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Message



An officer with a right mindset is an officer that a nation aspires for. A right mindset doesn't necessarily comprise unlimited jargon of knowledge rather a right amount of knowledge and its appropriate execution. Especially, when it comes to UPSC and State PSCs preparation, the crux is not to accumulate the knowledge but its effective implementation and utilization in tackling any situation. The situation here can be anything from UPSC CSE Prelims to the major issues that need to be addressed. The journey is hard but it is worth.

Perfect 7 has been part of many UPSC and State PSCs aspirants in their journey of becoming well reputed officers serving nationally and internationally. The magazine itself had gone through constant ebb and flows of change and improvements. Now, that the magazine is in its monthly era, I hope it becomes your perfect preparation partner and guides you through this ever learning endeavor of Civil Services Preparation.

With Best wishes.

Vinay Singh
Founder
Dhyeya IAS

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PERFECT



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Indian Society & Art and Culture

India's Juvenile Justice System: Persistent Gaps and the Road to Reform

Introduction:

Nearly a decade after the Juvenile Justice (Care and Protection of Children) Act, 2015 came into force, India's child-protection ecosystem continues to face serious structural challenges. The law was meant to create a system that is child-friendly, rehabilitative and firmly distinct from the adult criminal justice process. Yet, a new study by the India Justice Report (IJR), titled "Juvenile Justice and Children in Conflict with the Law: A Study of Capacity at the Frontlines" (released on 24 November 2023), reveals that the statutory vision remains only partially realised.

- ❖ The report highlights an uncomfortable truth: despite progressive legislation, children in conflict with the law still encounter delays, weak infrastructure, understaffed institutions and unreliable data systems. These deficiencies undermine both rehabilitation and the broader goals of child protection. Understanding these gaps is critical for improving India's justice delivery frameworks and ensuring that children one of the most vulnerable groups, are treated with dignity and fairness.

The Pendency Problem:

- ❖ One of the most striking findings of the study is the sheer volume of pending cases before Juvenile Justice Boards (JJBs). As of 31 October 2023, over 50,000 children were still awaiting decisions on their cases.

Data from 362 JJBs showed that 55% of all registered cases remained pending.

- ❖ This backlog directly contradicts the spirit of the JJ Act, which mandates speed and sensitivity. Justice delayed, in the context of children, often results in emotional stress, prolonged uncertainty, and disruption in education and family life. The report draws a tough comparison: children face consequences similar to adult undertrials, left waiting for a system that is supposed to protect them.



Vacancies and Non-Functional Benches:

- ❖ A functional JJ system depends on multidisciplinary benches. Each JJB should consist of a principal magistrate and two trained social workers—ensuring that legal

decisions are balanced by psychological and social understanding. However, the study shows widespread non-compliance:

- » 24% of JJBs operate without a fully constituted bench.
- » Out of the 470 boards that responded to the study, 111 lacked full composition.
- » Only Odisha, Sikkim, and Jammu & Kashmir reported complete benches in every district.
- ❖ Former Supreme Court Judge Madan B. Lokur described this situation as “worrying,” noting that vacancies extend beyond JJBs to child care institutions (CCIs) as well. Shortages undermine case hearings, rehabilitation planning and timely decision-making.

Infrastructure Gaps Across States:

- ❖ **Absence of Places of Safety**
 - » The JJ Act mandates “Places of Safety” for children aged 16–18 accused of heinous offences. These are essential because such children cannot be kept in regular observation homes. Yet, the report notes that:
 - 14 states, including major ones like Andhra Pradesh, Maharashtra and West Bengal, lack even a single such facility.
 - » This creates a serious legal and operational vacuum.
- ❖ **Weak Access to Legal Aid**
 - » Each JJB must have a legal services clinic to ensure that children receive proper legal support. However:
 - 30% of the 437 JJBs surveyed had no such clinic.
 - » This means thousands of children face proceedings without appropriate legal guidance, weakening the fairness of the process.
- ❖ **Poor Medical Support in Child Care Institutions**
 - » The condition of CCIs is even more inadequate. In the 15 states that provided relevant data:

➤ Nearly 80% of CCIs lacked medical staff or doctors.

- » This is alarming because CCIs house children rescued from abuse, trafficking, abandonment, or conflict with the law—many of whom need immediate medical and psychological attention.

Weak Oversight and Monitoring:

- ❖ Oversight mechanisms exist on paper, but their implementation is patchy.
 - » The JJ Act requires every JJB to inspect CCIs at least once a month.
 - » Across 14 states and J&K, only 810 inspections were conducted against a mandated 1,992.
- ❖ Under-inspected institutions often become vulnerable to rights violations, neglect and abuse. Previous judicial interventions, including the Supreme Court’s observations in *Re: Exploitation of Children in Orphanages* (2017), have repeatedly underscored the dangers of weak monitoring.



The Data Deficit:

- ❖ The report identifies lack of reliable data as one of the biggest structural weaknesses. While the adult criminal justice system has the National Judicial Data Grid, there is no

central public database for juvenile cases.

- » To compile the report, IJR had to file:
- » 250+ RTIs across 28 states and 2 UTs
- » Of the 500+ replies received,
- » 11% were rejected, and
- » 24% received no response

- ❖ Such opacity makes supervision irregular and accountability difficult. The juvenile justice structure is pyramidal, and the entire system depends on data flowing seamlessly from police stations and CCI to district and state-level authorities. When data is scattered or unavailable, monitoring becomes episodic rather than continuous.
- ❖ The report concludes that the gaps between legislative promises and ground realities remain wide. Instead of a protective, reform-oriented system, the juvenile justice machinery often ends up reflecting the same inefficiencies seen in the adult criminal justice system: pendency, poor documentation, and weak follow-up.

Assessing Broader Institutional Weaknesses:

- ❖ **Understaffed District Child Protection Units (DCPU)**
 - » DCPU are central to rescue, case management and rehabilitation. Yet many states face vacancies of:
 - Protection officers
 - Counsellors
 - Outreach workers
 - » The Ministry of Women and Child Development's 2023 review showed vacancy levels above 30% in several states.
- ❖ **Pendency Before Child Welfare Committees (CWCs)**
 - » CWCs handle children in need of care and protection. Many face:
 - High caseloads
 - Delayed social investigation reports
 - Few counsellors
 - Irregular sittings
 - » The NCPDR's 2022 social audit confirmed these concerns.
- ❖ **Weak Multidisciplinary Support for JJBs**
 - » Sections 4 and 8 of the JJ Act require

psychologists, probation officers and social workers to support JJBs. Yet implementation remains patchy. A 2021 Delhi High Court observation noted the absence of adequate staff needed to prepare individual care plans.

❖ **Inadequate Monitoring of CCIs**

- » After the 2021 amendment, District Magistrates were given the responsibility of oversight. However, compliance remains uneven across states, echoing earlier Supreme Court concerns about unregistered or poorly functioning homes.

❖ **Fragmented Coordination Across Departments**

- » Rescue, rehabilitation and reintegration require coordination between:
 - Police
 - Labour departments
 - Health and education departments
 - DCPUs
 - CWCs
 - JJBs
- » The Baal Swaraj portal (2021–23) flagged significant gaps in cross-reporting and follow-up between agencies.

Strengthening Convergence and Systemic Integration

- ❖ **District-Level Convergence Committees:** Statutory committees led by District Magistrates can integrate actions of CWCs, JJBs, DCPUs, police and health departments. Karnataka's 2023 model shows better outcomes in tracking and rehabilitating missing children.

- ❖ **Digital Integration and Real-Time Updates:** Linking databases like "TrackChild 2.0, Baal Swaraj, CCTNS (police database) will ensure all institutions view the same case information. MWCD updates in 2024 showed child recovery rates improve when such integration happens.

- ❖ **Professional Training for Statutory Bodies:** Mandatory NIPCCD-certified training for JJB and CWC members can ensure

uniform interpretation of the JJ Rules, better decision-making and child-sensitive procedures.

- ❖ **Regular Independent Inspections:** Quarterly social audits and third-party evaluations, guided by the NCPCR's 2021 guidelines, are essential to ensure transparency in CCIs.
- ❖ **Unified Financing:** Pooling budgets under the Child Protection Services Scheme with funds from health, labour and education departments will support integrated planning. The 15th Finance Commission's grants provide states with an opportunity to adopt convergence-based models.

Conclusion:

India's juvenile justice framework, built on progressive law and constitutional guarantees

under Articles 14, 15(3) and 21, aims to protect children and support their rehabilitation. But the new findings from the India Justice Report show how far the ground reality still lags. Pendency, vacancies, weak oversight, poor infrastructure and lack of real-time data continue to undermine the system's core principles. Strengthening this framework demands more than patchwork fixes. It requires a digitally integrated, professionally trained and jointly accountable ecosystem—one where every institution works in sync. Only then can the juvenile justice system move closer to its intended purpose: ensuring every child receives timely, compassionate and fair treatment from the state.

Short Issues

Kerala Becomes India's First State To Eradicate Extreme Poverty

Context:

Kerala recently became the first Indian state to declare itself free from extreme poverty. On 1 November 2025, Chief Minister Pinarayi Vijayan made this announcement in the State Assembly on the occasion of Kerala's Formation Day.

About Athi Daridrya Nirmarjanam Project:

- The project was launched in 2021 by the Government of Kerala with the goal of completely eradicating extreme poverty in the state by November 2025.
- As part of the identification phase, 64,006 families (covering about 1,03,099 individuals) were recognised as living in extreme deprivation.
- The identification used four core deprivation indicators:
 - » lack of adequate food,
 - » poor housing /landlessness,

- » inadequate basic income or livelihood,
 - » poor health status / lack of access to healthcare.
- For each identified family, a micro-plan was prepared by local self-government institutions (LSGIs) and the women's network Kudumbashree.

Securing future

Through the Extreme Poverty Eradication Project launched in 2021, the Kerala government prepared micro-plans for every family

- **1,03,099** individuals from 64,006 families identified as extremely poor
- **21,263** families received essential documents
- **3,913** families were provided new houses
- **1,338** families were allotted land



- **5,651** families received up to ₹2 lakh each for house renovation
- **3,822** families got livelihood assistance

These plans included:

- Provision of missing documentation (Aadhaar, ration card, voter ID, UDID for differently-abled) and access to basic

services like health insurance and social security pensions.

- **Educational support for children in these families:** Study materials, financial aid, meals to ensure uninterrupted schooling. (While specific numbers in article form may vary, this support is part of the holistic plan.)
- **Infrastructure/institutional support:** Housing construction, land allotment, house renovation, livelihood initiatives through Kudumbashree's Ujjevanam scheme and other departmental programmes.
- A digital Management Information System (MIS) was used to track each family's progress, ensuring that the micro-plan actions were monitored.

Significance of the Milestone

- Achieving elimination of extreme poverty as defined by the state is a major policy achievement, signalling the potential of targeted welfare combined with community participation.
- The initiative reflects a shift from broad poverty alleviation to focusing on the last mile of deprivation—those left out of conventional welfare nets.
- It aligns with the global framework of the United Nations Sustainable Development Goal 1 ("No Poverty") by demonstrating a sub-national entity aiming to reach full coverage.
- It sets a model for other Indian states — how micro-planning, data-driven identification, and local self-governance can be leveraged for inclusive development.

Conclusion

The Athi Daridrya Nirmarjanam Project in Kerala is a bold and focused attempt to eliminate the most extreme forms of deprivation in society. With the state declaring itself on track to become India's first "extreme poverty-free" state by November 1, 2025, the initiative stands as an important policy milestone. While the declaration itself is significant, the true test will

lie in long-term sustainability, full inclusion, and replicability of the model elsewhere.

QS Asia University Rankings 2026

Context:

Quacquarelli Symonds-QS recently released its 17th edition of the "QS Asia University Rankings: Asia 2026", covering over 1,500 universities across 25 higher-education systems in Asia. India is now the second-most represented system, with 294 institutions ranked (up markedly) though China (395) has taken the lead in representation.

Top Indian Universities in QS Asia Rankings 2026:

- **IIT Delhi:** Ranked 59th in Asia, with a score of 78.6, driven by its high-impact research citations.
- **IISc Bangalore:** Ranked 64th in Asia, with a score of 76.5, showcasing its research prowess.
- **IIT Madras:** Ranked 70th in Asia, with a score of 75.1, demonstrating its academic excellence.
- **IIT Bombay:** Ranked 71st in Asia, with a score of 75.0, highlighting its strong faculty-student ratio.

Regional Comparison (Top Performers in Asia)

Country	Top University	Rank	Highlights
Hong Kong	University of Hong Kong	1	Academic excellence and strong global engagement
China	Peking University	2	Leading research ecosystem
Singapore	NUS	3	Consistently high academic reputation

Significance for India:

- **Soft Power & Knowledge Diplomacy:** Universities are instruments of national influence. High-ranked institutions help attract global talent, research partnerships, and investment — advancing India’s vision of becoming a “Vishwa Guru” in education.
- **Economic Development:** The higher education sector contributes nearly 4% of GDP. Improved global recognition can boost India’s knowledge economy, innovation ecosystem, and human capital competitiveness.
- **Research and Innovation Ecosystem:** India’s R&D expenditure (0.7% of GDP) is below that of China (2.4%) and South Korea (4.9%). Without greater public-private R&D investment, India cannot sustain a top-tier research presence globally.

Key Issues for India in QS Asia Rankings 2026

- Several Indian institutions actually improved their absolute scores, yet saw a drop in ranking.
- For instance, IIT Delhi fell by about 15 places to 59th, and IIT Bombay dropped from 48th to 71st.
- The “International Student Ratio (ISR)” and international faculty presence remain very low in Indian universities. For example, some IITs recorded ISR scores as low as 2.5.
- Metrics such as faculty-student ratio are weaker for many Indian institutions compared with leading Asian ones. For example, IIT Delhi scored 40.9 in this metric while top Asian universities score closer to 80–90.

Government Initiatives:

Initiative	Objective
NEP 2020	To reform higher education through flexibility, innovation, and global competitiveness.

Institutions of Eminence (IoE)	Empower select universities to achieve world-class status.
National Research Foundation (NRF)	Strengthen funding for quality research & innovation.
Study in India Programme	Attract international students through incentives and scholarships.

Conclusion:

India’s growing presence in the QS Asia University Rankings 2026 signals steady progress toward global academic recognition. To achieve educational leadership in the Indo-Pacific region, India must prioritize quality research, faculty excellence, and internationalization.

PM Inaugurates 150 Years of National Song Vande Mataram Commemoration

Context:

Prime Minister Narendra Modi recently inaugurated the year-long commemoration of 150 years of India’s National Song, “Vande Mataram,” in New Delhi. On the occasion, Commemorative Stamp and Coin was released.

Government’s Initiative:

- Government will spread awareness about the historical and cultural significance of Vande Mataram;
- many event will be organised which encourage mass participation through singing events, exhibitions, and educational programs;
- Reinforce the values of unity, devotion, and selfless service embodied in the song.

Historical Background:

- The song Vande Mataram was composed by Bankim Chandra Chatterjee in 1875, and first appeared in his famous Bengali novel

Anandamath, published in 1882.

- The song invokes Mother India as a divine and powerful figure, symbolizing strength, prosperity, and spiritual devotion.
- It was first sung publicly by Rabindranath Tagore at the 1896 Indian National Congress session in Calcutta.

150 Years of the National Song Vande Mataram

The Union Cabinet will celebrate 150 years of the national song, 'Vande Mataram', throughout India, honouring its role in the freedom struggle

About the National Song

- The song Vande Mataram was composed in Sanskrit by Bankimchandra Chatterji in 1875 and featured in his novel *Anand Math* (1882).
- Dr. Rajendra Prasad officially designated it as the national song in the Constituent Assembly on January 24, 1950, stating it would hold equal status with the national anthem, *Jana Gana Mana*.
- The Constitution of India, under Article 51A(a), requires citizens to respect the Constitution, its ideals, institutions, the National Flag, and the National Anthem, but does not mention the national song.



Significance and Role in the Freedom Movement:

- Vande Mataram became a rallying cry during India's independence struggle, serving as a symbol of national pride and unity.
- It was first used as a political slogan on August 7, 1905, during the anti-partition movement in Bengal, and soon became a marching hymn for freedom fighters.

Constitutional Recognition:

- Vande Mataram was adopted as India's National Song by the Constituent Assembly

on January 24, 1950.

- Vande Mataram does not have the same constitutional privileges as the National Anthem, which is protected under the Fundamental Duties of citizens.

Conclusion:

The 150th anniversary of Vande Mataram is a celebration of India's spiritual and cultural unity, reminding citizens of the ideals that guided the nation's freedom struggle.

Lucknow Designated UNESCO 'City of Gastronomy'

Context:

UNESCO has officially designated Lucknow as a Creative City of Gastronomy under the UNESCO Creative Cities Network (UCCN) during its 43rd General Conference held in Samarkand, Uzbekistan.

Background & Nomination Process

- The designation comes under the "Gastronomy" sub-category of the UCCN, which identifies cities that leverage culinary heritage as part of creativity and sustainable development.
- The nomination for Lucknow was prepared by the Directorate of Tourism, Uttar Pradesh and submitted to the Ministry of Culture on 31 January 2025.
- The Government of India officially selected Lucknow as its entry on 3 March 2025.
- With this recognition, Lucknow becomes the second Indian city to receive the gastronomy tag (after Hyderabad, designated in 2019).

About Cultural & Culinary Heritage:

- Lucknow's cuisine is rooted in the Awadhi tradition, with influences of Mughal, Persian and indigenous cooking methods, such as slow-cooking (dum pukht), aromatic spice blending, and royal kitchen legacy.
- The recognition also emphasises Lucknow's composite cultural ethos (Ganga-Jamuni tehzeeb), where culinary traditions span

across communities and social strata, from royal kitchens to humble stalls.

Significance:

- Strengthens India's soft power by promoting cultural diplomacy through cuisine.
- Enhances sustainable tourism and supports local artisans, chefs, and small food enterprises.
- Encourages preservation of traditional recipes and culinary craftsmanship.
- Boosts economic and cultural development through global collaboration under the UCCN framework.

Other Indian Cities in the UNESCO Creative Cities Network (UCCN)

City	Category	Year of Designation
Jaipur	Crafts and Folk Art	2015
Varanasi	Music	2015
Chennai	Music	2017
Mumbai	Film	2019
Hyderabad	Gastronomy	2019
Srinagar	Crafts and Folk Art	2021
Gwalior	Music	2023
Kozhikode	Literature	2023
Lucknow	Gastronomy	2025

About UNESCO Creative Cities Network (UCCN):

- **Established:** 2004
- **Objective:** To foster cooperation among cities that leverage culture, creativity, and innovation for sustainable urban development.
- **Coverage:** Over 350 cities worldwide across seven fields —
 - » Music, Film, Literature, Design, Gastronomy, Crafts and Folk Art, and Media Arts.
- Promotes knowledge sharing, cultural exchange, and inclusive growth.

Conclusion:

Lucknow's designation as a UNESCO City of Gastronomy is a landmark achievement that

celebrates India's diverse culinary landscape and the living heritage of Awadhi cuisine. The recognition not only honors the city's gastronomic excellence but also reinforces the role of culture as a driver of inclusive growth, sustainability, and international cooperation.

Film Censorship in India

Context:

The Kerala High Court recently heard a petition filed by the producer and director of the Malayalam film Haal, challenging the Central Board of Film Certification (CBFC) decision to grant an "A" (Adults Only) certificate with mandatory cuts.

Background:

- The controversy for the film Haal, a story about an interfaith relationship, began when the CBFC's regional office initially indicated the film would be cleared, but it was later referred to a Revising Committee (RC) in Mumbai, which demanded 15 cuts and an 'A' certificate.
- The filmmakers argue these demands are arbitrary, unreasonable, and violate their fundamental right to freedom of expression.
- The petitioners argue that the CBFC's orders—such as blurring the name of a Christian college and altering scenes touching on religious identity—strip meaning from the film's socio-cultural narrative.

Film Certification in India:

- Film certification in India is governed by the Cinematograph Act, 1952 and administered by the Central Board of Film Certification (CBFC), a statutory body under the Ministry of Information and Broadcasting.
- All films must be certified by the CBFC before public exhibition. Its goal is to ensure films align with societal values, uphold decency and morality, and provide healthy entertainment without unjustly restricting artistic expression.

- The CBFC comprises a Chairman and 12–25 non-official members appointed by the Central Government. It operates from its headquarters in Mumbai with nine regional offices across India.

About Film Certification Process:

- The certification process is now fully digital through the e-Cinepramaan portal and follows these stages:
 - » **Online Application:** Producers submit the film, required documents, and fees digitally.
 - » **Examination:** A committee views the film and recommends the certificate type and any modifications or cuts.
 - » **Decision & Compliance:** The Chairman reviews the report, issues directions (if any cuts are required), and after compliance, the final certificate is granted electronically by the regional office.
 - » **Types of Certificates:**
 - **U (Universal):** Suitable for all age groups.
 - **U/A (Parental Guidance):** Suitable for all, but parental guidance recommended for children under 12; sub-classified as U/A 7+, U/A 13+, U/A 16+.
 - **A (Adults Only):** Restricted to viewers aged 18 and above.
 - **S (Specialised):** Restricted to specialised groups (e.g., doctors, scientists).

Conclusion:

The Haal case highlights tensions between artistic liberty and state oversight. CBFC decisions often invoke broad notions of public interest. India needs transparent, constitutionally aligned, and self-regulatory certification—where classification replaces censorship to truly safeguard creative freedom.

Context:

UNICEF's flagship report, *The State of the World's Children 2025: Ending Child Poverty – Our Shared Imperative*, was released on World Children's Day (November 20, 2025). The report warns that more than 400 million children worldwide live in multidimensional poverty, facing deprivation in at least two basic needs such as nutrition, sanitation, or education.

Key Findings:

- **Magnitude of Deprivation**
 - » According to UNICEF, 417 million children in over 130 low- and middle-income countries suffer from “severe deprivation” in at least two of the six measured domains.
 - » These six dimensions are: education, health, housing, nutrition, sanitation, and water.
 - » Furthermore, 118 million children endure three or more of these deprivations, and 17 million are deprived in four or more.
- **Sanitation as the Most Common Deprivation**
 - » Sanitation is the most pervasive form of deprivation: in low-income countries, 65% of children lack access to a toilet.
 - » In lower-middle-income countries it's 26%, and even in upper-middle-income countries, 11% of children lack proper sanitation.
- **Monetary Poverty**
 - » In addition to material deprivations, monetary poverty remains acute: over 19% of children globally live on under US\$ 3 per day (extreme monetary poverty).
 - » Nearly 90% of these extremely poor children are located in Sub-Saharan Africa and South Asia.

Regional Patterns & Implications:

- **Geographical Concentration:** The highest rates of multidimensional child poverty are concentrated in Sub-Saharan Africa and South Asia.

The State of the World's Children 2025 Report

- **Socioeconomic Effects:** Children deprived in multiple dimensions are likely to suffer long-term adverse effects, including poor health, reduced learning outcomes, stunted development, and psychosocial stress.
- **Intergenerational Effects:** Persistent multidimensional poverty undermines future economic productivity, increases inequality, and can perpetuate cycles of disadvantage, making it a long-term challenge for both social and economic development.

Policy Recommendations:

According to the report, to address this multidimensional poverty among children, governments need to:

- **Make Child Poverty a National Priority**
 - » Elevate the issue in national development plans, budgeting processes, and long-term strategies.
- **Invest in Social Protection**
 - » Expand cash support programs for families with children.
 - » Build resilient social safety nets that can respond in crises (climate, debt, conflict).
- **Strengthen Access to Essential Services**
 - » Guarantee universal access to education, healthcare, clean water, sanitation, nutrition, and housing.
 - » Prioritize investments in infrastructure and public services in under-served communities.
- **Target Vulnerable Populations**
 - » Focus on youngest children, children with disabilities, and those in fragile or crisis settings.
 - » Use disaggregated data to identify and support high-risk groups.

Conclusion:

This report ties directly into Sustainable Development Goal 1 (No Poverty), SDG 3 (Good Health & Well-being), SDG 6 (Clean Water & Sanitation), and SDG 4 (Quality Education). Countries like India, which have large child

populations, can use such data to fine-tune social protection, public service delivery, and priority-setting in their welfare programs. It emphasizes the importance of targeted interventions for children in poor and vulnerable demographics.

Nayi Chetna 4.0

Context:

Recently, the Ministry of Rural Development (MoRD) launched the fourth edition of the national campaign under Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY NRLM), called Nayi Chetna – “Initiative for Change” (4.0). The campaign began on 25 November 2025, coinciding with the International Day for the Elimination of Violence against Women, and aims to eradicate gender based violence (GBV) and promote gender equality in rural India.

Key stakeholders in Nayi Chetna 4.0:

- **Inter-Ministerial Collaboration:** 11 central Ministries/Departments including Women & Child Development, Home Affairs, Panchayati Raj, Agriculture, Justice, Health, Education, Youth Affairs, MSMEs, and Information & Broadcasting.
- **Tripartite MoU:** Between Women & Child Development, Law & Justice, and Rural Development Ministries for Violence-Free Village Initiative.
- **Grassroots Actors:** 10 crore rural women through SHGs, Anganwadi workers, State Rural Livelihood Missions, civil society organisations, and community leaders.

Objectives of the Campaign:

- Nayi Chetna 4.0 is envisioned as a month long mass movement aimed at strengthening women’s safety, dignity, and socio-economic participation in rural areas.
- **Key goals include:**
 - » Strengthening community action against gender-based violence.
 - » Promoting women’s safety, dignity, and

economic participation, including safe mobility and recognition as economic contributors.

- » Economic empowerment: Access to assets, credit, skills, and markets to enable livelihoods and entrepreneurship.
- » Shared responsibility for unpaid care work and advocating gender-responsive policies and budgets.
- » Creating model villages under the Violence-Free Village Initiative to ensure safety, rights, and opportunities for girls and women in rural India.

Why This Program Was Launched:

- Nayi Chetna 4.0 was launched to address persistent gender-based violence, discrimination, and inequality in rural India.
- Using the extensive SHG network under DAY NRLM, the campaign mobilizes women for collective empowerment.
- Inter-ministerial collaboration ensures coordinated action across sectors, while the campaign also aims to shift social norms around women's roles, safety, and dignity.

Way Forward:

- NCRB reports still reflect a worrying trend of crimes against women. Campaigns like "Nayi Chetna" are important in this direction, but full success requires sustained community awareness and a well-functioning institutional support system.
- The success of this campaign will depend on maintaining the spirit of a "people's movement" and incorporating the voices of rural women at every level of the decision-making process.

Conclusion:

Nayi Chetna 4.0 is a comprehensive and coordinated effort to address the age-old problem of gender inequality in rural India. It is not just a government program, but a people's movement, driven by the collective power of over 100 million rural women, a significant step towards building a safe, dignified, and equal

society.

India Justice Report

Context:

The India Justice Report (IJR) recently published a focused study titled "Juvenile Justice and Children in Conflict with the Law: A Study of Capacity at the Frontlines". The report evaluates the capacity of institutions under the Juvenile Justice (Care and Protection of Children) Act, 2015, as of 31 October 2023, drawing on parliamentary responses, a year-long Right to Information (RTI) inquiry, and state-wise data.

Major Findings of the Report:

- **High Pendency of Cases**
 - » As of Oct 31, 2023, 55% of the 1,00,904 cases before 362 Juvenile Justice Boards (JJBs) were still pending.
 - » Only about 45,097 cases were disposed of during the reference period.
 - » The pendency rate varies widely across states: for example, Odisha shows as high as 83%, while Karnataka has 35%.
- **Institutional & Human Resource Gaps**
 - » 24% of JJBs operate without a full bench (i.e., missing either the principal magistrate or the two social worker members, one of whom must be a woman).
 - » 30% of JJBs lack an attached legal services clinic, limiting access to legal aid for children in conflict with law.
- **Deficient Infrastructure & Oversight**
 - » There are 319 Observation Homes, 41 Special Homes, and 40 Places of Safety nationally, but 14 states (plus J&K) lack any "place of safety" for children aged 16–18 accused of heinous crimes.
- **Lack of Reliable and Transparent Data**
 - » The report notes a glaring absence of a centralised, child centric data system. Unlike mainstream courts (which use the National Judicial Data Grid),

juvenile justice lacks a unified, publicly accessible data grid.

- **State-Level Disparities**
 - » Although 92% of India's 765 districts have constituted JJBs, the effectiveness varies drastically across states.

Implications:

- The high pendency suggests that children in conflict with law are often stuck in legal limbo, which may lead to extended institutionalisation and psychological harm.
- Without a full bench or adequate legal aid, the quality of hearing and adjudication for children could be compromised.
- Weak infrastructure in CCIs and lack of sufficient oversight might mean rehabilitation is not happening effectively, raising the risk of re-offending.



Recommendations:

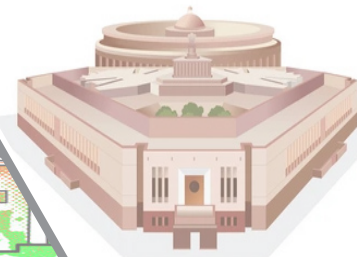
- **Strengthen JJB Capacity:** Ensure that all JJBs have full benches (principal magistrate + two social workers, including one woman) as mandated.
- **Improve Institutional Infrastructure:** Establish “place of safety” homes in all states, especially for older adolescents (16–18). Expand Child Care Institutes for girls, and create age appropriate, offence-sensitive institutions.
- **Develop a Central Data Grid:** Set up a National

Juvenile Justice Data Grid analogous to the National Judicial Data Grid (NJDG), to collect, standardise, and publish data (caseload, disposals, recidivism, capacity).

- **Boost Legal Aid and Counsel:** Attach legal services clinics to all JJBs; ensure children have access to lawyers and legal counseling. Provide training to legal aid lawyers in child-sensitive adjudication and restorative justice principles.

Conclusion:

The IJR's "Study of Capacity at the Frontlines" offers a sobering assessment: a decade after the Juvenile Justice Act (2015), the institutional architecture is not fully equipped to deliver timely, fair, and rehabilitative justice to children in conflict with the law. The report's findings demand urgent policy interventions — strengthening capacity, improving data systems, and ensuring that the juvenile justice system truly upholds the “best interests of the child.”



Constitutional Discretion and Judicial Limits: A Balanced Reassessment of the Federal Structure

Context:

The role of the Governor in the law-making process has been at the centre of constitutional debate in recent years, especially as several State governments have accused Governors of delaying action on Bills. These delays raised important questions about democratic functioning, federal balance, and the limits of judicial power. Against this backdrop, the Union government sought guidance from the Supreme Court through a Presidential Reference under Article 143. In this context, the Court's Constitution Bench delivered an important opinion on November 20, 2025, clarifying the constitutional boundaries of the Governor's power under Article 200.

Background:

❖ Presidential Reference under Article 143

- » President Droupadi Murmu referred a set of 14 legal questions to the Supreme Court under Article 143(1).
- » These questions arose in the wake of an earlier two judge bench decision (April 8, 2025) that had imposed specific timelines on Governors and the President to act on bills.

❖ Earlier (April 2025) Two Judge Bench Decision

- » The two judge bench (Justices J. B. Pardiwala and R. Mahadevan) ruled that Governors must act within 1–3 months in different scenarios: e.g., one

month for assent or reservation, up to three months for returning a bill with comments.

- » This verdict also introduced “deemed assent”: if a Governor failed to act within that timeframe, the court could treat the bill as having been assented to.

❖ Conflict and Constitutional Concerns

- » The two judge bench's decision raised concerns about judicial overreach, separation of powers, and the role of the Governor in state governance. This led to the Presidential Reference to clarify the boundaries of judicial intervention.

Article 143 of the Indian Constitution

- Article 143 empowers the President of India to **seek the opinion of the Supreme Court** on important questions of law or fact that are of public importance.
- Clause (1): The President can refer any such question to the Supreme Court, and the Court may give its opinion after conducting a hearing.
- Clause (2): The President can also refer certain inter-state or center-state disputes (even if restricted by Article 131 proviso) to the Supreme Court for its advisory opinion, which the Court must provide after a hearing.



Key Findings of the Supreme Court:

Here are the major legal principles and rulings laid down by the Supreme Court:

❖ No Fixed Timelines

- » The Court held that it is not appropriate for courts to judicially impose rigid deadlines on Governors (under Article 200) or the President (under Article 201) to make decisions on bills.
- » There are no constitutionally prescribed time limits for these functions in Articles 200 and 201; the absence of such limits is deliberate and reflects the “elasticity” of the constitutional design.

❖ Rejection of “Deemed Assent”

- » The Court strongly rejected the concept of “deemed assent,” in which courts treat a bill as having been automatically assented to if a deadline expires.
- » It said such a notion amounts to “virtual takeover” of executive functions by the judiciary: an unacceptable intrusion on the Governor’s constitutional role.

❖ Limited Judicial Review

- » While fixed deadlines are out, the Court allowed for limited judicial review in cases of prolonged, unexplained and indefinite delay by a Governor.
- » In such situations, the Court can direct the Governor to act within a “reasonable period,” but without opining on the merits of the bill.
- » The Court emphasized that it will not substitute the Governor’s discretion but merely ensure that the constitutional process is not indefinitely stalled.

❖ Governor’s Discretion under Article 200:

- » The Court affirmed that under Article 200, the Governor has three options when a bill is presented:
 - Assent,
 - Withhold (veto), or
 - Return to the Legislature with recommendations / comments (or reserve for President).
- » It clarified that withholding assent must be accompanied by returning the bill, i.e., sending it back to the Legislature with a message, consistent with the first proviso of Article 200.
- » The Governor is not bound to follow

the “aid and advice” of the Council of Ministers (i.e., the state Cabinet) when deciding whether to withhold or reserve a bill.

Powers and Functions of the President of India Explained



❖ Separation of Powers

- » A central theme of the judgment is the doctrine of separation of powers: judicial imposition of timelines or deemed assent undermines the constitutional role of the Governor (executive) and concentrates power improperly.
- » The Court stressed that each constitutional organ must operate within its assigned sphere, and courts should not overreach into executive functions.

❖ Constitutional Dialogue over Confrontation

- » The Court encouraged a culture of “constitutional dialogue”: Governors and state legislatures should engage through returning bills with comments, deliberation, and negotiation, rather

than adversarial standoffs.

- » It warned against an “obstructionist approach” by Governors but also underscored their role as more than mere rubber stamps.

❖ **Non Justiciability vs. Scrutiny**

- » The Court held that the merits of a Governor’s decision (why he withholds or reserves a bill) are not subject to judicial review i.e., courts cannot second-guess policy or political judgments.
- » However, the act of inaction, especially if it is prolonged, unexplained, indefinite, can be reviewed to ensure that the Governor discharges his constitutional duty.

❖ **Limitations on Article 142 Power**

- » The Court ruled that even under Article 142 (its plenary power), it cannot grant “deemed assent” to a bill, this would be a usurpation of the Governor’s (or President’s) distinct constitutional role.

Significance & Implications:

❖ **Rebalancing Federal Relations**

- » The verdict reinforces federal autonomy: Governors, though part of the state machinery, have discretionary constitutional roles that cannot be mechanized by the judiciary.
- » It strengthens the notion that state executive (Governor) must be independent in certain functions, not just a rubber stamp for the state government.

❖ **Checks on Judicial Overreach**

- » By rejecting fixed judicial timelines and “deemed assent,” the Court curtails its own capacity to micromanage executive functions, thereby preserving constitutional boundaries.

❖ **Preventing Abuse by Governors**

- » Though no rigid deadlines, the Court’s recognition of limited review for inaction ensures that Governors cannot indefinitely delay bills as a pocket-veto tactic.

❖ **Political Dynamics**

- » This could affect states where there has been friction between the Governor and the ruling state government. The judgment mandates genuine constitutional dialogue rather than political standoffs.

❖ **Legislative Process and Governance**

- » The verdict encourages faster, more responsible legislative-executive interaction: Governors are constitutionally bound to respond; legislatures may be more careful in insisting on assent if they know delay can be reviewed.

❖ **Precedent and Constitutional Law**

- » The judgment will likely be cited in future disputes about the powers of constitutional authorities, separation of powers, and the role of the judiciary in supervising non ministerial actors.

Criticisms & Concerns:

❖ **Ambiguity Around “Reasonable Time”:**

While the Court avoids rigid timelines, “reasonable period” is inherently vague. What constitutes “reasonable” may vary, potentially leading to fresh disputes.

❖ **Limited Review:** Some may argue that only allowing minimal judicial review (no substantive merit review) could still enable Governors to frustrate legislative intent in subtle ways.

❖ **Delay Without Accountability:** The discretion remains broad; if Governors delay for political reasons, the judicial check may not always be effective.

❖ **Institutional Tension:** Encouraging “dialogue” is ideal, but real-world political dynamics (partisan Governors, hostile state governments) may make such dialogue difficult.

❖ **Scope of Article 142:** By limiting its own plenary power (refusing “deemed assent”), some critics may argue that the Court is weakening its ability to ensure justice in deadlock situations.

Conclusion:

The Supreme Court’s ruling that timelines

cannot be fixed for Governors to give assent to state bills reaffirms constitutional design, separation of powers, and federal balance. By rejecting “deemed assent,” the Court preserves the Governor’s autonomy, while its allowance for limited judicial review ensures accountability

against inaction. The judgment strikes a delicate balance: it avoids judicial overreach, protects the executive function of the Governor, yet prevents the legislative process from being indefinitely frustrated.

Transgender Rights in India: Legal Developments And Policy Landscape

Introduction:

India’s legal and policy framework for transgender rights has evolved rapidly in the past decade. From being a largely invisible and marginalised community, transgender persons today enjoy constitutional recognition, dedicated welfare schemes, and formal legal protection. Yet, gaps in policy continue to create barriers in areas such as healthcare, documentation, livelihood, and bodily autonomy.

❖ A recent petition before the Kerala High Court - where a trans man sought the right to preserve his gametes - has brought renewed attention to these gaps. The Union Government’s affidavit, stating that transgender persons are not eligible to access Assisted Reproductive Technology (ART) under existing laws, has raised important questions about reproductive rights, the definition of family, and the future of inclusive healthcare in India.

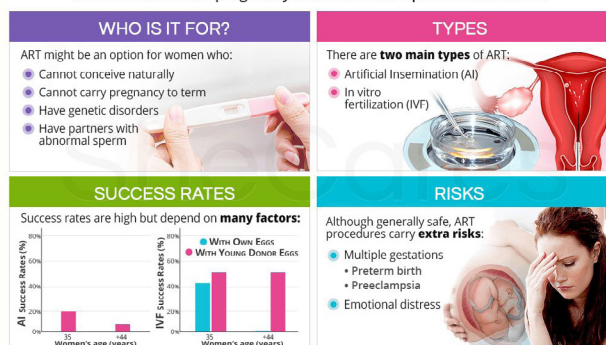
Status of Transgender Persons in India:

- ❖ Census 2011 recorded around 4.87 lakh individuals identifying as “other gender,” though the true number is almost certainly much higher. In the years since, legal recognition has improved, but social acceptance continues to lag.
- ❖ Many transgender persons still struggle with family rejection, interrupted or inaccessible schooling, limited job opportunities, and inadequate healthcare. Even when welfare schemes exist, documentation hurdles often prevent people from accessing them. At the same time, the demand for gender-affirming healthcare is rising rapidly, and India is

emerging as a significant hub for such medical services, including international medical tourism.

Assisted Reproductive Technology (ART)

With its growing use, ART has helped **millions of infertile couples around the world** achieve pregnancy when all other options have failed.



The ART Act and the Exclusion of Transgender Persons:

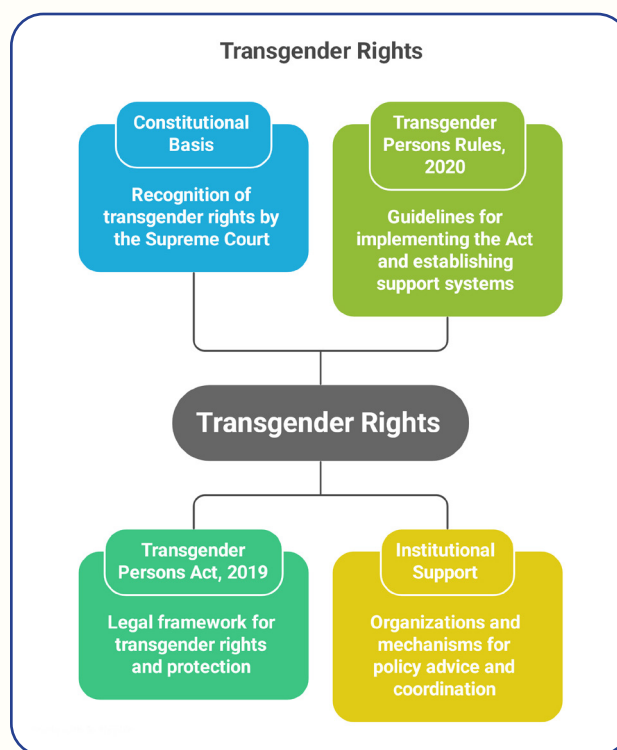
- ❖ Under the Assisted Reproductive Technology (Regulation) Act, 2021, ART services are restricted to:
 - » Commissioning heterosexual couples, and
 - » Single women
- ❖ The Act does not allow single men or transgender persons to avail procedures such as IVF, gamete cryopreservation, or surrogacy-linked services.
- ❖ In the affidavit filed before the Kerala High Court, the Union Government stated that this exclusion was intentional and followed extensive parliamentary discussion. According to the Centre, the law aims to ensure the “best interests of the child,” and

any expansion of eligibility would require expert consultations and fresh policy decisions.

