NEXT IAS

THE CRUX

July Issue; 2025

Chief Editor

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CMD, NEXT IAS & MADE EASY Group

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Compilation of UPSC relevant news from 1st July to 31st July 2025

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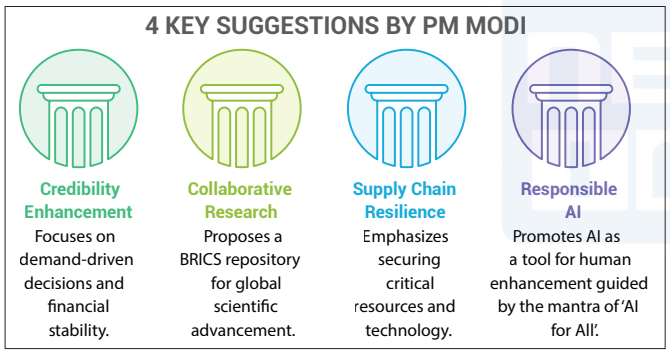
17TH BRICS SUMMIT

Prime Minister Shri Narendra Modi participated in the 17th BRICS Summit held in Rio de Janeiro, Brazil on 6-7 July 2025.

Major Outcomes of the BRICS 17th Summit

- **Global Governance Reform:** BRICS+ called for **UNSC expansion** to include Asia, Africa, and Latin America and urged reforms in the **IMF and World Bank** to reflect emerging economies.
- **Sustainable Development:** BRICS adopted a **Climate Finance Framework** and signed an **MoU on Carbon Markets Partnership** for cooperation in carbon pricing and emissions trading.
- **Peace and Security:** BRICS supported **"African Solutions to African Problems"**, called for a **Gaza ceasefire**, and condemned the **Pahalgam terror attack**, stressing zero tolerance for terrorism.
- **Financial Cooperation:** The bloc advanced a **Cross-Border Payments Initiative**, backed **NDB expansion**, and launched the **BRICS Multilateral Guarantees (BMG) pilot** to reduce investment risks.
- **Technology and Digital Economy:** BRICS adopted a **Global AI Governance Statement**, agreed on **Data Economy rules**, and decided to set up a **BRICS Space Council** for space cooperation.



- **Health and Social Development:** BRICS launched the **Partnership for Eliminating Socially Determined Diseases**, focusing on the fight against **Tuberculosis (TB)**.
- **Condemnation of CBAM:** BRICS condemned the **EU's Carbon Border Adjustment Mechanism (CBAM)**, saying it harms developing countries' efforts to transition to greener economies.

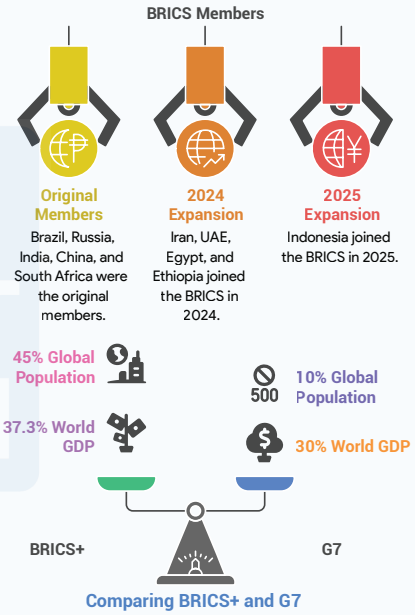
Increasing Relevance of BRICS

- **Political Influence & Global Order Shift:** With the inclusion of **major oil producers and key regional players**, BRICS+ represents a growing **multipolar world**, challenging the G7-dominated global order.
  - Experts describe *"BRICS as the decline of the west and rise of the rest"*.
- **Global Governance Reform:** BRICS+ actively pushes for reforms in global institutions like the **UN Security Council, IMF, and World Bank**, advocating for a more **inclusive and equitable global governance system.**

BRICS

Origin:

- The term **'BRIC' was introduced in 2001** by British economist **Jim O'Neill** to represent the rising economies of **Brazil, Russia, India, and China**.
- The group formally started collaborating at the **G-8 Outreach Summit in 2006**, held its **first summit in Russia in 2009**, and became **BRICS** in 2010 with the inclusion of **South Africa.**



- **Strategic Partnerships:** BRICS+ fosters wider strategic and security cooperation, from **energy security to maritime safety and counter-terrorism**, particularly relevant in the **Indian Ocean and Persian Gulf regions.**
- **Economic Influence:** After including **Egypt, Iran, UAE, Saudi Arabia, and Ethiopia**, etc. BRICS+ accounts for over **37% of global GDP** and nearly **43% of global oil production**, significantly amplifying its economic and energy clout.
  - **Infrastructure & Development:** With expanded membership, BRICS+ enhances **infrastructure collaboration across Asia, Africa, and Latin America**, reducing the dependence on Western-led development models.
  - **Financial Stability:** BRICS+ provides a **counterweight to Western financial systems through Contingent Reserve Arrangement (CRA)**, helping members manage financial shocks without reliance on IMF austerity programs.

SOME OF THE FAMOUS INITIATIVES OF BRICS

- **New Development Bank (NDB):** Since its inception in 2015, the **NDB has committed $32.8 billion across 96 projects**; with new members joining, the NDB is expected to broaden its funding base and invest in **Africa, West Asia, and Latin America.**
- **Contingent Reserve Arrangement (CRA):** The **$100 billion CRA** remains vital for financial safety. With oil-rich members joining, the bloc can potentially expand this reserve, offering **greater economic security and liquidity support.**

- **Green Technology & Clean Energy:** BRICS+ nations, contributing over **50% of global solar energy**, are collaborating on **EVs, battery tech, and sustainable fuels** to drive clean energy transitions.
- **Security Cooperation:** BRICS+ conducts **National Security Advisors' meetings** focusing on **counter-terrorism, cybersecurity, and energy security**, particularly important with West Asian members now onboard.
- **Technological Cooperation:**
  - **Space Cooperation:** BRICS+ expanded **satellite data sharing and joint Earth observation initiatives**, aiming to reduce technological disparities in space tech.
  - **BRICS Pay & Digital Payments:** The bloc is developing **BRICS Pay**, a **blockchain-based cross-border payment system**, to reduce dependence on the US dollar and SWIFT.
- **CBDC Integration:** BRICS+ is working on **multi-CBDC (Central Bank Digital Currency) infrastructure**, enabling real-time settlements in local currencies to enhance financial autonomy.
- **Cultural Exchange & People-to-People Connect:** BRICS+ promotes **cultural diplomacy through the Film Festival, Youth Summit, Academic Forum, and Parliamentary Forum**, now including more diverse regions from Africa and the Middle East.

Challenges

- **Internal Geopolitical Tensions:** Ongoing **India–China border disputes** and mutual distrust weaken the group's ability to work together on major global issues.
- **Power Asymmetry: China's large economy (around 70% of BRICS GDP)** creates imbalance, making other members cautious about its growing influence.
- **Lack of Unified Vision:** BRICS+ members have **different political systems and national interests**, limiting their ability to agree on clear common goals.
- **Weak Institutional Mechanism:** BRICS lacks a **permanent secretariat**; decisions depend on yearly summits and rotating leadership, slowing down follow-up action.
- **10% Tariff Threat vs. Pro-BRICS Alignment:** Trump warned of an additional 10% tariff on countries that "aligned with anti-American BRICS policies." He labeled BRICS a "little group" attempting to undermine dollar supremacy.
- **External Strategic Conflicts:** India's ties with Western alliances and Russia's growing dependence on China after the Ukraine war create **conflicting foreign policy interests** within BRICS+.
- **Expansion-Related Challenges:** Adding new members increases **diversity but also creates coordination problems**, making decision-making more complex and time-consuming.

HOW INDIA CAN LEVERAGE BRICS

- **Multilateral Diplomacy:** BRICS allows India to balance its ties between the Global South and Western powers, expanding its diplomatic influence.
- **Strategic Positioning:** As EAM S. Jaishankar suggests India acts as a south-western power, mediating between developed nations and emerging economies through BRICS.
- **Economic Cooperation:** India can use BRICS to boost trade, investments, and joint ventures, especially through initiatives like the New Development Bank (NDB).
- **Political Influence:** BRICS gives India a platform to advocate for global governance reforms (UNSC, IMF, World Bank, WTO), climate action, and counter-terrorism.
- **Cultural Exchange:** India can promote its cultural diplomacy by participating in BRICS arts, education, tourism, and youth exchange programs.
- **Technology and Innovation:** Through BRICS, India can collaborate on joint research, tech transfer, and innovation, enhancing capacities in IT, space, and green energy.
- **Regional Stability and Security:** India can work with BRICS members on counter-terrorism, cybersecurity, and maritime security, strengthening regional and global stability.

Way Ahead

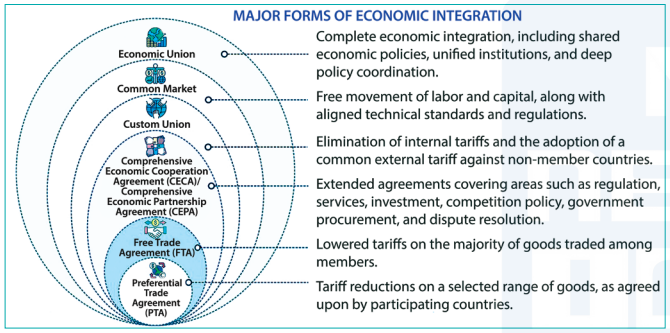
- **Institutional Strengthening:** Establish a permanent secretariat and dedicated working groups for coordination, policy follow-up, and strategic planning.
- **Conflict Resolution Mechanisms:** Create internal dialogue platforms to address bilateral disputes like India–China tensions and safeguard cooperation.
- **Inclusive Economic Agenda:** Prioritize shared goals such as technology, climate finance, and sustainability while balancing interests of all BRICS+ members.
- **Expansion Management Framework:** Define clear guidelines for new member integration to preserve cohesion and core objectives of BRICS+.
- **Innovative Financial Cooperation:** Accelerate work on the BRICS Payment System and CBDC platforms, promoting local currency trade and reducing over-dependence on Western financial systems.

INDIA-UK FTA

India and the United Kingdom have signed the Comprehensive Economic and Trade Agreement (CETA), a bilateral free trade agreement marking a major milestone in their longstanding partnership

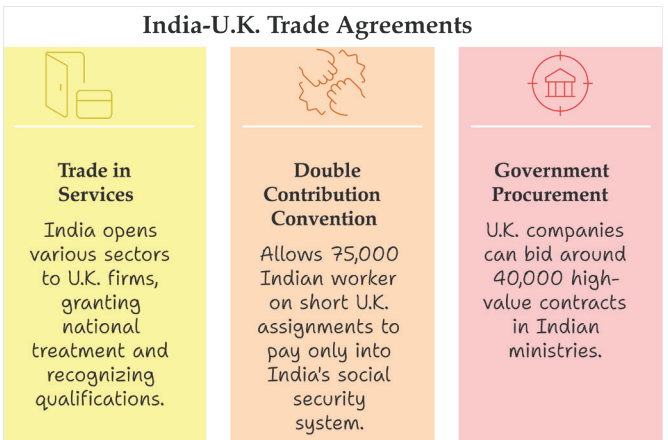
About the Agreement

- This India–U.K. Free Trade Agreement (FTA) is the **U.K.'s most significant trade pact since Brexit** and marks **India's largest trade agreement with a G7 nation in over a decade.**
- **Meaning of Free Trade Agreements (FTAs):** Free Trade Agreements are **strategic partnerships** between countries or economic blocs aimed at **liberalizing trade**.
  - They involve the **reduction or elimination of customs duties and non-tariff barriers** on a substantial portion of trade.
  - FTAs typically cover **trade in goods** (both agricultural and industrial), **services** (such as finance, construction, and retail), and areas like **intellectual property rights**, thereby fostering deeper economic integration.



Key Features of the Deal

- **Trade in Goods:**
  - The U.K. has eliminated tariffs on 99% of its product lines.
  - About $6.5 billion (45%) of India's exports to the U.K. will now be duty-free (e.g., textiles, footwear, autos, seafood, mangoes).
  - The remaining $8 billion of Indian exports already enjoyed zero-duty access (e.g., pharma, petroleum, diamonds).



  - India will eliminate/reduce duties on 90% of tariff lines, covering 92% of U.K. exports.
  - First-ever tariff cuts by India on imported cars in a trade deal:
    - Large petrol cars: duty to fall from 110% to 10% over 15 years (quota applies).
    - Mid-sized/small cars: phased cut to 10% by year 5.
    - No concessions for electric, hybrid, or hydrogen vehicles for the first 5 years.
- **Economic Significance:**
  - The U.K. accounts for 3.3% of India's exports and 1.2% of imports (2024–25).
  - The deal boosts market access, services exports, investment, and worker mobility.
  - Strategically positions India for deeper integration with developed markets.
- **Implementation Timeline:** The agreement will come into effect after legislative ratification in both countries, expected by late 2025.

Positives of the India–U.K. Trade Deal

- **Boost to Exports**: India gains **duty-free access** for key exports like textiles, footwear, fruits, and automobiles, enhancing competitiveness in the U.K. market.
- **Services Sector Gains**: Indian IT, consultancy, and environmental service firms gain **market access and commercial presence rights** in the U.K., supporting India's service-led growth.
- **Social Security Relief**: The **Double Contribution Convention (DCC)** helps Indian workers in the U.K. avoid dual social security payments, increasing net income and mobility.
- **Investment Potential**: Lower tariffs and policy predictability can attract **greater FDI** from U.K. firms, especially in manufacturing and green sectors.
- **Procurement Access**: Indian companies gain entry to **40,000 central government contracts** in the U.K., opening new business opportunities.

Concerns in the Trade Deal

- **Auto Industry Pressure**: Phased tariff cuts on imported U.K. cars may **undermine domestic automobile manufacturers**, especially in the luxury segment.
- **Unequal Gains in Goods**: The U.K. removed tariffs on many items **not exported by India**, limiting the **practical benefit** of 99% duty elimination.
- **Professional Barriers Remain**: Despite qualification recognition, India did **not gain rights in legal practice**, limiting mobility for Indian legal professionals.

- **Government Procurement Exposure**: Opening central procurement to U.K. firms could **affect Indian MSMEs** competing for government contracts.
- **Limited Trade Volume**: The U.K. accounts for only **3.3% of India's exports** and **1.2% of imports**, raising questions about **overall trade impact.**

Way Forward:

- **Strengthen Domestic Manufacturing:** India must **support MSMEs and domestic industries**, especially automobiles and textiles, through credit, technology upgrades, and phased competitiveness strategies to withstand increased U.K. imports.
- **Enhance Services Competitiveness:** India should invest in **skills, certification standards, and regulatory alignment** to fully utilize expanded services access, especially in sectors like IT, consultancy, finance, and environmental services.
- **Negotiate Equitable Mobility Frameworks:** India should **seek reciprocal labour mobility arrangements**, ensuring smoother visa processes and broader recognition of Indian professional qualifications in the U.K., beyond accounting and law.
- **Protect Sensitive Sectors:** For long-term sustainability, India must maintain **safeguards for sunrise sectors** like electric vehicles, digital trade, and agriculture, using quotas, timelines, and targeted incentives.
- **Institutional Monitoring and Dispute Resolution:** Establish a **joint monitoring mechanism** to ensure smooth implementation, address non-tariff barriers, and quickly resolve trade disputes to build investor confidence and trust.
- **Leverage Strategic Partnerships:** This deal should be used as a platform to **deepen strategic ties with the U.K.** in areas like climate action, innovation, education, and defence, making the FTA part of a broader bilateral roadmap.

SIGNIFICANCE OF INDIA-UK RELATIONS

Geopolitical

- India and the UK support reform of global institutions like the **UN, WTO, and G20**, with the UK backing India's **UNSC permanent membership** bid.
- Both align on democratic values and coordinate in forums like the **Summit for Democracy** and the **India–UK Enhanced Strategic Partnership (2021).**
- **Strategic Autonomy Alignment:** Both nations seek **multipolarity and rules-based order** amid rising China and global realignment.
- **Roadmap 2030:** This comprehensive framework covers people-to-people ties, trade, climate action, defence, and health cooperation till 2030

Geo-Ecomomic

- **Bilateral Trade Volume:** Total India–UK bilateral trade stands at approximately USD 56 billion in 2024-25, with USD 23 billion in merchandise and USD 33 billion in services.
- **Strategic Economic Diversification:** The UK seeks to reduce EU dependence post-Brexit. India offers a large, growing market for British businesses.
- **India–UK Technology Security Initiative (TSI):** Launched in 2024, TSI strengthens cooperation in AI, semiconductors, and cybersecurity. It promotes secure and ethical digital infrastructure.

Defence and Security Cooperation

- **Strategic Dialogue and Military Engagement:** The 2+2 Dialogue (since 2023) boosts strategic and defence cooperation. Joint exercises like Konkan improve military coordination.
- **Indo-Pacific and Maritime Security:** UK backs India's Indo-Pacific role for regional stability.
  - HMS Queen Elizabeth was deployed to the Indian Ocean in 2024.
- **Defence Trade and Technology Transfer:** UK's defence exports form 3% of India's imports.
  - Focus is now on tech transfer and co-development under Make in India.

Climate Change and Green Energy

- **Shared Climate Goals:** India targets 65% renewable power by 2030; UK targets net-zero by 2050. Both advocate equitable climate finance for developing nations.
- **Green Hydrogen and Renewable Energy:** The Hydrogen Partnership supports clean hydrogen investment. Priority areas include offshore wind, EVs, and battery storage.
- **Global Climate Leadership:** India and UK co-lead the Green Grids Initiative – OSOWOG.
  - They partner under CFLI India for green finance.

People-to-People and Diaspora Ties:

- **Size and Impact of Indian Diaspora:** The Indian diaspora in the UK exceeds 1.6 million. It plays a key role in healthcare, business, and public life.
- **Political Representation:** As of 2024, 26 Indian-origin MPs serve in the UK Parliament.
  - Their presence strengthens bilateral goodwill and influence.
- **Academic Mobility and Youth Exchange:** Over 140,000 Indian students studied in the UK in 2024. The India Young Professionals Scheme (IYPS) allows 3,000 Indians to work in the UK annually.
- **Joint Research and Innovation Grants:** UK–India Education and Research Initiative (UKIERI) promotes joint research in health, climate, and innovation. Newton–Bhabha Fund supports fellowships and innovation grants.

RESIGNATION OF VICE PRESIDENT

Vice-President Jagdeep Dhankhar resigned under Article 67(a) of the Constitution. He is the third Vice-President to do so mid-term, after V.V. Giri and R. Venkataraman.

Constitutional Provisions for Mid-Term Resignation:

- **Article 67(a):** The Vice-President may resign by submitting a signed letter to the **President of India**. The resignation takes **immediate effect.**
- **No Acting Vice-President:** The Constitution does **not provide** for an acting Vice-President. In his absence, the **Deputy Chairman of Rajya Sabha** presides over the House.

Election and Tenure after Resignation

Constitutional Provision:

- Under **Article 68**, a vacancy in the office of the Vice-President due to resignation must be filled **"as soon as possible".**
- **Unlike the President**, there is **no six-month deadline**; the timing is flexible but must not cause undue delay.

Initiation of Election Process:

- After Vice-President **Jagdeep Dhankhar's resignation**, the **Election Commission of India** has initiated the election process.
- The **Ministry of Home Affairs** has notified the vacancy, enabling the ECI to act under the **Presidential and Vice-Presidential Elections Act, 1952.**
- **Returning Officer Appointment:** The Rajya Sabha Secretary-General, P.C. Mody, has been designated as the Returning Officer by the ECI for the Vice-Presidential election.

Key Facts about the Vice-President of India

Constitutional Basis

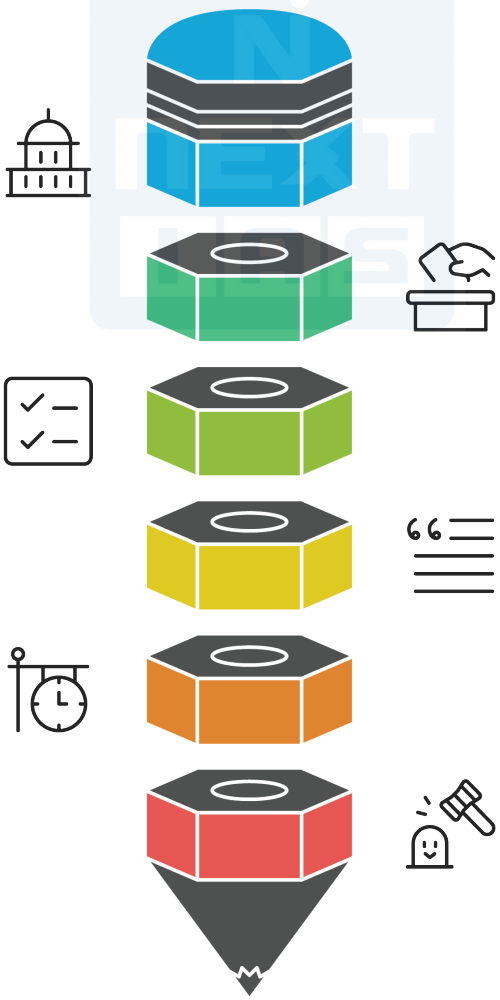
Articles 63 to 71 deal with the Vice-President. The office is the second-highest constitutional post in India.

Eligibility

Must be an Indian citizen, ≥35 years, eligible for Rajya Sabha, not hold any office of profit, and not be a current MP or MLA.

Term & Vacancy

Serves a 5-year term (Article 67) and continues until successor assumes office. Vacancy can arise due to resignation, death, removal, or disqualification.



Election Process

Elected by MPs of both Houses, including nominated members (Article 66), through proportional representation and single transferable vote by secret ballot.

Oath

Administered by the President (Article 69) to uphold the Constitution.

Removal

Can be removed by a Rajya Sabha resolution (effective majority), approved by Lok Sabha (simple majority), with 14 days' prior notice.

- **Statutory Timelines:** Once notified, the election process (nomination, scrutiny, withdrawals, and polling) must span a **minimum of 32 days.**
- **Composition of Electoral College:** The electoral college includes all elected and nominated members of Lok Sabha and Rajya Sabha. **State legislatures do not participate** in the election of the Vice-President.

Implications of the Resignation:

- **Disruption in Parliamentary Leadership:** Absence of the ex-officio Chairman of Rajya Sabha affects the smooth conduct of House proceedings.
- **Delay in Succession:** Since no time limit exists, the post may remain vacant for an uncertain period, affecting institutional continuity.

Role as Chairman of the Rajya Sabha

- **Presiding Over the House:** The Vice-President, as ex-officio Chairman (Article 64), presides over Rajya Sabha sessions, ensures order, and facilitates debate. Being a non-member, they must maintain neutrality.
- **Maintaining Discipline and Order:** Under Rule 256, the Chairman can suspend members for misconduct, expunge unparliamentary remarks, and adjourn or suspend the House if needed.
- **Casting Vote and Interpretation of Rules:** The Chairman does not vote ordinarily but may cast a deciding vote in a tie (Article 100).
  - They interpret procedural rules and settle points of order.
- **Referral to Committees:** Bills and motions may be referred by the Chairman to Standing or Select Committees for detailed examination before final House debate.
- **Administrative and Ceremonial Duties:** The Chairman oversees the Rajya Sabha Secretariat, administers oaths to new members, and represents the House in official functions.
- **Limitations Compared to Lok Sabha Speaker:** The Chairman cannot preside over joint sittings (Article 108), certify Money Bills (Article 110), or take part in budget-related proceedings.
- **During Presidential Vacancy or Absence:** When acting as President under Article 65, the Vice-President ceases Rajya Sabha duties. The Deputy Chairman presides during this period.

Criticism of the Post of Vice-President

- **Largely Ceremonial Role** Despite being the second-highest constitutional authority, the Vice-President has **no real executive power**. Except for presiding over the Rajya Sabha and acting as President during a vacancy, the role is mostly **symbolic and limited in impact.**
- **No Defined Role in Governance** Unlike the U.S. Vice-President, who is part of the executive, India's Vice-President is **excluded from the decision-making process** in the Union government, **lacking ministerial or administrative responsibilities**
- **Infrequent Exercise of Presidential Duties** The constitutional provision of the Vice-President acting as President during a vacancy is **rarely invoked**, making that aspect of the role **mostly theoretical.**
- **Limited Influence in Rajya Sabha** Though the Vice-President is the ex-officio Chairman of the Rajya Sabha, their role is **restricted to procedural matters**.
  - They cannot vote (except in a tie), introduce legislation, or influence the House's agenda significantly.

VICE-PRESIDENT OF INDIA vs UNITED STATES

Feature	India	United States
Presiding Role	Serves as the **ex-officio Chairman of the Rajya Sabha** (Upper House). Presides over its sessions and ensures order but is **not a member** of the House.	Serves as the **President of the Senate** (Upper House). Participates in Senate proceedings and is a **constitutional member.**
Voting Power	Has **no vote** in regular proceedings; may cast a **deciding vote in case of a tie** (Article 100).	May cast a **tie-breaking vote** in the Senate but otherwise does not vote. This has occasionally shaped key legislative decisions.
Succession to the President	In case of a vacancy in the office of the President, **acts as President for up to 6 months** until a new President is elected (Article 65).	In the event of a presidential vacancy, **immediately assumes the office of the President** and serves the **remainder of the term.**
Executive Role	Has a **mostly ceremonial role**, limited to presiding over the Rajya Sabha and acting as President during emergencies. Not part of the Cabinet or executive decision-making.	Is an **integral part of the executive branch**, often holds **specific policy portfolios**, advises the President, and can play a key role in governance.
Removal Process	Can be **removed by a resolution of the Rajya Sabha** with an effective majority and approval by the Lok Sabha with a simple majority.	Can be **impeached by Congress** for "treason, bribery, or other high crimes and misdemeanors."
Election Mechanism	Elected **indirectly** by members of both Houses of Parliament through **proportional representation.**	Elected jointly with the President through direct nationwide elections via the Electoral College.

NATIONAL SPORTS POLICY 2025

The Union Cabinet chaired by the Prime Minister Narendra Modi approved the National Sports Policy (NSP) 2025.

Historical Evolution of Sports in India:

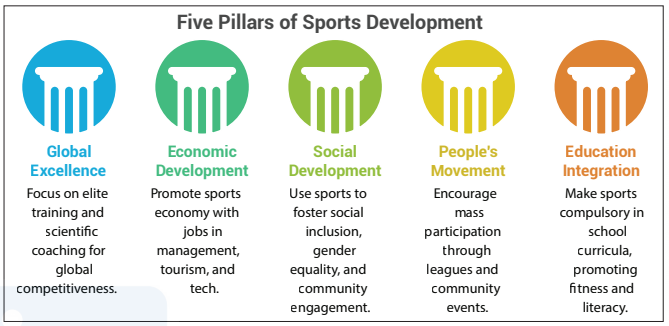
- **Harappan Civilization:** Archaeological finds from sites like Mohenjo-daro and Harappa, including terracotta figurines of wrestlers and dice, indicate that wrestling, hunting, and board games like dicing were popular forms of both recreation and physical training in daily life.
- **Vedic Period:** Vedic texts such as the Rigveda and Mahabharata mention archery, chariot racing, and martial duels, highlighting how these activities were not only sports but also integral to warrior training and cultural rituals in early Indo-Aryan society.
- **Post-Independence Scenario:** After **1947**, sports remained a **low priority** due to urgent national concerns like poverty eradication, education, and health. However, India did host the **first Asian Games in 1951** and set up the **All-India Council of Sports in 1954**, marking initial steps in sports governance.
- **1982 Asian Games Breakthrough:** The **1982 Asian Games in Delhi** became a watershed moment, prompting the creation of a **dedicated Department of Sports** and leading to India's **first National Sports Policy in 1984**, which emphasized infrastructure development, mass participation, and elite training.
- **Institutional Development:** The **Sports Authority of India (SAI)** was established in **1986** to professionalize sports administration and provide structured training for athletes.
- **Economic Liberalization Impact:** Post **1991 liberalization**, India saw increased public interest and investment in sports, but a **Draft NSP in 1997** recommending grassroots focus and elite development was never implemented.
- **Revised NSP 2001 and Later Initiatives:** The **2001 NSP** focused on mass participation and performance enhancement, but governance issues persisted. Reforms like the **National Sports Development Code (2011)** and programs such as **TOPS (2014)**, **Khelo India (2017)**, and the **Fit India Movement (2019)** played crucial roles in improving the sports framework.

National Sports Policy (NSP) 2025

- **Policy Replacement:** NSP 2025 replaces the 2001 policy, aiming to transform India into a global sporting powerhouse, targeting the 2036 Olympics.
- **Consultative Approach:** It is formulated through consultations with Central and State Governments, NSFs, athletes, experts, and the public.

Provisions of NSP 2025:

- **Infrastructure Development:** Build world-class infrastructure, including sports complexes, academies, and rural sports centers.
- **Athlete Welfare and Support:** Provide healthcare, insurance, mental health care, and career support for athletes.
- **Sports Governance Reforms:** Implement transparent governance and performance-based accountability for sports federations.



- **Inclusivity and Gender Equity:** Ensure equal opportunities for women, transgender persons, and para-athletes, with safe sports environments.
- **Technology Integration:** Promote AI, data analytics, and wearable technology for athlete training and injury prevention.
- **Private Sector Participation & CSR:** Facilitate PPPs and encourage CSR funding for grassroots sports and infrastructure.
- **Para & Indigenous Sports Promotion:** Support para-athletes and revive traditional sports to preserve cultural heritage.
- **Monitoring & Evaluation:** Use digital dashboards and audits for real-time tracking of policy implementation.
- **International Collaboration:** Partner with global sports bodies for knowledge exchange, training, and athlete development.

Challenges in India's Sports Ecosystem:

- **Low Budget Allocation:** Despite growing ambitions, India's spending on sports remains below **0.1% of GDP**, significantly less than global sporting nations.
- **Fragmented Governance:** With sports being a **State subject**, there is a lack of uniformity and coordination between Central and State governments, leading to **policy disjointedness**.
- **Inadequate Infrastructure:** Many parts of the country lack **basic sports infrastructure**, including training facilities, stadiums, and support systems, particularly in rural and semi-urban regions.
- **Shortage of Scientific Coaching:** There is a critical gap in **qualified coaches, sports science experts, and physiotherapists**, limiting athlete development and performance optimization.
- **Weak Talent Identification Systems:** India lacks a **robust grassroots talent scouting mechanism**, resulting in the loss of potential sports talent, especially in remote and tribal areas.

- **Sports Governance Issues:** The **politicization of sports federations**, lack of professionalism, and reluctance to adopt the **Sports Development Code** continue to hinder reforms.
- **Socio-Cultural Barriers:** Sports are still seen as **extracurricular activities** rather than serious career options, especially for women, rural youth, and marginalized communities.
- **Health and Nutrition Deficiencies:** Many athletes face **poor access to nutrition, sports medicine, and psychological support**, impacting their long-term development.
- **Lack of Private Sector Engagement:** Despite policy frameworks, **corporate investments and PPP models in sports infrastructure** remain underutilized.
- **Neglect of Para Sports: Athletes with disabilities face systemic neglect**, including lack of specialized training centers and support mechanisms.

Suggestions:

- **Increase Sports Investment:** India must **increase its sports budget to at least 1% of GDP**, focusing on both grassroots development and elite training.
- **Establish Grassroots Development Programs:** A **National Talent Search Grid** should be implemented, identifying and nurturing young talent from schools and rural areas.
- **Reform Governance Structures:** A **Unified National Sports Governance Framework** should be developed, ensuring transparency, accountability, and collaboration between all stakeholders.
- **Focus on Para Sports:** Allocate specific resources for **divyang athletes**, including accessible infrastructure and specialized coaching.
- **Enhance Scientific Training:** Create a **National Institute of Sports Sciences and Coaching**, integrating **data analytics, biomechanics, and injury management** into regular training.
- **Integrate Sports into Education:** Make **sports and physical education compulsory in schools**, with credit systems aligned to the **National Education Policy 2020**.
- **Leverage Technology and AI:** Use **wearable devices, AI-based analytics, and virtual reality tools** to monitor performance and prevent injuries.
- **Expand Private Sector Participation:** Encourage **CSR initiatives, sponsorships, and Public-Private Partnerships** to develop world-class sports infrastructure and leagues.
- **Build a Sports Culture:** Launch **nationwide awareness campaigns** to instill the idea of sports as a **national mission**, not just recreation, fostering community-level engagement and pride.

INITIATIVES IN OTHER COUNTRIES TO PROMOTE SPORTS

Country	Initiative	Year/Period	Key Features	Objective
China	National Fitness Program	Since 1995	Mass campaigns promoting physical activity; public sports infrastructure in urban and rural areas	Promote nationwide fitness and reduce lifestyle diseases
	Gold Medal Strategy	Post-1980s	Centralized training for elite athletes; focus on Olympic and international medal performance	Enhance China's global sports dominance
	Campus Football Development Plan	2015 onwards	Introduced football in 50,000+ schools; training of coaches; collaboration with European clubs	Grassroots football talent development
France	Plan Héritage Paris 2024	2018 onwards	Linked to Paris 2024 Olympics; focuses on youth engagement, sports access, and sustainability	Leverage Olympics to boost participation and infrastructure
	Sport-Santé Program	Since 2012	Prescribes physical activity as part of healthcare; partnership between doctors and sports clubs	Integrate sports into preventive healthcare
	CNDS (National Sports Development Centre)	2006–2019 (merged later)	Funded local clubs and infrastructure; promoted sports in underserved areas	Democratize access to sports across regions
USA	Title IX	1972	Legal framework ensuring gender equality in educational and athletic opportunities	Promote gender parity in school and college sports
	U.S. Center for SafeSport	2017	Independent body addressing abuse, misconduct, and athlete protection	Ensure safety and accountability in sports
	National Youth Sports Strategy	2019	Launched by HHS; research-driven strategy for inclusive, accessible youth sports	Expand safe and inclusive sports participation for all youth

PHONE TAPPING AND RIGHT TO PRIVACY

The Madras High Court refused to expand the scope of Section 5(2) of the Indian Telegraph Act of 1885, and permit the Central and State governments to resort to phone tapping as a covert measure to detect crimes.

About

- Phone tapping refers to the **interception of telephone conversations** by a third party, often by government agencies, to gather information.
- It is a form of surveillance and, if misused, **can violate individual privacy and constitutional rights.**

Legal Framework in India

- **Indian Telegraph Act, 1885 – Section 5(2):** Allows th**e Centre or State to intercept messages on two grounds:** Public emergency and Public safety.
  - Requires recording of reasons in writing and a formal authorization.
  - Must be reviewed by a **Review Committee** (as per Telegraph Rules and Supreme Court guidelines).
- **Indian Telegraph (First Amendment) Rules, 1999:** In pursuance of the PUCL judgment, the Government of India framed rules to provide a statutory backing to the safeguards laid down by the Supreme Court.
  - These rules regulate the procedures for interception, and define authorities, duration, and review mechanisms for lawful interception under the Indian Telegraph Act.
- **Information Technology Act, 2000 – Section 69:** Similar rules were framed under the Information Technology Act, 2000 in 2009.
  - These govern the interception of electronic communication such as emails, chats, and online data.
  - **The 2009 IT Rules mirror the principles laid down in the PUCL judgment, ensuring:** Authorization by a competent authority, defined time limits, strict purpose limitation, and oversight by a Review Committee.

Concerns with Phone Tapping

- **Violation of Fundamental Rights:** Phone tapping directly infringes the Right to Privacy, which is part of Article 21 of the Constitution as held in the K.S. Puttaswamy (2017) judgment.
- **Vague and Broad Legal Grounds:** The terms "public emergency" and "public safety" in Section 5(2) of the Telegraph Act, 1885 are not clearly defined, making them prone to subjective interpretation and misuse.
- **Inadequate Procedural Safeguards:** Though PUCL guidelines exist, implementation is inconsistent, orders are often issued without urgency or public interest justification.
- **Absence of Data Protection Law:** India lacks a comprehensive data protection framework, though the Digital Personal Data Protection Act, 2023 has been introduced.
  - In the absence of specific safeguards for surveillance, citizens' data and communications remain vulnerable.
- **Technological Challenges:** Advancements in technology make mass surveillance easier, and interception can be conducted without leaving any trace or audit trail.

SC Guidelines under the PUCL v. Union of India (1996):

It is the first major judgment **linking phone tapping to the right to privacy.**

The Supreme Court issued procedural safeguards:

- **Approval:** Only by Home Secretary or the Home Secretary of the concerned State Government.
- **Time Limit for Validity of Order:** The order for interception shall cease to be valid after **two months** from the date of issue unless it is renewed.
  - Even if renewed, no order can remain in force **beyond six months** in total.
- **Destruction of Intercepted Material:** All copies of intercepted communication must be destroyed as soon as their retention is no longer necessary under the terms of Section 5(2).
- **Delegation in Urgent Cases:** In urgent cases, the power of authorization may be delegated to an **officer not below the rank of Joint Secretary** in the Home Department of either the Central or State Government.
- **Formation and Role of Review Committee:** The Court mandated the constitution of a Review Committee at both the Central and State levels:
- **Functions of the Review Committee:** The Committee must review all interception orders within two months of issuance.
  - If the Committee finds that the interception was not in accordance with Section 5(2), it shall declare the order as invalid, and direct destruction of all intercepted material collected under that order.

K.S. Puttaswamy *vs* Union of India (2017)

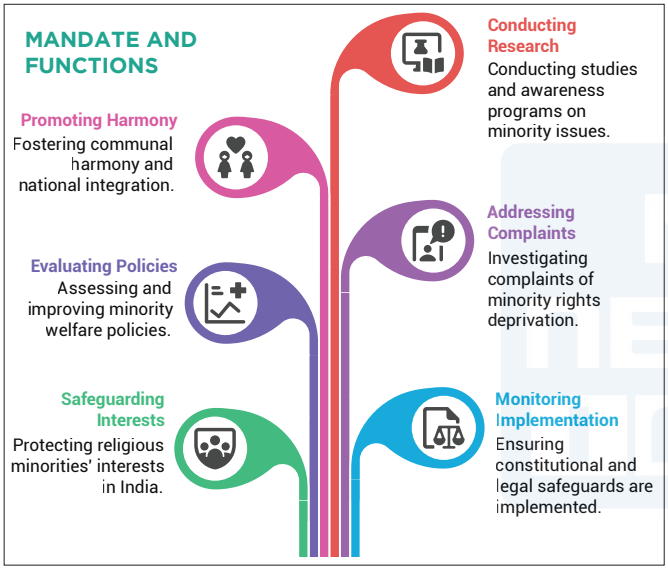
- Supreme Court declared **right to privacy** as a fundamental right.
- **Article 21 of the Constitution** guarantees right to life and personal liberty, under which the right **to privacy has been read in.**
- **Any infringement must satisfy the 3-fold test:** Legality (sanctioned by law), Necessity (for a legitimate aim), and Proportionality (least restrictive means).

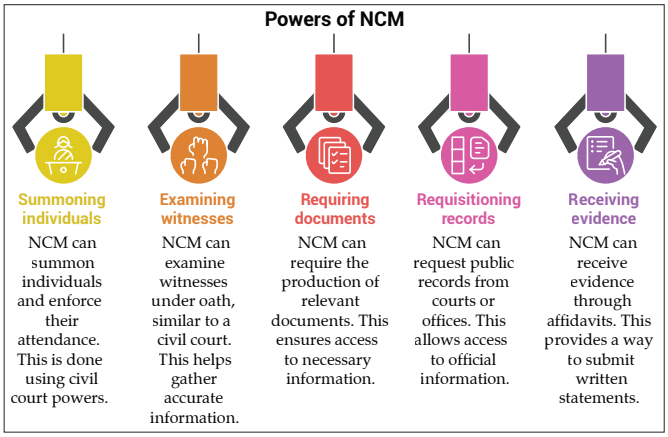
NATIONAL COMMISSION FOR MINORITIES

The National Commission for Minorities (NCM) has been non-functional since April 2025 due to the retirement of its Chairperson.

About

- **Statutory Body:**
  - Established under the **National Commission for Minorities Act, 1992**.
  - Derives authority from **Section 2(c)** of the Act, empowering the government to notify religious minorities.
- **Notified Minority Communities (as of now):**
  - **Muslims**, **Christians**, **Sikhs**, **Buddhists**, **Parsis (Zoroastrians)**, and **Jains** (Jains were added in **2014**).





- **Composition:**
  - **Chairperson**, **Vice-Chairperson**, and **5 Members**.
  - At least **5 out of 7** members, including the Chairperson, must belong to **minority communities**.
  - **Appointment:** By the **Central Government**.
  - **Tenure:** 3 years, eligible for reappointment.
- **Legal and Constitutional Basis:**
  - Works to uphold **Article 14 (Equality before law)**, **Article 15 (Prohibition of discrimination)**, **Article 16 (Equal opportunity)**, **Article 25-28 (Religious Freedom)**, **Article 29-30 (Cultural and Educational Rights)**.
  - Operates within the framework of the **Indian Constitution**, various **welfare schemes**, and **minority rights protections**.
  - **Headquarters:** New Delhi.
- **Key Initiatives:**
  - **Annual Reports:** Submitted to the President and tabled in Parliament.
  - **Monitoring of schemes:** Such as the **Prime Minister's 15-Point Programme**, scholarships, skill development schemes, and Waqf property management.

Significance of NCM

- **Safeguards Minority Rights:** Acts as a watchdog for **secularism and minority protection** under **Article 29 and 30**.
- **Advisory Role:** Advises the government on **policy matters** affecting minorities.
- **Conflict Resolution:** Helps address issues related to **communal harmony and religious discrimination**.
- **Data Collection:** Gathers data on the status of minorities for **policy formulation**.

Issues with NCM

- **Non-Functional Status:** Chairperson post vacant since **April 2025**, leading to a **paralysis of functioning**.
- **Limited Powers:** Cannot enforce its recommendations; only advisory role.
- **Overlap with other Bodies:** Similar functions to the **NHRC** and other commissions, causing jurisdictional confusion.
- **Lack of Diversity:** Under-representation of smaller minority communities.
- **No Grievance Redressal Mechanism:** No statutory mechanism for **penalty or action** in case of non-compliance with NCM findings.

Way Forward

- **Filling Vacancies Promptly:** Ensure **timely appointment** of Chairperson and Members.
- **Strengthen Legal Powers:** Give NCM **binding authority** in cases of minority rights violations.
- **Expand Jurisdiction:** Include **linguistic minorities** or provide clarity on its mandate.
- **Institutional Reforms:** Modernise data systems, grievance redressal, and proactive monitoring.

CHINESE PRESENCE IN INDIAN OCEAN REGION (IOR)

The Parliamentary Standing Committee on External Affairs has highlighted that China's expanding strategic presence in the Indian Ocean Region is a challenge for India.

Major Highlights of the Report

- **Massive Infrastructure Push:** China's Belt and Road Initiative (BRI) focuses on building **ports, airports, highways, and logistics hubs** across the IOR, often creating long-term dependencies.
- **Dual-Use Infrastructure:** Many of these projects have both **civilian and military applications**, enabling China to project power under the guise of economic development.
- **Debt Dependency:** Several small nations in the IOR, such as **Sri Lanka, Maldives, and Djibouti**, have been pushed into unsustainable debts, giving China **leverage over their strategic assets**.
- **Increased Naval Deployments:** China has steadily increased the **frequency and duration of its naval patrols** in the IOR, signaling long-term strategic ambitions.
  - **Djibouti Military Base (2017):** China's first overseas military base at **Djibouti** allows it to **support naval operations and protect its maritime interests** in Africa and beyond.
- **Support at Chokepoints:** China has developed or financed infrastructure at critical points like the **Strait of Hormuz, Bab el-Mandeb, and Gwadar**, aiding **logistics for PLAN (People's Liberation Army Navy)** vessels.
- **Deployment of Research Vessels:** Chinese "research ships" frequently operate in the IOR, collecting **hydrographic and oceanographic data** under the pretext of scientific exploration.
- **Strategic Risks:** Such data is crucial for **submarine deployment, anti-submarine warfare, and mapping underwater topography**, posing direct threats to India's **Underwater Domain Awareness (UDA)**.
- **Port Expansion in Littoral States:** China is involved in building ports like **Hambantota (Sri Lanka), Kyaukphyu (Myanmar), and Gwadar (Pakistan)**. These ports are located near **India's maritime boundaries**.
- **Long-Term Maritime Ambitions:** These investments are aligned with China's **goal of becoming a leading maritime power**, ensuring access to naval bases in the future.

Key Drivers of the IOR's Strategic Revival

- **Rise of New Economies:**
  - The **economic rise of India, China, ASEAN nations, and East Africa** has revitalized trade routes in the IOR.
  - The region is becoming a **hub for global energy trade, container shipping, and supply chain diversification**.
- **Maritime Security Threats:**
  - **Piracy near the Horn of Africa**, especially off Somalia, has threatened global shipping, prompting **multinational naval patrols and anti-piracy operations**.
  - The rise of **non-traditional threats** like illegal fishing, maritime terrorism, and trafficking has further heightened security concerns.
- **Indo-Pacific Construct:**
  - The **Indo-Pacific framework** merges the Indian and Pacific Oceans into a **single strategic continuum**, making the IOR central to global maritime policy.
  - This **geopolitical reimagination** has placed the IOR at the core of **regional security dialogues and diplomatic engagements**.
- **Sea Lines of Communication (SLOCs):**
  - The IOR hosts some of the **world's busiest shipping lanes**, carrying **over 80% of global oil shipments** and a significant portion of merchandise trade.
  - Ensuring the **security of SLOCs** is crucial for global economic stability.
- **Control Over Strategic Chokepoints:**
  - The IOR contains **vital chokepoints** such as the **Strait of Hormuz, Strait of Malacca, and Bab el-Mandeb**, which are essential for energy and trade flow.
  - These chokepoints are focal points for **military posturing, surveillance, and logistical operations**.
- **Energy Security and Trade:**
  - The IOR is a **lifeline for global energy supplies**, especially for East Asia, making it pivotal for **oil and LNG transport from the Gulf and Africa**.
  - Control over the IOR ensures **economic influence over global trade patterns**.
- **Blue Economy and Resource Potential:**
  - The IOR offers vast opportunities for **blue economy development**, including **fisheries, seabed mining, offshore energy, and marine biotechnology**.
  - Sustainable management of **marine resources** is becoming a regional priority.
- **Climate Change and Disaster Management:**
  - The region is prone to **cyclones, rising sea levels, and coastal degradation**, making **climate resilience and disaster response cooperation** essential.
  - The IOR is becoming a platform for **regional environmental governance and cooperation**.

