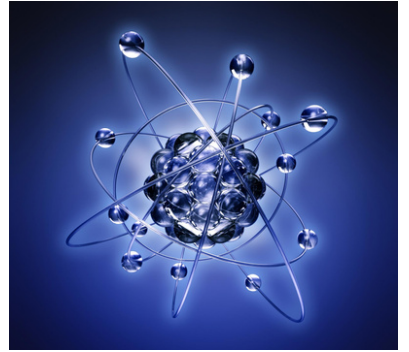
- It is seen as an eco-friendly alternative to expensive **metal-based sensors**.
- **Potential Applications:** Demonstrating **high sensitivity** for detecting soil moisture, plant drought stress, human breathing patterns, etc.
- GO is synthesized from **graphite** (an allotrope of carbon).

About Graphene (aka wonder material or miracle material)

- **Structure:** A single layer of carbon atoms arranged in a two-dimensional hexagonal lattice.
- **Key Properties:**
 - **Flexibility:** Possesses **high elasticity**, capable of being stretched by up to **20-25%** of its original length.
 - **Conductivity:** Conducts electricity better than copper and heat better than any other material.
 - **Strength:** Mechanical **tensile** strength estimated to be roughly **200 times stronger than steel by weight**.
- **Major Applications:** Boosts processing speeds in **electronics**, enhances battery density (EVs), strengthens filters water for desalination, etc.

Ultracold Atoms

India has built a strong and growing presence in cold- and ultracold-atom physics, with leading groups at institutions.

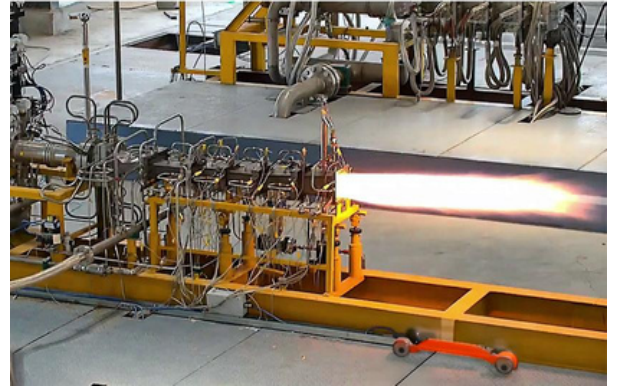


About Ultracold Atoms

- Atoms are always moving, their motion is what we feel as temperature.
- By cooling atoms to temperatures just a tiny fraction of a degree above absolute zero ($-273\text{ }^{\circ}\text{C}$), we can slow their motion enough to observe their **strange quantum behavior directly**.
- At these nanokelvin temperatures, atoms no longer behave like tiny billiard balls - **they start to act like waves**.
- When atoms are cold enough, their **de Broglie waves** grow and begin to overlap with each other. This overlap creates a state of matter known as a **Bose-Einstein Condensate**, where many atoms behave as one unified quantum object.
 - According to quantum physics, every particle has a **de Broglie wavelength**, which depends on its mass and velocity.

DRDO Tests Scramjet Engine

DRDO's Defence Research and Development Laboratory (DRDL) successfully ground-tested a full-scale, actively cooled, long-duration Scramjet engine.



- The Actively Cooled Scramjet Full Scale Combustor operated successfully for a duration exceeding 12 minutes.
- It serves as a foundational success for the indigenous **Hypersonic Cruise Missile Development Program**.

About Scramjet Engine:

- **Scramjet** stands for **Supersonic Combustion Ramjet**.
 - It is an improvement over the **ramjet engine**.
 - A **ramjet** is a form of **air-breathing jet engine** that uses the **vehicle's forward motion** to **compress incoming air** for combustion without a **rotating compressor**.
- **Key Features:**
 - **Depends on assisted take off:** Both ramjets and scramjets cannot produce thrust at zero air speed.
 - **Efficiency:** Lighter and more fuel-efficient than conventional rockets, enabling longer ranges.
- India is part of an elite club of nations that have successfully tested scramjet engines which includes the USA, Russia, China, etc.