- ❖ The petitioner in the case - a trans man undergoing gender-affirming treatment - sought permission to preserve his gametes for future use. A private fertility centre denied the request because the law does not recognise him as an eligible beneficiary. This prompted him to approach the High Court.
- ❖ The Centre's reply argues that the issue is not merely legal but a policy question, requiring deeper examination of family structures, parental rights, and the long-term welfare of children born through ART. The case is ongoing, but it has revived a national conversation on whether reproductive technologies should be accessible to all, regardless of gender identity.

Key Challenges faced by transgenders:

- ❖ **Social Stigma and Discrimination:** Violence, exclusion, and lack of acceptance remain widespread. Many individuals are forced into informal or unsafe livelihoods.
- ❖ **Healthcare Barriers:** Shortage of trained healthcare professionals, limited gender-affirming services, and high medical costs restrict access to safe treatment.
- ❖ **Documentation Issues:** Inconsistent procedures for updating gender details in ID records hinder access to schemes, jobs, housing, and education.
- ❖ **Economic Marginalisation:** Limited skilling and poor formal employment push many transgender persons to the fringes of the economy.
- ❖ **Housing Vulnerability:** Transgender persons often face homelessness or unsafe living conditions due to social rejection and discrimination in renting.
- ❖ **Limited Financial Allocation:** Budgetary support for transgender welfare remains inadequate across ministries.



Transgender Rights:

- ❖ **Constitutional Foundation:** The modern era of transgender rights in India began with the Supreme Court's landmark judgment in *NALSA vs Union of India* (2014). The Court:
 - » Recognised transgender persons as a "third gender"
 - » Affirmed their right to self-identification
 - » Extended protections under Articles 14, 15, 16, 19 and 21
 - » Directed governments to introduce policies for social, economic, and educational inclusion
 - » This judgment established that transgender persons are entitled to equality, dignity, privacy, and non-discrimination at par with all other citizens.
- ❖ **The Transgender Persons (Protection of Rights) Act, 2019:** To give legislative backing to the *NALSA* judgment, Parliament enacted the Transgender Persons (Protection of Rights) Act, 2019, which came into effect on 10 January 2020. It remains the central law guiding rights and welfare for transgender

persons.

▪ **Key Features of the Act**

- » **Inclusive Definition:** The Act recognises transgender men, transgender women, genderqueer individuals, persons with intersex variations, hijras and others—irrespective of surgery or hormonal intervention.
- » **Anti-Discrimination Safeguards:** No discrimination is permitted in education, employment, healthcare, movement, residence or access to public services.
- » **Right to Self-Identity:** Individuals may obtain a Certificate of Identity through the District Magistrate. A revised certificate can be issued after gender-affirming surgery.
- » **Welfare Obligations of the Government:** The Act mandates social security programmes, health facilities, rescue support, and rehabilitation services.
- » **Employment-Related Measures:** Organisations must appoint a complaint officer, ensure non-discrimination, and provide equal opportunities.
- » **Education and Skill Development:** Focus on inclusive education, vocational training, and scholarships.
- » **Healthcare Provisions:** Government hospitals must offer counselling, gender-affirming healthcare, and insurance coverage.

❖ **Transgender Persons (Protection of Rights) Rules, 2020:** The Rules operationalise the 2019 Act and require:

- » Transgender Protection Cells in every State/UT to monitor offences
- » Transgender Welfare Boards for policy implementation
- » Time-bound procedures for issuing identity certificates
- » Currently, 20 States/UTs have established Protection Cells and 25 States/UTs have formed Welfare Boards.

❖ **Institutional Support:** National Council for Transgender Persons: Constituted in 2020, the National Council for Transgender Persons functions like a national advisory and

monitoring body. It includes representatives from the community, central ministries, NHRC, NCW, states, and experts.

❖ **Core Functions**

- » Advising on policies and legislation
- » Monitoring implementation of welfare schemes
- » Coordinating between ministries
- » Addressing grievances
- » Reviewing programmes and identifying gaps
- » The Council is an essential link between the community and the government.

Major Government Schemes:

❖ **National Portal for Transgender Persons (2020):** A multilingual platform enabling online applications for identity certificates and access to welfare schemes. The end-to-end digital process increases transparency and removes physical barriers.

❖ **SMILE Scheme (2022):** The scheme focuses on livelihood, education, healthcare, shelter, and rehabilitation.

❖ **Key components include:**

- » Skill development and vocational training
- » Scholarships to prevent school dropouts
- » Medical support, including gender-affirming care
- » Ayushman Bharat TG Plus insurance with coverage of Rs.5 lakh per person
- » Garima Greh shelters providing stay, food, counselling and basic services
- » More than 20 Garima Grehs operate across states, offering safe housing for persons facing abandonment or homelessness.

The Way Forward:

❖ **Effective Implementation of the 2019 Act and 2020 Rules:** States must fully operationalise protection cells, welfare boards, grievance systems and institutional safeguards.

❖ **Strengthen Healthcare Access:** Expanding TG Plus insurance, increasing gender-affirming services in government hospitals, and reducing costs can transform healthcare outcomes.

- ❖ **Integrate Transgender Health into Medical Education:** Mandatory training for doctors, nurses, counsellors and administrators is essential to ensure sensitive and informed care.
- ❖ **Establish Centres of Excellence:** Specialised institutions for research, surgery, counselling, and community support can position India as a global leader in trans healthcare.
- ❖ **Improve Documentation Systems:** Simplified procedures for updating gender in Aadhaar, PAN, passports and academic records are crucial.
- ❖ **Create a National Strategy with Higher Funding:** A coordinated, long-term strategy backed by financial commitment can address structural challenges around livelihood,

health, housing, and social protection.

- ❖ **Revisit Access to Reproductive Technologies:** The debate triggered by the Kerala High Court petition highlights the need to update laws to reflect diverse family structures. Ensuring reproductive autonomy aligns with constitutional values of dignity and equality.

Conclusion:

The ART case before the Kerala High Court is a reminder that the rights of transgender persons are still evolving. India has made significant progress from constitutional recognition in 2014 to dedicated welfare schemes, digital inclusion, and policy reforms today. Yet true empowerment requires that these protections translate into lived reality.

Short Issues

Supreme Court on Buying and Selling Property in India

Context:

The Supreme Court of India, in a landmark judgment, described buying and selling property in India as a “traumatic” experience, highlighting that property disputes account for 66% of civil litigation in Indian courts. The Court recommended modernising property laws and using Blockchain technology to enhance transparency and efficiency in property registration.

Key Observations of the Court:

- **Challenges in Property Transactions:**
 - » Fake documents and land encroachments.
 - » Delays in verification and cumbersome procedures at sub-registrar offices.
 - » Excessive reliance on intermediaries.
 - » Requirement of two witnesses for document verification.
 - » Variability in registration procedures

across states, since land is a State subject under the Constitution.

- **Colonial-Era Laws:** The current system is governed by 19th-century colonial laws, such as the Transfer of Property Act, 1882, the Indian Stamp Act, 1899, and the Registration Act, 1908. The court noted these laws are no longer suited for the modern era.
- **Presumptive vs. Conclusive Title:** The core issue is that registration under the current law provides only presumptive ownership (which can be challenged), not conclusive proof of ownership guaranteed by the state. This places a substantial burden on the buyer to manually verify title histories, making the process unreliable.

Recommendations:

- **Adoption of Blockchain Technology:**
 - » Encode land titles, ownership histories, encumbrances, and transfers on a distributed, immutable ledger.
 - » Enhance the integrity of title records

and strengthen public trust.

- » Integrate cadastral maps, survey data, and revenue records for a single, verifiable framework accessible to authorities and the public.
- **Modernisation of Property Laws:** The Law Commission of India is directed to prepare a report to restructure colonial-era laws, including:
 - » Transfer of Property Act, 1882
 - » Registration Act, 1908
 - » Stamp Act, 1899
 - » **Objective:** Align property laws with modern technology and administrative requirements.

Significance:

- Reduces public hardship and litigation related to property disputes.
- Enhances ease of doing business and investor confidence.
- Integrates technology to ensure transparency, accountability, and trust in the property ecosystem.

Conclusion:

Implementing Blockchain-based property registration and revising archaic property laws could transform India's real estate sector, protect property rights, and reduce court burdens, marking a significant step toward digital governance and institutional reform.

Police Must Provide Written Reasons for Arrest

Context:

The Supreme Court of India recently ruled that police officers and investigating agencies must provide written grounds of arrest to every arrested person as soon as possible, irrespective of the nature of the offence or the statute invoked.

Background:

- The ruling was delivered by a Bench comprising Chief Justice of India B.R. Gavai

and Justice A.G. Masih, which emphasized that the right to be informed of the grounds of arrest is an indispensable facet of Article 22(1) of the Indian Constitution.

- Article 22(1) states that "No person who is arrested shall be detained in custody without being informed, as soon as may be, of the grounds for such arrest."

Key Highlights of the Judgment:

- **Written Grounds Mandatory:** Police must furnish written reasons for arrest to the accused at the time of arrest or as soon as practicable thereafter, regardless of the offence or law involved — including under the Bharatiya Nyaya Sanhita (BNS) and other special statutes.
- **Exceptional Circumstances:** In rare or urgent situations where providing written grounds immediately is not feasible, police may communicate the grounds orally to the accused.
- **Timeline for Written Grounds:** Even in such exceptional cases, written grounds must be supplied within a reasonable period, and no later than two hours before the accused is produced before the magistrate for remand proceedings.

Significance of the Judgment:

- **Strengthens Due Process:** Reinforces the constitutional promise of fair procedure and protection against arbitrary detention.
- **Enhances Accountability:** Written documentation of arrest grounds creates a record that can be scrutinized by courts and oversight bodies.
- **Protects Fundamental Rights:** Upholds Article 21 (Right to Life and Personal Liberty) and Article 22(1) as cornerstones of criminal justice.
- **Aligns with Global Norms:** Echoes international human rights standards, such as Article 9(2) of the International Covenant on Civil and Political Rights (ICCPR), which mandates that any arrested person must be informed promptly of the reasons for arrest.

Conclusion:

The Supreme Court's ruling is a progressive step toward reinforcing the rule of law and protecting individual liberty. By mandating written grounds for arrest, the Court has strengthened the procedural safeguards that prevent misuse of police powers and ensure transparency in the criminal justice system.

Great Nicobar Project

Context:

The Andaman and Nicobar Islands Administration recently created a GIS map to help identify areas for the denotification and renotification of tribal reserve land on Great Nicobar Island to support the mega-infrastructure project.

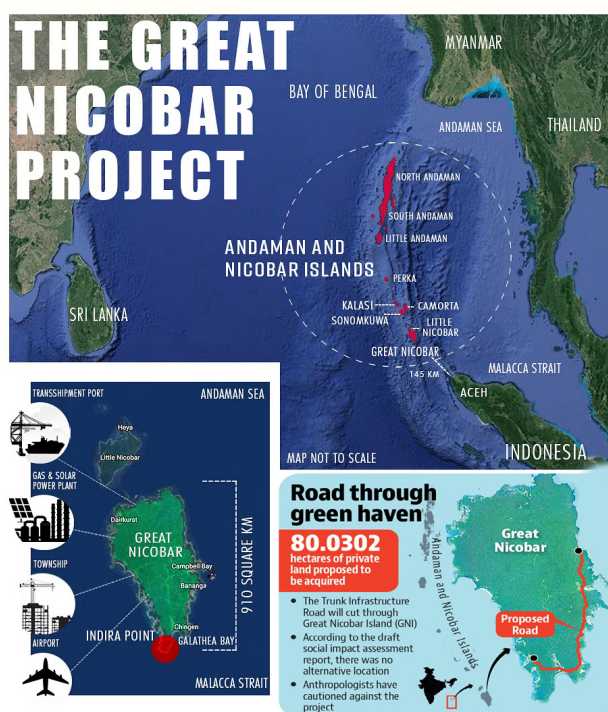
About Great Nicobar Island (GNI) Project:

- The GNI Project, conceived by NITI Aayog and launched in 2021, is a Rs.92,000-crore mega infrastructure plan to develop:
 - » An International Container Transshipment Terminal (ICTT)
 - » A Greenfield International Airport
 - » A Township
 - » A Gas-Solar Power Plant
- It is implemented by the Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO) and aligns with India's Maritime Vision 2030 and Amrit Kaal Vision 2047.

Why is the project strategically significant?

Aspect	Importance
Transshipment Hub	Reduces India's dependence on ports like Singapore and Colombo; integrates India into global supply chains.
Airport	Enhances civilian connectivity, tourism, and dual-use defence capability.

	Great Nicobar lies near the Malacca, Sunda, and Lombok Straits—key global trade routes. It is equidistant from Colombo, Port Klang, and Singapore, making it ideal for regional maritime dominance.
Maritime Security	Strengthens India's presence in the Indo-Pacific and Indian Ocean Region (IOR), countering piracy, trafficking, and strategic rivalries (notably with China).
Policy Alignment	Supports Act East Policy (2014) and the QUAD's Indo-Pacific strategy, enhancing regional cooperation.



Legal and Environmental issues:

- Any denotification of tribal reserve land requires prior settlement of forest rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA).
- The forest and environmental clearances for the project, granted in 2022, have also

been challenged before various courts and tribunals, primarily on grounds of ecological fragility and violation of tribal rights.

Significance of Great Nicobar's geography:

- It is the largest island in the Nicobar group (910 sq. km).
- Hosts Indira Point, India's southernmost tip, only 90 nautical miles from Sumatra, Indonesia.
- Contains two national parks and the Great Nicobar Biosphere Reserve, recognised under UNESCO's Man and Biosphere (MAB) Programme (2013).
- Home to Shompen (a Particularly Vulnerable Tribal Group, PVTG) and Nicobarese communities.

Conclusion:

The Great Nicobar Island Project represents a convergence of strategic ambition, economic modernization, and regional integration. Its success depends on balancing national security and development goals with tribal rights and environmental stewardship—a test case for India's sustainable development model in the Indo-Pacific.

Guidelines for AI Governance in India

Context:

India recently announced comprehensive guidelines for governance of AI, proposed by the Ministry of Electronics and Information Technology (MeitY) under the IndiaAI Mission,

Key features of the Guidelines:

- **Seven "Sutras" (Guiding Principles):** The moral foundation of the framework rests on seven guiding principles or sutras, ensuring balance between innovation and safety:
 - » **Trust is Fundamental** – Public trust through the AI value chain.
 - » **People First** – Human oversight and ethical design.
 - » **Fairness and Equity** – Reduce bias,

promote inclusion.

- » **Innovation over Restraints** – Encourage experimentation responsibly.
- » **Accountability** – Clear roles for developers, deployers, and regulators.
- » **Understandable by Design** – AI should be explainable and transparent.
- » **Safety, Resilience & Sustainability** – Ensure reliability and environmental responsibility.
- These sutras create the ethical base for India's vision of "AI for All" and Viksit Bharat 2047.

Six Pillars of Governance:

- The framework structures its recommendations around six key pillars:
 - » **Infrastructure:** Expanding GPU clusters (38,000 GPUs), creating AI Kosh (a national AI repository), and offering subsidized access to compute resources.
 - » **Capacity Building:** Training citizens and officials via IndiaAI FutureSkills and FutureSkills PRIME, focusing on Tier-2 and Tier-3 cities.
 - » **Policy and Regulation:** Using existing laws (IT Act, DPDP Act, Consumer Protection Act) instead of a new AI law, with regular reviews.
 - » **Risk Mitigation:** Establishing a national AI Incident Database to log deepfakes, algorithmic bias, and other AI-related harms.
 - » **Accountability:** Forming three core institutions:
 - AI Governance Group (AIGG) for policy coordination.
 - Technology & Policy Expert Committee (TPEC) for expert input.
 - AI Safety Institute (AISI) for testing and certification.
 - » **Institutions:** AISI will act as India's AI watchdog, ensuring safety standards, bias mitigation, and representation in global forums.

Action Plan: Short, Medium, Long Term

- The guidelines set out a phased roadmap:
 - » **Short-term (0-2 years):** Establish institutional bodies; develop India-specific risk frameworks; finalize liability regimes & grievance mechanisms; build sectoral capacity.
 - » **Medium/Long-term (5+ years):** Institutionalise AI safety testing and certification; align domestic norms with international standards; deepen India's leadership role (especially for the Global South) in "AI for All".

Implications for India:

- **Opportunities:**
 - » Positions India as a global AI governance model for emerging economies.
 - » Encourages inclusive innovation and capacity building across all sectors.
 - » Boosts digital trust and ethical AI adoption.
- **Challenges:**
 - » Ensuring effective implementation and coordination among new institutions.
 - » Addressing the fast pace of AI innovation without slowing growth.
 - » Managing voluntary compliance since no standalone AI law exists.
 - » Balancing data access for startups and protecting user privacy.

Conclusion:

India's AI Governance Guidelines are a significant step towards ensuring responsible innovation and development of AI in the country. The guidelines provide a comprehensive framework for AI governance, emphasizing transparency, accountability, and safety. By adopting a flexible and adaptive approach, India can promote innovation while protecting its citizens and ensuring that AI benefits society as a whole.

Tussle Over Tribunals

Context:

The Supreme Court of India recently struck

down several provisions of the Tribunal Reforms Act, 2021 for violating constitutional norms governing the independence and functioning of tribunals.

Background of the Conflict:

- The dispute began in 2017 when the Finance Act empowered the Centre to frame rules for tribunals. However, the Supreme Court struck down these rules in 2019, citing undermined judicial independence.
- Despite this, the Centre promulgated a tribunal act, fixing the tenure of tribunal members at four years and setting a minimum appointment age of 50 years.

Key Judicial Findings:

- **Executive Dominance Undermines Judicial Independence**
 - » The Court found that the Act enabled:
 - Excessive executive control over appointments of tribunal chairpersons and members
 - Government discretion in fixing salaries and service conditions
 - Arbitrary curtailment of tenure
 - » These were held to be fundamentally inconsistent with the constitutional requirements for an independent and impartial tribunal system.
- **Legislative Override is Impermissible**
 - » The Court rejected the government argument that Parliament was free to disregard Supreme Court judgments.
 - » The Chief Justice held that Parliament cannot re-enact invalidated measures, except to cure the constitutional defect identified by the Court.
 - » The Act amounted to a "legislative override" of a binding judgment, which violates the principles of judicial review—part of the basic structure.

Establishment of the National Tribunal Commission (NTC):

- The Court stated that tribunals have long suffered from:
 - » inconsistent appointment processes

- » lack of administrative independence
- » inadequate service conditions
- Thus, the Court directed the Union Government to establish a National Tribunal Commission within four months, calling it an “essential structural safeguard.”
- **Role envisioned for NTC:**
 - » Oversee appointments
 - » Ensure transparent selection processes
 - » Maintain uniformity in service conditions
 - » Act as the central administrative authority for tribunals

About Tribunals:

- Tribunals are quasi-judicial bodies set up to provide a faster, more specialized, and cost-effective alternative to regular courts for resolving specific types of disputes.
- They were introduced in India through the 42nd Constitutional Amendment Act, 1976, under Articles 323A and 323B of the Constitution.
 - » **Purpose:** To reduce the burden on traditional courts and ensure speedy justice in specialized areas.
 - » **Nature:** They have judicial powers but are not full-fledged courts; members often include both judicial and technical experts.
 - » **Specialization:** Each tribunal deals with a specific area, such as administration, taxation, or the environment.
 - » **Constitutional Basis:**
 - **Article 323A:** Administrative Tribunals (e.g., for government service matters).
 - **Article 323B:** Other Tribunals (e.g., for taxation, industrial disputes, land reforms).

Conclusion:

The Supreme Court’s decision to strike down provisions of the Tribunal Reforms Act, 2021 marks a decisive reaffirmation of constitutional supremacy and judicial independence. The Court made it clear that executive-heavy tribunal structures cannot coexist with India’s

constitutional vision. By mandating the creation of a National Tribunal Commission, the Court has laid the groundwork for long-term structural reform - ensuring that tribunals remain independent, impartial, and effective instruments of justice.

Digital Personal Data Protection Rules 2025

Context:

On 14 November 2025, the Ministry of Electronics and Information Technology (MeitY) formally notified the rules under the Digital Personal Data Protection Act, 2023 (DPDP Act), thereby operationalising India’s first dedicated legislation for digital personal data protection.

Background:

- The DPDP Act was passed by the Indian Parliament in August 2023.
- However, the Act’s actual enforceability depended on notification of the rules and related administrative mechanisms.
- In January 2025, MeitY released a draft of the rules for public consultation.
- After reviewing feedback, conducting inter-ministerial consultations and industry engagement, the final rules were notified on 14 November 2025.

Key Provisions of the Rules:

- **Obligations on Data Fiduciaries & Consent:**
 - » Organisations (data fiduciaries) must provide clear, itemised notice to users (data principals) about what personal data is collected, for what purpose, and how long it will be retained.
 - » Consent must be verifiable, especially in relation to children or persons with disabilities.
 - » Right to withdraw consent is expressly covered.
- **Data Retention & Deletion:**
 - » The rules impose time-limits on retaining personal data: once purpose

is fulfilled or data becomes inactive, deletion obligations apply.

- » For large platforms (e-commerce, gaming, social media intermediaries), there are stricter timelines for erasure.

▪ **Breach Notification:**

- » In the event of a data breach, fiduciaries must notify the data principal and the adjudicatory body—the Data Protection Board of India (DPB) within 72 hours of becoming aware.
- » The notification must include nature of breach, extent, timing, consequences, and mitigation measures.

▪ **Establishment of Data Protection Board:**

- » The rules formally establish the Data Protection Board of India, headquartered in the National Capital Region (NCR).
- » The Board will consist of four members, including a Chairperson, and will function as the adjudicating body under the Act.

▪ **Transition/Compliance Timeline**

- » Although the rules take effect on notification, entities get an 18-month transition window for full compliance of operational obligations.

Significance and Implications:

- **Operationalising the Act:** With the rules notified, the DPDP Act moves from being a legislative instrument to being enforceable—this triggers accountability of firms handling digital personal data.
- **Strengthening user rights:** The rules put the data principal (user) closer to the centre—consent, deletion, breach awareness and transparency become legally mandated.
- **Enforcement architecture:** The establishment of the Data Protection Board is a key institutional move; it will investigate breaches, adjudicate, and impose penalties under the Act.
- **Global positioning:** India now joins the growing club of jurisdictions with dedicated data protection laws. While different from models like the EU's General Data Protection

Regulation (GDPR), this framework signals India's intent to regulate data accountability and flow.

Draft Seeds Bill, 2025

Context:

On November 13, 2025, the Ministry of Agriculture and Farmers Welfare released the draft Seeds Bill, 2025, inviting public comments until December 11. The Bill aims to overhaul India's seed regulation framework by replacing the Seeds Act, 1966 and introducing stricter penalties- up to Rs.30 lakh in fines and three years' imprisonment-to curb the sale of substandard and unregistered seeds.

Background:

- India's existing seed law (1966) does not mandate compulsory registration of seed varieties.
- Previous attempts to pass new seed legislation in 2004 and 2019 did not materialize.
- Concerns over spurious seeds, crop failures, and farmer losses have highlighted the need for a modern, enforceable regulatory regime.

Key Provisions of the Draft Seeds Bill, 2025:

▪ **Mandatory Registration of Seed Varieties:**

- » Section 13 mandates that no seed of any kind, except:
 - Farmers' varieties
 - Varieties produced exclusively for export)
- » Can be sold for sowing without compulsory registration.
- » Registration will be based on data regarding performance, germination, field trials, and quality.
- » Varieties already notified under the Seeds Act, 1966 will be deemed registered.

▪ **Categorisation of Offences:**

- » The Bill classifies offences into three categories:
 - Trivial

- Minor
- Major
- » Major offences include:
 - Supplying spurious seeds
 - Selling seeds of non-registered varieties
 - Conducting seed business (dealer, distributor, producer, processor, nursery) without registration
- **Penal Provisions:**
 - » For major violations:
 - Fine up to Rs.30 lakh
 - Imprisonment up to 3 years
 - » These stricter penalties are aimed at deterring malpractices that jeopardise crop outcomes and farmer livelihoods.
- **Regulation of Seed Quality and Imports**
 - » The Bill seeks to:
 - Regulate quality standards for all seeds sold domestically
 - Ensure quality control of imported seeds
 - Enable a more transparent seed supply chain
 - » The objective is to ensure farmers have reliable access to high-quality seeds suitable for diverse agro-climatic conditions.

Significance:

- **Farmer Protection:** Prevents financial losses due to seed failure and adulteration.
- **Modernization of Seed Sector:** Updates a nearly 60-year-old law to address current challenges such as hybrid seeds, private R&D, and technological claims.
- **Accountability:** Mandates registration and traceability, holding seed companies responsible for quality.
- **Market Discipline:** Strong deterrence against spurious seed traders, improving credibility of seed markets.

Concerns & Challenges:

- Small seed producers may face higher compliance burdens.
- Registration and certification processes

must be speedy to avoid delays in bringing new varieties to market.

- Effective enforcement will require strengthened labs, inspectors, and coordination with state agencies.

Conclusion:

The Seeds Bill, 2025 represents a significant reform aimed at ensuring seed quality, protecting farmers, and promoting transparency in the seed sector. With stringent penalties and mandatory registration, the proposed legislation seeks to modernise India's agricultural input governance. Its success, however, will depend on balanced implementation, adequate infrastructure, and stakeholder cooperation.

National Food Security Act

Context:

The Government of India recently removed nearly 2.25 crore ineligible beneficiaries from the National Food Security Act (NFSA) ration card rolls. This comes amid the ongoing implementation of the Free Monthly Ration Scheme, which provides 5 kg of free food grains per person every month to eligible households.

Reasons for Removal:

The Union Food and Public Distribution Department identified several categories of ineligible beneficiaries:

- **Individuals with assets/income beyond eligibility limits:**
 - » Owners of four-wheelers
 - » Households with a monthly income above the state-prescribed ceilings
 - » Directors of registered companies
- **Deceased individuals:**
 - » Many names continuing in ration lists even after death were removed following field verification.
- **Data discrepancies detected through central databases:**
 - » The Centre shared flagged lists with states for on-ground verification. The deletions were made only after state-

level scrutiny.

About the NFSA Act:

- Enacted in 2013, the National Food Security Act (NFSA) covers:
 - » 75% of the rural population
 - » 50% of the urban population
- Altogether, about 813.5 million people are covered under the NFSA Act based on the 2011 census.
- NFSA beneficiaries fall into two main categories:
 - » **Antyodaya Anna Yojana (AAY)**
 - For the “poorest of the poor”
 - 35 kg of food grains per family per month
 - » **Priority Households (PHH)**
 - For vulnerable households identified by states
 - 5 kg per person per month
- As of today, India has:
 - » 19+ crore ration cards
 - » 5 lakh Fair Price Shops (FPS) across states and UTs

Role of State Governments:

- Although the Central Government manages procurement and distribution through the Food Corporation of India (FCI), it is the states that:
 - » Identify eligible beneficiaries
 - » Issue ration cards
 - » Delete ineligible names
 - » Ensure doorstep delivery of grains to FPSs
- Thus, the cleansing exercise required substantial coordination between the Centre and the states.

Significance of the Cleansing exercise:

- **Prevents subsidy leakage:** With food subsidy accounting for one of the Government's largest welfare expenditures, removing non-eligible individuals is fiscally essential.
- **Enables inclusion of genuine poor:** The deletion of 2.25 crore ineligible names opens space for 79 million uncovered but eligible individuals, especially in aspirational

districts and newly formed households.

- **Enhances scheme credibility:** Ensuring accurate beneficiary lists strengthens public trust in NFSA and aligns with broader digital governance efforts such as Aadhaar authentication and real-time FPS monitoring.
- **Supports food security goals:** Targeted distribution ensures that the most vulnerable groups—women-headed households, elderly, landless labourers, migrants—receive stable access to food grains.

Concerns Raised:

- While the clean-up is aimed at transparency, some policy concerns remain:
 - » Risk of wrongful exclusion of poor households without proper documentation or those living in remote tribal regions.
 - » Dependence on 2011 Census population data, which may underestimate current food demand.
 - » Variation in state criteria, as NFSA allows states to set their own eligibility rules, leading to inconsistencies.

ART Act Excludes Transgender Persons

Context:

The Union Government recently informed the Kerala High Court that transgender persons are not eligible to avail Assisted Reproductive Technology (ART) under the current ART (Regulation) Act, 2021 and its Rules. The submission came in response to a petition filed by a trans man seeking permission to cryo-preserve his gametes for future reproduction.

Government's Stand before the High Court:

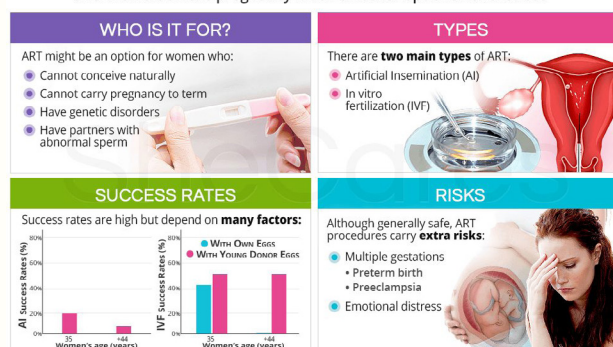
- The Union Government, in its affidavit, defended the exclusion, arguing that extending ART services to transgender individuals is a policy matter. The

government said it must assess the welfare of children born through ART and that such decisions require expert inputs.

- Further, the government pointed out that adoption laws already restrict unmarried and queer couples from adopting, linking ART access to wider social and regulatory concerns.
- The Kerala High Court has adjourned the matter, giving the petitioner time to file a reply to affidavit.

Assisted Reproductive Technology (ART)

With its growing use, ART has helped **millions of infertile couples around the world** achieve pregnancy when all other options have failed.



About ART (Regulation) Act, 2021:

- The Assisted Reproductive Technology (Regulation) Act, 2021 (ART Act) was enacted to regulate fertility clinics, gamete banks, and ART procedures, ensuring ethical practices and protecting the rights of donors and recipients.
 - » According to the Act's definitions, "commissioning couple" refers to a married infertile couple.
 - » The Act uses the gender-specific term "woman" in its definition of eligible recipients.
 - » Under the Act, ART services are explicitly available only to (a) infertile married couples, and (b) single women.
 - » Thus, single men, unmarried couples, live-in couples, LGBTQ+ individuals, and transgender persons are effectively excluded from accessing ART under this law.

Broader Issues and Implications:

- **Gaps Between ART Laws and Transgender Rights**
 - » While the Transgender Persons (Protection of Rights) Act, 2019 recognizes the rights of transgender individuals, including equality and non-discrimination, the ART Act:
 - Does not incorporate gender-inclusive reproductive rights, and
 - Adopts a heteronormative and binary understanding of family structures.
 - » This creates legal inconsistencies in India's rights-based framework.
- **Reproductive Autonomy vs. Legislative Design**
 - » The case raises crucial questions:
 - Does a transgender person have the right to reproductive autonomy under Article 21?
 - Should reproductive technologies be restricted based on gender identity?
 - Can legislative intent override evolving social realities and constitutional protections?
- **Child Welfare Considerations**
 - » The government argues that:
 - ART regulations aim to safeguard the psychological and social well-being of children born through reproductive technologies.
 - Policy expansion must be based on expert evaluation, not judicial direction.

Conclusion:

The ongoing case highlights the tension between individual rights, legislative intent, and societal norms in India's reproductive rights landscape. As the Kerala High Court continues to hear the matter, the debate is likely to spark broader discussions on gender-inclusive policies, the scope of reproductive autonomy, and the harmonization of various laws governing family and child welfare. The outcome may have far-reaching implications for reproductive justice

and transgender rights in India.

Assam Prohibition of Polygamy Bill 2025

Context:

The Assam Assembly recently passed the Assam Prohibition of Polygamy Bill, 2025, aimed at penalising individuals who enter into a second marriage without legally dissolving the first.

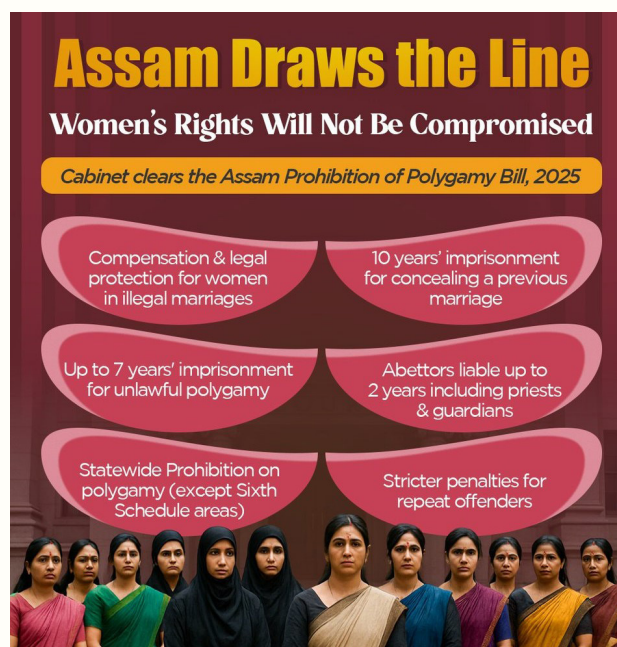
Key Provisions of the Bill:

- **Definition of Polygamy**
 - » The Bill defines polygamy as contracting a marriage while a previous marriage is still subsisting (i.e., the spouse is not divorced, annulled, or legally separated).
 - » It also covers concealed existing marriages - if someone hides their prior marriage when contracting a new one, that becomes an aggravated offence.
- **Punishment**
 - » **First offence:** Up to 7 years of imprisonment, and a fine. If the person concealed a prior marriage: Up to 10 years imprisonment.
 - » **Repeat offences:** The Bill proposes "double the punishment" compared to the previous conviction.
- **Penalties for Facilitators**
 - » Persons who solemnise illegal marriages (priests, qazis): Up to 2 years imprisonment or a fine (up to Rs.1.5 lakh).
 - » Guardians, parents, village heads, quazis who conceal or abet: Up to 2 years jail, plus fine up to Rs.1 lakh.
- **Civic Disqualification**
 - » Those convicted will be disqualified from public employment (state aided), state government schemes, and from contesting in Panchayat / Municipal / Local Body elections.
- **Extra Territorial Application**
 - » Even if a person resident of Assam marries outside the state, the Bill

proposes to apply, if that marriage violates the law.

Exemptions and Scope:

- The Bill will not apply to members of Scheduled Tribes (ST) as defined under Article 342 of the Indian Constitution.
- It also exempts areas under the Sixth Schedule of the Constitution, including autonomous regions like the Bodoland Territorial Region, Karbi Anglong, and Dima Hasao.



About Polygamy:

- Polygamy is the practice of having more than one spouse at the same time, with the most common forms being polygyny (a man with multiple wives) and polyandry (a woman with multiple husbands).
- It also includes group marriage, where multiple men and women are married to each other.

Implications of the Bill:

- If passed, Assam would become one of the first states to criminalise polygamy explicitly (beyond existing bigamy provisions under general law), setting a precedent for state-level personal law reform.

- The Bill could empower women by giving them legal remedies (prison terms for offenders + financial compensation) — potentially reducing exploitation in informal or unregistered marriages.
- Politically, the Bill may deepen debates around personal law reform, secularism, and the role of state intervention in marriage practices.
- The scheme aims to build a domestic manufacturing capacity of 6,000 Metric Tonnes Per Annum (MTPA) of REPM.
- Financial support is divided into:
 - » Sales linked incentives worth Rs.6,450 crore over five years, to incentivize production and sales of REPMs.
 - » Capital subsidy of Rs.750 crore to support the establishment of manufacturing facilities.

Cabinet Approves Rare-Earth Magnet Scheme

Context:

On 26 November 2025, the Union Cabinet of India approved 'Scheme to Promote Manufacturing of Sintered Rare Earth Permanent Magnets (REPM)' worth Rs. 7280 crore, to promote domestic manufacturing of sintered Rare Earth Permanent Magnets (REPM). The initiative marks India's first comprehensive drive to build an end to end magnet production ecosystem.

Why the Policy Matters:

- REPMs — powerful magnets made from rare earth elements — are critical components in high growth, high technology sectors: electric vehicles (EVs), renewable energy (wind turbines), defence, aerospace, electronics, medical equipment, and more.
- Until now, India has depended on imports to meet its REPM demand. This reliance poses a strategic vulnerability, especially in the wake of recent global supply disruptions and export restrictions imposed by leading suppliers - particularly in China, which dominates REPM refining and processing worldwide.
- With demand for REPMs expected to double by 2030, the new scheme seeks to ensure supply chain security, reduce import dependence, and support India's growing ambitions in clean energy, advanced manufacturing, and defence.

Key Features of the scheme:

- The overall scheme spans seven years, including a two-year gestation period for plant set-up and five years for incentive eligibility.
- The manufacturing facilities supported under this scheme will cover the full value chain: from converting rare-earth oxides to metals, metals to alloys, and finally producing finished permanent magnets.

SCHEME TO PROMOTE MANUFACTURING OF SINTERED RARE EARTH PERMANENT MAGNETS

- Cabinet approves the Scheme to Promote Manufacturing of Sintered Rare Earth Permanent Magnets (REPM)
- Financial Outlay: ₹ 7280 crore
- First-of-its-kind initiative by the Government of India to promote REPM ecosystem, enhancing self-reliance and positioning India as a key player in the global REPM market
- The scheme to promote domestic manufacturing of 6,000 MTPA of sintered REPM, strengthen key supply chains and support India's Net Zero 2070 commitment
- India's consumption of REPMs expected to double by 2030 from 2025



Anticipated Impacts:

- **Supply chain security and self reliance:** With domestic REPM production, India can insulate critical industries (EVs, defence, aerospace, renewables) from global supply shocks and geo political risks associated with import dependence.
- **Boost to high technology manufacturing:**

Establishing REPM plants will catalyse growth in ancillary sectors — mining, alloy processing, advanced materials — and support India's broader push for advanced manufacturing and clean-tech adoption.

- **Employment and investment:** Implementation of the scheme can generate jobs in manufacturing, supply chain logistics, and downstream industries, while attracting investments in high tech fabrication.
- **Support for energy transition and Net Zero commitment:** As India accelerates deployment of green technologies (EVs, renewable energy), domestic REPM supply will be critical. This aligns with national targets such as achieving Net Zero emissions by 2070.

Conclusion:

The Rs.7,280 crore REPM scheme marks India's shift from importer to global manufacturer of rare earth magnets, enhancing strategic autonomy, supply chain security and growth in EVs, clean energy, defence and high tech sectors. By combining incentives, competitive bidding, and a full value chain ecosystem, it could become a cornerstone of "Make in India" and "Atmanirbhar Bharat," driving a sustainable, high growth, technologically advanced economy by 2047.

One Nation, One Election

Context:

The 23rd Law Commission recently told Joint Parliamentary Committee (JPC) that the ONOE Bills do not violate the basic structure of the Constitution — particularly federalism and the right of the voter.

Background:

- In December 2024, the government introduced two bills — the Constitution (One Hundred and Twenty Ninth Amendment) Bill, 2024 and the Union Territories Laws (Amendment) Bill, 2024 — collectively referred to as the One Nation, One Election

(ONOE) Bills, aiming to synchronise elections to the Lok Sabha and State/Union Territory legislatures.

- To examine these bills, the Parliament constituted a Joint Parliamentary Committee (JPC), chaired by MP P. P. Chaudhary.

Key Positions of the Law Panel / Legal Support for ONOE:

- **Constitutional Validity — Basic Structure Doctrine**
 - » The Law Commission holds that synchronising elections affects only the timing of elections (frequency/duration), not the right to vote or representation. Thus, the ONOE Bills do not violate the constitutional "basic structure."
 - » Accordingly, the panel opines that the amendment does not require ratification by states, as it does not touch the subject matters under Article 368(2)(a)–(e).
- **Legislative and Practical Flexibility**
 - » The Commission notes that the five-year term of legislatures (Articles 83 & 172) is not an absolute or rigid limit; the Constitution itself allows early dissolution or emergency-based extension. Therefore, altering the schedule of elections via a constitutional amendment is legally permissible.
 - » In its submission to the JPC, the panel argues that the benefits — reduced frequency of polls, savings of time and public resources, stability in governance — outweigh the trade-offs involved in adjusting the electoral calendar.

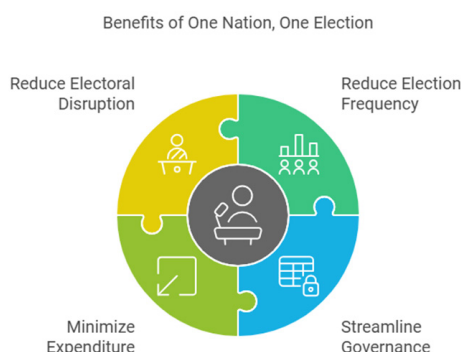
About Simultaneous elections:

- Simultaneous elections, popularly referred to as One Nation, One Election (ONOE), denote a system where elections to the Lok Sabha and all State Legislative Assemblies are held within the same electoral cycle.
- Importantly, "simultaneous" does not mean voting across India on a single day; elections may still be conducted in multiple phases, as done currently, but all legislatures would

have aligned terms.

Historical Context:

- In India's first four general election cycles (1952, 1957, 1962, 1967), elections to the Lok Sabha and all state assemblies were held together.
- This synchronisation broke down after 1967 due to:
 - » Premature dissolutions of the Lok Sabha,
 - » Frequent collapse of State governments,
 - » Use of President's Rule,
- leading to electoral cycles drifting apart and resulting in the staggered election system seen today.