India's Strategic Responses

- **First Responder Leadership:** India is the **first responder in the IOR** for disaster relief, positioning itself as a **trusted humanitarian and security partner**.

- **MAHASAGAR Initiative:** India launched **MAHASAGAR** to promote **Mutual and Holistic Advancement for Security and Growth for All in the Region**, aligning with its **SAGAR vision**.
- **Necklace of Diamond Strategy:** India counters China's ***"String of Pearls"*** by creating a ***"Necklace of Diamonds"***—strategic bases and partnerships in Seychelles, Oman, Mauritius, and Indonesia.
- **Quad and Multilateral Partnerships:** India now **actively partners with like-minded countries** (e.g., US, Japan, Australia, France) to ensure a **free, open, and inclusive Indo-Pacific.**
- **Act East Policy:** India's **Act East Policy** deepens engagement with ASEAN and East Asia, linking the **Indian Ocean Region to the broader Indo-Pacific.**
- It enhances **economic, strategic, and security cooperation**, making the IOR central to India's maritime diplomacy.
- **Naval Modernisation:** India is **building indigenous warships** like **INS Visakhapatnam**, boosting **blue-water navy capabilities**.
- **Enhanced Maritime Domain Awareness (MDA):** Deployment of **P-8I aircraft, coastal radar networks, satellites, and UAVs** strengthens India's **real-time monitoring of the IOR**.
- **Security & Development Balance:** India combines **hard power (navy) with soft power (development aid, training, connectivity projects)** to create a **comprehensive regional engagement model**.
- **Defence Indigenisation & Export Push:** Through **Atmanirbhar Bharat**, India promotes **self-reliant defence production and exports**, becoming a **net security provider** in the region.

Way Ahead

- **Expand Defence Diplomacy:** Sign more **logistics and base-sharing agreements** with IOR nations to ensure **access to key ports and refueling stations**.
- **Strengthen Underwater Domain Awareness (UDA):** Invest in **deep-sea sensors, seabed mapping, and anti-submarine capabilities** to secure the **sub-surface dimension of maritime security**.
- **Enhance Blue Economy Cooperation:** Lead regional efforts in **sustainable fisheries, marine biotechnology, and ocean renewable energy**, promoting **shared prosperity**.
- **Establish a Maritime Innovation Hub:**Create a **regional centre for maritime technology, AI in naval operations, and green shipping**, positioning India as a **maritime tech leader**.
- **Institutionalize a Security Dialogue:** Launch a **dedicated Indian Ocean Security Forum (IOSF)** to coordinate **maritime security, counter-piracy, and disaster management** efforts with IOR littoral states.

STRING OF PEARLS STRATEGY (CHINA)

- **Maritime Encirclement:** It refers to China's strategy of developing a network of commercial and military bases across the Indian Ocean to secure its energy routes and expand influence.
- **Strategic Objective:** Aims to protect China's sea lines of communication (SLOCs) and project naval power, while indirectly encircling India.

NECKLACE OF DIAMONDS STRATEGY (INDIA)

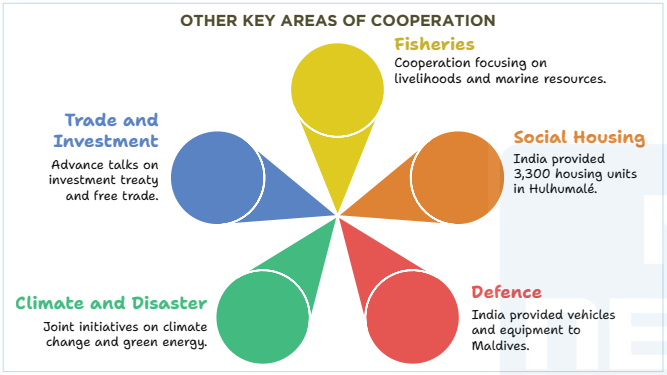
- **Counter-Encirclement:** India's strategy to counter China's String of Pearls by strengthening ties and military presence in key maritime locations across the Indian Ocean.
- **Strategic Aim:** Seeks to ensure freedom of navigation, safeguard Indian maritime interests, and maintain regional stability in the Indo-Pacific.

INDIA-MALDIVES RELATIONS

Indian Prime Minister Narendra Modi visited the Maldives on July 25–26, 2025, to celebrate the island nation's 60th Independence Day and mark the 60th anniversary of diplomatic ties

Recent Developments and Key Agreements

- **Debt Restructuring:** India has agreed to reduce Maldives' annual debt repayment obligations by 40%, easing fiscal pressure.
- **Line of Credit:** A ₹4,850 crore line of credit has been extended by India to support infrastructure projects aligned with the Maldives' national development priorities.
- **Digital Payment Integration:** The two nations agreed to integrate UPI and RuPay platforms, promoting digital financial connectivity and local currency trade.



Significance of the Relationship

- **Geo-Political Ties:** India was among the **first countries to recognize Maldives** after its independence in 1965 and established diplomatic relations the same year.
  - Ties further deepened in **1988 during Operation Cactus**, when Indian Armed Forces swiftly intervened to **foil a coup attempt** against then-President Maumoon Abdul Gayoom, showcasing India's role as a dependable regional security provider.
- **Geostrategic Importance:** The Maldives is located at the **crossroads of major sea lanes** in the central Indian Ocean.
  - Its position makes it a strategic "**toll gate**" — a maritime checkpoint of influence through which global shipping and energy supplies pass.
  - Control or partnership with Maldives provides leverage over **Critical Sea Lines Of Communication (SLOCs)** that connect the Persian Gulf to Southeast Asia.
  - **Geostrategic Anchor in Indian Ocean Region:** The Maldives is central to India's maritime diplomacy and security calculus.
  - It enables India to **counterbalance China's growing influence**, particularly under the **"String of Pearls"** strategy.
  - Maldives also supports India's role in multilateral platforms like **CSC (Colombo Security Conclave)**, **Indian Ocean Rim Association (IORA)**, **SAARC**, and backs India's **UNSC permanent membership** bid.

COLOMBO SECURITY CONCLAVE (CSC)

- It is a 'minilateral' security group that was established in 2011, comprising India, Sri Lanka, and the Maldives, expanded its membership to include Mauritius at its fifth national security advisers meeting.
- Bangladesh and Seychelles, present as observers, received invitations to join the group.
- This forum, at the National Security Advisor (NSA)-level, aims to enhance security in the Indian Ocean region.

- **Geo-Economic:** India is one of the Maldives' top development and trade partners, focusing on infrastructure, connectivity, and high-impact community projects (HICPs).
  - **Major initiatives include:** ***Greater Malé Connectivity Project*** (largest Indian grant-based project in the Maldives)

Greater Malé Connectivity Project

A catalyst for the Maldivian economy

- Largest ever infrastructure project in Maldives
- Funded by USD 400 million LoC & USD 100 million special GoI grant
- Connects capital Malé to Villingili island, Gulhifalhu port & Thilafushi industrial zone through bridges, causeways & roads.

- **Security and Defence Cooperation:** India fulfills over 70% of the Maldives National Defence Force (MNDF)'s training requirements, and has provided naval vessels, surveillance equipment, and joint operational support.
  - Regular joint exercises include **Dosti (coast guard), Ekatha (special forces), Operation Shield (maritime security)**, enhancing interoperability and regional security architecture under **SAGAR** vision.

- **Tourism and Connectivity:** India has consistently ranked as the **top source country for tourist arrivals** to the Maldives.
  - Bilateral agreements like the **Open Sky Agreement (2022)** have increased air connectivity.
  - India is also helping develop the **Hanimaadhoo International Airport**, projected to handle **1.3 million passengers annually.**

OPEN SKY AGREEMENT

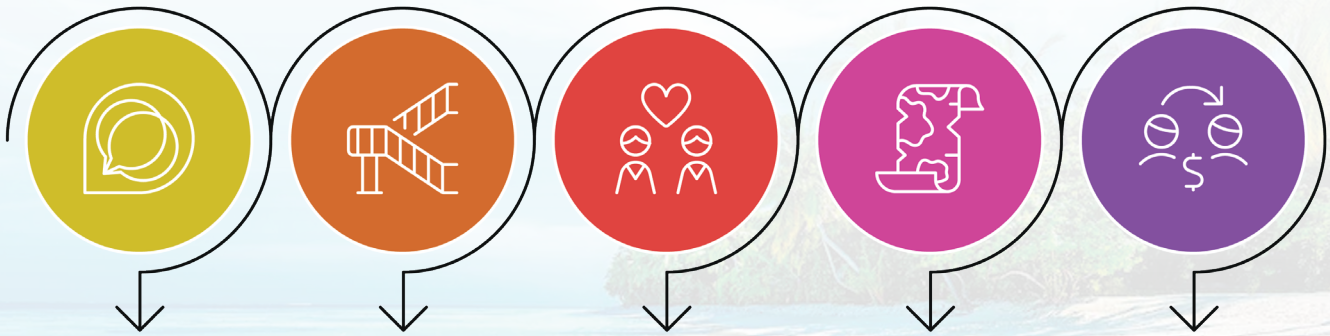
It is a negotiated bilateral agreement between two countries, aiming to grant airlines the rights to operate international passenger and cargo services, thereby facilitating the expansion of global flights for both passengers and cargo.

- **Digital and Financial Integration:** India has launched UPI and RuPay integration in the Maldives to strengthen digital connectivity, reduce dependency on hard currency, and enhance financial inclusion in remote islands.
- **Societal and Diaspora Linkages:** Approximately 25,000 Indians live and work in the Maldives, contributing to healthcare, education, hospitality, and governance sectors, creating strong people-to-people bonds.
- **Climate and Disaster Resilience Cooperation:** India supports Maldives in disaster risk reduction, climate adaptation, and renewable energy under the India-Maldives Climate and Disaster Resilient Infrastructure Partnership.

Challenges in India–Maldives Relations

- **Sovereignty Concerns and 'India Out' Campaign:** The domestic sentiment in Maldives, especially under certain political groups, views India's defence presence and developmental footprint as infringing on national sovereignty, leading to the **'India Out' movement.**
- **Rising Religious Radicalisation:** Maldives has witnessed an increase in **Islamist radicalisation**, with citizens joining extremist groups like **ISIS**.
  - This poses a **security threat** to India due to possible spillovers into the Indian Ocean region.
- **Growing Chinese Strategic Footprint:** Maldives' inclusion in **China's Belt and Road Initiative (BRI)** and its role in the **"String of Pearls"** has deepened Beijing's presence in the Indian Ocean, challenging India's maritime dominance.
- **Uncertain Political Climate:** Frequent political transitions and **shifting foreign policy alignments** in Malé create uncertainty for India. Pro-China regimes often **reverse or slow down Indian-backed projects.**
- **Infrastructure Project Delays:** India's large-scale projects like the **Greater Male Connectivity Project** often face execution delays, undermining India's image and giving China an edge with **faster delivery models.**
- **Diplomatic Sensitivities and Media Perception:** Incidents such as **negative remarks by Maldivian ministers or media against India or Indian tourists** strain public sentiment and diplomatic ties, requiring cautious and sensitive handling.

Way Forward



Diplomatic Dialogue
Maintain discussions with Maldivian governments, emphasizing projects for the people.

Project Completion
Finish important projects such as the Greater Male Connectivity Project.

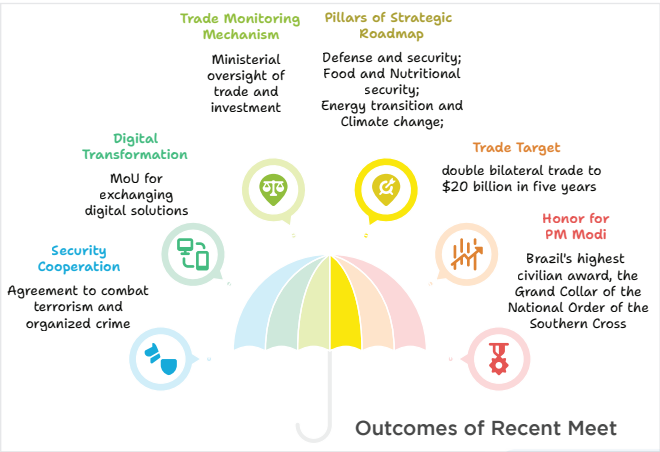
Youth Engagement
Focus on involving young people through HICPs to stop radicalisation.

Cultural Ties
Use Project Mausam to improve cultural connections and soft power.

Increase Aid
Provide more aid that helps Maldivian citizens to fight negative narratives.

INDIA–BRAZIL RELATIONS

Prime Minister Modi and Brazilian President held bilateral talks in Brasilia a day after the BRICS summit.



Significance

Geopolitical and Strategic Relations

- **Diplomatic Foundations:** India and Brazil established diplomatic ties in **1948** and became **Strategic Partners in 2006**. Both nations share a vision of **multipolarity, multilateralism, and Global South cooperation**.
- **Defence & Security Cooperation:** A **defence cooperation agreement (2003)** institutionalized ties via the **Joint Defence Committee (JDC)**.
  - The **Strategic Dialogue mechanism (2006)** addresses global and regional security concerns. Both countries also share agreements on **extradition, mutual legal assistance, and transfer of sentenced persons.**
- **Multilateral Cooperation:** Both countries coordinate in **BRICS, IBSA, G20, BASIC, G-4, and the International Solar Alliance**. They jointly advocate for **UNSC reforms** to reflect the aspirations of the **Global South**.

Geo-Economic and Trade Relations

- **Trade & Investment:** Brazil is **India's largest trading partner in Latin America**, with **bilateral trade at $12.2 billion (2024–25)**. India's exports stood at **$6.77 billion**.
  - A **Trade Monitoring Mechanism** helps address trade bottlenecks and enhance commercial ties.
- **Agriculture & Food Security:** India and Brazil, as **major agricultural producers**, collaborate on initiatives like the **Global Alliance Against Hunger and Poverty**, targeting **hunger eradication by 2030**.
- **Energy & Biofuels:** Both are **founding members of the Global Biofuels Alliance**, promoting **bioenergy solutions** for sustainable growth and climate mitigation.
- **Health Security:** Joint research in **vaccines and tropical diseases** strengthens **pharmaceutical cooperation and health sovereignty** in the Global South.
- **Technological Collaboration:** Cooperation in **AI, quantum technologies, and renewable energy** supports **technological self-reliance and innovation-led growth**.
- **Space Collaboration:** India and Brazil signed a **space cooperation agreement in 2004** and collaborate in **data sharing, satellite tracking, and peaceful use of outer space**.

Environmental and Climate Cooperation:

- **Climate Leadership at COP30:** India supports Brazil's role in **COP30**, emphasizing joint leadership on **tropical forest preservation and climate finance** through the **Tropical Forests Forever Fund (TFFF)**.

Historical and Cultural Ties:

- **South-South Solidarity:** India and Brazil share a long-standing bond rooted in **anti-colonial solidarity, NAM, and shared developmental priorities**.
  - Regular **cultural exchanges and people-to-people ties** further enrich the relationship.

Challenges:

- **Trade Deficit:** India's agri-imports and protectionism fuel imbalance with Brazil.
- **Strategic Focus:** Differing regional priorities limit strategic synergy.
- **Climate & Multilateral:** Divergent positions hinder global cooperation.
- **People-to-People:** Limited exchanges weaken bilateral understanding.
- **China's Influence:** China's lead in Brazil restricts deeper India ties.

Way Forward:

- **Economic Diversification:** Promote value-added trade and joint investments.
- **Third-Country Cooperation:** Collaborate in Africa and SIDS on key sectors.
- **Sectoral Cooperation:** Partner in biofuels, clean energy, and agri-tech.
- **People-to-People Ties:** Expand exchanges in education, tourism, and culture.
- **Strategic Engagement:** Boost defence ties and global forum coordination.
- **Tech Partnership:** Co-develop R&D, digital tech, and skill-building programs.

PARAKH RASHTRIYA SARVEKSHAN 2024

Parakh Rashtriya Sarvekshan 2024 (PARAKH RS), formerly known as the National Achievement Survey (NAS), released its findings in 2025.

About PARAKH RS:

- The Performance Assessment, Review, and Analysis of Knowledge for Holistic Development Rashtriya Sarvekshan (PARAKH RS) is India's national student assessment body under NCERT, mandated by the National Education Policy (NEP) 2020.
- **Objective:** To standardize learning assessments, measure learning outcomes, and guide evidence-based educational reforms.
- **Survey Coverage:** PARAKH RS assessed the performance of 21,15,022 children in Grades 3, 6 and 9 from 74,229 schools in 781 districts of the country in the following subjects:
  - Language and mathematics (for Grades 3, 6, and 9), the world around us (for Grades 3 and 6), and science and social science (for Grade 9).
  - As many as 2,70,424 teachers and school leaders responded through questionnaires.

Key Findings of Survey:

- **Grade-Wise Learning Outcomes**
  - **Grade 3:** Only **55% of students could order numbers up to 99**, indicating foundational numeracy gaps. **54% understood basic multiplication/division**, exposing early arithmetic weaknesses.
  - **Grade 6: 44% could identify environmental or social elements**, showing poor application skills. Only **38% could predict outcomes based on patterns**, reflecting low analytical abilities.
  - **Grade 9:** Only **45% understood the Constitution and national movement**, highlighting civic literacy gaps. **54% extracted key points from texts**, revealing comprehension and reasoning deficits.

PERFORMANCE OF STATES/UTS AND DISTRICTS

Entity Name	Top Performing States/UTs	Low Performing Districts
Location	Punjab, Kerala, Himachal Pradesh, Dadra & Nagar Haveli and Daman & Diu, Chandigarh	Sahebganj, Reasi, Rajouri, North, South, South West Garo Hills, Shi Yomi
Grade	Grade : Not Applicable	Grade: 3, 6, 9

Core Issues

- **Declining Learning Outcomes:** Competency drops significantly from primary to secondary levels, pointing to a systemic learning crisis.
- **Foundational Literacy and Numeracy (FLN) Deficiency:** Persistent gaps in early-grade reading, writing, and numeracy challenge the FLN goals of NEP 2020.
- **Regional Disparities and Learning Inequity:** Northeastern states like Meghalaya and Arunachal Pradesh lag significantly, widening the regional learning divide.
- **Public School Underperformance:** Government and government-aided schools perform poorly in mathematics and science, highlighting issues in teacher quality, resource availability, and classroom processes.
- **Learning Poverty and Dropout Risks:** Widening learning gaps by Grade 9 increase dropout risks and perpetuate social and educational inequality.
- **Lack of Competency-Based Learning:** Over-reliance on rote memorization persists, while critical thinking, problem-solving, and application remain underdeveloped.

Government Initiatives for Learning Improvement:

- **National Education Policy (NEP) 2020:** Focus on foundational literacy and numeracy by Grade 3 and promoting competency-based learning.
- **NIPUN Bharat Mission:** Aims for universal foundational literacy and numeracy by 2026–27 using activity-based learning and teacher training.
- **Samagra Shiksha Abhiyan:** An integrated school education scheme focusing on quality, access, and inclusion from pre-primary to Class 12.
- **Digital Learning & EdTech Tools:** Platforms like DIKSHA, PM e-Vidya, and SWAYAM provide e-content; TALA promotes AI-assisted learning assessments.

Way Forward:

- **Focused Remedial Interventions:** Implement bridge courses, targeted remediation, and customized learning materials for low-performing districts.
- **Teacher Capacity Building:** Conduct regular training focusing on competency-based teaching, technology integration, and outcome-based evaluations.
- **Strengthen NIPUN Bharat Execution:** Ensure rigorous localized implementation, particularly in tribal and backward districts.
- **Leverage District-Level Data for Action:** Use PARAKH data at local levels for micro-planning and targeted interventions.
- **Assessment Reforms:** Transition from rote-based tests to competency-driven evaluations in line with NEP 2020.
- **Monitor and Reduce Learning Inequities:** Design programs to close regional, gender, and socio-economic learning gaps for inclusive education.

CIMMYT'S FINANCIAL CRISIS: AN OPPORTUNITY TO REPAY DEBT

The International Maize and Wheat Improvement Center (CIMMYT) is currently under financial constraint due to the closure of USAID and is looking for financial aid from India.

About

- **The United States Agency for International Development (USAID)**, the global aid arm of the US, used to contribute around 40% of CIMMYT's annual budget, for example in 2024 USAID bore $83 million of CMMYT's $211 million annual budget.
- USAID ceased to function post 1st July 2025,after Trump's decision to abandon it, thus institutions word-wide dependent on its aid have come under financial constraint,CIMMYT being the prominent.

CIMMYT

Focus
Agricultural research and development for maize, wheat, and related crops in the Global South.

Headquarters
Texcoco, Mexico

Founding
Officially in 1966, evolved from a Rockefeller Foundation project with Mexican government support in the 1940s-50s.

Key Contributions
Pivotal role in the Green Revolution in Asia led by Dr. Norman Borlaug.

Organization Type
Non-profit international organisation.

Why India?

- India has been on the forefront in receiving cutting edge technology and innovation in the field of Agriculture and reaped the benefits in the form of the **Green Revolution** in 1960's.
- **High-yielding, semi-dwarf wheat** varieties such as ***Lerma Rojo 64A***, ***Sonora 64***, and ***Mayo 64***, which played an instrumental role in the Green Revolution were developed by CIMMYT.
- Indian scientists in collaboration with CIMMYT created ***Kalyan Sona (1967), Sonalika (1968), and later PBW 343 (1995).***
- Wheat crop yield initially increased from **1–1.5 tonnes/hectare** to **4–4.5 tonnes/hectare** and later **7 tonnes/hectare.**
- It thus turned India from food scarce, famine prone nation-dependent on international food aids like **PL-480 of US**, to food secure and net exporter of food today.
- Even till recently,six out of the top 10 wheat varieties, accounting for over 20 mh out of the roughly 32 mh area sown by Indian farmers in 2024-25, were directly released from CIMMYT material.

India's Opportunity and Responsibility

- Despite immense gain from CIMMYT's research and co-operation India's financial contribution to CIMMYT has been abysmal for example **India contributed just $0.8 million to CIMMYT** in 2024.
- The imminent financial crisis at CIMMYT has presented India a historic opportunity, to repay the debt owed to an institution that helped achieve India's food security.
- Thus, it is India's moral responsibility to grab this opportunity and repay the gratitude towards the Institute that helped it sustain such an immense population and turn into a global granary.

Green Revolution: Its Legacy

- The Green Revolution (term coined by *William S. Gaud*) in India, launched in the 1960s, was a transformative agricultural movement aimed at boosting food production to address hunger and poverty.
- It introduced High-Yielding Variety (HYV) seeds, chemical fertilisers, pesticides, and modern irrigation techniques, particularly for wheat and rice.
- Spearheaded by scientists like M.S. Swaminathan and supported by government policies, it significantly increased agricultural output, making India self-sufficient in food grains by the 1970s.

Key Features of the Green Revolution

- **High-Yielding Seeds:** HYV seeds, especially for wheat and rice, were developed to increase crop yields. These seeds responded well to fertilizers and irrigation.
- **Chemical Inputs:** Widespread use of fertilisers and pesticides to enhance productivity.
- **Irrigation:** Expansion of irrigation systems, including tube wells and canals, to ensure water availability.
- **Mechanisation:** Introduction of tractors, harvesters, and other machinery to modernise farming.
- **Government Support:** Policies like subsidies for inputs, Minimum Support Prices (MSP) for crops, and investment in agricultural research facilitated adoption.

Achievements

- **Food Security**: India transitioned from food scarcity and reliance on imports (e.g., PL 480 wheat from the U.S.) to self-sufficiency. By the 1980s, food grain production doubled, with wheat production rising from 10 million tonnes in 1964 to 26 million tonnes by 1971.
- **Economic Growth**: Increased agricultural output boosted rural incomes and reduced poverty in some regions, particularly in Punjab, Haryana, and western Uttar Pradesh.
- **Technological Advancement**: The revolution popularised modern farming techniques and established institutions like the Indian Agricultural Research Institute (IARI).

- **Export Growth**: Surplus production enabled India to export certain agricultural products, strengthening the economy.

Legacy and Long-Term Impacts

The Green Revolution left a lasting mark on Indian agriculture and society, but its legacy is a mix of successes and challenges:

Positive Impacts

- **Sustained Food Security:** India's food grain production grew from 72 million tonnes in 1965-66 to over 300 million tonnes by 2020, ensuring a buffer against famines.
- **Agricultural Modernisation:** It laid the foundation for mechanised farming and scientific agriculture, with institutions like IARI and agricultural universities driving innovation.
- **Rural Development:** Regions like Punjab and Haryana became agricultural powerhouses, with improved infrastructure and higher rural incomes.
- **Global Influence:** India's success inspired other developing nations to adopt similar strategies for agricultural growth.

Negative Impacts

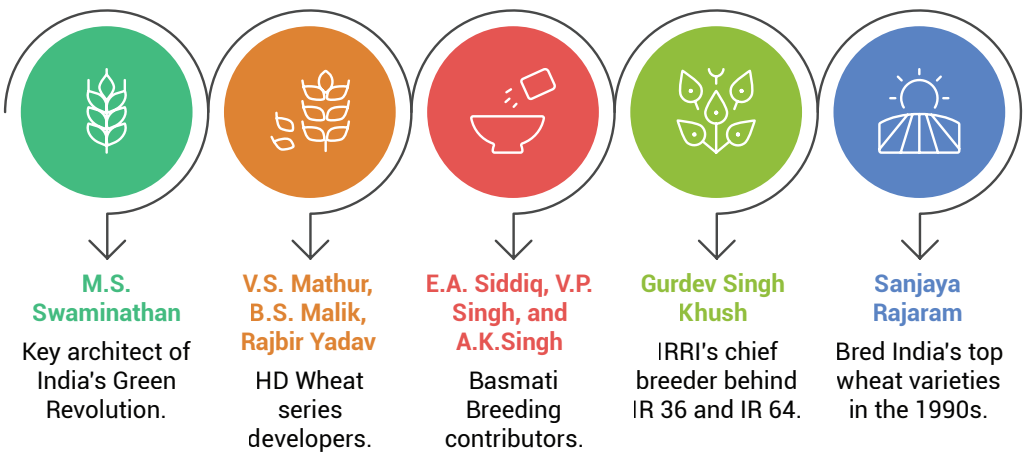
- **Environmental Degradation:**
  - ***Soil Depletion:*** Intensive use of chemical fertilisers and mono-cropping reduced soil fertility over time.
  - ***Water Scarcity:*** Over-reliance on groundwater for irrigation led to depletion of water tables, especially in Punjab and Haryana.
  - ***Pesticide Pollution:*** Excessive pesticide use harmed ecosystems, contaminated water sources, and affected human health.
- **Regional Disparities:** The revolution primarily benefited regions with good irrigation and infrastructure (e.g., Punjab, Haryana), while rain-fed areas like Bihar and eastern India saw limited gains, widening regional inequalities.
- **Economic Inequality:** Large farmers with access to capital benefited more than small and marginal farmers, exacerbating rural income disparities.
- **Monoculture Risks:** Focus on wheat and rice reduced crop diversity, making farmers vulnerable to market and climate risks.
- **Health Concerns:** Overuse of chemicals has been linked to health issues, including cancer spikes in regions like Punjab, often called the ***"cancer belt".***
- **Sustainability Issues:** The input-intensive model is resource-heavy, raising concerns about long-term sustainability in the face of climate change.

Current Relevance and Future Directions

- The Green Revolution's legacy continues to shape Indian agriculture. While it achieved food security, the environmental and social costs have prompted calls for a ***"Second Green Revolution"*** or ***"Evergreen Revolution."*** Key focus areas include:
- **Sustainable Practices:** Promoting organic farming, crop rotation, and integrated pest management to reduce environmental damage.
- **Climate-Resilient Crops:** Developing drought- and flood-resistant varieties to address climate change.
- **Inclusive Growth:** Extending benefits to small farmers and rain-fed regions through better access to credit, technology, and markets.
- **Technology Integration:** Leveraging precision agriculture, drones, and AI to optimise resource use and boost yields sustainably.
- In summary, the Green Revolution was a landmark in India's agricultural history, ensuring food security and economic growth but at the cost of environmental and social challenges. Its legacy underscores the need for a balanced approach that combines productivity with sustainability and equity.

> **"If agriculture goes wrong, nothing else will have a chance to go right in our country.**
>
> **—M.S Swaminathan"**

Scientists behind India's Food Security

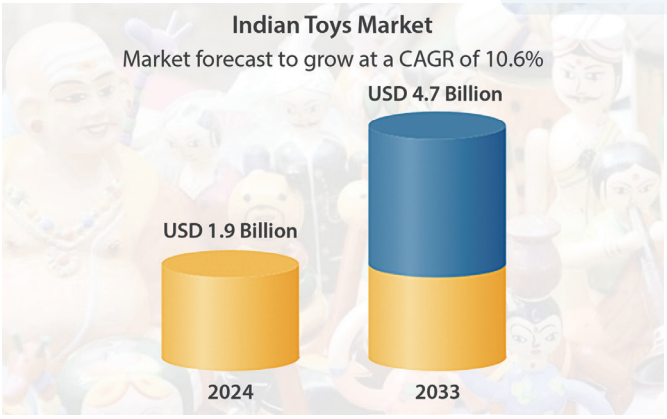


INDIA: "THE EMERGING TOY CAPITAL OF THE WORLD"

The Indian toy industry has undergone significant transformation in recent years, evolving from a heavily import-dependent sector to an emerging global player.

Market Overview

- **Market Size and Growth:** The Indian toy market was valued at approximately USD 1.9 billion in 2024, the market is projected to reach USD 4.7 billion by 2033, growing at a CAGR of 10.6%, driven by a growing young population, rising disposable incomes, and increasing awareness of toys' role in child development.
- **Export and Import Trends:** Between FY 2014-15 and FY 2022-23, toy exports surged by 239%, reaching USD 523 million in FY24, while imports declined by 52%. This reflects growing self-sufficiency and global competitiveness.
- **Global Positioning:** India holds a 0.3% share in global toy exports (ranking 27th) and 0.1% in imports (ranking 61st), with electronic toys being a significant export category.
- **Key Segments:** Infant/pre-school toys dominate due to their role in developing motor skills and cognitive abilities. Unisex toys hold the largest market share, followed by toys for boys and girls. Maharashtra leads regionally due to its manufacturing base.
- **Distribution Channels:** The market includes specialty stores, supermarkets, online platforms, and others, with e-commerce growing rapidly due to convenience and technological advancements like Augmented Reality/Virtual Reality in shopping experiences.



Recent Developments

- **Shift to Modern Toys:** Consumer preferences are shifting from traditional to modern toys, including electronic, STEM-based, and educational toys. Startups like Shumee and PlayShifu are innovating with eco-friendly and tech-driven products.
- **Cultural Integration:** Manufacturers are incorporating Indian cultural elements into toys, enhancing appeal in domestic and global markets, especially in regions like the Middle East and Africa.
- **Export Growth via FTAs:** Free Trade Agreements (e.g., India-UK FTA, India-UAE CEPA, India-Australia ECTA) have enabled access to key markets, boosting exports of handmade toys like Natugram dolls and Channapatna wooden toys.
- **Sustainability Focus:** There's a growing trend toward eco-friendly toys, such as wooden toys and those made from recycled materials, supported by startups like ThinkerPlace and Shumee.
- **Technological Advancements:** Integration of AR, VR, and AI in toys is gaining traction, catering to tech-savvy consumers and enhancing educational value.
- **Toycathon and Toy Fairs:** Events like **Toycathon 2021** and the **Virtual India Toy Fair 2021** have promoted innovation and indigenous toy designs.

Government Initiatives

The Indian government has played a pivotal role in fostering the toy industry's growth through policies aimed at reducing imports, boosting exports, and promoting local manufacturing:

- **National Action Plan for Toys (NAPT):** Launched in 2020, this plan involves 14 ministries and focuses on **21 specific action points,** promoting trade, improving design and quality, supporting indigenous toy clusters, and integrating toys into education.
- **Quality Control Order (QCO) 2020:** Mandates BIS certification for toys to ensure safety and quality, with over 1097 licenses granted to domestic manufacturers (96.7% to MSMEs).

- **Increased Import Duties:** Basic Customs Duty (BCD) on toys was raised from 20% to 60% in 2020 and further to 70% in 2023 to curb cheap imports and protect domestic manufacturers.
- **SFURTI Scheme:** Supports 19 toy clusters across states benefiting 44500 artisans with Rs. 149.44 crore in funding.
- **Export Promotion:** Schemes like the Market Access Initiative and FTAs with countries like the UAE and Australia support export growth.
- **Toy-Based Pedagogy:** The National Education Policy 2020 promotes play-based learning, with NCERT's guidebook on toy-based pedagogy encouraging educational toy use.
- **Union Budget 2025-26:** Allocated ₹1,500 crore for toy cluster expansion, interest subsidies for MSMEs, export incentives, and R&D funding for sustainable toy production.
- **Proposed GST Reduction:** The Commerce Ministry has proposed lowering the 18% GST on motion-lit toys to boost local manufacturing and affordability.

Challenges:

Despite its growth, the Indian toy industry faces several hurdles:

- **Dependence on Imports:** While reliance on imported inputs has dropped from 33% to 12%, the industry still depends on foreign raw materials like plastics and electronics.
- **Competition from Mature Markets:** China and Vietnam have established manufacturing bases with economies of scale, posing stiff competition.
- **Skill and Infrastructure Gaps:** A shortage of skilled labour and inadequate precision engineering capabilities limit innovation and scalability, especially for MSMEs.
- **Unorganized Sector Dominance:** Approximately 90% of the market is unorganized, with 75% micro-industries, leading to challenges in quality control and distribution efficiency.
- **Capital Constraints:** Micro and SME manufacturers struggle with limited capital, hindering their ability to handle large orders or invest in design and technology.

Future Prospects:

- **Global Hub Potential:** With low labour costs, a large child population 30.76% of the total population (over 300 million aged 0–14), and government support, India aims to become a global toy manufacturing hub, competing with China and Vietnam.
- **Innovation and Startups:** Continued growth in startups like PlayShifu and Skillmatics, focusing on STEM, AR/VR, and eco-friendly toys, will drive innovation.
- **Export Expansion:** Leveraging FTAs and cultural toy designs, India is targeting markets like the UK, UAE, and Africa.
- **Sustainability and Education:** Demand for sustainable and educational toys will grow, supported by government policies and consumer awareness.
- **Digital Retail Growth:** E-commerce platforms, enhanced by AR/VR and secure payment systems, will continue to boost market accessibility and sales.

Key Players

- **Domestic:** Funskool, Shumee, Skillmatics, PlayShifu, ThinkerPlace, Aequs, Micro Plastics.
- **International:** Mattel, Hasbro, Lego, Bandai Namco.

Conclusion

- India's toy industry is on a robust growth trajectory, driven by government initiatives, cultural relevance, and technological advancements.
- While challenges like import dependency and skill gaps persist, strategic investments in R&D, infrastructure, and global partnerships can position India as a leading player in the global toy market.
- The focus on sustainability, education, and export promotion, combined with a vibrant startup ecosystem, sets the stage for continued expansion.

"Our focus should be on developing toys, games that present every aspect of Indianness in interesting, interactive ways."

Narendra Modi
Prime Minister of India

NATIONAL COOPERATIVE POLICY, 2025

(COOPERATION TO PROSPERITY: PAVING THE WAY FOR VIKSIT BHARAT 2047)

The Union Ministry of Cooperation unveiled the National Cooperation Policy – 2025, marking a transformative moment in the history of India's cooperative movement.

About

- The National Cooperation Policy aims to make cooperatives key drivers for Viksit Bharat 2047 through Sahkar-se-Samriddhi.
- Focus is on legal reforms, digitalization, and financial empowerment.
- The policy promotes inclusive participation of women, youth, SC/STs.
- The policy also suggests expansion of cooperatives into new sectors like clean energy, waste management, and technology.
- India's **first National Cooperation Policy** was introduced in 2002.
- The **second** cooperation policy in 2025, represents a renewed commitment to making cooperatives competitive, inclusive, and future-ready.

Objectives

- Triple the cooperative sector's contribution to GDP by 2034.
- Increase cooperative societies by 30% from the current 8.3 lakh.
- Bring 50 crore new or inactive citizens into active cooperative participation.
- Establishment of at least one cooperative unit in every village & set up **5 Model Cooperative Villages** in every tehsil, supported by NABARD. Establish PACS or primary cooperative units in every Panchayat.

Key Highlights

Legislative and Institutional Reforms

- Encourage States to **amend cooperative laws** (Cooperative Societies Acts and Rules) to enhance transparency, autonomy and the ease of doing business.
- Promote **digitalization of registrar offices** and real-time cooperative databases.
- **Revive sick cooperatives** with institutional mechanisms.

Financial Empowerment

- Preserve and promote the three-tier **Primary Agriculture Credit Societies - District Central Cooperative Bank - State Cooperative Bank** credit structure.
  - Promote cooperative banks and umbrella organizations (like National Urban Cooperative Finance & Development Corporation).
  - Enable cooperative banks to handle government. businesses.

Business Ecosystem Development

- **Model cooperative villages** with multipurpose PACS as growth engines.
- Encouraging States/UTs to develop at least one model cooperative village.
- Develop **rural economic clusters** (e.g., honey, spices, tea).
- Support branding under the **'Bharat'** brand.

Future-Readiness & Technology

- Develop a national **'Cooperative Stack'** integrating with **Agri-stack** and **databases.**
- Promote **Open Network for Digital Commerce (ONDC)** and **Government e-marketplace** (GeM) platform integration.
- Encourage research and innovation through **cooperative incubators** and **Centres of Excellence.**

Inclusivity Measures

- **Active participation** of youth, women, SC/STs, and differently-abled in cooperatives.
- **Model bye-laws** for gender representation and transparent governance.
- Cooperative **awareness campaigns** in schools and colleges.

Sectoral Diversification

Promote cooperatives in **new and emerging sectors** such as:

- Renewable energy and Waste management,
- Health and education,
- Mobile-based aggregator services (e.g., for plumbers, taxi drivers) and organic and natural farming, biogas and ethanol production, etc.

Youth-Oriented Capacity Building

- Develop **cooperative-focused courses** in higher education institutions (HEIs).
- Build a national digital cooperative employment exchange.
- Promote **financial and digital literacy** among youth.
- Recruit quality cooperative teachers and resource persons.

RELATED DEVELOPMENT

'Tribhuvan Sahkari University' (TSU), India's first national-level cooperative university's foundation stone was laid in Anand, Gujarat by Mr. Amit Shah.

What is a Cooperative?

- A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise.

Key Features:

- They are people-centred enterprises which bring people together in a democratic and equal way.
- Democratically managed by the ***'one member, one vote'*** rule. Members share equal voting rights regardless of their investment in the enterprise.
- Profits generated are either reinvested in the enterprise or returned to the members.
- Cooperatives connect **over 12% of humanity** through **3 million cooperatives worldwide**, with the 300 largest cooperatives generating a turnover of **USD 2,409.41 billion.**
- They also power sustainable economic growth by providing quality jobs and work opportunities to **280 million people**, accounting for **10% of the world's employed population**.

Cooperatives in India

- The cooperative sector in India is a cornerstone of the country's economy, particularly in rural areas, fostering inclusive growth, economic empowerment, and social development.
- With over 800,000 cooperative societies and 290 million members, covering nearly 100% of villages and 30% of the population, India has one of the world's largest cooperative networks.
- These societies operate across diverse sectors, including agriculture, dairy, credit, housing, fisheries, and more, addressing the economic, social, and cultural needs of members through democratic, member-owned enterprises.

History of the Cooperative Sector in India

- The cooperative movement in India began in the late 19th century to address rural indebtedness and exploitation by moneylenders.
- **Key milestones include:**
  - **1904:** The Cooperative Credit Societies Act enacted, following recommendations from the Indian Famine Commission (1901) and a report by **Sir Frederick Nicholson**, often called the "Father of the Cooperative Movement in India." The **first cooperative society** was established in **Tirur, Tamil Nadu,** in August **1904**, making it **Asia's first cooperative.**
  - **1919:** The Montague-Chelmsford Reforms made cooperation a **provincial subject**, boosting its growth.
  - **Post-Independence (1947):** Cooperatives gained prominence under planned economic development, with the **First Five-Year Plan (1951–56)** emphasizing their role in community development.
  - **2002:** The National Policy on Cooperatives was formulated to strengthen the sector.
  - **2011:** The 97th Constitutional Amendment Act recognised the right to form cooperative societies as a fundamental right under **Article 19** and **added Article 43B** to promote their voluntary formation, autonomous functioning, and professional management.
  - **2021: The Ministry of Cooperation** was established to provide a dedicated administrative, legal, and policy framework, with the vision of **"Sahkar se Samriddhi" (Prosperity through Cooperation).**

There are Six Types of Cooperative Societies in India

- **Credit Cooperative Societies:** Offer affordable credit, particularly in rural areas, including state cooperative banks, district cooperative banks, and urban cooperative banks. Primary Agricultural Credit Societies (PACS) are key players, with 97,961 PACS leading the movement.
- **Housing Cooperative Societies:** Facilitate affordable housing by pooling resources, especially in urban areas, making homeownership accessible.
- **Consumer Cooperative Societies:** Provide essential goods (e.g., groceries, healthcare) at competitive prices, like Kendriya Bhandar.
- **Marketing Cooperative Societies:** Help farmers and producers market their products (e.g., food grains, jute, cotton, milk, fruits) for better returns. Examples include Amul and HOPCOMS.

- **Producer Cooperative Societies:** Support small producers, such as handloom weavers, in selling their products.
- **Worker Cooperative Societies:** Helps businesses to be owned and democratically controlled by their employees.

Significance of the Cooperative Sector

The cooperative sector plays a vital role in India's socio-economic development:

- **Economic Empowerment:** Cooperatives empower small and marginal farmers, artisans, and low-income groups by providing access to credit, markets, and resources. For instance, dairy cooperatives like Amul have made India the world's largest milk producer, with three-fourths of urban consumer payments reaching farmers.
- **Rural Development:** Covering 98% of rural India, cooperatives ensure sustainable livelihoods and financial inclusion, particularly for marginalized communities.
- **Job Creation:** Sugar cooperatives in Maharashtra alone employ over 5 lakh people (direct and indirect).
- **Agricultural Support:** Cooperatives contribute 20% to agricultural loans, 35% to fertilizer distribution, 31% to sugar production, 13% to wheat procurement, and 20% to paddy procurement.
- **Social Inclusion:** Cooperatives foster democratic governance with the "one member, one vote" principle, promoting equality and inclusivity.
- **Poverty Alleviation:** By providing affordable goods, credit, and marketing support, cooperatives improve livelihoods and reduce dependence on exploitative systems.
- **Political Participation:** In states like Maharashtra, cooperatives, especially sugar mills, have been platforms for political engagement and leadership development.

Key Examples of Successful Cooperatives

- **Amul (Anand Milk Union Limited):** A dairy cooperative that transformed India into the world's largest milk producer through the **"Anand Pattern"**.
  - It empowers millions of small dairy farmers by processing and marketing milk under a single brand.
- **IFFCO (Indian Farmers Fertiliser Cooperative):** A leading fertilizer cooperative ensuring affordable agricultural inputs for farmers.
- **Lijjat Papad:** A women's cooperative empowering thousands through the production and sale of papad, promoting financial independence.
- **HOPCOMS:** A horticultural cooperative ensuring fair returns for farmers by marketing fruits and vegetables.

Challenges

- **Lack of Transparency and Accountability:** Some cooperatives suffer from poor governance, with power concentrated among a few individuals.
- **Political Interference:** Regional politicians often influence cooperatives, especially in Maharashtra, undermining their democratic principles.
- **Financial Constraints:** Limited capital-raising ability due to restricted membership and low returns discourages investment.
- **Administrative Inefficiencies:** Lack of professional management and administrative skills hampers efficiency.
- **Access to Credit:** Farmers face difficulties securing loans due to lack of collateral or documentation.
- **Operational Inefficiencies:** Some cooperatives, particularly sugar mills, suffer losses due to outdated practices or mismanagement, relying on government bailouts.
- **Limited Member Participation:** Marginalized communities often have inadequate representation, reducing inclusivity.

Do You Know?

- United Nations has declared 2025 as the **"United Nations International Year of Cooperatives (IYC2025)"** themed **"Cooperatives Build a Better World"**, showcasing the enduring global impact cooperatives have everywhere.
- Every year, the **International Day of Cooperatives** is observed on the **first Saturday of July.**

Way Forward

- **Enhance Governance:** Implement model bye-laws to make PACS multipurpose, transparent, and accountable.
- **Leverage Technology:** Use digital platforms like GeM (Government e-Marketplace) and e-Governance to improve market access and operational efficiency.
- **Capacity Building:** Promote training through institutions like the National Council for Cooperative Training.
- **Financial Support:** Increase subsidies and incentives, as seen with NCDC's bond issuance and fertilizer subsidies worth ₹10 lakh crore over nine years.
- **Policy Reforms:** The National Cooperative Policy 2025 and amendments to the Multi-State Cooperative Societies Act aim to foster autonomy and professionalism.
- **Inclusive Participation:** Encourage greater involvement of marginalized groups and women to ensure equitable benefits.
- **Public-Private Collaboration:** Partner with private entities to modernize infrastructure, such as cold chains and processing units, as seen in the Amul model.

Conclusion

- The cooperative sector in India is a powerful instrument for economic and social upliftment, particularly in rural areas. With a vast network spanning agriculture, dairy, credit, and housing, cooperatives have driven inclusive growth, empowered millions, and contributed significantly to India's economy.
- However, addressing challenges like governance issues, financial constraints, and political interference is crucial to realizing the full potential of ***"Sahkar se Samriddhi"***.

10 YEARS OF SKILL INDIA MISSION

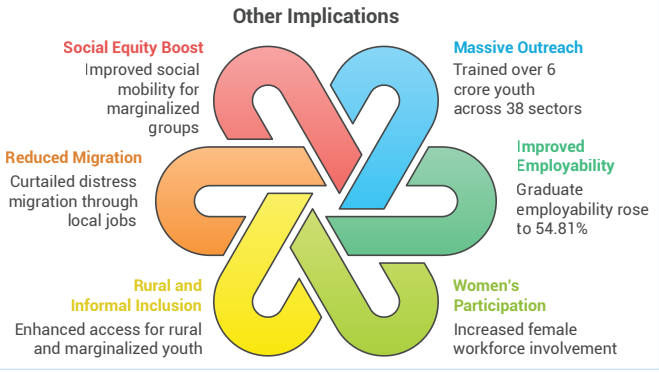
Skill India Mission (SIM) completed 10 years since its launch on 15 July 2015, coinciding with World Youth Skills Day.