About Hypersonic Weapons

- Hypersonic Weapons are capable of speeds exceeding **Mach 5** (>6,100 km/hr), offering rapid global reach and high evasion capabilities against air defence systems.
- Fly at lower altitudes than ballistic missiles, making them harder to track.
- **Types:**
 - **Hypersonic Glide Vehicles (HGV):** Launched from a rocket, similar to regular ballistic missiles, before gliding to a target.
 - **Hypersonic Cruise Missiles (HCM):** Cruise missiles are self-propelled and precision-guided weapons.
 - It maintains sustained and controlled flight to strike targets accurately.

Param Shakti Supercomputer



Ministry of Electronics and Information Technology (MeitY) launched 'Param Shakti' at Indian Institute of Technology Madras.

- The project has been funded under the **National Supercomputing Mission (NSM)**

About Param Shakti

- It is an indigenously developed and manufactured 3.1 Petaflop supercomputing system.
 - It is now among the most powerful computational systems available in Indian academic institutions.
- It is built using **Centre for Development of Advanced Computing (C-DAC)**'s **RUDRA** series of servers and runs on an **open-source** software stack, including **AlmaLinux**.
- **Significance:** Its performance is expected to support complex research in aerospace engineering, materials science, climate modelling, drug discovery, and advanced manufacturing.

About National Supercomputing Mission (NSM)

- **Launched:** 2015
- **Objective:** To connect national academic and R&D (research and development) institutions with a grid of over 70 high-performance computing facilities.
 - The supercomputers are networked on the National Supercomputing grid over the **National Knowledge Network (NKN)**.
- NSM is steered jointly by the Department of Science and Technology (DST) and MeitY.
- Implemented by the Centre for Development of Advanced Computing (C-DAC), Pune, and the Indian Institute of Science (IISc), Bengaluru.

India's Supercomputer

- **PARAM 8000** is India's first supercomputer.
- **Param Pravega** is the largest supercomputer
- **Param Shivay** is first indigenously build supercomputer
- **AIRAWAT** is a common compute platform for AI research and knowledge assimilation.

Virtual Digital Asset

The Financial Intelligence Unit–India (FIU-IND) issued updated guidelines to regulate service provider (SP) dealing in VDAs.



- It effectively brought VDA SPs within the **anti-money laundering, Countering the Financing of Terrorism, Counter-Proliferation Financing (AML/CFT/CPF) regulatory framework**, requiring them to comply with **due diligence** and **reporting obligations** similar to other reporting entities.
- In 2023, VDA SPs were brought under the ambit of **Prevention of Money Laundering Act (PMLA), 2002**.

Key highlight of the Guidelines

- **Appointment of Principal Officer (PO):** Every VDA Reporting Entity must appoint a **Principal Officer**.
- **Cybersecurity & Data Protection:** VDA SP now requires a **Cyber Security Audit Certificate** issued by Indian Computer Emergency Response Team (CERT-In) empaneled auditor.
- **Unhosted Wallet Transactions:** Reporting entities must collect data on **transfers involving unhosted (self-custody) wallets**.

What is Virtual Digital Asset (VDA)?

- It is defined under **the Income-tax Act, 1961**.
 - Any digitally generated **information, code, number, or token** (excluding Indian or foreign currency) **created using cryptographic or similar means, which:**
 - Represents **digital value**,
 - Is electronically **transferable, storable, or tradable**.
 - **Non-Fungible Tokens (NFTs)** or similar digital tokens.
 - NFT is a unique token that can represent **digital collectibles or real-world assets**.
- Income from transfer of VDAs is taxable at the rate of 30% (plus surcharge and cess).

ISRO's PSLV-C62/EOS-N1 Mission Launched

The launch marked the 64th flight of Polar Satellite Launch Vehicle (PSLV) and 9th dedicated commercial mission undertaken by New Space India Limited (NSIL)



- NSIL, incorporated in 2019, is wholly owned Government Company under administrative control of Department of Space and is the commercial arm of Indian Space Research Organisation (ISRO).