Constitutional Amendments required:

- Implementation requires amendments to:
 - » Articles 83 & 172 (terms of LS and State legislatures),
 - » Articles 85, 174 (dissolution powers),
 - » Tenth Schedule (anti-defection law adjustments),
 - » Enabling provisions for extending/curtailing the terms of legislatures once, to achieve synchronisation.

Rationale behind the Proposal of ONOE:

- **Governance Efficiency:** Frequent MCC imposition stalls development work. ONOE reduces administrative interruptions.
- **Cost Reduction:** Frequent elections require large financial and human resources. A synchronised system significantly reduces expenditure.

- **Policy Continuity:** Governments can focus on long-term policies instead of being in constant election mode.
- **Reduced Political Polarisation:** Continuous elections magnify polarisation and populism. ONOE may encourage more stable policy debates.

Concerns and Criticisms:

- **Federalism Concerns**
 - » Critics argue ONOE undermines:
 - » States' legislative autonomy,
 - » Their right to independent electoral cycles,
 - » Cooperative federal structure.
- **Practical Feasibility**
 - » Frequent imposition of President's Rule or unstable coalitions could destabilise synchronisation.
 - » Replacement governments may not always be possible.
- **Excessive Executive Centralisation**
 - » A unified election could lead to:
 - » National issues overshadowing local concerns,
 - » Dominance of national parties at the expense of regional representation.
- **Logistical & Financial Burden Initially**
 - » Mass procurement of EVMs/VVPATs, security deployments, and administrative preparations require huge upfront investment.

Independent Regulator for Online Content

Context:

The Supreme Court of India recently stressed the need for an autonomous, independent regulator for online content, especially social media and user generated content (UGC). The Court observed that self-regulation by platforms has failed and suggested robust age-verification and content rating systems to prevent minors' access to obscene or harmful material.

Background:

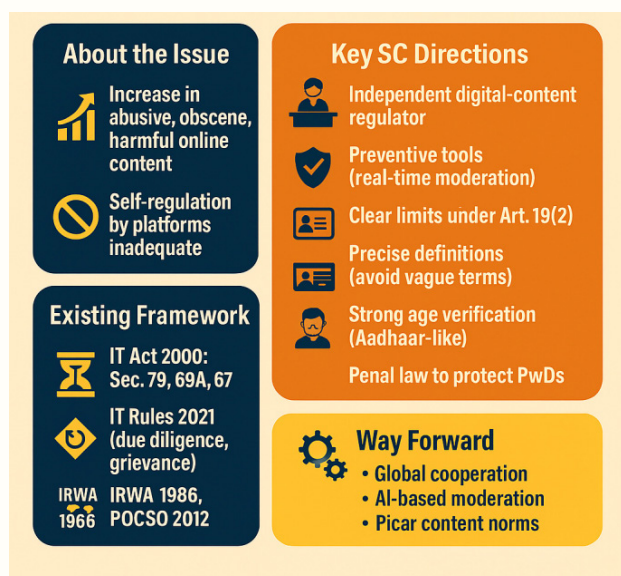
- Rapid growth of UGC platforms (YouTube, social media, blogs) and OTT services has transformed content consumption in India.
- Traditional regulatory frameworks for print, television, or cinema are ill-suited for the borderless, fast-evolving digital ecosystem.
- IT Rules, 2021 envisioned a three-tier grievance redressal system, but many platforms still rely on self-regulation, which has been criticized as ineffective in controlling:
 - » Obscene content
 - » Defamatory material
 - » Hate speech
- Recent controversies — viral obscene/offensive content targeting women, minorities, and persons with disabilities (PwDs) — have intensified calls for stronger oversight.
- **Protection of Vulnerable Groups:** Content mocking PwDs or marginalised communities may require penal mechanisms similar to SC/ST Act protections.
- **Core Principle:** Free speech under article 19 of the Indian constitution must coexist with dignity, morality, and protection of minors and vulnerable groups.

Challenges & Concerns:

- **Free Speech & Over-regulation:** Risk of chilling legitimate expression, especially satire, commentary, or art.
- **Privacy & Data Protection:** Aadhaar/PAN-based age verification raises privacy concerns and potential misuse of personal data.
- **Implementation Challenges:** Vast, dynamic digital ecosystem makes compliance logistically difficult, especially for small creators vs. large platforms.
- **Judicial & Regulatory Overreach:** Risk of arbitrariness in judging morality, community standards, or anti-national content in a pluralistic society.
- **Innovation & Creativity:** Strict controls may stifle independent creators, alternative journalism, and dissenting voices.

Conclusion:

In the digital age, unregulated online content poses risks to minors, social harmony, and public morality. The Supreme Court's call for an independent regulator acknowledges that self regulation is insufficient. Success depends on balancing protection of vulnerable groups with free speech, creativity, and privacy. With clear rules, transparency, stakeholder input, and strong safeguards, India can build a responsible, rights-respecting framework for digital content governance.



Supreme Court's Proposals:

- **Independent Regulator:** The Court stated “self-styled bodies will not be effective” and recommended a neutral, autonomous body for online content regulation.
- **Age Verification:** Suggested using Aadhaar or PAN to ensure minors do not access adult or obscene content; simple pop-up warnings are insufficient.



International Relations

G20 Summit 2025 in Johannesburg: Outcomes, Challenges and India's Perspective

Introduction:

The 2025 G20 Leaders' Summit in Johannesburg was significant for many reasons. It was the first time the G20 convened in Africa, the United States boycotted the meeting entirely, and the final declaration was drafted without American participation. Despite these unusual circumstances, the attending members adopted the 122-paragraph declaration unanimously. The document emphasised multilateral cooperation, representation for the Global South, and reforms in global governance structures.

For India, the summit was an important platform to carry forward the priorities of its 2023 presidency—sustainable development, counterterrorism, capacity-building for the Global South, and reforms in the United Nations Security Council (UNSC). The summit also highlighted new geopolitical tensions: muted references to global conflicts, sharp divergence on climate commitments, and widening gaps between the Global North and the Global South.

What Is the G20?

- ❖ The G20 is an informal platform consisting of 19 major economies along with the European Union and the African Union. Together, they represent around:
 - » 88% of global GDP
 - » 78% of global trade
 - » Nearly three-fourths of the world's population

- ❖ The G20 was elevated to the heads-of-state level in 2008 following the global financial crisis. Since then, the grouping has broadened its agenda to cover trade, health, climate change, energy, agriculture, digital governance, and global inequality.
- ❖ Unlike the United Nations, the G20 has no permanent secretariat. Its presidency rotates every year and is supported by a “Troika” consisting of the past, present, and incoming presidencies.



Key Highlights of the Johannesburg Declaration:

- ❖ **The Spirit of Ubuntu and Collective Action**
 - » The declaration opened with a

strong reference to Ubuntu, the African philosophy that emphasises interconnectedness and shared responsibility. Leaders committed to multilateral cooperation in a world marked by rising conflict, humanitarian crises, and economic instability.

- » While the document barely mentioned the Russia–Ukraine war and made no explicit reference to the Gaza conflict, it stated that all nations must refrain from using force to acquire territory—an indirect acknowledgement of current global tensions.

❖ Push for Reforming the United Nations Security Council

- » A major emphasis this year was on UNSC reform. The declaration acknowledged that the body does not reflect contemporary geopolitical realities. It called for:
 - Enlarged membership
 - Improved representation of Africa, Asia-Pacific, Latin America, and the Caribbean
 - A “transformative” reform process aligned with 21st-century needs
- » This aligns strongly with India’s long-standing position that the UNSC must become more democratic, representative, and legitimate.

❖ Clear Condemnation of Terrorism

- » India succeeded in ensuring that the declaration included a categorical line: **“We condemn terrorism in all its forms and manifestations.”**
- » Though brief, the line is strategically important because several members often differ on defining and addressing terrorism. The declaration also affirmed the need for compliance with international humanitarian law and protection of civilians.

❖ Focus on Women and Youth

- » The document reaffirmed commitments to:
 - Eliminating economic and social

barriers faced by women

- Supporting women-led development
- Ensuring meaningful participation of women in political and economic life
- » Youth-related commitments included the Nelson Mandela Bay Target, which seeks a 5% reduction in youth not employed, educated or trained (NEET) by 2030.



❖ Climate Action, Green Finance and Just Energy Transitions

- » Despite resistance from the United States, leaders adopted a climate section focusing on:
 - Scaling climate finance from “billions to trillions”
 - Meeting developing countries’ need for USD 5.8–5.9 trillion to implement their climate goals by 2030
 - Tripling global renewable energy capacity
 - Ensuring just energy transitions, particularly in Africa where over 600 million people still lack electricity

- » The summit also welcomed the G20 Critical Minerals Framework, which aims to secure sustainable and transparent supply chains.
- ❖ **Debt Sustainability and Development Finance**
 - » Leaders acknowledged that unsustainable debt in developing nations is constraining growth. They committed to strengthening the G20 Common Framework for predictable and timely debt treatment.
 - » A major financial reform was the creation of a 25th IMF Executive Board chair to enhance Sub-Saharan Africa's representation.
- ❖ **Food Security and Agriculture**
 - » With global hunger estimated at around 720 million people in 2024, the declaration reaffirmed the "Right to Food" and supported smallholder farmers, especially across Africa. It also encouraged regional cooperation through mechanisms like the African Continental Free Trade Area (AfCFTA).
- ❖ **Digital Governance and Artificial Intelligence**
 - » The G20 launched the AI for Africa Initiative, focusing on safe and equitable access to AI technologies. The declaration emphasised:
 - Human rights safeguards
 - Transparency and accountability
 - Preventing misuse in crime and terrorism
- » Intelligence sharing
- » Law-enforcement capacity
- » Fentanyl is an extremely potent synthetic opioid, far stronger than heroin or morphine. It is responsible for a global wave of overdose deaths and has become a critical issue in transnational crime networks.
- ❖ **G20–Africa Skills Multiplier Initiative:** India proposed training 1 million certified trainers in Africa over the next decade. The initiative uses a "train-the-trainer" model to support sectors such as manufacturing, digital services, and healthcare.
- ❖ **Global Traditional Knowledge Repository:** India called for a platform to document and preserve traditional knowledge from across cultures, helping prevent biopiracy while promoting research.
- ❖ **G20 Global Healthcare Response Team:** The proposal aims to build a trained, multinational response force for pandemics and disasters.
- ❖ **Open Satellite Data Partnership:** India advocated sharing satellite data among G20 space agencies, especially to help developing countries improve disaster response, agriculture planning, and environmental monitoring.
- ❖ **Critical Minerals Circularity Initiative:** The focus is on recycling, responsible sourcing, and urban mining to support clean-energy transitions.
- ❖ **Alongside these proposals, India also called for:**
 - » Strict prohibitions on AI misuse
 - » Human oversight in AI systems
 - » Responsible AI frameworks
- ❖ India invited all members to the AI Impact Summit in early 2026.

India's Initiatives at the Summit:

Prime Minister Narendra Modi outlined six major proposals aimed at strengthening cooperation and development across the Global South. These were:

- ❖ **G20 Initiative on Countering the Drug-Terror Nexus:** India flagged the growing threat of narcotics—especially synthetic opioids like fentanyl—as a major source of terror financing. The initiative seeks cooperation on:
 - » Financial tracking
 - » Border management

Challenges Facing the G20:

- ❖ Despite its influence, the G20 faces several limitations:
 - » Geopolitical divisions (Russia–Ukraine, China–West tensions, Middle East conflict)
 - » Lack of enforcement power, as G20

commitments are voluntary

- » Divergent climate responsibilities between developed and developing countries
- » US–China rivalry, which often paralyses negotiations
- » Debt and financing gaps that the G20 has not fully resolved
- » Absence of a permanent institutional structure, which affects continuity
- ❖ The 2025 summit reflected these tensions. The US boycott and muted language on global conflicts underscored deepening fractures within international diplomacy.

Significance of the G20 for India:

- ❖ India sees the G20 as essential for:
 - » Advocating UNSC reforms
 - » Highlighting Global South priorities
 - » Securing commitments on climate finance
 - » Strengthening counter-terror and anti-drug frameworks

- » Expanding technological cooperation
- » Enhancing India's leadership in global governance

Conclusion:

The 2025 G20 Summit took place amid geopolitical turbulence, competing global priorities, and an unprecedented US absence. Still, members managed to adopt a detailed declaration anchored in multilateralism, inclusivity, and sustainable development. For India, the summit offered continuity from its presidency and a platform to shape debates on terrorism, skills, traditional knowledge, critical minerals, and global governance reforms. However, the real test will be implementation. As the next presidency passes to the United States, questions remain about whether a deeply divided international system can sustain collective action. The Johannesburg declaration shows that multilateral platforms still matter—but their success depends on sustained political will, trust, and cooperation among the world's major economies.

Short Issues

India-Bahrain Relations

Context:

India and Bahrain recently held their Fifth High Joint Commission (HJC) meeting in New Delhi on November 3, 2025. Co-chaired by India's External Affairs Minister S. Jaishankar and Bahrain's Foreign Minister Dr. Abdullatif bin Rashid Alzayani, the discussions focused on enhancing cooperation in areas including defence, security, trade, and investment.

Key Outcomes and Developments:

- **Defence and Security:** Both countries are looking to strengthen defence and security collaboration. India and Bahrain also reiterated their commitment to combating terrorism through various forms of cooperation, including intelligence sharing

and capacity building.

- **Trade and Investment:** Negotiations have begun for a Comprehensive Economic Partnership Agreement (CEPA). Progress is being made on a Bilateral Investment Treaty (BIT), and both sides agreed to work towards a Double Taxation Avoidance Agreement (DTAA).
- **Other Areas of Cooperation:** Cooperation in health, space technology, fintech, culture, and tourism were also discussed. India has also introduced an e-visa system for Bahraini nationals to facilitate travel.

Strategic Significance:

- **Regional Security:** Strengthening defence ties helps ensure the security of maritime routes critical for global energy supplies.
- **Geopolitical Balance:** India's growing

engagement with Bahrain enhances its influence in the Gulf, balancing regional power dynamics.

- **Economic Diversification:** Trade and investment talks support India's economic diplomacy while helping Bahrain achieve its economic diversification targets.



About Bahrain–India Relations:

- Formal diplomatic relations between India and Bahrain began soon after Bahrain's independence in 1971. India's embassy in Manama opened in January 1973; Bahrain's embassy in New Delhi opened in March 2007.
 - » Bilateral trade is steadily growing in 2024-2025 was USD 1.64 billion, while two-way investments stand at slightly above USD 2 billion.
 - » Bahrain is a key partner for India in the Gulf region, especially given its role in regional security architecture and its location in the Arabian Gulf.
 - » Cooperation covers maritime security, cyber security, and counter terrorism.
 - » India values Bahrain's support within the Gulf Cooperation Council (GCC) context and views strengthening ties with Bahrain as part of its broader Gulf/Indian Ocean Region strategy.

Conclusion:

The India-Bahrain talks reflect a shared vision of deeper strategic and economic cooperation. By expanding defence collaboration and trade ties, both nations aim to strengthen bilateral relations, promote regional stability, and boost mutual prosperity.

Chabahar Port

Context:

India recently obtained a six-month waiver (exemption) from U.S. sanctions for its activities at the Chabahar Port in Iran. This development comes amid the U.S.'s decision to revoke the earlier waiver (granted in 2018) under the Iran Freedom and Counter Proliferation Act (IFCA), as part of its "maximum pressure" campaign against Iran.

Background:

- The Chabahar Port (in Iran's Sistan-Baluchestan province) is India's strategic gateway to Afghanistan, Central Asia and even potentially Eurasia—it bypasses Pakistan and China-linked routes.
- India signed a 10-year agreement (May 2024) with Iran for India Ports Global Limited (IPGL) to operate the Shahid Beheshti terminal, committing investment.
- Since 2018, the U.S. had provided an exception (waiver) for India's participation in Chabahar under IFCA, recognizing its connectivity & humanitarian dimension.
- On 16 Sept 2025 the U.S. announced the revocation of this waiver effective 29 Sept, warning that entities involved may face sanctions under IFCA.
- After diplomatic engagement, India secured a further six-month exemption from sanctions (from late Oct 2025) enabling operations.

Significance:

- The waiver safeguards India's investment and operations at Chabahar, thereby

protecting its strategic connectivity corridor to Afghanistan & Central Asia.

- It helps maintain the momentum on the International North-South Transport Corridor (INSTC) and reduces reliance on Pakistan-transit routes.
- The move signals India's ability to navigate complex diplomacy, balancing its ties with the U.S., Iran, and regional connectivity goals.
- For the U.S., granting the waiver underlines its recognition of India's role even while pursuing sanctions on Iran, reflecting the flexibility in its sanctions policy.



About INSTC:

- The International North-South Transport Corridor (INSTC) is a large-scale multimodal transport network (sea + rail + road) aimed at connecting India, Iran and Russia (and via them, Central Asia and Europe).
- The agreement for INSTC was signed by St. Petersburg on 12 September 2000 between India, Iran and Russia; it came into force on 16 May 2002.
- The corridor spans about 7,200 km (some sources) linking the Indian Ocean through the Persian Gulf, the Caspian Sea and onward to northern Europe via Russia.

Conclusion:

The six-month U.S. sanctions waiver is a significant diplomatic win for India, protecting a critical strategic investment in the Chabahar

Port and conserving its regional connectivity ambitions. However, this is a temporary relief, and the real test lies ahead in building commercial viability, reducing sanction risk, and forging durable institutional mechanisms to safeguard India's interests.

Rare Earth Elements

Context:

The U.S. President Donald Trump and his Chinese counterpart Xi Jinping recently concluded a summit in South Korea with a deal to keep Chinese rare earth exports flowing.

What Are Rare Earth Elements?

- Rare earths refer to a group of 17 metallic elements in the periodic table — comprising 15 lanthanides along with scandium and yttrium. These metals are silvery-white, soft, and highly reactive.
- Although not geologically “rare,” they are dispersed in low concentrations across the Earth's crust, making extraction and separation both complex and costly.

List of Rare Earth Elements:

- Scandium, Yttrium, Lanthanum, Cerium, Praseodymium, Neodymium, Promethium, Samarium, Europium, Gadolinium, Terbium, Dysprosium, Holmium, Erbium, Thulium, Ytterbium, and Lutetium.

Applications:

- Rare earths are vital due to their unique magnetic, luminescent, and electrochemical properties, which make them irreplaceable in several cutting-edge technologies:
 - » **Electronics:** Found in smartphones, laptops, and television screens.
 - » **Renewable Energy:** Neodymium and dysprosium are essential for high-performance permanent magnets used in wind turbines and electric vehicle (EV) motors.
 - » **Defence and Aerospace:** Critical for fighter jets (like the F-35), missiles, radar

systems, and satellite communication.

- » **Medical and Industrial Uses:** Utilized in MRI machines, oil refining, and catalysts for emission control.
- Even though these elements are required in minute quantities, their absence can halt entire supply chains, as seen when Chinese export restrictions recently caused disruptions in global manufacturing.

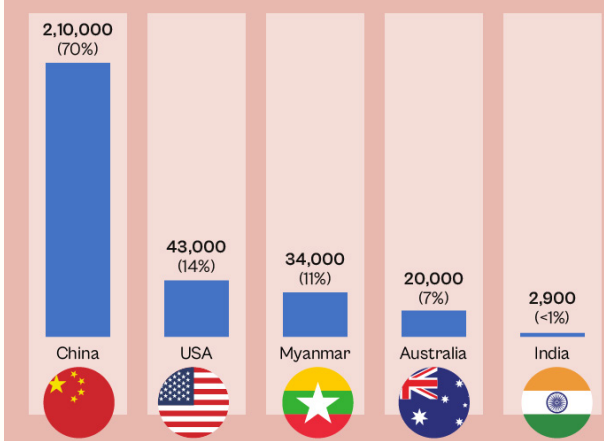
Global Production and China's Dominance:

- Historically, the U.S. pioneered REE processing technologies in the 1950s. However, from the 1980s onwards, China has come to dominate the sector due to:
 - » Low production costs
 - » Lax environmental regulations
 - » Strong government support
- Today, China accounts for ~60% of global mine production and over 90% of refining and magnet output.

Global Rare Earth Elements Production By Country (2023)

Production (Metric Tons)

Figures in bracket are percentage of global production



India and Rare Earths:

- India owns significant reserves, mainly in monazite sands found along the Kerala–Tamil Nadu coast.
- Organisations like Indian Rare Earths Limited (IREL) and Bhabha Atomic Research Centre (BARC) are involved in mining and processing.
- However, challenges such as limited refining capacity and regulatory hurdles hinder

India's emergence as a major player.

Conclusion:

Rare earth elements are the lifeblood of the 21st-century digital and green economy. Their strategic and economic value makes them both a technological enabler and a geopolitical vulnerability. As the world transitions to clean energy and advanced electronics, ensuring sustainable and diversified supply chains—while addressing environmental impacts—will be critical for future global stability and technological progress.

US-China “G2” Meeting

Context:

U.S. President Donald Trump recently met Chinese President Xi Jinping in Busan in what was called the “G2 meeting.” The meeting was described as historic and aimed at building lasting peace and cooperation between the two countries.

About G2 concept:

- The G2 concept, first proposed by economist C. Fred Bergsten in 2005, envisages close U.S.–China cooperation to address global challenges.

Rationale for a G2:

- The strategic rationale for a G2 is grounded in structural realities:
 - » **Economic Power:** The U.S. and China are the world's largest economies and trading nations.
 - » **Global Growth and Governance:** Together, they account for nearly half of global output, bridging developed and emerging economies.
 - » **Environmental Leadership:** Being the largest polluters, joint climate action is critical.
- Proponents such as Zbigniew Brzezinski, Niall Ferguson, Robert Zoellick, and Justin Yifu Lin argue that a cooperative G2 could address financial crises, nuclear

proliferation, regional conflicts, and global governance challenges.

Opportunities:

- A functional G2 could:
 - » Stabilize global trade, finance, and technology supply chains.
 - » Reduce the risk of military escalation in hotspots like the Taiwan Strait and South China Sea.
 - » Accelerate climate action and sustainable development goals.
 - » Provide a platform for joint leadership in multilateral institutions.

Challenges:

- Despite its potential, the G2 faces significant obstacles:
 - » **Strategic Competition:** Rivalry over technology, Taiwan, and rare earth resources limits trust.
 - » **Multipolarity:** Rising powers such as the EU, India, and ASEAN challenge exclusive G2 influence.
 - » **Conceptual Ambiguity:** The G2 is informal; while aspirational, critics like Hillary Clinton question its feasibility.

Implications for India and the World:

- For countries like India, a G2 means strategic diversification—balancing engagement with both superpowers while maintaining autonomy. Globally, the meeting signals the importance of managing U.S.–China competition responsibly to prevent economic disruption and geopolitical instability.

Conclusion:

The Trump-Xi Busan meeting underscores the centrality of U.S.–China relations in shaping the global order. While the G2 remains aspirational, it reflects the need for cooperation amid competition. Its success depends on responsible rivalry management, institutionalized dialogue, and inclusive engagement with broader global stakeholders.

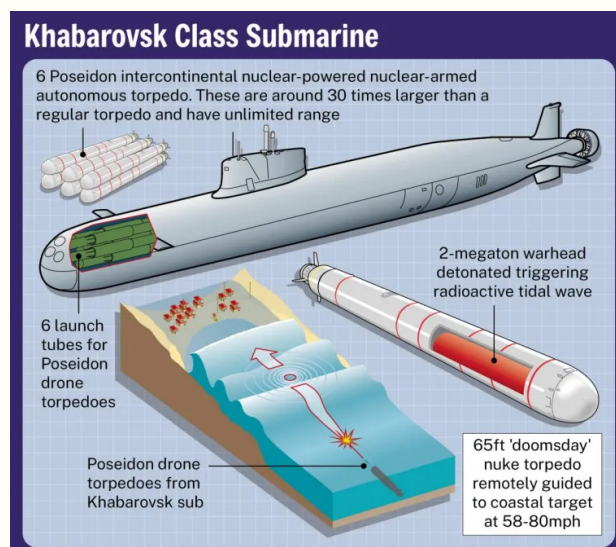
Khabarovsk-Class Submarine

Context:

Russia recently launched a new nuclear-powered submarine, the Khabarovsk class (often simply “Khabarovsk”), designed as a dedicated carrier of the underwater drone/misssile system known as Poseidon–“doomsday” missile.

Key Features:

- The Khabarovsk-class submarine is part of Russia’s Project 09851 and is built by the Rubin Central Design Bureau of Marine Engineering.
 - » It is capable of carrying up to six Poseidon nuclear-powered underwater drones, each capable of delivering a multi-megaton nuclear warhead.
 - » The Poseidon is not a traditional missile but a nuclear-powered, autonomous underwater vehicle (AUV) designed to travel thousands of kilometres underwater at great depths, beyond the reach of conventional anti-submarine defences.
 - » Russian officials claim it can generate a radioactive tsunami, devastating coastal cities and infrastructure.



Strategic Significance:

- **Enhanced Second-Strike Capability:** The

Poseidon system provides Russia with a new leg of deterrence, supplementing its land-based ICBMs and air-launched nuclear weapons. As a stealthy, autonomous weapon, it ensures a survivable retaliatory strike option even after a nuclear first strike by adversaries.

- **Maritime Power Projection:** The Khabarovsk enhances Russia's ability to threaten adversary coastlines, especially in the Atlantic and Arctic regions, where its naval presence is strong.
- **Geopolitical Signalling:** The unveiling comes amid rising tensions with NATO, symbolising Moscow's determination to maintain technological superiority in strategic weapons and to deter Western pressure.
- **Arms Control Challenges:** The Poseidon complicates existing arms control regimes such as New START, which do not account for autonomous underwater nuclear vehicles. This adds to the global security dilemma and risks igniting a new underwater arms race.

Implications for India:

- For India, the development underscores the growing sophistication of undersea deterrence systems worldwide.
- As New Delhi expands its own Arihant-class SSBN fleet, it must invest in anti-submarine warfare (ASW) capabilities, underwater surveillance, and strategic partnerships with nations like Russia, US and France to safeguard the Indian Ocean Region.

Conclusion:

Russia's new Khabarovsk submarine and the Poseidon "doomsday" missile mark a turning point in nuclear deterrence strategy — one where autonomous, long-range underwater weapons redefine the parameters of security and stability. While it reinforces Russia's deterrent posture, it also raises global concerns over nuclear escalation, verification challenges, and maritime security.

India-Israel Sign MoU on Defence Cooperation

Context:

India and Israel recently signed a Memorandum of Understanding (MoU) on defence cooperation during the 17th meeting of the Joint Working Group (JWG) on defence collaboration held in Tel Aviv. The MoU provides a unified framework for future cooperation, co-development, and co-production in the defence sector, reaffirming the robust and enduring partnership between the two nations.

Areas of Cooperation Identified:

- Defence industrial collaboration and technological innovation
- Science & technology, R&D, and artificial intelligence
- Cyber security and counter-terrorism
- Training and strategic dialogues of mutual interest

Significance of the Agreement:

- Enhances India's defence capabilities through access to advanced weaponry, drones, and surveillance systems.
- Strengthens counter-terrorism efforts, as both countries share intelligence and strategies to combat terrorism.
- Boosts indigenous defence production under India's Make in India initiative through joint R&D and technology transfer.
- Promotes military readiness and interoperability via regular joint exercises and training programs.

About India-Israel Defence Relations:

- According to the Stockholm International Peace Research Institute (SIPRI), for the period of 2020-2024, Israel was India's third-largest arms supplier, accounting for 13% of India's total imports. Russia and France were the top two suppliers
 - » Joint development and co-production of advanced systems such as the Barak 8 missile and Drishti-10 Starliner drone

(Indian version of Israel's Hermes-900).

- » Technology sharing and R&D in cutting-edge fields like Artificial Intelligence (AI), cybersecurity, and defense innovation.
- » Joint training and military exercises, including aerial combat drills like "Blue Flag" and counter-terrorism training for India's National Security Guard (NSG).

Conclusion:

The latest MoU symbolises a deepening strategic convergence between India and Israel in defence and security. As both nations face similar regional security challenges and aspire for technological self-reliance, this partnership is poised to become a cornerstone of India's defence modernisation efforts and a key pillar of its Indo-West Asian diplomacy.

Sudan Crisis Reignites

Context:

Recently, International Committee of the Red Cross (ICRC) chief Mirjana Spoljaric has expressed concern after reports of large-scale mass killings and human rights violations emerged following the capture of Al-Fasher town in Sudan's Darfur region by the paramilitary Rapid Support Forces (RSF).

Background:

- In the early 2000s Darfur conflict, the government of Sudan and allied militias such as the Janjaweed were accused of orchestrating ethnically driven mass atrocities (killings, rapes, village destruction) against non-Arab groups.
- The current civil war (since April 2023) between the Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF) shows very similar tactics in the Darfur region.

Sudan Crisis:

- The Sudan conflict is an ongoing civil war between the Sudanese Armed Forces (SAF), led by General Abdel Fattah al-Burhan, and the RSF, led by General Mohamed Hamdan

Dagalo (Hemedti).

- » The war began in April 2023 over a power struggle between the two generals after the collapse of Sudan's transitional government.
- » It has since evolved into the world's largest humanitarian and displacement crisis, marked by widespread atrocities, famine, and civilian targeting.



Strategic Interests of India in Sudan:

- Sudan holds significant agricultural potential for Indian export; Indian firms export tractors, hybrid seeds and agricultural equipment to Sudan.
- Indian investments (including in energy/oil via ONGC Videsh) in Sudan underline energy-security linkages.
- A stable Sudan serves India's broader interests in Africa: countering instability in the Horn region, ensuring safe sea lanes (via the Red Sea/Indian Ocean), and projecting India as a credible partner for African nations.

Conclusion:

The ICRC chief's concern demonstrates that humanity has not learned from past tragedies. Once again, ethnicity, food and aid are being used as weapons of conflict. Sudan is on the brink of genocide and famine, so the international community must step forward to break the cycle of impunity and take concrete steps to protect humanity.

FATF Hails India's Asset Recovery Model

Context:

The Financial Action Task Force (FATF), the global watchdog for money laundering and terrorist financing, has commended India's asset recovery framework, describing the Enforcement Directorate (ED) as a "model agency" for its efficiency in tracing and confiscating illicit assets.

Background:

- The recognition comes through FATF's new report titled "Asset Recovery Guidance and Best Practices", which highlights India's legal and institutional mechanisms as global best practices for effective asset recovery and inter-agency coordination.

Highlights of the FATF Report:

- The FATF commended India's asset recovery framework for its efficiency, coordination, and legal robustness in tracing and confiscating illicit assets.
- In its global report "Asset Recovery Guidance and Best Practices," FATF described the ED as a "model agency", citing its successful case examples of value-based confiscation, provisional attachment, and inter-agency cooperation.
- The FATF highlighted that India's framework under the Prevention of Money Laundering Act (PMLA), 2002, and the Fugitive Economic Offenders Act (FEOA), 2018, provides strong legal tools for recovering proceeds of crime—

making it an international benchmark for asset recovery.

- Example: Coordination between the Enforcement Directorate and a state criminal investigation department in a major investment fraud case resulted in the recovery of assets worth approximately Rs.60 billion (US\$690 million) to victims.

Impact on Global Standards and Cooperation:

- FATF's acknowledgment strengthens India's international reputation as a leader in asset recovery and anti-money laundering enforcement.
- It validates the ED's role in shaping global standards and influencing FATF's updated guidance on flexible, practical, and cooperative approaches to asset tracing—especially for developing and emerging economies facing complex financial crime networks.
- This recognition is expected to boost India's influence in global financial governance, foster international cooperation, and encourage other countries to adopt India-inspired frameworks for asset recovery.

About Financial Action Task Force (FATF):

- The Financial Action Task Force (FATF) is an inter-governmental body that sets global standards to combat money laundering, terrorist financing, and other threats to the international financial system.
- Established in 1989, the FATF develops legal, regulatory, and operational measures to counter these threats, and it monitors the implementation of these standards by its member countries.

Conclusion:

FATF's commendation of India's asset recovery and enforcement model underscores the country's growing leadership in global financial integrity. The Enforcement Directorate's practices exemplify how strong legal foundations, international cooperation, and coordinated enforcement can make asset recovery both

effective and just — offering a model for other nations combating financial crimes.

infrastructure, agriculture, health, trade, and capacity building.

Indian President Droupadi Murmu's Visit to African Countries

Context:

Between 8 and 13 November 2025, India's President Droupadi Murmu undertook a six-day state visit to the African countries of Angola and Botswana. This was the first-ever state visit to these two countries by any Indian President (Head of State). The purpose of this visit was not merely to expand diplomatic outreach; it also reflected India's Africa policy and its commitment to sustained engagement with the "Global South."

Key points from the meeting between Angola and India:

- **New Areas of Collaboration:** Angola has joined two major India-led global initiatives:
 - » International Big Cat Alliance (IBCA) – to protect big cat species and their habitats through collaboration, research, and funding.
 - » Global Biofuel Alliance (GBA) – established during India's G20 Presidency (2023) to promote clean and sustainable biofuel adoption globally.
 - » Angola had earlier joined the International Solar Alliance (ISA), strengthening cooperation in renewable energy and green transition.
- **Memorandums of Understanding (MoUs):**
 - » Fisheries, Aquaculture and Marine Resources – to enhance sustainable marine development.
 - » Consular Matters – to facilitate better coordination between diplomatic and diaspora services.
- **Private Sector Engagement:**
 - » Both sides emphasized private sector participation in driving economic cooperation particularly in



Strategic Significance:

- **For India:**
 - » Strengthens its presence in Southern Africa, an energy-rich region with vast natural resources.
 - » Advances India's energy diplomacy, especially through renewable and biofuel cooperation.
 - » Expands the reach of India-led global platforms (ISA, IBCA, GBA), reflecting New Delhi's leadership in sustainable development diplomacy.
- **For Angola:**
 - » Diversifies partnerships beyond traditional Western and Chinese influence.
 - » Gains access to India's technology, training, and green energy expertise.
 - » Enhances environmental and wildlife conservation capacities.

Key Highlights of the India-Botswana Meeting:

- President Murmu held bilateral talks with her counterpart, Duma Gideon Boko. The agenda of the discussions included trade, investment, energy, agriculture, health,

technology, defense, and people-to-people contacts.

- Diamonds constitute a major part of India-Botswana trade. Botswana exports rough diamonds, while India exports pharmaceuticals, machinery, steel, electronics, and other industrial goods.
- Environmental and biodiversity cooperation was also promoted — Botswana announced the donation of 8 cheetahs to India, which will be part of India's reintroduction initiative, Project Cheetah.
- President Murmu also addressed the National Assembly of Botswana and met with the Indian community, thereby strengthening cultural and social ties.

Conclusion:

President Murmu's 2025 visit to Angola symbolizes a new phase of India-Africa engagement, grounded in green energy, sustainable development, and biodiversity protection. The outcomes of this visit reflect India's growing role as a leader in South-South Cooperation and a champion of inclusive, environmentally conscious development.

India's Withdrawal From Ayni Airbase

Context:

India has recently withdrawn its personnel and equipment from the Ayni airbase in Tajikistan, its only full-fledged overseas military base, which it had developed and maintained for nearly two decades.

About Ayni Airbase:

- It was a key airbase of India in a strategic location in Tajikistan, where India first deployed military personnel when it was supporting the earlier Northern Alliance in Afghanistan.
- India also used the airbase to evacuate its nationals after the Taliban took control of Kabul in August 2021.

- It is located around 20 km from Afghanistan's Wakhan Corridor, which shares a boundary with the Pakistan-occupied Kashmir (PoK) and with China's Xinjiang province.



Reasons for the withdrawal:

- The bilateral agreement, in place since 2002 for the "rehabilitation and development" of the aerodrome, expired around 2021-2022 and was not renewed.
- Tajikistan government was reluctant to renew the lease for the airbase owing to pressure from Russia and China.

Implication on India:

- Ayni gave India rare air access to Central Asia, a region vital for energy security and counterterrorism.
- Its location near China and Pakistan's borders offered surveillance and strategic leverage.
- The withdrawal weakens India's "Connect Central Asia" policy and reduces its operational options after the U.S. exit from Afghanistan.
- It also coincides with China's expanding presence in the region, including reports of a Chinese base in Tajikistan.

India's Other Overseas Facilities:

- **Mauritius (Agaléga):** Jointly developed airstrip and jetty (2024).

- **Bhutan:** Indian Military Training Team (IMTRAT).
- Logistics agreements with France, Oman, Singapore, and Australia offer limited access, not permanent basing.

Way Forward:

- Deepen security ties through SCO and India–Central Asia Dialogue.
- Expand logistics access and enhance air-mobility, space-based surveillance, and maritime reach.
- Balance cooperation with Russia while countering China's influence via regional partnerships.

Conclusion:

The Ayni exit reflects shifting geopolitical realities and India's limited capacity for overseas basing. Going forward, India must rely on networked partnerships and strategic agility to sustain influence across Central Asia and the Indian Ocean.

PM Modi's Visit to Bhutan

Context:

Prime Minister Narendra Modi recently visited to Bhutan, his visit coinciding with celebrations for the 70th birthday of the Fourth King of Bhutan, Jigme Singye Wangchuck. The visit aimed to strengthen the deep bilateral ties and cooperation between the two nations, blending diplomacy with cultural and spiritual significance.

Major Announcements & Agreements during the visit:

- **Economic and Developmental Cooperation:**
 - » India reaffirmed unwavering support to Bhutan's 13th Five-Year Plan and Economic Stimulus Programme, focusing on inclusive and sustainable growth.
 - » The Indian Government announced a concessional Line of Credit of INR 40 billion to fund energy projects in Bhutan.
- **Energy Cooperation:**
 - » PM Modi and His Majesty The King jointly inaugurated the 1,020 MW Punatsangchhu-II Hydroelectric Project, marking a major milestone in the Indo-Bhutan energy partnership.
 - » Agreed to resume work on the 1,200 MW Punatsangchhu-I Project, set to become the largest hydropower project jointly developed by the two governments.
- **Connectivity and Infrastructure:** Both nations emphasised enhanced cross-border connectivity and border infrastructure development. Key progress noted:
 - » Immigration Check Post at Darranga (operational since Nov 2024)
 - » Inland Waterways Terminal and Multimodal Logistics Park at Jogighopa (operational since Mar 2025)
 - » MoU on Cross-Border Rail Links (Gelephu–Kokrajhar and Samtse–Banarhat) signed in Sept 2025, with a Project Steering Committee established for implementation.
- **Emerging Sectors of Cooperation:**
 - » STEM, Fintech, and Space Cooperation identified as new frontiers of the India–Bhutan partnership.
 - » Work on Phase II of UPI integration to allow Bhutanese visitors to make QR-based digital payments in India.
 - » Review of progress under the Joint Plan of Action on Space Cooperation for applications in communication and disaster management.
- **Signed Memoranda of Understanding (MoUs):**
 - » Renewable Energy Cooperation – between Bhutan's Ministry of Energy and Natural Resources and India's Ministry of New and Renewable Energy.
 - » Health and Medicine Cooperation – between both nations' Health Ministries.
 - » Institutional Linkages in Mental Health – between Bhutan's PEMA Secretariat

and India's NIMHANS.

Implications of Visit:

- The visit reaffirmed the deep-rooted friendship and trust between India and Bhutan, anchored in mutual respect, cooperation, and cultural affinity.
- Symbolised India's commitment to its "Neighbourhood First" policy and Bhutan's continued reliance on India as its most trusted developmental partner.
- Reinforced Bhutan's position as a key strategic partner for India in the Himalayas, buffering India's northern frontier with China.
- Enhanced coordination between Thimphu and New Delhi on border management and regional security, particularly amid Bhutan-China boundary negotiations.
- Strengthens India's presence and goodwill in South Asia, countering growing Chinese outreach in the region.

Conclusion:

Prime Minister Modi's 2025 State Visit to Bhutan was not merely ceremonial — it reaffirmed a model bilateral relationship built on trust, respect, and mutual prosperity. From hydropower and digital connectivity to cultural and spiritual exchange, the outcomes reflect the evolution of India-Bhutan relations into a multifaceted developmental partnership.

India-Brazil-South Africa (IBSA) Grouping

Context:

Prime Minister Narendra Modi recently took part in the India-Brazil-South Africa (IBSA) Leaders' Meeting on the sidelines of the G20 Summit in Johannesburg, underlining the growing importance of IBSA as a platform for South-South cooperation and global governance reform.

About IBSA Dialogue Forum:

- The India-Brazil-South Africa (IBSA)

Dialogue Forum is a trilateral grouping of three multi-ethnic democracies from Asia, Africa, and Latin America.

- Established in 2003, IBSA aims to advance South-South cooperation, democratic global governance, and development partnerships.

Key Themes & Proposals by India during meeting:

- **Global Governance Reform:**
 - » Called for urgent reform of the United Nations Security Council (UNSC), saying that global governance institutions are "far removed from 21st-century realities" and that such reform is "not an option, but an imperative."
 - » India proposed institutionalising a National Security Advisers (NSA)-level dialogue among IBSA members to deepen security cooperation.

PM Modi at the 6TH IBSA SUMMIT



Emphasized the importance of **trilateral cooperation among the three major economies**

PM Modi proposed

- Institutionalisation of IBSA NSA meetings
- Creation of an IBSA Digital Innovation Alliance
- Establishment of an IBSA Fund for Climate-Resilient Agriculture

▪ **Unified Push Against Terrorism:**

- » Emphasising the gravity of the terror threat, Modi stressed that there should be "no room for double standards" in

combating terrorism.