About

- **Objective:** It aims to provide **skill, re-skill, and up-skill training** to the youth through a wide network of skill development centres across India.
- **Restructured Scheme (2025):** In February 2025, the government approved a restructured Skill India Programme for 2022–23 to 2025–26, combining three major schemes into a single Central Sector Scheme.
  - **Pradhan Mantri Kaushal Vikas Yojana (PMKVY 4.0):** Offers short-term training and Recognition of Prior Learning (RPL) to youth, including in rural areas, aiming to improve employability.
  - **National Apprenticeship Promotion Scheme (NAPS):** Encourages apprenticeship training by providing financial support for stipends, covering both basic and on-the-job training.
  - **Jan Shikshan Sansthan (JSS):** Provides vocational skills to non-literates, neo-literates, and school dropouts (up to Class 12), with a special focus on women, SC/ST/OBCs, and minorities in rural and low-income urban areas.

Positive Implications

- **Support for Informal and Rural Workers:** SIM expanded access to marginalized groups, including school dropouts, rural youth, and tribal populations, fostering inclusive development.
- **Growth in Sectoral Employment:** Sectors like manufacturing (15%), services (20%), and construction (25%) saw improved employment due to skill-specific training.
- **Digital Learning Revolution:** Platforms like DIKSHA and Skill India Digital have enabled remote and multilingual access to skilling resources.
- **Recognition at Global Platforms:** India's performance in WorldSkills 2022 (Rank 11) highlighted improved global competitiveness and skill quality.



Challenges

- **Skill-Job Mismatch:** Many trained candidates still lack industry-relevant skills, leading to low employability in several sectors.
- **Low Industry Absorption:** Despite certification, a significant number of trainees, especially in rural and informal sectors, face placement hurdles.
- **Regional Disparities:** Uneven implementation across states has led to wide gaps in skilling outcomes and access.
- **Negative Social Perception:** Vocational education is often seen as inferior to formal academic degrees, affecting enrolment and interest.
- **Trainer and Infrastructure Shortage:** Many centres lack modern tools and qualified trainers, impacting the quality of training delivery.
- **Limited Private Sector Involvement:** Industry participation remains **largely symbolic** in some areas, affecting curriculum relevance and job linkages.
- **Delayed Funding and Coordination Issues:** Bureaucratic delays and lack of coordination between Centre and States (as flagged by the Sinha Committee, 2022) hamper efficiency.
- **Monitoring and Evaluation Gaps:** Focus is still on number of trainings rather than job outcomes, with limited tracking of post-training employment.
- **Urban-Rural Divide:** Urban centres have better access to facilities and opportunities, while rural skilling remains under-resourced.

Way Forward

- **Promote Digital Learning Models:** Expand e-learning, blended training, and AI-driven monitoring to make skilling more accessible and adaptive.
- **Align with Global Standards:** Integrate international certifications and global value chain requirements to boost overseas employment.
- **Focus on Outcome-Based Skilling:** Shift emphasis from training numbers to measurable outcomes like job placement and income generation.
- **Support Emerging Sectors:** Prioritize skilling in green jobs, AI, drones, EVs, cybersecurity, and other future-ready domains.
- **Upgrade Training Infrastructure:** Invest in modern equipment, smart labs, and qualified trainers to enhance training quality.
- **Strengthen Monitoring & Evaluation:** Regular impact assessments and real-time tracking to ensure accountability and course correction.
- **Implement National Credit Framework (NCrF):** Ensure seamless integration of vocational and academic learning for flexible education pathways.

NISAR SATELLITE SUCCESSFULLY LAUNCHED

The NISAR satellite was Successfully launched on July 30, 2025, aboard the GSLV-F16 rocket from the Satish Dhawan Space Centre, Sriharikota.

About

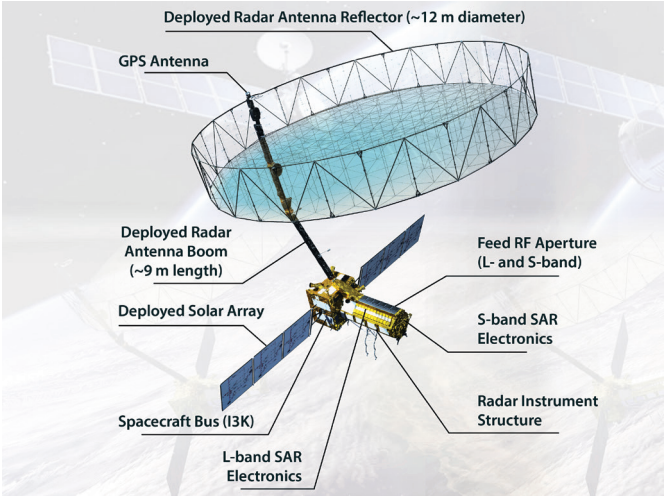
- **NISAR** (NASA-ISRO Synthetic Aperture Radar) is a **joint Earth observation mission** developed by NASA and ISRO.
- It is designed to operate in **Low Earth Orbit (LEO)** and will be positioned in a sun-synchronous orbit at an altitude of 743–747 km with an inclination of 98.4°.
- This is the first satellite globally to use dual-frequency SAR technology, combining NASA's L-band and ISRO's S-band radars.
- The satellite weighs approximately 2,800 kg and has a baseline mission duration of three years, extendable up to five years.

SYNTHETIC APERTURE RADAR

- It is a form of **radar technology** used to create **high-resolution images** of the Earth's surface by using the motion of the radar antenna over a target region to simulate a large antenna or **"aperture."**
- SAR can penetrate **clouds, vegetation, and darkness,** making it ideal for **all-weather, day-and-night Earth observation.**

Key Technological Features

- **Dual-Frequency SAR System:**
  - **L-band SAR (1–2 GHz):** Penetrates vegetation and soil; ideal for forest monitoring, soil moisture estimation, and subsurface studies.
  - **S-band SAR (2–4 GHz):** Offers higher spatial resolution; suitable for urban, coastal, and infrastructure monitoring



- Uses **SweepSAR** technology providing a swath width of 242 km with high spatial resolution
- Equipped with a **12-metre unfurlable mesh reflector antenna** developed by NASA and integrated with **ISRO's modified I3K satellite bus.**
- The system allows for global coverage of nearly all land and ice surfaces every 12 days, both day and night, and under all weather conditions.
- Provide **all-weather, day-and-night imaging** of Earth's surface at high resolution.
- Generate data **every 12 days**, enabling continuous monitoring of dynamic Earth systems.

Significance of NISAR Satellite

Ground Deformation Monitoring
Tracks ground deformation and earthquake activities effectively.

Ice Sheet Movement
Monitors ice sheet movement and glacier flow accurately.

Vegetation Dynamics
Analyzes vegetation dynamics and biomass changes precisely.

Sea Ice Classification
Classifies sea ice and coastal changes efficiently.

Agricultural Mapping
Aids in detailed agricultural mapping and resource management.

Disaster Response
Detects early signs of natural disasters for timely response.

ICJ'S RULING ON CLIMATE JUSTICE

On July 23, 2025, the International Court of Justice (ICJ) delivered a landmark advisory opinion on the obligations of States in respect of climate change, marking a significant moment in international environmental law.

About

- The ruling, prompted by a 2023 UN General Assembly resolution led by Vanuatu, addressed two key questions: (1) obligations of States under international law to ensure the protection of the environment, and (2) legal consequences for States under these obligations when they cause harm to the environment.

Key Points of the Ruling:

- **Legal Obligations to Act:** The ICJ unanimously ruled that States have a legal duty to protect the climate system and environment from anthropogenic GHG emissions. This obligation stems from multiple sources, including:
  - **International Treaties:** The UN Framework Convention on Climate Change (UNFCCC), Kyoto Protocol, Paris Agreement, UN Convention on the Law of the Sea (UNCLOS), and others like the Montreal Protocol and Convention on Biological Diversity.
  - **Customary International Law:** States must prevent significant transboundary harm and cooperate internationally to address climate change.
  - **Human Rights Law:** A clean, healthy, and sustainable environment is recognized as a human right, linking climate inaction to human rights violations.
- **Stringent Due Diligence:** States must act with stringent due diligence, aligning national climate plans with the Paris Agreement's 1.5°C temperature goal. This includes regulating private actors (e.g., fossil fuel companies) and supporting vulnerable nations. Inaction or inadequate action may constitute an "internationally wrongful act."
- **Fossil Fuel Accountability:** The Court explicitly targeted fossil fuel activities, stating that production, consumption, exploration licenses, and subsidies could breach international obligations if they contribute to climate harm.
- **Reparations for Harm:** States that fail to meet these obligations may be liable for reparations, including:
  - **Restitution:** Rebuilding infrastructure or restoring ecosystems damaged by climate impacts.
  - **Compensation:** Monetary payments for climate-related losses and damages, though calculating these is complex due to causal uncertainties.
    - The ruling clarifies that all nations, regardless of vulnerability, are entitled to the same remedies under international law, though vulnerable states like Small Island Developing States (SIDS) may have stronger claims due to disproportionate impacts.
- **Rejection of Lex Specialis:** The ICJ dismissed arguments that climate treaties like the Paris Agreement override other international laws. It emphasized that climate obligations are integrated across various legal frameworks, broadening the scope of accountability.
- **Equity and CBDR-RC:** The principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC) was highlighted, meaning high-emitting developed nations bear greater responsibility due to their historical contributions and capacities.

Implications:

- **Non-Binding but Influential:** While advisory, the opinion carries significant moral and legal weight, providing a framework for climate litigation globally. It may guide national and international courts, influence climate negotiations (e.g., at COP30 in Brazil), and pressure governments to strengthen emissions reduction targets.
- **Litigation Potential:** The ruling enables climate-vulnerable nations, particularly SIDS, to pursue legal action against high-emitting countries for damages. However, ICJ jurisdiction for binding cases is limited to countries that have accepted it.
- **Fossil Fuel Industry:** By holding States accountable for private sector emissions, the ruling could curb fossil fuel subsidies and new licenses, challenging industries in major economies.
- **Global South Empowerment:** The opinion strengthens the position of developing nations advocating for climate justice, reparations, and finance from industrialized countries.

Context and Limitations:

- The case originated from a 2019 campaign by Pacific Island law students, highlighting the existential threat to low-lying nations. It saw unprecedented participation, with 96 States and 11 organizations presenting arguments.
- Challenges include attributing specific climate harms to individual States and the non-binding nature of the opinion, which relies on political will for implementation.
- This ICJ opinion establishes a clear legal baseline, potentially reshaping climate policy, litigation, and diplomacy, though its real-world impact depends on how States and courts apply it.

Do You Know?

- **"Lex specialis"** is a legal principle, meaning **"a specific law overrides a general law."**
- It indicates that when two laws address the same situation, the more specific law takes precedence over the more general one.

GLOBAL WETLAND OUTLOOK, 2025

Ramsar Convention on Wetlands has released the Global Wetland Outlook for 2025.

About

- It offers the **current global evaluation** of the condition, trends, value and policy responses concerning wetlands.
- **Produced by:** The Scientific and Technical Review Panel (STRP) of the Convention on Wetlands.
- **Eleven broad wetland types are evaluated in the Global Wetland Outlook 2025,** encompassing: Seagrass, Kelp Forests, Coral Reefs, Estuarine Waters, Salt Marshes, Mangroves, Tidal Flats, Lakes, Rivers and Streams, Inland Marshes and Swamps, and Peatlands (Mires).

Major Findings

- **Coverage:** Inland freshwater, coastal, and marine wetland types extend over 1,800 million hectares.
- **State of Degradation:** At least 400 million hectares of wetlands have been lost since 1970, with nearly a quarter of those remaining in a degraded state.
  - The average rate of wetland loss was -0.52% per annum.
  - Rates of degradation vary over time and by region as a function of factors such as development and land use change.
- **Impact:** These losses significantly impact water availability, biodiversity, climate stability and human well-being.
- **Contribution:** The report estimates that the world's remaining wetlands contribute up to $39 trillion in benefits each year, yet conservation funding remains far below what is required.
  - They provide food for people, help regulate the global water cycle, remove water pollutants, protect local communities from natural disasters, and store carbon, supporting the world's climate system.
  - If all remaining wetlands are effectively managed until 2050, they will provide a Net Present Value (NPV) greater than $205.25 trillion over this time period.
- **Cost:** Average costs for restoring wetlands can range from $1,000 per hectare to over $70,000 per hectare.

Recommendations:

It suggested **four pathways** for conservation of existing Wetlands in a sustained manner.

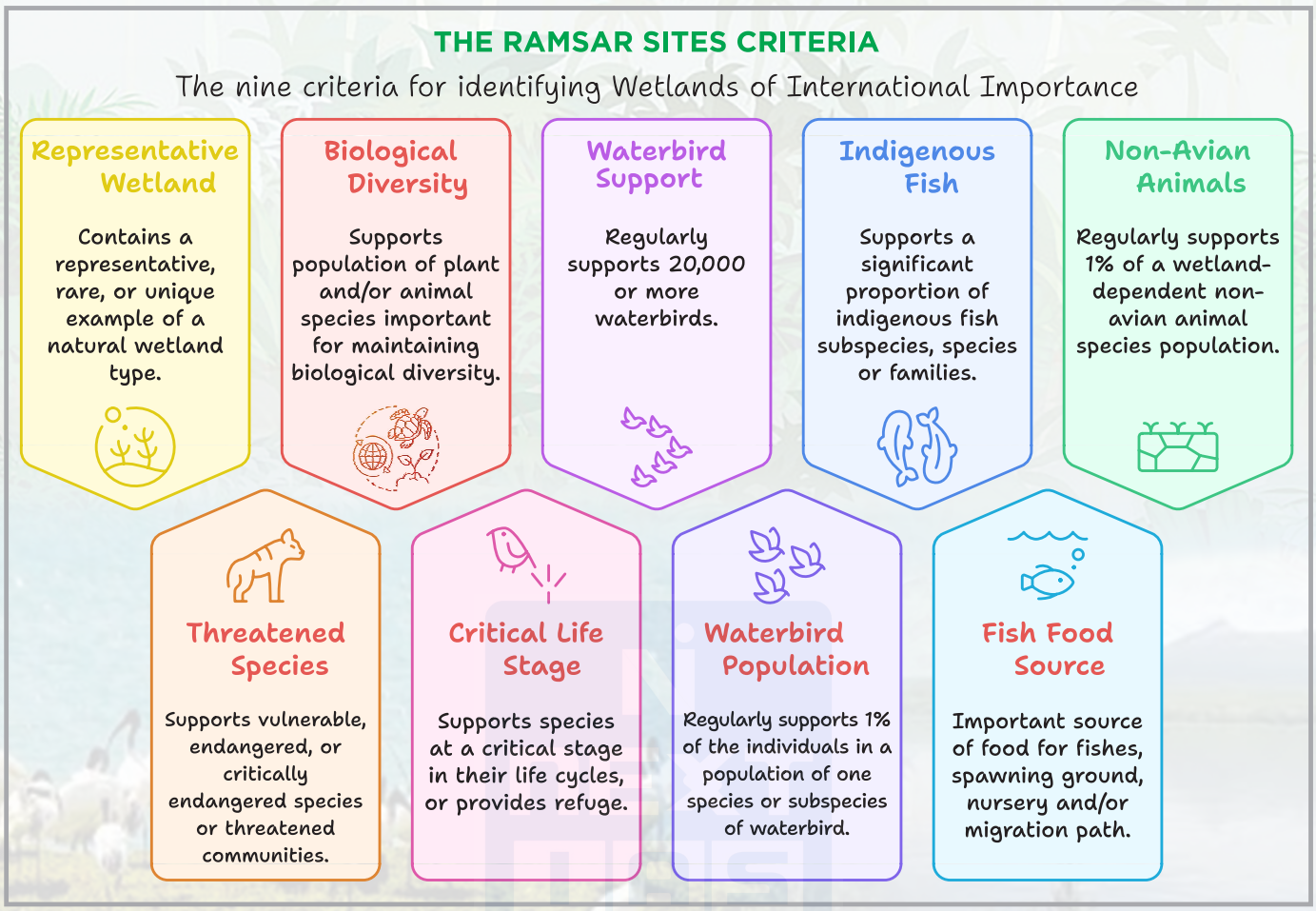
- **Integrate natural capital valuation in decision-making:**
  - Many wetland ecosystem services are public goods that markets typically overlook.
  - This undervaluation contributes to degradation.
- **Recognise that wetlands are critical components of the global hydrological cycle for all people:** We must recognise and appropriately value wetlands and their role in addressing the interlinked climate, biodiversity, and water crises.
- **Embed wetlands in innovative financial solutions for nature and people:**
  - Wetlands must be incorporated into financing mechanisms like those under the KM-GBF, which aims to mobilise billions annually.
  - Various financial tools – green and blue bonds, biodiversity credits, results-based financing, and debt-for-nature swaps – can be leveraged to fund wetland protection and restoration.
- **Unlock a private and public mix of financing to invest in wetlands as Nature-Based Solutions (NbS):**
  - A mix of financing can create demand for wetland-friendly investments.
  - Support and encouragement to build capacity and establish long-term NbS strategies are critical to scale up investments that set wetlands into global environmental and financial systems.

Conclusion:

- The **Global Wetland Outlook 2025** calls for immediate action from policymakers, businesses, and society by highlighting that conservation of healthy and functioning wetlands is cheaper than restoration.

Additional Information:

- The Convention's strategic goals align with the Kunming-Montreal Global Biodiversity Framework (KM-GBF) Targets to restore at least 30% of all degraded ecosystems (Target 2) and conserve at least 30% of land, waters, and seas (Target 3).
- Wetland restoration and conservation can contribute to all 23 targets of the KM-GBF and are equally important for the objectives of the UN Framework Convention on Climate Change (UNFCCC) to reduce and stabilise greenhouse gas emissions, and to meet many Sustainable Development Goals (SDGs) including Target 6.6 to protect and restore water-related ecosystems.
- These goals also contribute to the Freshwater Challenge and its targets for wetland restoration and protection of freshwater ecosystems.
- We need to enable restoration of 123 million ha of wetlands to restore 30% of lost wetlands and achieve Target 2 of the KM-GBF



- To achieve Target 3 of the KM-GBF, we need to effectively manage approximately 428 million ha of wetlands within protected areas or other effective area-based conservation measures (OECMs).

The Kunming-Montreal Global Biodiversity Framework (GBF):

- GBF was adopted by the COP15 to the Convention on Biological Diversity in 2022.
- It has been promoted as a "Paris Agreement for Nature".
- The GBF contains 4 global goals for 2050 and 23 targets for 2030.
  - **"Target 3"** is especially referred to as the **"30X30" target.**
- **'30X30' target:** To conserve 30% of terrestrial,inland water,coastal and marine areas by 2030.

About Wetland:

As per The Ramsar Convention,wetlands are defined as

- Areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.
- It may also incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands.
  - *In addition*, there are **human-made wetlands** such as fish and shrimp ponds, farm ponds, irrigated agricultural land, salt pans, reservoirs, gravel pits, sewage farms and canals.
- The Ramsar Convention has adopted a **Ramsar Classification of Wetland Type** which includes **42 types,** grouped into three categories: **Marine and Coastal Wetlands**, **Inland Wetlands**, and **Human-made Wetlands**.

Ramsar Convention:

- It is an international treaty aimed at conserving wetlands around the world. It was adopted in **Ramsar, Iran, in 1971** and entered into force in **1975** with **172 Contracting Parties** at present.
- India has been a party to the Convention since 1982,with 91 Ramsar sites at present.

ENVIRONMENT PROTECTION RULES, 2025

The Environment Protection (Management of Contaminated Sites) Rules, 2025, notified by the Ministry of Environment, Forest and Climate Change (MoEFCC) on July 24, 2025.

About

- It provides India's first comprehensive legal framework to identify, assess, and remediate chemically contaminated sites under the **Environment (Protection) Act, 1986.**
- These rules address the risks posed by hazardous and toxic substances in soil, sediment, and water, aiming to protect human health and the environment while enforcing the **"polluter pays"** principle.

Key Features of the Rules:

- **Objective:**
  - Establish a time-bound, legally binding mechanism to identify, assess, and remediate contaminated sites caused by hazardous chemical and waste dumping.
  - Ensure accountability of polluters and promote environmental justice and sustainable land use.
- **Scope:**
  - Apply to sites contaminated by hazardous substances listed in the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
  - Cover 189 specified contaminants with response levels for agricultural, residential, commercial, and industrial areas.
  - Exclude sites contaminated solely by radioactive waste, mining operations, or oil spills unless mixed with hazardous substances exceeding specified thresholds.
- **Identification and Assessment:**
  - **Local bodies or District Administrations** identify suspected contaminated sites, either independently or based on public complaints, and list them on a centralized online portal developed by the **Central Pollution Control Board (CPCB).**
  - District administrations submit half-yearly reports of suspected sites to the **State Pollution Control Board (SPCB).**
  - SPCBs or designated reference organizations conduct a preliminary assessment within 90 days to confirm contamination likelihood, followed by a detailed survey within another 90 days to finalize the site's status.
- **Remediation Process:**
  - SPCBs identify the responsible person(s) for contamination within 90 days of site confirmation.
  - A remediation plan is prepared and executed by the responsible party or, for "orphan sites" (where no responsible person is identified), by the SPCB using funds from the **Environment Relief Fund** or other sources.
  - Post-remediation, the CPCB appoints a reference organization to verify completion, and the **Central Remediation Committee** reviews reports and provides recommendations.
- **Financial Mechanism:**
  - Remediation costs are borne by the responsible person under the "polluter pays" principle, covering expenses like investigation, sampling, and cleanup activities.
  - **For orphan sites, funding is shared:**
    - **90:10** (Central:State) for North Eastern and Himalayan States.
    - **60:40** for other States.
    - **100% Central funding** for Union Territories, with provisions for urgent remediation and cost recovery.
  - The **Environment Relief Fund** (under the Public Liability Insurance Act, 1991) and penalties from environmental violations may support remediation efforts.
- **Liability and Accountability:**
  - Responsible persons are liable for environmental and human health damages, even if contamination occurred before the rules or if substances were not previously classified as hazardous.
  - Criminal liability is enforced under the **Bharatiya Nyaya Sanhita, 2023**, if harm is proven.
  - Land ownership or use changes for contaminated sites require approval to prevent liability evasion.
- **Transparency and Monitoring:**
  - A **Central Remediation Committee**, chaired by the CPCB Chairman, oversees implementation, with state-level committees ensuring timely execution.
  - A centralized online portal tracks assessment and remediation, including geo-tagging/geo-fencing of sites.
  - Public disclosure of cleanup status and annual audits are mandatory.
- **Voluntary Remediation:** Individuals or entities can propose remediation for non-designated sites, subject to committee approval and proof of financial capacity.

Conclusion:

- The **Environment Protection (Management of Contaminated Sites) Rules, 2025** mark a significant step in addressing India's legacy of contaminated sites.
- The rules align with **UN Sustainable Development Goals** (SDG 3: Health, SDG 6: Clean Water, SDG 12: Responsible Consumption and Production).
- India has identified **103 contaminated sites**, but remediation has started in only **seven**, highlighting the urgency of these rules.

ALARMING STATE OF PUBLIC INFRASTRUCTURE IN INDIA

Mahisagar River Bridge Collapse, underscored the structural deficiencies in India's public infrastructure calling immediate attention.

About

- India's public infrastructure faces significant challenges, as highlighted by recent incidents and systemic issues that undermine safety, reliability, and economic growth.

What is Public Infrastructure?

- **Public infrastructure** refers to the physical and organizational systems and facilities that are essential for the functioning of a society and its economy, typically funded, built, owned, or maintained by the government or public entities.
- These assets provide critical services to the public and support economic and social activities.

Examples of Public Infrastructure in India

- **Transportation:**
  - Roads and highways
  - Railways
  - Airports
  - Public transit systems
- **Utilities:**
  - Water supply systems
  - Electricity grids
  - Sewage and drainage systems.
- **Social Infrastructure:**
  - Public schools and universities
  - Government hospitals and healthcare facilities.
  - Public housing and community centers.
- **Communication:**
  - Public broadband networks
  - Postal and telecommunication systems.
- **Other:**
  - Public buildings
  - Dams, bridges, and irrigation systems.

Key Issues

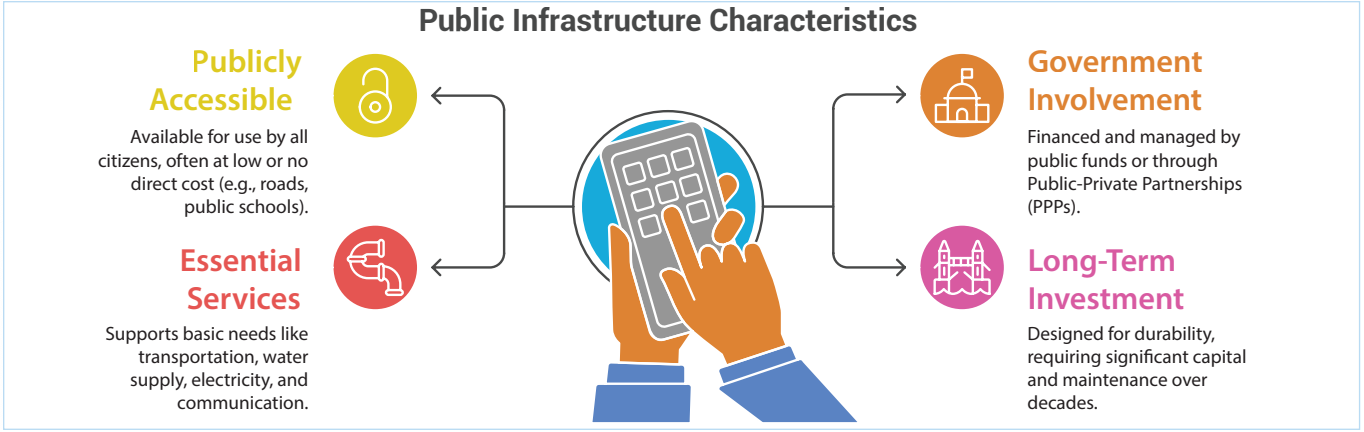
- **Frequent Infrastructure Failures:** High-profile incidents in 2024 and 2025 expose the fragility of India's infrastructure:
  - Between 2018 and 2022, over 8,500 deaths were reported due to infrastructure collapses, eroding public trust.

List of Recent Incidents

- **Mahisagar River Bridge Collapse**, Vadodara on 9th July, 2025, resulted in 20 deaths.
- **Delhi Airport Terminal 1 Roof Collapse (June 28, 2024):** Killed Ramesh Kumar, a driver, highlighting poor construction quality.
- **Jabalpur Airport Roof Collapse (June 27, 2024):** Occurred within months after inauguration, raising concerns about rushed projects.
- **Bihar Bridge Collapses:** Over 2 dozen collapsed in 2024, often before inauguration, pointing to substandard materials and oversight.
- **Morbi Suspension Bridge Collapse, Gujarat (2022):** Claimed more than 135 lives, linked to prioritizing cost over quality.

- **Systemic Problems:**
  - **Lowest-Cost (L1) Contract System:** Awarding contracts to the lowest bidder often compromises quality.
  - **Corruption and Mismanagement:** Local-level corruption, inadequate oversight, and ignored expert advice contribute to failures.
    - *For example*, projects like the Silkyara Bend–Barkot Tunnel in Uttarakhand ignored geotechnical assessments in seismically fragile areas.
  - **Inadequate Maintenance:** Lack of proactive maintenance, with more focus on creating infra-assets leads to deterioration in the long run.

Public Infrastructure Characteristics



- **Skill Shortages:** A lack of skilled engineers, exacerbated by migration to better-paying countries, hampers project quality.
- **Poor Planning and Execution:** Delays and cost overruns are rampant, with 431 major projects facing ₹4.82 lakh crore in overruns as of December 2023.

- **Environmental and Urban Challenges:**
  - **Climate Vulnerability:** Infrastructure in geologically fragile or climate-sensitive zones, like the HImalayas, often fails due to insufficient risk assessments.
  - **Urban Infrastructure Strain:** Rapid urbanization and mushroom growth outpaces drainage and road maintenance, leading to issues like Gurugram's flooding after 133 mm of rain in July 2025.
  - **Social Infrastructure Gaps:** Still around 20% rural households do not have access to functional household tap water connection.

Do You Know?

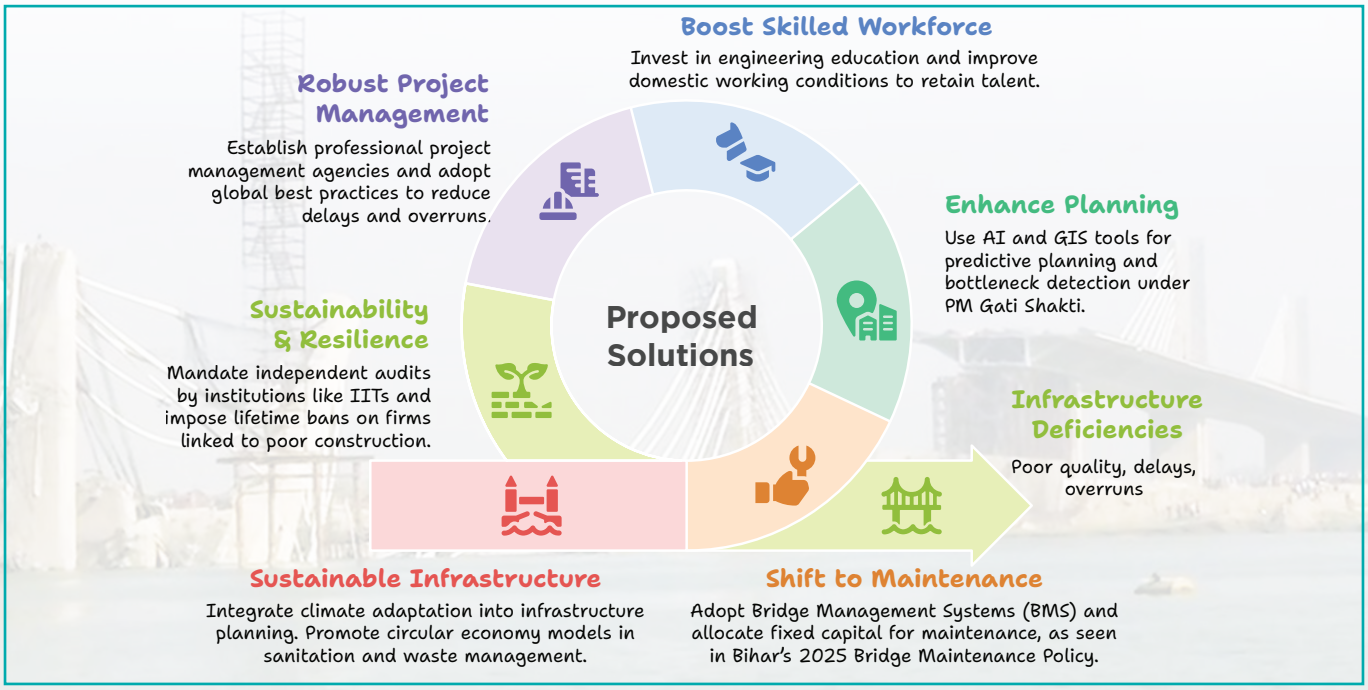
- An **L1 bidder** is the bidder who submits the lowest price offer in a tender, bidding process, or procurement solicitation, as determined during the evaluation process.
- This term is commonly used in government and public sector procurement, particularly in India, where the lowest technically accepted bid (meeting all eligibility and quality criteria) is often prioritized for contract award.
- The L1 bidder is typically considered for further processing, such as reverse auctions or negotiations, but being the L1 does not always guarantee the contract, as technical and financial evaluations also play a role.

Government Initiatives and Progress

- **Budgetary Focus:** The 2025-26 Union Budget allocated ₹11.21 lakh crore (3.1% of GDP) for infrastructure, with plans to monetize ₹10 lakh crore in assets by 2030.
- **PM Gati Shakti:** A GIS-based National Master Plan aims for integrated planning, with 44 ministries and 36 states/UTs onboarded.
- **Bharatmala and Sagarmala:** These programs have expanded highways (19,826 km by Feburary 2025) and port capacity (from 2,600 MTPA to a planned 10,000 MTPA by 2047).
- **UDAN and Metro Expansion:**
  - The number of operational airports grew from 74 in 2014 to 157 in 2024, under UDAN **(Ude Desh ka Aam Naagrik).**
  - Metro networks **covering over 1,000 km across 11 states and 23 cities.**
- **Jal Jeevan Mission:** Increased rural tap water coverage from 17% to 79.74% by February 2025.

Conclusion

- India's public infrastructure is at a critical juncture. While ambitious government initiatives signal progress, systemic issues like corruption, poor quality control, and inadequate maintenance continue to cause failures, loss of life, and economic setbacks.
- This also leads to erosion of public trust in Government and its works which is detrimental to a democratic polity.
- Strategic investments, transparency, and robust planning are essential to build resilient infrastructure that supports India's goal of becoming a $5 trillion economy by 2025 and a developed nation by 2047.



1 POLITY & GOVERNANCE

CIVIL REGISTRATION SYSTEM (CRS) AND SAMPLE REGISTRATION SYSTEM (SRS)

Context

The Civil Registration System (CRS) reports of the past two decades show that Bihar has been lagging far behind the rest of the country in registering births.

About

- **Civil Registration System (CRS),** popularly known as **birth and death registration system,** is the recording of **vital events i.e.** Birth, Death & Still Birth under the statutory provisions on a continuous and permanent basis.
- CRS falls under the **Concurrent list of the Constitution**.
- **Governed by:** The Registration of Births and Deaths Act, 1969.
- **Administered by:** The Office of the Registrar General of India (RGI) under the Ministry of Home Affairs.
- **Vital statistics** generated from civil registration significantly contribute to the formulation of effective and efficient evidence-based policy across multiple sectors.

Sample Registration System (SRS)

- In order to unify the Civil Registration activities, the **Registration of Births & Deaths Act, 1969 was enacted**.
- With a view to generate reliable and continuous data on these indicators, the **Office of Registrar General**, India, initiated the scheme of sample registration of births and deaths in India popularly known as **Sample Registration System (SRS) in 1964-65 on a pilot basis and on full scale from 1969-70.** The SRS since then has been **providing data on a regular basis**.

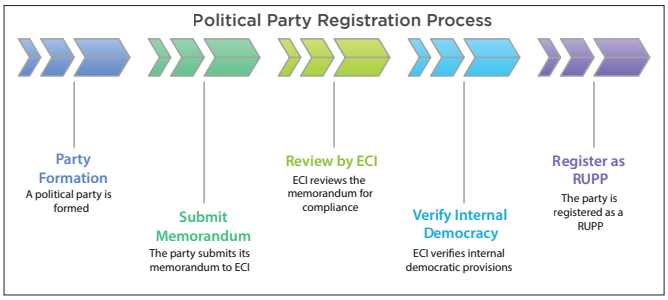
DE-LISTING OF POLITICAL PARTIES

Context

The Election Commission of India (ECI) has initiated steps to de-list 345 Registered Unrecognised Political Parties (RUPPs) that have not contested elections in the last six years.

Political Party Registration in India

- **Constitutional Basis: Article 19(1)(c)** of the Indian Constitution guarantees the right to form associations, which includes the formation of political parties.
- **Legal Basis:** The Representation of the **People Act, 1951**, under **Section 29A**, empowers the Election Commission of India (ECI) to register political parties.



COMPARISON

Feature	Registered Unrecognised Political Parties (RUPPs)	Recognised Political Parties
Legal Basis	Registered under Section 29A of the Representation of the People Act, 1951	Recognised under Election Symbols Order, 1968
Recognition Criteria	Only registration required; no specific performance needed	Based on seat wins or vote share in Lok Sabha/State elections
Election Symbol	Common election symbol allotted for general/state elections	Reserved election symbol
Campaign Starters	Allowed 20-star campaigners	Allowed 40-star campaigners (double that of RUPPs)
Tax Benefits	Eligible for tax exemptions	Eligible for tax exemptions, plus additional privileges
Status	Not officially recognised as a state/ national party	Recognised as State Party or National Party

Issues with the Existing Framework

- **Explosive Growth of RUPPs:** As of May 2025, India has over **2,800 Registered Unrecognized Political Parties (RUPPs)**, but only 750 contested the 2024 General Elections, leading to a surge in **inactive "letter pad parties."**
- **ECI's Limited Deregistration Powers:** The **Supreme Court (2002)** ruling allows ECI to **delist but not deregister parties**, except in

cases of fraud, loss of constitutional allegiance, or declaration as unlawful by the government.

- **Tax Exemption Misuse:** Several inactive RUPPs exploit **tax exemptions under the Income Tax Act** for money laundering or tax evasion, while failing to disclose donor or expenditure details.
- **Lack of Inner-party Democracy:** Most political parties do not conduct **regular internal elections** or follow democratic norms, undermining the spirit of **accountable and participatory governance**.

Recommendations for Reform

- **Law Commission 170th Report (1999) & 255th Report (2015):** It recommended to;
  - Introduce statutory criteria for de-registration,
  - Allow de-registration for failure to contest elections for 10 consecutive years,
  - Mandate internal democracy within parties.
- **The ECI in its memorandum for electoral reforms (2016)** had also suggested amendment to **RP Act, 1951 to;**
  - Provide ECI explicit power to deregister parties,
  - Penalise non-compliance with transparency norms,
  - Deny tax benefits and common symbols to defaulting RUPPs.

NOMINATION TO RAJYA SABHA

Context

The President of India on the advice of the council of ministers has appointed four new individuals as nominated members of the Rajya Sabha.

About

- **Article 80 of the Constitution:** Out of the maximum 250 members in the Rajya Sabha, 12 are nominated by the President of India.
  - The nominated members are chosen for their special knowledge or practical experience in areas such as literature, science, art, and social service.
- **Purpose:** The nomination system ensures that the Rajya Sabha benefits from the insights of eminent personalities who may not wish to contest elections but can contribute significantly to national discourse.
- **Term:** Nominated members serve for a six-year term, the same as elected members.
- **Powers and Rights:** Nominated members enjoy the same rights as other Rajya Sabha members, except they cannot vote in the election of the President of India.

BIHAR ELECTORAL ROLL REVISION

Context

The Election Commission has launched a Special Intensive Revision of electoral rolls in Bihar, sparking debate over the definition of "ordinarily resident"—a key criterion for voter registration in a constituency.

Background

- According to the Election Commission of India, individuals who are not listed in the 2003 electoral rolls of Bihar from the last **Special Intensive Revision** must submit one of 11 specified documents to prove their date and/or place of birth.
  - Further, for those **born after July 1, 1987,** they need their **parents' birth proof too** – which is akin to citizenship proof.
  - The list of documents includes **neither Aadhaar or PAN, nor old voter ID.**
- The Election Commission derives its powers from **Article 324** of the Constitution and carries out revision of electoral rolls under **Section 21** of the **Representation of the People Act (RPA), 1950.**

SPECIAL INTENSIVE REVISION

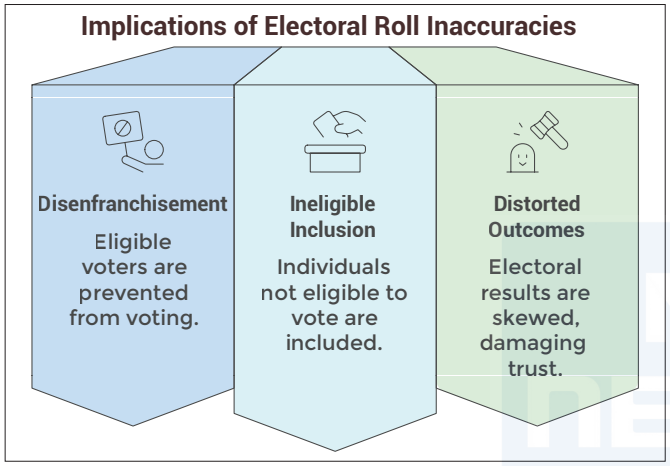
- SIR is authorized under Article 324 of the Constitution and Section 21 of the Representation of the People Act, 1950.
- The main aim is to ensure that every eligible citizen is included in the Electoral Roll (ER), and no ineligible voter remains, thereby upholding the integrity of the electoral process and enabling free and fair elections.
- **Booth Level Officers (BLOs)** conduct house-to-house verification to:
  - Enroll all eligible citizens.
  - Remove ineligible names (such as deceased persons or those who have moved away).
  - Update details for accuracy.

Meaning of Ordinary Resident:

- Eligibility to vote depends on the concept of "ordinary residence", defined under **Section 19 of the RPA, 1950.** A person qualifies if they;
  - Have a genuine, habitual presence in the constituency.
  - Are not present merely temporarily (e.g., students in hostels may not qualify).
  - Intend to stay or return regularly to the location.

India's Commitment to Universal Adult Suffrage

- India after independence adopted universal adult suffrage regardless of gender, caste, religion, education, or property.
- **Article 326** of the Constitution guarantees voting rights to all citizens aged 18 and above, following the **61st Constitutional Amendment, 1989.**
- **Status of the Right to Vote in India:** The Supreme Court in **Kuldip Nayar v. Union of India (2006)** held that the 'right to elect' is a **statutory right** under **Section 62 of the RPA, 1951**, and not a fundamental or constitutional right.
  - **In Anoop Baranwal v. Union of India (2023),** the Supreme Court declined to reopen the settled position.



Special Provisions for Absent Voters

- India also provides alternate voting mechanisms for those unable to vote in person;
  - **Postal ballots under Rule 18** of the **Conduct of Election Rules, 1961** – for armed forces, government officials on duty, and election staff.
  - **Overseas voters** can register under **Section 20A of the RPA, 1950**, though they must **vote in person.**
- Efforts to introduce proxy or online voting for overseas citizens are ongoing but not yet implemented.

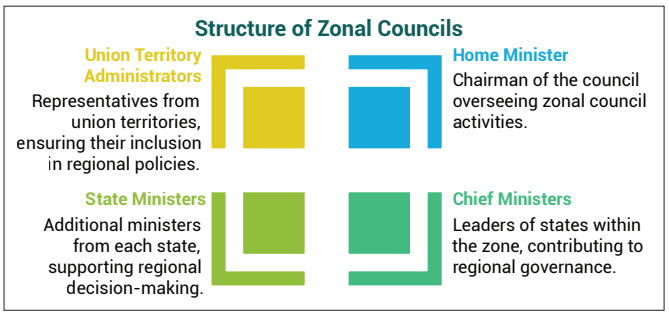
ZONAL COUNCILS OF INDIA

Context

Union Home Minister chaired the 27th meeting of the Eastern Zonal Council in Ranchi, Jharkhand.

About

- The Zonal Councils are the **statutory bodies** established under the **States Reorganisation Act of 1956.**
- The act divided the country **into five zones** (Northern, Central, Eastern, Western and Southern) and provided a zonal council for each zone.
- **Each chief minister acts** as a **vice-chairman** of the council by rotation, holding office **for a period** of one year at a time.



- **North-Eastern Council:** In addition to the above Zonal Councils, a North-Eastern Council was created by a separate Act of Parliament **the North-Eastern Council Act of 1971.**
  - Its members include **Assam, Manipur, Mizoram, Arunachal Pradesh, Nagaland, Meghalaya, Tripura and Sikkim.**
- The zonal councils are only deliberative and advisory bodies. They aim at;
  - **Promoting cooperation and coordination** between states, union territories and the Centre.
  - **Discuss and make recommendations** regarding matters like economic and social planning, linguistic minorities, border disputes, interstate transport, and so on.
- Each Zonal Council has also constituted a **Standing Committee** at the level of **Chief Secretaries.**

AIRCRAFT ACCIDENT INVESTIGATION BUREAU (AAIB)

Context

The AAIB has released its 15-page preliminary report on the investigation into the recent Air India plane crash in Ahmedabad that claimed 260 lives.

About the AAIB:

- The Aircraft Accident Investigation Bureau (AAIB) is a statutory body under Aircraft Act, 1934 falls under the Ministry of Civil Aviation.
  - It is responsible for investigating **civil aviation accidents and serious incidents** occurring within the country.
- **Mandate and Purpose:** Under Rule 3 of the Aircraft (Investigation of Accidents and Incidents) Rules, 2017, the sole objective of AAIB is to prevent future accidents and incidents.
  - It explicitly avoids assigning blame or determining liability.
- **Investigation Powers:** The AAIB is empowered with unrestricted access to all relevant evidence, including flight data, wreckage, and witness accounts, without requiring prior approval from judicial or other government authorities.

CHICAGO CONVENTION & ICAO

- Matters of international civil aviation safety are governed by the **Convention on International Civil Aviation (Chicago Convention, 1944)**.
- **Annex 13** of the Chicago Convention details international protocols for investigating aircraft accidents.
- It mandates that the **'State of Occurrence'** (where the accident happens) leads the investigation, while states connected to the aircraft (like the State of Registry or State of Manufacture) have the right to participate.
- The **International Civil Aviation Organization (ICAO)**, a UN body with 193 member states (including India), oversees technical standards for global air safety.

UNION GOVERNMENT REPORT ON PROTECTION OF CIVIL RIGHTS ACT (PCR ACT) 1955

Context

The Union government's 2022 annual report on the implementation of Protection of Civil Rights Act (PCR Act) 1955, has been made public by the Ministry of Social Justice and Empowerment.

Key Highlights by the 2022 Report

- **Underreporting:** Low case numbers may reflect lack of awareness, fear of retaliation, reluctance to use the law, or preference for the SC/ST Act, rather than actual reduction in untouchability practices.
- **High Pendency and Poor Conviction Rates:**
  - In 2022, 1,242 cases under the PCR Act were pending trial in courts.
  - The pendency rate in courts remains above 97%, indicating sluggish judicial processing.
- **Ineffective Enforcement:** The very high rate of acquittals and pendency signals gaps in investigation, evidence collection, witness/victim protection, and judicial processes.
- **Overlapping Legislation:** The enactment and broader coverage of the SC/ST (Prevention of Atrocities) Act, 1989 has shifted most prosecution of caste-based crimes under its provisions, relegating the PCR Act to limited, less severe offences.
- **Lack of State Initiative:** Several States have not established the required infrastructure or reporting systems, undermining the intended purpose of the Act.