About PSLV-C62 / EOS-N1 Mission

- It includes the launch of EOS-N1 earth observation satellite along with 15 co-passenger satellites from domestic & international customers.
 - EOS-N1 is designed to strengthen space-based monitoring capabilities.
- It will also demonstrate KID or Kestrel Initial Technology Demonstrator from a Spanish startup.
 - KID is a small-scale prototype of a re-entry vehicle which after launch is slated to re-enter the earth's atmosphere towards splashdown in South Pacific Ocean.
- EOS-N1 and 14 Co-passenger satellites will be injected into a Sun Synchronous Orbit and KID Capsule into a re-entry trajectory.

About PSLV

- 3rd generation launch vehicle and is first Indian launch vehicle to be equipped with liquid stages.
- Workhorse of ISRO: Consistently delivered satellites to Low Earth Orbits, can take up to 1,750 kg of payload to Sun-Synchronous Polar Orbits of 600 km altitude.
- Stages in PSLV
 - First Stage: Uses the S139 solid rocket motor augmented by 6 solid strap-on boosters.
 - Second Stage: Uses Earth storable liquid rocket engine known as Vikas engine, developed by Liquid Propulsion Systems Centre.
 - Third Stage: Solid rocket motor that provides high thrust to upper stages.
 - Fourth Stage: Uppermost stage of PSLV, comprising of two Earth storable liquid engines.
- Notable Missions: Chandrayaan-1, Mars Orbiter Mission, Aditya-L1 and Astrosat Mission, PSLV set a world record by launching 104 satellites in a single mission in 2017.

Prime Minister highlighted the ethical and social standards for AI Model in India

Recently, in a meeting with India's AI Start-ups, PM emphasised upon the importance of Indian AI models in transforming the society by being

- **Ethical:** to ensure fair competition and respecting data privacy of users.
 - E.g. AI systems collecting information from copyright content (books, art, etc.), harming the revenue of small creators, violates the Kantian duty to treat creators as ends in themselves.
- **Unbiased:** to prevent the reinforcement of stereotypes.
 - E.g. Credit card algorithms giving higher loans to men than women based on historically biased data.
- **Transparent:** to ensure trust and accountability and to counter the black-box problem.
 - E.g. Chitralekha, an open-source video transcreation platform by Indian non-profit AI4Bhārat, encourages community participation.

What role can AI play in transforming society?

- **Public Service Delivery:** AI enhances targeting, monitoring, and efficiency of welfare schemes, reducing leakages.
 - E.g. MCA 3.0 portal: by ministry of corporate affairs for ease of regulatory filing for companies with the help of AI/ML.
- **Access to Justice:** E.g. SUVAS, an AI-based translation platform, is used by the Supreme Court to translate judgments and orders into regional languages.
- **Sustainable Transformation :** E.g. AI-enabled smart grids balance real-time supply–demand and detect faults, optimising energy efficiency.
- **Other:** Healthcare access (AI-based diagnostics), education (AI-powered personalised learning platforms), disaster management (AI-based early warning systems), etc.

Initiatives taken for AI development in India

- **BharatGen:** Government-funded initiative for developing multimodal Large Language Models (LLMs) tailored to India's specific needs.
- **India AI Governance Guidelines** (by MeitY) outlines principles to guide India's AI governance framework e.g. data Privacy, transparency etc.
- **Anusandhan National Research Foundation (ANRF) MISSION AI for Science and Engineering:** to boost research while also ensuring the real-life stamina of AI applications.

Design Linked Incentive Scheme

Projects supported under DLI scheme are scaling rapidly, with 16 tape-outs, 6 ASIC chips, 10 patents and over 3x private investment leveraged.