- » India urged the three IBSA nations to coordinate more closely on counter-terrorism efforts.
- **Digital Innovation Alliance:**
 - » India proposed establishing an IBSA Digital Innovation Alliance for sharing digital public infrastructure.
 - » Key areas of cooperation would include UPI, health platforms like CoWIN, cybersecurity frameworks, and women-led tech initiatives.
 - » India invited IBSA leaders to the upcoming AI Impact Summit in India to launch this initiative.
- **Climate-Resilient Agriculture Fund:**
 - » India suggested setting up an IBSA Fund for Climate-Resilient Agriculture to bolster South-South cooperation in sustainable agriculture.

Strategic Implications:

- **Amplifying the Global South's Voice:** Modi framed IBSA as a bridge across three continents "Asia, Africa, and Latin America" and as a vehicle for pushing reform in global institutions.
- **Strengthening Security Cooperation:** Institutionalising NSA-level talks could deepen trust and coordination on counterterrorism, intelligence sharing, and regional security.
- **Development Innovation:** The proposed digital alliance and climate fund demonstrate IBSA's shift from conventional development aid to more future-oriented cooperation: technology, sustainability, and digital public goods.
- **Legitimacy in Multilateral Fora:** With three consecutive G20 presidencies by Global South countries (including IBSA members), the timing of this meeting is strategically significant.

Conclusion:

The 2025 IBSA meeting in Johannesburg marks an important moment in trilateral cooperation.

India's call for unity against terrorism, urgent UNSC reform, and new collaborations in digital infrastructure and climate-resilient agriculture demonstrates India's vision of IBSA as a dynamic, democratic, and developmental coalition. At a time of global fragmentation, IBSA's commitment to multilateralism, inclusivity, and South-South solidarity positions it as a crucial platform for shaping a fairer and more representative world order.

Sheikh Hasina Sentenced to Death for Crimes Against Humanity

Context:

Bangladesh's ousted Prime Minister Sheikh Hasina was recently sentenced to death by the International Crimes Tribunal of Bangladesh (ICT-BD) for crimes against humanity linked to a deadly crackdown on student-led protests in 2024.

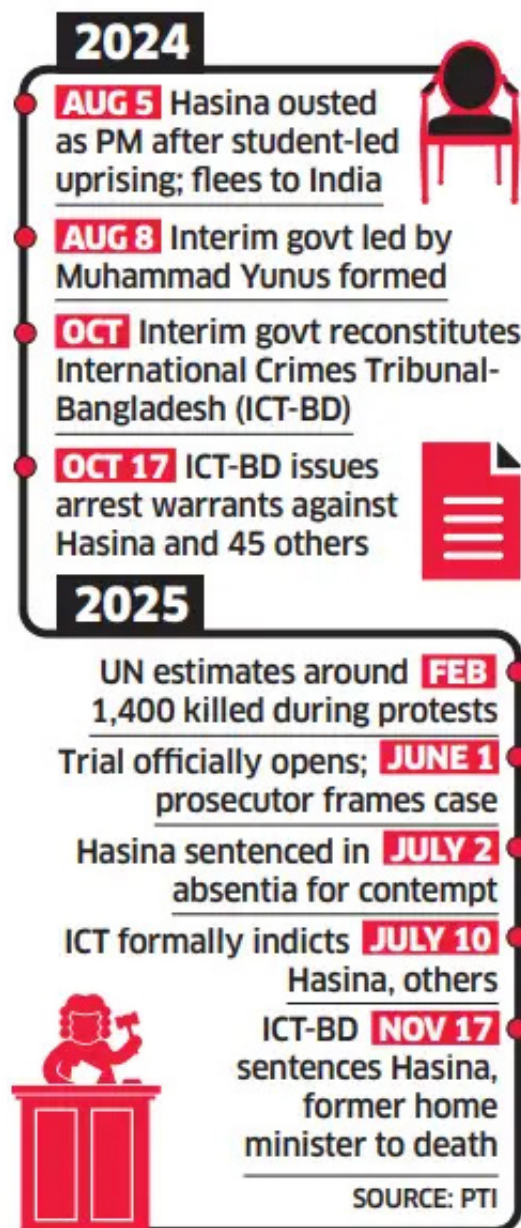
About the Case:

- Hasina was found guilty on multiple counts, including incitement, ordering the use of lethal force, and failing to prevent atrocities during a student-led uprising in July and August 2024 that eventually led to her ouster.
- According to a United Nations report, up to 1,400 people may have been killed and thousands injured during the violent crackdown by security forces.
- The trial was conducted by the International Crimes Tribunal (ICT), a domestic war crimes court that Hasina herself established in 2009.
- Hasina has the right to appeal the verdict to the Appellate Division of the Supreme Court of Bangladesh within thirty days.

Implications for India:

- **Strategic Setback in Bilateral Relations:**
 - » Sheikh Hasina has been one of India's closest political partners in South

Asia. Her removal and subsequent death sentence create uncertainty in a relationship that was anchored in strong political trust.



- **Security Challenges along the Border:** A political vacuum or instability in Bangladesh could lead to:
 - » Revival of extremist and insurgent elements,

- » Increased cross-border smuggling and illegal migration
- » More porous and volatile border dynamics.

▪ **Impact on India's Northeast:**

- » Bangladesh is a critical gateway for India's Act East and connectivity initiatives. Instability in Dhaka may delay major projects such as:
 - India-Bangladesh transit and trade routes
 - Connectivity infrastructure through Tripura, Assam, and Meghalaya
 - Access to Chattogram and Mongla ports
- » This could slow economic development in the Northeast.

▪ **Implications for Regional Stability:**

- » Bangladesh's turmoil affects India's broader strategic interests in South Asia, especially in:
 - BIMSTEC
 - BBIN connectivity
 - Indian Ocean security
- » A destabilised Bangladesh weakens regional cooperation frameworks that India leads.

Conclusion:

The sentencing of Sheikh Hasina marks a watershed moment in Bangladesh's political history. It reflects not only the country's ongoing struggle with governance, accountability, and civil liberties but also the complexities inherent in post-conflict justice. As Bangladesh approaches its next electoral cycle, the challenge will be to maintain stability, uphold democratic norms, and ensure that justice processes are credible and transparent.

India-Nepal Rail & Trade Connectivity Pact

Context:

Recently, India and Nepal exchanged a Letter of Exchange (LoE) amending the Protocol

to the India–Nepal Treaty of Transit, which will significantly enhancing bilateral trade connectivity via rail corridors.

About the Agreement:

- The agreement allows direct rail-based freight movement—including both containerised and bulk cargo—between the Indian border point of Jogbani and Nepal’s Biratnagar, and extends access to major Indian ports (Kolkata, Visakhapatnam) for Nepali trade via key transit corridors.

Key Provisions of the Pact:

- Enables containerised and bulk cargo movement along the Jogbani (India) – Biratnagar (Nepal) rail link. Expands transit corridors:
 - » Kolkata → Jogbani → Biratnagar
 - » Kolkata → Nautanwa (Sunauli)
 - » Visakhapatnam → Nautanwa (Sunauli)
- Liberalises definition of “bulk cargo” and allows more goods to be transported under the amended protocol.
- Reinforces the role of Indian ports (Kolkata, Visakhapatnam) in Nepal’s access to global markets via Indian transit routes.

Significance & Implications:

- **Trade facilitation:** The pact reduces logistical cost and time for Nepal to import/export goods via India and to access global markets.
- **Deepened integration:** Reinforces India’s role as Nepal’s gateway for third-country trade, consolidating economic ties.
- **Neighbourhood first diplomacy:** Demonstrates India’s “Neighbourhood First” approach and Nepal’s appetite for connectivity-driven growth.
- **Infrastructure push:** Signals further movement on border connectivity (rail links, transit ports, logistics hubs) between the two countries.
- **Regional supply chain impact:** As Nepal diversifies trade routes, India becomes even more important as the regional transit hub.

About India-Nepal Treaty of Transit:

- The India-Nepal Treaty of Transit, revised in June 2023, is a crucial agreement that facilitates Nepal’s international trade by providing it with access to Indian territory and ports for transit.
- The treaty is a key component of the broader India-Nepal relationship, alongside the 1950 Treaty of Peace and Friendship, and has been subject to revisions to facilitate trade and connectivity.

Conclusion:

The November 2025 pact between India and Nepal marks a meaningful step toward enhancing bilateral trade through improved connectivity and infrastructure. For Nepal, enhanced access to Indian ports and logistical routes promises lower cost and broader market reach. For India, it strengthens regional ties, trade-hub status, and economic engagement with a key neighbour.

India-Canada Deepen Economic Ties on Trade, Critical Minerals

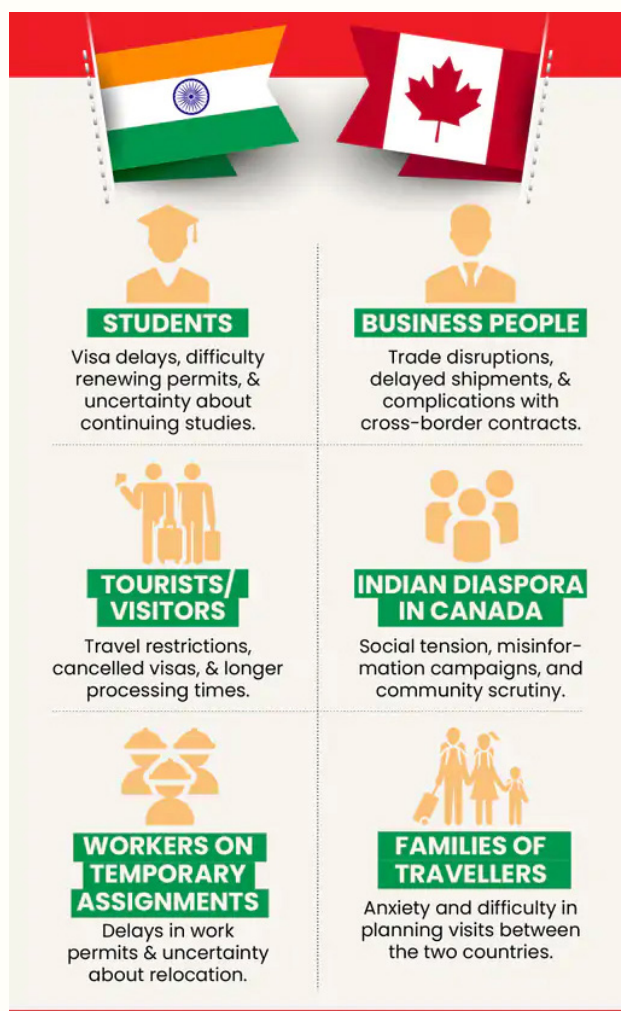
Context:

From November 11 to 14, 2025, Maninder Sidhu, Canada’s Minister of Export Promotion, International Trade and Economic Development, visited New Delhi at the invitation of Union Commerce and Industry Minister Piyush Goyal. The visit led to a joint statement underscoring closer cooperation in critical minerals, trade, and investment.

Key Highlights of the Engagement:

- **Strengthening Critical Minerals and Clean Energy Collaboration**
 - » Both countries agreed to encourage long-term supply chain partnerships in critical minerals.
 - » Focus on clean energy collaboration, crucial for the global energy transition and industrial expansion.
 - » The initiative aims to secure stable

access to minerals vital for sectors such as batteries, renewable energy technologies, and electric mobility.



Expanding Trade and Investment Opportunities:

- » Both Ministers committed to identify and expand investment and trading opportunities in:
 - Aerospace
 - Dual-use capabilities (civilian and defence applications)
- » This aligns with India's strategy to integrate into global high-tech value chains and enhance industrial competitiveness.

Significance:

Strategic and Economic Alignment:

Strengthening supply chains in critical minerals supports India's energy security and industrial ambitions.

- **High-Tech Collaboration:** Expansion in aerospace and dual-use sectors fosters technology transfer, innovation, and investment flows.
- **Diversification of Trade:** Reinforces India's strategy to diversify trade partners and reduce reliance on single sources for critical inputs.
- **Global Energy Transition:** Collaboration in clean energy and critical minerals aligns with net-zero commitments and sustainable development goals.

About India-Canada Relations:

- India and Canada share historic ties, with diplomatic relations established in the 19th century. Both are members of the Commonwealth and G20. Bilateral Trade between the two countries reached about \$30 billion in 2024.
- After Indian independence, Canada played a role in development aid, especially through the Colombo Plan. However, relations soured after India's 1974 nuclear test using a Canadian reactor. The 1985 Air India bombing by Khalistani extremists based in Canada further strained ties.
- Economic liberalisation in the 1990s revived interest, and the 2010 Nuclear Cooperation Agreement marked progress. However, recurring tensions over Canada's perceived leniency toward pro-Khalistan groups remain a major roadblock.
- Despite challenges, strong diaspora and economic links continue to provide opportunities for rebuilding trust and long-term cooperation.

Conclusion:

The India-Canada engagement marks a renewed commitment to trade, investment, and strategic partnerships, particularly in sectors critical for industrial modernization and energy transition. It demonstrates the role of economic

diplomacy in strengthening bilateral relations and fostering global value chain integration.

Operation Southern Spear

Context:

The U.S. Defense Secretary Pete Hegseth formally announced, “Operation Southern Spear”, a large-scale military campaign aimed at dismantling narco-terrorist networks in the Western Hemisphere. The operation was spearheaded by U.S. Southern Command (SOUTHCOM) and a newly created Joint Task Force Southern Spear.

Objectives & Strategy:

- **Primary Aim:** The stated goal is to remove “narco-terrorists” from the hemisphere and secure the U.S. homeland by interrupting drug trafficking routes.
- **Hybrid Force Deployment:** The mission integrates robotic and autonomous systems (RAS)—like long-endurance surface vessels and VTOL drones—with traditional naval assets to create a “hybrid fleet.”
- **Escalation in Maritime Presence:** There is a visible U.S. naval buildup in the Caribbean and eastern Pacific, including amphibious ships, an aircraft carrier, and surveillance aircraft.

Key Components:

- **Unmanned Systems:** Deployment of the JUMP 20 medium UAS by AeroVironment in the Caribbean to provide persistent ISR coverage.
- **Kinetic Strikes:** Reports suggest lethal strikes on vessels suspected of drug trafficking.
- **Command Structure:** The operation is carried out jointly by SOUTHCOM and the Joint Task Force Southern Spear.

Significance & Concerns:

- **Strategic Message:** This mission marks a strong escalation of U.S. counter-narcotics operations into a theater-level military campaign.

- **Legal and Ethical Questions:** Critics warn that characterizing cartel members as “narco-terrorists” may circumvent U.S. war powers, while rights groups question the transparency and legality of maritime strikes.
- **Regional Tensions:** The operation has raised alarm in Latin America, particularly in Venezuela, which sees it as a potential pretext for U.S. intervention.

Conclusion:

Operation Southern Spear represents a major shift in U.S. strategy—linking counter-narcotics efforts with high-intensity military capabilities. By combining unmanned systems with traditional naval platforms under a unified command, the U.S. aims to preempt drug trafficking before it reaches its shores. However, its legality, regional impact, and long-term consequences remain subjects of intense debate.

Election of the Next UN Secretary-General

Context:

The United Nations has formally begun the process to elect the next Secretary-General (SG) to replace Antonio Guterres, whose term ends on 31 December 2026. Member states have been invited to submit nominations, with a historic emphasis on selecting the first woman Secretary-General.

Legal Basis and Selection Procedure:

- The SG is the chief administrative officer of the UN, as defined in Article 97 of the UN Charter, and is often described as “equal parts diplomat, advocate, civil servant, and CEO.” The selection process involves:
 - » **Nominations:** Member states propose candidates after a joint letter from the UNGA and UNSC Presidents.
 - » **Security Council Screening:** The 15-member UN Security Council

conducts secret straw polls, where members indicate “encourage,” “discourage,” or “no opinion.” The five permanent members (P5) hold veto power.

- » **Security Council Recommendation:** A candidate requires 9 votes without a P5 veto to be recommended via resolution.
- » **General Assembly Appointment:** The 193-member UNGA typically formalizes the Security Council’s recommendation.
- The SG serves a five-year term, renewable once; Guterres is currently serving his second term. Informal practices like regional rotation also guide nominations.

Administrative and Executive Functions:

- The Secretary-General heads the UN Secretariat, supervising over 30,000 staff and managing a core budget of USD 3.7 billion and a peacekeeping budget of USD 5.6 billion.
- Responsibilities include implementing policies, overseeing UN offices worldwide, and ensuring efficient functioning of peacekeeping operations and administrative structures.

Diplomatic and Agenda-Setting Roles:

- The SG acts as a global mediator, using “good offices” to prevent or resolve conflicts. The office brings threats to international peace before the Security Council (Article 99) and launches initiatives on:
 - » Humanitarian crises
 - » Climate action
 - » Development goals
 - » Human rights and gender equality
 - » This agenda-setting role enhances the UN’s capacity to respond to global challenges.

ALL THE UN SECRETARIES-GENERAL

The United Nations officially came into existence on Oct. 24, 1945, when its Charter was ratified by a majority of the signatories



Antonio Guterres
Elected the 9th UN secretary-general, replacing Ban Ki-moon, the former Portuguese prime minister led the UN Refugee Agency for 10 years.



Ban Ki-moon
The South Korean career diplomat turned foreign minister oversaw the global climate deal, championed women’s rights and new development goals.



Kofi Annan
The Ghanaian diplomat was awarded the Nobel Peace Prize for revitalizing the UN. But many UN departments caught flak over the oil-for-food scandal.



Boutros Boutros Ghali
The Egyptian politician, elected after other candidates failed to win enough support, led the UN during Yugoslavia’s wars and famine and genocide in Africa.



Javier Perez de Cuellar
Peruvian diplomat and politician, who served two terms as a compromise candidate, helped negotiate a cease-fire that ended the Iran-Iraq war in 1988.



Kurt Waldheim
Reputation of the 4th UN chief, who later became Austria’s president, was tarnished by revelations about his background as a Nazi officer.



U Thant
Appointed for the remainder of Dag Hammarskjöld’s term, the Myanmar diplomat was confirmed for a full term in 1962 and re-elected in 1966.



Dag Hammarskjöld
The Swedish economist and diplomat died in an air crash in 1961 on his way to Congo, where the UN had established its first peacekeeping mission.



Trygve Lie
The Norwegian politician, elected the 1st UN chief as a compromise candidate, saw his term extended for 3 years in 1950 but resigned in 1952.

Symbolic and Advocacy Functions:

- Beyond administrative duties, the SG serves as the moral voice of the international community, promoting:
 - » Multilateralism and international cooperation
 - » Peace, security, and conflict prevention
 - » Sustainable development and human rights advocacy
- Through speeches, global initiatives, and public diplomacy, the SG shapes international discourse on urgent global issues.

Conclusion:

The UN Secretary-General is a unique position combining diplomacy, executive management, and advocacy. The 2026 election presents a historic opportunity to enhance gender representation and regional balance while continuing the office’s vital role in global governance, peace, and development.

**Canada’s New Citizenship Law
2025**

Context:

Canada has recently passed Bill C-3, amending its Citizenship Act to expand citizenship-by-descent and formally recognise a group historically termed “Lost Canadians.” The reform addresses long-standing legal inequities arising from the earlier “first-generation limit,” which prevented many children of Canadian citizens born abroad from acquiring citizenship.

Background:

- Individuals who were denied or lost citizenship due to gaps, discriminatory provisions, or outdated clauses in earlier Canadian laws.
- The 2009 first-generation limit allowed citizenship by descent only for children whose Canadian parent was born in Canada or naturalised.
- Those born abroad to Canadian parents who themselves were also born abroad (second generation abroad) were excluded.
- A 2023 court ruling deemed this discriminatory, prompting legislative reform.

Key Features of the New Law (Bill C-3):

- **Removal of the First-Generation Limit:** Any child born or adopted abroad to a Canadian parent can acquire citizenship—remedying the earlier generational cut-off.
- **Retroactive Recognition:** Citizenship is restored retrospectively to people who were excluded earlier—benefiting thousands of “Lost Canadians.”
- **Substantial Connection Requirement:** For future births abroad, parents must prove 1,095 days (3 years) of physical presence in Canada before the child’s birth/adoption. Ensures that the parent maintains a meaningful link with Canada.
- **Safeguards:** Exclusion for individuals involved in fraudulent citizenship renunciation or serious criminality remains.

Rationale and Policy Logic:

- Correct historical discrimination and ensure

equality in transmission of citizenship.

- Respond to a globalised world where families increasingly live, work, and have children abroad.
- Strengthen diaspora networks and Canada’s soft-power outreach.
- Align Canadian law with contemporary human-rights standards and judicial mandates.

Implications for Indian-Origin Families:

▪ **Who Benefits?**

- » Indian-origin Canadian citizens working abroad whose children were previously denied citizenship.
- » Families who left Canada for education, employment, or temporary foreign postings.
- » Some “lost Indian-Canadians” may now gain automatic citizenship recognition.

▪ **Future Births:**

- » Indian-origin Canadian parents born abroad can pass citizenship to future overseas-born children if they meet the substantial connection rule.

▪ **Interaction with Indian Law**

- » India does not permit dual citizenship.
- » Individuals acquiring Canadian citizenship must surrender Indian citizenship and shift to OCI status.
- » Families must weigh the benefits of Canadian citizenship against the loss of Indian nationality.

▪ **Possible Increase in India–Canada Mobility**

- » Could encourage return migration to Canada or long-term diaspora consolidation.
- » Might also affect educational and professional migration patterns.

Conclusion:

Canada’s new citizenship-by-descent law marks a major shift toward inclusive, rights-based citizenship. By recognising “Lost Canadians,” the reform rectifies historical injustices and adapts to the demands of a globalised world marked by transnational mobility.



Environment & Ecology



From Green Cover To Ecological Regeneration: India's New Climate Policy For Forests

Context:

India's climate discourse is undergoing a significant shift. The new framework of Green India Mission (GIM) further strengthens this concept. Now the goal is not just to increase the number of trees, but to restore the ecological balance. Scientists have warned that India's dense forests are losing their photosynthesis and carbon-absorbing capacity due to rising temperatures and dry soil. This means that if forests are the country's climate shield, this shield is now gradually weakening.

A Warning from the Scientific Community

- ❖ A 2025 multi-institutional study by IIT Kharagpur, IIT Bombay, and BITS Pilani sent a strong signal: dense forests across India have experienced a 12 percent decline in photosynthetic efficiency. This decline is not abstract. It directly affects how much carbon forests can absorb and how resilient they remain under rising climate stress.
- ❖ The study attributes this drop mainly to two factors: higher temperatures and increasingly dry soil conditions. Together, they weaken the ability of forest canopies to perform photosynthesis at optimal levels. Even in areas where the canopy remains dense or where tree plantations have increased, the functioning of forests has deteriorated.
- ❖ The study challenges an older assumption that expanding forest cover alone would guarantee a stronger carbon sink. India has

added forest and tree cover steadily—from 24.16 percent in 2015 to 25.17 percent in 2023—but the capacity of these forests to act as long-term carbon sinks is slipping. The scientific message is simple: not all green cover performs equally, and ecological quality must now take priority over sheer area.

Green India Mission: Evolving from Plantation to Restoration

- ❖ The Green India Mission was launched in 2014 as part of the National Action Plan on Climate Change. Its original goals were to increase forest and tree cover over 5 million hectares and improve the quality of forests on another 5 million hectares. Between 2015 and 2021, plantation and related activities were carried out over 11.22 million hectares, supported by funding of about Rs.575 crore across 18 states.
- ❖ The revised roadmap broadens the scale and ambition of the Mission. India now aims to restore 25 million hectares of degraded forest and non-forest land by 2030. This is directly tied to India's climate commitment of creating an additional carbon sink of up to 3.39 billion tonnes of CO₂ equivalent by the end of the decade.
- ❖ The new plan places special emphasis on ecologically fragile and biodiversity-rich regions such as the Aravalli ranges, Western Ghats, Himalayan catchments, and mangrove belts. It encourages state-specific

restoration models, integration with other government schemes, and collaboration with scientific institutions.

- ❖ However, the blueprint recognises that achieving large-scale restoration demands more than plantation targets. It requires deeper reform in how India designs, manages, and evaluates its forest landscapes.

The Persistent Gaps:

❖ **Community Participation**

- » Nearly 200 million people rely on forests for fuel, fodder, livelihoods, and cultural identity. The Forest Rights Act (2006) legally secures the rights of forest-dwelling communities to manage and protect their habitats. Yet, in many regions, plantation drives have bypassed local communities entirely ignoring their consent, customary practices, or land claims.
- » This has created distrust, legal disputes, and in some cases, active resistance. Without community participation, restoration efforts often fail to survive beyond the initial planting phase.
- » Some states have tried to correct this. Odisha's model integrates Joint Forest Management Committees into planning and revenue-sharing, giving communities a direct stake. Chhattisgarh has experimented with planting native species that support tribal livelihoods, such as mahua, and reviving degraded village lands with biodiversity-friendly approaches.

❖ **Ecological Design**

- » For decades, plantation drives favoured fast-growing monocultures like eucalyptus and acacia. While these species expand canopy cover quickly, they often drain groundwater, displace native biodiversity, and become vulnerable to heat stress and fires.
- » The revised GIM stresses the use of native, site-appropriate species. But this requires skilled ecological planning

and trained field staff. India has training institutions in Uttarakhand, Coimbatore, and Byrnihat that could be mobilised to build this capacity.

- » Some states are already showing results. Tamil Nadu has nearly doubled its mangrove cover in just three years, demonstrating how site-specific restoration strengthens both carbon storage and coastal protection.

❖ **Financing and Fund Utilisation**

- » The financial landscape for restoration is large but underutilised. The Compensatory Afforestation Fund Management and Planning Authority (CAMPA) holds around Rs.95,000 crore, yet fund usage varies sharply across states. Delhi used only 23 percent of its approved CAMPA funds between 2019 and 2024, reflecting issues of capacity, planning, and monitoring.
- » GIM itself operates with modest allocations and depends heavily on CAMPA's support. The challenge is not merely securing funds, but deploying them efficiently for long-term ecological outcomes rather than short-term plantation numbers.

New Tools and Innovations:

- ❖ Himachal Pradesh has launched a biochar initiative that generates carbon credits while reducing forest fire risks.
- ❖ Uttar Pradesh has planted over 39 crore saplings this year and is exploring ways for village councils to participate in carbon markets.
- ❖ The Aravalli Green Wall project seeks to regenerate eight lakh hectares across 29 districts to combat desertification, creating a 5 kilometre buffer zone around the hills.

India's Larger Land Degradation Challenge:

- ❖ India's restoration push is also shaped by the wider problem of land degradation. Around 97.85 million hectares—nearly one-third of the country's land—was degraded in 2018–19. Restoring degraded land is

essential not only for climate commitments but also for soil health, water security, and livelihood systems.

- ❖ Government assessments suggest that restoring open forests is among the most cost-effective ways to sequester CO₂. The Forest Survey of India estimates that improving 15 million hectares of open forests could sequester nearly 1.89 billion tonnes of CO₂.
- ❖ India has already created an additional carbon sink of 2.29 billion tonnes CO₂ equivalent between 2005 and 2021. Meeting the 2030 target of 3.39 billion tonnes will require accelerating this trajectory through high-quality restoration.

What India Needs Next:

- ❖ Communities must be placed at the centre of planning and monitoring so that restoration becomes socially legitimate and ecologically informed.
- ❖ Forest departments need training and incentives to prioritise ecological productivity rather than plantation counts.
- ❖ The central government can improve transparency by creating public

dashboards that track survival rates, species composition, fund utilisation, and community participation.

- ❖ CAMPA guidelines can be broadened to support participatory approaches, adaptive management, and long-term ecological monitoring.
- ❖ Research institutions and civil society can help design scientifically robust and community-friendly restoration plans.

Conclusion:

India's ambition to restore 25 million hectares by 2030 marks one of the world's largest ecological restoration programmes. But the IIT-led study makes one fact unavoidable: the health of India's forests is declining under climate stress, and past approaches are no longer enough. The future of India's climate strategy depends less on how many hectares are planted and more on how deeply and intelligently they are restored. If India prioritises ecological resilience, invests in local capacity, and places communities at the heart of restoration, the Green India Mission can evolve from a policy scheme into a genuine national transformation.

Short Issues

Nauradehi Sanctuary to Become India's Third Cheetah Habitat

Context:

Madhya Pradesh Chief Minister Mohan Yadav recently announced that the Nauradehi Wildlife Sanctuary will become the third home for cheetahs in the State after Kuno National Park and Gandhi Sagar Sanctuary.

About Nauradehi Wildlife Sanctuary:

- Located in the Sagar and Damoh districts of Madhya Pradesh, Nauradehi is the largest wildlife sanctuary in the state, covering

about 1,200 sq km.

- Its mosaic of dry deciduous forests, grasslands, and scrub provides an ideal landscape for cheetahs, similar to their native African habitats.
- The sanctuary already hosts species like chital, blackbuck, nilgai, and wild boar, which can serve as natural prey for cheetahs.

About Project Cheetah:

- The cheetah, once widespread across India, was officially declared extinct in 1952 due to hunting and habitat loss.
- In September 2022, under Project Cheetah, India reintroduced eight African cheetahs in Kuno National Park (Sheopur, MP) in

collaboration with Namibia and South Africa.

- Later, Gandhi Sagar Sanctuary was identified as the second reintroduction site to expand habitat and reduce population pressure on Kuno.
- The inclusion of Nauradehi Sanctuary marks a further expansion of this ambitious initiative, aiming to establish multiple, geographically dispersed populations to enhance the species' long-term viability.

Key Objectives:

- Reintroduce cheetahs to perform their functional role as top predators, maintaining prey population health and environmental balance.
- Support global conservation efforts by establishing a cheetah population in India.
- Generate revenue for local communities through eco-tourism, promoting coexistence with wildlife

About Cheetah:

- Cheetahs are the world's fastest land animals, capable of reaching speeds up to 120 km/h/120 km/h
 - » **Communication:** Unlike other big cats, they do not roar; they use high-pitched chirps and barks.
 - » **Hunting:** They use a unique tripping technique with their semi-retractable claws to hunt.
 - » **Protection:**
 - IUCN: Listed as Vulnerable.
 - CITES: Listed in Appendix I.
 - India: Listed under Schedule II of the Wild Life (Protection) Act, 1972.

Conclusion:

The establishment of Nauradehi Sanctuary as the third cheetah habitat marks another milestone in India's conservation journey. With sustained habitat management, scientific monitoring, and community engagement, Madhya Pradesh is poised to emerge as the "Cheetah State of India", leading the country's broader vision of restoring lost species and

ecological balance.

Adaptation Gap Report 2025

Context:

United Nations Environment Programme (UNEP) published Adaptation Gap Report 2025 which underscores the growing shortfall in finance available to help developing countries adapt to climate change — even as climate impacts intensify.

Key Findings of the Report:

- The report estimates that developing countries will need US\$310–365 billion per year by 2035 for climate adaptation — based on modelled costs and extrapolations of National Adaptation Plans (NAPs).
- By contrast, international public adaptation finance flows to developing countries in 2023 were only US\$26 billion, down from US\$28 billion the previous year. Hence, current flows are about 12–14 times lower than the estimated need.
- The report also warns that adaptation finance is heavily skewed toward loans (raising debt burdens) and private finance for adaptation remains very small (only a few billion currently).
- The report warns that the Glasgow Climate Pact goal of doubling adaptation finance to US\$40 billion by 2025 will not be met if current trends persist.
- Even the New Collective Quantified Goal (NCQG) of US\$300 billion per year for climate action by 2035, agreed at COP29 in Baku, will be insufficient, as it covers both mitigation and adaptation.

Implications for Developing Countries:

- With adaptation finance falling far short of needs, developing countries remain exposed to infrastructural damage, crop losses, water stress, sea level rise, and extreme weather events.
- Progress on poverty reduction, health, food security and infrastructure can be reversed

if climate shocks strike and adaptation capacity is weak.

- Since a large share of adaptation finance is in the form of loans (often non concessional), developing countries risk increasing their indebtedness while trying to build resilience.
- Many developing nations contribute minimally to global greenhouse gas emissions but bear the brunt of climate impacts and face the largest adaptation burden.

Policy Recommendations from UNEP:

- **Close the Finance Gap:** Mobilize new sources of public and private finance without increasing debt burdens.
- **Enhance Global Cooperation:** Implement the Baku to Belém Roadmap adopted at COP29, ensuring equity and transparency in finance flows.
- **Strengthen Mitigation Efforts:** Reduce future adaptation costs by curbing global warming through faster emission cuts.
- **Promote Grants and Non-Debt Instruments:** Prioritize grant-based funding and debt relief for climate-vulnerable nations.
- **Update and Mainstream Adaptation Plans:** Encourage countries to regularly revise National Adaptation Plans (NAPs) and integrate resilience into national development frameworks.

Conclusion:

The UNEP Adaptation Gap Report 2025 serves as a stark warning: the world is running out of time and resources to shield vulnerable nations from the escalating impacts of climate change. Without a rapid scaling-up of adaptation finance and equitable burden-sharing, the global community risks deepening inequality and reversing progress on sustainable development.

CITES Report on India

Context:

The Convention on International Trade in Endangered Species of Wild Fauna and Flora

(CITES) has recently urged India to halt the import of critically endangered species such as gorillas, chimpanzees, orangutans, and snow leopards until proper regulatory safeguards are in place.

Background:

- A technical mission from the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) Secretariat visited India from 15 to 20 September 2025 to inspect the Greens Zoological Rescue and Rehabilitation Centre (GZRRC) and the Radha Krishna Temple Elephant Welfare Trust (RKTEWT), both part of the Vantara initiative in Jamnagar, Gujarat.
- The visit was triggered by concerns raised by other CITES member countries regarding the large volume and origin of endangered wild animals being imported into India, many destined for these facilities.

Key findings of the verification mission:

- The report did raise significant concerns about India's due diligence in verifying the source of the imported animals.
- It was noted that while all imports had valid CITES permits, questions remained about the animals' true origin and the accuracy of the source codes used (e.g., falsely declaring wild-caught animals as captive-bred).

CITES and India's obligations:

- CITES is a multilateral treaty adopted in 1973 and came into force in 1975.
- Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.
- It currently covers tens of thousands of species (animals and plants) under various Appendices (Appendix I, II, III) depending on degree of threat and trade regulation required.
- India acceded to CITES in 1976, designating national authorities responsible for issuing import and export permits.
- Under the Wildlife Protection Act, 1972,

no zoo can acquire, sell, or transfer wild or captive animals except from or to a recognised zoo, making strict due diligence essential in wildlife imports.

Recommendations from the CITES mission:

- India should strengthen due diligence for wildlife imports.
- Verify the origin and legality of animals, especially from countries not known for breeding the species.
- Exercise caution even when CITES permits are provided, ensuring specimens were traded legally.
- Provide in-country support for animals in peril, allowing more time for verification.

Conclusion:

The CITES verification mission highlights the urgent need for a cautious approach to wildlife imports. India must ensure that all imported animals are genuinely captive-bred and legally sourced. This requires rigorous coordination between national CITES authorities, customs, and zoological institutions.

IUCN Rates Khangchendzonga National Park “Good”

Context:

The International Union for Conservation of Nature (IUCN), in its World Heritage Outlook 4 review, has rated Khangchendzonga National Park (KNP) as “Good.” It is the only Indian site to receive a positive conservation outlook.

Background:

- The park has successfully combined conservation efforts with traditional practices, maintained biodiversity, and managed natural hazards efficiently, such as responding to the glacial lake outburst flood through preventive measures.

About Khangchendzonga National Park:

- Khangchendzonga National Park is a national park and part of the Khangchendzonga

Biosphere Reserve in Sikkim, India.

- It was inscribed to the UNESCO World Heritage Sites list in July 2016, becoming the first "Mixed Heritage" site of India.
- It was included in the UNESCO Man and the Biosphere Programme. The park is named after the mountain Kangchenjunga, which is the third-highest peak in the world at 8,586 m (28,169 ft) tall.
- The total area of the park is 1,784 km² (689 sq mi).
 - » **Flora:** The vegetation of the park includes temperate broadleaf and mixed forests consisting of oaks, fir, birch, maple and willow. Alpine grasses and shrubs occur at higher elevations along with many medicinal plants and herbs.
 - » **Fauna:** About 550 species of birds occur in the park including blood pheasant, satyr tragopan, osprey, Himalayan griffon, lammergeier, several species of green pigeon, Tibetan snowcock, snow pigeon, impeyan pheasant, Asian emerald cuckoo, sunbirds and eagles.



About World Heritage Outlook 4:

- World Heritage Outlook is a global assessment of the conservation status of over 200 natural and mixed UNESCO World Heritage sites, published every 3-5 years.
- **Key findings:**
 - » Climate change is the single greatest threat, with 43% of sites facing a high or very high risk.
 - » The number of sites with a positive conservation outlook has decreased from 62% in 2020 to 57% in 2025.
 - » There has been a sharp increase in sites affected by diseases, from 2% in 2020 to 9% in 2025.
 - » Over 40% of sites face conservation concerns, a figure based on assessments since 2014.

Conclusion:

The IUCN's "Good" rating for Khangchendzonga National Park highlights a model of coexistence between nature, culture, and community stewardship. It demonstrates that when traditional values align with scientific conservation and participatory management, ecosystems not only survive—but thrive.

New Spider Species "Pilia Malenadu"

Context:

A new spider species *Pilia malenadu* was recently discovered in Madhugundi village, Mudigere taluk, Chikkamagaluru district, located in the foothills of the Western Ghats of Karnataka, India.

About Pilia Malenadu:

- **Genus:** The species belongs to the *Pilia* genus of jumping spiders (family Salticidae).
- **Naming:** The species was named "*Pilia malenadu*" to honor the "Malenadu" region (meaning "land of hills"), where it was found.
- **Habitat:** The spiders were found exclusively on two specific plant species: *Memecylon umbellatum* and *Memecylon malabaricum*, suggesting a strong microhabitat preference.
- **Specimens:** Researchers identified both male and female specimens of the genus for the first time, providing crucial morphological data that was previously unavailable.



Significance of discovery:

- This discovery is particularly notable because it is the first recorded sighting of the *Pilia* genus in over 120 years, with the last one identified in Kerala in 1902.
- It helps scientists understand the anatomy and classification of the *Pilia* genus.
- Found in the Western Ghats, a biodiversity hotspot, showing the region still has many undiscovered species.

About Malenadu Region:

- The spider's name, *Pilia malenadu*, is derived from the Malenadu (or Malnad) region of Karnataka, which literally means "land of rain" in Kannada ("male" = rain, "nadu" = land). This region is part of the Western Ghats and is characterized by:
 - » **High Rainfall:** Receives heavy monsoon precipitation, contributing to lush forests and perennial rivers.
 - » **Dense Forest Cover:** Includes tropical evergreen and semi-evergreen forests that are rich in endemic flora and fauna.
 - » **Unique Microhabitats:** Provides specialized ecological niches for understory plants like *Memecylon umbellatum* and *Memecylon malabaricum*, where *Pilia malenadu* was discovered.
 - » **Biodiversity Hotspot:** Part of the UNESCO World Heritage-listed Western Ghats, supporting numerous endemic and rare species of plants, amphibians,

reptiles, and insects.

Conclusion:

The discovery of Pilia malenadu demonstrates that India's biodiversity still holds many secrets, especially in regions like the Western Ghats. Protecting these ecosystems ensures the survival of such rare and endemic species, contributing to both ecological balance and scientific knowledge.

Higher Protection for Rhesus Macaque under Wildlife Act

Context:

The standing committee of the National Board for Wildlife (SC-NBWL), chaired by Union Environment Minister Bhupender Yadav, has recently recommended reinstating the Rhesus Macaque under Schedule II of the Wildlife (Protection) Act, 1972. This move aims to restore statutory protection, curb illegal trade and cruelty, and ensure regulated scientific management of the species.

Background:

- Following the Wildlife (Protection) Amendment Act, 2022, the Rhesus Macaque was moved from Schedule II to a lower schedule (effectively Schedule IV under the rationalized four-schedule system). This schedule provides less stringent protection.
- Offences against animals in this category attract lower penalties, making it more difficult for forest officials to act against abuse or illegal trade.

Proposed Status:

- The panel has recommended reinstating the species in Schedule II (one of the two schedules for specially protected animals under the amended Act), which offers a higher degree of protection.
- **Implications of the Proposal:**
 - » **Prohibition of Hunting and Trade:** Reinstatement to a higher schedule will make hunting, poaching, and illegal

trade of Rhesus Macaques illegal and subject to severe penalties.

- » **Stricter Penalties:** Offenses under Schedule II would attract higher fines and longer imprisonment compared to the current status.
- » **Empowered Enforcement:** State forest departments and wildlife authorities will gain stronger legal tools to prevent cruelty, exploitation, and illegal capture, and to prosecute offenders.
- » **Framework for Management:** The move enables a regulated framework for scientific management of the species, including conflict mitigation, rescue, rehabilitation, and population control under authorized protocols.



Significance:

- Reinstating Rhesus Macaque under Schedule II will:
 - » Strengthen legal protection against cruelty and illegal trade.
 - » Enable scientifically informed management and conservation.
 - » Facilitate the creation of targeted conflict mitigation strategies, balancing wildlife conservation with human interests.

Way Forward:

- The recommendation now awaits consideration and approval by the Ministry of Environment, Forest and Climate Change

(MoEFCC). If approved, it could set a precedent for revisiting protection measures for other species facing similar threats.