Protection of Civil Rights Act (PCR Act) 1955

- **Article 17 of the Constitution** (enforced on 26 January 1950) legally abolished untouchability.
- To operationalise this constitutional guarantee, the **Untouchability (Offences) Act, 1955 was passed.**
- In 1976, the Act was comprehensively amended and renamed as the Protection of Civil Rights (PCR) Act, to reflect its **focus on the enforcement of civil rights.**

Key Provisions of Protection of Civil Rights Act

- **Definition of 'Civil Rights':** Refers to any right accruing to a person by reason of the abolition of untouchability under Article 17 of the Constitution.
- **Punishable Offences:** Denial of access to public places like temples, wells, shops, restaurants, roads, schools, etc.
  - Refusal to sell goods or render services based on untouchability.
  - Insulting a person on the ground of untouchability.
  - Compulsion to perform menial services or social boycott.
  - Preventing any person from observing any religious or social custom.
- **Nature of Offences:** All offences under the Act are cognizable and non-compoundable.
  - Enhanced punishment for repeat offenders (up to 2 years and fine).
- **Institutional Framework:** Ministry of Social Justice and Empowerment is the nodal ministry for implementation.
  - State-level Vigilance and Monitoring Committees are to be formed.
  - Annual Reports on the Act's implementation are tabled in Parliament.

SUPREME COURT ON FREE SPEECH ON SOCIAL MEDIA

Context

The Supreme Court of India expressed concern over the increasing abuse of the right to free speech, particularly on social media, and stressed the need for self-restraint and regulation.

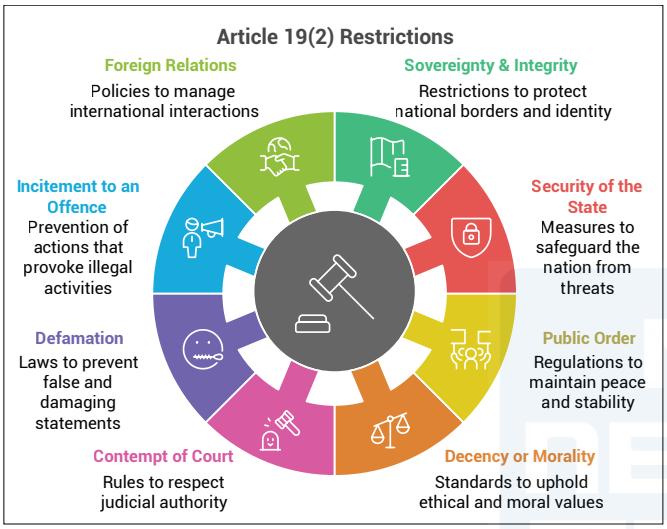
Key SC Observations:

- **Free Speech with Limits:** Article 19(1)(a) allows free speech, but it must be used **responsibly**. If misused, **State action** may become necessary.
- **Divisive Content is Harmful:** Social media posts that undermine unity and integrity **(Article 51A(c))** go against constitutional values like fraternity and secularism.
- **Too Many Legal Cases:** Rising FIRs over speech are burdening the courts and police, diverting attention from serious cases.

- **Citizens Must Self-Regulate:** Instead of State censorship, people should self-regulate their speech to avoid misuse.
- **Rights Violate Other Rights:** Free speech is not just about protection from the State—it can also **violate other citizens' rights,** especially online.

Constitutional Provisions related to Free Speech in India

- **Article 19(1)(a):** Gives all citizens the right to freedom of speech and expression.
- **Covers:** Speech, writing, media, films, and social media.



BILLS OF LADING BILL, 2025

Context

The Bills of Lading Bill, 2025 was passed by the Parliament.

About

- The term "Lading" refers to the loading of cargo onto a ship, aircraft, train, or truck.
- **Meaning of Bill of Lading:** A Bill of Lading (B/L) is a legal document issued by a carrier to acknowledge the receipt of cargo for shipment. It serves as:
  - A receipt of goods,
  - A contract of carriage, and
  - A document of title to the goods.

Bills of Lading Bill, 2025

- **Repeals 1856 Law:** Replaces the outdated **Indian Bills of Lading Act, 1856** with a modern legal framework.
- **Simplified Language:** Uses clear, business-friendly language to reduce legal ambiguity and disputes.
- **Transfer of Rights:** Ensures consignees/endorsees receive full rights and liabilities under the shipping contract—addressing issues of privity of contract.
- **Legal Continuity:** Includes provisions to validate past actions under the old law (repeal and saving clause).
- **Government Powers:** Empowers the Central Government to issue directions for effective implementation.
- **Global Alignment:** Aligns with international shipping norms, paving the way for future adoption of electronic Bills of Lading.

Significance

- **Modernises Maritime Law:** Replaces the outdated 1856 Act with a law reflecting current trade and shipping practices.
- **Boosts Ease of Doing Business:** Simplifies documentation and clarifies rights, reducing litigation and compliance burdens.
- **Promotes Legal Certainty:** Clearly defines roles and responsibilities of shippers, carriers, and consignees.
- **Supports Trade Digitization:** Lays the legal foundation for electronic Bills of Lading (e-BL) and paperless trade.
- **Strengthens India's Global Competitiveness:** Aligns with international conventions to enhance global shipping credibility.
- **Empowers Stakeholders:** Enables consignees and endorsees to enforce contracts, strengthening supply chain trust.
- **Enables Regulatory Flexibility:** Allows the Central Government to amend provisions via directions and notifications.

GOVERNANCE

PALNA SCHEME

Context

The Ministry of Women and Child Development has approved 14,599 Anganwadi-cum-Crèches (AWCCs) under the Palna Scheme, aimed at providing quality daycare and protection to children.

About

- **The Ministry of Women and Child Development** has introduced the Palna Scheme under the **Samarthya Vertical of Umbrella Mission Shakti** for all States and Union Territories in **2022.**
- **Target Beneficiaries:** All children aged 6 months to 6 years and their mothers (irrespective of employment status).
- **Key Features:** Provision of full-day childcare support through Anganwadi Centres. It also focus on nutrition, health, cognitive development, and growth monitoring.
  - Integration with existing Anganwadi infrastructure to ensure last-mile delivery.

SWACHH SURVEKSHAN 2024-25 RANKINGS

Context

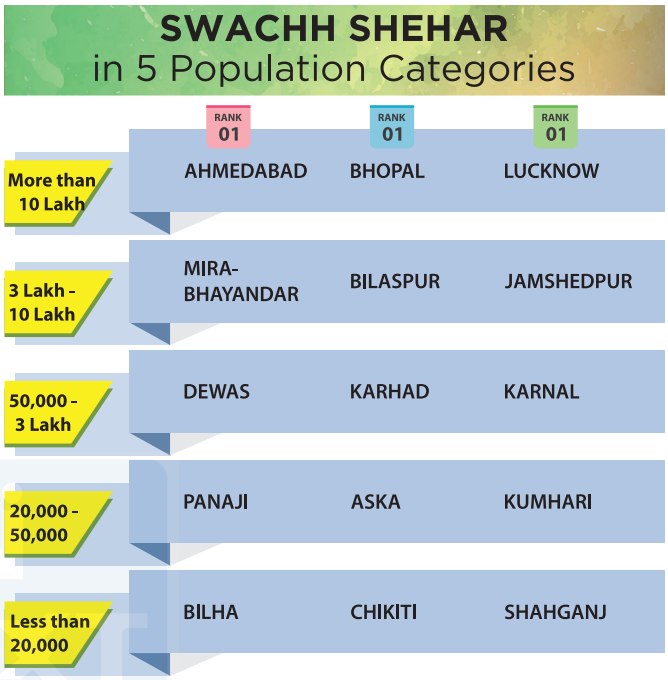
The Swachh Surveksha Awards 2024-25 were presented by President Droupadi Murmu at a ceremony organised by the Ministry of Housing and Urban Affairs (MoHUA).

About

- It is a flagship initiative under **Swachh Bharat Mission-Urban (SBM-U)** and has played a pivotal role in driving cleanliness in urban India—engaging communities, changing mindsets, and motivating action for the past nine years.
- Beginning with just 73 urban local bodies in 2016, the latest edition now covers over **4,500 cities.**
- The SS 2024-25 awards emphasize the theme of **Reduce, Reuse, Recycle.**
  - In total, 78 awards were presented, recognising cities, cantonments, and institutions for their exemplary performance across a range of sanitation parameters.
- This year, Swachh Surveksha introduced a simplified, inclusive assessment framework allowing smaller cities to compete fairly with larger ones under the "One City, One Award" principle.

Major Updates

- Indore, Surat, and Navi Mumbai have once again secured the top spots in urban sanitation, emerging as the cleanest cities in the Swachh Surveksha 2024-25 rankings.
  - The three cities were ranked first, second, and third, respectively, in the newly introduced **"Super Swachh League,"** which recognises sustained excellence in cleanliness.
- **Ahmedabad, Bhopal, and Lucknow** were declared the **new generation** of top clean cities, emerging as India's leading Swachh Shehars.



- **Prayagraj** was honoured as the **Best Ganga Town,** while Secunderabad Cantonment Board was awarded for its strong sanitation efforts.
- **Visakhapatnam, Jabalpur, and Gorakhpur** received recognition as the **Best SafaiMitra Surakshit Shehars** for prioritising the safety, dignity, and welfare of sanitation workers.
- **A special award** was conferred upon the **Government of Uttar Pradesh,** the **Prayagraj Mela Adhikari,** and the **Municipal Corporation of Prayagraj** for successfully managing urban waste during the Mahakumbh, which saw a record footfall of approximately 66 crore people.

The Swachh Bharat Mission - Urban (SBM-U)

- It was launched on October 2, 2014, with the goal of eliminating open defecation and ensuring **100% scientific management** of municipal solid waste in over 4,000 towns across India.
- Its second phase, SBM-U 2.0, began on October 1, 2021, and will run until 2026, aiming to make all cities **"Garbage Free"** and promote lasting cleanliness habits among citizens.
- It is being Implemented by the Ministry of Housing and Urban Affairs through states and urban local bodies.
- It supports India's commitment to the Sustainable Development Goals (SDG) 2030 by improving urban living standards and driving urban transformation.

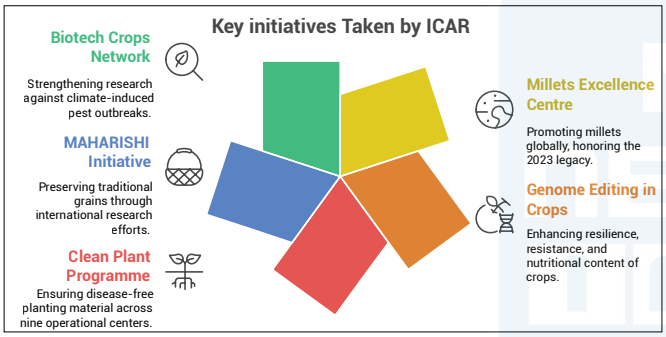
INDIAN COUNCIL OF AGRICULTURAL RESEARCH

Context

The 97th foundation of Indian Council of Agricultural Research (ICAR) organised was observed recently.

About ICAR

- It is an autonomous body under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare, Government of India.
- ICAR is the apex body for coordinating, guiding, and managing research and education in agriculture and allied sectors in India.
- Established in 1929, it was earlier known as the Imperial Council of Agricultural Research.
- It is headquartered at NASC Complex, New Delhi.



CENTRE BLOCKS 25 OTT PLATFORMS OVER OBSCENE CONTENT

Context

The Ministry of Information and Broadcasting has directed the blocking of websites and apps of at least 25 OTT platforms for allegedly providing obscene and vulgar content.

Factors Causing Rise in Obscenity

- **Rapid Growth of Digital Platforms:** The proliferation of OTTs, social media, and video-sharing sites has enabled easy access and dissemination of objectionable content.
- **Lack of Pre-Screening on OTT Platforms:** Unlike films, OTT content is not subject to prior certification, allowing creators to bypass traditional censorship.
- **Inadequate Content Regulation Mechanisms:** Weak enforcement in self-regulatory frameworks result in unchecked publication of obscene material.
- **Anonymity and Encryption:** Users often exploit encrypted apps and anonymous browsing tools to share and consume explicit content, escaping legal scrutiny.

Legal Framework Governing Obscenity in India

- **Information Technology (IT) Act, 2000:**
  - **Section 67:** Punishes publishing/transmitting obscene material electronically.
  - **Section 67A:** Specifically penalizes sexually explicit content.
- **Bharatiya Nyaya Sanhita (BNS), 2023:** Section 294 (previously Section 292 of IPC, 1860) prohibits sale or distribution of obscene materials including digital content.
- **Indecent Representation of Women (Prohibition) Act, 1986:** Section 4 bans advertisements or publications that depict women indecently.
- **IT Rules, 2021:**
  - Mandates OTT platforms to adhere to a Code of Ethics.
  - It also provides a three-tier grievance redressal mechanism.
  - Includes oversight by the Digital Publisher Content Grievances Council (DPCGC), a self-regulatory body led by a former SC judge.

Important Judgments and Committees

- **Justice for Rights Foundation v. Union of India, 2018:** The Supreme Court transferred a plea seeking stricter regulation of OTT content to the Ministry of I&B, which later led to the formulation of self-regulation mechanisms under the **IT Rules, 2021.**
- **Shyam Divan Committee:**
  - It was established in **2021 by the Ministry of Information and Broadcasting** to draft a code of ethics and examine the need for regulation of content on digital media platforms, especially OTTs.
  - It called for self-regulation with government oversight, and accountability mechanisms for digital publishers and OTT platforms.

FIVE YEARS OF NATIONAL EDUCATION POLICY

Context

The National Education Policy, 2020 completed Five Years since its adoption.

Key Features of NEP 2020

- **Structural Reform:** Shift from the 10+2 system to a 5+3+3+4 curricular structure—covering ages 3–18 across foundational, preparatory, middle, and secondary stages.

- **Foundational Literacy & Numeracy:** Emphasis on basic reading and arithmetic skills through initiatives like NIPUN Bharat for all children by Grade 3.
- **Mother Tongue & Multilingualism:** Promotes instruction in the mother tongue/regional language up to at least Grade 5 (preferably till Grade 8); advances the three-language formula.
- **Holistic & Multidisciplinary Education:** Multiple entry/exit options in higher education; flexible subject choices across streams.
- **Vocational & Skill Education:** Integration of vocational courses and internships from an early stage, with at least 50% learners exposed to vocational education by 2025.
- **Technology Integration:** National Digital Education Architecture (NDEAR), DIKSHA, and PM e-VIDYA as digital platforms for inclusive and scalable education delivery.
- **Higher Education Reforms:** Push for multidisciplinary institutions, Academic Bank of Credits (ABC), National Research Foundation, and increased autonomy for colleges/universities.
- **Universal Access & GER Targets:** Universal school access by 2030; Gross Enrolment Ratio (GER) in higher education to 50% by 2035.

Achievements and Impact (2020–2025)

1. *School Education*

- **PM SHRI Schools:** Over 6,400 schools have been upgraded into model institutions across 27 States and UTs, setting benchmarks for NEP-aligned pedagogy and infrastructure.
- **Foundational Literacy and Numeracy (FLN):** The NIPUN Bharat Mission has shown tangible progress in improving foundational skills.
  - As per ASER 2024, 23.4% of Class III students could read Grade II-level text, a notable rise from 16.3% in 2022.
- **Digital Learning Transformation:**
  - The DIKSHA platform has surpassed 5 billion learning sessions, becoming a key pillar in ensuring continuity of education through multilingual, multimodal content.
  - Platforms like PM e-VIDYA and SWAYAM expanded reach, especially during the pandemic.

2. *Higher Education*

- **Academic Bank of Credits (ABC):** Enabled academic flexibility through credit portability. Over 1,667 institutions onboarded, and 32 crore ABC IDs generated for seamless student movement across institutions.
- **Institutional Expansion and Multidisciplinarity:**
  - Establishment of Multidisciplinary Education and Research Universities (MERUs) to promote liberal, research-driven learning.
  - Encouraged cluster colleges and autonomous degree-granting institutions.

3. *Equity, Access, and Inclusion*

- **Improved Enrollment and Access:** Gross Enrollment in Higher Education reached 4.46 crore, indicating strong progress toward the 50% GER target by 2035.
  - Focused initiatives have significantly increased enrollment among SC, ST, Muslim, and North-East students, with growth ranging from 36% to 75%.
- **Support for Disadvantaged Groups:** Special attention to mainstreaming out-of-school children, gender inclusion, and infrastructure in rural and tribal areas. Expansion of gender inclusion funds and scholarship schemes.

BIHAR BECOMES FIRST STATE TO VOTE USING MOBILE APP

Context

Bihar has become the first state in the country to launch e-Voting facilities using mobile applications in municipal bodies elections and by-polls.

About

- Polling is taking place in **Six Nagar Panchayat and 36 different other municipal bodies.**
- The facilities are available for those people **who are unable to go to polling booths to cast their votes.** Senior citizens, disabled people and pregnant women can avail this option.
- Voters have to install the **E-SECBHR app** which is now currently available only for Android users.

Methods to Prevent Tampering

- **Only two registered voters** are allowed to log in using one mobile number verification of each voter is being done by **entering the vote id number.**
- **Blockchain technology** ensures that votes are recorded and saved in a secure, immutable system
- **Facial recognition and matching assist** in the verification of voter identities during login and voting.

MY BHARAT 2.0 PLATFORM

Context

The Ministry of Youth Affairs and Sports (MYAS) signed an MoU with the Digital India Corporation (DIC) to develop MY Bharat 2.0 Platform.

About MY Bharat

- It is a **dynamic technology platform** that serves as an institutional framework to engage and mobilize the youth of India in a structured and meaningful manner.

- It encourages **purposeful youth engagement and civic responsibility** by allowing young citizens to create digital profiles, participate in volunteering and learning programs, connect with mentors and peers, and contribute to building a **developed India by 2047.**
- It was officially **launched in 2023** and as of now, over 1.76 crore youth and more than 1.19 lakh organizations have registered on MY Bharat platform.
- **MY Bharat 2.0 Platform** is an upgraded national youth platform aimed at digitally empowering and connecting India's youth.
  - It will be rebuilt with modular architecture for scalability, include new AI-driven features like a Smart CV Builder, personalized digital profiles, AI chatbots, speech-to-text, and WhatsApp integration, and offer enhanced accessibility through voice navigation.

PRADHAN MANTRI DIVYASHA KENDRA

Context

The Union Ministry of Social Justice & Empowerment, Government of India, is set to inaugurate the 75th Pradhan Mantri Divyasha Kendra (PMDK) at Uttar Pradesh.

About

- PMDK is a **unique initiative** aimed at providing **integrated services under one roof**—including assessment, evaluation, counselling, distribution, and post-distribution care—for eligible Divyangjan and elderly beneficiaries.
- With the launch of this centre, the total number of operational PMDKs across India **reaches 75.**

Pradhan Mantri Divyasha Kendra

- It is a government-run initiative established to provide **comprehensive rehabilitation and assistive services to:**
  - Persons with disabilities (Divyangjan), and
  - Senior citizens in need of mobility or sensory support.
- The centres function under the **Ministry of Social Justice & Empowerment,** and are implemented by **ALIMCO** (Artificial Limbs Manufacturing Corporation of India), a central public sector enterprise.
- **Target Groups:** Persons with disabilities (PwDs), identified under the Rights of Persons with Disabilities Act, 2016.
  - **Senior citizens:** Particularly those belonging to Economically Weaker Sections (EWS).

SANCHAR MITRA SCHEME

Context

The Department of Telecommunications (DoT) has expanded its 'Sanchar Mitra Scheme' across India.

About

- **Objective:** To promote digital safety, cyber fraud prevention, responsible mobile usage, and electromagnetic field (EMF) radiation awareness through student volunteerism.
- **Volunteer Engagement:** Volunteers named Sanchar Mitras.
  - Targeted students from telecom, electronics, computer science, and cybersecurity streams.
  - Nominated via local Department of Telecommunications (DoT) offices.
- **Training & Exposure:** Provided by National Communications Academy–Technology (NCA-T) and DoT's Media Wing.
  - **Focus areas:** 5G, 6G, Artificial Intelligence (AI), cyber security.
- **Incentives:** Top performers may get internships, project work, and representation at events like India Mobile Congress and ITU conferences.

FaceAuth

Context

Himachal Pradesh became the first state in the country to introduce Aadhaar-based face authentication (FaceAuth).

About

- FaceAuth is introduced for the distribution of ration to eligible beneficiaries under the Public Distribution System (PDS).
- Until now, **authentication** was carried out using either **OTP-based or biometric methods.** However, **frequent challenges** such as SMS delivery failures and biometric mismatches at the UIDAI end were causing inconvenience to the beneficiaries.
- This new facility uses a **mobile camera via an app** installed on the fair price shop (FPS) owner's smartphone**, enabling direct facial authentication of beneficiaries.**
- **Significance:** The new system is expected to improve the authentication success rate and reduce verification time, ensuring a faster and more efficient ration distribution process.

2 INTERNATIONAL RELATIONS

U.S. TO WITHDRAW FROM UNESCO

Context

The United States has decided to withdraw from the UN cultural and education agency UNESCO.

Reasons Behind Withdrawal

- **Perceived Anti-Israel Bias:** The U.S. accused UNESCO of having a consistent institutional bias against Israel, particularly in its resolutions and decisions related to West Asia.
- **Misalignment with U.S. Foreign Policy:** The U.S. claimed that many of UNESCO's initiatives and positions are inconsistent with its "America First" policy, especially on global cultural and educational priorities.
- **Concerns over Structural Reforms:** The U.S. expressed long-standing concerns about the need for comprehensive internal reforms within UNESCO to enhance efficiency, transparency, and accountability.

Impacts of US Withdrawal from UNESCO

- **Financial and Structural:** The US is a significant funder & its withdrawal impacts UNESCO's budget, threatening program continuity in education, culture, and heritage conservation.
- **Global Heritage and Science:** UNESCO oversees World Heritage Sites, including 26 in the US (Statue of Liberty, Grand Canyon, etc.). US sites may lose funding for preservation and miss opportunities for new inclusions.
- **Geopolitical and Diplomatic:** US absence creates vacuums for other powers (notably China) to boost influence in setting global norms and priorities. Seen as a retreat from multilateralism which may embolden other states to deprioritize UN agencies.

About UNESCO

- **Foundation:** Established in 1945 after World War II, its constitution came into force in 1946.
- **Objective:** It aims to foster peace through cooperation in education, science, culture, and communication.
- **Headquarters:** Paris, France.
- **Members:** 194 Member States and 12 Associate Members (as of July 2025, the USA rejoined in July 2023).
- **Governing Bodies:** General Conference and Executive Board.
- **Important reports from UNESCO:** Global Education Monitoring Report
  - The United Nations World Water Development Report
  - **UNESCO Science Report:** Towards 2030
  - Global Ocean Science Report
- **Key Programs and Initiatives:** Man and the Biosphere (MAB) Programme (1971), International Hydrological Programme (IHP), Global Geoparks Network, World Heritage Convention (1972), UNESCO Creative Cities Network (UCCN) etc.

SEA SHIP OBSERVER MISSION

Context

The Coast Guards of India, Japan, United States, and Australia have launched the first-ever 'QUAD at Sea Ship Observer Mission.'

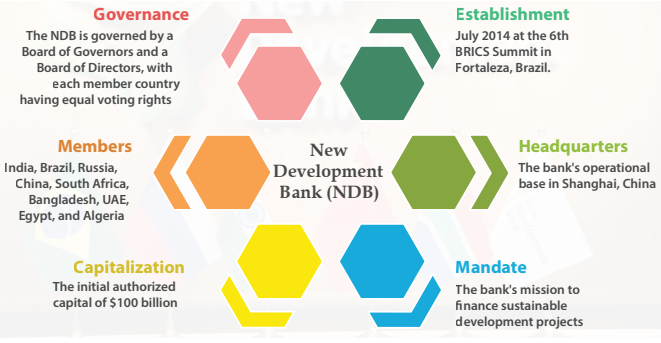
About

- The observer-at-sea engagement marks a first-of-its-kind initiative among the **Indian Coast Guard, Japan Coast Guard, United States Coast Guard, and Australian Border Force.**
- It is based on the **Wilmington Declaration** adopted at the QUAD Leaders' Summit in 2024.
- **The mission reflects** the collective resolve of the QUAD to strengthen a free, open, inclusive and rules-based Indo-Pacific.
- India's involvement underlines its **strategic SAGAR (Security and Growth for All in the Region) doctrine and supports its broader Indo-Pacific Oceans Initiative (IPOI).**

COLOMBIA AND UZBEKISTAN JOINED NDB

Context

Colombia and Uzbekistan have officially joined the New Development Bank (NDB), expanding the multilateral lender's membership to 11 countries.



INDIA-SOUTH AFRICA MARITIME PARTNERSHIP

Context

India and South Africa signed two agreements on submarine cooperation during the 9th Joint Defence Committee meeting in Johannesburg.

Significance of Cooperation between Two Countries

- **Blue-Water Collaboration:** For India's goal to bolster blue-water naval presence, cooperation with South Africa enhances reach across the Indian and Atlantic Oceans.
- **Shared Security Beyond Submarines:** These agreements bolster not just rescue, but also training, surveillance, and joint R&D—a key to addressing threats like piracy, trafficking, and strategic rivalries.
- **Defence Industrial Growth:** India's defence manufacturing prowess, highlighted by Defence Secretary, aligns well with South Africa's naval modernization ambitions.
- **Regional & Historical Significance:** Rooted in shared anti-colonial histories, this partnership extends diplomatic convergence into deeper defence integration.

India-South Africa Relations

- **History of Friendship:** India and South Africa share historic ties rooted in the struggle against colonialism and apartheid. India was the first country to cut trade ties with the apartheid regime in **1946** and led international efforts at the **UN** and **NAM** to impose sanctions.
- **Diplomatic Relations:**
  - Formal diplomatic ties were restored in 1993.
  - The Red Fort Declaration of 1997 created a Strategic Partnership.
  - 2023 marked 30 years of renewed diplomatic relations.
- **Defence and Maritime Cooperation:** Defence cooperation began in **1996.**
  - India and South Africa conduct joint naval exercises like IBSAMAR (India-Brazil-South Africa Maritime) and MILAN.
  - South Africa also participates in India-Africa Defence Dialogue and has sent liaison officers to India's IFC-IOR.
- **Political Engagement:** India and South Africa regularly hold high-level meetings at **BRICS, G20, and IBSA forums.**
  - President Cyril Ramaphosa was the Chief Guest at India's Republic Day in 2019.
- **Trade and Investment:** Bilateral trade reached $19.25 billion in 2023–24.
  - India exports vehicles, pharma products, rice, and chemicals.
  - It imports gold, coal, copper ore, phosphoric acid, and manganese from South Africa.
  - India is among the top 10 trading partners of South Africa.
- **Skill and Education Cooperation:** The Gandhi–Mandela Centre of Specialisation was set up in Pretoria in 2021 to train artisans.
  - India offers ITEC training programmes for South African professionals.
- **Indian Diaspora:** South Africa has a **1.7 million** strong Indian-origin population.

INDIAN DIASPORA IN TRINIDAD & TOBAGO

Context

Thirty-five million members of the Indian diaspora spread across the world are India's "pride", said Prime Minister Narendra Modi at an event of the people of Indian origin in Trinidad and Tobago.

About

- The PM announced that **sixth generation** Indian-origin citizens of Trinidad and Tobago will receive the **Overseas Citizens of India (OCI) card soon.**
  - The announcement is the first such outreach by India to the Caribbean nation which is marking the **180th anniversary of the arrival of the Girmitiyas — in 2025.**
- **Trinidad and Tobago also became the first country in the Caribbean to adopt India's UPI (Unified Payments Interface) system** that would help in transfer of finance between the two sides.

GIRMITIYA COMMUNITY

- "Girmitiyas" were Indian labourers who left India in the mid to late 19th century to work in British colonies, where many eventually settled.
- The term "Girmit" is a mispronunciation of "Agreement," referring to the contract under which they migrated.
- The labourers were taken to colonies like Mauritius, Fiji, Trinidad and Tobago, South Africa, etc.
- They have strong links with **Bihar and Eastern UP and have a bhojpuri-speaking heritage.**

Indian Diaspora

- The diaspora encompasses a group of people who can **either trace their origins to India** or **who are Indian citizens living abroad, either temporarily or permanently.**
- **As per the Indian Ministry of External Affairs [2024],** the global Indian diaspora numbers approximately 35.42 million, consisting of 15.85 million non-resident Indians (NRIs) and 19.57 million people of Indian origin (PIOs).
- **Top 5 countries where the Indian diaspora resides:** United States of America (USA): 5.4Mn, United Arab Emirates (UAE): 3.6Mn, Malaysia: 2.9Mn, Canada: 2.8Mn and Saudi Arabia: 2.4Mn.
- **India is the origin of the largest number of international migrants** in the world, touching nearly 18 million, according to the UN World Migration Report 2024.

Importance of the Diaspora

- **Remittances:** In 2024, India received **$129.1 billion in remittances**, contributing 14.3% to global remittance flows, bolstering forex reserves and rural incomes.
- **Investment & Trade:** NRIs and PIOs invest in **real estate, startups, and infrastructure**, and act as vital trade bridges between India and their host countries.
- **Tech & Innovation:** Indian-origin professionals facilitate **technology transfer, innovation, and mentorship**, particularly from hubs like Silicon Valley.
- **Cultural Ambassadors:** The diaspora promotes **Indian languages, yoga, cuisine, cinema, and festivals**, enhancing India's cultural footprint globally.
- **Policy Advocacy:** Diaspora communities influence **foreign policy in their host countries**, lobbying for India-friendly decisions.
- **Citizen Diplomacy:** Diaspora networks help India during **bilateral tensions or media crises**, serving as informal diplomatic channels.

GEELONG TREATY UNDER AUKUS

Context

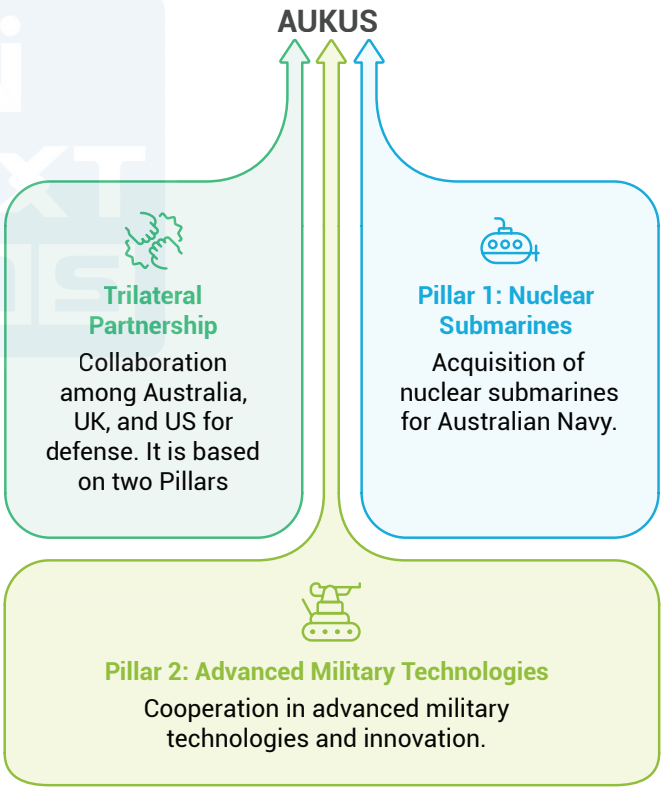
Australia and the UK signed the bilateral Nuclear-Powered Submarine Partnership and Collaboration Treaty (the Geelong Treaty) in Geelong, Australia, solidifying their commitment to the AUKUS defense pact.

About

- The Geelong Treaty is a historic agreement that commits the UK and Australia to **50 years** of bilateral defense cooperation under **AUKUS Pillar I.**
- The Treaty will enable comprehensive cooperation on the design, build, operation, sustainment, and disposal of their **SSN-AUKUS submarines.**
- The signing of the treaty came as the United States wavered on its role in the AUKUS alliance.
  - It has announced a review of the trilateral security partnership to determine whether the agreement aligns with the **America First agenda.**

Reasons Behind formation of AUKUS:

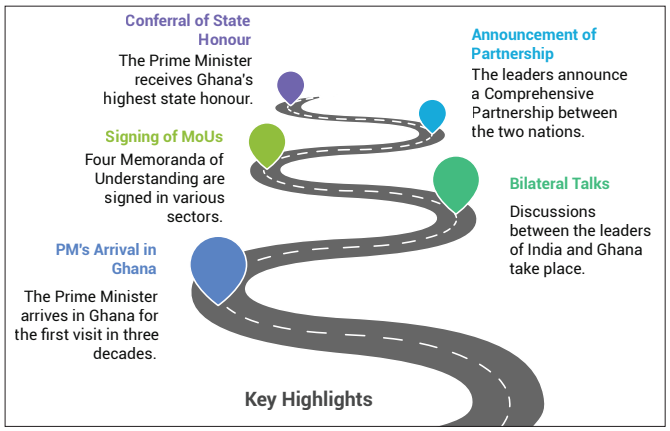
- **China's Growing Assertiveness:** Rising tensions in the Indo-Pacific due to China's territorial claims and military build-up.
- **Shared Security Concerns:** Member nations aim to uphold peace, stability, and freedom of navigation in the region.
- **Defence Tech Cooperation:** Focus on advanced defense technologies, including nuclear-powered submarines and AI capabilities.
- **Stronger Strategic Alliance:** Deepens security ties between Australia, the UK, and the US.
- **Response to Regional Shifts:** Reflects efforts to counterbalance China's influence through closer partnerships and deterrence strategies.



PM VISITED TO GHANA

Context

Prime Minister Narendra Modi was on Official visit of Ghana.



Brief on India-Ghana Relations

- **Historical Ties**
  - India and Ghana share deep-rooted ties based on **anti-colonial solidarity and cooperation in the Global South**.
  - India set up its office in **Accra in 1953**, four years before Ghana's independence in 1957. Both are **founding members of the Non-Aligned Movement**.
- **Geo-Strategic: Gateway to West Africa:** Ghana is considered a **political and economic gateway to West Africa,** the **democratic stability** makes Ghana an ideal partner for India's African engagement strategy.
  - Its geographic location and regional influence allow India to deepen its engagement with ECOWAS (Economic Community of West African States).
- **Geo-Economic:**
  - India is among **Ghana's top trading partners**, with **bilateral trade worth USD 3 billion in 2023–24**.
  - Over **70% of India's imports from Ghana are gold**, while **Indian pharmaceuticals** are crucial for Ghana's healthcare sector.
  - India is among the **top investors in Ghana**, investing over **$1.2 billion** in sectors like **agro-processing, mining, and ICT**.
  - In 2024, India ranked **2nd in project count and 8th in FDI value**.
  - India has provided **$450 million in concessional credit and grants**, supporting projects like the **Kofi Annan ICT Centre**, **Komenda Sugar Plant**, and the **Tema-Mpakadan Railway Line (2024)**.
- **Capacity Building & Digital Cooperation:**
  - Over **1,600 scholarships** have been offered under the **e-Vidya Bharati and e-Arogya Bharati network**, and Ghana benefits from the **Pan-African e-Network for telemedicine and tele-education**.
- **Cultural and Humanitarian Ties:**
  - A **Cultural Agreement (1981)** ensures regular **cultural exchanges**.
  - India also provided **COVID-19 vaccine support**—50,000 doses as a grant and 1.6 million via **COVAX**.
- **Indian Diaspora:** Ghana hosts a **15,000-strong Indian community**, some of whom have lived there for over **70 years**, contributing to trade, business, and social sectors.

Challenges

- **Trade Imbalance:** Ghana exports mainly raw materials, while India exports finished goods, creating trade inequality.
- **Poor Connectivity:** Lack of direct air and sea routes limits trade and tourism growth.
- **Low Awareness:** Indian investors lack knowledge of Ghana's emerging sectors and economic potential.
- **Regulatory Hurdles:** Complex approvals and policy delays in Ghana affect ease of doing business.
- **Security Concerns:** Crime and instability in parts of Ghana discourage investment and expatriate presence.
- **Weak Project Execution:** Indian developmental aid is underutilized due to local administrative inefficiencies.

Way Forward

- **Diversify Trade:** Encourage Ghana to export more value-added goods to balance trade.
- **Improve Connectivity:** Promote direct flight routes and better shipping links between the two nations.
- **Promote Investment Awareness:** Organize India–Ghana business summits and trade expos.
- **Ease Regulatory Barriers:** Support Ghana in streamlining approval and taxation systems.
- **Enhance Security Cooperation:** Strengthen diplomatic engagement to ensure safety for businesses and citizens.
- **Strengthen Project Monitoring:** Set up joint implementation bodies for timely and efficient execution of aid projects.

3 ECONOMY

INDIA'S EXTERNAL DEBT RISES TO $736 BILLION

Context

India's external debt rose to $736.3 billion, or 19.1 per cent of gross domestic product (GDP), at the end of March 2025 from $668.8 billion, or 18.5 per cent of GDP, a year ago.

What is External Debt?

- External debt is the portion of a country's debt borrowed from foreign lenders, including sovereign governments, international financial institutions, and private commercial entities.
- **It can be categorized into:**
  - **Long-term debt** (original maturity over one year)
  - **Short-term debt** (original maturity up to one year)

'ONE BIG BEAUTIFUL BILL': FOREIGN REMITTANCE TAX

Context

The U.S. Congress passed President Trump's "One Big Beautiful Bill" on July 03, 2025. The legislation introduced a 1% levy on remittances made through cash, money orders, or cashier's cheques.

About

- The remittance tax rate was originally set at 5%, but was reduced to 1% in the final version of the Bill.
- It targets international money transfers made by non-U.S. citizens, including green card holders and temporary visa workers like those on H-1B or H-2A visas. The proposed levy will not be applicable to U.S. citizens.
- The Bill also **exempts** remittances made from "an account held in or by a financial institution" and those "funded with a debit card or a credit card issued in the United States".

Implications for India

- India is the world's top recipient of foreign remittances. The Indian diaspora sent a record **$135.46 billion** in remittances during the **FY25**, according to the RBI.
- Reserve Bank of India data shows the **U.S.** is the **largest source of remittances to India, accounting for 27.7% or $32.9 billion** of the remittances that flowed into the country in 2023-24.
- In States like Kerala, Uttar Pradesh, and Bihar, millions of families rely on remittances to cover essential expenses like education, healthcare, and housing.
- The tax on foreign remittances could have led to a **decline in remittance inflows to India**, adversely **impacting foreign exchange reserves**, and by extension, the current account balance.

FINANCIAL FRAUD RISK INDICATOR (FRI)

Context

The Reserve Bank of India (RBI) has advised all Scheduled Commercial Banks, Small Finance Banks, Payments Banks, and Co-operative Banks to integrate the Financial Fraud Risk Indicator tool.

About

- It was launched by the Department of Telecommunications (DoT) Intelligence Unit in May 2025.
- It is a **risk-based metric** that **classifies a mobile number** to have been associated with Medium, High, or Very High risk of financial fraud.
  - This classification is an outcome of inputs obtained from various stakeholders including reporting on Indian Cyber Crime Coordination Centre (I4C's) National Cybercrime Reporting Portal (NCRP), DoT's Chakshu platform, and Intelligence shared by banks and financial institutions
- It **helps banks, NBFCs, and UPI providers prioritize** actions against high-risk numbers by declining suspicious transactions and issuing alerts.
  - Major institutions like PhonePe and ICICI Bank are already using FRI, enhancing fraud prevention in India's digital payments ecosystem.

NATURAL GAS PIPELINE TARIFF REGULATIONS

Context

The Petroleum and Natural Gas Regulatory Board (PNGRB) has approved the Second Amendment to the Natural Gas Pipeline Tariff Regulations, 2025.

Key Amendment

- **Streamlined Tariff Zones:** PNGRB has **reduced the number of Unified Tariff Zones from three to two**, simplifying the natural gas transportation system across the country.
  - This initiative ensures a more equitable tariff structure and enhances access to natural gas, especially in underserved regions.
- **CNG & PNG (Domestic) Boost:** The benefit of the Unified Zonal Tariff of Zone 1 has been extended nationwide to Compressed Natural Gas (CNG) and Piped Natural Gas (PNG) Domestic segments.
  - This is poised to make natural gas more affordable for urban households and transport networks, thereby supporting broader clean energy adoption.
- **Efficient Fuel Procurement Mandate:** To stabilize tariffs and ensure efficiency in supply, PNGRB has mandated pipeline operators to procure at least 75% of their annual system-use gas through long-term contracts (minimum three-year tenure).
  - This will lower procurement risks, reduce transaction costs, and ultimately result in more predictable and affordable tariffs for consumers and investors alike.
- **Pipeline Development Reserve – A Sustainable Infra Model:** To fund future expansion, PNGRB has introduced a dedicated Pipeline Development Reserve, utilizing earnings from pipeline entities that exceed 75% utilization benchmarks.
  - Notably, 50% of these net-of-tax earnings will be reinvested into infrastructure development, while the remaining 50% will be passed on to the consumers through tariff adjustments—creating a performance-linked, self- sustaining model for growth.

Importance:

- This regulatory overhaul reflects PNGRB's strategy to simplify the market structure, promote cleaner fuels, and build an inclusive gas-based economy anchored in the vision of "One Nation, One Grid, One Tariff."

Petroleum and Natural Gas Regulatory Board

- It is a statutory body established under the Petroleum and Natural Gas Regulatory Board Act, 2006.
- Its primary mandate is to regulate downstream activities in India's petroleum and natural gas sector, excluding the production of crude oil and natural gas.
- The Board has powers similar to a civil court for settling disputes and maintains a data bank on sector activities.
- PNGRB has developed the National Hydrocarbon Infrastructure Monitoring System (NHIMS) for real-time monitoring of petroleum and natural gas transport infrastructure.

INDIA'S ALUMINIUM AND COPPER VISION DOCUMENT

Context

India has launched two vision documents aimed at scaling aluminium and copper production to meet future demands and support the country's growth by 2047.

About the Documents

- The **Aluminium Vision Document** aims to **increase production** six fold by 2047, expanding bauxite production capacity to 150 MTPA, doubling the aluminium recycling rate, and promoting low-carbon technologies.
  - It highlights the **role of aluminium in clean energy,** electric mobility, and modern infrastructure.
  - To meet demand, production must rise from 4.5 million tonnes per annum (MTPA) to 37 MTPA by 2047, requiring over ₹20 lakh crore in investment.
- The **Copper Vision Document** anticipates a sixfold increase in demand by 2047 and calls for a 5 million tonnes per annum increase in smelting and refining capacity by 2030.
  - The strategy focuses on increasing secondary refining, enhancing domestic recycling, and securing overseas mineral assets through global partnership.

Additional Information

India is the 2nd largest Aluminium producer, among top-10 producers in refined copper and 3rd largest iron ore producer in the world.

INDIA MAIZE SUMMIT 2025

Context

Union Minister of Agriculture and Farmers Welfare & Rural Development inaugurated the 11th edition of the India Maize Summit.

About

- Maize, often known as **Indian corn**, is globally called the **queen of cereals** due to its highest genetic yield potential.
- In India, it is the **third most important food crop after rice and wheat.**
- Maize is a **rainfed Kharif crop** primarily grown in regions with semi-arid conditions (25 – 75 cm rainfall), where rice and wheat production is not feasible.
- In Tamil Nadu, **maize is a rabi crop** sown before the onset of the winter rainy season in September and October, as rains occur mostly in November and December in eastern Tamil Nadu.

- **Maize can be grown in various soils**, from loamy sand to clay loam. India's maize production has grown from 10 Mn MT in the 1990s to 42.3 Mn MT in recent years, with a projected target of 86 Mn MT by 2047.
- Maize is cultivated in almost all Indian states, with the major producing states being Karnataka, Madhya Pradesh, Maharashtra, Bihar, and Uttar Pradesh.

Genetic Yield Potential

- It refers to the maximum possible yield of a crop variety under ideal environmental conditions and with optimal management practices, assuming no limitations from water, nutrients, or other stresses.
- It represents the highest yield that a plant with a specific genetic makeup can achieve when all other factors are optimized.

FUGITIVE ECONOMIC OFFENDERS ACT

Context

A Delhi special court declared a UK-based arms dealer a Fugitive Economic Offender under the Fugitive Economic Offenders (FEO) Act.

About:

- **A Fugitive Economic Offender (FEO) is a person:**
  - Against whom an arrest warrant has been issued for committing a scheduled economic offence involving ₹100 crore or more, and
  - Who has left India to avoid criminal prosecution or refuses to return to face the legal process.
- It is defined under the Fugitive Economic Offenders Act, 2018.
- A director or deputy director (appointed under the Prevention of Money-Laundering Act, 2002) may file an application before a special court (designated under the 2002 Act) to declare a person as a fugitive economic offender.
- The director or deputy director may attach any property mentioned in the application with the permission of a special court.
- Appeals against the orders of the special court will lie before the High Court.

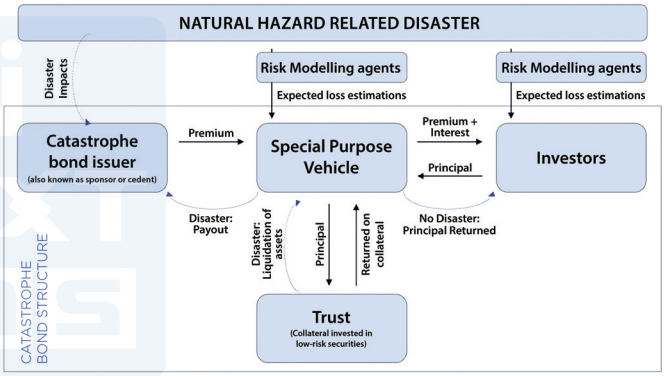
CATASTROPHE BONDS (CAT BONDS)

Context

Recently experts have advocated for India to consider catastrophe bonds (cat bonds) as a financial instrument to manage disaster risk and post-disaster reconstruction costs.

What is a Cat Bond?

- Cat bonds are a unique **hybrid insurance-cum-debt financial product** that transforms insurance cover into a tradable security.
- These are **high-yield debt instruments,** issued by a **sponsoring entity** (like a government), through **intermediaries** such as the World Bank or ADB, and bought by investors.
  - **If a specified disaster occurs,** the **investor may lose** part or all of their principal, which is then used for relief and reconstruction.
  - **If no disaster occurs** during the bond period, **investors earn attractive coupon payments.**
- When a cat bond is created, a **Special Purpose Vehicle (SPV)** is also set up. This SPV is like a temporary company made just for handling that bond. It makes sure that:
  - The money is safe and not mixed with other government or company funds.
  - Investors are protected from fraud or misuse.