About DLI Scheme

- **Launched in:** 2021 by MeitY under the Semicon India Programme.
- **Nodal Agency for implementation:** C-DAC (Centre for Development of Advanced Computing).
- **Objective:** To catalyze a strong, self-reliant chip design ecosystem by providing financial incentives and access to advanced design infrastructure for domestic startups and MSMEs.
- **Benefits of the scheme:**
 - **Provides financial incentives in 2 categories:** Product Design Linked Incentive and Deployment Linked Incentive.
 - **Provides Design Infrastructure Support:** through the ChipIN Centre to approved companies.
 - This includes remote access to a National EDA Tool Grid, a repository of IP Cores, and fiscal support for prototyping (MPW) and post-silicon validation.
- **Eligibility under the DLI Scheme:**
 - **Start-ups and MSMEs** are eligible for **financial incentives** and **design infrastructure support** for semiconductor product design & deployment.
 - And **other domestic companies** are **eligible for financial incentives** for deploying semiconductor designs.

Rani Velu Nachiyar

Prime Minister Pays Tribute to Rani Velu Nachiyar on Her Birth Anniversary.



About Rani Velu Nachiyar (1730-96)

- **Born:** In 1730 as the princess of Ramnad (Ramanathapuram), Tamil Nadu.
- **Skills:** Trained extensively in warfare, including horse riding, archery, and martial arts like Silambam and Valari.
- **Key Contributions:**
 - Forged an alliance with **Hyder Ali** of Mysore.
- **Established the "Udaiyaal" battalion:** one of the first all-women army units in world history.
- **Pioneer of Suicide Tactics:** Her loyal commander, Kuyili, is credited with the first recorded suicide attack in Indian history by setting herself on fire to destroy a British ammunition depot in 1780.
- In 1780, she successfully **recaptured Sivaganga, defeating the British** nearly 77 years before the 1857 Revolt.

Savitribai Phule

Recently PM Paid Tribute to Savitribai Phule on Her Birth Anniversary



About Savitribai Phule (1831 - 1897)

- Born in Satara district (**Maharashtra**).
- **First headmistress** of the country's first school for girls in Pune.

Key Contributions

- **Women's Right-**
 - Started **Mahila Seva Mandal** to advocated women's right
 - Set up **Balhatya Pratibandhak Griha** for refuge to pregnant women at risk
 - Established education trust called **Native Female School, pune.**
 - **Promoted Satyashodhak marriage** (marriage without dowry)
- **Social inclusion:** By promoting education among communities such as Mahars, Mangs etc.
- **Publications** - Authored influential poetry collections i.e. Kavyaphule

And Bavan Kashi Subodh Ratnakar.

Values: Equality, justice, compassion, Courage of Conviction, etc.

Piprahwa Relics

While inaugurating the Grand International Exposition titled “The Light & the Lotus: Relics of the Awakened One”, the Prime Minister also highlighted that the wisdom and path shown by Bhagwan Buddha belong to all of humanity.



- This historic event marks the **reunification** of the Piprahwa gem relics of Lord Buddha, repatriated after 127 years.

About Piprahwa Relics

- **Discovery:** Unearthed in 1898 by British Civil Engineer **William Claxton Peppé**.
- **Location:** An ancient Buddhist stupa at **Piprahwa (Uttar Pradesh)**, near the India-Nepal border.
- **Significance:** Archaeological evidence **associates the Piprahwa site with ancient Kapilavastu**, widely identified as the place where Bhagwan Buddha spent his early life prior to renunciation.
 - The relics are believed to be **associated with the mortal remains of Gautama Buddha**.

Contemporary relevance of Buddha's teachings

- **Governance and political integrity:** By applying the concepts of **Right Speech, conduct, and livelihood to public administration** Buddhist principles can promote citizen-centric governance.
- **Social equity and justice:** Gautama Buddha opened the institution of the Sangha to all individuals regardless of status, which provides a modern basis for **eliminating discrimination against vulnerable groups**, including women, transgender individuals, and sex workers.
- **Environmental sustainability and Consumerism:** The teaching of middle-path advocates for a life of moderation between extreme luxury and austerity, offering a solution to **over-exploitation of resources** and climate change.
- **Ethics in Technology and Science:** By applying principles of **simplicity and reverence for all life**, society can ensure **technological progress does not come at the cost of moral values**.
 - Additionally, the emphasis on **mindfulness and right understanding** fosters a **scientific temper and a spirit of inquiry**.

Somnath Temple

Prime Minister paid tribute to Somnath Temple marking the historic milestone of 1000 years since the first attack on Somnath in 1026 AD.