Conclusion:

The move underscores India's commitment to animal welfare, biodiversity conservation, and ecosystem balance, while recognizing the challenges of human-wildlife coexistence. Strategic, science-based management plans will be key to ensuring that the Rhesus Macaque thrives without creating unmanageable conflict in human-dominated landscapes.

ICAR Study on Soil Carbon

Context:

A recent ICAR (Indian Council of Agricultural Research) study revealed that climate change and unbalanced fertiliser use are major factors behind the decline of soil organic carbon (SOC) across India's arable lands. The six-year study (2017–2023), coordinated by the Indian Institute of Soil Science, Bhopal, analysed over 2.5 lakh soil samples from 620 districts across 29 States.

Key findings of the study:

- The study has found that if the organic carbon is low, then the deficiency of micronutrients in the soil is high, and if the organic carbon is high, the deficiency is low.
- Also, the organic carbon is highly correlated with the elevation. If the elevation of the land is high, then the organic carbon content is high.
- Additionally, the organic soil carbon is negatively correlated with temperature. For example, in Rajasthan and Telangana, the temperature is very high, and their organic carbon content is low.
- The cropping system is particularly important in deciding the organic carbon content within the regions. Wherever rice-based cropping systems or pulse-based systems are there, the organic carbon content is a bit higher than the areas that

followed wheat and coarse-grain cropping systems.

- Rising temperatures are expected to further accelerate SOC loss, reducing soil fertility and increasing heat reflection, which intensifies the greenhouse effect. Lower SOC also means less carbon sequestration, threatening India's climate mitigation goals.

Policy Recommendations by ICAR:

- **Organic Carbon Sequestration:** Promote carbon-rich farming systems and cover all soils with vegetation or crops.
- **Incentivize Carbon Credit Farming:** Reward farmers who enhance soil carbon storage.
- **Balanced Fertilizer Use:** Encourage scientific nutrient management—optimum N:P:K ratios and organic manure integration.
- **Agroforestry & Plantation Drives:** Increase vegetation cover to absorb atmospheric CO₂.
- **Climate-Resilient Cropping:** Develop crop management systems tailored for warming climates.

Significance:

- The study provides India's first agro-ecological base map linking cropping systems, fertilizer use, and SOC health across 20 agro-ecological regions.
- It aids policy formulation on carbon credit systems, land degradation, and climate adaptation.
- Protecting soil carbon is essential not only for agricultural productivity but also for India's commitments under the Paris Agreement.

Conclusion:

The ICAR findings underscore that climate change and fertilizer misuse are silently degrading India's most vital resource - its soil. Restoring organic carbon through balanced nutrient management, sustainable cropping, and carbon credit incentives will be central to ensuring food security, soil health, and climate resilience.

Tropical Forest Forever Facility (TFFF)

Context:

At the COP30 Climate Summit in Belém, Brazil, global leaders launched the Tropical Forest Forever Facility (TFFF) - an new investment fund aimed at conserving tropical forests. The initiative led by Brazil, giving the Global South a leading role in the global forest conservation.

Why was the TFFF launched?

- The TFFF was launched to reverse the economic incentives that drive deforestation.
- Currently, forests are often worth more when cleared for agriculture, timber, or infrastructure than when preserved.
- The fund seeks to change this logic by financially rewarding countries for keeping forests standing — recognizing the ecosystem services they provide, such as carbon sequestration, biodiversity protection, rainfall regulation, and temperature moderation.

How the Tropical Forest Forever Facility Will Work



Establish a blended finance fund with a target of \$125 billion



Invest in a fixed-income portfolio to earn returns above the capital costs



Satellite-based monitoring systems calculate canopy cover, deforestation and degradation



Tropical forest countries are paid per hectare of standing forest discounted for deforestation and fire degradation



Tropical forest countries allocate at least 20% of payments to Indigenous peoples and local communities

About TFFF:

- The Tropical Forest Forever Facility (TFFF) is a permanent, self-financing investment fund designed to reward tropical forest nations for conserving their existing old-growth forests.
- **Key Features and Mechanics:**
 - » **Financial Model:** The TFFF is an investment fund, not a traditional aid or donation-based mechanism. It aims to raise \$125 billion by combining public funds (from governments and philanthropists) with private capital (from institutional investors like pension and sovereign wealth funds).
 - » **Investment and Returns:** The capital raised is invested in a diversified portfolio of fixed-income assets, such as sovereign and corporate green bonds, specifically excluding fossil fuel-related investments. The returns generated from these investments are then channeled to tropical forest countries for conservation efforts.
 - » **Performance-Based Payments:** Payments to the approximately 74 eligible countries are performance-based, calculated on a fixed amount per hectare of standing forest and adjusted for any deforestation or degradation, verified annually by satellite monitoring.
 - » **Beneficiaries:** The funds will support national conservation initiatives, with a mandatory allocation of at least 20% directed to Indigenous Peoples and Local Communities (IPLCs), recognizing their vital role as forest stewards.
 - » **Governance:** The fund is hosted at the World Bank, which serves as the trustee and interim host.

Significance:

- Empowers tropical forest nations to lead climate action instead of depending solely on Northern donors.
- Offers a sustainable finance model—using capital markets to fund conservation.
- Reinforces South-South cooperation (Brazil,

Indonesia, Colombia at the forefront).

- Reflects a shift from charity-based climate finance to investment-based responsibility.

Conclusion:

The Tropical Forest Forever Facility (TFFF) represents a bold experiment in environmental finance—an attempt to make tropical forest conservation financially rewarding and self-sustaining. However, for it to succeed, it must balance market mechanisms with ecological justice, ensuring that forest nations and local communities remain at the center of climate action rather than its periphery.

India's First National Vulture Survey

Context:

Wildlife Institute of India (WII) has recently released the country's first pan India survey of critically endangered vultures, titled "Pan India Assessment and Monitoring of Endangered Species – Vultures". Survey focused on four critically endangered vulture species: Indian Vulture (*Gyps indicus*), White rumped Vulture (*Gyps bengalensis*), Slender billed Vulture (*Gyps tenuirostris*) and Red headed Vulture (*Sarcogyps calvus*).

Key findings of the survey:

- Out of 425 historical nesting sites documented across 25 states, only 120 showed active nesting, while 93 new nesting locations were identified, bringing the total to 213. Nearly half of these sites (103) are within protected areas.
- Madhya Pradesh and Rajasthan together account for about 63% of all vulture nests, with over 60% located within protected areas.
- The Slender-billed Vulture (*Gyps tenuirostris*) has lost all 47 previously known historical nesting sites and is now restricted to Upper Assam, with only 20 active nests recorded.

Other species findings:

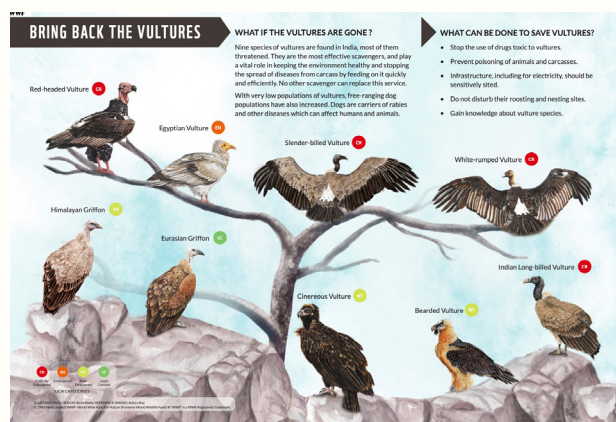
- **White-rumped vulture (*Gyps bengalensis*):** Active at 69 sites, down from 238 historical sites.
- **Indian vulture (*Gyps indicus*):** Found at 110 sites, retaining 86 historical and adding 24 new sites.
- **Red-headed vulture (*Sarcogyps calvus*):** Found at 5 new sites; none at historical sites.

Threats of vultures in India:

- **Habitat loss:** Deforestation and degradation reduce nesting opportunities.
- **Toxic veterinary drugs:** Despite the ban on diclofenac, population recovery remains slow.
- **Feral dogs:** Interfere with access to carcasses and disrupt feeding behavior.
- **Fragmentation of populations:** Slow natural recolonization of vacant sites.

About Vultures:

- Large carrion-eating birds, primarily found in tropical and subtropical regions; India hosts 9 resident and migratory species.
- **Significance:**
 - » Clean the environment by consuming carcasses.
 - » Control the spread of wildlife and livestock diseases.
- **Conservation Status:**
 - » Protected under Schedule I, Wildlife Protection Act, 1972.



Government Initiatives for Vulture Conservation:

To counter vulture decline, India has implemented several conservation measures:

- **Vulture Conservation Breeding Centres (VCBCs):** Established in states like Haryana, West Bengal, and Assam to breed and release critically endangered species.
- **Ban on toxic NSAIDs (diclofenac):** Veterinary use of diclofenac has been banned, and safer alternatives like meloxicam are promoted.
- **Protected Area Management:** Focus on nesting site protection, habitat restoration, and monitoring within sanctuaries and national parks.
- **Carcass Management Programs:** Ensuring carcasses are free from harmful drugs and reducing human-wildlife conflict.
- **Awareness Campaigns:** Promoting community participation in vulture conservation efforts.

Conclusion:

The WII assessment provides a crucial baseline for the current status of India's vultures, highlighting the urgent need for integrated conservation strategies. Protecting nesting habitats, regulating carcass quality, controlling feral dog populations, and continuous monitoring are essential to prevent further decline and ensure the recovery of these ecologically vital species.

GRAP-3 in Delhi

Context:

The air quality of the National Capital Region (NCR) had deteriorated sharply with the Air Quality Index (AQI) reaching the "severe" category (401–450) and even higher in some areas. Considering the gravity of the situation, the Commission for Air Quality Management (CAQM) had issued a directive to implement the third phase of the Graded Response Action Plan (GRAP) in Delhi and its adjoining districts, which was recently lifted on 26 November following a

slight improvement in the air quality.

About GRAP 3:

- The Graded Response Action Plan (GRAP) is a set of emergency measures implemented in Delhi-NCR to combat severe air pollution. It has four stages (I to IV) based on Air Quality Index (AQI) levels.
- Stage III is activated when the AQI crosses 401 or higher, indicating "Severe" air quality.
- This stage mandates restrictions on vehicular movement, construction, and industrial activities to control pollution levels.

Fight against pollution

A look at the city's Graded Response Action Plan to fight air pollution

STAGE 1: POOR QUALITY AIR (AQI between 201 and 300)

- Mechanised sweeping, washing of roads
- Enforcing ban on firecrackers, increased scrutiny of vehicles for pollution standards
- Large unregistered C&D sites can be shut

STAGE 2: VERY POOR AIR (AQI between 301 and 400)

- Dust control measures at C&D sites
- Parking fee to surge by 3-4 times
- Stop use of coal/firewood in eateries
- Augmenting frequency of CNG/electric bus and Metro services

STAGE 3: SEVERELY POLLUTED AIR (AQI between 401 and 450)

- Bar BS-III petrol and BS-IV vehicles from roads
- Govts can take decision on shutting primary schools
- Govts can take decision on shutting primary schools
- Ban on all non-essential construction work

STAGE 4: SEVERE+ (AQI between 451 and 500)

- Ban on entry of diesel commercial vehicles (barring B6-VI) in Delhi, except those carrying essential commodities or providing essential services
- Odd-even vehicle policy may be rolled out

Under Stage III:

- BS-III petrol vehicles and BS-IV diesel vehicles are banned from operating in Delhi-NCR.
- These include light motor vehicles (LMVs) such as cars and two-wheelers.
- Only electric, CNG, and BS-VI diesel vehicles are permitted to operate.
- In addition to vehicle restrictions:
 - » Non-essential construction and demolition activities are suspended.
 - » Transportation of dust-generating materials such as cement, sand, fly ash, etc., is prohibited.
 - » Only projects of national importance or public interest (like hospitals or metro construction) may continue with precautions.

Exemption applied:

- Vehicles used by physically challenged persons.
- Emergency services vehicles (ambulances, fire trucks, police, etc.).
- Government and utility vehicles involved in essential services.
- Goods vehicles carrying essential commodities (such as food, medical supplies, or fuel).

Penalties for violating the ban:

- Owners of banned vehicles found operating during Stage III can face:
 - » Hefty fines as per the Motor Vehicles Act and pollution control norms, which may range from Rs. 20,000 and above.
 - » Vehicle impoundment for repeated violations.
 - » Implementation will be strictly monitored across Delhi, Gurugram, Faridabad, Ghaziabad, and Gautam Budh Nagar.

Significance of these Measures:

- Vehicles contribute significantly to air pollution (especially older engines, diesel particulate matter, unfiltered emissions). Under severe pollution episodes, restricting

older/higher polluting vehicles helps reduce part of the load.

- In parallel, other sources like dust, construction/demolition, non approved industrial fuel use are addressed under GRAP 3.
- The restrictions are emergency/temporary measures to deal with acute air pollution episodes, not intended as permanent complete bans for all times.

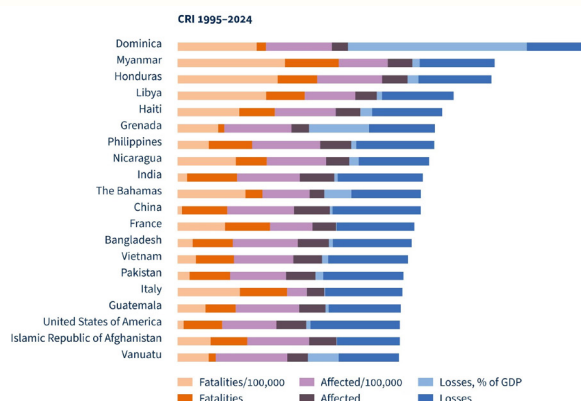
Climate Risk Index 2026

Context:

The Climate Risk Index (CRI) 2026, published by Germanwatch at COP30 in Belém, Brazil, has recently issued a stark warning for India and the global community. Analyzing three decades of climate data from 1995 to 2024, the report ranks India ninth among the most climate-affected countries.

About Climate Risk Index:

- Annual publication tracking human and economic toll of extreme weather since 2006.
- Evaluates countries using six indicators: economic losses, fatalities, and people affected (absolute and relative).
- Data sourced from EM-DAT, World Bank, and IMF.



Key findings of the report:

- **Most Affected Countries (Long-Term &**

2024):

- » **Long-term (1995–2024):** Dominica, Myanmar, Honduras top the list.
- » **2024:** St. Vincent & the Grenadines, Grenada, and Chad most affected.
- » Small Island Developing States (SIDS) heavily affected despite low emissions.
- **India's Position:**
 - » Ranked 9th in the long-term CRI (1995–2024), 15th in 2024.
 - » Ranked 3rd globally in terms of people affected by extreme weather in 2024.
- **Impact in India:**
 - » Over 430 extreme weather events: floods, cyclones, heatwaves, droughts.
 - » 80,000 deaths.
 - » 1.3 billion people affected.
 - » Economic losses over USD 170 billion (annual average USD 5.6 billion).
 - » Persistent “continuous climate threats” – communities face repeated disasters without fully recovering.
- **Notable events:**
 - » 2024 monsoon floods displaced 8 million across Gujarat, Maharashtra, Tripura.
 - » Heatwaves exceeding 48–50°C in Delhi, Rajasthan, Uttar Pradesh.
 - » Cyclones: Amphan (2020), Fani (2019), Yaas (2021).

Science Behind Extreme Weather:

- Human-induced climate change increases frequency and severity of 74% of extreme events.
- Floods and storms caused 58% of monetary damage; heatwaves and storms caused two-thirds of fatalities.
- Floods affected half of all victims.
- Disasters exacerbate poverty and displacement in India.

Adaptation and Mitigation Challenges:

- 62 countries have National Adaptation Plans (NAPs), but implementation is weak.
- Developing countries require USD 130–415 billion per year for adaptation by 2030; the Adaptation Fund received only USD 130

million in 2024.

- Recovery costs strain budgets, preventing long-term climate planning.

Loss and Damage:

- USD 4.5 trillion in losses justify operationalizing Loss and Damage mechanisms.
- Future financial needs projected at USD 1,132–1,741 billion per year by 2050.
- Fund for Responding to Loss and Damage (FRLD) launched at COP30 with USD 250 million available.
- **Funding gaps remain:** developed countries promised USD 788 million; less than USD 400 million transferred.

Policy Imperatives:

- **Mitigation:** Reduce global emissions to limit warming below 1.5°C.
- **Adaptation Finance:** Restructure USD 300 billion NCQG to include loss and damage.
- **NAP Implementation:** Focus on executing adaptation plans in high-risk countries.
- **Private Sector Engagement:** Mobilize USD 50 billion annually through policy and blended finance.

Conclusion:

CRI 2026 emphasizes that incremental responses are insufficient. For India, urgent action is needed to scale finance, implement adaptation, and pursue climate justice.

India's Sea Cows Under Threat**Context:**

A new report recently released by IUCN at the IUCN Conservation Congress revealed that the long-term survival of India's dugong populations - especially in the Gulf of Kutch, Gulf of Mannar–Palk Bay, and the Andaman & Nicobar Islands - is now “highly uncertain.”

About Dugongs:

- Dugongs are large, herbivorous marine mammals commonly known as “sea cows” that live in coastal waters and feed on

seagrass. They are related to manatees, but unlike manatees, they are strictly marine animals with a dolphin-like tail.

- Listed as Vulnerable on the IUCN Red List and protected under Schedule I of the Wildlife (Protection) Act, 1972.

Why Are India's Dugongs Under Threat?

Threat	Causes/Details	Impact on Dugongs
Seagrass Habitat Loss	Dredging, coastal construction, port expansion, aquaculture, pollution, sedimentation	Loss of primary food source → threatens survival
Fishing Bycatch	Dugongs entangled in gillnets; overlap with high-intensity fishing zones	Major cause of deaths; hotspots: Tamil Nadu, Andaman & Nicobar, Gulf of Kutch
Pollution & Toxic Metals	Arsenic, cadmium, chromium, mercury, lead from industrial effluents, agricultural runoff, untreated sewage, marine litter	Accumulation in seagrass → affects organs like liver & kidneys
Slow	Females reproduce once every few years; long gestation; high calf mortality	Small additional losses can severely impact population viability
Climate Change	Rising sea levels, ocean warming, seagrass bleaching, increased storms	Exacerbates habitat degradation and other



Ecological Significance:

Dugongs are ecosystem engineers. Their grazing:

- **Maintains Seagrass Meadows:**
 - » Pruning promotes new growth
 - » Prevents overgrowth and decay
 - » Enhances carbon sequestration—critical for climate mitigation
- **Supports Marine Food Chains:** By stirring sediments and releasing nutrients, dugongs help sustain populations of:
 - » Commercial fish
 - » Shellfish
 - » Sea cucumbers
 - » Other invertebrates
- **Economic Value:** Research indicates that dugong-supported seagrass ecosystems contribute Rs. 2 crore per year in additional fish production.

Conservation Measures by the Government:

Year / Initiative	Description / Actions	Objective
2010: Dugong Task Force	Set up by MoEFCC to coordinate efforts	Strengthen
National Dugong Recovery	Partnership with Tamil Nadu, Gujarat, Andaman & Nicobar Administration	Habitat protection, research, community awareness

2022: Dugong	Area: 448 sq. km; protects seagrass meadows	Provides safe habitat; India's first dedicated dugong reserve
Legal	Schedule I species under the Wildlife Protection Act; penalties for hunting/trade; fishing restrictions in protected areas	Prevent hunting, reduce bycatch, safeguard dugongs

Conclusion:

Dugongs are an irreplaceable part of India's marine heritage and coastal ecology. Their survival hinges on the health of seagrass ecosystems—one of the world's most efficient natural carbon sinks. The increasing threat from human activities, pollution, and habitat degradation demands urgent and coordinated action. Conserving dugongs is not just about protecting a species—it is about safeguarding coastal livelihoods, marine biodiversity, and India's climate resilience.

India to Submit Revised NDC for 2035

Context:

At the COP30 climate summit in Belém, Brazil, Union Environment Minister Bhupender Yadav announced that India will publish its revised Nationally Determined Contribution (NDC) for the 2031–2035 period (NDC 3.0) by December 2025.

About Nationally Determined Contributions (NDCs):

- NDCs are central to the Paris Agreement, as they detail the climate action a country intends to take - both for mitigation (reducing emissions) and adaptation (improving resilience).
- Countries submit their Nationally

Determined Contributions (NDCs) to the UNFCCC Secretariat every five years as part of their commitment to the Paris Agreement.

- These submissions are a critical mechanism for tracking national climate action plans, which outline targets for reducing greenhouse gas (GHG) emissions and enhancing climate resilience.



Rationale for Revising NDCs for 2035:

- Aligning with Net-Zero by 2070**
 - India has committed to achieving net-zero emissions by 2070. The revised NDC (NDC 3.0) for 2031–2035 will serve as an intermediate milestone toward this long-term goal.
- Scaling Ambition**
 - The new NDC aims to increase mitigation targets, enhance renewable energy deployment, and accelerate energy transition.
 - Focus on Green Hydrogen Mission, nuclear energy, and expansion of electric mobility.
- Adaptation as a Priority**
 - COP30 has emphasized adaptation finance, with India highlighting measures for coastal resilience, water management, and sustainable agriculture.
 - NDC 3.0 will aim to operationalize rationalized adaptation indicators for tracking progress.
- Mobilizing Finance & Investment**
 - The revised NDC is expected to de-risk investments to attract private and public capital.

- » Continued engagement with Green Climate Fund (GCF), Adaptation Fund, and bilateral climate finance mechanisms is planned.

India's Original NDC (2015) and Updated NDC (2022):

Feature	Original NDC (2015)	Updated NDC (2022)
Emissions Intensity	Reduce emissions intensity of GDP by 33–35% from 2005 levels by 2030	Reduce emissions intensity of GDP by 45% from 2005 levels by 2030
Non-Fossil Fuel Power	Achieve $\geq 40\%$ of total electricity generation capacity from non-fossil fuel sources by 2030	Achieve about 50% of total electric power installed capacity from non-fossil fuel-based sources by 2030
Carbon Sink	Create an additional carbon sink of 2.5–3 billion tonnes of CO ₂ equivalent by 2030 through increased forest cover	Create an additional carbon sink of 2.5–3 billion tonnes of CO ₂ equivalent by 2030 through increased forest cover
Key Initiative	N/A	Introduction of the LiFE (Lifestyle for Environment) mass movement
Long-Term Goal	N/A	Step towards achieving India's net-zero target by 2070 (announced at COP26)

SC Orders to Declare Saranda Forests a Wildlife Sanctuary

Context:

The Supreme Court of India recently directed the Jharkhand government to notify 126 compartments of the Saranda forests in West Singhbhum district as a Wildlife Sanctuary within three months.

About the Sanctuary:

- The Saranda Forest is one of India's densest Sal forests, spanning the Singhbhum-Kolhan landscape.
- It is ecologically rich and home to:
 - » Asian elephants
 - » Leopards
 - » Sambar and barking deer
 - » Endemic reptiles and diverse bird species
 - » Several perennial streams forming vital watersheds
- The region is also populated by tribal communities such as the Ho, Munda, and Oraon groups, whose livelihoods and cultural practices are closely tied to the forest.

Key Directions of the Supreme Court:

- **Notification of Wildlife Sanctuary:** Jharkhand must notify 126 compartments from the 1968 Government of Bihar notification as a Wildlife Sanctuary.
- **Exclusion of Six Compartments:** Six compartments (KP-2, KP-10, KP-11, KP-12, KP-13, KP-14) may be excluded as they fall under a mining management plan.
- **Mining Restriction:** No mining activity shall be permitted within 1 km from the sanctuary boundary.
- **Protection of Tribal Rights:** The Court clarified that Forest Rights Act (FRA) safeguards the rights of Scheduled Tribes and traditional forest dwellers even after sanctuary notification.
- **Directive for Public Awareness:** The state must publicise widely that declaration

of the sanctuary will not adversely affect habitation, schools, roads, or community rights.

Legal Aspects:

- **Wildlife Protection Act, 1972:**
 - » Under Section 26A, state governments are empowered to declare Wildlife Sanctuaries.
 - » Section 24(2)(c) ensures that rights of forest dwellers are recorded and protected.
- **Forest Rights Act, 2006:**
 - » Recognises community and individual forest rights, including habitation and access to resources.
 - » The Court held that FRA rights remain fully intact within a wildlife sanctuary.
- **Constitutional Provisions:**
 - » **Article 48A:** State shall protect and improve the environment.
 - » **Article 51A(g):** Duty of citizens to preserve forests and wildlife.

Significance & Implications:

- **Environmental Protection:** The sanctuary status will strengthen conservation of the Sal ecosystem, protect wildlife corridors, and prevent habitat fragmentation.
- **Control on Mining Activities:** Saranda is rich in iron ore deposits and has faced decades of extraction pressure. The 1-km mining buffer aims to reduce ecological damage and maintain forest integrity.
- **Rights-Based Conservation:** The judgment emphasises coexistence: conservation measures must not undermine tribal rights and livelihoods.

About the 1968 Notification:

- The then-Government of Bihar (before Jharkhand's creation) notified 31,468.25 hectares as the Saranda Game Sanctuary in 1968.
- The Court used this as the baseline for restoring and upgrading the area's protected status.

Conclusion:

The Supreme Court's directive to declare the Saranda forests as a Wildlife Sanctuary is a major step in India's environmental conservation landscape. It protects one of the country's most important Sal forest ecosystems while ensuring that tribal rights under FRA remain fully preserved.

UNEP Report on Global Methane Emissions

Context:

Global Methane Status Report was released by the UN Environment Programme (UNEP) and the Climate and Clean Air Coalition (CCAC) at the Global Methane Pledge (GMP) Ministerial meeting at COP30. The report highlights that the world remains significantly off-track to achieve the target of reducing methane emissions by 30% from 2020 levels by 2030, although notable progress has been made since the launch of the Global Methane Pledge (GMP) in 2021.

Why Methane Matters?

- Methane is responsible for nearly one-third of current global warming. It is a potent greenhouse gas with 80 times more warming potential than CO₂ over a 20-year period, making rapid methane cuts one of the fastest strategies to slow near-term warming and support achievement of the Paris Agreement goal.

About Global Methane Pledge (GMP):

- The Global Methane Pledge (GMP) is a commitment by 159 countries to collectively reduce global methane emissions by at least 30% from 2020 levels by 2030, aiming to limit global warming.
- Launched at COP26 in 2021 by the European Union and the U.S., the pledge focuses on high-impact sectors like fossil fuels, agriculture, and waste.

Ministerial Response at COP30:

- Strengthened monitoring and transparency
- Rapid deployment of methane solutions in

high-emitting sectors

- Financial and technological support for developing countries
- Integration of methane cuts into national climate strategies

Challenges Identified during the meeting:

- Implementation gaps between pledges and actual reductions
- Insufficient regulatory enforcement in high-emitting sectors
- Lack of accurate emissions data in several developing countries
- Financial and technological constraints, especially in agriculture and waste sectors

Projected Benefits of Methane Action:

- 0.2°C avoided warming by mid-century
- Over 180,000 premature deaths prevented annually by 2030
- Nearly 19 million tonnes of crops saved each year
- Economic gains exceeding \$330 billion annually

Implications for India:

- India, though not a signatory to the Global Methane Pledge, is a major methane emitter due to agriculture (especially livestock) and waste. The findings underscore the importance of:
 - » Modernizing agricultural practices
 - » Expanding waste-to-energy and biogas programmes
 - » Enhancing methane measurement systems
 - » Leveraging international financing for methane reduction
- Reducing methane could also support India's goals under National Clean Air Programme (NCAP) and improve rural livelihoods.

Conclusion:

The COP30 call for accelerated methane reductions underscores the urgency of addressing a pollutant that offers one of the quickest pathways to curb near-term global warming. The new UNEP-CCAC assessment

reveals progress but warns that the world is still far from the trajectory needed to meet the Global Methane Pledge. With available technologies and growing international commitment, the next few years will be crucial in translating pledges into concrete actions to safeguard the 1.5°C target.

New Gecko Species in Andhra Pradesh

Context:

Scientists from the Zoological Survey of India (ZSI) recently discovered a new species of slender gecko in Andhra Pradesh. The species was found in the Tirumala Hill ranges within the Seshachalam Biosphere Reserve of Andhra Pradesh, and it belongs to the genus *Hemiphyllodactylus*

About the New Gecko Species:

- The species has been named *Hemiphyllodactylus venkatadri* sp. nov, after the sacred Venkatadri Hills (Tirumala). The name is derived from two Sanskrit words— 'Venkata' and 'Adri' (meaning hill).
- This new species is genetically distinct from other *Hemiphyllodactylus* geckos in the region and was described in the journal *Herpetozoa*.
- **Significance:**
 - » It is the second *Hemiphyllodactylus* species found in Andhra Pradesh and is significant for highlighting the biodiversity of the Eastern Ghats region.



Key characteristics:

- A unique combination of morphological features, including the number of chin scales and pre-cloacal and femoral pores and small adult body size.
- Genetic analysis shows a significant divergence from its closest relatives, confirming it is a distinct species.

About Seshachalam Biosphere Reserve:

- The Seshachalam Biosphere Reserve is located in the Eastern Ghats of southern Andhra Pradesh, India, and was designated a biosphere reserve in 2010.
- It is situated in the Seshachalam hill ranges, near the city of Tirupati, and is famous for its rich biodiversity, especially its large reserves of the valuable red sandalwood tree. It is Andhra Pradesh's first biosphere reserve.
- **Flora:** Red Sandalwood (*Pterocarpus santalinus*)
 - » Endemic and economically valuable tree species.
 - » Forms extensive forests in the reserve.
 - » Known for its rich red timber used in handicrafts, carvings, and traditional medicine.
- **Fauna:** Golden Gecko (*Calodactylodes aureus*)
 - » Rare and endemic to the Eastern Ghats.
 - » Arboreal species typically found on rocky cliffs and trees.

About Zoological Survey of India (ZSI):

- The Zoological Survey of India (ZSI) is a premier Indian research institute under the Ministry of Environment, Forest and Climate Change that surveys, documents, and studies the nation's faunal diversity.
- Headquartered in Kolkata, the ZSI was established in 1916 and works to advance knowledge of animal taxonomy and conservation through exploration, research, and monitoring, with 16 regional centers across India.
- Its functions include status surveys of

threatened species, preparing a Red Data Book, and providing expertise for wildlife forensics and training programs.

Conclusion:

The discovery of *Hemiphyllodactylus venkatadri* sp. nov is a significant addition to India's herpetofaunal diversity. It underscores the urgency of systematic surveys, molecular research, and conservation planning in the Eastern Ghats - one of the country's most overlooked but species-rich biogeographic zones.

Hayli Gubbi Volcano Eruption 2025

Context:

Ethiopia's Hayli Gubbi volcano, located in the Afar Region, erupted on November 23, 2025, for the first time in recorded history. The eruption sent ash plumes up to 14 km into the atmosphere. The ash cloud from the eruption spread across the Red Sea, reaching Yemen, Oman, Pakistan, and northern India.

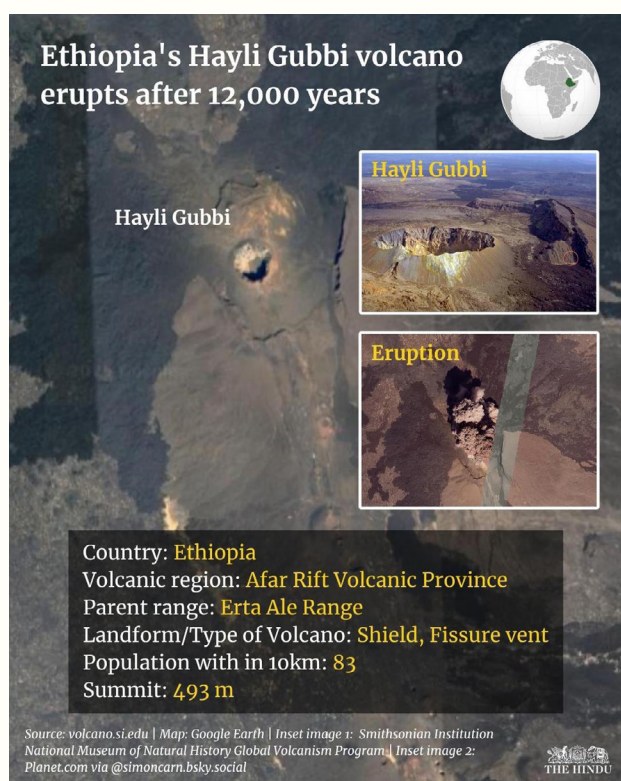
About Hayli Gubbi Volcano:

- Hayli Gubbi is a shield volcano in the Afar Region of northeastern Ethiopia.
- It is part of the Erta Ale Range and is the southernmost volcano in this chain.
- The volcano lies in a tectonically active rift zone - specifically, the Afar Rift, which is part of the larger East African Rift System.
- The Afar Rift is a triple junction area, where three tectonic plates (the Nubian, Somali, and Arabian plates) are diverging, making it geologically very unstable and volcanically active.

About Volcano:

- A volcano is a rupture in the Earth's crust where molten rock, gases, and ash are expelled from beneath the surface. The molten rock is called magma when inside the Earth surface and lava once it reaches the surface.

- **Formation of Volcanoes:** Volcanoes are primarily formed due to:
 - » **Tectonic Plate Boundaries:**
 - Divergent boundaries: Plates move apart; magma rises to fill the gap (e.g., Mid-Atlantic Ridge).
 - Convergent boundaries: One plate subducts beneath another; magma forms from melting of subducted material (e.g., Pacific Ring of Fire).
 - » **Hotspots:** Magma rises from deep within the mantle, independent of plate boundaries (e.g., Hawaii).



Types of Volcanoes:

- **Shield Volcano:** Broad, gently sloping; formed from fluid lava flows (e.g., Mauna Loa, Hawaii).
- **Composite or Stratovolcano:** Steep, conical; alternates between lava flows and explosive eruptions (e.g., Mount Fuji, Vesuvius).
- **Cinder Cone:** Small, steep-sided; formed from ash, cinders, and volcanic rocks (e.g., Paricutin, Mexico).
- **Lava Dome:** Dome-shaped, formed from viscous lava that piles near the vent (e.g., Mount St. Helens lava dome).

Volcanic Materials:

- **Lava:** Molten rock flowing on the surface.
- **Pyroclastic materials:** Ash, cinders, volcanic bombs.
- **Gases:** Carbon dioxide, sulfur dioxide, water vapor, hydrogen sulfide.

Volcanic Landforms:

- **Volcanic activity creates:**
 - » **Calderas:** Large depressions formed after volcanic eruption and collapse.
 - » **Crater:** Bowl-shaped depression at the top of a volcano.
 - » **Lava plateaus:** Formed from repeated lava flows over large areas.
 - » **Volcanic islands:** Created by underwater eruptions (e.g., Iceland, Azores).

Beneficial Effects of Volcanoes:

- **Fertile soil:** Volcanic ash enriches soil for agriculture.
- **Mineral resources:** Lava and volcanic rocks provide minerals like pumice, basalt, and gold deposits.
- **Geothermal energy:** Heat from magma can generate electricity (e.g., Iceland).
- **Tourism:** Volcanoes attract tourists, boosting local economy.

Volcanoes in India:

- **Barren Island (Andaman & Nicobar):** Only active volcano in India.
- **Narcondam (Andaman & Nicobar):** Dormant volcanic island.
- **Trekking and geological study sites:** Deccan Plateau basalts are remnants of ancient volcanic activity.



Science & Technology



Rising Fungal Disease Burden In India: The Imperative For Robust Surveillance And Dedicated Research

Context:

India is quietly entering a phase where fungal infections which were once considered rare, opportunistic, or limited to specific geographies, are becoming a widespread public health concern. A combination of environmental change, weakened immunity in the population, overuse of antibiotics, and inadequate diagnostic facilities has contributed to the rise of fungal diseases. At the same time, an organisational shift within the Indian Council of Medical Research (ICMR), which is integrating specialised mycology laboratories with a broader infectious diseases network, has triggered debate about whether the country may lose focused attention on fungal research at a critical moment.

ICMR's Lab Integration:

- ❖ ICMR has begun integrating its specialised fungal labs under the broader Infectious Diseases Research and Diagnostic Laboratory (IDRL) network. While the council has emphasised that fungal research remains a priority and that these labs have actually been upgraded, researchers worry that dilution of focus and resource competition could undermine progress.
- ❖ For nearly five years, ICMR's Mycology Network (MycoNet), comprising eight Advanced Mycology Diagnostic and Research

Centres (AMDRCs), has made important contributions. These centres mapped fungal infections, generated early national-level data, built technical capacity and ensured faster diagnosis in major institutions.

- ❖ Some centres have documented first-in-India reports of resistant or rare fungi, such as azole-resistant *Madurella fahalii*, *Arthrrium rasika ravindrae* causing keratitis, *Fonsecaea nubica* causing chromoblastomycosis.
- ❖ Researchers fear that merging niche labs into a larger network may reduce dedicated funding streams and shift focus to broader pathogens.

The Rising Burden of Fungal Diseases in India:

- ❖ A 2022 study in Open Forum Infectious Diseases estimated that over 57 million Indians, about 4.1% of the population, suffer from serious fungal diseases, giving the country the highest fungal disease burden per capita in the world.
- ❖ More strikingly, the estimated annual burden of serious fungal infections was found to be ten times higher than tuberculosis, one of India's most pervasive infectious diseases.
- ❖ The numbers are startling because fungal infections are often underestimated, misdiagnosed, or diagnosed late. Limited

surveillance and patchy diagnostic capabilities mean the true burden could be even higher. Researchers involved in these estimates have stressed that the goal is not just to capture prevalence but to push for better diagnostic tools, surveillance systems, and expert training.

Types of Fungal Infections:

❖ **Superficial and Cutaneous Infections**

- » Ringworm, athlete's foot, and onychomycosis affect the skin, feet, and nails.
- » Candidiasis commonly affects the mouth, skin folds, and genitals.
- » These infections are widespread and often overlooked because they are common and treatable, although recurrent cases signal deeper public health gaps.

❖ **Invasive and Deep Fungal Infections:** These are far more dangerous and often fatal without quick diagnosis:

- » **Histoplasmosis:** a lung infection caused by *Histoplasma*, usually from soil exposure.
- » **Aspergillosis:** inhalation of *Aspergillus* spores, especially dangerous for people with lung disease.
- » **Candidemia:** bloodstream infection that is life-threatening and common in ICU patients.
- » **Mucormycosis:** a fast-spreading fungal infection known for its devastating outbreaks, particularly after Covid-19.

❖ Invasive infections demand technical expertise and advanced laboratory capabilities—resources that are unevenly distributed across India.

What Is Driving the Increase?

❖ **Climate Change:** Rising temperatures and humidity create ideal conditions for fungal growth. Warmer environments favour tougher, more resistant fungi, which can survive in soil, air, and built spaces. This allows their spores to spread more easily and persist longer.

❖ **Urbanisation and Pollution:** Dust from construction, poor indoor ventilation, and high levels of air pollution allow fungal spores to circulate freely in crowded cities. Inhalation risks increase, especially for people with respiratory illnesses.

❖ **Antibiotic Misuse:** Overuse of antibiotics disrupts the body's natural bacterial ecosystem, allowing fungi, particularly *Candida* species, to multiply unchecked. The post-Covid period, with high antibiotic consumption and weakened immunity, has intensified this challenge.

❖ **Immunity Decline:** People recovering from Covid-19, individuals with diabetes, cancer patients, and others with weakened immune systems are more susceptible to invasive fungal infections such as mucormycosis, candidemia, and aspergillosis.

Why Dedicated Fungal Research Still Matters

Fungal diagnostics require specialised skill sets that are not interchangeable with routine bacterial or viral testing.

❖ **Complex Diagnostics:** Unlike many bacterial or viral tests, fungal diagnosis depends heavily on:

- » specialised culture media,
- » molecular tools such as PCR,
- » antigen tests like cryptococcal assays,
- » and expertise in identifying rare species.

❖ A recent review of microbiology labs in Odisha showed worrying gaps:

- » Fewer than half had antifungal susceptibility testing.
- » Less than 15% conducted cryptococcal antigen tests—despite its essential WHO classification.

❖ This under-recognition leads to under-reporting, which in turn results in chronic underinvestment.

❖ **Rising Antifungal Resistance:** Misuse of antifungal medicines in agriculture and human health has accelerated resistance. Azole resistance in *Aspergillus* and *Candida* species is becoming a global concern, reducing treatment options.

- ❖ **Shortage of Trained Mycologists:** India has very few formally trained medical mycologists. Without a clear institutional strategy, this expertise gap may widen.
- ❖ **Importance of Early Detection:** Late diagnosis significantly increases mortality in invasive fungal infections. Dedicated centres improve turnaround time and accuracy, especially in tertiary hospitals.

Building a Strong National Fungal Surveillance System:

- ❖ India needs a surveillance strategy that goes beyond clinical reporting. Fungal pathogens evolve in the environment long before they infect humans. Therefore, surveillance must be ecological, predictive, and continuous.

Proposed Multi-Tiered Diagnostic Model:

- ❖ **District Hospitals**
 - » KOH microscopy
 - » Basic fungal cultures
 - » Affordable rapid antigen tests
- ❖ **State-Level Laboratories**
 - » PCR-based fungal panels
 - » Drug resistance testing
- ❖ **Regional Centres of Excellence**
 - » Genome sequencing
 - » Molecular epidemiology
 - » AI-assisted microscopy
 - » Research collaborations

ICMR's Position: Strengthening Through Integration

- ❖ ICMR maintains that lab integration is part of a broader effort to strengthen capacity for viruses, bacteria, fungi, and parasites under a unified system following the One Health approach. According to the council fungal labs are not being downgraded, their scope has been expanded, and new IRDLs are being established across states.
- ❖ Each IRDL requires Rs.10–16 crore over five years, covering equipment, staff, and consumables. ICMR argues that integrated funding will ensure sustainability rather than fragmentation.
- ❖ Additionally, the mycology verticals within IRDLs remain connected to MycoNet, the

Antimicrobial Resistance Surveillance Network (AMRSN), and NARS-Net for respiratory pathogens.