Advantages of Cat Bonds

- **Risk Diversification:** As noted by Nobel Laureate Harry Markowitz, adding cat bonds helps diversify investor portfolios since disaster risk is uncorrelated with traditional financial markets.
- **Faster Payouts:** Unlike conventional insurance claims which may take months to settle, cat bonds disburse funds quickly after a trigger event, enabling immediate disaster response.
- **Reduced Burden on Governments:** They provide pre-arranged financing, protecting government budgets from sudden shocks due to disaster recovery expenses.
- **Wider Capital Base:** These instruments tap into global financial markets, going beyond traditional reinsurance capacities.
- **Promotion of Mitigation Efforts:** Issuers with stronger disaster preparedness and mitigation policies can avail lower premiums, promoting risk-reducing behaviours.

Limitations of Cat Bond

- **Trigger Threshold Rigidity:** If the disaster is slightly below the predefined threshold (e.g., a 6.5M earthquake when the bond requires 6.6M), no payout is triggered, even if damages are severe.

- **Opportunity Cost:** If no disaster occurs, the premium paid may appear wasteful, especially in resource-scarce settings.
- **Design Complexity:** A poorly designed bond may exclude many probable risk scenarios, rendering it ineffective.
- **High Premiums for High-Risk Regions:** Hazard-prone regions may attract higher premiums, reducing cost-effectiveness unless supported by global intermediaries.

Potential for Cat Bonds in India

- **Disaster Exposure:** India is one of the most disaster-prone countries globally, facing regular cyclones, floods, landslides, and earthquakes.
- **Low Insurance Penetration:** Disaster risk insurance remains poorly developed, leaving most individual assets and livelihoods uninsured.
- **Government Funding:** India allocates ₹1.8 billion annually (since FY21–22) for disaster mitigation and capacity building, signalling readiness for proactive risk management.

BULGARIA BECOMES 21st MEMBER TO ADOPT EURO

Context

Recently the European Union finance ministers officially approved Bulgaria's adoption of the euro, set to take effect from January 1, 2026. This makes Bulgaria the 21st member of the Eurozone.

About

- The Eurozone refers to EU member states that have adopted the **Euro (€)** as their official currency and are subject to the monetary policy of the **European Central Bank (ECB).**
- **The Euro was launched** on **January 1, 1999** in non-physical form (traveller's cheques, electronic transfers, banking, etc.) and **came into physical circulation in 12 countries** on January 1, **2002.**
- **Bulgaria** had previously delayed euro adoption due to high inflation, which prevented it from meeting the **Maastricht convergence criteria.**

What are the Maastricht Convergence Criteria?

- **Price Stability:** A country's inflation rate must be close to that of the three best-performing member states in terms of price stability, with a maximum deviation of **1.5 percentage** points.
- **Sound Public Finances:**
  - **Government Deficit:** The annual government deficit (the difference between government spending and revenue) must not exceed **3% of GDP.**
  - **Government Debt:** The gross government debt (total debt accumulated by the government) must not exceed **60% of GDP.**
- **Exchange Rate Stability:** Countries must stay in the ERM-II (Exchange Rate Mechanism) for at least 2 years without severe tensions.
- **Interest Rate Convergence:** Should not exceed by more than 2 percentage points the average of top 3 performing member states.

CORPORATE INVESTMENT LAGGING BEHIND

Context

The Ministry of Statistics and Program Implementation (MoSPI) released the monthly growth rate of the Index of Industrial Production (IIP), which has slowed to a nine month low of 1.2%.

Index of Industrial Production (IIP)

- It is one of the prime indicators of economic development for the measurement of trends in the **behavior of Industrial Production** over a period of time with reference to a chosen base year.
  - It indicates the **relative change of physical production** in the field of industries during a specified year as compared to previous year.
- **Released by:** National Statistical Office (NSO).
- **Ministry:** Ministry of Statistics and Programme Implementation (MoSPI).
- **Frequency:** Monthly.
- **Base Year (as of now):** 2011–12.
- **IIP is composed of three broad sectors:**
  - Manufacturing (77.6% weight);
  - Mining (14.4% weight);
  - Electricity (8.0% weight).
- **Another classification is based on the use of goods, which includes:** Primary Goods, Capital Goods, Intermediate Goods, Infrastructure/Construction Goods, Consumer Durables and Consumer Non-Durables.

Why has Investment not Picked Up?

- **Demand Uncertainty:** Weak consumer demand since has led to lower capacity utilization.
  - Companies are reluctant to invest in new capacities without clear signals of sustained demand growth.
- **Excess Capacity in Industry:** Many sectors, especially manufacturing, are still operating below optimal capacity.
  - Firms prefer to use existing infrastructure fully before committing fresh capital.
- **Global Economic Uncertainty:** Geopolitical tensions (e.g., Russia-Ukraine war, Red Sea crisis, global inflation) have impacted trade and investor confidence.

- Uncertainty in major economies affects India's exports and investor sentiments.

- **Slow Credit Transmission:** Even though repo rates were low post-COVID, credit growth to industry remained muted until recently.
  - Banks preferred retail lending (like housing and auto loans) over riskier industrial lending.
- **Infrastructure and Logistics Bottlenecks:** While improvements are ongoing (e.g., Gati Shakti, PM Gati Shakti National Master Plan), logistics costs in India remain high.
  - Delays in project clearances and land acquisition slow down capital formation.
- **Low FDI in Key Sectors:** FDI inflow is high in digital and services sectors but weak in manufacturing and infrastructure.
  - Despite the Production Linked Incentive (PLI) schemes, foreign players remain cautious due to concerns over market scale, ease of doing business, and exit options.
- **Delayed Government Capex Multiplier:**
  - While public investment (especially in infrastructure) has increased, the crowding-in effect on private investment is yet to fully materialize.
  - State-level capex has also remained weak due to fiscal constraints.

Policy Measures Taken

- **Corporate Tax Cut (2019):** Reduced from 30% to 22%, aimed at boosting private sector profitability and investments.
- **Capex Push:** Government increased spending on infrastructure in recent budgets to stimulate demand and crowd-in private investment.
- **Monetary Easing:** RBI reduced interest rates to lower borrowing costs and improve liquidity.

FERTILIZER SUPPLY AGREEMENTS WITH SAUDI ARABIA

Context

The Union Minister for Health and Family Welfare and Chemicals and Fertilizers concluded his three-day visit to Saudi Arabia.

Key Outcomes

- Signing of **long-term supply agreements** between Saudi Arabia's Maaden and Indian companies (IPL, KRIBHCO, CIL).
  - **Supply of 3.1 million metric tons** of Diammonium Phosphate (DAP) annually from 2025-26, up from 1.9 million MT in 2024–25.
  - Agreements **valid for 5 years,** with an option to extend for another 5 years by mutual consent.
- **India's DAP imports from Saudi Arabia** increased by 17% in FY 2024–25 (1.9 MT) over FY 2023–24 (1.6 MT).
- **Significance:** The long-term fertilizer agreements are expected to provide **greater supply security for India's agricultural sector** and strengthen the strategic partnership between the two nations.

What is DAP?

- **Di-ammonium Phosphate (DAP)** is a type of fertilizer that contains **46% phosphorus and 18% nitrogen,** two essential nutrients for plant growth.
  - Nano DAP contains **nanoparticles of Diammonium Phosphate (DAP)** which helps in better crop growth and yield.
- DAP is commonly used in agriculture to provide a **quick and readily available source of nutrients to plants.**
- It is the **second most commonly** used fertilizer in India after urea.

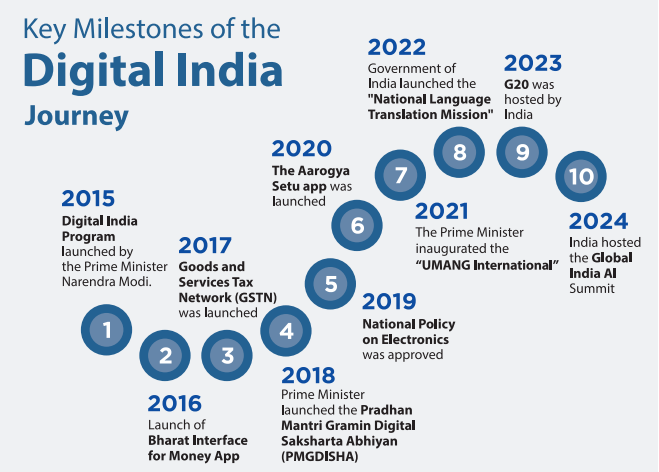
10 YEARS OF THE DIGITAL INDIA JOURNEY

Context

The Digital India program was launched by the Government on July 1, 2015, envisions transforming India into a knowledge-based economy and digitally empowered society.

About

- The digital economy is growing fast, contributing **11.74%** to the national income in 2022–23 and expected to reach **13.42% by 2024–25.**
- India ranks third in the world for digitalisation of the economy.
- **By 2030,** India's digital economy is projected to contribute nearly one-fifth of the country's overall economy.



Key Focus Areas and Services Under Digital India

- **Connectivity and Infrastructure:** Over the years, Digital India has built strong digital infrastructure across the country.
- **Telecom and Internet Penetration:** Total telephone connections in India rose from 93.3 crore in 2014 to over 120 crores in 2025, with tele-density increasing from 75.23% to 84.49% by 2024.
- **UPI:** India handled 49% **of global real-time transactions in 2023**. UPI is now active in over seven countries ***(Bhutan, France, Mauritius, Nepal, Singapore, Sri Lanka, and the UAE).***
- **Aadhaar:** The Aadhaar-based e-KYC system has made verification faster, reduced paperwork, and brought transparency across sectors.
- **Direct Benefits Transfer (DBT):** DBT uses Aadhaar to deliver welfare payments directly and remove fake beneficiaries.
- **Open Network for Digital Commerce (ONDC):** Launched in 2022, ONDC helps small businesses enter digital markets.
- **IndiaAI Mission:** It focuses on enabling access to computing, supporting innovation, improving datasets, funding startups, and ensuring ethical AI use.
- **India Semiconductor Mission:** With a ₹76,000 crore outlay, the mission supports local chip and display manufacturing.
- **E-Governance:** It involves initiatives like ***Mission Karmayogi, DigiLocker, and UMANG App,*** revolutionising the way citizens interact with the government by making services more accessible, transparent, and efficient.

SOVEREIGN DEBT IN DEVELOPING WORLD

Context

The fourth International Conference on Financing for Development (FfD4) is being held in Spain which brings focus on the massive debt burden on developing countries.

About

- **Public Debt or Sovereign debt** is the money borrowed by a national government from either domestic or international sources, usually through the issuance of government bonds or loans.
- Since 2010, sovereign debt in developing countries has grown twice as fast in developed economies — with its share in global total increasing to 30% in 2023, from just 16% in 2010.
- As per the **World Bank 2024 Report**, Developing countries spent a record **$1.4 trillion** to service their foreign debt as their interest costs climbed to a ***20-year high in 2023.***
  - Currently, more than half of developing countries allocate at least ***8% of government revenues*** to interest payments, a figure that has doubled over the past decade.
  - The rising pressure of interest payments is substantial across regions, particularly in ***Africa and Latin America and the Caribbean.***

FALLING HOUSEHOLD SAVINGS IN INDIA

Context

India is witnessing a structural transformation marked by declining net financial savings, rising household debt, and a shifting asset composition.

About

- Household saving is the difference between a household's **net disposable income** and its **total consumption expenditure**, including **taxes and debt repayments.**
- It reflects the ability of households to defer current consumption for future security, investment, or emergencies.

Recent Trends

- **India's gross domestic savings rate** has fallen from 34.6% of GDP in 2011–12 to **29.7% in 2022–23**, the lowest in four decades.
- Household financial savings as a percentage of GDP fell from **11.5% in 2020–21** to **5.1% in 2022–23.**
  - Simultaneously, household liabilities rose to 6.4% of GDP in FY24, near the 17-year high.
- **Rural–Urban Divide in Savings Behaviour:** Urban households show greater financial participation due to better access and higher financial literacy.
  - In contrast, rural households often depend on informal savings, and remain vulnerable to income shocks.
  - Household investments in mutual funds and equities nearly doubled from **₹1.02 trillion (FY21) to ₹2.02 trillion (FY23).**

Key Drivers of the Decline of Household income

- **Macroeconomic Factors:** Persistently high inflation has eroded household purchasing power.
- **Decline in Real Wages:** Real wage growth has remained stagnant, especially in the informal sector.
- **Low real interest rates** on bank deposits and small savings schemes have discouraged saving in conventional products.
- **Changing Consumption and Investment Patterns:** Post-Covid consumption revival led to increased borrowing for consumption, housing, and education.
- **Rising Aspirational Spending:** Urban middle-class households are increasingly spending on lifestyle goods, foreign travel etc.

Concerns Over Declining Household Savings

- **Reduced Capital for Investment:** Household savings contribute nearly **60%** of India's gross domestic savings.

- A fall in savings reduces the pool of domestic capital available for infrastructure and industrial investment.

➲ **Rising Household Debt:** With increasing liabilities and declining savings, households face higher financial stress.
- A prolonged debt overhang can reduce creditworthiness and impact banking sector health due to rising defaults.

➲ **The increasing financialisation** of savings may displace productive investment into speculative financial avenues.

➲ **Inadequate Retirement Security:** Declining long-term savings jeopardise retirement preparedness.

THE PERIODIC LABOUR FORCE SURVEY

Context

The Periodic Labour Force Survey (PLFS) for June 2025 has been released by the Ministry of Statistics and Programme Implementation.

About

➲ The PLFS gives estimates of key employment and unemployment Indicators.

➲ **These indicators are:**
- **Labour Force Participation Rate (LFPR):** It is the percentage of persons in the labour force (i.e. working or seeking or available for work) in the population.
- **Worker Population Ratio (WPR):** WPR is defined as the percentage of employed persons in the population.
- **Unemployment Rate (UR):** UR is defined as the percentage of persons unemployed among the persons in the labour force.
- **Current Weekly Status (CWS):** The activity status determined on the basis of a reference period of last 7 days preceding the date of survey.

Major Highlights

➲ Labour Force Participation Rate in Current Weekly Status (CWS) among persons of age 15 years and above was 54.2 % during June 2025 as compared to 54.8% during May, 2025.
- LFPR in rural areas was 56.1% and LFPR in urban areas was 50.4% during June, 2025 for persons of the same age group.

➲ LFPR in CWS for male of age 15 years and above in rural and urban areas were respectively 78.1% and 75.0% during June, 2025 which marked a marginal decline from the corresponding LFPR estimates of 78.3% and 75.1% respectively for rural and urban areas during May, 2025.

➲ LFPR among females of age 15 years and above for rural areas was 35.2% during June, 2025.

➲ **Worker Population Ratio** in CWS in rural areas among persons of age 15 years and above was 53.3% during June, 2025.
- WPR in urban areas among persons of the same age group was 46.8% in June 2025 with the overall WPR at the country level observed as 51.2% during June, 2025 as compared to 51.7% observed during May, 2025.
- WPR for females of age 15 years and above for rural and urban areas were respectively 33.6% and 22.9% in June, 2025 and the overall female WPR of the same age group at the country level was observed as 30.2%.

➲ **Unemployment Rate (UR)** in CWS among persons of age 15 years and above has remained the same as 5.6% in May, 2025 and June, 2025.

➲ The marginal decline in LFPR and WPR in June 2025 was largely influenced by seasonal agricultural patterns, intense summer heat limiting outdoor physical work, and a shift of some unpaid helpers, particularly from higher-income rural households, towards domestic chores.

Do You Know?

The sampling methodology of Periodic Labour Force Survey (PLFS) has been revamped from January 2025 to address the following objectives:

➲ To estimate the key employment and unemployment indicators (*viz.* Labour Force Participation Rate, Worker Population Ratio and Unemployment Rate) on a monthly basis for rural and urban areas in the Current Weekly Status (CWS) at all India level

➲ To extend the coverage of the Quarterly results of PLFS to rural areas and thereby producing quarterly estimates covering both rural and urban parts of India in the Current Weekly Status (CWS)

➲ To estimate important employment and unemployment indicators in both usual status and CWS in both rural and urban areas annually.

INDIA'S FIRST DIGITAL NOMAD VILLAGE INAUGURATED IN SIKKIM

Context

The country's first Digital Nomad Village was officially inaugurated at Yakten village, Pakyong district in Sikkim.

About

➲ **Objective:** To develop Yakten as a sustainable remote work hub for digital professionals while supporting local tourism and rural livelihoods.

➲ **Model:** Enables professionals to work remotely in a peaceful, eco-friendly setting, providing a year-round alternative to seasonal tourism.

Do You Know?

Digital nomads are individuals who work remotely while traveling, leveraging technology to live and work from various locations, often outside of a traditional office setting. They embrace a location-independent lifestyle, utilizing the internet and other digital tools to conduct their work from anywhere in the world.

AUTOMOTIVE MISSION PLAN (AMP), 2047

Context

The government has initiated the formulation of the Automotive Mission Plan 2047 (AMP 2047).

About

- It is a strategic road map aligned with the 'Viksit Bharat @2047' vision to establish India as a global automotive leader, focusing on innovation and sustainability.
- It aims to build upon the success of **Automotive Mission Plan 2016-26 (AMP 2026)** which envisions to bring the Indian Automotive Industry among the top three of the world.
- Seven sub-committees, comprising experts from government, industry, and academia, will guide the development of a comprehensive plan targeting milestones for 2030, 2037, and 2047.
- It seeks to integrate the collective vision of stake-holders, including Original Equipment Manufacturers (OEMs), auto component manufacturers, policy-makers, academia and end users, to address challenges like technological advancements and charging infrastructure.
- **Ministry Incharge:** Ministry of Heavy Industries.

STATUS OF YOUTH IN AGRIFOOD SYSTEMS REPORT: FAO

Context

Recently, the Food and Agriculture Organization (FAO), in its report titled 'The Status of Youth in Agrifood Systems' revealed that agriculture holds the potential to employ millions of young people and boost global GDP by 1.4%, adding $1.5 trillion in value.

About

- **Youth Unemployment:** Over 20% of the world's 1.3 billion youth (aged 15–24) are Not in Employment, Education, or Training (NEET).
  - Young women are twice as likely to fall into the NEET category.
- **Economic Potential of Agrifood Systems:** 45% of the projected GDP boost would come directly from increased youth participation in agrifood systems.
  - Agriculture offers employment not only on farms but across the value chain—processing, logistics, retail, and innovation.
  - In crisis-affected regions, up to 82% of working youth rely on agrifood systems.
- **Climate & Demographic Pressures:** 395 million rural youth live in areas projected to suffer declines in agricultural productivity.
  - Food insecurity among youth rose from **16.7% to 24.4%** between 2014–16 and 2021–23, especially in Africa.
  - **Youth engagement** in agrifood systems dropped from 54% in 2005 to 44% in 2021.

FAO's Three-Pronged Strategy

- **Inquire More:** To bridge data gaps and build evidence for youth-inclusive policies
- **Include More:** To amplify youth voices in decision-making and governance
- **Invest More:** To create decent jobs, improve access to land, credit, training, and technology

Recommendations for Action

- **Modernize Agrifood Systems:** Invest in infrastructure and innovation to make agriculture appealing.
- **Support Migration Pathways:** Enable safe, youth-responsive migration to address labour shortages.
- **Expand Digital Access:** Equip young farmers with tools to connect with markets and modern practices.
- **Enhance Social Protection:** Address financing gaps and provide safety nets for vulnerable youth.

'TRADE CONNECT' EPLATFORM

Context

'Trade Connect' e-Platform was showcased at two major B2B trade exhibitions recently.

About

- Trade Connect ePlatform is an initiative by the Directorate General of Foreign Trade (DGFT) under the Ministry of Commerce & Industry.
- It serves as a comprehensive hub for information and services related to international trade for all stakeholders.
- It provides up-to-date information on **tariffs, certifications, trade events,** e-commerce, and buyers in a simplified format for MSMEs.

- Interactive courses to introduce MSMEs to exports & related procedures across **multiple languages** are also provided.

➲ It also serves as a **single point** for the issuance and validation of **preferential and non-preferential certificates** of origin through a secure, electronic, and paperless process, with all authorised issuing agencies integrated into the platform.

BIOSTIMULANTS

Context

The Union Agriculture Minister wrote to Chief Ministers of all states to immediately stop the "forced tagging" of nano-fertilisers or biostimulants along with conventional fertilisers.

About

➲ The Fertiliser (Inorganic, Organic or Mixed) (Control) Order, 1985 regulates the manufacturing and sale of biostimulants.

➲ **What is biostimulants:** It as a substance or microorganism or a combination of both whose primary function when applied to plants, seeds or rhizosphere is to **stimulate physiological processes.**

➲ It enhances its nutrient uptake, growth, yield, nutrition efficiency, crop quality and tolerance to stress.

➲ It **does not include** pesticides or plant growth regulators which are regulated under the Insecticide Act, 1968.

Concerns

➲ Many biostimulants are complex mixtures of compounds or microbes, and their exact modes of action are not always well understood.

➲ Inconsistent performance under field conditions due to variations in climate, soil, crop variety, etc.

➲ Companies may market fertilizers or pesticides as biostimulants to bypass **regulations or appear sustainable** *(greenwashing)*.

- This erodes credibility and can mislead both farmers and policymakers.

88th CODEX EXECUTIVE COMMITTEE MEET

Context

India's role in global food standard development was appreciated in the 88th session of the Executive Committee of the Codex Alimentarius Commission (CCEXEC 88), held in Rome.

About

➲ India chaired the development of group standards for whole millet grains, with Mali, Nigeria, and Senegal as co-chairs.

- The Committee appreciated India's leadership, and the millet standard is scheduled for final approval at 48th session of the Codex Alimentarius Commission (CAC48), which is scheduled for November 2025.

➲ India actively contributed to discussions on the Codex Strategic Plan 2026–2031. It advocated for **SMART (Specific, Measurable, Achievable, Relevant, Time-bound)** outcome-based indicators.

- These key performance indicators(KPI) were finalized for endorsement at CAC48.

➲ India informed about its **capacity-building programs** for neighbouring countries like Bhutan, Nepal, Bangladesh, Sri Lanka, and Timor Leste, recognized by FAO.

➲ India encouraged less active member countries to use the **Codex Trust Fund (CTF)** for mentorship and twinning programmes.

CODEX ALIMENTARIUS COMMISSION (CAC)

➲ It is an intergovernmental food standards body, set up in 1963.

➲ **Established:** Jointly by the UN's Food and Agriculture Organisation (FAO) and the World Health Organisation (WHO), within the framework of the Joint Food Standards Programme.

➲ **Objective:** To protect consumer's health and ensure fair practices in the food trade.

➲ **Members:** Currently, 189 members (188 UN member countries and the European Union).

➲ **India** became a member in 1964.

➲ **Headquarters:** Rome

Do You Know?

➲ The Codex Trust Fund (CTF) is a joint initiative of the Food and Agriculture Organisation (FAO) and the World Health Organization to support developing and transition economy countries in participating effectively in the Codex Alimentarius Commission.

➲ The CTF aims to build strong, solid, and sustainable national capacity for these countries to engage in the development of international food standards.

RBI'S FINANCIAL INCLUSION INDEX

Context

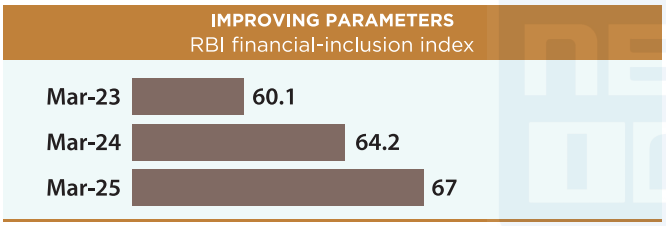
The Reserve Bank of India's Financial Inclusion Index (FI-Index) rose by 4.3% in FY25.

About

- It is a comprehensive index incorporating details of banking, investments, insurance, postal, as well as the pension sector in consultation with government and respective sectoral regulators.
- It captures information on various aspects of financial inclusion in a single value ranging between **0 and 100**, where **0 represents complete financial exclusion** and **100 indicates full financial inclusion.**
- **It comprises three broad parameters**
  - **Access, with 35 per cent weightage:** It reflects how easily financial services are available
  - **Usage with 45 per cent weightage:** It indicates how frequently and effectively people are using these services.
  - **Quality with 20 per cent weightage:** It includes aspects like financial literacy, consumer protection, and reduction in inequalities and service deficiencies.

Key Findings of Recent Data

- The index value increased from 64.2 in March 2024 to 67 in March 2025.



- The growth was witnessed across all sub-indices – access, usage, and quality.
  - The improvement in FY25 was mainly driven by gains in the usage and quality dimensions, highlighting deeper engagement with financial products and services and the impact of ongoing financial literacy efforts.

TOWARDS RESILIENT AND PROSPEROUS CITIES IN INDIA

Context

The report titled Towards Resilient and Prosperous Cities in India recently released by the World Bank.

About

- It is prepared by the World Bank in collaboration with the Ministry of Housing and Urban Affairs.
- It studied 24 Indian cities, with a special focus on Chennai, Indore, New Delhi, Lucknow, Surat and Thiruvananthapuram.

Key Findings of Recent Report

- Urban population is projected to almost double to **951 million by 2050**, and to increase to **1.1 billion by 2070.**
- 70 % of new employment to be created in India by 2030 is expected to be in cities.
- Between 2022 and 2070, more than **144 million urban dwelling** units will be needed in India, more than doubling the existing housing stock.
- The number of Indians residing in **urban areas increased sixfold** over the last 60 years.
- Indian cities are projected to produce **285 million tons** of solid waste by 2035 and **415 million tons** by 2050 with great potential to modernize the Solid Waste Management system.
- $2.4 Trillion of total estimated investment is needed for new resilient and green urban infrastructure and services by 2050 and $10.9 Trillion by 2070.
- Under continuing urbanization and climate impacts and without any remedial actions, annual losses from pluvial flooding are expected to be $5 billion by 2030, and between $14 to $30 billion by 2070.
- Indian cities have huge potential for economic growth, with **70% of new jobs** expected to come from **cities by 2030.**
- India's urban population is expected to **nearly double by 2050,** reaching 951 million. This will create a need for over **144 million new homes by 2070.**
- **Smart investments** can prevent $5 billion in annual flood damage by **2030** and up to **$30 billion by 2070.**
  - Also, over 130,000 lives can be saved from extreme heat by 2050.

Issues

- Cities face growing risks from extreme weather like heatwaves and floods.
- Rising temperatures in city centers and poor drainage due to fast construction are making cities hotter and more flood-prone.

Recommendations

- **Implement programs** to address extreme urban heat and flooding, including better regulation of stormwater, green spaces, installation of cool roofs, and effective early warning systems.
- **Invest in resilient infrastructure** and municipal services, energy efficient and resilient housing, modernize solid waste management, and make urban transport flood resilient.
- **Improve access to urban finance** through better private sector engagement.
  - Investments of over $2.4 trillion will be needed by 2050 to meet the need for new, resilient, and low-carbon infrastructure and services in cities.
  - The private sector's role will be critical in meeting these investments.

WORLD FOOD INDIA, 2025

Context

The Ministry of Food Processing Industries is going to organise the 4th edition of World Food India, 2025 from 25–28 September 2025 at Bharat Mandapam in New Delhi.

About

- It was **launched in 2017** by the Ministry of Food Processing Industries (MoFPI) to showcase India's rich food culture and **attract global investment.**
- It serves as a premier platform for stakeholders from across the world to connect, collaborate, and explore opportunities in India's dynamic **food processing landscape.**
- World Food India 2025 aims to position India as a global hub for food processing and supply.
- **Theme:** Processing for Prosperity.

FOOD PROCESSING INDUSTRY: AN OVERVIEW

Gross Value Added (GVA) has increased from 1.61 lakh crore in 2015-16 to 1.92 lakh crore in 2022-23	Average Annual Growth Rate (AAGR) of around 5.35% since 8 years until 2022-23	Employment increased from 17.73 lakh in 2014-15 to 20.68 lakh in 2021-22
(as per First Revised Estimates of Ministry of Statistics and Programme Implementation)		*(As per latest Annual Survey of Industries (ASI) report)*

INDIA ACHIEVES 20% ETHANOL BLENDING IN PETROL

Context

India has achieved 20% ethanol blending in petrol in 2025, five years ahead of its original target set for 2030.

About

- Ethanol blending in petrol has risen from just **1.5% in 2014** to 20% in 2025- a nearly **13-fold increase over 11 years**.
- Ethanol production has surged from **38 crore litres in 2014** to **661.1 crore litres by June 2025.**
- India has saved approximately **₹1.36 lakh crore** in foreign exchange by reducing its dependency on imported crude oil.
- 1.96 lakh crore rupees have been paid to distilleries, fueling the growth of the domestic biofuel industry.
- Additionally, 1.18 lakh crore rupees have been disbursed to farmers, thereby enhancing rural incomes and supporting the agricultural economy.
- The increased use of ethanol-blended petrol has helped reduce carbon dioxide emissions by 698 lakh tonnes, contributing to India's climate goals.

Ethanol Blending

- The **'National Policy on Biofuels'** notified by the government in 2018 envisaged an indicative target of 20% ethanol blending in petrol by 2030.
- Given the encouraging performance and various interventions made by the government , **the 20% target was advanced to 2025-26.**

ETHANOL

- Ethanol is **99.9%** pure alcohol that can be blended with petrol.
- Alcohol production involves **fermentation of sugar** using yeast. In cane juice or molasses, sugar is present in the form of **sucrose** that is **broken down into glucose and fructose.**
- Also grains contain starch, a carbohydrate that has to **first be extracted and converted** into sucrose and simpler sugars, before their further fermentation, distillation and dehydration to ethanol.
- The ethanol used in blending is primarily derived from crops such as sugarcane, reinforcing the initiative's role in supporting Indian agriculture.

ADB LOWERS INDIA'S FY26 GROWTH FORECAST TO 6.5%

Context

The Asian Development Bank (ADB), in its Asian Development Outlook July 2025, revised India's GDP growth forecast for FY2025–26 downward to 6.5% from 6.7%, primarily due to the effects of US tariff policies.

About

- ADB is a regional development bank established in **1966** for Social and Economic Development. It has **69 members.**
- It is a **multilateral development bank,** which seeks to help its developing member countries to reduce poverty and improve their people's quality of life through inclusive economic growth, environmentally sustainable growth and regional integration.
- **Headquarters:** Manila, Philippines.

INDIA'S INSURANCE SECTOR

Context

India's insurance sector is projected to witness robust expansion, according to a recent report released by the Insurance Brokers Association of India (IBAI) and McKinsey & Company.

About

- As per the report, Gross Underwritten Premiums (GWP) are expected to more than double — rising by 123 per cent to Rs 25 lakh crore by 2030 from Rs 11.2 lakh crore in 2024.
- This surge is likely to lift insurance penetration from the current 3.7 per cent to 5 per cent, bringing India closer to the global average of 6.8 per cent recorded in 2023.
- Between FY 2020 and FY 2024, the industry saw strong double-digit growth, with total premiums across life and non-life segments increasing from Rs 7.8 lakh crore to Rs 11.2 lakh crore.
- GWP for the institutional segment, largely in non-life insurance, is expected to grow nearly three times to reach Rs 2.8 lakh crore by 2030.
- The retail segment could attain GWP of around Rs 21 lakh crore by 2030, of which over 90 percent is driven by the life segment.
- **Note:** India is the fifth largest life insurance market in the world's emerging insurance markets, growing at a rate of 32-34% each year

INDIAN RAILWAYS TESTS FIRST HYDROGEN-POWERED COACH

Context

Indian Railways tested the first hydrogen-powered coach or driving power car at its Integral Coach Factory (ICF) in Chennai.

About

- India is developing a 1,200 HP hydrogen train. This will place India among the leaders in hydrogen-powered train technology."
- The hydrogen locomotive is a key part of Indian Railways' **"Hydrogen for Heritage"** initiative, which *aims to deploy 35 hydrogen-powered trains on heritage and hill routes across the country*.
- The estimated cost for each train is approximately Rs800m ($9.24m), with an additional Rs 700m required for supporting ground infrastructure per route.
- Indian Railways has also embarked on a pilot project to retrofit an existing Diesel Electric Multiple Unit (DEMU) with a hydrogen fuel cell.
- It is scheduled to operate along the **Jind–Sonipat route** within the Northern Railway network.
- The primary design, validation, and testing is being undertaken by Indian Railways' **Research Design & Standards Organisation (RDSO)**.

WHAT IS HYDROGEN?

- Hydrogen is the chemical element with the symbol H and atomic number 1.
- Hydrogen is the lightest element and the most abundant chemical substance in the universe, constituting roughly 75% of all normal matter.
- It is colorless, odorless, tasteless, non-toxic, and highly combustible gas.

LAYOFFS ACROSS IT SERVICES INDUSTRY

Context

Recently, Tata Consultancy Services (TCS) has announced plans to lay off approximately 12,261 employees — about 2% of its global workforce—during FY2026.

About

- It has come under scrutiny for its **revised Bench Policy.**
- Tata Consultancy Services (TCS) has introduced a revised deployment policy, which requires employees to be assigned billable work for a minimum of 225 business days each year.
  - This effectively limits the time employees can remain on the bench—without a project—to 35 business days annually.
- The Nascent Information Technology Employees Senate (NITES) has formally complained to the Ministry of Labour and Employment, calling the policy ***'coercive', 'punitive', and 'inhumane'.***

About

- The 'Bench' refers to employees who are not currently assigned to active, billable projects but remain on payroll. These individuals may be:
  - Awaiting project allocation;
  - Undergoing training;
  - Transitioning between roles.
- Major IT companies have historically maintained a sizable bench to ensure agility in responding to client demands.

Key Reasons

- **Cost Optimization:** Maintaining a large bench is expensive and inefficient in lean times.
- **Skill Mismatch & Redeployment Challenges:** As delivery models shift toward AI, cloud, and cybersecurity, many employees — especially in mid and senior roles — struggle to transition into new tech-heavy positions.
- **AI & Automation Impact:** AI is reshaping job roles. Entry-level tasks are increasingly automated, reducing the need for large bench pools.

- **Product-Centric Delivery Models:** IT firms are moving away from traditional project-based staffing to agile, product-focused teams. This reduces reliance on bench strength and demands continuous upskilling.

Repercussions

- **Employee Concerns:** Rising job insecurity is affecting employee morale and mental health.
- **Strain on Education & Career Pathways:**
  - IT sector is the major employer of engineering graduates.
  - Layoffs put up a serious question about the viability of traditional tech careers.
- **Economic & Structural Challenges:** Layoffs reflect deeper structural issues in India's economy—where quality employment hasn't kept pace with growth.
- **Global Dependencies & Vulnerabilities:**
  - India's IT firms are heavily reliant on export markets, especially the U.S. and Europe.
  - Global recessions, inflation, and tech budget cuts abroad directly affect hiring and project volumes in India.
- **Transparency & Fairness:** Critics argue that the policies lack empathy and may disproportionately affect freshers and mid-career professionals.

INDIA's RETALIATORY TARIFFS ON U.S. IMPORTS

Context

The Indian government has notified the World Trade Organization (WTO) of its proposal to levy retaliatory tariffs amounting to nearly $724 million on the U.S.

About

- The move follows the **United States' decision to extend safeguard tariffs**—amounting to a **25% ad valorem increase**—on imports of passenger vehicles, light trucks, and certain automobile components from India.
- **The proposed suspension of concessions by India** or other obligations would take the form of an increase in tariffs on selected products originating in the US.

Background of U.S. Tariffs

- Originally imposed in **2018** under President Trump, these tariffs targeted steel **(25%) and aluminium (10%) on national security grounds.**
- In 2025, during Trump's second term, the U.S. eliminated country- and product-specific exemptions, affecting India directly.
- The U.S. declined to hold consultations, claiming the tariffs were national security measures, not safeguards.

WTO Safeguards Agreement

- **Article 12.3** of the WTO Safeguards Agreement requires a country planning safeguard measures to consult affected members in advance, providing them an opportunity to discuss the proposed action and seek clarification.
- **Article 12.5** of the WTO Agreement on Safeguards allows a member country to notify its intention to suspend trade concessions if another member imposes safeguard measures without proper consultation.

India's Position

- India maintains that the measures taken by the United States are not consistent with the General Agreement on Tariffs and Trade 1994 (GATT 1994) and Agreement on Safeguards (AoS).
- Further, it said that since the U.S. did not hold mandatory consultations under Article 12.3 of the AoS, India had the right to retaliate.
  - India reserves the right to suspend concessions or other obligations that are **substantially equivalent** to the adverse effects of the measure to India's trade.
- **WTO Monitoring:** India will inform the **WTO's Council for Trade in Goods** and **Committee on Safeguards** of its actions.

Implications

- **Bilateral Trade:** The estimated trade affected by the US action is valued at $2.9 billion, with India seeking to reciprocally recover $723.75 million annually through its proposed tariff measures.
- **Trade Deal:** The timing of India's notification is significant, it comes amid heightened expectations of a breakthrough in the **ongoing India-US Bilateral Trade Agreement (BTA) negotiations.**
  - The move could be seen as an attempt by India to build negotiating leverage, especially as it pushes for the removal of US safeguard duties as part of the final deal contours.
- **WTO Rules and Reform:** The disagreement over whether national security tariffs constitute safeguard measures adds to broader debates on WTO's relevance and enforcement capacity.
- India's WTO notification is a legal and strategic step, signaling its readiness to retaliate against the US safeguard duties on automobiles and parts.

NITI AAYOG's REPORT ON CHEMICAL INDUSTRY

Context

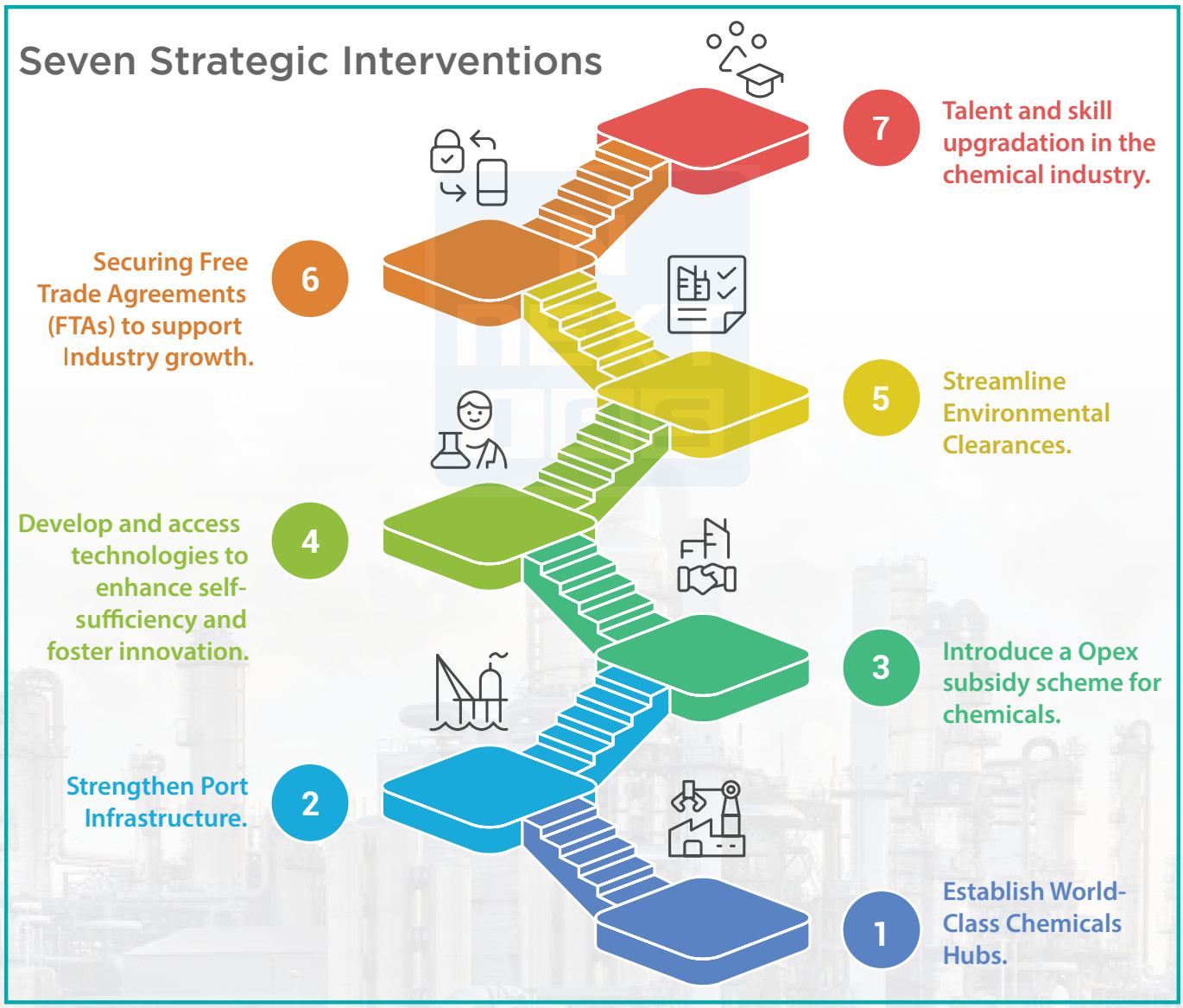
NITI Aayog has released its report "Chemical Industry: Powering India's Participation in Global Value Chains".

About

- This report offers an extensive analysis of India's chemical sector, highlighting both opportunities and challenges, and outlining a pathway for positioning India as a key player in global chemical markets.
- The chemical industry is a vast and diverse sector that encompasses the production, transformation, and distribution of chemical substances.

India's Chemical Industry

- India is the sixth-largest chemicals producer globally and third in Asia.
- India has a 3.5% share in global chemical value chains.
- **Market Size:** Over $220 billion market size in 2023, contributes around 7% to India's GDP
- Provide vital raw materials to critical sectors such as agriculture, pharmaceuticals, textiles, automotive, and construction.
- **Future Projection:** Poised to expand to $400–450 billion by 2030 and potentially reach $1 trillion by 2040.
- **Strategic Vision:** Doubling India's Global Value Chain Share by 2030.



4 ENVIRONMENT

SECONDARY POLLUTANTS

Context

Secondary pollutants, particularly ammonium sulphate, that results from the reaction between Sulphur Dioxide (SO2) and Ammonia (NH3) in the atmosphere, are responsible for nearly one-third of India's fine Particulate Matter (PM2.5) pollution.

What are Primary and Secondary Pollutants?

- **Primary air pollutants:** Pollutants that are formed and **emitted directly from particular sources.** *Examples* are particulates, carbon monoxide, nitrogen oxide, and sulfur oxide.
- **Secondary air pollutants:** Pollutants that are formed in the lower atmosphere by chemical reactions. The two examples are **ozone and secondary organic aerosol (haze).**
  - Secondary pollutants are **harder to control** because they have different ways of synthesizing and the formation are not well understood.
  - They form naturally in the environment and cause problems like **photochemical smog.**

PM2.5

- **PM2.5 (also known as fine fraction particles)** is generally defined as those particles with an **aerodynamic diameter of 2.5 microns or less.**
- **Sources of fine particles include** all types of combustion activities (motor vehicles, power plants, wood burning, etc.) and certain industrial processes.

50 YEARS OF CITES

Context

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) marks 50 years since it entered into force.

About

- **Genesis:** CITES (The Convention on International Trade in Endangered Species of Wild Fauna and Flora) is a pioneering global agreement originally conceived in 1963 at a meeting of the International Union for Conservation of Nature (IUCN) and entered into force on 1st July 1975.
- **Aim and Scope:**
  - CITES is a voluntary international agreement between governments, aiming to ensure that international trade in specimens of wild animals and plants does not threaten their survival.
  - It operates through a licensing system that regulates all import, export, and re-export of listed species and their parts or derivatives.
- **Administration and Structure:**
  - The CITES Secretariat is administered by the United Nations Environment Programme (UNEP) in Geneva, Switzerland.
  - As of 2024, there are 185 Parties (countries or regional organizations) to CITES; India ratified the Convention in 1976.
  - While CITES is legally binding on its Parties, it does not replace national laws. Instead, each Party must implement CITES through its own domestic legislation.

Significance

- CITES has established itself as one of the most effective multilateral environmental agreements by developing **consensus-based governance** and implementation tools such as the **CITES Trade Database** – the world's most comprehensive source of global wildlife trade data – and guidelines for legal acquisition, permitting and enforcement.
- Thanks to the Convention, international collaboration has brought critically endangered species from the brink, like African elephants, pangolin and crocodiles.

Key Initiatives

- **Monitoring the Illegal Killing of Elephants (MIKE) Programme:** Adopted at the 10th CoP Harare (1997), this site-based system monitors trends in the illegal killing of elephants across Africa and Asia.
- **International Consortium on Combating Wildlife Crime (ICCWC):** Launched in 2010, ICCWC is a partnership between CITES and other organizations to support national law enforcement agencies in combating wildlife and forest crime.
- **CITES Tree Species Programme:** Launched in 2024, focuses on improving the management and sustainable use of tree species listed under CITES.

NEW GARCINIA SPECIES FOUND IN ASSAM

Context

A new plant species named Garcinia kusumae, belonging to the genus Garcinia has been discovered in Baksa district of Assam.

About

- The species has been named after Kusum Devi, the late mother of environmentalist Jatindra Sarma, who led the discovery.
- The species is locally known as **thoikora** and is a **dioecious evergreen tree,** capable of growing up to **18 metres tall.**

About the Genus Garcinia

- Garcinia is a large, **pan-tropical genus** under the **Clusiaceae family**, comprising **414** known species of shrubs and trees.
- This genus is distributed mainly in **Africa, Australasia, and Southeast Asia**, and is commonly found in **lowland tropical rainforests.**
- **Garcinia species** are known for their pharmacological properties, as well as culinary and cultural significance, especially in indigenous communities.
- **Garcinia in India:**
  - India is home to **33 species and 7 varieties** of Garcinia. The state of Assam alone hosts **12 species and 3 varieties.**
  - These species are predominantly located in **northeastern rainforests, the Western Ghats, and the Andaman and Nicobar Islands**, making them a vital part of India's biodiversity hotspots.

GREEN CLIMATE FUND

Context

The Green Climate Fund (GCF), the world's largest climate fund, has approved $200 million for a new Asian Development Bank (ADB)-led programme.