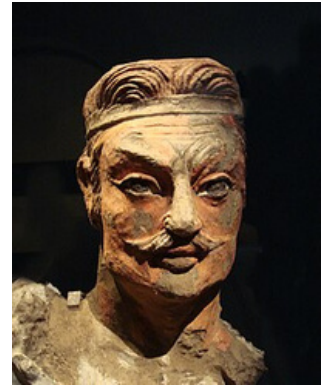


About Somnath Temple

- **Location:** Along the coastline in **Prabhas Patan, Veraval, Saurashtra region of Gujarat**.
- **Religious significance:** **One of the 12 holy Jyotirlingas of Lord Shiva** is here in Somnath.
- **History:** It was reconstructed several times in the past after repeated destruction starting with an attack by Mahmud Ghazni in the 11th century (also recorded by **Al Biruni**).
- **Reconstruction:** The then **Deputy Prime Minister Vallabhbhai Patel** ordered the reconstruction of the Somnath temple on November 12, 1947.
 - On May 11, 1951, **Dr. Rajendra Prasad**, the President of India **performed the installation ceremony for the temple**.

Kushanas

Archaeologists discovered rare Kushana-era coins and decorative stones, including lapis lazuli, from a UNESCO-listed site near Takshashila, Pakistan.



About Kushanas (1st century BCE–3rd century CE)

- **Origin:** Central Asian **Yueh-chi tribe**; established a vast transregional empire.
 - **Kanishka I:** Greatest Kushana ruler, promoted **Buddhism**, convened the **Fourth Buddhist Council**, and strengthened **Silk Route trade**.
- **Administration:** Empire divided into **satrapies** governed by satraps, indicating decentralised control.
- Controlled **north-west India** (Gandhara, Kashmir), **Mathura region**, and extended influence into the **Ganga–Yamuna Doab** up to parts of **eastern Uttar Pradesh and Bihar**.
- Kushanas issued **extensive gold coins**, reflecting a monetised economy and strong long-distance trade links.

Madhav Gadgil

Renowned ecologist Madhav Gadgil passed away.



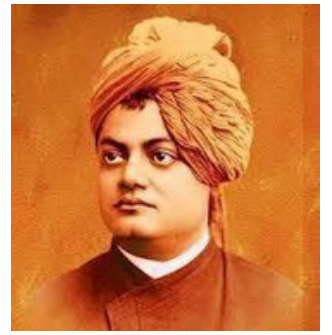
About Madhav Gadgil (1942-2026)

- Born in **1942 in Pune**, he was one of India's **foremost voices on ecology and environment protection**.

Key Contributions

- He founded the **Centre for Ecological Sciences** at the Indian Institute of Science (IISc), Bengaluru in 1982.
- His efforts led to the establishment of **Nilgiri Biosphere Reserve in 1986**.
- He chaired the **Western Ghats Expert Ecology Panel (WGEEP)** in 2010 and recommended that the entire Ghats be declared as **ecologically sensitive in graded categories**.
- Served as a member of the **Prime Minister's Science and Technology Advisory Council**.
- Was one of the architects of **India's Biological Diversity Act** and was involved in implementation of **Forest Rights Act**.
- **Key Awards and Recognitions:** Padma Shri; Padma Bhushan; Tyler Prize for Environmental Achievement; Volvo Environment Prize; United Nations Environment Programme's Champions of the Earth award.

Swami Vivekananda



Swami Vivekananda's Visionary Legacy remembered on his Birth Anniversary

Born in Calcutta on 12 January, 1863, he was a disciple of **Ramakrishna Paramhans**.

- In 1893, he addressed the **Parliament of World's Religions in Chicago**, introducing Hinduism to the western world and **founded the Ramkrishna Mission in 1897**.