What India Must Prioritise:

- ❖ **Strengthen Laboratory Infrastructure:** Advanced mycology labs should serve as hubs to train district and state hospitals, run proficiency testing, and maintain isolate repositories.
- ❖ **Scale Up Antifungal Stewardship:** Hospitals must monitor prescriptions, restrict irrational use, and implement audits similar to antimicrobial stewardship programmes.
- ❖ **Improve Public Awareness:** People must understand risk factors—damp spaces, construction dust, cyclone-hit areas—and recognise early symptoms.
- ❖ **Expand Training:** Medical colleges should integrate more structured mycology training to counter the severe shortage of specialists.
- ❖ **Invest in Research:** Genomic studies, drug-resistance tracking, and ecological mapping of fungi must be scaled up before outbreaks hit.

Conclusion:

India's fungal disease burden is no longer an invisible issue. As climate change, pollution, antibiotic misuse, and weakened immunity converge, fungal infections are emerging as a long-term public health challenge. While ICMR's integrated lab model aims to create a stronger, unified diagnostic ecosystem, the country must ensure that dedicated fungal research and expertise remain protected and well-funded. Timely diagnosis, strong surveillance, trained specialists, and sustained investment will determine whether India can stay ahead of this evolving threat or face escalating morbidity and mortality in the years to come.

Short Issues

Communication Satellite GSAT-7R

Context:

On 2 November 2025, the Indian Space Research Organisation (ISRO) successfully launched GSAT-7R (CMS-03), India's heaviest indigenous communication satellite, aboard the LVM3-M5 rocket from Sriharikota, Andhra Pradesh.

About GSAT-7R:

- GSAT-7R, also designated CMS-03, is an advanced military communication satellite developed by the Indian Space Research Organisation (ISRO) for the Indian Navy.
- It is the latest in India's GSAT-7 series of defence communication satellites and the heaviest communication satellite ever launched indigenously, weighing about 4,410 kg.
- The satellite was placed into a Geosynchronous Transfer Orbit (GTO) and will later manoeuvre to its final Geostationary Orbit using its onboard propulsion system.
- The satellite carries advanced multi-band transponders (C, extended C, and Ku bands) to provide high-capacity, secure communication over the Indian Ocean Region (IOR).
- This builds on the earlier GSAT-7 (Rukmini) series, expanding coverage and improving data security.

Background:

- The GSAT-7 series forms the backbone of India's dedicated military communication system.
 - » GSAT-7 (Rukmini), launched in 2013, served the Navy.
 - » GSAT-7A, launched in 2018, catered to the Indian Air Force and Army.
 - » GSAT-7R replaces and upgrades GSAT-7 with broader coverage, better bandwidth, and enhanced security features.

Strategic Significance:

- **Maritime Domain Awareness:** GSAT-7R will enhance network-centric operations for the Navy, providing seamless communication across wide oceanic areas—vital for monitoring sea lanes, logistics and real-time mission coordination.
- **Atmanirbhar Bharat:** Launching a 4.4-tonne satellite entirely through Indian technology demonstrates ISRO's growing self-reliance in heavy-lift capabilities, reducing dependence on foreign launchers.
- **Defence Modernisation:** The satellite strengthens the Defence Space Segment, ensuring secure, encrypted communications resilient to jamming or interception.
- **Civil-Military Synergy:** Apart from defence use, GSAT-7R can support civilian applications such as disaster response, island connectivity, and remote communications.

Conclusion:

GSAT-7R marks a significant leap in India's defence and space technology. It enhances the Indian Navy's communication and operational readiness, ensures continuous maritime vigilance, and solidifies India's strategic autonomy in space-based defence infrastructure.

ICMR seeks partners to Develop Antibody against Nipah Virus

Context:

The Indian Council of Medical Research (ICMR) has issued an Expression of Interest (EoI) to invite pharmaceutical companies to partner in the development and manufacturing of monoclonal antibodies against Nipah virus.

The initiative aims:

- » Develop an indigenous platform for mAb production.
- » Scale up manufacturing, ensuring availability during outbreaks.
- » Collaborate with ICMR institutes, like

the National Institute of Virology (NIV), for technical support and regulatory guidance.

- This initiative aligns with India's goal of Atmanirbhar (self-reliant) health solutions, reducing dependence on imports and enhancing national biosecurity.

About Nipah Virus:

- Nipah virus (NiV) is a zoonotic virus, meaning it spreads from animals to humans. Fruit bats of the Pteropus genus are the natural reservoir, but humans can also transmit it through close contact.
- Nipah infection can cause severe respiratory illness, encephalitis (brain inflammation), and multi-organ failure, with a high fatality rate of 40–75%.
- India has experienced repeated outbreaks, especially in Kerala, raising concerns about epidemic potential.
- There is no licensed vaccine or specific antiviral therapy, making early detection and supportive care critical.

About Monoclonal Antibodies:

- Monoclonal antibodies (mAbs) are laboratory-engineered proteins that mimic the immune system by binding specifically to viruses or infected cells. They can neutralize the virus, prevent replication, and reduce disease severity. mAbs have been successfully used against Ebola and COVID-19, demonstrating their potential for emerging viral infections. For Nipah virus, an antibody called m102.4 has shown promising results in animal studies and limited human use. Developing indigenous mAbs would allow India to rapidly respond to outbreaks without relying on imports.

Conclusion:

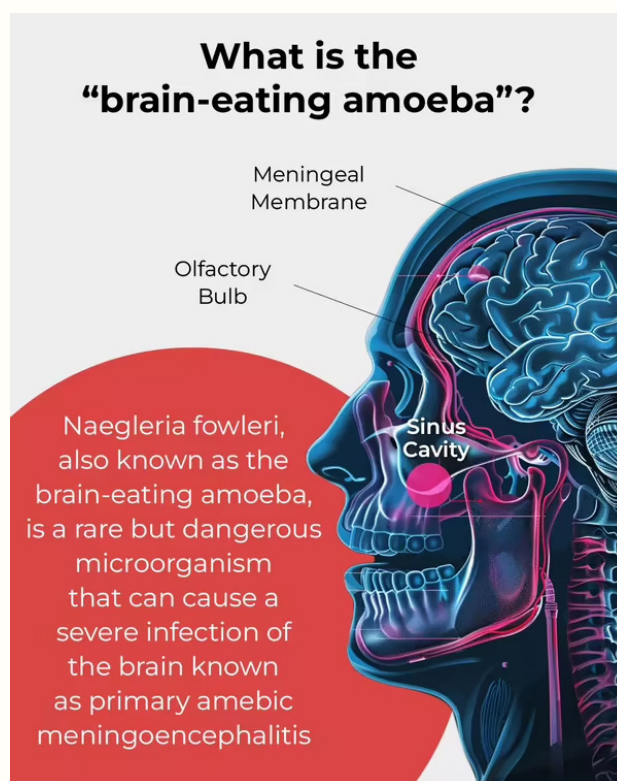
By promoting monoclonal antibody development, India is moving from reactive response to proactive preparedness against emerging infectious diseases. This strategy strengthens public health infrastructure, biopharmaceutical sovereignty, and epidemic

readiness, making it a critical development in India's health security landscape.

Amoebic Meningoencephalitis in India

Context:

Central Kerala recently reported first case of Primary Amoebic Meningoencephalitis (PAM), a rare but deadly infection caused by a free-living amoeba. This marks a continuation of a concerning trend, with Kerala reporting over 150 cases in 2025, primarily from Kozhikode, Malappuram, Thiruvananthapuram and Kollam districts.



About Amoebic Meningoencephalitis:

- Amoebic Meningoencephalitis (PAM) is a rare central nervous system infection caused by the *Naegleria fowleri* amoeba — often called the “brain-eating amoeba.”
- It thrives in freshwater bodies such as lakes, ponds, and poorly chlorinated swimming pools.

- Infection occurs when contaminated water enters the nasal passages, allowing the amoeba to travel through the olfactory nerve to the brain.

Epidemiology and Spread:

- The infection is non-communicable, it cannot spread from person to person.
- It develops within 2–7 days after exposure and usually leads to death within one to two weeks due to its rapid onset and difficulty in diagnosis.

Symptoms:

- Common symptoms resemble viral meningitis in the early stages:
 - » Severe headache
 - » Fever and nausea
 - » Vomiting and neck stiffness
 - » Altered mental status
 - » Seizures and coma in advanced stages
- Because symptoms mimic other brain infections, delayed diagnosis often leads to fatality.

Medical Management:

- No fully effective treatment exists, but early use of antimicrobial drugs such as amphotericin B, miltefosine, azithromycin, and rifampicin has shown limited success.

Conclusion:

The recent Ernakulam case underlines the public health challenge of emerging rare infections amid changing environmental and behavioural patterns. While Kerala's proactive diagnostic approach has improved case detection, there is a need of awareness and preventive behaviour among people for prevention of this rare disease.

Encephalomyocarditis Virus (EMCV) in India

Context:

Shankar, a 29-year-old African bull elephant at the National Zoological Park, New Delhi, recently died due to the Encephalomyocarditis

Virus (EMCV) — a rare, rodent-borne viral infection that primarily affects pigs and other mammals.

About Encephalomyocarditis Virus:

- **Classification:** Genus – *Cardiovirus*; Family – *Picornaviridae*
- **Nature:** A non-enveloped, single-stranded positive-sense RNA virus that infects a wide range of mammals including pigs, elephants, rodents, primates, and some carnivores.
- **Reservoir Hosts:** Rodents, especially rats and squirrels, which shed the virus through urine and feces.
- **Transmission:** Occurs when animals ingest contaminated food or water.
- **Pathology:** The virus causes inflammation of the brain (encephalitis) and heart muscles (myocarditis), leading to sudden or peracute death.

Why is this Case Significant?

- This is India's first confirmed case of EMCV in an elephant, though similar outbreaks have occurred in European and Australian zoos.
- It underscores the vulnerability of captive wild animals to rodent-borne diseases.
- The event also highlights biosecurity gaps in Indian zoos — particularly in rodent control and enclosure management.

Conclusion:

- The death of Shankar due to EMCV marks a rare and alarming event in India's wildlife health landscape. It underscores the urgent need for:
 - » Integrated zoo biosecurity protocols,
 - » Rodent population control,
 - » Routine health surveillance, and
 - » Collaborative research into emerging zoonotic pathogens.
- This case serves as a wake-up call for wildlife managers and policymakers to adopt a preventive, scientific, and humane approach to managing captive wild animals — aligning with India's commitments to biodiversity conservation and the One

Health framework.

Global TB Report 2025

Context:

The World Health Organization's (WHO) Global Tuberculosis Report 2025 reveals that India continues to bear the world's highest TB burden, accounting for 25% of global cases. However, India's TB incidence has fallen by 21% since 2015, from 237 to 187 cases per lakh population, nearly double the global decline (12%).

About the Global TB Report 2025:

- It is an annual global assessment of tuberculosis trends, covering incidence, mortality, prevention, diagnosis, and treatment at global, regional, and national levels, published by WHO.

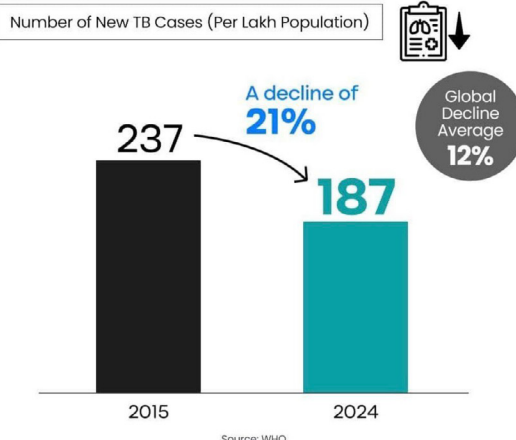
Global Trends in Tuberculosis:

- Global Incidence:**
 - TB incidence fell by 1.7% between 2023–2024, reaching 131 cases per 100,000 population.
 - Indicates recovery from pandemic-related disruptions.
- Regional Patterns:**
 - Decline continued in Africa, South-East Asia, Eastern Mediterranean, and Europe.
 - Americas witnessed a fourth consecutive rise, mainly due to under-detection and health system disruptions.
- Geographical Burden:**
 - South-East Asia: 34%
 - Western Pacific: 27%
 - Africa: 25% of global TB cases.
- High-Burden Countries:** Top contributors (67% of global cases):
 - India (25%)
 - Indonesia (10%)
 - Philippines (6.8%)
 - Followed by Pakistan, Bangladesh, China, Nigeria, and South Africa.

- Drug Resistance:**
 - MDR-TB remains a major global threat.
 - Progress in detection and treatment remains uneven across regions.
- Funding Gap:**
 - Global TB financing stagnant since 2020.
 - Donor reductions (2025 onwards) risk undermining national TB programmes.

A Health Milestone: India Halves TB Faster Than the World Average, Says WHO!

India has recorded one of the sharpest declines in tuberculosis incidence globally, nearly doubling the pace of reduction seen worldwide, according to the WHO's Global TB Report 2025.



Tuberculosis Trends in India:

- Incidence Rate:**
 - Declined from 195 (2023) → 187 per 100,000 (2024).
 - Overall, 21% reduction since 2015, compared to 12% global decline.
- Mortality:**
 - TB deaths reduced from 28 per 100,000 (2015) → 21 per 100,000 (2024).
 - Still short of the 2025 national target: 3 per 100,000.
- Drug Resistance:**
 - India accounts for 32% of global MDR-TB cases, though incidence is slowly

declining.

Key Initiatives to Reduce TB:

- **Global Level:**
 - » **End TB Strategy (2015–2035):** WHO's global roadmap to cut TB deaths by 90% and incidence by 80% by 2030.
 - » **UN High-Level Meetings (2018 & 2023):** Renewed global commitments to funding, universal care, and vaccine innovation.
 - » **Global Fund & Stop TB Partnership:** Support resource mobilisation, research, and cross-border collaboration.
 - » **New WHO Guidelines (2024–25):** Updated frameworks for rapid diagnosis, MDR-TB management, and TB–diabetes comorbidity.
- **India Level:**
 - » **National Strategic Plan for TB Elimination (2017–2025):** Targets 80% incidence reduction and 90% mortality reduction by 2025.
 - » **Ni-kshay Poshan Yojana:** Nutritional support of Rs.1,000/month to TB patients via Direct Benefit Transfer.
 - » **Pradhan Mantri TB Mukh Bharat Abhiyan (2024):** Promotes community engagement and corporate partnership through “Ni-kshay Mitra”.
 - » **Expanded Diagnostics:** Deployment of Truenat, CBNAAT, and AI-based diagnostic tools for rapid case detection.

James Watson & the Discovery of DNA

Context:

James D Watson, who co-discovered the double helical structure of DNA, passed away recently at the age of 97. His discovery double helical structure of DNA, made in 1953 along with Francis Crick, remains one of the greatest milestones in modern science — transforming our understanding of heredity, evolution, and life itself.

His Contribution:

- **Discovery of the Double Helix (1953):**
 - » Watson and Crick proposed that DNA (Deoxyribonucleic Acid) consists of two complementary strands twisted around each other in a double helical structure.
 - » Each strand contains a backbone of sugar and phosphate molecules, with nitrogenous bases (Adenine–Thymine and Cytosine–Guanine) forming pairs in between.
- **Understanding of Genetic Replication:**
 - » Their model explained how DNA could replicate itself accurately — each strand serves as a template for creating a new complementary strand.
 - » This mechanism forms the molecular basis of heredity and genetic continuity.
- **Recognition and Nobel Prize:**
 - » Watson, Crick, and Maurice Wilkins were jointly awarded the Nobel Prize in Physiology or Medicine (1962) for this discovery.

About DNA:

- Deoxyribonucleic Acid (DNA) is the hereditary material present in almost all living organisms.
- It carries genetic information that determines an organism's structure, function, and characteristics.
- Each DNA molecule is made up of:
 - » Sugar-phosphate backbone (structural support)
 - » Four bases: Adenine (A), Thymine (T), Cytosine (C), and Guanine (G)
- The specific sequence of these bases constitutes the genetic code.
- DNA replication, transcription, and translation together form the central dogma of molecular biology — DNA → RNA → Protein.

Applications of DNA Knowledge:

- **Medicine:** Diagnosis and treatment of genetic diseases, gene therapy, and development of targeted drugs.

- **Agriculture:** Creation of genetically modified crops with better yield and pest resistance.
- **Forensics:** DNA fingerprinting for criminal investigation and identification.
- **Research:** Genome sequencing, CRISPR-based gene editing, and evolutionary studies.

Conclusion:

James Watson's discovery of the double helix was not just a scientific milestone but a turning point in human understanding of life. It unveiled the molecular secret of heredity and laid the foundation for revolutionary fields such as genetic engineering, biotechnology, and genomic medicine.

Chronic Kidney Disease in India

Context:

According to the Global Burden of Disease (GBD) 2023 study published in The Lancet, India had the second-highest number of Chronic Kidney Disease (CKD) cases globally - about 138 million people, second only to China (152 million).

About Chronic kidney disease:

- Chronic kidney disease (CKD) is a progressive condition where the kidneys become damaged and lose their ability to filter waste and excess fluid from the blood.

Key Findings of the Study:

- **Global Burden:** CKD was the ninth leading cause of death worldwide in 2023, responsible for nearly 1.5 million deaths.
- **Regional Prevalence:**
 - » North Africa & Middle East: ~18%
 - » South Asia: ~16%
 - » Sub-Saharan Africa & Latin America: ~15%
 - » India: 138 million cases (second globally).
- **CKD and Heart Disease:** CKD contributed to 12% of global cardiovascular deaths, ranking as the 7th leading cause of heart-related

mortality, ahead of diabetes and obesity.

- **Major Risk Factors Identified:** The study identified 14 key risk factors, with the following as the most significant:
 - » Diabetes mellitus
 - » Hypertension (high blood pressure)
 - » Obesity
 - » Dietary risks: low fruit and vegetable intake, high sodium consumption
 - » Poor access to healthcare and screening
 - » Other contributing factors include aging population, environmental toxins, and lifestyle changes.

India's specific Challenge:

- India's 16% prevalence rate reflects rising non-communicable diseases (NCDs) and limited screening for early-stage CKD.
- Most CKD cases are detected late, often requiring dialysis or kidney transplantation, which remain costly and inaccessible to large sections of the population.
- The public health infrastructure for CKD diagnosis and management is uneven, especially in rural areas.

Policy Implications and Recommendations for India:

- The researchers emphasize that CKD needs to be treated as a major non-communicable disease, similar to diabetes and cardiovascular disorders.
- **Key strategies include:**
 - » **Early Screening & Prevention:** Routine kidney function tests for high-risk groups (diabetic and hypertensive patients).
 - » **Public Awareness Campaigns:** Promote healthy diets and low-salt consumption.
 - » **Affordable and Equitable Care:** Expand access to dialysis and transplant facilities under public health schemes.
 - » **Primary Healthcare Strengthening:** Integrate CKD management in Ayushman Bharat – Health and Wellness Centres (HWCs).

Conclusion:

The GBD 2023 findings are a wake-up call for India's health policy. Addressing CKD requires a shift from curative to preventive care, integrating screening, lifestyle interventions, and affordable treatment. Without early action, chronic kidney disease could emerge as one of India's most pressing public health crises in the coming decades.

Ricin Poison

Context:

The Gujarat Anti-Terrorist Squad (ATS) recently arrested three persons, including a medical doctor, for attempting to produce ricin, a highly toxic chemical compound. The accused reportedly surveyed public locations in Lucknow, Delhi, and Ahmedabad, and planned the potential use of ricin in acts of terrorism.

About Ricin:

- Ricin is a protein toxin derived from the seeds of the castor bean plant (*Ricinus communis*). It is cultivated widely for castor oil.
- Ricin interferes with cellular protein synthesis by binding to ribosomes, leading to cell death, multi-organ failure, and potentially death, even at very low doses.
- Its exposure can occur via ingestion, inhalation, or injection, each presenting severe clinical manifestations including vomiting, diarrhoea, respiratory distress, seizures, and systemic organ failure.

Historical and Global Significance:

- Ricin has been studied as a chemical agent and has been used in bioterrorism attempts. Notable cases include the 1978 assassination of Bulgarian journalist Gorgi Markov in London.
- It is listed as a Schedule 1 toxin under the Chemical Weapons Convention due to its high toxicity and potential for use as a chemical weapon.

Challenges and Threats:

- **Ease of Production:** Ricin can be extracted from castor beans, a globally available plant, making it a potential tool for non-state actors.
- **Lethality:** Even a few milligrams can be fatal, and there is no specific antidote. Treatment is largely supportive.
- **Detection and Response:** Rare exposure and non-specific early symptoms make timely diagnosis challenging, potentially delaying medical intervention.
- **Public Safety:** Open spaces, markets, and public institutions are vulnerable to such targeted attacks, amplifying societal risk.

Dangerous ricin

Ricin is one of the most poisonous naturally occurring substances known.

Ricin is derived from beans of castor oil plant, which is easily available worldwide

Castor oil Used in food products, medicine, industry

Ricin facts

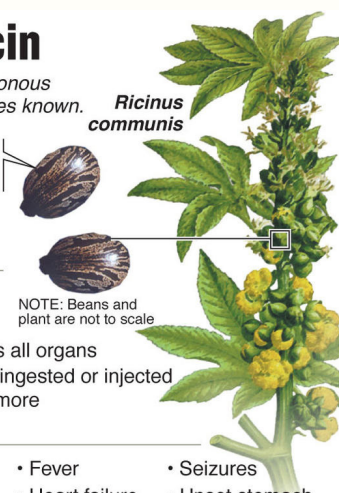
- No vaccine available
- Very toxic to cells, damages all organs
- Can be fatal when inhaled, ingested or injected
- Per gram, it is 6,000 times more poisonous than cyanide

Symptoms

- Weakness
- Cough
- Lung damage
- Fever
- Heart failure
- Seizures
- Upset stomach

Source: eMedicine, BBC, AFP

© 2013 MCT



Policy Implications and Recommendations:

- **Strengthening Biosecurity:** Monitoring cultivation and handling of potential precursor plants and chemicals, along with tracking suspicious activity, is crucial.
- **Capacity Building in Healthcare:** Training medical personnel to identify and respond to rare chemical toxin exposures can reduce mortality.
- **Research and Development:** Investment in rapid detection kits, neutralising agents, and antidotes is essential for public preparedness.
- **Legislation and Enforcement:** Tightening controls over toxic substances and implementing preventive intelligence-based

operations can mitigate bioterror threats.

- **Public Awareness:** Educating the population on potential risks and safety protocols enhances societal resilience.

Conclusion:

The incident underscores the persistent threat posed by chemical and biological agents in the hands of non-state actors and highlights challenges for law enforcement and public health systems. It highlights the need for a multi-pronged strategy involving law enforcement, public health preparedness, legislative oversight, and scientific research to anticipate, prevent, and respond to bioterror threats.

Man-Portable Autonomous Underwater Vehicles

Context:

The DRDO's Naval Science & Technological Laboratory (NSTL) in Visakhapatnam recently developed a new generation of Man-portable Autonomous Underwater Vehicles (MP-AUVs) to enhance India's mine warfare capabilities.

Key Features of Next-Generation MP-AUVs:

- **Portability:** These AUVs are designed to be lightweight and compact, allowing for rapid deployment from a variety of platforms, including small boats or even by hand from the shore. This reduces the logistical footprint and the need for large, specialized launch and recovery systems.
- **Mission Autonomy:** The vehicles operate autonomously, following pre-programmed paths and missions without constant human control. This is a significant advantage in hazardous environments like minefields, as it minimizes risk to human divers or manned vessels.
- **Advanced Sensors and Payloads:** MP-AUVs are typically equipped with a suite of sensors to gather data about their environment. Primary payloads often include:
 - **Side Scan Sonar:** For detailed mapping and

detection of objects on the seafloor.

- **Underwater Cameras:** For visual inspection and real-time classification of potential threats.
- **AI Integration:** A major advancement in next-generation systems is the use of deep-learning-based target recognition algorithms. These algorithms enable the AUVs to autonomously classify objects, significantly reducing the operator's workload and mission time.
- **Networked Capabilities:** Robust underwater acoustic communication systems are integrated, allowing multiple AUVs to exchange data and coordinate during operations. This enhances situational awareness across a mission area.
- **Variety of Missions:** While mine countermeasures (MCM) are a primary application for military next-gen MP-AUVs, these platforms are also used for intelligence, reconnaissance, harbor protection, and scientific research and monitoring tasks in various aquatic environments.



Strategic Significance:

- Provides rapid response capability in naval mine warfare while reducing operational risk.
- Minimizes logistical footprint and enhances efficiency in mine countermeasure operations.
- Represents a step forward in deployable, intelligent, and networked naval technologies, strengthening India's indigenous defense manufacturing capabilities.

About Naval Science & Technological Laboratory (NSTL):

- The Naval Science & Technological Laboratory (NSTL) is a premier Defence Research and Development Organisation (DRDO) lab in Visakhapatnam focused on developing underwater weapons and systems.
- Established in 1969, it is responsible for research and development in naval science and technology, including projects like the Varunastra heavyweight torpedo and the Multi-Influence Ground Mine (MIGM).

Conclusion:

The successful development of MP-AUVs by DRDO's NSTL is a testament to India's growing capabilities in defence technology. With its advanced features and potential for production, this system will significantly enhance India's mine countermeasure capabilities, ensuring the safety of naval operations and maritime trade routes

Sentinel-6B: A Next-Gen Satellite for Precise Sea-Level Monitoring

Context:

Sentinel-6B Satellite was recently launched from the Vandenberg Space Force Base in California, U.S.

About Sentinel-6B:

- Sentinel 6B is an Earth observation satellite launched to monitor global sea levels. Developed under the Copernicus Sentinel 6 / Jason CS mission, it is a joint undertaking by ESA (European Space Agency), NASA, NOAA, EUMETSAT, and CNES.
- It was launched aboard a SpaceX Falcon 9 rocket from Vandenberg Space Force Base, California

Key Objectives & Instruments:

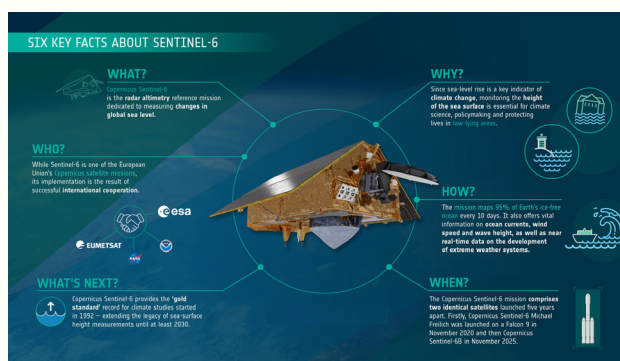
- Sentinel 6B's primary goal is to provide

precise sea surface height measurements, enabling scientists to monitor sea-level rise, ocean circulation, and climate change impacts.

- It carries a Poseidon-4 radar altimeter that measures the round-trip time of radar pulses reflected from the ocean, with centimeter-level accuracy.
- It also has an Advanced Microwave Radiometer (AMR C) to correct for atmospheric water vapor, and a GNSS Radio Occultation (GNSS RO) instrument to derive vertical atmospheric profiles of temperature and humidity.

Strategic Importance & Applications

- The data from Sentinel 6B is vital for climate science, forecasting extreme weather, and coastal planning.
- By extending a long-term record that began with the first Jason missions in 1992, Sentinel 6B helps in understanding sea-level trends, ocean currents, and the impacts of rising oceans on vulnerable coastal communities.
- Furthermore, its atmospheric data supports improved weather models, including those used for safe re-entry planning of spacecraft.



About Copernicus Sentinel-6/Jason-CS mission:

- The Copernicus Sentinel-6/Jason-CS mission is an international collaboration designed to measure global sea-level rise and monitor ocean conditions. It consists of two identical satellites: Sentinel-6 Michael

Freilich (launched in 2020) and Sentinel-6B (launched in 2025).

- The mission's primary objective is high-precision ocean altimetry, measuring sea surface heights with millimeter-level accuracy over more than 90% of the Earth's oceans. This data is critical for:
 - » **Climate Monitoring:** Tracking global mean sea level rise and understanding ocean heat, water, and carbon storage.
 - » **Operational Oceanography:** Improving forecasts of ocean currents, waves, and winds, benefiting shipping, fisheries, and offshore industries.
 - » **Weather Prediction & Public Safety:** Enhancing short-term forecasts for events like hurricanes and supporting coastal planning and flood risk management.
 - » **Atmospheric Research:** Using GNSS-RO to collect atmospheric temperature and humidity profiles, improving weather and climate models.

Conclusion:

Sentinel 6B represents a critical milestone in Earth observation, combining international cooperation, advanced technology, and climate science. Its precise measurements of sea-level rise will guide global climate policies, enhance disaster preparedness, and strengthen our understanding of ocean-atmosphere interactions, highlighting the importance of sustained monitoring in addressing the challenges of a changing planet.

CRISPR-Based Gene Therapy "BIRSA 101" for Sickle-Cell Disease

Context:

India's first indigenous CRISPR-based gene therapy for Sickle Cell Disease (SCD) was recently launched by Union Minister Dr. Jitendra Singh. Developed at the CSIR-Institute of Genomics & Integrative Biology (IGIB), the

therapy - named BIRSA 101 - is dedicated to Bhagwan Birsa Munda, the revered tribal freedom fighter whose 150th birth anniversary was recently observed.

Sickle Cell Disease in India:

- Sickle Cell Disease (SCD) is a single-gene hereditary blood disorder marked by abnormal, "sickle"-shaped red blood cells, leading to chronic anaemia, painful crises, organ damage, and reduced life expectancy.
- In India, the disease burden is especially high among tribal communities in central and eastern regions.
- Estimates suggest 15,000–25,000 new cases are born every year in India among tribal groups.

Need for Affordable Gene Therapy:

- Global CRISPR-based gene therapies for SCD are extremely expensive (USD~3 million, or ~Rs. 20–25 crore), making them inaccessible to most patients in India.
- High licensing fees for CRISPR technology and foreign platforms contribute to the prohibitive cost.
- There is a strong policy push in India to develop low-cost, locally developed gene therapies, particularly to serve underserved populations.



Significance of BIRSA 101 Launch:

- Launching a fully indigenous CRISPR-based gene therapy places India among global leaders in advanced therapeutics.
- The cost of BIRSA 101 is projected to be much lower than imported therapies,

making gene therapy accessible to a broader section of the population.

- It aligns with the Atmanirbhar Bharat vision by building indigenous capacity in frontier biotech.
- Given the high prevalence of SCD among tribal populations, this therapy has deep social importance.
- It supports the public health mission to eliminate SCD by 2047, reducing the health burden in marginalized communities.

Challenges & Risks:

- **Long-term safety:** CRISPR therapies carry the risk of off-target edits, and rigorous trials are needed.
- **Regulatory hurdles:** Gene therapies are tightly regulated; scaling from lab to clinic will require continuous oversight.
- **Economical Issues:** Even at reduced cost (~₹ 50 lakh), the price may still be beyond the reach of many tribal or low-income patients without government support or insurance.
- **Ethical Issues:** Gene editing raises ethical questions about long-term genetic modification, especially in germline or stem cells.

Conclusion:

The launch of BIRSA 101, India's first indigenous CRISPR-based gene therapy, marks a major scientific and social milestone. It strengthens India's genomic capabilities while addressing the heavy Sickle Cell burden among tribal communities. This breakthrough positions India firmly on the path toward Atmanirbhar Bharat in biotechnology and a Sickle Cell-Free India by 2047.

First-Ever Coronal Mass Ejection Seen on Another Star

Context:

Astronomers recently detected the first-ever coronal mass ejection (CME) on a star other than the Sun, originating from the red dwarf

StKM 1-1262, located 133 light-years away. The discovery is extraordinary due to the extreme power and speed of the stellar storm - estimated to be 10,000 times more intense than typical CMEs from the Sun.

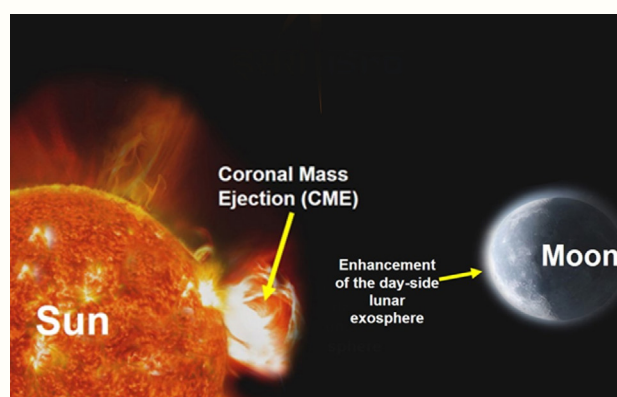
About Coronal Mass Ejections (CMEs):

- CMEs are massive expulsions of plasma and magnetic fields from a star's corona. On Earth, solar CMEs can:
 - » Disrupt satellites and communication networks
 - » Affect power grids
 - » Generate auroras at high latitudes

Reason behind extreme power of CMEs on StKM 1-1262:

CMEs on the red dwarf StKM 1-1262 are significantly more frequent and powerful due to two major factors:

- **Exceptionally Strong Magnetic Fields**
 - » Red dwarfs often possess magnetic fields up to 300 times stronger than the Sun's.
 - » Intense magnetic reconnection events trigger more violent plasma ejections.
- **Extremely Rapid Rotation**
 - » StKM 1-1262 rotates 20 times faster than the Sun.
 - » Rapid rotation amplifies dynamo action, producing extreme magnetic instability and frequent CMEs.



Importance of discovery:

- Detecting a coronal mass ejection (CME) on another star for the first time is important because it fundamentally expands our

ability to study stellar space weather beyond the Sun.

- Until now, CMEs were only directly observed on the Sun, forcing astronomers to rely on solar data to understand how other stars behave.
- This discovery offers the first direct, observational evidence of a stellar CME, opening a new era in astrophysics and exoplanet research.

Comparison of CMEs — The Sun vs. StKM 1-1262

Characteristic	Solar CMEs	CME on StKM 1-1262
Star Type	Yellow dwarf (G-type)	Red dwarf (M-type)
Frequency	Follows 11-year solar cycle	Highly frequent due to extreme magnetic activity
Magnetic Field Strength	Moderate	~300× stronger than the Sun
Rotation Speed	Slow (27 days at equator)	20× faster
Power/Intensity	Moderate; strong storms rare	10,000× more powerful than typical solar CMEs
Ejection Speed	Typically lower; rare events reach extreme velocities	~2,400 km/s (~5.3 million mph)
Potential Impact on Planets	Auroras, satellite disruption	Atmospheric stripping; sterilisation risk

About Red Dwarf:

- A red dwarf is a small, cool, and dim type of star, and is the most common type of star in the Milky Way galaxy.
 - » These stars are smaller and less massive than the Sun, have a surface temperature of about (2,000–3,500) Kelvin, and burn their fuel very slowly,

giving them an incredibly long lifespan—potentially trillions of years.

- » Because they are so dim, they are difficult to see without a telescope; the closest star to our solar system, Proxima Centauri, is a red dwarf.

Conclusion:

The detection of the first-ever coronal mass ejection on a star outside our Solar System represents a historic leap in astrophysics. While red dwarfs remain key targets in the hunt for Earth-like planets, this discovery underscores that their violent and unpredictable nature may severely limit their habitability.

Chaotic Motion in Non-Newtonian Fluids

Context:

Researchers at the Raman Research Institute (RRI), an autonomous institute under the Department of Science and Technology (DST), have developed a novel experimental method to study how complex fluids—particularly wormlike micellar fluids (WMFs) formed by surfactant molecules—behave at microscopic levels.

About Wormlike micellar fluids (WMFs):

- Wormlike micellar fluids (WMFs) are a class of complex fluids formed by the self-assembly of surfactant molecules into long, flexible, cylindrical aggregates.
- These micelles entangle to form a transient network, granting the fluid unique viscoelastic (having both viscous and elastic properties) and shear-thinning characteristics that resemble polymer solutions.
- These fluids are widely used in oil recovery, cosmetics, shampoos, gels, and polymer-based products, making their detailed study valuable for industry.
- Unlike simple Newtonian fluids such as water, where falling objects eventually reach

a stable terminal velocity, non-Newtonian fluids often do not allow terminal velocity.

- Instead, objects show chaotic, fluctuating motion because local fluid structures continuously form and break around them.

Key Observations by scientists:

- RRI scientists built a special setup inside a rheometer where a needle-like probe moved through the fluid between two cylinders. This allowed them to measure the force on the probe and see fluid structures in real time.
- At low speeds, the force stayed steady like in normal fluids. But at higher speeds, the force rose slowly and then dropped suddenly, creating a “sawtooth” pattern.
- Images showed this happened because a tail-like structure formed behind the probe and then snapped off, like an elastic band.

About Terminal velocity:

- Terminal velocity is the maximum constant speed an object reaches when falling through a fluid (like air or water).
- It is achieved when the downward force of gravity is exactly balanced by the upward forces of fluid resistance (drag) and buoyancy, resulting in a net force of zero and no further acceleration.

Conclusion:

This research provides a powerful tool to study the mechanics of complex materials across different length scales. By understanding how small probes move through structured fluids, scientists can better design and optimize oilfield surfactants, cosmetic formulations, gels, and polymer solutions. The flexibility of the experimental setup also opens avenues for studying a wide range of materials with probes of varying sizes.

Vikram-I : India's First Private Orbital Rocket

Context:

Recently, Prime Minister of India formally unveiled Vikram I, the first orbital class launch vehicle developed by a private Indian enterprise, Skyroot Aerospace. The inauguration also marked the opening of Skyroot's new “Infinity Campus” in Hyderabad. The launch vehicle is named after space pioneer Vikram Sarabhai — regarded as the father of India's space programme.

Key Features & Capabilities of Vikram I:

- **Orbital launch capability:** Vikram I is designed to place small satellites into orbit, targeting both Low Earth Orbit (LEO) and Sun Synchronous Orbit (SSO). Depending on the mission profile, it can carry up to ≈ 350 kg to LEO or ≈ 260 kg to SSO.
- **Flexible deployment:** The rocket supports dedicated launches or rideshare missions, enabling deployment of multiple satellites — a feature especially relevant for small sat constellations.
- **Modern design & efficiency:** Vikram I uses an all carbon composite structure to reduce weight, combined with a blend of solid fuel boosters (for the initial stages) and a 3D printed liquid engine for the upper stage — offering reliability and cost effectiveness.
- **Rapid turnaround & minimal infrastructure needs:** The design reportedly allows assembly and launch within 24 hours from any suitable launch site, making it suitable for responsive and flexible launch requirements.

Significance of Vikram I for India's Space Sector:

- **Private Sector Participation & Industry Growth**
 - » Marks shift from government-only space activities to a hybrid model with private players.
 - » Encourages design, manufacturing, and operation of orbital launch vehicles by private companies.
 - » Promotes competition, innovation, and expands India's presence in the global

small-satellite market.

▪ **Boost to Small Satellite Ecosystem & NewSpace Economy**

- » Payload capacity and flexibility suitable for small satellites, Earth observation, communication microsats, and constellation deployments.
- » Positions India to tap into the multi-billion-dollar global NewSpace economy.



▪ **Strategic and Commercial Autonomy**

- » Reduces dependence on foreign launch services.
- » Enhances national space autonomy and lowers costs/time for satellite deployment.
- » Benefits commercial operators, research institutions, and strategic sectors including defence.

▪ **Institutional and Policy Transformation**

- » Reflects impact of recent space-sector reforms facilitating private access to infrastructure, technology, and launch facilities.
- » Skyroot's Infinity Campus demonstrates realistic scalability with monthly rocket

production capacity.

Challenges & Future Considerations:

- First launch performance and reliability.
- Meeting global standards for payload safety, cost, and scheduling.
- Regulatory compliance, material sourcing, and environmental clearances.
- Sustained government-private collaboration and transparent policies.

Conclusion:

Vikram I signify a transformative milestone in India's space journey. It enables small-sat launches from India, encouraging private innovation, and building scalable launch capacity. This could usher in a new era of space entrepreneurship, self-reliance, and global competitiveness.

The Study Found – Five “Epochs” of Brain Rewiring

Context:

A recent study by researchers at University of Cambridge (MRC Cognition and Brain Sciences Unit) — published in Nature Communications — analysed MRI brain diffusion scans of 3,802 individuals ranging from infancy to 90 years. The researchers identified four “turning points” in brain wiring, which define five major structural development phases (“epochs”) across the human lifespan. The turning points are at around ages 9, 32, 66 and 83.