About

- This will support **ADB's India Green Finance Facility (IGFF),** a **blended finance program** that aims to **crowd-in investment in emerging clean energy technologies** from India's leading development finance institutions (DFIs) and from the private sector.
- The Green Climate Fund (GCF) is the **world's largest dedicated climate fund.**
- It was **established in 2010** under the **United Nations Framework Convention on Climate Change (UNFCCC).**
- Aims to support developing countries in:
  - Limiting or reducing greenhouse gas emissions (mitigation).
  - Adapting to the impacts of climate change (adaptation).
- **GCF is mandated to invest 50%** of its resources to mitigation and **50% to adaptation in grant equivalent.**
  - At least half of its adaptation resources must be invested in the most climate vulnerable countries (SIDS, LDCs, and African States).
- **Headquarters:** Incheon, South Korea.
- **A core GCF principle** is to follow a **country-driven approach,** which means that developing countries lead GCF programming and implementation.

KHARAI CAMELS

Context

The rare Kharai camels caught in sea tide rescued off Gujarat coast.

About

- Kharai Camels are a rare and unique breed of camel indigenous to the coastal regions of Kutch, Gujarat, India.
- They are often called the **"swimming camel"** due to their remarkable ability to swim long distances—up to 3 kilometers—in seawater to reach mangrove islands for grazing.
- The name **"Kharai" comes from the Gujarati word "Khara,"** meaning saline, reflecting their adaptation to both saline desert and coastal ecosystems.
- The breed has been maintained for over 400 years by **Rabari and Fakirani Jat tribes.**

GREAT HORNBILL

Context

In a rare and remarkable sighting, the Malamuzhakki Vezhambal (Great Hornbill), Kerala's State bird, was spotted in the coastal belt of Kakkampara.

About

- Also known as the **Concave-Casqued Hornbill, Great Indian Hornbill, or Great Pied Hornbill**, it is one of the largest members of the hornbill family, found across the **Indian subcontinent and Southeast Asia**.
- Its impressive size and striking colours make it significant in many tribal cultures and rituals.
- The Great Hornbill can live up to 50 years in captivity. It is mainly **frugivorous** but can also prey on small mammals, reptiles, and birds when food is scarce.
- It is listed as **Vulnerable** by the IUCN and is protected under **Schedule I** of the Indian Wildlife (Protection) Act.

Do You Know?

- Apart from Kerala, the Great Hornbill is also the State bird of Arunachal Pradesh.
- Great Hornbill's are also called farmers of the forest because they disperse seeds of 40 species of trees.

ISLANDS PROTECTION ZONE (IPZ) NOTIFICATION

Context

The Union environment ministry has issued a new notification extending and amending the rules for infrastructure projects under the Islands Protection Zone (IPZ) Notification 2011.

About

- **The Island Protection Zone (IPZ) Notification, 2011** is a **legal framework** issued under the **Environment (Protection) Act, 1986** to regulate and protect the coastal and marine ecosystems of India's islands, particularly the Andaman & Nicobar Islands and Lakshadweep.
- As per the notification, the validity of clearances for infrastructure projects under the IPZ 2011 is now **10 years (previously 7 years)**.The period **may be extended by a maximum period of a year.**
- The notification comes amid a surge in infrastructure and tourism projects in the islands, including the **₹81,800 crore Great Nicobar Holistic Development Project** (port, airport, power plant, township, trunk road)

Difference from CRZ

- **CRZ (Coastal Regulation Zone):** Applies to mainland India's coast.
- **IPZ:** Applies only to the islands.

RhODIS INDIA

Context

The Assam Forest Department has initiated DNA profiling of rhino horns, integrating the genetic data into the RhODIS India DNA database to bolster efforts against wildlife crime.

About

- RhODIS® or the **Rhino DNA Index System,** is a wildlife forensics tool that was specially developed for investigating wildlife crime cases.
- The DNA profiles of all the rhinos on the database system link a seizure to a crime incident and aid in prosecutions through scientific evidence based on forensics.
- RhODIS® was initiated by the Veterinary Genetics Laboratory of the University of Pretoria by creating a database using the unique DNA profile of individual rhinos. It was first used in South Africa.
- In 2016, the Ministry of Environment, Forests and Climate Change (MoEFCC), in partnership with Wildlife Institute of India (WII), the forest departments of Assam, West Bengal and Uttar Pradesh, and WWF India launched the RhODIS India programme.
- The programme seeks to **improve the crime investigations** scientifically and provide technical support for the scientific management of India's rhino population.

Great One-horned Rhinoceros *(Rhinoceros Unicornis)*

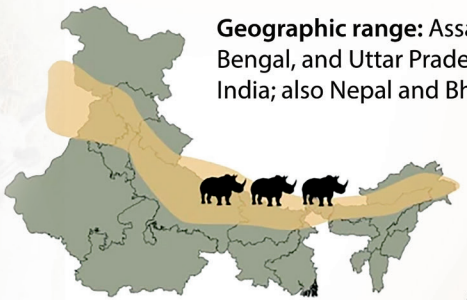
- The great one-horned rhino (or "Indian rhino") is the **largest of the rhino species *(as per WWF)*.**
- **Habitat and Distribution:** The preferred habitat of an Indian rhinoceros are primarily areas that contain grasslands and wetlands located in the foothills of the Himalayas and the Brahmaputra and Ganges valley.
- At present, the species are restricted to small patches in the Indo-Nepal Terai, northern parts of West Bengal, and Assam. Formerly they were extensively distributed in the Brahmaputra and Gangetic valley.
- Within India, rhinos are mainly found in the seven Protected Areas viz. - Kaziranga NP, Pobitara WLS, Orang NP, Manas NP in Assam, Jaldapara NP and Gorumara NP in West Bengal and Dudhwa NP in Uttar Pradesh. In addition, a transient population is also observed in Katerniaghat WLS in Uttar Pradesh and Valmiki TR in Bihar, which experience visits of rhinos from adjoining Nepal.
- **Conservation Status:**
  - **IUCN Status:** Vulnerable.
  - **CITES:** Appendix I (includes species threatened with extinction. Trade in specimens of these species is permitted only in exceptional circumstances).

Greater One-Horned Rhinoceros Or

INDIAN RHINOCEROS

(Rhinoceros unicornis)

Solitary creatures, named after the unicorn



Geographic range: Assam, West Bengal, and Uttar Pradesh in India; also Nepal and Bhutan

Population: 3,500+
2,400 in Kaziranga National Park alone

Lifespan: 30–45 years
Height: 1.8–2 m tall (adult males)

SUPER SIZED
- Largest species of rhino (WWF).
- Second-largest land mammal in Asia after Asian elephant.

WEIGHT
1700 – 2800 kg

Horn grows throughout their lives; made of keratin

Poor eyesight

Prehensile lip helps them forage long grasses, leaves, and even aquatic plants

Excellent sense of smell and hearinga

ARMOUR
Skin folds can be 4 cm thick

HABITAT: Tall, alluvial grasslands

TERRITORY:
- Average annual home range about 4 sq km.
- Mark territory with urine and dung, and by scraping the soil with hooves; mark trees with their horns.

DUNG PILES:
- Their dung piles, called middens, act as signalling posts.
- As much as 25 kg of dung can be deposited at a time.

GRAZING:
- Predominantly grazers
- Recorded feeding on 183 species of plants (in Chitwan, Nepal)

THREATS

- **Poached for their horns**, used in traditional Chinese medicine
- **Inbreeding** and transmission of diseases in crowded parks
- Loss of alluvial grasslands to agriculture.

CONSERVATION STATUS: VULNERABLE ON THE IUCN RED LIST

HTBt COTTON

Context

The Union Agriculture Minister said that the issue of herbicide tolerant BT cotton (HTBt) will be raised with the Union Environment Ministry as there are reports of farmers growing them illegally.

About

- **HTBt cotton**, also known as **Herbicide Tolerant Bt cotton,** is a genetically modified cotton variety that combines two important traits;
  - **Bollworm resistance:** This is derived from the Bt (Bacillus thuringiensis) gene for resistance to bollworm pests.
  - **Herbicide tolerance:** HTBt cotton is engineered to be resistant to the **glyphosate**, a widely used herbicide for weed control.
- **Bt cotton** was India's first GM crop, introduced in **2002 (Bollgard I)** and upgraded in **2006 (Bollgard II).**
- HTBt cotton has not yet been approved by the **Genetic Engineering Appraisal Committee (GEAC)** for commercial cultivation. However it is illegally cultivated in states like **Gujarat, Maharashtra, Andhra Pradesh, and Telangana.**

ASSAM's WOOLAH TEA

Context

Assam's Woolah Tea has secured a 20-year patent for India's first bagless tea innovation named'Compressed true whole leaf tea dips and method thereof'.

About

- Uses a **compressed bundle** of **'eti koli duti paat'** (one bud and two leaves), tied with a **natural string**, removing the need for conventional tea bags.
- The innovative **bagless concept** adds value and sustainability to India's tea exports and **avoids microplastics** that often leach from typical tea bags.

MNRE REVISES BIOMASS GUIDELINES

Context

The Ministry of New and Renewable Energy (MNRE) has issued revised guidelines for the Biomass Programme under Phase-I of the National Bioenergy Programme, applicable for the period FY 2021–22 to 2025–26.

About

- Biomass refers to organic material derived from plants and animals, and it includes: **forestry waste, residue from agricultural operation, processed waste from industry, municipal/urban solid waste.**
- Annual Biomass production in the Country is around **750 MMT,** out of which **228 MMT** is surplus Biomass.

Key Features of the Revised Guidelines

- **Simplified Procedures:** Reduced paperwork and approval hurdles, especially benefiting MSMEs. Eased documentation requirements for briquette/pellet manufacturing units.
- **Technological Integration:** Promotes **IoT-based monitoring** or quarterly data submission, replacing costly SCADA systems.
  - Ensures digital accountability while reducing operational costs.
- **Market Flexibility:** Replaces the earlier two-year contract requirement with a general sale agreement, allowing businesses to adjust to market demand dynamically.
- **Performance-Based Subsidies:** Under Central Financial Assistance (CFA), Projects operating at ≥80% efficiency get full subsidy.
  - Projects below 80% get subsidy on a pro-rata basis.
- **Rationalized Inspection Criteria:** Performance inspection can now be done within **18 months** of either commissioning or In-principle approval.
  - Reduced operational requirement from **three days (16 hrs/day)** to one 10-hour stretch to verify performance.
- **Regional Coordination:** Biomass pellet producers in **Delhi, Punjab, Haryana, and NCR districts of Rajasthan & Uttar Pradesh** can choose between MNRE or CPCB support schemes, depending on benefits.

National Bioenergy Programme (NBP)

- **The Ministry of New and Renewable Energy** notified the National Bioenergy Programme (NBP) for the period of **FY 2021-22 to 2025-26 in 2022.**
- The programme has been recommended for implementation in **two phases** with a total budget outlay of Rs 1715 Crore and a budget outlay of **Rs 858 Crore** has been allocated for the **Phase-1**.
- **The National Bioenergy Programme will comprises of the following sub-schemes:**
  - **Waste to Energy Programme** to support setting up of large Biogas, BioCNG and Power plants (excluding Municipal Solid Waste to Power projects).
  - **Biomass Programme** to support setting up of pellets and briquettes for use in power generation and non-bagasse based power generation projects.
  - **Biogas Programme** to support setting up of family and medium size Biogas in rural areas.

LION-TAILED MACAQUE

Context

The Standing Committee of the National Board for Wildlife (NBWL) has granted in-principle approval for diverting 142.76 hectares of forest land in the Sharavathi Valley Lion-Tailed Macaque Wildlife Sanctuary for the Sharavathi Pumped Storage Project (2,000 MW).

Sharavathi Valley Lion-Tailed Macaque Wildlife Sanctuary

- It is located in the Western Ghats in Karnataka.
- It is home to approximately 700 lion-tailed macaques — the highest population of the endangered species in any protected area.

Lion-Tailed Macaque (Macaca Silenus)

- It is a recognisable monkey with a silver-white mane from the Western Ghats of South India.
  - It is endemic to the Western Ghats hill ranges.
- **Population:** According to the IUCN, only around 2,500 individuals remain in the wild and the population continues to decline.
- **Habitat and Distribution:** It is considered the most arboreal among macaques spending 93% of their time in the middle and upper parts of the forest canopy, and less than 1% of their time on the ground and it prefers the upper canopy of tropical evergreen rainforests (Sholas) but can also inhabit monsoon forests and disturbed areas.
- **Threats:** Its population faces threats from habitat loss, fragmentation, and human encroachment.
- **Protection status:**
  - **Endangered** species on IUCN Red List .
  - **Appendix I** of CITES.
  - **Schedule I**, **Part I**, of the Indian Wildlife(Protection) Act, 1972.

NEW LICHEN SPECIES REVEALS ANCIENT SYMBIOSIS

Context

A team of Indian scientists has uncovered a previously unknown species of lichen, Allographa effusosoredica, from the Western Ghats, which throws light on symbiosis, evolution and resilience.

About

- **Allographa effusosoredica** is a crustose lichen,which gives-off **soredia** (powdery vegetative reproductive structures)and possess a chemical called norstictic acid.
  - It morphologically resembles **Graphis glaucescens,** raising evolutionary questions about generic boundaries in the *Graphidaceae* family.
- This is the first Indian species of *Allographa* ever sequenced from India and also the first Allographa from the country to be supported by molecular data.

LICHENS

- They are composite organisms formed by a symbiotic association between a fungus (mycobiont) and a photosynthetic partner (photobiont, usually a green alga or cyanobacterium).
- **Ecological Role:** Soil formation, Nutrient cycling, Serve as food for insects, Bioindicators of environmental quality (especially air pollution).

KERALA'S RUBBER PLANTATIONS UNDER THREAT

Context

Rubber plantations in Kerala are facing threat from mutualistic association between the ambrosia beetle (Euplatypus parallelus) and two fungi (Fusarium ambrosia and Fusarium solani), causing extensive tree damage.

About

- **Ambrosia beetles:** Native to Central and South America.
- They were first reported in India in the cashew trees of Ponda, Goa, in 2012.
- They **primarily attack dead, infected, or stressed trees**—often attracted by ethanol emitted from such trees.
- The beetles do not feed on wood directly; instead, they bore **tunnels called galleries** into the bark and introduce mutualistic fungi (e.g., Fusarium ambrosia).
- These fungi decompose wood tissue by secreting enzymes, creating a nutrient-rich environment.
  - The beetles and their larvae then feed on the **fungal mycelia** (the vegetative part of a fungus), not the tree itself.
- The beetle-fungus association harms trees in multiple ways like weakening the structure, severe leaf fall, trunk drying, and in some cases even tree death.
- The infection also affects total latex production from rubber trees, causing economic and agricultural losses.
- **Prevention Techniques:** To combat the infection, experts follow specific methods, such as using antifungal agents, removing

the infected part of trees, burning or chipping away any part that displays holes, and preventive measures such as using traps for ambrosia beetles.

Geographical Conditions for Rubber Production

- **Climate:** Hot and humid conditions with temperatures between 25-35°C.
- **Rainfall:** Annual precipitation between 1,800-2,500 mm.
- **Soil Type:** Deep, well-drained loamy or lateritic soils with good water-holding capacity.
- **Altitude:** Generally grown up to 300 meters above sea level.

Rubber Production in India

- **Kerala:** The leading state in rubber production, contributing over 70% of India's total output.
- Other states are Tamil Nadu, Karnataka, Tripura, and Assam.

Natural Rubber Production

- Natural rubber is derived from the **latex of Hevea brasiliensis**, a tree native to the **Amazon Basin.**
- In the financial year **2024–25 (FY25)**, India's domestic production of natural rubber stood at **8.7 lakh tonnes.**
- During the same period, the domestic consumption of natural rubber reached **14.1 lakh tonnes.**
- India is currently the **second-largest consumer** of natural rubber in the world, after **China.**
- However, it ranks as the **sixth-largest producer globally**, highlighting a significant gap between consumption and domestic production.
- Experts have projected that India's natural rubber (NR) consumption will reach 20 lakh tonnes by 2030, highlighting the urgent need to accelerate domestic production to meet rising demand and reduce import dependency.

Importance of Natural Rubber

- **Tyre Industry:** Consumes over 70% of NR; critical for the automobile, aviation, and defence sectors.
- **Employment: Supports ~13 lakh** small and marginal farmers, especially in Kerala, Tripura, and NE states.
- **National Resilience:** Reducing dependence on imported rubber and finished tyres enhances economic security.

Initiatives taken to increase Rubber Production

- **NE-MITRA project (North East Mission for Integrated Technology and Rubber Advancement)**: It aims to increase rubber production and self-reliance in natural rubber, reducing the country's dependence on imports.
- To address the supply gap, **ATMA or Automotive Tyre Manufacturers' Association**, in collaboration with the **Ministry of Commerce and Industry and the Rubber Board of India**, has launched **Project INROAD** (Indian Natural Rubber Operations for Assisted Development).

ENVIRONMENTAL FLOW (E-FLOW)

Context

Jal Shakti Minister held a comprehensive meeting focused on the environmental flow (e-flow) of the Ganga River and its tributaries in New Delhi.

About

- Environmental flow refers to the quantity, timing, and quality of water flow required to sustain freshwater ecosystems and the livelihoods that depend on them.
- It is critical for maintaining the ecological integrity of rivers and their estuaries.
- E-flow also ensures significant benefits for human welfare, especially in areas where water use is highly competitive and regulated.
- Extensive interventions in river flow—such as the construction of dams and barrages, pollution, and encroachments—have severely impacted the ecological balance of rivers.
- To address these issues, the concept of "Environmental Flow" has been introduced, emphasizing the need to maintain a minimum water flow to ensure the health of river ecosystems.
- E-Flow studies consider the habitat and flow requirements of key fish species to ensure the survival of aquatic life and balanced river flow. This contributes to long-term ecological and economic benefits for society.

KYOTO PROTOCOL

Context

Vijai Sharma, Kyoto Protocol architect & India's ex-chief climate negotiator has passed away.

About

- An international treaty adopted under the United Nations Framework Convention on Climate Change (UNFCCC).
- It was adopted in **1997 and entered into force in 2005.**
- **Objective:** To reduce greenhouse gas (GHG) emissions and combat global warming.
- **Legally Binding Commitments:** For developed countries (Annex I countries) to reduce their GHG emissions. Developing countries, including India and China, had no binding targets.
- **Target Period:**
  - **First Commitment Period (2008–2012):** Reduce emissions by an average of 5% below 1990 levels.
  - **Second Commitment Period (2013–2020):** Known as the Doha Amendment (not ratified by many nations, including the US and Canada).

- The targets for the first commitment period of the Kyoto Protocol cover emissions **of the six main greenhouse gases, namely:** Carbon dioxide (CO_2); Methane (CH_4); Nitrous oxide (N_2O); Hydrofluorocarbons (HFCs); Perfluorocarbons (PFCs); and Sulphur hexafluoride (SF_6).
- Establishment of flexible market mechanisms, which are based on the trade of emissions permits.
- Under the Protocol, countries must meet their targets primarily through national measures.
- However, the Protocol also offers them an additional means to meet their targets by way of three market-based mechanisms:
  - **Emissions Trading:** Countries could trade emission allowances to meet targets.
  - **Clean Development Mechanism (CDM):** Developed countries could fund emission reduction projects in developing countries to earn credits.
  - **Joint Implementation (JI):** Emission reduction projects between developed countries could generate credits.
- **An Adaptation Fund** was established to finance concrete adaptation projects and programmes in developing countries that are Parties to the Kyoto Protocol.
- Currently, there are 192 Parties to the Kyoto Protocol.
- The Kyoto Protocol is largely considered a landmark legislative achievement as one of the more prominent international treaties in regards to climate change.
  - Though the treaty has been superseded by the Paris Agreement, the Kyoto Protocol remains an important part of environmental and conservation history.

GOLDEN JACKALS

Context

Research undertaken by NGO Aranyakam Nature Foundation estimates that Kerala is home to 20,000–30,000 golden jackals.

About

- Golden Jackal (Canis aureus) is also known as the common jackal,is a wolf-like canid that is native to Eurasia.
- It has a golden to pale gold or brown-tipped coat, which can vary seasonally and regionally.
- **Behaviour:** Primarily **nocturnal**, active mostly at night.
- **Habitat & Distribution:** Found across Europe, Southwest, Central, South, and Southeast Asia.
  - In India, golden jackals are found in states like Kerala, Maharashtra, Rajasthan, and Haryana.
- **Diet:** Omnivores in nature, they feed on small mammals, insects, hares, fish, birds and fruits and often venture into human habitats in search of the same.
- **Legal protection:**
  - **IUCN Red List:** Least Concern
  - **CITES:** Appendix III

GREEN SYNTHESIS OF HYDROGEN PEROXIDE

Context

Researchers from S. N. Bose Centre for Basic Sciences (SNBCBS) have developed a novel approach for synthesizing H_2O_2 directly from water and sunlight.

About

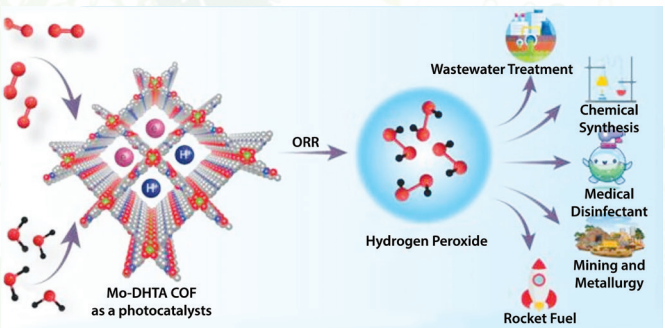
- Sunlight and water could now be turned into a powerful disinfectant - **Hydrogen Peroxide (H_2O_2)** - using a photocatalyst.
- The new method of synthesis of this chemical,could open up new avenues for green chemistry.

Hydrogen Peroxide

- Hydrogen peroxide is a vital oxidizing agent with broad applications in chemical synthesis, sterilization, wastewater treatment, and fuel cells.
- Known for its eco-friendly nature of degrading or breaking down into only water and oxygen - H_2O_2 is a key component in **sustainable chemical processes.**
- However, its conventional production methods are energy-intensive, environmentally hazardous, and costly.

What were the Existing Shortcomings?

- Traditional photocatalysts like metal oxides, graphitic carbon nitride (g-C_3N_4), polymers and metal organic frameworks (MOFs) face limitations due to wide band gaps and limited stability.
- In contrast, Covalent Organic Frameworks (COFs) provide advantages like high surface area, tunable porosity, narrow band gaps, and photostability.
  - Still, they often lack active sites and efficient electron mobility.
- Embedding metal centres into COFs (forming M-COFs) addresses these issues, enhancing catalytic activity, charge separation, and overall photocatalytic performance.

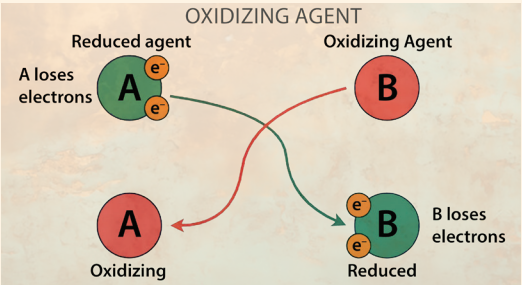


Recent Breakthrough:

- Researchers have developed a novel approach for using a cutting-edge material called **Mo-DHTA COF**, short for **dimolybdenum paddlewheel-embedded covalent organic framework** for synthesizing H_2O_2 directly from water and sunlight.
- This innovation offers a cleaner, more efficient, and recyclable route for hydrogen peroxide production, potentially transforming industries such as pharmaceuticals, green chemistry, and materials science.
- Mo-DHTA COF integrates dimolybdenum paddlewheel units with **α-hydroquinone** linkers, which are aromatic organic derivatives of benzene with hydroxyl groups at a para position, forming a robust framework capable of binding oxygen and facilitating its reduction under visible light.
- Upon light irradiation, the material, which acts like a highly organized molecular scaffold, studded with metal atoms that act like mini solar-powered factories, generates excitons, which drive the photocatalytic reactions.
  - Electrons reduce oxygen to superoxide radicals, which then react with protons and additional electrons to produce H_2O_2.
- Remarkably, this material demonstrates outstanding photocatalytic efficiency in different media, generating substantial amounts of hydrogen peroxide in ethanol and benzyl alcohol and even functioning effectively in pure water.
  - Furthermore, the Mo-DHTA COF exhibits excellent structural stability and recyclability, making it a durable catalyst for long-term use.

Do You Know?

An **oxidizing agent**, also known as an **oxidant**, is a substance that is capable of causing oxidation, a chemical reaction in which electrons are lost. In other words, it is a substance that can accept electrons from another substance, which causes the other substance to lose electrons and become oxidized.



Conclusion:

- The development of Mo-DHTA COF represents a major leap forward in photocatalytic technology.
- By harnessing sunlight and water under eco-friendly conditions, it provides a promising alternative to traditional methods, marking a pivotal step toward cleaner, low-cost, greener chemical synthesis with wide-reaching industrial impact.
- Scaling this technology could change how we make not just hydrogen peroxide, but a whole array of green chemicals.
- It is also a major milestone in indigenous science and research development and a step forward towards Atmanirbhar Bharat.

GRASSLAND BIRD CENSUS IN KAZIRANGA NATIONAL PARK

Context

The first Grassland Bird Survey Report for Kaziranga National Park was released on July 15, 2025.

About

- It was conducted between March 18 and May 25, 2025.
- A new methodology **"passive acoustic recording monitoring"** was deployed in the survey, which was also mentioned in the *Maan ki Baat program*.
- It helps in surveying small and highly camouflaged birds which is very difficult using traditional methods like visual counting.
- In this method, the acoustic recorders are placed in tall trees near grasslands during the breeding season of the birds,when they are very vocal, calling out for mates and with males defending territory.
- The recordings were analyzed using spectrograms and machine learning software called **Birdnet** to identify species.
- **Ecological Importance:** Grassland birds are indicators of ecosystem health.
  - Their presence shows the habitats are balanced and thriving.
  - The census helps understand biodiversity status and plan targeted conservation strategies.
- Kaziranga is a **UNESCO World Heritage Site** located in Assam. It has the largest population of Indian one-horned rhinoceros worldwide.

5 GEOGRAPHY

MUNNAR TO BE A GLOBAL 'RESPONSIBLE TOURISM DESTINATION'

Context

The Kerala government is working to transform Munnar into a global Responsible Tourism Destination, aiming to make it a net-zero tourist hub that protects its fragile ecosystem.

About

- It is a serene hill station in Kerala's Idukki district and sits 1,600 meters above sea level at the confluence of three rivers—**Muthirapuzha, Nallathanni, and Kundala**.
  - It is bordered by the Anamalai Hills and the Cardamom Hills.
- Known for its breathtaking landscapes, it features rolling hills, misty valleys, lush tea plantations, and cascading waterfalls.
- It was originally inhabited by the **Muthuvan tribal community** and became a tea hub in the late 19th century when European planter A.H. Sharp established the first plantations.
- Munnar is also famed for the **Neelakurinji flower**, which blooms once every 12 years, and the Eravikulam National Park, home to the endangered Nilgiri Tahr and the towering Anamudi Peak, South India's highest.

MAJULI ISLAND

Context

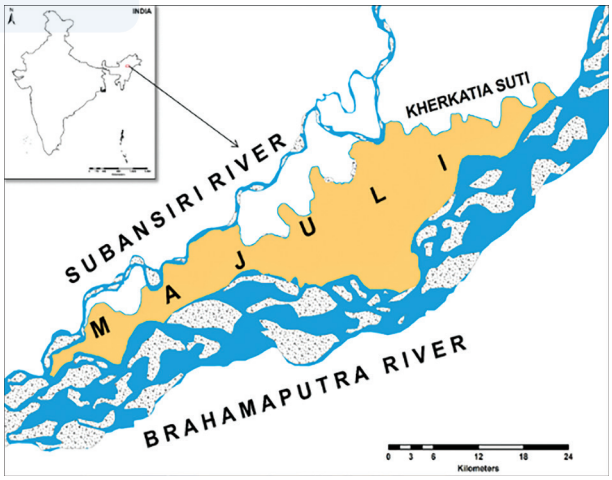
Locals of Pathorichuk village of Majuli, Assam are combating riverbank erosion by planting Kanchan trees along the Brahmaputra's banks.

About

- Majuli is the world's largest river island.
- It lies in the **Brahmaputra River** in Assam and became India's first river island district in 2016.
- Majuli is home to indigenous tribes such as the Mising, Deori, and Sonowal Kachari, and it is a centre for Assamese neo-Vaishnavite culture.
- Kanchan trees are deep rooted,which hold the soil together and act as a natural barrier against strong river currents.

Do You Know?

Umananda Island, located in the Brahmaputra at Guwahati, Assam, is the world's smallest river island. The British called it Peacock Island because of its shape.



NOON RIVER

Context

The Noon River is undergoing restoration through community-led desilting efforts.

About

- It originates at Satah village,in the Bundelkhand region of Uttar Pradesh and flows 81 km before joining Yamuna.
- The revival of the river seeks to address farmland submergence and water shortages.
- A major section of the river has been restored due to community involvement and administrative backing.
- It offers the potential to irrigate thousands of hectares and enhance water availability for many villages.

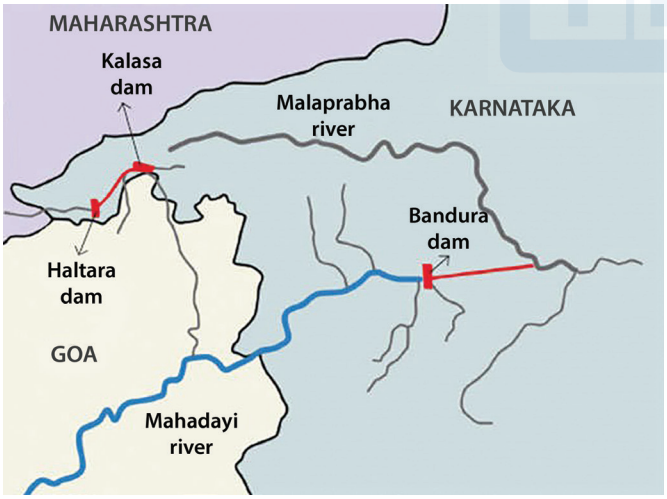
MHADEI RIVER

Context

Goa is taking Karnataka to the Supreme Court, accusing it of illegally diverting water from the Mhadei river's Kalasa tributary.

About

- **Origin:** Western Ghats (Bhimgad Wildlife Sanctuary, Karnataka)
- **Basin:** (Goa 78%, Karnataka 18%, Maharashtra 4%). Flows through Karnataka into Goa, where it is known as the **Mandovi,** and empties into the Arabian Sea.
- **Major Falls:** Dudhsagar Falls and Varapoha Falls.
- It is also known as the Gomati in a few places.



NAPNE WATERFALL

Context

A glass bridge built over the Napne waterfall was recently inaugurated.

About

- **Napne waterfall** is located in the Konkan region and is a perennial waterfall in Maharashtra.
- It is home to **hornbills, butterflies, and an abundance of endemic flora** offering both aesthetic and ecological appeal.
- The place is also home to some **exotic bird life** attracting birdwatchers from all over.

WULAR LAKE

Context

The lake witnessed a return of lotus bloom after 30 years, following a severe flood in 1992 that buried lotus rhizomes under layers of silt.

About

- **Location:**
  - It is located in the **Bandipora district** of Jammu and Kashmir and is situated on the foothills of **Haramuk Mountain.**
  - It is spread in a total area of **200 square km** covering almost **24 km in length** while its **breadth is 10 km.**
  - The main source of water for Wular Lake is **River Jhelum.**
- Wular Lake is **India's largest freshwater lake** and the **second largest in Asia (after Lake Baikal).**
- The lake has **Tectonic Origin**
- It was designated as a **Wetland of International Importance** under the **Ramsar Convention** in **1990.**

CHOLA GANGAM LAKE

Context

The Tamil Nadu government has recently announced a major initiative to develop the historic Chola Gangam Lake (also known as Ponneri Lake).

About

- Chola Gangam Lake was constructed by **Rajendra Chola I (1014–1044 CE)** and is an exemplary work of **Chola-era hydraulic engineering,** originally built to commemorate his victorious northern campaign and bring sacred Ganga water to his new capital.
- The lake and its associated canals were integral to the functioning and prosperity of **Gangaikonda Cholapuram,** illustrating advanced water management and urban planning under the Cholas.

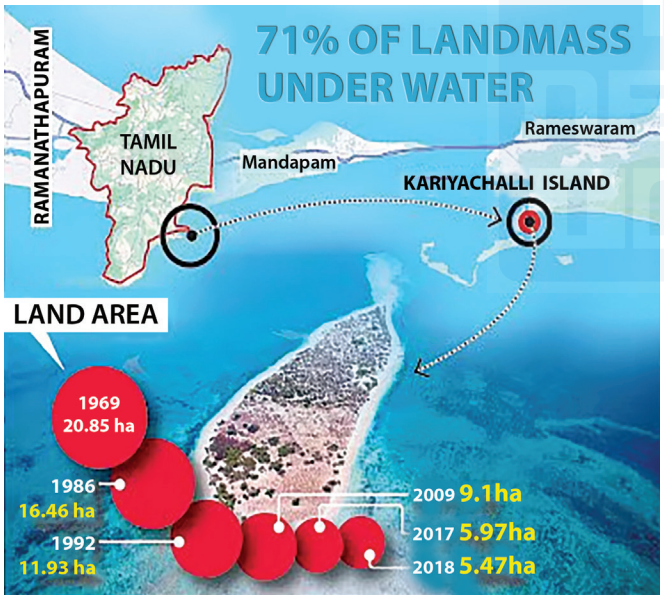
KARIYACHALLI ISLAND

Context

The Tamil Nadu Sustainably Harnessing Ocean Resources (TNSHORE) project is expected to start in August 2025 to save Kariyachalli island. It will try to restore the reefs with artificial modules, planting seagrass beds and reviving marine life.

Kariyachalli Island

- It is one of the 21 islands in the **Gulf of Mannar Marine National Park region.**
  - The gulf is home to one of the four major coral reefs in India (the other three are Gulf of Kutch, Lakshadweep Islands, and Andaman and Nicobar Islands).
- It is located on the southeastern coast of India between Rameshwaram and Thhothukudi.
- It has shrunk by over 70% since 1969 due to erosion, rising sea levels, and coral reef degradation, and is at risk of submersion by 2036.



PM MODI CONFERRED WITH NAMIBIA'S HIGHEST CIVILIAN AWARD

Context

The President of Namibia conferred on Prime Minister Modi the highest civilian award of Namibia - Order of the Most Ancient Welwitschia Mirabilis. He is the first Indian leader to be given this award.

About

- Namibia is a country located on the **southwestern coast of Africa.**
- It is bordered by **Angola to the north,** Zambia to the northeast, Botswana to the east, South Africa to the southeast and south, and the Atlantic Ocean to the west.
- The country's name comes from the **Namib Desert,** which is considered to be the oldest desert in the world.
- **Major rivers:** Four large rivers flow along Namibia's borders: the Zambezi, Orange, Cunene and Okavango/Cubango.

Do You Know?

Namibia has become the first African country to sign a licensing agreement to adopt India's Unified Payments Interface (UPI) system for real-time digital payments.

TRINIDAD & TOBAGO

Context

PM Modi was conferred with 'The Order of the Republic of Trinidad and Tobago' - the country's highest civilian honour. Trinidad and Tobago has become the first country in the Caribbean region to adopt India's Unified Payments Interface (UPI)

About

- **Location:** Trinidad and Tobago is situated in the **Caribbean Sea.**
  - It is part of the Lesser Antilles in the West Indies, geographically positioned between the **Atlantic Ocean and the Caribbean Sea.**
  - The islands lie close to the continent of **South America**, separated by the **Gulf of Paria.**
- **Capital:** Port of Spain
- **Demographic Aspects:** Over **35%** of the population is of Indian descent, largely tracing their roots to indentured labourers brought from India during British colonial rule.

ROLL CLOUD

Context

A rare "roll cloud," a long, tube-shaped cloud formation, was spotted rolling over the coastline of Póvoa do Varzim, Portugal.

About

- A roll cloud is a **low, horizontal, tube-shaped,** and relatively **rare type of arcus cloud.** They usually appear to be **"rolling" about a horizontal axis.**
- It is created by a **wave in the atmosphere** that causes a **rising and sinking motion over adjacent areas**, allowing the clouds to form and appear to roll forward.
- This type of roll cloud can **stretch many hundreds of miles long.**
- **Formation:** Cool, moist air from over the ocean rolls in to meet warm, dry air over land.
  - This rapid condensation, combined with air flowing in different directions above and below the cloud, shapes it into the distinctive cigar form, most commonly seen near coasts.
  - It is often formed **ahead of a thunderstorm** due to outflow winds from the storm's downdraft interacting with warm, moist air.
- **Not Dangerous:** It looks dramatic but is not associated with severe weather or tornado activity.
- **Common Locations:** Roll clouds are unusual in Portugal, they are more common in places like Australia, where cold air from Tasmania meets warm mainland conditions.
- **Rarity:** Relatively rare and usually brief in duration.

BLUE NILE

Context

Ethiopia has announced the completion of a Grand Ethiopian Renaissance Dam (GERD), Africa's largest hydro-electric power plant on the Blue Nile, a project that has long been a source of tension with Egypt and Sudan.

About

- The **Blue Nile** originates in **Lake Tana**, located in the **Ethiopian Highlands** of eastern Africa.
- It joins the **White Nile** in **Khartoum** (the capital of Sudan). From this confluence, the river flows north through Sudan and Egypt, eventually emptying into the **Mediterranean Sea** as the Nile.
- The **Nile River** is the **longest river in the world**, flowing through **11 countries**: Democratic Republic of the Congo, Burundi, Uganda, Kenya, South Sudan, Ethiopia, Eritrea, Rwanda, Tanzania, Sudan and Egypt.
- The **Nile has two major tributaries:** the **White Nile** and the **Blue Nile**. The White Nile, being the longer, is traditionally considered to be the headwaters stream, while the **Blue Nile actually contributes 80% of the water and silt** below the confluence of the two.

ESWATINI

Context

The United States has deported five foreign nationals convicted of serious crimes to Eswatini.

About

- It is a landlocked country bordering South Africa and Mozambique in Southern Africa.
  - It is a member of the Common Monetary Area (CMA), with Lesotho, Namibia, and South Africa.
- It was formerly known as Swaziland and it changed its name in 2018 to reflect its pre-colonial identity.
- It remains one of the few countries in the world, and the only one in Africa, governed by an absolute monarch.

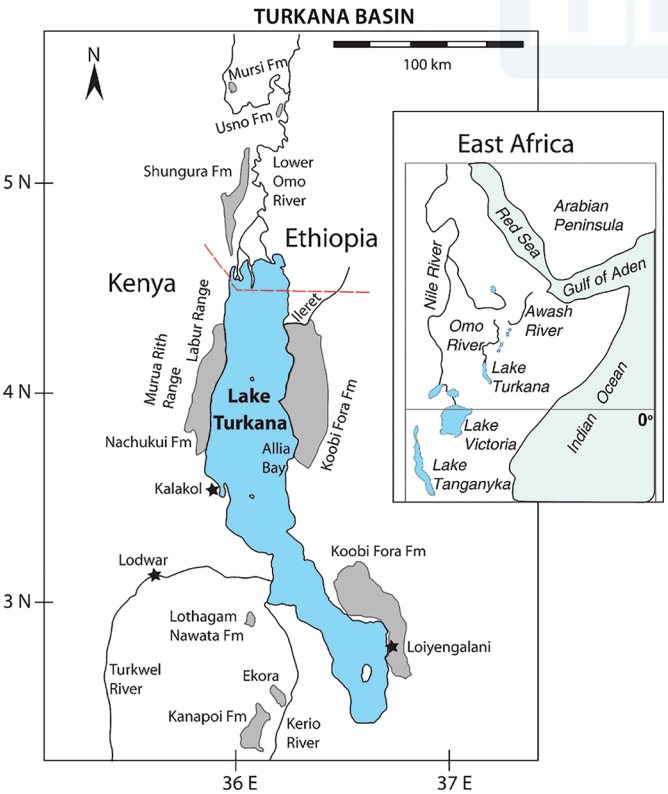
TURKANA BASIN

Context

Recent studies extracted 18–20 million-year-old enamel proteins from extinct mammal fossils in the Turkana Basin, Kenya.

About

- The **Turkana Basin** is a vast endorheic region in northwestern Kenya and southern Ethiopia, centered around **Lake Turkana—the world's largest desert lake.**
- It is renowned for its rich fossil record, unique biodiversity, and critical contributions to the study of human and mammalian evolution.



Do You Know?

- An endorheic basin, also known as a closed or terminal basin, is a drainage basin where water does not flow out to the sea or ocean.
- Instead, water entering the basin through rivers, streams, or precipitation remains trapped within, eventually leaving only through evaporation or seepage into the ground.

UNEP FRONTIERS REPORT, 2025

Context

The seventh edition, Frontiers 2025: The Weight of Time – Facing a New Age of Challenges for People and Ecosystems, highlights emerging environmental threats and potential solutions.

Key Highlights

- **Heatwaves and Vulnerable Populations:** Extreme heat events are increasing in frequency and severity, with older persons (65+) facing heightened mortality and health risks; heat-related deaths in this group have surged by 85% since the 1990s.
  - Acute and prolonged exposure to extreme heat or cold raises the risk of cardiovascular, cerebrovascular, and respiratory conditions.
- **Cryosphere Decline and Zombie Microbes:** Melting glaciers and permafrost ("cryosphere collapse") threaten water security for 670 million people and risk reactivating ancient dormant pathogens causing AMR.
- **Aging Dams:** The report flags the risk of unsafe, obsolete dams, which threaten ecosystems and communities, and suggests dam removals can restore rivers and biodiversity.
- **India-Specific Impact:** Between 1986-2005 and 2013-2022, older adults in India experienced an increase of 2.1–4 additional heatwave days per person per year. This has led to higher rates of illness and mortality among the elderly during heatwaves.

Recommendations

- **Transform Cities for Age-Friendly Resilience:** Develop pollution-free, resilient, and accessible urban spaces with abundant vegetation.
  - Improve urban planning to address the needs of an ageing population, especially during extreme weather events.
- **Invest in Early Warning and Adaptation:** Expand weather station networks to monitor and forecast extreme heat.
  - Promote community-based disaster risk management and ensure timely access to information for older adults.

- **Adopt the '15-Minute City' Approach:** Design neighbourhoods where essential services—homes, workplaces, schools, shops, and green spaces—are within a 15-minute walk or cycle.
  - This compact, accessible model supports independent living for older adults, reduces car dependency, and improves air quality.

CABO DELGADO REGION

Context

A new study reveals that four planned Liquefied Natural Gas (LNG) projects in the Rovuma Basin, located in the Cabo Delgado region of northern Mozambique, could have an outsized impact on the global climate if fully exploited.

About

- Cabo Delgado is the northernmost province of Mozambique, bordering Tanzania to the north (across the **Rovuma River**), the provinces of Niassa (west) and Nampula (south), and the Indian Ocean to the east.

SOCOTRA ISLAND

Context

Field teams from the United Arab Emirates and the World Health Organization have successfully completed the first phase of a comprehensive health assessment on Socotra Island in Yemen.

About

- Socotra Island is a remote **Yemeni archipelago** located in the **Indian Ocean** approximately 380 kilometers south of the Arabian Peninsula.
  - It lies in the northwest Indian Ocean near the Gulf of Aden, stretching 250 km, and consists of four islands and two rocky islets that appear as an extension of the Horn of Africa.
- Socotra is renowned for its extraordinary biodiversity, with up to a third of its plant species being endemic and found nowhere else on the planet. Despite its natural significance, Socotra faces ongoing challenges from Yemen's civil war.
- The island was recognized as a UNESCO World Heritage Site in 2008.

KAMCHATKA PENINSULA

Context

A series of earthquakes struck Russia's Kamchatka Peninsula.

About

- Located in far **eastern Russia,** the peninsula lies between the Sea of Okhotsk (west) and the Pacific Ocean & Bering Sea (east).
- It is home to the Volcanoes of Kamchatka, a UNESCO World Heritage Site, and a key segment of the Pacific Ring of Fire.

GREAT RUAHA RIVER

Context

Tanzania's Vision 2050 aims to tackle the climate crisis threatening the Great Ruaha River, a vital resource for agriculture and biodiversity.

About

- It is a major river in south-central Tanzania.
- It flows northeast through the Usangu wetlands, descends across the Usangu plains (important for agriculture and livestock), and passes through **Ruaha National Park.**

6 INTERNAL SECURITY

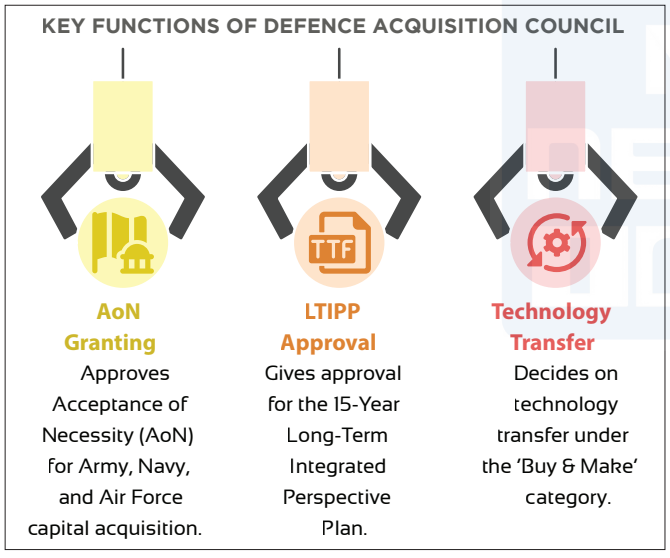
DEFENCE ACQUISITION COUNCIL (DAC)

Context

The Defence Acquisition Council (DAC) headed by Defence Minister made clearance of capital acquisition proposals worth nearly ₹1.05 lakh crore.

About

- **Established:** 2001, following recommendations by the Group of Ministers on National Security after the Kargil War (1999).
- **Purpose:** To streamline and expedite the procurement process for the armed forces, ensuring timely and efficient acquisition of equipment and systems



MEDIUM ALTITUDE LONG ENDURANCE (MALE) DRONES

Context

To strengthen surveillance along its borders, India has accelerated the procurement of 87 Medium Altitude Long Endurance drones from indigenous manufacturers.