Key Philosophical Ideas of Swami Vivekananda

- **Neo-Vedanta Philosophy:** He emphasised the oneness of all, asserting that **each person is interconnected and equal**, with no inherent superiority of one over another.
- **Universalism:** It transcends **sectarian divides**, aiming to foster a sense of unity.
- **Knowledge:** He held knowledge to be the **primary goal of humanity** and held **pleasure as impermanent while knowledge as enduring**.
- **Religion:** He asserts that a religion's true worth lies in its **ability to uplift humanity in all circumstances**.
- **Education:** Swami Vivekananda advocated for a **holistic approach to education** that addresses **physical, mental, and spiritual dimensions of an individual**.

Relevance of his ideas in present times

- **Inclusivity and Universal Brotherhood:** In globalized world, his ideas **foster a sense of empathy and understanding among persons** with diverse backgrounds.
- **Societal transformation:** His message broke through **shackles of caste and creed**.
- **Emotional Intelligence:** Integrating mindfulness practices and emotional intelligence can enhance a person's **well-being and ability** to manage emotions effectively.
- **Peaceful Coexistence:** He called the Western world to blend **India's spiritual advances** into ideas of **modernity** and advised Indians to **pursue modernisation** while cutting through **social hierarchies and meaningless rituals**.

Harvest Festivals

Traditional harvest festivals are being celebrated in different parts of India.



- These festivals, celebrated under different names and **customs across the country**, mark the change of seasons, the Sun's northward journey (Uttarayana), and the harvest of crops.

Traditional Harvest Festivals

- **Makar Sankranti (Maharashtra):** It marks the Sun's transition into Capricorn.
- **Uttarayana (Gujarat and Rajasthan):** It is known for kite flying, which commemorates the Sun's rise and is a day of joy and celebration.
- **Pongal (Tamil Nadu):** It marks four-day harvest festival that includes Thai Pongal, Mattu Pongal, Kaanum Pongal, and Bhogi, people make the rice and lentil dish Pongal.
- **Lohri (Punjab):** Celebrated a day before Makar Sankranti, it marks the harvest of Rabi crops and is celebrated around bonfires with folk songs, Bhangra and Gidda.
- **Magh Bihu (Assam):** It celebrates the end of the harvest season with community feasts, traditional games and bonfires known as Meji.
- **Kanuma (Telangana):** It is a festival to express thankfulness and admiration towards the agriculture sector.

Battery Pack Aadhaar Number

Government releases draft guidelines for Battery Pack Aadhaar System.



About Battery Pack Aadhaar System

- It is an indigenous **digital identification and data storage system** developed to ensure **end-to-end traceability of batteries throughout their entire lifecycle**.
- It includes a **unique identification number for each battery pack, capturing and storing vital information from extraction to final disposal**.
- Battery categories that are required to maintain a Battery Pack Aadhaar as an electronic record include Electric Vehicle Batteries and Industrial Batteries with capacity greater than 2kWh.
- **Significance:** Enabling **second-life usage, regulatory compliance, and efficient recycling**.

PRAGATI

Launched in 2015, PRAGATI (Pro-Active Governance and Timely Implementation) integrates accountability, transparency and timely decision-making into the administrative process.



Key Features of PRAGATI

- **About:** Multi-purpose and multi-modal platform offering comprehensive, **technology-enabled governance mechanism spanning all tiers of government**.
- **Team India Spirit:** PRAGATI review meetings are Chaired by **Prime Minister** having direct engagement with **state and central ministries**.
- **Hosts Key Governance Tools:** Like PM Gati Shakti, PARIVESH and PM Reference Portal.
- **Global Recognition:** An external study by Oxford University's Saïd Business School, termed PRAGATI a **global benchmark and a "single source of truth" for real-time project monitoring**.

Key Transformative Role Played by PRAGATI

- **Exemplified Cooperative Federalism:** It offered **Centre and States to work as a team** with ministries and departments **looking beyond silos to solve problems**.
 - Since its inception, around **500 Secretaries of Government of India and Chief Secretaries of States** have participated in PRAGATI meetings.
- **High Project Resolution Rate:** Around 94% issues identified across various projects been resolved resulting in **reducing time delays, cost overruns and coordination failures**.
- **Unlocking Long-Pending Projects:** Notable Examples include **Jammu–Udhampur–Srinagar–Baramulla rail link** (approved in 1994 was commissioned in 2025); **Navi Mumbai International Airport** and **Bogibeel rail-cum-road bridge over the Brahmaputra**, etc.