The five epochs are:

Epoch	Age	Key Brain Changes
Childhood	0–9	Rapid synapse formation, pruning, and network consolidation; foundation for later cognition

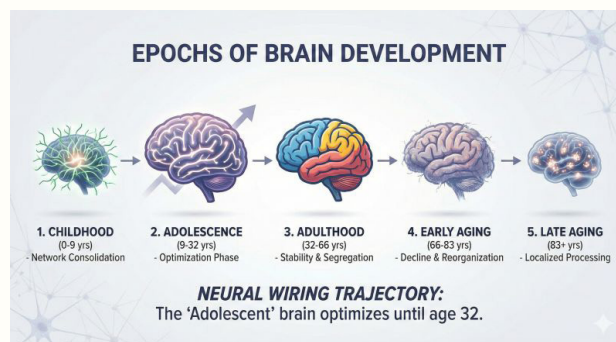
Adolescence	9–32	Growing connectivity and efficiency; supports reasoning, learning, social cognition
Early Adulthood	32–66	Brain stabilises; peak rewiring at ~32; cognitive and personality plateau
Early Ageing	66–83	Gradual connectivity decline; increased vulnerability to neural health issues
Late Ageing	83+	Pronounced decline; functional isolation of regions; age-related cognitive risks rise

Why It Matters:

- **Life long map of change:** Brain development is non-linear, adapting to stage-specific cognitive, social, and biological demands.
- **Plasticity & vulnerability:** Connectivity peaks in adolescence/early adulthood, declines gradually after 66 — informs education, mental health, and ageing strategies.
- **Support for lifelong learning:** Structural plasticity continues into late adulthood, enabling learning, re-skilling, and rehabilitation.
- **Explains age specific cognition:** Epochs correlate with developmental challenges, peak performance, and age-related decline.
- **Framework for research & policy:** Provides a baseline for neuroscience, education, public health, and gerontology, linking brain structure with cognitive performance and resilience.

About Human Brain:

- The human brain is the central organ of the nervous system. It controls thought, memory, emotions, touch, motor skills, vision, breathing, temperature, and many other body functions. It is protected by the skull and cushioned by cerebrospinal fluid.



Major Parts and Functions:

- **Cerebrum:** Largest part, divided into two hemispheres. Responsible for thinking, memory, voluntary movements, language, and senses.
- **Cerebellum:** Controls balance, posture, and coordination.
- **Brainstem (Midbrain, Pons, Medulla):** Controls involuntary functions: heartbeat, breathing, digestion. Connects brain to spinal cord.
- **Limbic System (Hippocampus, Amygdala, Hypothalamus):** Manages emotions, motivation, learning, and memory.
- **Thalamus:** Relays sensory and motor signals; regulates consciousness and sleep.
- **Corpus Callosum:** Connects the left and right hemispheres for communication.

Conclusion:

Human brain development is multi-phase and lifelong, not linear. Understanding these phases can guide education, public health, social policy, and personal growth — enabling individuals to harness neuroplasticity and support new ways of thinking throughout life.

From Food Security To Nutrition Security: The Need To Integrate Science, Policy and Welfare

Context:

Prime Minister Narendra Modi inaugurated the first Emerging Science, Technology and Innovation Conclave (ESTIC) in New Delhi on November 3, 2025, calling upon India's scientific community to steer the nation towards nutrition security. He emphasized the need to move beyond ensuring food availability to guaranteeing that every citizen has access to nutrient-rich, safe, and affordable food. The Prime Minister also urged scientists to develop biofortified crops, innovate in clean energy storage, and map India's genomic biodiversity to advance personalized medicine.

The ESTIC marks a shift in India's scientific ecosystem, replacing the century-old Indian Science Congress. It aims to create a collaborative roadmap linking science, agriculture, nutrition, and technology to address national challenges in food and health.

India's Progress in Food and Agriculture:

- ❖ Over the past decade, India has witnessed remarkable gains in food production and agricultural diversification. Foodgrain output has grown by nearly 90 million metric tonnes, while fruit and vegetable production has increased by around 64 million metric tonnes.
- ❖ The country now ranks first in milk and millet production and second globally in fruits, vegetables, and fisheries. Honey and egg production have also doubled since 2014, reflecting broad-based agricultural

growth.

- ❖ India's agricultural exports have almost doubled in the last 11 years, strengthening its position as a major global food supplier. These achievements underscore the country's success in achieving food security—ensuring the availability of food for its vast population. However, the challenge now lies in ensuring nutrition security, which requires improving the quality of diets and addressing micronutrient deficiencies.

Why Nutrition Security Matters?

- ❖ Nutrition security goes beyond filling stomachs—it ensures that people consume a balanced diet containing essential vitamins and minerals for good health. India continues to face significant nutrition challenges despite its food abundance.
 - » The ICMR has reported a 25% increase in non-communicable diseases (NCDs) between 1990 and 2016, many linked to poor dietary habits.
 - » Around one-third of the world's population suffering from micronutrient deficiency lives in India.
 - » Although child stunting has declined from 38% (2015–16) to 35% (2019–21), it remains alarmingly high among children under five.
- ❖ Compounding the problem, nutrient loss in soil and crops, combined with the presence of toxic metals like arsenic and chromium, has made staple grains less nutritious.

This has led to higher risks of diseases related to neurological, cardiovascular, and musculoskeletal systems.

Key Government Initiatives for Food and Nutrition Security:

❖ National Food Security & Nutrition Mission (NFSNM):

- » Originally launched in 2007–08 as the National Food Security Mission (NFSM), the scheme aimed to boost the production of rice, wheat, and pulses through productivity improvement, soil restoration, and farmer empowerment.
- » In 2024–25, it was expanded and renamed as the National Food Security & Nutrition Mission (NFSNM) to integrate nutritional outcomes alongside crop productivity. This shift reflects the government's intent to enhance both food quantity and nutritional value, especially through biofortified and climate-resilient crops.

❖ National Food Security Act (NFSA), 2013:

- » The NFSA remains the cornerstone of India's food distribution system. It legally entitles up to 75% of the rural and 50% of the urban population (about 81.35 crore people) to subsidized foodgrains.
- » Antyodaya Anna Yojana (AAY) households receive 35 kg per month, while Priority households get 5 kg per person per month.
- » Currently, nearly 79 crore beneficiaries are covered, ensuring that food reaches the poorest families consistently. Together, the NFSNM and NFSA ensure that India's food security system supports both production and distribution, linking agriculture with social welfare.

❖ Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY):

- » Initially launched during the COVID-19 pandemic, PMGKAY provided free foodgrains to NFSA beneficiaries to cushion economic distress. The scheme

has since evolved into a long-term safety net.

- » From January 2024, the government extended the free foodgrain scheme for five years at an estimated cost of ₹11.8 lakh crore, fully funded by the Centre. This move ensures that no household falls back into hunger due to inflation or income shocks.

WHAT'S THE DIFFERENCE?

FOOD INSECURITY

- Limited or uncertain access to enough food
- Associated with nutrient insecurity
- Associated with higher rates of diet-related illness
- Solutions often provide more calories but not necessarily nutrient-dense food

NUTRITION INSECURITY

- Maybe adequate access to enough food but...
- Limited or uncertain access to quantity or variety of nutrient-dense food
- Associated with higher rates of diet-related illness
- Solutions provide access to affordable, nutrient-dense food that promotes health

- » PM POSHAN (Poshan Shakti Nirman) Scheme: Earlier known as the Mid-Day Meal Scheme, PM POSHAN aims to improve child nutrition and school attendance by providing hot cooked meals to students in government and aided schools up to age 14.
- » It enhances learning outcomes, reduces dropout rates, and promotes social equity. The scheme received 22.96 lakh metric tonnes of rice and wheat allocation in FY 2024–25, reflecting its scale and priority in the national nutrition agenda.

❖ Rice Fortification Initiative:

- » To combat widespread micronutrient deficiencies, India has implemented rice fortification across all major welfare schemes. Fortified rice contains iron, folic acid, and vitamin B12, addressing anemia and other deficiencies.
- » The programme began as a pilot in 2019

and was scaled up nationwide in phases. By March 2024, 100% of rice distributed under PMGKAY, NFSA, ICDS, and PM POSHAN was fortified.

- » The Cabinet has recently approved the continuation of fortified rice supply till December 2028, with ₹17,082 crore in central funding—making it one of the largest food fortification drives in the world.

Technology-Driven Reforms in Public Distribution:

The government is modernising the Public Distribution System (PDS) to enhance efficiency, transparency, and portability.

- ❖ **SMART-PDS Initiative:** The SMART-PDS (Scheme for Modernization and Reforms through Technology) is being rolled out by December 2025. It aims to digitize procurement, supply chain management, ration card systems, and biometric grain distribution.
- ❖ **Mera Ration 2.0:** Launched in August 2024, this upgraded mobile app provides real-time information on ration entitlements and nearby fair price shops. Over 1 crore downloads show growing digital adoption.
- ❖ **Other reforms include:**
 - » 100% digitization of ration cards and beneficiary databases.
 - » 99.9% Aadhaar seeding for authentication.
 - » Biometric-enabled Fair Price Shops (FPS) for transparent transactions.
 - » One Nation, One Ration Card (ONORC) initiative, ensuring portability across states.

Ensuring Market Stability and Self-Reliance:

- ❖ **Open Market Sales Scheme (OMSS-D):** The OMSS(D) helps regulate food grain prices by selling surplus wheat and rice in the open market. It ensures availability, controls inflation, and keeps food affordable. Under this, the government launched Bharat Atta and Bharat Rice brands to provide staples at subsidized rates to consumers.

- ❖ **Mission for Aatmanirbharta in Pulses:** Launched in October 2025 with a Rs.11,440 crore budget, this mission aims to achieve self-sufficiency in pulses by 2031. It targets a 35 lakh hectare expansion in cultivation and benefits around two crore farmers, aligning with the twin goals of nutritional and economic security.

Showcasing Global Leadership:

- ❖ At World Food India 2025, held in September, India projected itself as a “Global Food Hub”, attracting over 90 participating countries and 2,000 exhibitors. The event highlighted India’s advances in food processing, sustainability, and innovation-driven agriculture.
- ❖ Adding to this recognition, the WWF Living Planet Report praised the Indian Thali as one of the world’s most sustainable and nutritious diets. The largely plant-based Indian diet minimizes resource use and emissions, demonstrating how traditional food systems can support both health and environmental sustainability.

Conclusion:

India’s journey from food security to nutrition security reflects a broader transformation, one that integrates science, innovation, and welfare. The country has not only increased food production but is now focused on ensuring that the food is safe, nutritious, and equitably distributed. With initiatives like the National Food Security & Nutrition Mission, rice fortification, PM POSHAN, and SMART-PDS, India is building a resilient framework that combines agricultural productivity, public health, and digital governance.

Short Issues

Centre Notifies Four New Labour Codes

Context:

On 21 November 2025, Government of India officially notified and brought into force four consolidated Labour Codes- the Code on Wages, 2019, the Industrial Relations Code, 2020, the Code on Social Security, 2020 and the Occupational Safety, Health and Working Conditions Code, 2020, marking one of the most significant labour law overhauls since independence.

Key Features of the Four Labour Codes:

- **Code on Wages (2019):**
 - » Introduces a national floor wage to reduce regional disparities in pay.
 - » Mandates timely payment of wages, with defined timelines to ensure workers get paid without undue delay.
 - » Strengthens the definition of “wages” to bring in more components, thereby increasing base pay on which benefits like provident fund or gratuity are calculated.
- **Industrial Relations Code (2020):**
 - » Simplifies dispute resolution through a restructured system of labour tribunals.
 - » Facilitates collective bargaining but also introduces more flexibility for employers in workforce management.
 - » Raises the threshold for mandatory government permission for layoffs: earlier, firms needed approval if they had 100+ workers; now, the threshold is 300 employees, giving employers more leeway.
- **Code on Social Security (2020):**
 - » Extends social security coverage widely — including to gig workers, platform workers, fixed-term workers, and workers in unorganised sectors.
 - » Establishes a Social Security Fund to support welfare schemes for unorganised and gig workers.

- » **Portability:** Contributions and benefits will be more portable across states, helping migrant workers.
- » For fixed term employees, gratuity eligibility is reduced: they can now get it after one year (instead of a longer period under older laws).

Consolidated Codes

An overview of the four Codes notified by the Centre and their scope

▪ **Code on Wages (2019)** unifies four labour laws related to wages and bonuses

▪ **Industrial Relations Code (2020)** consolidates laws governing trade unions, conditions of employment in industrial establishments, and the settlement of industrial disputes

▪ **Code on Social Security (2020)** extends social security benefits to all employees and workers, covering both the organised and unorganised sectors

▪ **Occupational Safety, Health and Working Conditions Code (2020)** consolidates and modernises 13 existing central labour laws related to workplace safety, health, and working conditions



- **Occupational Safety, Health, and Working Conditions (OSHC) Code (2020)**
 - » Sets national safety standards for workplaces across sectors.
 - » Requires free annual health check-ups for workers aged above 40.
 - » **Regulates working hours:** allows 8-12 hours per day, but caps weekly limit at 48 hours, with overtime paid at double rate.
 - » Makes single-registration, single-licence, single-return system mandatory for establishments to reduce compliance burden.
 - » **Introduces an inspector cum-facilitator model:** inspectors will guide and help establishments comply rather than just penalise them.
 - » **Night shifts for women:** Women can work at night “with consent and subject to safety measures.”

Conclusion:

The notification of the four new Labour Codes by the Centre is a landmark reform that seeks

to reconcile worker welfare with economic dynamism. By consolidating 29 outdated laws into a modern, streamlined labour law framework, the government aims to build a future-ready workforce without stifling business growth.

PM Fasal Bima Yojana

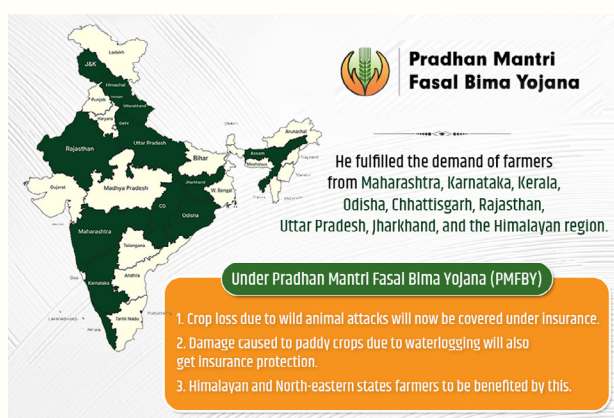
Context:

The Ministry of Agriculture and Farmers Welfare recently announced a major expansion of the Pradhan Mantri Fasal Bima Yojana (PMFBY). From the Kharif season 2026, crop insurance will cover losses caused by wild animal attacks and paddy inundation, addressing long-standing demands from several states to protect farmers against localized and severe crop damage.

Key Features of the Expansion:

Aspect	Details
Coverage for Wild Animal Attacks	Recognised as the 5th add-on under localised risk category. States will identify wild animals causing crop damage and vulnerable districts based on historical data. Farmers must report losses within 72 hours via the crop insurance app with geotagged photos.
Paddy Inundation Cover	Reintroduced as a localised calamity cover for flood-prone and coastal states. Previously removed in 2018 due to challenges in assessment. Now reinstated to address recurring submergence risks.

States Likely to Benefit	Wild animal attacks: Odisha, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Karnataka, Kerala, Tamil Nadu, Uttarakhand, and North-Eastern & Himalayan states (Assam, Meghalaya, Manipur, Mizoram, Tripura, Sikkim, Himachal Pradesh). Paddy inundation: Odisha, Assam, West Bengal, Tamil Nadu, Kerala, Karnataka,
Implementation	Framework prepared following PMFBY operational guidelines to ensure scientific, transparent, and feasible nationwide implementation.
Reporting & Claim Settlement	Losses reported via mobile app within 72 hours; technology-based claims for timely settlement.



Background:

- Pradhan Mantri Fasal Bima Yojana was launched on 18 February 2016 to provide affordable crop insurance covering all non-

preventable natural risks from pre-sowing to post-harvest.

- Over the years, 36 crore farmers have applied under the scheme, with claims worth Rs.1.82 lakh crore disbursed, demonstrating its pivotal role in agricultural risk management.
- States had long requested insurance coverage for crop losses due to wildlife, including elephants, nilgai, wild boars, monkeys, and deer affecting crops like paddy, banana, arecanut, ragi, maize, cotton, tur, and sugarcane.

Significance:

- Strengthens farmers' resilience against localized, sudden, and severe crop damage.
- Ensures timely compensation through tech-based reporting and claims.
- Bridges insurance protection gaps, particularly for human-wildlife conflict areas and flood-prone coastal regions.
- Reinforces the role of PMFBY as a cornerstone of farmer welfare and risk mitigation in Indian agriculture.

Conclusion:

The inclusion of wild animal attacks and paddy inundation in PMFBY marks a progressive policy step, acknowledging the emerging risks to farmers and providing a robust, technology-enabled safety net for agricultural communities across India.

Cabinet Approves Rs.25,060 Cr Export Promotion Mission

Context:

The Union Cabinet chaired by the Prime Minister, Narendra Modi, has approved the Export Promotion Mission (EPM) - a flagship initiative announced in the Union Budget 2025-26 to enhance India's export competitiveness, especially for MSMEs, first-time exporters, and labour-intensive sectors.

About the Export Promotion Mission:

- Export Promotion Mission (EPM) represents a strategic shift from multiple fragmented schemes to a single, outcome-based framework, developed collaboratively by the Department of Commerce, Ministry of MSME, Ministry of Finance, financial institutions, Export Promotion Councils, commodity boards, industry associations, and state governments.
- With a total outlay of Rs.25,060 crore for FY 2025-26 to FY 2030-31, the Mission aims to create a streamlined, adaptive and digitally driven export support ecosystem.

The Union Cabinet approved the **Export Promotion Mission (EPM)**, a flagship initiative to strengthen India's export competitiveness

₹25,060 crore
(FY 2025-26 to FY 2030-31)

Key Features:

- Consolidates fragmented export schemes into one outcome-based and adaptive mechanism.
- Anchored through collaboration among the Department of Commerce, Ministry of MSME, Ministry of Finance, and other key stakeholders.
- Operates through two integrated sub-schemes:
 - NIRYAT PROTSAHAN** - Focuses on affordable trade finance for MSMEs through:
 - Interest subvention
 - Export factoring
 - Collateral guarantees
 - Credit cards for e-commerce exporters
 - Credit enhancement support
 - NIRYAT DISHA** - Focuses on non-financial enablers including:
 - Export quality and compliance support
 - International branding & packaging assistance
 - Trade fairs & market access
 - Export warehousing and logistics
 - Trade intelligence and capacity-building

Implementation:

- Managed digitally by DGFT through an integrated platform linked to existing trade systems.

Expected Impact:

- Affordable trade finance access for MSMEs
- Enhanced export readiness & compliance
- Improved market access & visibility for Indian products
- Boost in exports from non-traditional districts & sectors
- Employment generation in manufacturing, logistics & allied services



- The Mission will operate through two integrated sub-schemes:
 - » **NIRYAT PROTSAHAN:** Focuses on improving MSMEs' access to affordable trade finance through tools such as interest subvention, export factoring, collateral guarantees, e-commerce export credit cards, and credit enhancement for new markets.
 - » **NIRYAT DISHA:** Provides non-financial support to strengthen export readiness through quality and compliance

assistance, international branding and packaging support, trade fair participation, export warehousing and logistics, inland transport reimbursements, and trade intelligence and capacity-building.

- The Directorate General of Foreign Trade (DGFT) will implement the Mission through a fully digital platform integrated with existing trade systems, ensuring seamless application, monitoring, and disbursal.

Expected benefits:

- improve access to affordable trade finance for MSMEs,
- enhance compliance and certification capacity,
- expand visibility and market access for Indian products,
- boost exports from non-traditional districts, and
- generate employment across manufacturing, logistics, and allied sectors.

Conclusion:

Overall, the Export Promotion Mission is a forward-looking step to build an inclusive, technology-enabled and globally competitive export ecosystem, supporting the vision of Viksit Bharat @2047.

New CPI to Measure Rural Housing Inflation

Context:

The Ministry of Statistics and Programme Implementation (MoSPI) has proposed a major methodological revision in the Consumer Price Index (CPI) to make the measurement of housing inflation more robust, representative, and reflective of ground realities.

Background:

- The Consumer Price Index (CPI) is the key measure of retail inflation in India and serves as the nominal anchor for the Reserve Bank of India's (RBI) inflation-targeting

framework.

- In the existing CPI:
 - » Housing carries a weight of 21.67 percent in urban areas and 10.07 percent at the all-India level.
 - » Economists have long flagged that this approach underrepresents the true inflation experienced by households, especially given post-pandemic surges in housing rents and rising rural housing costs.

Key Features of the New CPI Methodology

- The new framework, to be implemented with the upcoming CPI base revision (expected in early 2026), seeks to capture real market dynamics in both rural and urban areas.
 - » Rent data will now be collected monthly from all sampled dwellings, replacing the earlier six-month cycle for one-sixth of the sample.
 - » This expansion follows technical guidance from the International Monetary Fund (IMF) to avoid downward bias in rent estimation.
- For the rural sector, data from the Household Consumption Expenditure Survey (HCES) 2023-24 which records both paid rent and imputed rent for owner-occupied houses, will be used. This marks a departure from the current system, which omitted rural housing due to the lack of comparable data in the older HCES 2011-12.
- By excluding concessional or employer-provided housing, the new index eliminates distortions caused by non-market rents tied to pay scales rather than actual market rates. The reform aligns India's CPI methodology with global best practices, enhancing the reliability of inflation indicators used by the Reserve Bank of India (RBI) and policymakers for monetary and fiscal decisions.
- MoSPI has also invited public feedback on the proposal by November 20, 2025, reaffirming its commitment to transparency and stakeholder consultation.

Significance:

- **More Accurate Inflation Measurement:** Housing constitutes a large share of household expenditure, and inaccuracies can distort the overall CPI. Including rural rent and removing non-market dwellings will yield a truer reflection of inflationary pressures faced by households.
- **Better Policy Formulation:** Accurate CPI data are vital for:
 - » RBI's monetary policy under inflation targeting.
 - » Government welfare indexing, such as dearness allowance adjustments.
 - » Fiscal policy decisions related to subsidies, social housing, and poverty estimates.
- **Statistical Modernisation:** The move aligns India's CPI methodology with global best practices, bringing it closer to standards followed by advanced economies where both urban and rural housing indices are used to compute headline inflation.

World Cooperative Monitor 2025

Context:

The World Cooperative Monitor 2025 was recently published by the International Cooperative Alliance (ICA) with the help of the European Research Institute on Cooperative and Social Enterprises (EURICSE). India's Amul and the Indian Farmers Fertiliser Cooperative Limited (IFFCO) have secured the first and second ranks globally by turnover relative to GDP per capita.

Key Finding:

- The Top 300 cooperatives achieved a combined turnover of US\$ 2.79 trillion in 2023.
- The leading organisations by turnover include Groupe Cr dit Agricole [France], State Farm [USA], and REWE Group

[Germany].

- The leading organisations by turnover include Groupe Cr dit Agricole [France], State Farm [USA], and REWE Group [Germany].
- By turnover relative to GDP per capita, India's Amul and IFFCO top the global list, highlighting the strength of cooperatives in emerging economies.
- Europe and the Americas account for the majority of the Top 300, but representation from Asia-Pacific and Africa continues to grow.

India context:

- **Amul**
 - » Headquartered in Gujarat, topped the list based on GDP per capita performance.
 - » Annual turnover: USD 7.3 billion (Rs.60,000 crore) in 2023–24.
 - » Daily milk procurement: 35 million litres from 18,600 village milk cooperatives across 33 districts
- **IFFCO**
 - » India's largest fertiliser cooperative secured second place globally.
 - » Founded in 1967, headquartered in New Delhi
 - » Network: 35,000 member cooperatives, reaching over 50 million farmers

Significance of the Achievement:

- **Global Recognition:** This achievement highlights India's cooperative sector as a global model for rural empowerment, self-reliance, and economic inclusion.
- **Women Empowerment:** Amul's success is attributed to the tireless dedication of millions of women dairy farmers, ensuring financial independence and socio-economic upliftment.
- **Agricultural Support:** IFFCO's ranking reflects its role in supporting millions of farmers with affordable fertilisers and cooperative governance, promoting sustainable agriculture.

Conclusion:

The World Cooperative Monitor 2025 provides a timely and rigorous stock taking of the cooperative movement's global footprint. For India, the success of Amul and IFFCO showcases the potential of the cooperative model in driving inclusive growth. Moving forward, policy actions that institutionalize, modernize and scale the cooperative model will be key to leveraging this potential for broader national development.

Cross-Border Payments Between India & Europe

Context:

The Reserve Bank of India (RBI) and the European Central Bank (ECB) recently announced the launch of the initial phase of linking India's Unified Payments Interface (UPI) with the Eurosystem's TARGET Instant Payment Settlement (TIPS) platform.

Key Features of UPI-TIPS Linkage:

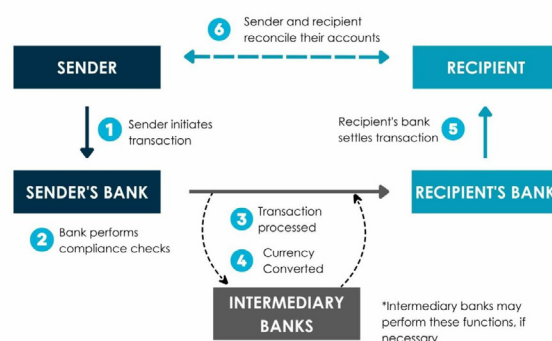
- **What Is Being Linked?**
 - » The initiative aims to interlink UPI and TIPS to enable seamless payments across the India-Eurozone corridor.
- **Strategic Rationale**
 - » Aligns with the G20 Roadmap for Enhancing Cross-Border Payments—faster, cheaper, more transparent, inclusive payments.
 - » Supports the ECB's retail payments strategy and strengthens the international role of the euro.
 - » Enhances India's global presence by expanding UPI's international footprint.
- **Benefits:**
 - » Reduced Remittance Costs through interoperability and streamlined payment flows.
 - » Faster Settlement—near real-time payments across borders.
 - » Enhances financial inclusion & efficiency, benefiting migrant workers, expatriates, SMEs, and cross-border users.

- » Boosts India's global digital payments leadership, strengthening UPI's position globally.

Challenges / Risks:

- » Regulatory & legal hurdles relating to cross-jurisdiction rules, data norms, compliance.
- » Risk management challenges—credit, operational, settlement risks.
- » Technical integration issues: interoperability, 24×7 reliability, fraud prevention.
- » Currency risk due to INR-Euro conversion and liquidity management.
- » Adoption barriers—participation from banks, PSPs, end-users, and need for awareness & infrastructure.

CROSS BORDER PAYMENT PROCESS



About UPI International Expansion:

About UPI

- » **What it is:** Real-time payment system developed by NPCI enabling instant bank-to-bank transfers.
- » **How it works:** Uses a single mobile app linked to multiple bank accounts; payments can be made using QR codes, UPI IDs, or mobile numbers.
- » **National impact:** Major driver of India's digital payments ecosystem; promotes financial inclusion, reduces cash dependency, and forms a core part of India's Digital Public Infrastructure (DPI).

Countries Where UPI Is Accepted

- » Bhutan
- » France
- » Mauritius
- » Nepal
- » Qatar
- » Singapore
- » Sri Lanka
- » United Arab Emirates (UAE)

▪ **International Expansion**

- » Expansion led by NPCI International Payments Limited (NIPL).
- » Focus on creating direct payment linkages or supporting countries in developing their own real-time payment platforms.

- » **Existing success stories:** UPI–PayNow (Singapore) link, acceptance via global partners like Lyra, Liquid Group, etc.

Conclusion:

The realisation phase of the UPI–TIPS linkage between RBI and ECB is a landmark step in global payments architecture. It represents not just a technical integration, but a strategic leap in cross-border financial connectivity. Once operational, it could significantly lower the friction and cost of remittances between India and Europe — benefiting millions of users, especially in the diaspora and SMEs.



Internal Security

India's Integrated Model Against Naxalism: Development, Trust & Security

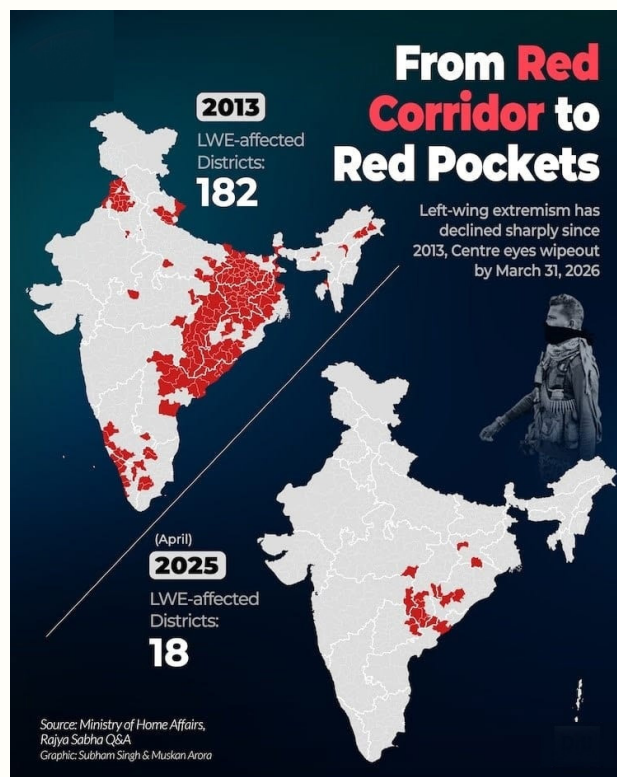
Context:

On November 18, 2025, security forces killed notorious Maoist (Naxalite) commander Madvi Hidma (Santosh) in an encounter. Given his central role in the Naxalite movement's strategy and leadership structure, this incident is considered a significant breakthrough for the Indian government's overall Naxalite policy. Previously, Bandi Prakash, a Maoist leader who played a key financial role in the Maoist organization, surrendered in Telangana, and 258 Naxalites surrendered in Chhattisgarh and Maharashtra. The central government declared Abujmahad and North Bastar in Chhattisgarh, once considered strongholds of Naxalite terror, free from Naxalite influence. This development reflects the weakening hold of Naxalite groups and growing faith in the Indian Constitution. The Indian government is committed to completely eradicating Naxalism by March 31, 2026.

Background:

- ❖ For decades, Naxalism or Left Wing Extremism (LWE) has challenged India's internal security. The movement began in 1967 in Naxalbari village, West Bengal, as a peasant uprising against exploitation. Over time, it evolved into a Maoist insurgency spread across parts of central and eastern India, commonly known as the Red Corridor.
- ❖ The roots of the movement lie in deep socio-economic inequality, lack of land rights and alienation of tribal and rural communities. Armed groups used this discontent to establish parallel governance in forested belts of states such as Chhattisgarh,

Jharkhand, Odisha, Maharashtra, and parts of Andhra Pradesh.



A Shift in Strategy:

- ❖ Earlier responses focused mainly on police operations. The new model is more rounded, combining dialogue, technology, capacity building, and social integration. The central government coordinates closely with states to ensure security measures go hand in hand with roads, schools, banks, and jobs.
- ❖ This marks a clear change from reacting

to attacks to proactively eliminating the conditions that allow extremism to survive.

Visible Decline in Violence:

- ❖ The numbers tell the story. Between 2014 and 2024, incidents of Naxal violence dropped by over half from around 16,400 in the previous decade to about 7,700.
 - » Security personnel deaths fell from 1,851 to 509.
 - » Civilian deaths declined from 4,766 to 1,495.
- ❖ In 2025 alone, security agencies neutralised 270 Naxals, arrested 680, and secured over 1,200 surrenders. Operations like Black Forest and large surrender drives in Chhattisgarh and Maharashtra show that insurgents are increasingly willing to return to the mainstream.

Strengthening the Security Grid:

- ❖ Peace has returned because the security grid is stronger and smarter. In the past decade, forces have built over 570 fortified police stations and 336 new camps, allowing presence in areas once unreachable.
- ❖ Only 18 districts now remain affected compared to 126 in 2014, and just six are in the “severe” category.
- ❖ Mobility and response times have improved with 68 night-landing helipads, while advanced tools from drone surveillance and satellite imaging to AI-based data analytics now guide operations. Real-time intelligence sharing between agencies ensures precision rather than random combing operations.

Cutting Off the Money Flow:

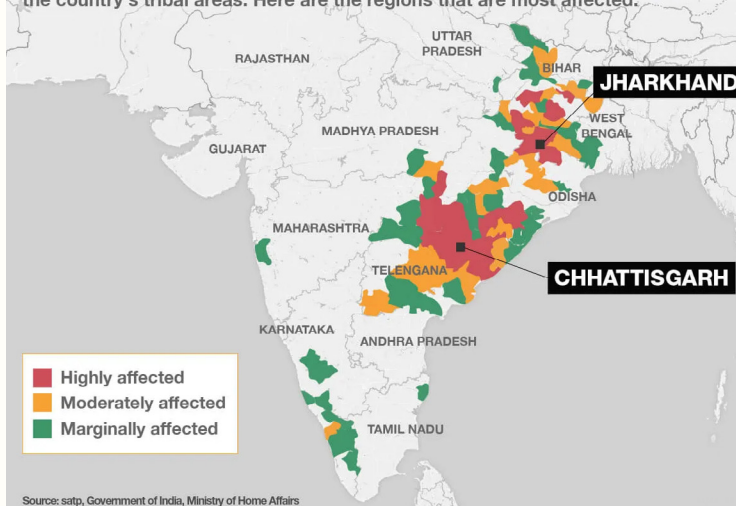
- ❖ The financial network that kept Naxal groups alive has been systematically targeted. The NIA and Enforcement Directorate have seized assets worth more than Rs.50 crore, while states have frozen properties of similar value. By attacking extortion chains and funding channels, the

government has weakened both the material and psychological base of the insurgency.

- ❖ Urban sympathisers once the ideological and fundraising arms of the movement — have also faced strict action, reducing their capacity to spread propaganda.

A map of India's Maoist conflict

A crackdown on Maoist rebels has led to a rise in the number of casualties in the country's tribal areas. Here are the regions that are most affected.



Empowering States and Forces:

- ❖ Since security is primarily a state subject, the Centre has focused on empowering local police.
 - » Under the Security Related Expenditure (SRE) scheme, states have received over Rs.3,300 crore a 155% rise from the previous decade.
 - » The Special Infrastructure Scheme (SIS) has strengthened intelligence units and Special Forces with Rs.991 crore.
 - » Developmental assistance through the Special Central Assistance (SCA) fund has crossed Rs.3,700 crore, aimed at filling service and infrastructure gaps in LWE districts.
- ❖ This funding ensures that states are not just fighting insurgency but also building capacity to prevent its return.

Development as the Real Game-Changer:

Security alone cannot end extremism

development can. The past few years have seen an unprecedented infrastructure push across Naxal-hit districts.

- ❖ **Road Connectivity:** Over 12,000 km of roads have been built since 2014, linking interior villages to markets, schools, and hospitals.
- ❖ **Mobile and Internet Access:** Poor connectivity once kept these regions isolated. Now, thousands of 2G and 4G towers have been installed under multi-phase projects, bringing the digital world closer to communities once cut off.
- ❖ **Financial Inclusion:** New bank branches, ATMs, and over 37,000 banking correspondents ensure people no longer depend on cash channels dominated by Naxals. Nearly 6,000 post offices now provide last-mile delivery of financial and postal services.
- ❖ **Education and Skill Building:** Through the Kaushal Vikas Yojana, the government has funded ITIs and Skill Development Centres in most affected districts. These centres train local youth in trades that provide stable employment and reduce the appeal of extremist recruitment.
- ❖ **Local Recruitment:** The creation of the Bastariya Battalion in 2018 — made up mostly of tribal youth from Dantewada, Bijapur, and Sukma — reflects growing trust between local populations and the state.

Reclaiming Lost Ground:

- ❖ Operations such as Octopus, Double Bull, and Chakrabandha have helped reclaim several long-standing Maoist bases. Strategic advances in Budha Pahar, Parasnath, Baramsia, Chhakrabandha, and Abujhmad show that forces now control regions that were once impenetrable.
- ❖ In 2024 alone, major encounters eliminated senior Maoist leaders, disrupting their command chain. Many of these areas now host police camps, schools and small markets visible signs of normalcy.

Rehabilitation and Reintegration:

- ❖ The government's Surrender and

Rehabilitation Policy balances enforcement with empathy. Former cadres who surrender receive:

- » Rs.5 lakh for senior leaders,
 - » Rs.2.5 lakh for lower cadres, and
 - » Rs.10,000 per month for three years during skill training.
- ❖ In 2025 alone, over 500 cadres surrendered, while Chhattisgarh saw more than 1,000 in just two years. These programmes turn ex-combatants into community workers, entrepreneurs, and even security volunteers the most powerful proof of transformation.

Challenges That Remain:

- ❖ While the movement has lost strength, it has not disappeared.
 - » Hardline ideology still motivates scattered groups to resist the state.
 - » Front organisations in cities use legal spaces to spread propaganda and fund operations.
 - » Remote terrains of dense forests make constant policing difficult.
 - » A lingering trust deficit between tribal communities and local administration can slow development gains.

Conclusion:

India's campaign against Naxalism is no longer just about guns and patrols. It is about reconnecting with forgotten citizens and restoring faith in the state. The steep fall in violence, the return of governance to remote regions, and the reintegration of former cadres signal a deep structural change. If sustained, this integrated approach rooted in security, development and trust could finally end one of India's longest internal conflicts and replace decades of alienation with lasting peace and opportunity.

Short Issues

India and U.S. Sign 10-Year Major Defence Partnership Framework

Context:

India and the United States have recently unveiled a 10-year “Framework for the U.S.-India Major Defence Partnership”, marking a significant step in deepening bilateral defence cooperation. The agreement, signed by Defence Minister Rajnath Singh and U.S. Secretary of War Pete Hegseth on the sidelines of the 12th ASEAN Defence Ministers’ Meeting-Plus (ADMM-Plus) in Kuala Lumpur.

About Framework:

- The framework will structure India-U.S. defence cooperation between 2025 and 2035.
- It covers multiple domains: land, air, sea, space and cyberspace; defence industrial cooperation; logistics; intelligence sharing; interoperability.
- It is tied to broader initiatives such as the “U.S.-India COMPACT for the 21st Century” and improvements in arms-transfer regimes (e.g., review of ITAR) and Reciprocal Defence Procurement (RDP) negotiations.

Significance of Framework:

- **From buyer-to-partner in defence industry:** Previously India’s defence ties with the U.S. centred on purchases. Now, the framework emphasises co-production, joint R&D and supply-chain integration. This evolution aligns with India’s “Aatmanirbhar Bharat” (self-reliant defence) aspiration.
- **Enhanced Indo-Pacific orientation:** The framework reaffirms India’s role in the Indo-Pacific architecture. By deepening ties with the U.S., India signals its readiness to be a larger security provider beyond its immediate neighbourhood.
- **Technological leap and modernisation of forces:** The framework places emphasis on advanced technologies (undersea systems,

autonomous systems, space assets) and interoperability. These will help India modernise its forces and adopt multi-domain operations, essential for future conflict scenarios.

- **Strategic autonomy management:** India has historically emphasised strategic autonomy. This framework reflects a nuanced approach: while working closely with the U.S., India retains its independent foreign policy and seeks agility in defence partnerships.

About 12th ASEAN Defence Ministers’ Meeting-Plus (ADMM-Plus):

- The 12th ASEAN Defence Ministers’ Meeting-Plus (ADMM-Plus) was held in Kuala Lumpur, Malaysia, bringing together defence ministers from ASEAN member states and eight dialogue partners — India, the United States, China, Russia, Japan, South Korea, Australia, and New Zealand.
- **Background:**
 - » The ADMM-Plus was established in 2010 as an extension of the ASEAN Defence Ministers’ Meeting (ADMM).
 - » It aims to promote mutual trust, practical cooperation, and capacity-building among ASEAN and its key partners in the broader Asia-Pacific.
 - » The forum meets biennially, with working groups addressing specific areas of defence and security cooperation.

Conclusion:

The new 10-year U.S.-India Defence Framework signifies a deepening strategic convergence between the world’s largest democracies. By institutionalizing long-term cooperation across traditional and emerging defence domains, the framework lays the groundwork for a robust, future-oriented partnership aimed at ensuring peace, stability, and prosperity in the Indo-Pacific.

Survey Vessel ‘Ikshak’

Context:

Indian Navy commissioned the new Survey Vessel (Large) class ship, 'Ikshak', at the Southern Naval Command in Kochi. The commissioning ceremony was presided over by Chief of the Naval Staff Admiral Dinesh K. Tripathi.

About INS Ikshak:

- Ikshak is the third of four large survey vessels (SVL-class) being built by Garden Reach Shipbuilders & Engineers (GRSE), Kolkata, with over 80% indigenous content, in line with the government's "Aatmanirbhar Bharat" initiative.
- The vessel is designed for full-scale hydrographic surveys of ports, harbours, and navigational channels to ensure safe maritime navigation.
- It is equipped with state-of-the-art hydrographic and oceanographic systems, including Autonomous Underwater Vehicles (AUVs) and Remotely Operated Vehicles (ROVs), capable of scanning to depths of up to 11,000 meters.

Role and Operational Capabilities:

- The primary role of INS Ikshak is to conduct hydrographic surveys, ensuring:
 - » Safe navigation for commercial and naval vessels.
 - » Production of accurate nautical charts and electronic navigation charts (ENCs).
 - » Support for defence operations, coastal security, and maritime resource management.
 - » Environmental and oceanographic data collection for maritime research and disaster response.
- The vessel's capabilities will significantly enhance India's maritime domain awareness and contribute to regional safety and security in the Indian Ocean Region (IOR).

Strategic significance:

- Enhances India's ability to chart maritime zones, contributing to safe shipping and

port development.

- Strengthens India's maritime infrastructure and supports the Navy's blue-water aspirations.
- Supports India's leadership in Hydrographic Cooperation within the Indian Ocean Region, aligning with the country's SAGAR (Security and Growth for All in the Region) vision.