About the MALE Drones

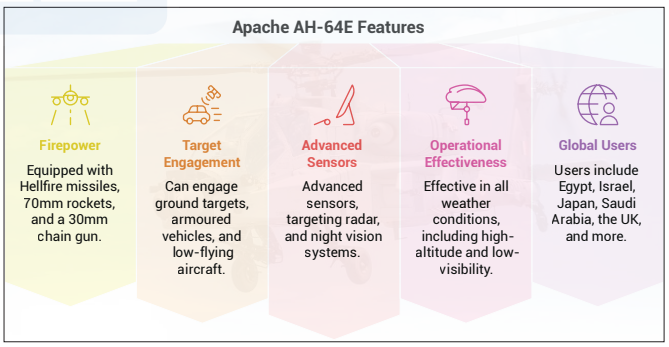
- **Role:** MALE drones provide advanced, real-time **Intelligence, Surveillance, and Reconnaissance (ISR)** capabilities and can operate effectively across diverse terrains.
  - They are equipped for both surveillance and combat operations.
- **Capabilities:**
  - **Endurance:** Over **30 hours** of continuous flight.
  - **Altitude:** Can operate at a maximum altitude of at least **35,000 feet.**
- **Significance:**
  - These drones must have **more than 60% indigenous content**, and several major Indian defence companies are likely to be part of this procurement.
  - Marks India's **first major indigenous procurement** of MALE-class drones — previously, India largely depended on imports from **Israeli firms**.

APACHE AH-64E HELICOPTERS

Context

India is set to receive its first Apache AH-64E helicopters from the US, marking a significant enhancement to its military capabilities.

About



MAHARASHTRA'S 'URBAN MAOISM' BILL

Context

The Maharashtra Special Public Security (MSPS) Bill, 2024, commonly referred to as the 'Urban Maoism' Bill, was passed by the Maharashtra Assembly.

Background:

- Introduced due to **gaps in existing laws (e.g., UAPA)** in tackling **urban Maoist strategies**.

- **Urban Front Tactics:** Maoist groups increasingly use **NGOs, intellectuals, students, and media platforms** to support rural insurgency and **weaken state institutions**.
- **State-Level Action: Maharashtra joins Telangana, Andhra Pradesh, Odisha, and Jharkhand** in enacting **special public security laws** to curb extremist activities.

Key Features

- **Objective:** Criminalize support for banned organizations to counter **urban Naxalism**.
- **Unlawful Activity:** Includes acts disturbing public order, promoting law disobedience, or aiding extremist groups—**intellectually, financially, logistically, or symbolically**.
- **State Powers:** Government can declare organizations **"unlawful"** and penalize for membership, fundraising, or support.
- **Penalties: 2–7 years' imprisonment**; fines of **₹2–5 lakh**; offences are **cognizable and non-bailable**.
- **Property Forfeiture:** State may seize linked properties **before conviction**; affected parties can appeal to the High **Court within 30 days**.
- **Safeguards:** Investigations led by **senior police officers**; an **Advisory Board (3 High Court-qualified persons)** must confirm "unlawful" status.

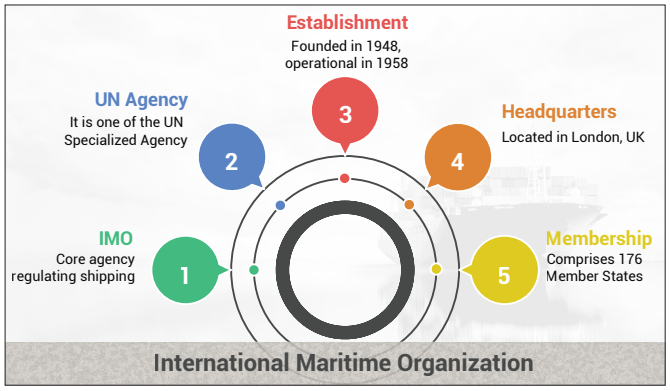
134TH SESSION IMO COUNCIL

Context

India has reiterated its commitment to maritime safety and gender equality during the 134th session of the International Maritime Organization (IMO) Council, held in London.

India's Key Interventions at the Session

- **India flagged recent maritime accidents**, including the sinking of **MSC ELSA 3** (May 2025) and the **WAN HAI 503 fire** (June 2025), both off Kerala.



- **Called for IMO-led investigations** into container ship incidents involving hazardous cargo.
- **Urged a review of global standards** for transporting dangerous goods, especially **lithium-ion batteries** under the **IMDG Code**.
- **Requested improvements in protocols** for packaging, declaration, stowage, and monitoring of hazardous materials.
- **Proposed global standardisation** of incident response protocols for container ship accidents and sought to **establish best practices** to improve **container ship operational safety**.
- Showcased the **"Sagar Mein Samman" initiative** launched in 2024 to promote maritime workplace safety and inclusivity.
  - The scheme aims to **boost women's participation** in maritime sectors, from seafaring to leadership roles.
  - India reported a **650% increase in women seafarers**, highlighting the scheme's success.

Related Laws and Conventions:

- **International Convention for the Prevention of Pollution from Ships (MARPOL):** It was rolled out by the International Maritime Organisation (IMO) in **1973** and recognised the need for international coherent efforts for curbing oil spill.
  - **India is a signatory** to the MARPOL Convention.
- **The Maritime Labour Convention, 2006,** Sets minimum working and living standards for seafarers globally. Covers aspects such as equal opportunity, safety, and gender inclusion on board vessels.
- **Merchant shipping Act, 1958:** The Act, describes the power to give a notice to the owner, when the central government is satisfied the ship is not as per the prescribed rules.
  - After notice, if the person fails to comply, the government can convict the person of an offense.

KARGIL VIJAY DIWAS

Context

Kargil Vijay Diwas is observed every year on July 26 to commemorate India's victory over Pakistan in the 1999 Kargil War.

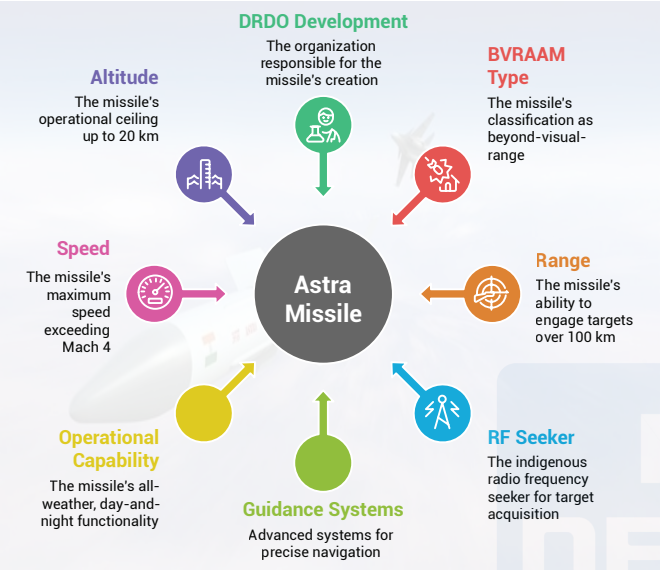
About

- The conflict began in May 1999, when Pakistani intruders occupied Indian posts across the LoC, aiming to cut off National Highway 1A — the strategic lifeline to Ladakh.
- India launched Operation Vijay to reclaim the occupied territories, leading to nearly three months of intense combat in the icy heights of Kargil, Ladakh.
- Battles at Tololing, Tiger Hill, and Point 4875 are now etched in national memory as enduring icons of valor and heroism.
- On July 26, 1999, the operation was officially declared successful, marking a decisive Indian victory.

ASTRA MISSILE

Context

DRDO and the Indian Air Force have successfully conducted a flight-test of the indigenous Astra missile from a Sukhoi-30 MKI, off the coast of Odisha.

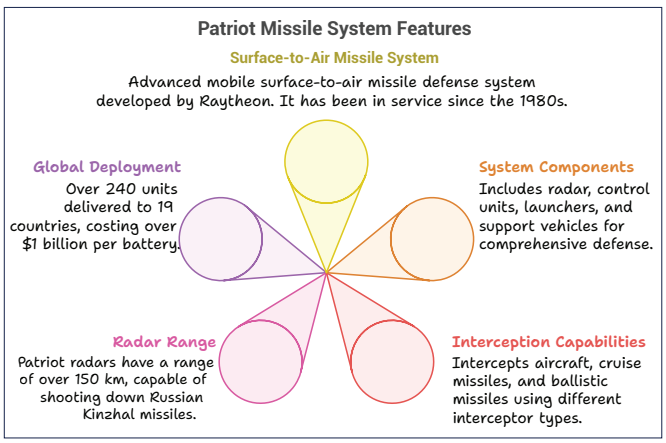


PATRIOT AIR DEFENSE SYSTEMS

Context

Amid discussions over weapon supply to Ukraine, US President Donald Trump has said he will send Patriot air defence systems to help Ukraine against Russian aggression.

About

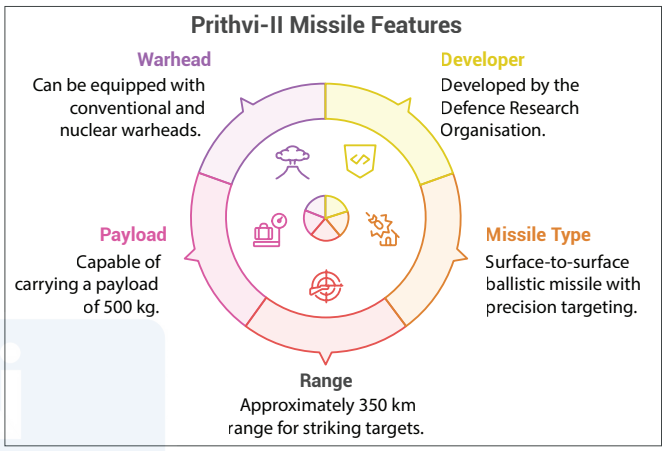


PRITHVI-II AND AGNI-I

Context

Strategic Forces Command successfully test-fired the Prithvi-II and Agni-I ballistic missiles from Chandipur, Odisha.

About



Agni-I Missile Features

Missile Stage	Range	Warhead Capacity
Agni-I is a Surface to surface, single-stage missile.	It has a range of 700–900 km.	It can carry a nuclear warhead weighing up to 1,000 kg.

Strategic Forces Command (SFC)

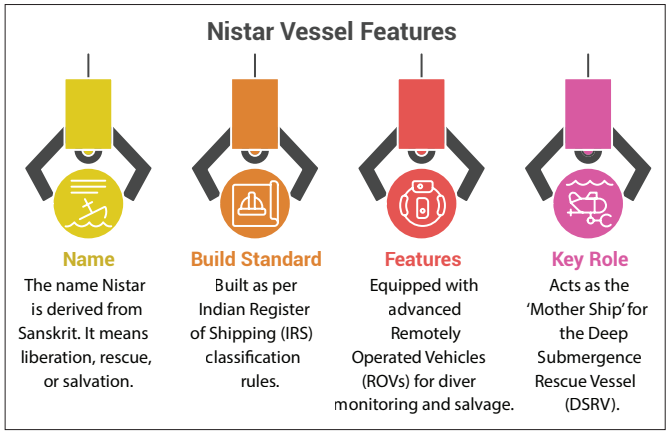
- Established in 2003, is a key part of India's Nuclear Command Authority, responsible for the deployment and operational control of the country's nuclear weapons.
- It is headed by a three-star General (Commander-in-Chief rank)
- It ensures the training, readiness, and testing of strategic missile systems like Agni and Prithvi.

INS NISTAR

Context

The Indian Navy has received INS Nistar, its first indigenously designed and built Diving Support Vessel (DSV), from Hindustan Shipyard Limited (HSL), Visakhapatnam.

About



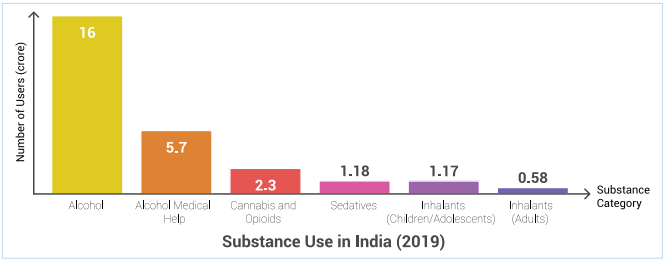
KASHI DECLARATION FOR DRUG-FREE INDIA

Context

The Kashi Declaration, outlining a five-year roadmap for a drug-free India was signed during the Youth Spiritual Summit in Varanasi.

About

- The Kashi Declaration **affirms a national consensus** to treat substance abuse as a **multi-faceted public health and societal challenge,** and calls for a whole-of-government and whole-of-society approach.
- It emphasises the **integration of spiritual, cultural, educational, and technological efforts** to prevent addiction, support recovery, and foster a national culture of sobriety.
- It proposes institutional mechanisms for multi-ministerial coordination, including the formation of a Joint National Committee, annual progress reporting, and a national platform for linking affected individuals to support services.



Substance Use in India (2019)

Reasons for Drug Menace in India

- **Geographical location:** India lies close to the Golden Crescent and Golden Triangle, major global drug-producing regions.
  - Easy cross-border smuggling in states like Punjab, Manipur, and Assam enables drug inflow.
- **Youth vulnerability:** Peer pressure, stress, unemployment, and curiosity make youth susceptible to drug use.
- **Weak enforcement:** Inadequate surveillance, corruption, and overburdened agencies hinder effective control.
- **Easy availability:** Online platforms, local peddlers, and pharmacies make drugs more accessible.
- **Social disintegration:** Broken families, isolation, and lack of community support increase addiction risks.

Steps Taken

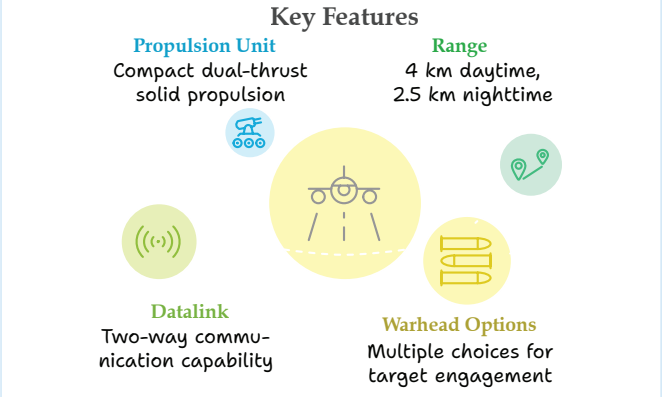
- **Indian Initiatives:**
  - **Narcotic Drugs and Psychotropic Substances Act, 1985 (NDPS Act):** It prohibits the production, possession, sale, and consumption of illicit drugs and prescribes penalties for violations.
  - **Nasha Mukt Bharat Abhiyaan:** Launched in 2020, this campaign aims to create awareness about the ill effects of drug abuse and promote a drug-free India.
  - **Anti-Narcotics Task Force (ANTF):** Many states have established ANTFs to strengthen drug law enforcement at the state level.
  - **DarkNet Monitoring Cell** under **Narcotics Control Bureau (NCB)** tracks online drug sales.
- **Global Initiatives:**
  - **United Nations Office on Drugs and Crime (UNODC):** The UNODC is at the forefront of the global fight against illicit drugs. The UNODC-led campaign aims to raise awareness about the dangers of drug abuse.
  - **International Narcotics Control Board (INCB):** The INCB monitors the global drug situation and assesses countries' compliance with international drug control treaties.

MISSILE (ULPGM)-V3

Context

DRDO conducted successful flight-trials of Advanced Unmanned Aerial Vehicle Launched Precision Guided Missile-V3.

About



- It is Designed, developed and tested by DRDO and It is also referred to as ULM-ER (extended-range variant).
- It is an advanced version of **DRDO's UAV-launched precision munition,** and features passive homing using an imaging infrared (IR) seeker, allowing for accurate engagement in both day and night conditions.
  - It can be fired in plain and high-altitude areas.

INS UDAYGIRI

Context

The Indian Navy recently received INS Udaygiri, marking the formal delivery of the second stealth frigate under Project 17A, as announced by the Defence Ministry.

About

- INS Udaygiri is the second stealth frigate under Project 17A, a successor to the Shivalik-class (Project 17) frigates.
- It is one of seven P-17A frigates being constructed by Mazagon Dock Shipbuilders Ltd. (MDSL), Mumbai, and Garden Reach Shipbuilders & Engineers (GRSE), Kolkata.

Capabilities:

- It is a multi-role stealth warship designed for operations in deep-sea (blue water) environments and is equipped to counter both conventional and asymmetric maritime threats.

Features:

- The frigate incorporates advanced stealth features and cutting-edge weapons and sensor systems, reflecting a significant advancement in indigenous naval warship design through the Warship Design Bureau.

OPERATION MAHADEV

Context

Under Operation Mahadev, Indian security forces have successfully neutralized three terrorists linked to the recent Pahalgam attack.

About

- It is an anti-terror operation carried out jointly by the Indian Army, CRPF, and Jammu & Kashmir Police.
- It was carried out in Lidwas area near Dara & Harwan, close to Dachigam National Park, Srinagar, J&K.
- This would reinforce India's resolve against cross-border terrorism and boost morale of security forces amid ongoing Operation Sindoor debate.

MILITARY EXERCISES

SIMBEX EXERCISE

Context

The Indian Navy is going to participate in the 32nd edition of the Singapore-India Maritime Bilateral Exercise (SIMBEX).

About

- It began as **'Exercise Lion King'** in 1994 and it is one of the longest uninterrupted maritime exercises for India.
- It is conducted annually by the Indian Navy and the Republic of Singapore Navy (RSN).

Importance

- It has since evolved into one of the most significant bilateral maritime collaborations between the Indian Navy and the Republic of Singapore Navy (RSN).
- The exercise supports **India's Vision SAGAR** and **Act East policy**, focused on regional cooperation and maritime security.

EXERCISE BOLD KURUKSHETRA 2025

Context

The 14th edition of India–Singapore Joint Military Exercise, Bold Kurukshetra 2025, commenced in Jodhpur, India.

About

- First held in 2005, Exercise Bold Kurukshetra is a Table Top Exercise and Computer-Based Wargame focused on validating mechanised warfare procedures.
- It aims to boost interoperability and joint training under a United Nations mandate, reinforcing India–Singapore defence cooperation.

7 SCIENCE & TECHNOLOGY

SYNTHETIC HGP (SYNHG)

Context

The researchers in the United Kingdom have launched an ambitious initiative — the Synthetic Human Genome Project (SynHG) — which represents a bold leap from reading the human genome to attempting to write it.

About

- Unlike the HGP, which reads the human genome, **SynHG aims to write large segments of human DNA synthetically** — a transition from genetic reading to engineering.
- **Time period:** 5 years
- **Objective:** Build large, functional fragments of synthetic human DNA from scratch. Develop new technologies for writing, testing, and assembling human genomic sequences.

Significance

- **Disease Models:** Synthetic genomes can help model human diseases, enabling precision drug development.
- **Gene Therapy:** Designing DNA for specific functions may treat or even cure genetic disorders.
- **Organ Development:** Lays groundwork for future bioengineered organs or tissues.

THE HUMAN GENOME PROJECT (HGP)

- **Objective:** To identify and map all human genes (approximately 20,000-25,000) and make this knowledge freely accessible.
- It was launched in **1990** and completed in **2003.**
- It Successfully sequenced **~92% of the 3.1 billion base pairs** of the human genome.

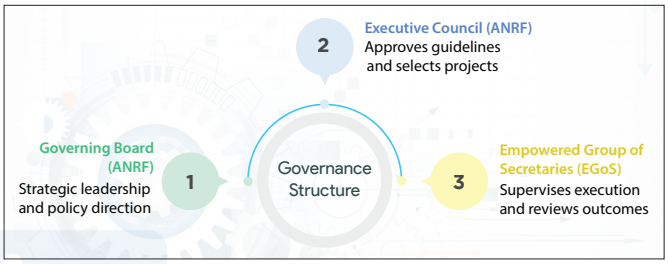
RESEARCH DEVELOPMENT AND INNOVATION (RDI) SCHEME

Context

The Union Cabinet has approved the Research Development and Innovation (RDI) Scheme with a corpus of Rs. One lakh Crore.

Need For the Scheme

- The 2024-25 Economic Survey noted that even though India has increased the gross expenditure on research and development (GERD) from approximately ₹60,196 crore in 2011 to about ₹127,381 crore in 2021, it **still is a mere 0.64% of the GDP.**



- The survey noted that this remains **"insufficient and remains low compared to many countries that have forged ahead in R&D"**.

About the Scheme:

- **Nodal Agency:** Department of Science and Technology (DST).
- **Key Objectives of the Scheme:**
  - **Encourage private sector investment** in Research, Development, and Innovation (RDI), particularly in sectors linked to **economic security and strategic importance**.
  - Support high-impact projects at advanced Technology Readiness Levels (TRLs).
  - Facilitate the **acquisition of critical and strategic technologies**.
  - Establish a **Deep-Tech Fund of Funds (FoF)** to nurture **deep-tech innovations and startups**.
- **Funding Mechanism:**
  - **Total Corpus:** ₹1 lakh crore as a **50-year interest-free loan** to the **Anusandhan National Research Foundation (ANRF)**.
  - **Special Purpose Fund (SPF):** Created under ANRF to manage and allocate funds.

ALTERMAGNETS

Context

Scientists at the S.N. Bose National Centre for Basic Sciences have discovered an exceptional property in a newly identified magnetic material—Chromium Antimonide (CrSb).

About

- Altermagnets represent a novel class of magnetic materials that uniquely combine the internal spin ordering characteristic of anti-ferromagnets with the functional advantages associated with ferromagnets.
- Despite this internal magnetic order, they **exhibit zero net external magnetization.**
- Their "hidden" magnetic symmetry allows for unprecedented control over electron spin and transport properties without producing any external magnetic signatures.

GLUTATHIONE

Context

Actor Shefali Jariwala's death has put glutathione injections in the spotlight.

About

- Glutathione is a powerful **antioxidant** naturally produced by our liver. It repairs skin, boosts immunity, slows aging, neutralises free radicals, and even helps fight cancer cells. Because of this, it's often called the **'mother of all antioxidants.'**
- But as we age, our bodies produce **less glutathione** — so many people turn to oral supplements or intravenous injections to boost levels.

Its Impact and Regulation

- High doses, especially through injections, can cause serious side effects like allergic reactions, low blood pressure, kidney damage, and may disrupt the body's natural antioxidant balance.
- Notably, the **Central Drugs Standard Control Organisation** (CDSCO), India's national regulator for cosmetics, pharmaceuticals, and medical devices, **has not approved glutathione** for skin lightening — though it's widely used off-label for this purpose.

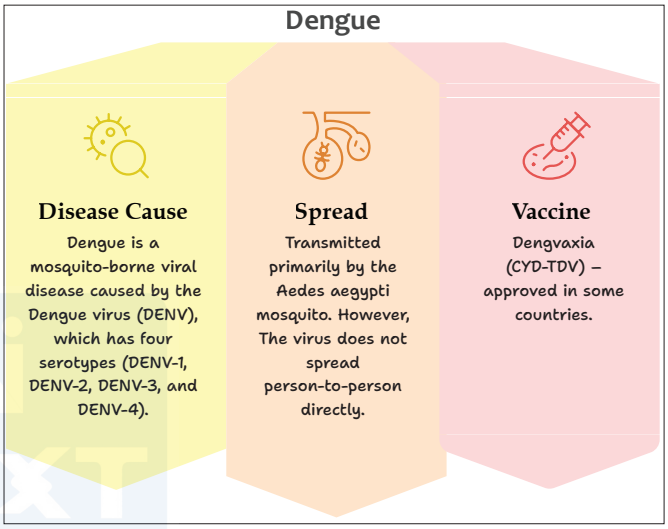
DengiAll

Context

India has reached the 50% enrolment mark in its first phase III clinical trial for the indigenous tetravalent dengue vaccine, DengiAll.

About

- It is **developed by Panacea Biotec Limited** under a licensing agreement with the **National Institutes of Health (NIH),** the primary US federal agency.
- **DengiAll** has a weakened form of all **four dengue virus subtypes** and has the same virus composition as the vaccine developed by NIH, except for the inactive ingredients. The trial has been approved by the **Drug Controller General of India.**
- **A Phase I and II clinical trial** conducted in India revealed a balanced and robust immune response across all four dengue virus types.
- **The ICMR-National Institute of Translational Virology (NITVAR)** and AIDS Research (formerly ICMR-NARI) is **responsible for overall trial coordination.**



SAKSHAM-3000

Context

The Minister of State for Communications and Rural Development, Dr. Pemmasani Chandra Sekhar, launched the high capacity SAKSHAM-3000.

About

- It is a state-of-the-art data centre switch-cum-router designed for next-generation digital infrastructure.
- It is developed by Development of Telematics (C-DOT).
- It is a high-capacity, compact 25.6 Tbps switch-router designed for modern data centers, supporting 32 ports of 400G and Ethernet speeds from 1G to 400G.

Features

- It is Ideal for large computing clusters, cloud infrastructure, 5G/6G networks, and AI workloads.
- It features ultra-low latency, wire-speed processing, and the modular CROS(C-DOT Router Operating System) operating system.
- It supports Layer-2, IP, and MPLS protocols, is energy-efficient, and is suited for time-sensitive applications with PTP and Sync-E.

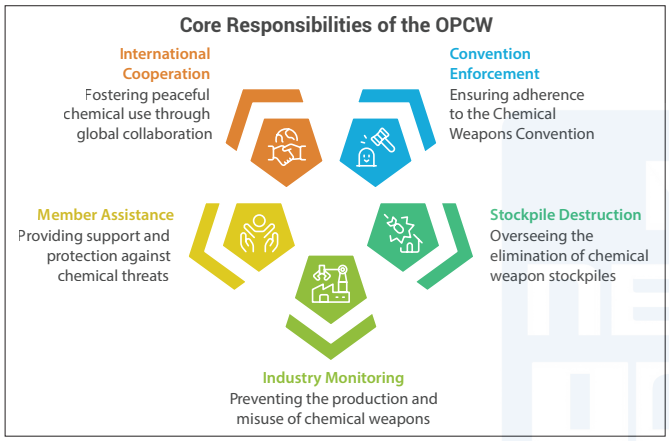
ORGANISATION FOR THE PROHIBITION OF CHEMICAL WEAPONS (OPCW)

Context

The OPCW, in collaboration with India's National Authority Chemical Weapons Convention (NACWC), convened the 23rd Regional Meeting of National Authorities of States Parties in Asia.

About OPCW:

- **Established:** 1997, under the Chemical Weapons Convention (CWC).
- **Headquarters:** The Hague, Netherlands.
- **Members:** 193 States Parties (as of 2025).



National Authority for Chemical Weapons Convention

- **Set up under:** Chemical Weapons Convention Act, 2000 (India).
- **Nodal Body:** Functions under the Cabinet Secretariat, Government of India.
- **Role and Responsibilities:**
  - **Implement the Chemical Weapons Convention (CWC)** at the national level.
  - **Coordinate inspections** and facilitate visits by the OPCW.
  - **Liaise with industries** to ensure compliance with CWC guidelines.
  - Maintain **declarations and reports on chemical activities** as per OPCW requirements.
  - Work towards prohibiting the development, production, transfer, and use of chemical weapons in India.

HAM RADIO COMMUNICATION

Context

Indian astronaut Shubhanshu Shukla interacted with the students using a ham radio from the International Space Station (ISS).

About Ham Radio

- Ham Radio is popularly known as Amateur radio.
- It is a licensed radio service that relies on **radio waves for establishing communication.**
- It is largely deployed for **educational and knowledge purposes, for emergency or SOS communication.**
  - Using a dedicated frequency, a transceiver and an antenna, communication can be set up between two licensed hams by trained ham operators.
- The communication can be **hyper-local, global, and in space.**
- In India, any individual above the age of 12 is permitted to operate a ham radio. The **Ministry of Electronics and Information Technology** issues these licences.

Uses in Space

- **Amateur radio** was first used on a space shuttle in **1983** for communication between space and Earth.
- The ISS also hosts an **Amateur Radio on the International Space Station (ARISS)** system, which facilitates astronaut-student interactions to inspire the younger generation.
  - ARISS project is supported by amateur radio organizations and space agencies from the U.S., Russia, Canada, Japan, and Europe.
  - It provides equipment and operational support.
    - Radio outages are scheduled during critical activities like docking to avoid interference.

Axiom-4 Crew used Ham Radio

- During the Axiom-4 mission, astronauts from India, Poland, and Hungary will use ham radio to communicate with their home countries twice during their 14-day stay at the ISS.
  - The communication will occur when the ISS passes over the horizon for brief windows of 5-8 minutes.

STARLINK RECEIVES REGULATORY NOD

Context

India's space regulator INSPACe has granted a licence to Elon Musk-run Starlink to offer space-based internet services in the country.

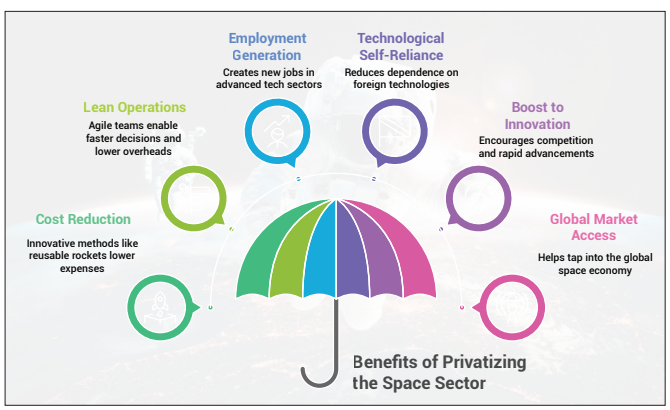
About

- Starlink has been waiting **since 2022** for licences to operate commercially in India.
- It would be the **third company** to receive India's nod to enter the space after Eutelsat's OneWeb and Reliance Jio.
  - Starlink will now need to secure spectrum from the government, set up ground infrastructure, and also demonstrate through testing and trials that it meets the security rules it has signed up for.

- Starlink authorisation is to operate **Gen1 constellation for providing satellite broadband** capacity over India till **2030**.

Regulation Landscape in India

- **Licensing Framework under Indian Telegraph Act, 1885:**
  - **Section 4:** Grants exclusive privilege to the Union government for establishing and operating telecommunication systems (including VSAT).
  - **Section 7:** Authorises the government to frame rules and conditions for such licences.
- **Regulatory Oversight by TRAI (TRAI Act, 1997): Section 11: Lists TRAI's functions:**
  - Recommending licence terms and conditions.
  - Advising on spectrum management.
  - Ensuring level playing field and fair competition.
  - TRAI significantly influences Starlink's operational framework through its regulatory recommendations.
- **Telecommunications Act, 2023:** Governs satellite spectrum allocation.
  - Allows administrative allocation of spectrum.
  - Imposes compliance on: Security obligations and Pricing norms.
- **Space Sector Regulation:**
  - Satellite Communications Policy, 2000 regulates satellite use in India.
  - IN-SPACe (Indian National Space Promotion and Authorisation Centre) coordinates with private players like Starlink.
  - Ensures non-conflict with ISRO assets.
  - Aligns operations with national space priorities.
- **Data and Cybersecurity Laws:**
  - Information Technology Act, 2000 governs cybersecurity and lawful interception.
  - Digital Personal Data Protection Act, 2023 regulates personal data handling, imposes data storage and encryption norms.
- **National security compliance:** Directives from the Ministry of Home Affairs and intelligence agencies must be followed.



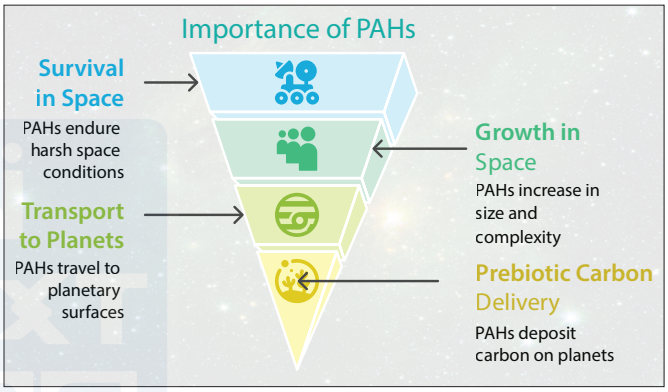
POLYCYCLIC AROMATIC HYDROCARBONS

Context

Researchers studied the indenyl cation, C9H7+ to study the PHA molecules survival in Taurus Molecular Cloud 1 (TMC1).

About PAH

- Polycyclic Aromatic Hydrocarbons **(PAHs)** are **flat, ring-shaped molecules of carbon and hydrogen.** Astronomers think they make up **a fifth of all carbon in interstellar space.**
- There is a hypothesis that **meteors brought PAHs from space** to young earth and created the **first building blocks of life**, attaching important value to their ability to survive in space.



- **On Earth, PAHs** are also known to form during incomplete combustion of organic matter, like burning fossil fuels.

Taurus Molecular Cloud 1 (TMC1)

- **Taurus Molecular Cloud 1 (TMC1)** is a cold, dark cloud of gas, dust, and plasma in the Taurus constellation.
- It is located about **430 light-years from Earth.**
- In TMC1, **small PAHs** (with paired electrons or "closed-shell") are found in large amounts, even though starlight should destroy them.
- This raised a major question: **How do these molecules survive in such harsh space conditions?**
- Scientists studied a **PAH fragment called $C_9H_7^+$ (indenyl cation).**
  - They found it has a **fast cooling method,** which helps it survive instead of breaking apart.

DISPLAYING SUGAR AND FAT BOARDS

Context

The Ministry of Health has mandated all Central and State government offices to display 'Sugar and Fat Boards' to inform employees about the sugar and fat content in foods sold on their premises.

About

- The measure, supported by the **Indian Council of Medical Research–National Institute of Nutrition (ICMR–NIN),** aims to serve as a behavioural nudge to promote healthier dietary habits among government employees and visitors.
- **Recommended daily intake:**
  - **Sugar:** 25 grams
  - **Visible fat:** 30 grams

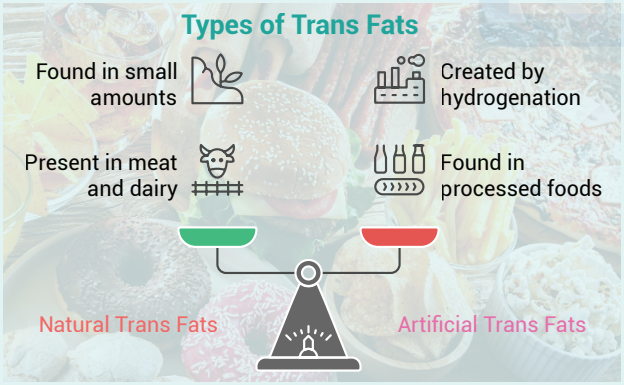
Significance of the Move

- India faces a growing burden of **non-communicable diseases (NCDs)** like diabetes and heart disease, driven by poor dietary habits, including excess sugar and fat intake.
- By encouraging informed food choices, the initiative supports **preventive healthcare** and could be a first step toward broader regulation of **trans fat-rich food.**

TRANS FAT

Trans fat (or trans-fatty acids) is a type of unsaturated fat that is harmful to health.

- **Increases LDL Cholesterol:** Trans fats can raise levels of "bad" LDL cholesterol in the blood, which can contribute to the buildup of plaque in arteries and increase the risk of heart disease.
- **Reduces HDL Cholesterol:** They can also lower levels of "good" HDL cholesterol, which helps remove LDL cholesterol from the body.



MITOCHONDRIAL REPLACEMENT THERAPY

Context

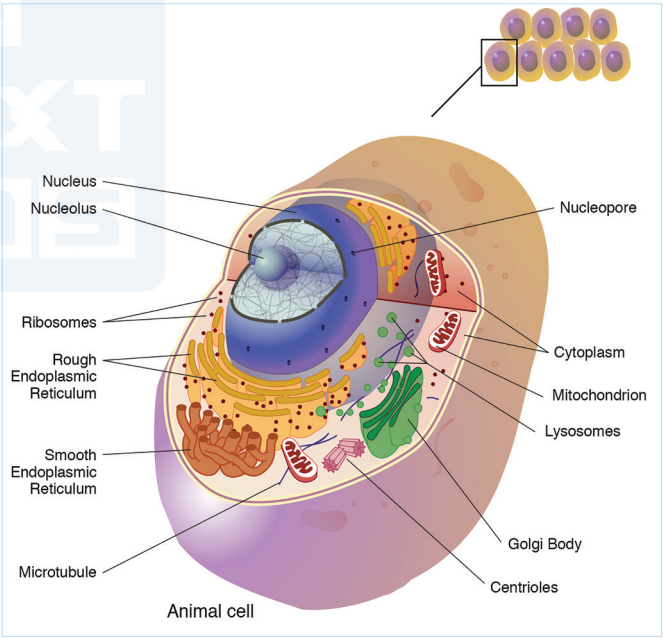
Eight healthy babies were born in Britain with the help of an experimental technique called Mitochondrial Replacement Therapy (MRT).

About

- The mothers were all at high risk for passing on life-threatening diseases to their babies due to mutations in their mitochondria.
- The four boys and four girls were born to seven women and have no signs of the mitochondrial diseases they were at risk of inheriting.
- The UK became the **first country** to approve the use of mitochondrial donation in 2015.
- The procedure is not yet permitted in India.

Mitochondrial Genes

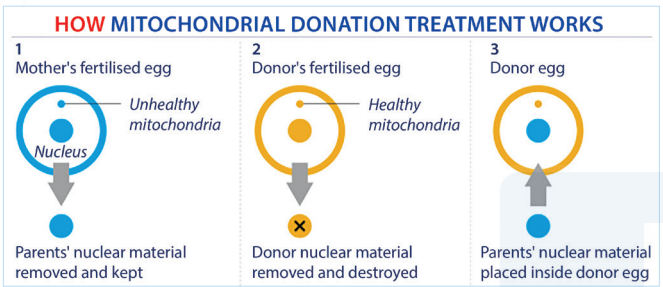
- **Mitochondria:** The human genes are curled up in the **nucleus** of nearly every cell in the body.
  - The **fluid surrounding the nucleus** contains **hundreds to thousands of mitochondria** that carry their **own set of 37 genes.**
  - The mitochondria are **membrane-bound organelles** often referred to as the **"powerhouses of the cell"** because they play a crucial role in producing energy.

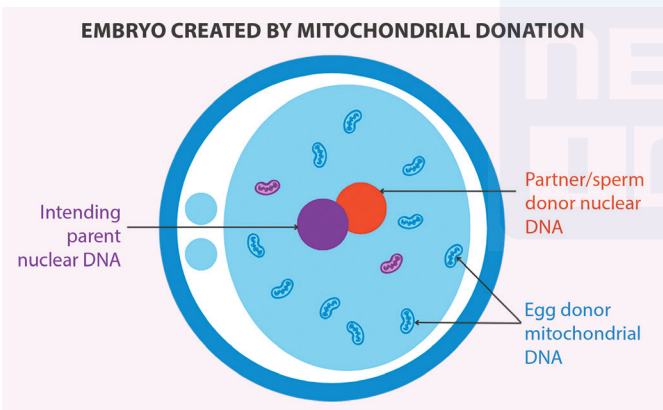


- People inherit all their mitochondria from their **biological mother,** mutations can affect all the children a woman has.
- **Mutations in these genes** can impair or completely disable mitochondria with catastrophic effects.
  - The first symptoms of mitochondrial disease **tend to appear in early childhood** as energy-hungry organs such as the brain, heart and muscles start to fail.
  - Many affected children have developmental delays, require wheelchairs and die young. About one in 5,000 newborns are affected.

Mitochondrial Donation Treatment (MDT)

- **A three-parent baby** is produced from the genetic material of one man and two women through Mitochondrial Replacement Therapy (MRT) and three-person In Vitro Fertilization (IVF).
- **Aim:** To prevent children from inheriting mutated mitochondria.
- **Procedure:** It involves fertilising the mother's egg with the father's sperm and then transferring the genetic material from the nucleus into a fertilised healthy donor egg that has had its own nucleus removed.
  - This creates a fertilised egg with a full set of chromosomes from the parents, but healthy mitochondria from the donor.
  - The egg is then implanted into the womb to establish a pregnancy.





- These babies carry nuclear DNA from their biological mother and father, and a small portion of mitochondrial DNA from a female donor.

MALARIA VACCINE 'ADFALCIVAX'

Context

The Indian Council of Medical Research (ICMR) has invited vaccine manufacturers to partner in the commercialisation of a new indigenous malaria vaccine, AdFalciVax.

About

- The vaccine is developed by the ICMR Regional Medical Research Centre, Bhubaneswar.
- AdFalciVax is a **recombinant malaria vaccine,** made using genetic engineering techniques.
  - It uses DNA from the malaria parasite to produce specific proteins in lab cells, which are then used in the vaccine to trigger an immune response without causing disease.

Key Features of the Vaccine

- **Whole CSP Protein Target:** It uses DNA for the complete **Circumsporozoite Protein (CSP)** found on the malaria parasite surface.
  - It is expected to generate a stronger immune response compared to existing vaccines that use only fragments of the CSP.
- **Transmission Blocking Component:** It targets proteins involved in the **P. falciparum** lifecycle inside the mosquito's midgut. This provides a **dual effect:**
  - **Individual Protection:** It prevents the disease in vaccinated individuals.
  - **Community Protection:** It halts the parasite's development inside mosquitoes that have picked up the pathogen, thereby blocking further transmission of malaria.

Malaria

- Malaria is a life-threatening disease spread to humans by some types of mosquitoes. It is mostly found in tropical countries.
- **Transmission:** It is caused by **plasmodium protozoa.** The plasmodium parasites spread through the bites of infected female Anopheles mosquitoes. Blood transfusion and contaminated needles may also transmit malaria.
- **Types of parasites:** There are 5 Plasmodium parasite species that cause malaria in humans and 2 of these species – **P. falciparum and P. vivax** – pose the greatest threat. The other malaria species which can infect humans are **P. malariae, P. ovale and P. knowlesi.**
  - **P. falciparum is the deadliest malaria parasite** and the most prevalent on the African continent. P. vivax is the dominant malaria parasite in most countries outside of sub-Saharan Africa.
- **Symptoms:** Fever and flu-like illness, including chills, headache, muscle ache and fatigue.

IN VITRO BIOTRANSFORMATION SYSTEM

Context

Chinese researchers have developed a method to convert methanol into white sugar, bypassing the need to grow sugar cane or sugar beets.

About

- The team has developed an **in vitro biotransformation (ivBT)** system that synthesises sucrose from methanol, a low-carbon chemical that is derived from industrial waste or carbon dioxide.
  - By utilising enzymes to convert methanol, researchers have presented a sustainable alternative to traditional agriculture.
- **Significance:** In vitro biotransformation (ivBT) has emerged as a highly promising platform for sustainable biomanufacturing.
  - Artificial conversion of CO2 into food and chemicals offers a promising strategy to address both environmental and population-related challenges while contributing to carbon neutrality.

WINTER FOG EXPERIMENT

Context

The Winter Fog Experiment (WiFEX), launched in 2015 has completed ten years of pioneering research into the dynamics of dense winter fog in North India.

About

- **Core Aim:** To generate high quality observational data and develop a reliable resolution fog prediction model.
- **Lead Institutions:** Conducted by the Indian Institute of Tropical Meteorology (IITM), Pune, under the Ministry of Earth Sciences (MoES).
- **Coverage:** Focused first on IGIA, Delhi; subsequently includes more major airports in North and Northeast India, such as Guwahati and the new Noida International Airport at Jewar under WiFEX-II.

STAR-HOPS-315

Context

Astronomers have, for the first time, witnessed the early stages of rocky planet formation by directly detecting minerals condensing from vapor around a young star, HOPS-315.

About

- HOPS-315 is a newborn protostar located about 1,300 light-years away in the Orion molecular cloud.
- It is surrounded by a dense, flat, rotating protoplanetary disc made of gas and dust, which is uniquely inclined so that Earth-based telescopes can peer deep into its interior—a rare vantage point for studying early planet formation.

Significance of the Discovery

- **Planet Formation Genesis:** This breakthrough offers direct insight into the fundamental process of how rocky planets, like Earth, initially form from vaporized rock in protoplanetary discs.
- **Solar System Parallel:** The observed processes and the types of minerals found around HOPS-315 remarkably mimic the early stages of our own Solar System's formation.
- **Interstellar Mineral Match:** The mineral types detected, such as forsterite and enstatite, mirror those found as inclusions in chondritic meteorites on Earth.

TRACERS MISSION

Context

NASA's twin TRACERS satellites launched aboard a Falcon 9 to study magnetic reconnection and how solar activity affects near-Earth atmosphere.

About

- Tandem Reconnection and Cusp Electrodynamics Reconnaissance Satellites (TRACERS) mission will fly in low Earth orbit through the polar cusps, funnel-shaped holes in the magnetic field, to study magnetic reconnection and its effects in Earth's atmosphere.
  - Magnetic reconnection occurs when activity from the Sun interacts with Earth's magnetic field.
- By understanding this process, scientists will be able to better understand and prepare for impacts of solar activity on Earth.

BLACK HOLE MERGER

Context

Scientists have detected signals from the largest black hole merger ever observed, marking a breakthrough in the study of the universe's most powerful cosmic collisions.

About

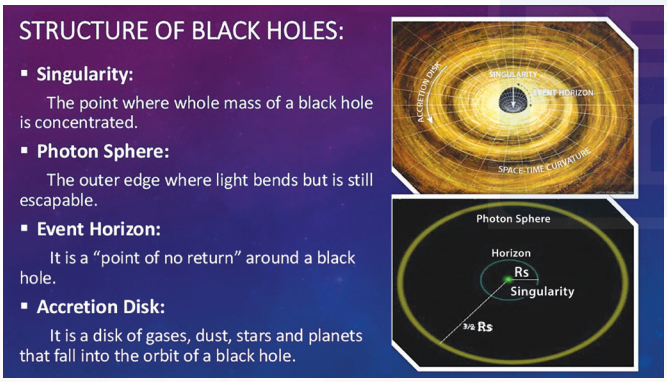
- The event, named **GW231123,** was detected on November 23, 2023, by the global network of gravitational wave detectors, including **LIGO, Virgo,** and **KAGRA**.
- The merger involved two black holes with masses of 100 and 140 times the mass of our Sun, creating a final black hole of **225 solar masses** — making it one of the heaviest black hole mergers ever detected.

Gravitational Waves (GW)

- **GWs are ripples** in the fabric of space-time, predicted by Albert Einstein in 1916 as part of his General Theory of Relativity.
- These waves are generated by some of the universe's most violent and energetic processes—like the collision and merger of black holes.
- When massive objects **accelerate (especially in mergers)**, they produce these waves, which travel outward at the speed of light, causing tiny distortions that can be measured by highly sensitive instruments.