Task Force Report on Capacity Building of Sports Administrators

Task Force chaired by Olympic medalist Abhinav Bindra has submitted its report that provides a roadmap to transform India's sports governance into a professional, accountable, and athlete-centric ecosystem.

Problems in India's Sports Administration

- Lack of Professional Knowledge
 - Many sports bodies are run by general government officers or temporary staff who do not have proper training in sports management. Because of this, decisions are often random and not well planned.
- Poor and Irregular Training
 - Training programs for sports administrators are rare, old-fashioned, and not continuous. There is no system for regular skill upgradation.
- Difficulty for Athletes to Shift to Administration
 - There is no clear system to help sportspersons move from playing careers to administrative or leadership roles. As a result, their experience is wasted.
- Weak Governance in Sports Bodies
 - Most National Sports Federations do not clearly separate policy-making and day-to-day work. Too much power is concentrated in a few hands, reducing transparency and accountability.

Suggested Reform Framework

- Include Sports Governance in IAS Training
 - Basic knowledge of sports administration should be added to the training of IAS officers at LBSNAA, so future officers understand the importance of sports in nation-building.
- Performance-Based Evaluation
 - A national system should be created to measure the work of sports administrators. Their performance should affect promotions and postings.
- Create a National Apex Body
 - A National Council for Sports Education and Capacity Building (NCSECB) should be set up to approve, regulate, and certify sports administration courses in India.
- Set Up an Implementation Unit
 - A National Training and Development Cell should work under the NCSECB to conduct training programs, coordinate institutions, and check results.
- India-Focused Training Content
 - Training courses should be designed according to India's needs, sports culture, and administrative challenges instead of copying foreign models.

NOTE

Steps taken for reforming sports governance in India

- National Sports Governance Act, 2025: Establishes independent oversight bodies, dispute resolution mechanisms, and transparent election systems for sports federations.
- Khelo Bharat Niti, 2025: Focuses on rural and tribal talent scouting and upgrading local-level sports infrastructure.
- Khelo India Programme: Promotes grassroots sports participation and early athlete development nationwide.

Partial implementation of “National Sports Governance Act” begins

With effect from January 1, 2026, institutional mechanisms of the act such as establishment of National Sports Bodies including National Olympic Committee, National Paralympic Committee, National Sports Federations and Regional Sports Federations have come into effect.

Key Provisions of the National Sports Governance Act

- **Institutional Architecture**
 - **Establishment of National Sports Board (NSB):** It has been designed as an **apex regulatory body** empowered to grant, renew, suspend, or cancel recognition of National Sports Bodies. Its other functions includes:-
 - Maintenance of a **register of National Sports Bodies**.
 - Collaboration with International Sports Bodies and National Sports Bodies
 - **Establishment of the National Sports Bodies (NSBs)** for their respective recognised sports organisations:
 - **National Olympic Committee (NOC):** Sole governing body for Olympic sports in India.
 - **National Paralympic Committee (NPC):** Sole governing body for Paralympic sports.
 - **Other Bodies:** National Sports Federation (NSF) & Regional Sports Federation (RSF)
 - **Establishment of National Sports Tribunal (NST):** for the independent, speedy, effective and cost-efficient disposal of sports related disputes. However, its jurisdiction **does not includes:-**
 - any dispute, or conflict arising during the Olympic Games, Paralympic Games, Commonwealth Games, Asian Games etc.
 - **doping related disputes**, where National Anti-Doping Act, 2022 have exclusive jurisdiction
 - **National Sports Election Panel:** A central roster of experienced former election officials to oversee fair and transparent elections in sports federations.
- **Ethical and Safe Sports Framework:** It calls for adoption of **Code of Ethics** and promotion of **Safe Sports Policy** (protect athletes, especially women and minors from harassment, abuse, and discrimination)
- **Accountability and Transparency**
 - **Public Authority (RTI):** Recognized sports bodies to be treated as public authorities under the RTI Act, 2005.
 - **Financial Oversight:** accounts of the Board shall be audited by the **Comptroller and Auditor-General of India**