Black Holes

- A black hole is a region in space where gravity is so strong that nothing—not even light—can escape.
- **Black holes may be:**
  - **Stellar-mass:** Formed from dying massive stars (typically a few to tens of solar masses),
  - **Intermediate-mass:** Ranging from hundreds to thousands of solar masses (like the GW231123 remnant),
  - **Supermassive:** Millions to billions of solar masses, found at galactic centers.



NIPAH VIRUS OUTBREAK IN KERALA

Context

In July 2025, the Kerala government issued an alert in Kozhikode, Malappuram, and Palakkad districts following two confirmed Nipah virus cases, including one death.

About Nipah Virus (NiV):

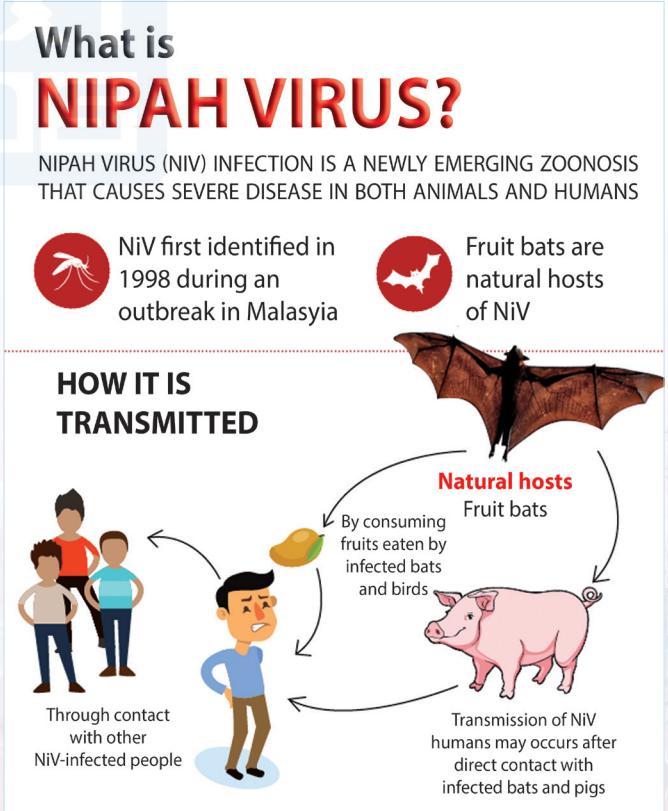
- Nipah is a zoonotic virus transmitted from animals—primarily fruit bats—to humans.
  - It belongs to the Paramyxoviridae family and has a high fatality rate of 40–75%.
- **It spreads through:** Contaminated food (e.g. fruits or palm sap exposed to bat saliva/urine).
  - Direct contact with infected animals (e.g. pigs)
  - Human-to-human transmission via bodily fluids, respiratory droplets, or healthcare settings

Symptoms:

- **Early stage:** Fever, sore throat, headache, vomiting, and body aches
- **Severe stage:** Confusion, drowsiness, brain inflammation (encephalitis), respiratory issues, and coma
- **Incubation:** Typically 4 to 14 days

Reasons for Recurrent Outbreaks in Kerala:

- Dense fruit tree cover and high fruit bat population create frequent human–bat interfaces
- Monsoon leads to increased fruiting and bat activity near human dwellings
- Encroachment into bat habitats and consumption of unwashed or half-eaten fruits raise transmission risks
- Kerala's strong disease surveillance aids early detection and containment.



8 SOCIETY

INDIA'S FIRST CLINIC FOR TRANSGENDER PERSONS

Context

India's first transgender clinic has been reopened in Hyderabad with aid from Tata Trusts.

About

- Launched in 2021, Mitr Clinic is also the first in India to be entirely staffed and managed by members of the trans community.
- As India's first transgender-led clinic it ensures healthcare that is dignified, accessible, and community-driven.

LADAKH'S FIRST ASTRO TOURISM FESTIVAL

Context

Recently, the first-ever Ladakh Astro Tourism Festival concluded in Leh.

About

- It is organized by the Tourism Department and the Indian Institute of Astrophysics.
- It is a two-day event which aims to promote Ladakh as a top astro-tourism destination, highlighting its clear skies, high altitude, and low light pollution.

SPREE 2025

Context

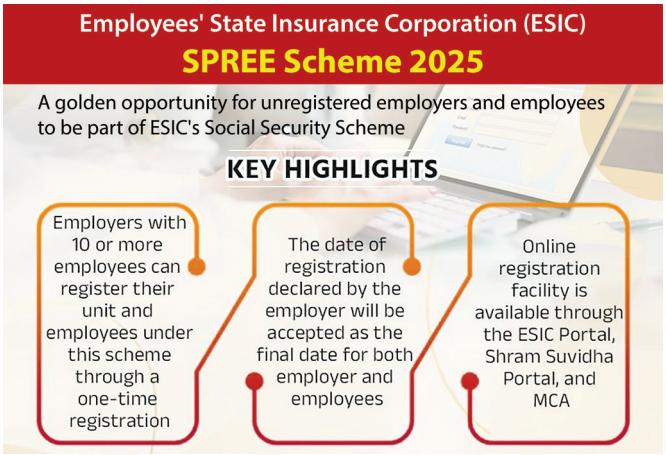
The Employees' State Insurance Corporation (ESIC) approved the SPREE 2025 scheme (Scheme for Promotion of Registration of Employers and Employees) during its 196th meeting held in Shimla.

About

- It is approved by ESIC and aims to expand social security coverage by allowing unregistered employers and employees—including contractual and temporary workers—to register digitally from July 1 to December 31, 2025, without inspections or demands for past dues.
- Registration will be effective from the declared date, with no contributions or benefits applied retroactively, encouraging voluntary compliance by removing penalties and easing the process.

Importance

- It seeks to bring more establishments and workers under the ESI Act, enhancing access to essential health and social benefits.
- It represents a significant step towards a more inclusive and accessible social security system, supporting ESIC's goal of universal protection and a welfare-focused labour ecosystem in India.



MoSPI CELEBRATES 19th STATISTICS DAY

Context

The Ministry of Statistics and Programme Implementation (MoSPI) celebrated the 19th Statistics Day in New Delhi.

About

- It was first celebrated in 2007 to recognize the invaluable contributions of **Professor P.C. Mahalanobis** to the field of statistics and economic planning.
- He is Known as the '**Father of Modern Statistics in India**'.
- He founded the **Indian Statistical Institute (ISI)** and developed the **Mahalanobis Distance**, a widely used statistical measure.
- His work laid the foundation for India's national statistical system, significantly impacting economic planning and policy formulation.

Scientist & applied statistician Prasanta Chandra Mahalanobis was born on June 29 in 1893.

ELI SCHEME FOR JOB CREATION

Context

The Union Cabinet has approved the Employment Linked Incentive (ELI) Scheme.

About

- It was announced in the **Union Budget 2024–25** as part of the Prime Minister's package of five schemes for **youth employment and skilling,** and has a total budget outlay of Rs 99,446 crore.
- It aims to generate over **3.5 crore jobs** between August 1, 2025, and July 31, 2027, including 1.92 crore first-time entrants to the workforce.

Components

- **The scheme has two components:**
  - **Part A: Incentive to First Time Employees:**
  - Targeting first-time employees registered with EPFO, this Part will offer one-month EPF wage up to Rs 15,000 in two installments.
    - Employees with salaries up to Rs 1 lakh will be eligible.
    - The 1st installment will be payable after 6 months of service and the 2nd installment will be payable after 12 months of service and completion of a financial literacy programme by the employee.
    - To encourage the habit of saving, a portion of the incentive will be kept in a savings instrument or deposit account for a fixed period and can be withdrawn by the employee at a later date.
    - The Part A will benefit around 1.92 crore first time employees.
    - All payments to the First Time Employees under Part A of the Scheme will be made through DBT (Direct Benefit Transfer) mode using Aadhar Bridge Payment System (ABPS).
  - **Part B: Support to Employers:** The employers will get incentives in respect of employees with salaries up to Rs 1 lakh.
    - The Government will incentivize employers, up to Rs 3000 per month, for two years, for each additional employee with sustained employment for at least six months.
    - For the manufacturing sector, incentives will be extended to the 3rd and 4th years as well.
    - Payments to the Employers under Part B will be made directly into their PAN-linked Accounts.

EPF Wage Slabs of Additional Employee (in Rs)	Benefit to the Employer (per additional employment per month)
Up to Rs 10,000*	Up to Rs 1,000
More than Rs 10,000 and up to Rs 20,000	Rs 2,000
More than Rs 20,000 (upto salary of Rs 1 Lakh/month)	Rs 3,000

**Employees with EPF wages up to Rs. 10,000 will get a proportional incentive.*

9 CULTURE & HISTORY

PESHWA BAJIRAO

Context

Union Home Minister and Minister of Cooperation unveiled the statue of Shrimant Bajirao Peshwa I in Pune, Maharashtra.

About

- Peshwa Bajirao, also known as **Bajirao I,** was the **7th Peshwa** of the Maratha Empire. He was the son of **Balaji Vishwanath,** the 6th Peshwa.
- He served under **Chhatrapati Shahu I** and is renowned for his military campaigns and expansion of the Maratha kingdom.

Military Achievements

- Bajirao Peshwa fought **41 battles** in a span of 20 years and emerged victorious in all of them.
- **Major Campaigns:**
  - **Battle of Palkhed (1728):** Defeated the **Nizam of Hyderabad,** demonstrating swift cavalry movement and encirclement tactics.
  - **Battle of Dabhoi (1731):** It was a conflict between Peshwa Bajirao I and the Dabhade clan, led by **Trimbak Rao Dabhade**, over the authority to collect revenue from the province of Gujarat.
  - **Invasion of Delhi (1737):** Successfully marched on the Mughal capital and forced the Mughals to cede territories without directly capturing Delhi.

HUL DIWAS

Context

Commemorating the historic Santhal uprising, the Prime Minister honored the enduring legacy of countless brave tribal martyrs who laid down their lives in defiance of colonial oppression.

Santhal Hul

- **Santhal Hul of 1855-56** was a tribal revolt against imperialism led by four brothers, **Sidho, Kanho, Chand, and Bhairav Murmu**, along with their two sisters **Phulo and Jhano.**
- It was also directed against the upper castes, zamindars, darogas, and moneylenders, described by the umbrella term '**diku'.**

Genesis of the Uprising

- **In 1832**, the British demarcated a region in present-day Jharkhand, called **Damin-i-Koh**, as a settlement area for the Santhal tribe.
- While initially intended for peaceful settlement and agricultural development, the region eventually **experienced exploitation by outsiders (dikus)**, leading to land alienation among the Santhals.
- The Murmu brothers led around **60,000 Santhals** against the East India Company and engaged in guerrilla warfare.
- Initially the tribals paralysed the British Machinery in the whole Santhal Region but later British Might overpowered the rebels in an immensely bloody struggle and suppressed the uprising with brutal force.
  - The British hanged **Sidhu in 1855,** followed by **Kanhu in 1856.**
- Thus the bloody struggle ended but inspired a series of Tribal Revolts in Chotanagpur and the region around it.
- **Significance:**
  - Creation of **Santhal Parganas in 1856**, by carving it out from Bhagalpur and Birbhum districts for better administration of the region.
  - A new police system was introduced to eliminate exploitation by zamindars and moneylenders.
  - The British later enacted the **Santhal Parganas Tenancy Act of 1876**, which aimed to safeguard tribal land rights and cultural autonomy.

ALLURI SITARAMA RAJU

Context

Union Defence Minister at the 128th birth anniversary celebrations of Alluri Sitarama Raju, praised his contributions to India's freedom struggle.

About

- He was a prominent Indian revolutionary and freedom fighter who played a crucial role in the Indian independence movement, particularly by mobilizing tribal communities against British rule.

Role in the Freedom Struggle

- Revered as **"Manyam Veerudu" (Hero of the Jungle)** by local people for his courage and leadership.

- **Influenced by the Non-Cooperation Movement** and the revolutionaries of Bengal, he initially encouraged tribals to seek justice through local panchayats and boycott colonial courts.
- He organized and led **tribal people and other sympathizers in guerrilla campaigns against British forces** across the border regions of present-day Andhra Pradesh and Odisha.
- **Alluri Sitarama Raju** was captured and martyred on May 7, 1924.

Rampa Rebellion (1922–1924)

- Alluri Sitarama Raju is best known for leading the **Rampa Rebellion**, also known as the **Manyam Rebellion.**
- This was a tribal uprising against the British, largely fueled by the oppressive **Madras Forest Act of 1882.**
- This act restricted the free movement of Adivasis in their forest habitats and prevented them from practicing their traditional form of **agriculture called 'podu,'** which threatened their way of life.

Recognition

- His fearless resistance and sacrifice made him a legendary figure in Andhra Pradesh and Indian history.
- His birthday is celebrated as a state festival in Andhra Pradesh.

SHEESH MAHAL

Context

The Sheesh Mahal was restored and officially unveiled by Union Culture and Tourism Minister Gajendra Singh Shekhawat.

About:

- It is located in Shalimar Bagh, North Delhi.
- It was built in 1653 during Emperor Shah Jahan's reign.
- The palace and its surrounding gardens—now protected monuments under the **Archaeological Survey of India (ASI).**
- The Sheesh Mahal also holds historical significance as the site o**f Aurangzeb's first coronation in 1658.**

DHAMMACAKKAPPAVATTANA DIVAS

Context

The International Buddhist Confederation (IBC), under the aegis of the Ministry of Culture, in collaboration with the Mahabodhi Society of India, will commemorate Āshādha Pūrnimā—Dhammacakkappavattana Divas.

About

- Celebrated on **Ashadha Purnima (full moon day of Ashadha month)**, it commemorates the **first discourse of Lord Buddha** after attaining enlightenment.
- The sermon was delivered to his **five ascetic disciples (Pañcavargiya)** at **Deer Park (Risipatana Mrigadaya) in Sarnath,** near Varanasi.
- The day symbolizes the **"Turning of the Wheel of Dharma"** (Dhammachakra Pravartana), initiating the propagation of Buddhist teachings.

Cultural and Religious Significance

- It is the **second most sacred day** in the Buddhist calendar after Vaishakha Purnima (Buddha Purnima).
- It also marks the start of **Varsha Vassa**—the monastic rain retreat, a period of self-discipline and spiritual introspection.
- It is also known as;
  - Esala Poya in Sri Lanka
  - Asanha Bucha in Thailand.

International Buddhist Confederation (IBC)

- It was founded in **2012** following the **Global Buddhist Congregation in New Delhi.**
- The IBC is the **world's first organization** that brings together Buddhist organizations, monastic orders, and lay institutions across 39 countries and over 320 member bodies.
- **Headquarters:** New Delhi.

CHAUTAL

Context

During his visit to Port of Spain, Trinidad & Tobago, the Prime Minister of India showcased a Bhojpuri Chautal performance, emphasizing the rich cultural ties between India and its diaspora.

About

- **Chautal (also spelled Chowtal or Chartal)** is a significant and ancient rhythmic cycle (tala) in Hindustani classical music.
- It is primarily associated with the **Dhrupad style**, the oldest surviving form of Indian classical music, and is traditionally **played on the pakhawaj(a type of dholak)-**a barrel-shaped percussion instrument.
- The name **"Chautal"** means "four claps," referring to its division structure.
- It consists of **12 beats (matras)**.
- It emphasizes powerful, weighty playing, often using a more fluid, improvisational structure called **"thapi"**.

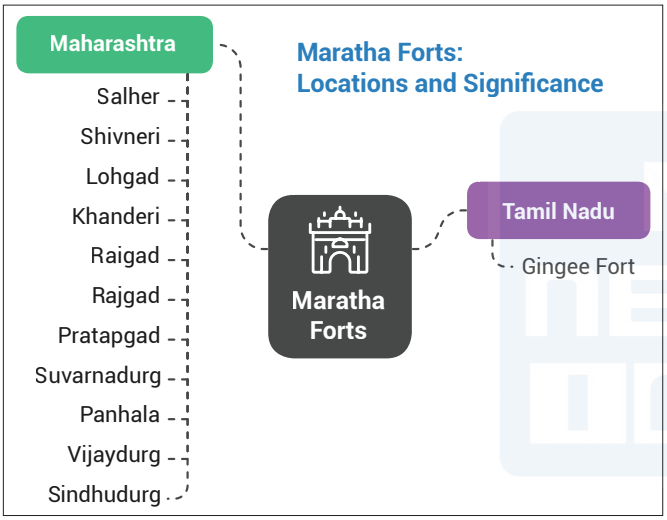
UNESCO WHS GRANTED TO 12 MARATHA FORTS

Context

UNESCO has added the 'Maratha Military Landscapes of India' — 12 iconic forts of the Maratha Empire — into the World Heritage List.

About

- This historic recognition was granted at the **47th Session of the World Heritage Committee in Paris.**
- This marks India's **44th UNESCO World Heritage Site**, ranking the country **6th** globally and **2nd** in the Asia-Pacific region for the highest number of heritage sites.



- Built between the **17th and 19th centuries**, this extraordinary network of forts demonstrates the strategic military vision and architectural ingenuity of the Maratha Empire.

JARAWA TRIBE

Context

The upcoming 2027 Census will include efforts to count the six main indigenous tribes of the Andaman and Nicobar Islands, including the Jarawa tribe.

About

- The Jarawa tribe is one of the **world's oldest surviving indigenous communities** and has traditionally lived as **nomadic hunter-gatherers** in the dense forests of the **Middle and South Andaman Islands.**
  - They were historically hostile to outsiders and resisted contact until the late **1990s.**
- They typically move in small bands of **40–50 people,** relying on forest and marine resources.

Census Data and Population Estimates

- **The 2011 Census** recorded **380 Jarawa individuals**, out of the total **27,973 Scheduled Tribe** population in the Andaman and Nicobar Islands.
- **Other ST tribes in the region include:** Andamanese, Nicobarese, Shompen, Onge, and Sentinelese.
  - **All except Nicobarese** are classified as **Particularly Vulnerable Tribal Groups (PVTGs).**
- According to recent official estimates (2025), the Jarawa population has increased to **647,** which reflects improved health services and reduced mortality.
- **The PM-JANMAN scheme (Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan)** for PVTGs has identified **191 PVTG** individuals in the islands so far.

BEHDEINKHLAM FESTIVAL

Context

The sacred Behdeinkhlam Festival was celebrated in Jowai, Meghalaya.

About

- **Meaning:** The word Behdeinkhlam means "driving away the plague", referring to expelling diseases like **cholera** and other evils from society.
- **Timing:** It is held **annually in July**, after the sowing season, symbolizing a prayer for a good harvest and protection from illness.
- **It is predominantly celebrated** by the **Pnars,** a sub-tribe of the **Jaintia** ethnic group in Meghalaya.
- **Preservation of Indigenous Faith:** The festival is an important means to preserve the Niamtre religion (traditional tribal religion of the Jaintia people).

THIRU K. KAMARAJ

Context

Prime Minister Narendra Modi paid homage to Thiru K. Kamaraj on his birth anniversary.

About

- Born on 15 July 1903 in Virudhunagar, Tamil Nadu.
- Moved by the **Jallianwala Bagh massacre,** he joined the **Indian National Congress,** and participated actively in the freedom movement.

- Elected unopposed to the Madras Legislative Assembly in 1937 and re-elected in 1946.
- He became a member of the Constituent Assembly of India and later to Parliament in 1952.
- He served as the Chief Minister of Madras in 1954-63.
- Widely remembered for **'Kamaraj Plan'- 1963,** in which he proposed to the then Prime Minister Jawaharlal Nehru that senior Congress leaders should resign from ministerial post's to focus on strengthening the party organisation.
- He was widely acknowledged as the **"Kingmaker"** in Indian politics during the 1960's.
- He pioneered the **Mid-Day Meal Scheme** in Tamil-Nadu which was later adopted all round the nation with some modification.
- In recognition of his service to the nation, he was posthumously awarded **Bharat Ratna in 1976.**

MANGAL PANDEY

Context

The Prime Minister paid tributes to freedom fighter Mangal Pandey on his 198th birth anniversary.

About

Mangal Pandey

- He was born on 19 July 1827 in Nagwa village, Ballia district, Uttar Pradesh, India.
- He played a crucial role in sparking the **Revolt of 1857.**
- As a sepoy in the **34th Bengal Native Infantry** of the **British East India Company** he refused to use the **newly introduced Enfield P53 rifle because** it was believed that the new **Enfield P53** rifle-musket issued to the sepoys of the East India Company came with a **cartridge dipped in beef and pork fat.**
- On **March 29, 1857,** he mutinied and fired at his Senior Sergeant Major.
- He was overpowered and **hanged on April 8, 1857,** by the order of a Court Martial at Lal Bagan in Barrackpore(West Bengal).
- Later in Meerut sepoys refused to use new rifle cartridges and revolted against the British East India Company which later came to be known as **The Revolt of 1857.**

PAIKA REBELLION

Context

Former Odisha CM Naveen Patnaik criticized the exclusion of the 1817 Paika Rebellion from NCERT's textbook.

About

- The Paika Rebellion, also known as Paika Bidroha, was a significant armed uprising against British colonial rule in 1817 in Odisha, India.
- The Paikas were a traditional landed militia of Odisha, serving the Gajapati rulers. They provided military services during wartime and engaged in agriculture during peacetime. They were granted rent-free lands **(nish-kar jagirs)** in return for their services.
- After the British East India Company conquered Odisha from the Marathas in 1803, they introduced new administrative and revenue policies that disrupted the traditional socio-economic structure. The dethronement of the Raja of Khurda, Mukunda Deva II, and the confiscation of Paika lands led to widespread discontent.
- This mounting discontent culminated in the **1817 Paika Rebellion,** led by **Bakshi Jagabandhu** and joined by **Kondh tribals,** involving attacks on British officials and government property.
- Though initially fierce, the revolt was eventually crushed, and Jagabandhu surrendered in 1825.
- A commission led by **Walter Ewer** investigated the rebellion, acknowledging that British policies, such as land resumption and currency regulations, were major causes of discontent. However, the oppressive revenue policies remained largely unchanged.
- Despite its failure, the rebellion inspired future resistance movements and remains a symbol of Odia pride.

NOTE

NCERT has clarified that the rebellion will be included in the *textbook's second volume*.

PAITHANI SAREES

Context

Prime Minister in his monthly radio programme 'Mann Ki Baat' praised the traditional craftsmanship of Paithani sarees.

About

- Paithani sarees are a distinguished and traditional form of attire originating from the town of Paithan in Chhatrapati Sambhajinagar district.
- Known for their characteristic square motifs and intricate peacock designs on the pallu (decorative end).
- Paithanis are easily recognizable and considered among the most exquisite and expensive sarees in India.

- These sarees are made using the finest mulberry silk available in the country and are regarded as a symbol of Maharashtrian heritage and skilled craftsmanship.
- **Origin and History:** Paithani sarees originated over 2000 years ago in Paithan, a town near Aurangabad in Maharashtra, on the **banks of the Godavari River.**
  - The weaving tradition can be traced back to the Satavahana dynasty (2nd century BCE).
- **Royal Patronage:** Paithani sarees were woven for and worn by royalty and aristocrats, including the Satavahanas, the Peshwas of Pune, the Nizams of Hyderabad, and Mughal rulers.
- **Material and Craftsmanship:** Traditionally made from fine silk with pure gold and silver zari (metallic thread), Paithani sarees are handwoven using the tapestry weaving technique.

- **GI Tagging:** Paithani sarees have been granted the Geographical Indication (GI) tag in 2010.

GAVRI OF THE MEWAR BHILS

Context

The Gavri is a 40-day annual ritual and folk festival performed by the Bhil community of the Mewar region in Rajasthan.

About

- Every year, the Bhil community of Mewar embarks on a 40-day ritual called Gavri. During this festival, Bhil troupes travel to villages across Udaipur and nearby districts of Rajasthan — where their married sisters and daughters live — performing khels or dance-dramas, songs, and religious ceremonies in honour of their deity, Gorkhiya Mata.
- The festival is typically performed during the Hindu months of Shravana and Bhadrapad (July to September), coinciding with the monsoon and harvest season.
- The ritual is performed mainly by male members of the Bhil tribe, who enact various roles including gods, goddesses, demons, and other mythological characters.
- The play enacts mythological tales related to the goddess Gauri, battles between good and evil.

Bhil Community

- The Bhils are the **largest tribal (Adivasi) communities** in India *(2011 Census)*, primarily concentrated in **Rajasthan, Gujarat, Madhya Pradesh, and Maharashtra.**
- They have a distinct cultural identity with unique customs, language (Bhili), and traditional practices tied closely to **nature and animist beliefs blended with Hinduism.**
- The Bhils consider themselves descendants of Lord Shiva and his consort Parvati (Gauri).

SOHARAI ART

Context

The indigenous mural tradition of Sohrai Art took centre stage at the second edition of Kala Utsav 2025 – Artists in Residence Programme, held at Rashtrapati Bhavan. President Droupadi Murmu met with artists of Sohrai, Pattachitra, and Patua art forms.

Sohrai Art

- It is a ritualistic wall-painting tradition practised by tribal communities in Jharkhand.
- It is typically created by women during harvest and festive seasons.
- It deeply rooted in the cultural tapestry of communities like the Kurmi Mahto,
- Santhal, Oraon, and Munda artists use natural earth pigments and bamboo brushes to paint mud walls with vibrant images of animals, plants, and geometric patterns, reflecting agrarian life and spiritual beliefs.

Pattachitra

- It is a traditional cloth-based painting from Odisha which is rooted in religious and folk traditions.
- Originating in the 8th century AD, its name combines Sanskrit words patta (canvas) and chitra (painting).
- Renowned for intricate designs, bold outlines, and the use of natural colors, Pattachitra paintings primarily depict Hindu deities, mythological stories, and folklore.
- It involves a detailed process, preparing a cloth canvas with chalk powder and tamarind glue, sketching directly with brushes, and using natural pigments from minerals and plants.
- The Pattachitra artists also paint their themes on wooden boxes, on bowls, on tussar silk, on outer shells of the coconut, and on wooden doors.

Patua Painting

- It is a form of scroll painting practiced by Patua Community of West Bengal.
- Patua paintings are special narrative scrolls based on sacred themes.
- They are traditionally made on a piece of cloth known as a pati or patta.
- Traditionally, Patua painters used a brush made of bamboo and goat hair.
- Colours are naturally derived from herbs and plants.

CHANDRA SHEKHAR AZAD BIRTH ANNIVERSARY

Context

The Prime Minister paid tribute to Chandra Shekhar Azad on his birth anniversary.

About:

- Born as **Chandra Shekhar Sitaram Tiwari on 23 July 1906 in Bhabhra** (Madhya Pradesh) he took the pseudonym **"Azad"** during the Non-Cooperation Movement.
- Later, disillusioned by Gandhi's sudden withdrawal from the Non-Cooperation Movement he joined revolutionary activities.
- He played a prominent role in Hindustan Republican Association and was pivotal in the Kakori Conspiracy (1925), Saunders Murder (1928), attempt to blow up the India Viceroy's train (1929) and the Central Legislative Assembly Bomb case (1929).
- On February 27, 1931, surrounded by police in Allahabad's Alfred Park, with only one bullet left, he shot himself to avoid capture.
- **Note:** He often used the pseudonym **"Balraj"** while signing pamphlets issued as the commander-in-chief of the HSRA.

VOTING SYSTEM IN CHOLA ADMINISTRATION

Context

Prime Minister Narendra Modi, speaking at a Chola-era temple,highlighted the ancient democratic traditions of the Chola Empire, noting their electoral system predates the Magna Carta.

About:

- The **inscriptions of Uttaramerur,** a village in present-day Kanchipuram district, offer some of the world's earliest surviving evidence of a formal electoral system and provide evidence of formal local self-rule.
- The Chola administrative system was built on two local governing bodies — the **Sabha for Brahmin settlements** and the **Ur for non-Brahmin villages —** which had real powers over governance aspects like revenue, irrigation, and justice.
- **Elections** were held through the **Kudavolai or "ballot pot" system,** using palm leaf lots drawn by a child publicly to ensure fairness.
- **Strict eligibility and disqualification criteria** upheld moral governance, while annual audits ensured accountability.
  - Candidates had to own tax-paying land, be between 35 and 70 years old, possess knowledge of Vedic texts or administration, and have no record of crime or domestic abuse.
  - Debt defaulters, alcoholics, and close relatives of sitting members were disqualified.
  - Though progressive for its time, the system excluded women, labourers, and landless people; it also had an element of lottery.
- The **Cholas also empowered merchant guilds** and decentralized administration, combining military success with sustainable civic systems.

Do You Know?

Magna Carta, is a historic document sealed by King John of England in 1215. It's a foundational document that helped shape modern democratic principles by limiting the king's power and establishing that even the monarch is subject to the law.

10 MISCELLANEOUS

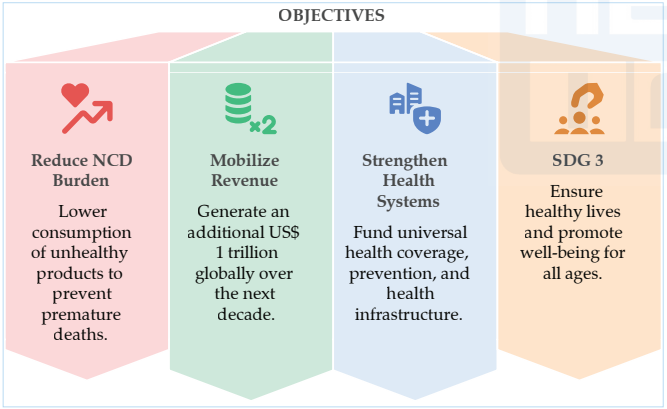
WHO'S "3 BY 35" INITIATIVE

Context

The World Health Organization (WHO) has launched the "3 by 35" Initiative, calling on countries globally to increase taxes on tobacco, alcohol, and sugary drinks.

Key Points

- The initiative urges a minimum 50% real price increase on the **three targeted products by 2035**, achieved through higher excise or health taxes.
- A **health tax** is a levy imposed on products that have a negative impact on public health—primarily tobacco, alcohol, and sugary drinks. The dual purpose is to:
  - Reduce consumption of these harmful products.
  - Generate revenue for public health, education, and social protection programs.



KOMBUCHA

Context

A recent 8-week study in Brazil found that Kombucha improves gut bacteria—especially in people with obesity—by increasing beneficial microbes and reducing harmful ones, though it didn't improve blood sugar or inflammation markers.

About

- It is a **fermented tea** and it is one of the few drinks that offers complexity and texture without being high in sugar or caffeine.
- It originated in **northeast China around 220BCE** and was valued for its invigorating and detoxifying effects.
- Kombucha is promoted for digestive, immune, and metabolic benefits, but human evidence is limited.

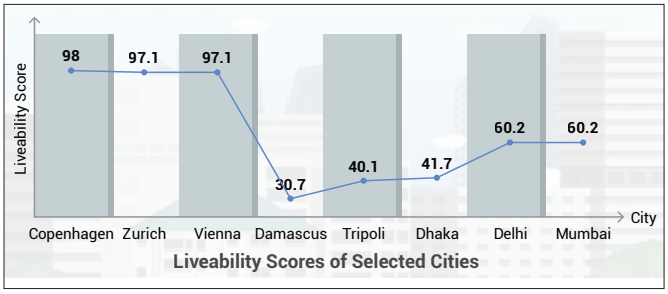
GLOBAL LIVEABILITY INDEX 2025

Context

The Economist Intelligence Unit (EIU) has released the Global Liveability Index 2025, assessing the quality of life across major cities worldwide.

About

- **Methodology:** Assesses **173 cities** globally using **30 indicators** grouped under **five broad categories**: Stability, Healthcare, Culture and environment, Education, and Infrastructure.
  - The index scores each city on a scale of **1 to 100**, where 100 indicates ideal liveability, and 1 means it is intolerable.
- **Most liveable cities:** Copenhagen (Denmark) has claimed the **top spot** (98/100), Zurich (Switzerland) ranks 2nd (97.1/100), tied with Vienna (Austria). **Copenhagen** has ended Vienna's three-year dominance by achieving perfect scores in stability, education, and infrastructure.
- **Least liveable cities**: **Damascus (Syria)** remains the least liveable city (30.7/100), followed by Tripoli (Libya) (40.1/100) and Dhaka (Bangladesh) (41.7/100).
- **India's Performance:** Delhi & Mumbai both scored 60.2, sharing 141st rank.



THE ECONOMIST INTELLIGENCE UNIT

The Economist Intelligence Unit (EIU) - created in 1946, is the research and analysis division of The Economist Group, the sister company to The Economist newspaper.

DURAND CUP TOURNAMENT

Context

The President of India unveiled and flagged off the trophies of the Durand Cup Tournament 2025 at Rashtrapati Bhavan Cultural Centre. The trophies unveiled include the Durand Cup, the President's Cup and Shimla Trophy.

About

- Organized by the Indian Armed Forces, it is **Asia's oldest** and the world's third oldest football tournament.
- Inaugurated in Shimla in **1888** as an Army Cup and only open to British Indian Army troops in India, later opened up to civilian teams.
- It is named after its founder, **Sir Mortimer Durand**, Foreign Secretary of British India.

HENLEY PASSPORT INDEX 2025

Context

India's ranking in the Henley Passport Index in 2025 has improved significantly, jumping from 85th in 2024 to 77th in 2025.

About

- Indian passport holders now have visa-free or visa-on-arrival access to **59 countries,** up from 57 the previous year.
- Singapore remains the strongest passport globally.
- The Henley Passport Index is a popular ranking of global passports that measures passport strength by the number of destinations that holders can visit without a prior visa.
- The index ranks countries based on statistics provided by the International Air Transport Association (IATA).

FIDE WOMEN'S WORLD CUP 2025

Context

Divya Deshmukh became the first Indian woman to win the FIDE Women's Chess World Cup, defeating seasoned compatriot Koneru Humpy in the 2025 final held in Batumi, Georgia.

About

- The FIDE Women's World Cup is typically held **every two years.**
- **FIDE 2025** was the third edition of the Women's Chess World Cup and featured 107 players from 46 federations.
- The tournament employs a **single-elimination (knockout) format.** Players are directly eliminated upon losing a match.
- **Match Structure in Each Round:**
  - **Classical Games:** Each match begins with two classical time control games, played over two days. Players are typically allotted 90 minutes for the first 40 moves, with an additional 30 minutes for the rest of the game, and a 30-second increment per move from move one.
  - **Tie-breaks (if needed):** If the classical games are tied, tie-break games are played on the third day, with progressively shorter time controls:
    - **First Tie-breaker:** Two rapid games (e.g., 15 minutes + 10-second increment per move).
    - **Second Tie-breaker (if still tied):** Two quicker rapid games (e.g., 10 minutes + 10-second increment).
    - **Blitz Games (if still tied):** Two blitz games (e.g., 5 minutes + 3-second increment).
    - **Armageddon Game (if still tied):** A final, high-pressure decider where White gets more time (e.g., 3 minutes) but Black wins if the game is a draw (e.g., 2 minutes, with a 2-second increment from move 61).
- **Qualification for Candidates:** The top three finishers in the Women's World Cup typically qualify for the next Women's Candidates Tournament.

INDIA TO HOST CHESS WORLD CUP

Context

India has secured the rights to host the FIDE World Cup in 2025 after a 23-year gap, with the event scheduled from October 30 to November 27.

About

- The tournament will feature **206 players** competing in a **knockout format** — a dynamic and unpredictable system where the losing player in each round is eliminated.
- The top three finishers will qualify for the **2026 FIDE Candidates Tournament**, which decides the challenger for the **World Chess Championship**.
- This will be the **second time** India hosts the FIDE World Cup, the last being in **Hyderabad** in 2002.

Origin of Chess

- The history of chess in India can be traced back to **1600 years** ago during the **Gupta dynasty**. It was called **'chaturanga'** in earlier times.
- Chess, via India, reached many countries of the world and became very popular. Today, chess is being used in schools as an education tool for children.

GLOBAL SPECS NETWORK

Context

The World Health Organisation (WHO) has launched a global initiative — 'Global Specs 2030' — to ensure that everyone has access to affordable eyecare services by 2030.

About

- It is a **network of stakeholders** whose mission is to support the WHO SPECS 2030 initiative through coordinated advocacy and united action across all sectors.
- The Global SPECS Network membership application process is open, and eligible organizations can apply throughout the year.

Objectives

- **Stakeholder Unity:** Uniting diverse groups towards a common goal i.e. to achieve the 2030 global target for refractive error.
- **Collaborative Knowledge Sharing:** Fostering discussion and cooperation among members.
- **Evidence-Based Advocacy:** Using research to support public health initiatives.

Additional Information

- Over 800 million people across the world have vision problems and do not have access to eye care.
- Vision problems affect millions of people worldwide. It not only affects eyesight, but also affects education, economic productivity, and overall well-being.
- Children and adolescents between five and 15 years of age suffer from vision impairment and refractive errors.

SC: CORPORATIONS CAN BE VICTIMS IN CRIMINAL CASES

Context

On July 14, 2025, the Supreme Court, in the case Asian Paints vs Ram Babu, ruled that companies can be treated as victims under criminal law and have the right to challenge acquittals or seek harsher punishment.

Case Summary:

- **Asian Paints** filed a complaint about counterfeit products using its brand.
- The trial court acquitted the accused; the High Court dismissed the company's appeal.
- SC reversed this and said corporations can be legal victims.

Key Legal Points:

- **Section 2(wa) CrPC / 2(y) BNSS:** Defines a victim as anyone who suffers loss or injury due to a crime.
- **BNS & General Clauses Act:** Define "person" to include companies and firms.
- **Section 2(14) BNS:** Injury includes harm to property, reputation, or economic interests.

SC's Observations:

- Companies suffering brand damage or economic loss due to crime can claim victim rights.
- A company does not need to be the original complainant to file an appeal.
- Victim status is based on harm suffered, not who files the case.

FILM RE-CENSORING: 'V. JANAKI VS STATE OF KERALA'

Context

The Malayalam film 'V. Janaki vs State of Kerala' was sent for re-censoring after the CBFC raised objections to using the name 'Janaki' (linked to Goddess Sita) for a rape survivor and flagged courtroom scenes for possible religious tensions.

About CBFC (Central Board of Film Certification):

- A statutory body under the Ministry of Information & Broadcasting.
- Established under the Cinematograph Act, 1952.
- Responsible for certifying films for public screening.
- Can cut, deny, or modify content that may harm public order, morality, or national interest.
- **Film Certification Categories:**
  - **U** – Suitable for all ages
  - **U/A** – Parental guidance for children below 12
  - **A** – Adults only
  - **S** – Restricted to specialized groups (e.g., doctors, scientists)

11 DATA RECAP

BRICS+

- BRICS+ accounts for 45% Global Population, 37.3% World GDP
- BRICS+ accounts for over 30% of global GDP and nearly 43% of global oil production.
- BRICS+ nations, contributing over 50% of global solar energy

India–U.K. Free Trade Agreement (FTA)

- The U.K. accounts for only 3.3% of India's exports and 1.2% of imports.
- The U.K. has eliminated tariffs on 99% of its product lines.

India-Maldives

- **Debt Restructuring:** India has agreed to reduce Maldives' annual debt repayment obligations by 40%, easing fiscal pressure.
- **Line of Credit:** A Rs 4,850 crore line of credit has been extended by India.
- Approximately 25,000 Indians live and work in the Maldives.

NISAR Satellite

- It is designed to operate in Low Earth Orbit (LEO) and will be positioned in a sun-synchronous orbit at an altitude of 743–747 km with an inclination of 98.4°.
- The satellite weighs approximately 2,800 kg and has a baseline mission duration of three years, extendable up to five years.
- The system allows for global coverage of nearly all land and ice surfaces every 12 days, both day and night, and under all weather conditions.

Global Wetland Outlook, 2025

- Inland freshwater, coastal, and marine wetland types extend over 1,800 million hectares.
- **State of Degradation:** At least 400 million hectares of wetlands have been lost since 1970.
- The average rate of wetland loss was -0.52% per annum.
- **Cost:** Average costs for restoring wetlands can range from $1,000 per hectare to over $70,000 per hectare.

Public Infrastructure in India

- Between 2018 and 2022, over 8,500 deaths were reported due to infrastructure collapses.
- The 2025-26 Union Budget allocated Rs11.21 lakh crore (3.1% of GDP) for infrastructure, with plans to monetize Rs10 lakh crore in assets by 2030.

CIMMYT'S Financial Crisis

- USAID, the global aid arm of the US, used to contribute around 40% of CIMMYT's annual budget.
- India contributed just $0.8 million to CIMMYT in 2024.
- Six out of the top 10 wheat varieties, accounting for over 20 mh out of the roughly 32 mh area sown by Indian farmers in 2024-25, were directly released from CIMMYT material.
- India's food grain production grew from 72 million tonnes in 1965-66 to over 300 million tonnes by 2020, ensuring a buffer against famines.

India: "The Emerging Toy Capital of the World"

- The Indian toy market was valued at approximately USD 1.9 billion in 2024, the market is projected to reach USD 4.7 billion by 2033, growing at a CAGR of 10.6%.
- India holds a 0.3% share in global toy exports (ranking 27th) and 0.1% in imports (ranking 61st).

National Cooperative Policy, 2025

- Cooperatives connect over 12% of humanity through 3 million cooperatives worldwide, with the 300 largest cooperatives generating a turnover of USD 2,409.41 billion.
- Cooperatives contribute 20% to agricultural loans, 35% to fertilizer distribution, 31% to sugar production, 13% to wheat procurement, and 20% to paddy procurement.

Foreign Remittance Tax

- India is the world's top recipient of foreign remittances.
- The Indian diaspora sent a record $135.46 billion in remittances during the FY25, according to the RBI.
- U.S. is the largest source of remittances to India, accounting for 27.7% or $32.9 billion of the remittances that flowed into the country in 2023-24.

Digital India

- The digital economy is growing fast, contributing 11.74% to the national income in 2022–23 and expected to reach 13.42% by 2024–25.
- India ranks third in the world for digitalisation of the economy.
- By 2030, India's digital economy is projected to contribute nearly one-fifth of the country's overall economy.

Aluminium and Copper Vision Document

- India is the 2nd largest Aluminum producer, among top-10 producers in refined copper and 3rd largest iron ore producer in the world.

India's Chemical Industry

- India is the sixth-largest chemicals producer globally and third in Asia.
- India has a 3.5% share in global chemical value chains.
- **Market Size:** Over $220 billion market size in 2023, contributes around 7% to India's GDP.

TEST YOURSELF

Objective Questions

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Mains Questions

GS PAPER-I

1. India's new National Sports Policy 2025 aims to transform the country into a global sports powerhouse. Examine its key provisions and assess its potential to address historical weaknesses in India's sports ecosystem. ***(15 Marks, 250 Words)***

2. The PARAKH Rashtriya Sarvekshan 2025 has revealed sharp regional disparities in learning outcomes. Discuss the implications of such disparities for social equity and human capital formation. ***(10 Marks, 150 Words)***

3. The Mahisagar River stands out as one of India's unique rivers, crossing the Tropic of Cancer twice. Explain its geographical significance and implications for inter-state water planning. ***(10 Marks, 150 Words)***

4. Urban infrastructure collapses are becoming increasingly common in Indian cities. Examine how geographical factors, poor planning, and climate stress contribute to this fragility. ***(15 Marks, 250 Words)***

5. The admissibility of phone tapping in matrimonial disputes raises concerns over the right to privacy. Analyse the legal position, ethical dilemmas, and the balance between evidence and personal liberty. ***(10 Marks, 150 Words)***

GS PAPER-II

6. The non-functionality of the National Commission for Minorities since April 2025 has raised institutional concerns. Examine the constitutional mandate and suggest reforms for better functioning of such bodies. ***(10 Marks, 150 Words)***

7. The Vice President's resignation in mid-term highlights procedural and institutional gaps. Discuss the constitutional provisions, roles, and criticisms related to the post of Vice President. ***(15 Marks, 250 Words)***

8. India–Maldives strategic cooperation reflects how geography and diplomacy converge in the Indian Ocean. Evaluate recent initiatives taken under SAGAR and the Colombo Security Conclave. ***(15 Marks, 250 Words)***

9. India–Brazil relations rest on shared colonial legacies and south-south solidarity. Discuss the significance of recent bilateral developments in trade, climate action, and global governance. ***(10 Marks, 150 Words)***

10. India's increasing engagement with multilateral forums like BRICS reflects its evolving global posture. Analyse how India uses BRICS+ to advocate for global governance reforms. ***(15 Marks, 250 Words)***

11. Cooperatives have long served as pillars of India's rural economy, yet their potential remains underutilised. Examine how modernising the cooperative sector can promote inclusive growth, rural employment, and financial access. ***(15 Marks, 250 Words)***

GS PAPER-III

12. India is emerging as a global toy manufacturing hub, reducing dependence on Chinese imports. Discuss the key policy interventions, manufacturing advantages, and export potential that are driving this shift. ***(10 Marks, 150 Words)***

13. Despite India's gains from CIMMYT during the Green Revolution, its current financial crisis exposes funding asymmetries. Examine why India must support global agricultural R&D institutions. ***(10 Marks, 150 Words)***

14. Climate vulnerabilities of island nations like the Maldives are redefining regional partnerships. Analyse how climate risk is influencing India's foreign and security policy in the Indian Ocean Region. ***(15 Marks, 250 Words)***

15. The growing Chinese presence in the Indian Ocean Region through infrastructure and naval expansion poses new security challenges. Examine India's strategic countermeasures. ***(15 Marks, 250 Words)***

16. India's Blue Economy vision seeks to balance sustainability and growth. Discuss the significance of coastal ecosystem management for marine livelihoods. ***(10 Marks, 150 Words)***

17. Public infrastructure in India is often vulnerable to both natural disasters and design flaws. Identify key structural and institutional factors behind recurring infrastructure failures. ***(15 Marks, 250 Words)***

18. What are the implications of India's retaliatory tariffs on U.S. imports for trade diplomacy and WTO rules? ***(15 Marks, 250 Words)***

19. Digital integration in education and governance is critical for reducing regional imbalances. Discuss how platforms like DIKSHA and eVidya support inclusive development. ***(10 Marks, 150 Words)***

20. Household savings in India have declined to a multi-decade low, raising concerns over financial stability and future consumption. Discuss the key reasons behind this trend and its implications for investment, inflation, and economic growth. ***(15 Marks, 250 Words)***