Swadesh Darshan Scheme



75 Projects Completed Under Swadesh Darshan Scheme

About Swadesh Darshan Scheme

- **Genesis:** Launched in 2015, it is a **flagship** scheme of **Ministry of Tourism**.
- **Objective:** Development of theme-based tourist circuits like Buddhist Circuit, Eco Circuit, Heritage Circuit, Himalayan Circuit, etc.
- **About Swadesh Darshan 2.0:** Revamped version of **Swadesh Darshan Scheme** to develop **sustainable and responsible destinations** following a **tourist & destination-centric approach**.
- **Sub Schemes Under SD 2.0**
 - **Challenge Based Destination Development (CBDD):** It has **36 projects** sanctioned under four thematic categories viz **Spiritual Tourism, Culture & Heritage, Vibrant Village Program, Ecotourism and Amrit Dharohar Sites**.
 - It has **identified 5 destinations** in **Vibrant Village** category including Arunachal Pradesh (Kibitho), Himachal Pradesh (Rakchham-Chhitkul), Sikkim (Grathang) and Uttarakhand (Jadung & Mana).
 - **Guidelines for Tribal Homestay development:** To develop **1,000 Tribal Homestays** under the **Pradhan Mantri Janjatiya Unnat Gram Abhiyan (PM-JUGA) Scheme**.
 - **Special Assistance to States for Capital Investment (SASCI) – Development of Iconic Tourist Centres to Global Scale:** To infuse **long term interest free loans for 50 years** to States

Other Initiatives taken to Enhance Tourism In India

- **Pilgrimage Rejuvenation and Spiritual Augmentation Drive (PRASHAD) Scheme:** To enhance infrastructure at major pilgrimage sites and heritage cities.
- **Medical Tourism: India's Medical Value Travel (MVT)** sector is projected to reach **\$13.42 billion by 2026**.
- **MICE (Meetings, Incentives, Conferences and Exhibitions) Tourism:** A National Strategy and Roadmap formulated by Tourism Ministry.
- **Facilitating Employment-Led Growth:** Skill development programme in hospitality management; MUDRA loans for Homestays, etc.



Pravasi Bharatiya Divas



On Pravasi Bharatiya Divas (PBD), the PM highlighted the role of the Indian diaspora as cultural ambassadors (Rashtradoots).

- PBD is a biennial flagship event celebrated on 9th January, the day in 1915 when Mahatma Gandhi returned to India from South Africa.

About Indian Diaspora

- It is a term for addressing people who have **migrated from** the territories that are currently within the borders of **India**.
- **Includes:** Non-Resident Indians (NRIs), Persons of Indian Origin (PIOs) and Overseas Citizens of India (OCI).
 - PIO and OCI card holders were **merged** under one category of OCI in 2015.
- **Status of Indian Diaspora: 34.35 million** (including **17.17 million NRIs**) (January 2025).

Significance of the Indian Diaspora

- **Soft power:** Diaspora carry **cultural spirit** (E.g. Yoga, festivals like Diwali) worldwide and strengthen **people-to-people** connections.
- **Economic contribution:** India is the world's **largest recipient** of remittances (~USD 135 billion in FY25).
- **Trade & investment bridge:** E.g. Diaspora entrepreneurs **facilitate India-US IT and services** trade.
- **Diplomatic leverage:** Significant diaspora presence aids growing mutual relationship and positively shapes **India's global image**. E.g. **India-West Asia** relations
- **Political advocacy:** Diaspora can **lobby** their local governments and international organizations on issues important to India.

Initiatives taken for Indian Diaspora

- **4 Cs of Diaspora Engagement policy framework:** Care for our communities, Connect with global networks, Celebrate our shared heritage, and encourage Contributions that drive positive change
- **Know India Programme (KIP):** To familiarise young diaspora (**18–35 years**) with **India's culture and heritage**.
- **Indian Community Welfare Fund (ICWF):** For assisting Overseas Indian nationals in times of **distress and emergency**.