About Survey Vessel (Large) Class:

- The Survey Vessel (Large) class comprises four ships — Sandhayak, Nirdeshak, Ikshak, and Sanshodhak.
- Each vessel is around 110 meters long and displaces approximately 3,400 tonnes, with advanced sensors, automated systems, and improved endurance.

Conclusion:

The commissioning of INS Ikshak represents a major stride in India's self-reliant naval capability. By integrating advanced technology with indigenous manufacturing, the Indian Navy continues to strengthen its maritime infrastructure, ensuring both strategic readiness and safe navigation across the vast sea frontiers of the nation.

INS Mahe Commissioned

Context:

On 24 November 2025, the Indian Navy formally commissioned INS Mahe, the first ship of the Mahe class Anti Submarine Warfare Shallow Water Craft (ASW SWC), at the Naval Dockyard in Mumbai.

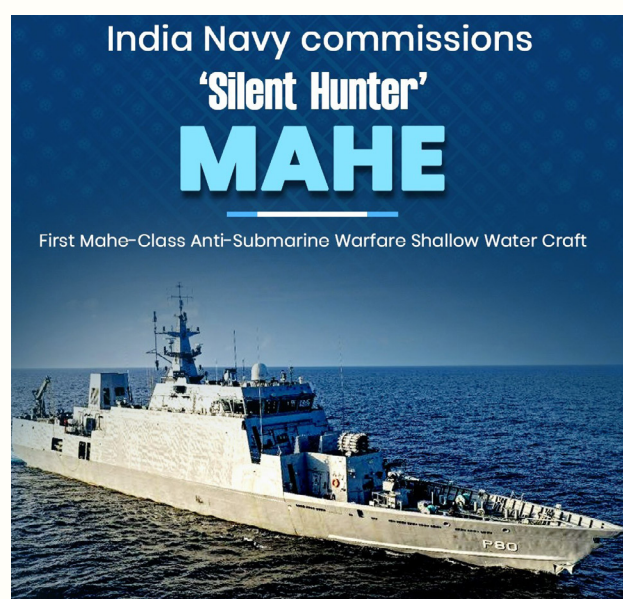
About INS Mahe:

- INS Mahe is built by Cochin Shipyard Ltd (CSL), Kochi, reflecting India's emphasis on self-reliance (Aatmanirbharta) in defence manufacturing.
- With substantial indigenous content, the ship strengthens India's domestic industrial base and showcases the country's growing prowess in naval ship design and

construction.

Naming and Heritage:

- The ship is named after the coastal town of Mahe on India's western coast, tying it to India's rich maritime heritage.
- Its crest features the "Urumi", a traditional flexible sword from Kerala's martial art Kalaripayattu, rising from stylised waves — symbolising agility, precision, and lethal grace in the maritime domain.
- The ship's motto, "Silent Hunters", embodies the ethos of stealth, vigilance, and submarine detection/neutralisation.



Technical and Operational Features:

- **Shallow Water Optimisation:** The ship is designed for littoral operations, with swift manoeuvrability, low acoustic signature, and reduced radar cross-section.
- **Primary Roles:**
 - » Anti-submarine warfare in near-coastal waters
 - » Coastal patrol and maritime surveillance
 - » Protection of offshore assets and approach zones
 - » **Stealth Features:** The design incorporates stealth principles typical of ASW-SWC platforms, including low noise, low RCS, and enhanced agility.

Strategic Significance:

- **Boost to Coastal Defence:** INS Mahe enhances India's submarine-hunting capabilities in shallow and littoral waters, complementing larger surface combatants.
- **Force Modernisation:** As the first ship of the Mahe-class series, it represents a new generation of agile, stealthy, and versatile ASW platforms.
- **Indigenous Capability:** Its construction underscores India's growing self-reliance in naval shipbuilding, reducing dependence on foreign suppliers.
- **Symbol of Maritime Heritage:** By linking the ship to Mahe town and the Urumi crest, INS Mahe reflects India's naval traditions and operational ethos.

Conclusion:

The commissioning of INS Mahe marks a significant milestone for the Indian Navy — a blend of strategic foresight, indigenous innovation, and coastal defence readiness. As a "silent hunter" built for shallow water anti submarine operations, Mahe enhances India's ability to secure its littoral zones, while reinforcing its commitment to self-reliance in defence manufacturing. In an era of evolving maritime threats, INS Mahe represents both a tactical asset and a symbol of India's growing naval maturity.

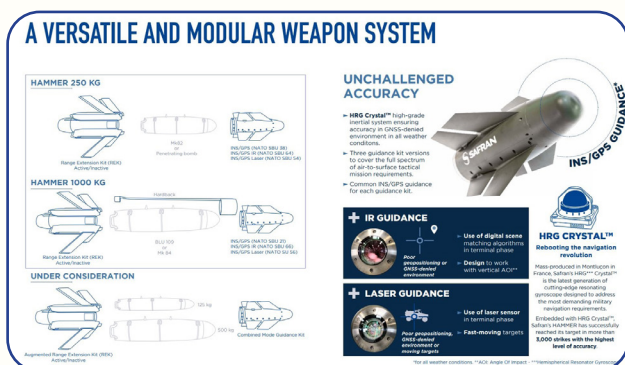
Production of H-AMMER Extended-Range Modular Munition

Context:

India's state-owned Bharat Electronics Limited (BEL) and French firm Safran Electronics and Defence (SED) recently signed a joint venture cooperation agreement (JVCA) for the production of Highly Agile Modular Munition Extended Range (HAMMER) smart precision Guided air-to-ground weapons in India.

Key Features of the HAMMER System:

- The HAMMER munition is modular, meaning its design allows different warhead sizes (250 kg, 500 kg, 1000 kg) to be used.
- It has a range of up to ~70 km, giving it long-standoff capability.
- It's all-weather and resilient: the weapon is "insensitive to jamming" and can be launched from low altitudes and rough terrain.
- Highly accurate and combat-proven; it supports different guidance systems (e.g., GPS/INS, infrared).
- Compatible with several platforms, such as France's Rafale jets and India's Tejas aircraft.



Structure and Aims of the Joint Venture:

- The agreement establishes a 50:50 joint venture (JV) between BEL and Safran.
- The JV will not just manufacture HAMMER, but also handle customisation, supply, and maintenance.
- Phase-wise localisation: Indigenisation will gradually rise to ~60%, focusing on electronics, subassemblies, mechanical parts.
- BEL will lead the final assembly, testing, and quality assurance.

Implications for India's Defence Posture:

- The JV is emblematic of India's strategic shift: from being a large importer of arms to being a hub for manufacturing and possibly exporting advanced weapons.
- It also underlines a diversified defence procurement strategy: not relying solely

on Russia, USA, or others, but deepening partnerships with European players like France.

- For India's air power, the domestic production of HAMMER can significantly boost the strike capabilities of platforms like the Rafale and Tejas, making them more potent in a future high-intensity conflict.

About India and France defence relations:

- India and France share a strong defence partnership, covering military hardware, technology transfer, joint exercises, and strategic cooperation.
- India is acquiring 26 Rafale-M naval fighters from France, including tech transfer and local production facilities.
- Industrial collaboration exists in submarine construction: the P-75 Scorpene project, with French tech transfer to Mazagon Dockyard.

Major joint military exercises:

- **Varuna**: navy exercise between Indian and French navies.
- **Shakti**: army-level exercise.
- **Garuda**: air-force exercise between IAF and French Air & Space Force.

Conclusion:

The India–France JV to manufacture HAMMER air-to-ground weapons is a major step toward defence self-reliance. It boosts India's industrial capacity, enhances precision-strike capability, and strengthens bilateral ties by shifting the partnership from buyer–seller to co-producer. Its success, however, will depend on effective technology transfer, high localisation, and scalable production.

Power Packed News

India Won the Blind Women's T20 World Cup Title

- The Indian women's blind cricket team created history by winning the inaugural Blind Women's T20 World Cup title, held in Colombo, Sri Lanka, on November 23, 2025. India secured a splendid victory by defeating Nepal by seven wickets in the final match, which was played at the P. Sara Oval International Cricket Stadium in Colombo, Sri Lanka. This was the first ever T20 World Cup for blind women.
- India won the toss and elected to field first, restricting Nepal to 114 runs for 5 wickets in 20 overs. The Indian team chased down the target of 115 runs in just 12 overs, losing only 3 wickets. Phula Saren of India played a brilliant innings, scoring 44 runs off 27 balls, and was named 'Player of the Match'. India won all their matches in the tournament and remained undefeated.
- Blind cricket is governed internationally by the World Blind Cricket Council (WBCC). Players are classified into three categories based on their vision impairment: B1 (totally blind), B2 (partially blind), and B3 (partially sighted). The sport uses a hard plastic ball with ball bearings inside for auditory tracking.

Government Approves Text-RAMPs Scheme

- The Government of India has approved the Text-RAMPs Scheme, aimed at promoting research, innovation, and competitiveness in the textile industry. This Central Sector Scheme, implemented from fiscal years 2025-26 to 2030-31, has a total outlay of ₹305 crore, and will be fully funded by the Ministry of Textiles.
- The scheme's primary objective is to promote advanced research in smart textiles, sustainability-based technologies, and emerging technologies. Robust data systems and analytics will be developed to support policymaking.
- The Integrated Textile Storage System (ITSS) will be crucial for real-time monitoring and organisational capabilities. This includes capacity building initiatives, state-level programs, and knowledge dissemination initiatives.
- Incubation, hackathons, and academia-industry collaborations will be promoted to encourage start-ups. The scheme is expected to create jobs, increase innovation, and strengthen India's competitiveness in the global market.

Approval for the creation of 3 new districts in Andhra Pradesh

- Andhra Pradesh Chief Minister N. Chandrababu Naidu approved the creation of three new districts: Polavaram, Markapuram, and Madanapalle, increasing the total number of districts in the state from 26 to 29. Five new revenue divisions and one new division will also be created as part of this administrative change.
- Polavaram district will be headquartered in Rampachodavaram and will include the Rampachodavaram and Chintoor divisions. Markapuram district will be merged with Markapuram and Kanigiri divisions, while Madanapalle district will include the Madanapalle and Pileru divisions.
- New revenue divisions: Nakkapalli (Anakapalli), Addanki (Prakasam), Pileru (Madanpalle), Banganapalle (Nandyal), and Madakasira (Sri Sathya Sai). Additionally, Penugonda division

will be renamed Vasavi Penugonda. Pedda Harivanam, a new division separate from Adoni, will be created in Kurnool district.

- This relocation is aimed at improving administrative efficiency, better access to public services, and accelerating development work.

Rohit Sharma appointed as the 2026 Men's T20 World Cup Ambassador

- Rohit Sharma has been appointed as the tournament ambassador for the 2026 Men's T20 World Cup, to be held in India and Sri Lanka. Rohit led the Indian team to its second world title in the 2024 T20 World Cup, captaining the country. He has 4,231 runs in his T20 international career, with an average of 32.01 and a strike rate of 140.89.
- Rohit was a participant in both India's first T20 World Cup victory in 2007 and their historic second in 2024. He played crucial innings in the Super 8s and finals in 2007, and was India's leading run-scorer in 2024, scoring 257 runs. Rohit retired from T20I cricket after winning the World Cup.
- The 2026 Men's T20 World Cup will be held from February 7 to March 8, 2026. Rohit's selection as ambassador is a recognition of his activities, popularity, and influence on modern cricket.

Assam Land Holding Ceiling Amendment Bill Passed

- The Assam Assembly passed the Land Holding Ceiling (Amendment) Bill, 2025, which aims to provide land settlement to labourers living in tea-growing areas. This move will pave the way for approximately 3.33 lakh tea growers to gain legal land rights for the first time.
- For decades, these labourers had been living in labor colonies without any formal ownership. Under the amendment, labor areas have been removed from the list of special agricultural areas, allowing the government to prioritise land settlement in favour of labourers living there. This bill allows the government to acquire land located in labor areas and transfer all rights thereto to the state.
- However, the bill excludes the Muslim Joloha tea worker community. Assam has 825 registered tea growers, whose labor colonies cover approximately 218,553 bighas of land. The bill aims to ensure housing security and reduce the risk of eviction.

India re-elected to the UNESCO Executive Board

- India has been re-elected to the UNESCO Executive Board for the term 2025–29. India's Permanent Representative to UNESCO announced this achievement, calling it a symbol of India's growing international trust in multilateralism and global cooperation.
- India reiterated its commitment to furthering its contributions to UNESCO's core areas of education, culture, science, and communication.
- India's presence on the Executive Board reflects its human-organization development model, knowledge sharing, and commitment to issues of the Global South.
- The Government expressed its gratitude to all countries that supported the election and assured that India will play a constructive and active role in advancing UNESCO's objectives, including the protection of cultural heritage, entrepreneurship education, scientific cooperation, and freedom of information, in the decades to come. This re-election signals India's growing global role.

Hansa-3 NG Indigenous Training Aircraft Unveiled

- Union Minister Dr. Jitendra Singh unveiled the production version of the indigenous Hansa-3 NG training aircraft at CSIR-NAL in Bengaluru on November 29.
- This aircraft is India's first fully composite two-seater training aircraft, developed to meet the country's growing pilot training needs. It is estimated that India will need approximately 30,000 new pilots over the next two decades.
- The Hansa-3 NG will be manufactured by Pioneer Clean Amps at a new ₹150 crore manufacturing facility in Kuppam, Andhra Pradesh, with a capacity to produce 100 aircraft per year. This initiative will reduce dependence on imported training aircraft and strengthen domestic aviation training institutions.
- In addition, CSIR-NAL also reviewed the progress of the Saras MK-2 light transport aircraft project. New aerospace projects, such as the high-altitude solar platform and indigenous Wankel engine-based UAV development, are providing new impetus to India's aviation self-reliance.

Renowned Bharatanatyam Artist Kumari Kamala Passes Away

- Renowned Bharatanatyam dancer Kumari Kamala (Kamala Lakshminarayanan) has passed away in California at the age of 91. Known as "Baby Kamala," she was one of the last links in the cultural transition period when the original form of Bharatanatyam evolved into modern Bharatanatyam.
- Born in 1934, Kumari Kamala, along with her guru Vazhuvoor Ramaiah Pillai, brought global recognition to the aesthetic, poetic style of Vazhuvoor Bani. She became exceptionally popular on the classical stage and in Indian cinema, especially in the 1940s and 1950s.
- For her contributions to establishing Bharatanatyam on the world stage, she received numerous prestigious honours, including the Padma Bhushan (1970) and the US National Heritage Fellowship. She is considered one of the most influential artists who shaped the modern identity of Bharatanatyam.

Popular actor Dharmendra passes away

- Legendary actor Dharmendra passed away at his Mumbai residence on November 24 at the age of 89, marking the end of a six-decade-long golden era in Indian cinema.
- Favoured as "He-Man," Dharmendra played diverse roles in over 300 films and left an indelible mark with his performances in classics like Sholay, Phool Aur Patthar, Chupke Chupke, Sita Aur Geeta, and Pratigya. His portrayal of Veeru in Sholay has endeared him to generations.
- Dharmendra last appeared in the 2024 film Teri Baatein Mein Aisa Ulza Jiya. The poster for his final film, "Ekkis," was released just hours before his death.
- Born in Ludhiana in 1935, Dharmendra also contributed to politics and served as a Member of Parliament from Bikaner from 2004–2009. He was the recipient of numerous prestigious honours, including the Padma Bhushan, the Filmfare Lifetime Achievement Award, the National Film Award, and the IIFA Lifetime Achievement Award.

India wins Women's Kabaddi World Cup for the second consecutive time

- India defeated Chinese Taipei 35–28 in the final of the Women's Kabaddi World Cup 2025 held in Dhaka to become world champions for the second consecutive time. This victory reaffirmed India's continued dominance in women's kabaddi.
- The Indian team had a strong start by winning all four matches in the group stage and advanced to the final by defeating Iran 33–21 in the semi-finals. Chinese Taipei also remained undefeated throughout the tournament and reached the final by defeating hosts Bangladesh in the semi-finals.
- The participation of a total of 11 countries underscored the growing global popularity of kabaddi. Strong defence and fast riding were particularly crucial in the Indian team's victory.
- This tournament was only the second edition of the Women's Kabaddi World Cup. India had previously won the title in the first edition held in Patna in 2012, defeating Iran.

Justice Vikram Nath appointed as the new Executive Chairman of NALSA

- Following a notification from the Union Law Ministry, Justice Vikram Nath has been appointed as the new Executive Chairman of the National Legal Services Authority (NALSA).
- This appointment was made by the President under Section 3(2)(b) of the Legal Services Authorities Act, 1987. He succeeds Justice Surya Kant, whose position fell vacant after he was sworn in as the 53rd Chief Justice.
- NALSA was established under Article 39A of the Constitution of India with the objective of providing free legal aid and ensuring equal access to justice to marginalised sections of society and economically weaker sections of society. The institution plays a significant role in promoting access to justice through Lok Adalats, legal awareness programs, and support mechanisms at the national level.

India's First AI Film Festival and Cinema AI Hackathon at the 56th IFFI

- India's first AI Film Festival and Cinema AI Hackathon were launched at the 56th International Film Festival of India (IFFI) held in Goa. Waves Film Bazaar and IFFI organised this innovative initiative in collaboration with LTIMindtree.
- The festival received 68 entries from 18 countries, and 27 films were selected for the competition section, while four were selected for non-competition screening.
- Films were evaluated based on their artistic originality, technical innovation, and narrative experimentation.
- Among the major awards, the Craft Master Award went to the French film Nagori, which was praised for its emotional and narrative power. The Craft Vanguard Award went to Germany's "The Cinema That Never Was" for excellence in the experimental use of AI.
- The American film Kyra received the Craft Spectra Award for Best AI Animation/Visual Design. Two films, the English-language "The Last Backup Final Part" and the Hindi film "Miracle on Turtle Beach," received special jury mentions for demonstrating potential in AI-assisted filmmaking.

Prime Minister Modi Inaugurates 'Panchjanya' Memorial in Kurukshetra

- Prime Minister Narendra Modi inaugurated the newly constructed 'Panchjanya' Memorial on November 25, 2025, at Jyotisar in Kurukshetra, Haryana, considered the birthplace of the Gita.
- The memorial is dedicated to Lord Krishna's sacred conch, 'Panchjanya,' which holds special spiritual and cultural significance in the Mahabharata war.
- The memorial is located within the Mahabharata Experience Centre complex. The memorial utilizes Vedic architectural design and features inscriptions of verses from the Bhagavad Gita. It aims to highlight the spiritual significance of the conch, 'Panchjanya,' and the values of justice, courage, and dharma.
- This initiative strengthens efforts to pass on India's rich cultural heritage and spiritual significance to future generations.

Justice Surya Kant sworn in as the 53rd Chief Justice of India

- Justice Surya Kant was sworn in as the 53rd Chief Justice of India (CJI) on November 24, 2025.
- President Draupadi Murmu administered the oath of office to him at a ceremony at Rashtrapati Bhavan attended by several dignitaries, including Prime Minister Narendra Modi. He succeeded Justice B.R. Gavai, whose term ended on November 23, 2025. Justice Surya Kant's tenure will be approximately 15 months and he will retire on February 9, 2027.
- Justice Kant hails from a village in Hisar district, Haryana, and has also served as the Advocate General of Haryana. He is the first person from the Punjab and Haryana High Court to reach the position of a Supreme Court judge.
- The new CJI has indicated that his immediate priority will be to reduce the backlog of cases across the country, especially those before the old Constitutional Bench. During his tenure at the Supreme Court, he was part of landmark decisions such as the abrogation of Article 370, which ended the special status of Jammu and Kashmir.

Fatima Bosch of Mexico crowned Miss Universe 2025

- The 74th annual Miss Universe pageant was held on November 21, 2025, at the Impact Challenger Hall in Nonthaburi, Thailand, with Fatima Bosch of Mexico winning the coveted crown.
- She was crowned by the outgoing Miss Universe, Victoria Kjaer Thelvig of Denmark. The first runner-up was Praveena Singh of Thailand, and Stephanie Abasali of Venezuela was the second runner-up.
- This year's pageant featured contestants from over 118 countries, with the theme "The Power of Love." India was represented by Manika Vishwakarma of Rajasthan. She managed to secure a spot in the top 30, but failed to secure a spot in the top 12, continuing India's wait for the crown after 2021.
- The pageant was also embroiled in several controversies, including the resignation of judges and allegations of bias. Indian badminton player Saina Nehwal was on the judging panel this year. The next, 75th Miss Universe pageant, will be held in Puerto Rico in 2026.

Prestigious CIMUSET Award

- The climate change gallery "On the Edge?" at Science City, Kolkata, has been awarded the

internationally prestigious CIMUSET Award. The honour, announced at the 27th ICOM General Assembly held in Dubai, marks a significant achievement for India's science museum community.

- Developed by the National Council of Science Museums (NCSM), this 10,000-square-foot permanent gallery presents the scientific realities of climate change, its anthropogenic causes, and adaptation and mitigation measures in an interactive manner.
- CIMUSET Committee Chair Jacob Thorek Jensen specifically commended its scientific rigour, inclusiveness, and social responsibility. The gallery is aligned with the philosophy of Vasudhaiva Kutumbakam and the global Sustainable Development Goals.
- Since its inauguration on January 11, 2025, it has been visited by over one million people. Its AR-VR technology, LED interactive wall, and student outreach programs play a key role in enhancing climate literacy. This award recognises the role of science museums in driving social change globally.

Chevalier of the French Order of Arts and Letters

- Renowned Indian art director Thota Tharani has been awarded the Chevalier rank of the Order of Arts and Letters (Ordre des Arts et des Lettres) by the French government. This honour recognises individuals who have made exceptional contributions to art, literature, cinema, and culture.
- Tharani becomes the sixth Indian film personality to receive this prestigious honor. Prior to him, Shivaji Ganesan, Balamuralikrishna, Kamal Haasan, Aishwarya Rai Bachchan, and Kalki Koechlin have been honored with the Chevalier.
- The Chevalier is the third of the three categories of the order: Commander, Officier, and Chevalier. From the Indian film industry, only Mrinal Sen, Sharmila Tagore, and Soumitra Chatterjee have received the highest honour, Commander, while Shah Rukh Khan is the only Indian to receive the Officer rank.
- Thota Tharani is known for his distinctive art direction in Telugu, Tamil, Malayalam, and Hindi cinema and was awarded the Padma Shri in 2001. This honor is a global recognition of his creative excellence.

Nitish Kumar sworn in as Chief Minister of Bihar for the 10th time

- Janata Dal (United) chief Nitish Kumar was sworn in as the Chief Minister of Bihar for a record 10th time in a historic ceremony on November 20, 2025.
- Prime Minister Narendra Modi and other top National Democratic Alliance (NDA) leaders were present at the grand ceremony held at the historic Gandhi Maidan in Patna. This government was formed following the NDA's landslide victory in the recently concluded Bihar Assembly elections, in which the BJP emerged as the largest party.
- BJP's Samrat Chaudhary and Vijay Kumar Sinha were sworn in as Deputy Chief Ministers. This time, the Home Department, which regulates law and order, has gone to the BJP for the first time, indicating that the BJP now has a more influential role in the state's power structure.
- Becoming Chief Minister for the 10th time is a significant political achievement, making him one of India's longest-serving Chief Ministers.
- The new government has committed to creating 10 million jobs over the next five years, focusing

on medical colleges and road development.

India-UK Joint Military Exercise 'Ajeya Warrior-25' Concluded

- The eighth edition of the bilateral military training exercise 'Ajeya Warrior' between India and the United Kingdom was recently held from 17 to 30 November 2025. The exercise concluded successfully at the Foreign Training Node of Mahajan Field Firing Range in Bikaner, Rajasthan.
- The main focus of this exercise was to enhance operational synergy and interoperability in conducting joint counter-terrorism operations in semi-urban areas under a United Nations (UN) mandate.
- A total of 240 personnel from the Indian Army's Sikh Regiment and the British Army's 2nd Battalion, Royal Gurkha Rifles participated. The 14-day exercise included tactical exercises, combat simulations, heliborne operations, room-intervention, and cordon-and-search drills.
- This biennial exercise demonstrates the strong and long-standing defense cooperation between the two countries, as well as reaffirms their shared commitment to global peace and security.

World Boxing Cup Final 2025 Concludes

- India successfully hosted the World Boxing Cup Final, held at the Shaheed Vijay Singh Pathik Sports Complex in Greater Noida from November 16 to 20, 2025.
- The event was the culmination of the 2025 World Boxing Cup series, following three World Cup stages held in Brazil, Poland, and Kazakhstan. Over 130 boxers from 18 countries participated in the event.
- India topped the medal tally with a total of 20 medals, including 9 gold, 6 silver, and 5 bronze. Of India's 9 gold medals, 7 were won by women boxers. World champions Nikhat Zareen (51 kg), Jasmine Lamboria (57 kg), and Nupur Sheoran (80+ kg) won gold medals.

India-France Joint Air Exercise 'Garuda-2025'

- The eighth edition of the bilateral air exercise 'Garuda-2025' between India and France recently concluded in France. This high-level exercise was held at Mont-de-Marsan Air Base, France, from November 16 to November 27, 2025.
- The Indian Air Force (IAF) participated with its flagship Su-30MKI fighter aircraft, C-17 Globemaster III transport aircraft, and IL-78 air-to-air refueling tankers. The French side deployed other multi-role combat aircraft, including the Rafale and Mirage 2000.
- The exercise focused on complex and realistic combat scenarios such as air-to-air combat, air defense operations, and joint strike missions. The exercise further strengthens the over 25-year-old strong strategic partnership and defense cooperation between the two countries.
- Exercise 'Garuda' has been conducted between the two countries since 2003 and underscores their shared commitment to security and stability in the Indo-Pacific region.
- The primary objective of the exercise was to enhance interoperability, operational coordination, and air combat cooperation between the two air forces (Indian Air Force and French Air and Space Force - FASF).

GCC's One-Stop Travel System for Seamless Travel within Gulf Countries

- The Gulf Cooperation Council (GCC) has approved a historic one-stop travel system to simplify travel between member countries. It aims to provide travellers with all immigration, customs, and security checks in one place, making travel within the Gulf as seamless as domestic flights.
- The pilot phase of this system will begin in December 2025, with the United Arab Emirates and Bahrain selected as the candidates.
- The decision was announced at the 42nd meeting of GCC Interior Ministers held in Kuwait City. The system will operate on a common electronic platform, enabling data exchange and coordinated processes among member countries.
- If successful, it will be implemented in all six countries: Saudi Arabia, Kuwait, Qatar, and Oman. Additionally, the 2,177-kilometer Gulf Railway network is on track to be completed by December 2030, further strengthening regional connectivity.

First Tribal Sports Meet in Ladakh Concludes Successfully

- The first-ever Tribal Sports Meet in Ladakh was held at the Sports Authority of India (SAI) Centre, Kargil, and KGBV, Chiktan.
- The event was organised by the Tribal Research Institute of the University of Ladakh, in collaboration with the Union Ministry of Tribal Affairs, as part of the Tribal Pride Rainy Season Fortnight. Over 200 tribal athletes from various regions of Ladakh participated in the meet.
- The athletes enthusiastically participated in events such as taekwondo, boxing, and kho-kho. Ladakh Police teams also participated in the sports competitions. Medals and trophies were awarded to the winners at the conclusion of the meet.
- Shujaat Ali and Kulsoom were adjudged the best boxers, while Asiya Bano and Tajammul Hussain were honored as the best taekwondo players. This event is an important step towards strengthening the tribal sports culture in the region.

Punjab becomes the first state to implement the Amended BharatNet Scheme

- Punjab has become the first state in India to successfully implement the Amended BharatNet Scheme across the state. This is a significant achievement that strengthens rural digital access and promotes e-governance services.
- The scheme aims to provide high-speed broadband connectivity to all gram panchayats, households, and institutions in the country, enabling e-health, e-education, and e-governance services in rural areas.
- Punjab has provided internet services to almost every village, including its 43 "shadow areas" (where there was no connectivity), with only one village remaining by the end of November 2025. This initiative enables live monitoring of the border state from any location, strengthening security. Punjab has become the first state to use optical fibre cable (OFC) ring topology and IP-MPLS architecture, improving network reliability and uptime.

National Tribal Film Festival and Carnival

- Aiming to celebrate India's diverse and rich tribal heritage, the National Tribal Film Festival and Carnival was held in Imphal, the capital of Manipur, from November 12 to 15, 2025. The event was an integral part of the 'Tribal Pride Year' celebrations, commemorating the 150th

birth anniversary of Lord Birsa Munda.

- The four-day festival showcased a total of 23 tribal films from nine states, including feature films, documentaries, short films, and an animation film.
- Its primary objective was to promote the creativity, identity, and cultural expression of tribal communities across the country through cinema and culture.
- In addition to film screenings, the carnival also included masterclasses, panel discussions, and cultural exchange sessions that showcased the rich traditions of tribal art, music, dance, and crafts. The event played a significant role in providing a national platform to tribal cinema and bringing the unique stories of indigenous communities to a wider audience.

Sixth India-Vietnam Military Exercise 'VINBAX 2025'

- The sixth edition of the bilateral military exercise 'VINBAX 2025' between India and Vietnam recently concluded in Hanoi, the capital of Vietnam, from November 11 to November 29, 2025.
- The primary focus of the exercise was to enhance joint military capabilities and interoperability within the framework of United Nations Peacekeeping Operations (UNPKO).
- The exercise was conducted at the Mieu Mon Training Centre in Hanoi. It included theoretical sessions, practical field exercises, and integrated verification exercises through the deployment of engineer companies and medical teams.
- India is the only international partner that conducts annual field-level exercises on UN peacekeeping with Vietnam, reflecting the deep strategic trust between the two countries.
- This exercise strengthens the India-Vietnam Comprehensive Strategic Partnership and underscores their shared commitment to peace, stability, and security in the Indo-Pacific region. The VINBAX series began as a tabletop simulation in India in 2018 and has now evolved into a full-fledged regional exercise.

Gogabeel Lake becomes India's 94th Ramsar site

- India has added Gogabeel Lake, located in Katihar district of Bihar, to the list of wetlands of international importance under the Ramsar Convention (1971), making it the 94th Ramsar site in the country and the sixth in Bihar.
- Located between the Ganges and Mahananda rivers, Gomukh Lake naturally forms a floodplain wetland when both rivers join during the rainy season. It is also Bihar's first community reserve.
- Gogabeel is crucial as a habitat for migratory birds and a breeding ground for aquatic life. It supports rich biodiversity and plays a vital role in flood control, groundwater recharge, and local climate balance in the Gangetic plains.
- With 94 sites on the Ramsar list, India ranks third in the world and first in Asia. In the past 11 years, 67 new wetlands have been added, covering 1.36 million hectares of protected area.
- The Ramsar Convention, established in 1971, is today the primary framework for global wetland conservation, with 172 countries participating.

David Szalay wins the 2025 Booker Prize for his novel "Flesh."

- Canadian-Hungarian-British author David Szalay was awarded the prestigious 2025 Booker Prize for his novel "Flesh." On November 10, at a ceremony in London, 51-year-old Szalay was announced as the winner of the £50,000 international literary honour.

- "Flesh" offers a highly sensitive and nuanced account of the life of an ordinary man spanning several decades, where the untold story is as important as the written one.
- Szalay's novels were selected from 153 entries. The jury included prominent figures such as Irish author Roddy Doyle and renowned actress Sarah Jessica Parker. Previously, in 2016, Szalay was nominated for the Booker Prize for his novel "All That Man Is."
- Last year, the award was given to British author Samantha Harvey for her novel "Orbital." The Booker Prize, established in 1969, is known for its reputation for transforming writers' careers in world literature.

Renowned Telugu poet and lyricist Ande Sri passes away

- Renowned Telugu poet and lyricist Ande Sri has passed away at the age of 64. He is best remembered for composing the Telangana state anthem "Jai Jayahe Telangana," which emerged as a powerful symbol of public sentiment during the statehood movement and was later adopted as the official anthem.
- Born as Ande Yellanna in Rebarthi village in Siddipet district, Ande Sri established a prominent position in the field of literature and culture.
- He placed issues of society, language, and identity at the center of his poetic expression. In recognition of his literary legacy, Kakatiya University conferred an honorary doctorate on him.
- During the Telangana Formation Day celebrations, the state government also presented him with a cash prize of ₹1 crore in recognition of his invaluable contributions. The death of Ande Sri is a great loss to the cultural consciousness of Telangana.

Cabinet Approves New Credit Guarantee Scheme for Exporters

- The Union Cabinet has approved a new credit guarantee scheme for exporters, especially MSMEs, aimed at strengthening the export sector and facilitating additional credit up to Rs. 20,000 crore. Under this scheme, exporters will receive full credit protection, reducing financial risk and increasing the potential for increased export activity.
- The Cabinet also approved revisions to royalty rates for critical minerals such as cesium, graphite, rubidium, and zirconium. This move will encourage the auction of mineral blocks and strengthen domestic production of critical minerals such as lithium, tungsten, and niobium.
- In addition, a new Export Promotion Mission (EPM) with a budget of over ₹25,000 crore has also been approved.
- Implemented from 2025–26 to 2030–31, this mission will provide a digital and flexible framework to enhance the competitiveness of new exporters, MSMEs, and labor-intensive sectors. This is a significant reform towards integrating fragmented export schemes into a unified mechanism.

Sixth National Water Awards 2024

- The Sixth National Water Awards 2024 were presented in New Delhi on November 18, 2025, to recognise outstanding efforts in the field of water conservation and management. The President of India, Smt. Draupadi Murmu, presented the awards to the winners at a ceremony held at Vigyan Bhavan.
- Maharashtra won the first prize for Best State, followed by Gujarat in second and Haryana in third. Mirzapur district of Uttar Pradesh received the Best District in the Northern Region.

award.

- The Navi Mumbai Municipal Corporation of Maharashtra won the Best Urban Local Body award. Apollo Tyres Limited (Kanchipuram), Tamil Nadu, received the Best Industry award.
- IIT Gandhinagar (Gujarat) and ICAR-CCARI (Goa) jointly shared the first prize in the Best Institute (Campus Category).
- In total, 46 winners (including joint winners) across 10 categories were honored for their exemplary work. These awards, given under the aegis of the Ministry of Jal Shakti, aim to promote a culture of public participation and efficient water use to build a water-rich India.

India-Sri Lanka Joint Military Exercise 'Mitra Shakti 2025'

- The 11th edition of the annual joint military exercise 'Mitra Shakti 2025' between India and Sri Lanka recently concluded successfully in Belagavi, Karnataka.
- The exercise, conducted from November 10, 2025, to November 23, 2025, at the Foreign Training Node (FTN), aimed to further deepen defence cooperation between the two neighbouring countries.
- The main focus of the exercise was to exchange tactics and methods for counter-terrorism operations in urban and rural scenarios under Chapter VII of the United Nations mandate.
- The Indian Army was represented by a contingent of the Rajput Regiment, while the Sri Lankan Army was represented by personnel from the Gajaba Regiment.
- 'Mitra Shakti' is not only a platform for sharing tactical skills, but also enhances interoperability between the two armies and strengthens mutual trust and understanding.
- This edition placed special emphasis on the use of modern technologies, including drones and UAVs, strengthening both countries' preparedness to meet future security challenges. The exercise also demonstrates India's commitment to its "Neighborhood First" policy.

Rahul VS becomes India's 91st Grandmaster

- Indian chess player Rahul VS has achieved the distinction of becoming India's 91st Grandmaster by winning the 6th ASEAN Individual Chess Championship.
- This achievement is the result of his long hard work, consistent performance, and sharp strategic skills. He received the title of International Master (IM) in November 2021, when he achieved his fourth and fifth IM norms and surpassed a live rating of 2400.
- Just a week before Rahul, Ilamparthi AR of Chennai became India's 90th Grandmaster. He achieved his final norm at the Bijeljina Open 2025 in Bosnia and Herzegovina.
- Earlier in August, S. Rohit Krishna became India's 89th Grandmaster, achieving an Elo rating of 2500 after an excellent performance at the Almaty Masters Konayev Cup in Kazakhstan.
- The title of Grandmaster is awarded by the International Chess Federation (FIDE) and is the highest honour in the chess world.

Maharashtra became the first state to partner with Starlink

- On November 5, Maharashtra made a historic move by partnering with Elon Musk's company, Starlink, for satellite-based internet services.
- The state government signed a letter of intent with Starlink Satellite Communications Private Limited, which plans to provide high-speed satellite internet to rural and remote areas.
- Underserved districts and government institutions such as Gadchiroli, Nandurbar, Dharashiv,

and Washim are included in the first phase of this project. This initiative is an important step towards strengthening digital connectivity under the "Digital Maharashtra Mission."

- Starlink is preparing for a full commercial launch in India by early 2026 and is establishing nine satellite gateway stations, including in Mumbai, Lucknow, Noida, Kolkata, and Chandigarh.
- In India, it will compete with companies like Jio Satellite and Eutelsat OneWeb. With a global network of over 6,000 low-Earth orbit satellites, Starlink aims to bring fast and reliable internet to remote areas of India.

Zohran Mamdani

- On November 4, 2025, Democrat Zohran Mamdani won a historic victory in the New York City mayoral election. At the age of 34, he became New York's youngest mayor since 1917 and the city's first Muslim mayor-elect.
- His democratic socialist campaign energized progressive circles, though it also drew criticism from President Donald Trump and some moderate Democrats, including Republican leaders.
- In his victory speech, Mamdani described his victory as a clear mandate from the people. As a Queens Assemblyman, he has long advocated for lowering the cost of living, improving housing, and expanding public services. The mayor of New York heads the city's vast bureaucracy, which impacts the daily lives of 8.5 million residents. Mamdani will be responsible for the city's budget, administrative policies, and federal-state coordination.

Maldives is the first country in the world to implement a generational tobacco ban

- The Maldives has taken a historic step in global public health policy by implementing the world's first "generational tobacco ban" from November 1, 2025.
- According to this law, anyone born after January 1, 2007, will not be allowed to buy, sell, or use tobacco products. This ban will apply equally to all residents and tourists in the country. The law also imposes a complete ban on vaping and e-cigarettes.
- Retailers are required to undergo mandatory age verification, with violations resulting in a fine of 50,000 Maldivian rufiyaa; users of vaping devices will be fined 5,000 rufiyaa.
- This measure was implemented through an amendment to the Tobacco Control Act. According to the Ministry of Health, this policy is an important step towards promoting a "tobacco-free generation." Tobacco causes over 7 million deaths globally each year, of which 1.6 million are due to secondhand smoke.

India-Israel Defense Cooperation

- India and Israel signed a landmark Memorandum of Understanding (MoU) on November 5th aimed at enhancing defence cooperation.
- This agreement was signed during the 17th meeting of the Joint Working Group (JWG) on Defence Cooperation held in Tel Aviv, co-chaired by Indian Defence Secretary Rajesh Kumar Singh and Israeli Defence Ministry Director General Major General Amir Baram.
- The MoU aims to provide unified policy direction to bilateral defence cooperation, encourage the exchange of advanced defence technologies, and promote co-development and co-production.
- At the meeting, both sides discussed strengthening operational capabilities in emerging defence technologies, encouraging joint research, and enhancing industry-to-industry cooperation.

- Given the growing threat of terrorism, both countries also emphasised the need for continued cooperation and shared strategies in this area. This agreement is an important step towards taking the India-Israel defence partnership to a new and broader dimension.

Avani Lekhara wins gold at the 2025 Para Shooting World Cup

- Indian para shooter Avani Lekhara delivered a stellar performance at the 2025 Para Shooting World Cup in Al Ain, Dubai, winning the gold medal. She defeated Sweden's Anna Besson in a close contest in the women's 10m air rifle standing SH1 event.
- Thailand's Wannipa Leungwilai took the bronze. Avani's performance once again showcased India's para-shooting potential on the international stage.
- India also performed exceptionally well in the mixed 50m pistol SH1 category. In the individual final, Akash won the gold medal with a final score of 223.1 points, while Sandeep Kumar took the silver. In the team event, the trio of Akash, Sandeep, and Rudransh Khandelwal won the silver medal, narrowly losing to the Iranian team. This performance by the Indian contingent is a strong indication of its growing competitiveness in international para-shooting.

Sanjay Garg takes charge as Director General of the Bureau of Indian Standards

- Sanjay Garg, a 1994-batch IAS officer, assumed charge as the new Director General of the Bureau of Indian Standards (BIS) on November 1. The BIS is India's national standards body, developing nationwide standards for consumer safety, quality control, and industrial standardisation.
- Sanjay Garg has over three decades of administrative experience, including key roles in the developmental, industrial, and research sectors. Prior to assuming office, he served as Additional Secretary in the Department of Agricultural Research and Education (DARE) and Secretary of the Indian Council of Agricultural Research (ICAR). He promoted digital transformation in agricultural research services and led the expansion of the Kisan-Sarathi portal, which played a key role in connecting farmers with experts.
- Garg's experience extends to World Bank projects, defense industry promotion, and industrial reforms. As BIS chief, he will also chair India's National Committee on the International Electrotechnical Commission (IEC).

Samia Suluhu Hassan's Second Presidential Term in Tanzania

- Tanzanian President Samia Suluhu Hassan began her second term in office on November 3 at a swearing-in ceremony held in the capital, Dodoma. She was declared the winner with 98% of the vote, but the election process remained mired in controversy.
- Several opposition leaders were detained or prevented from participating, leading to violent protests across the country. Opposition parties have completely rejected the election results.
- International observers have raised serious questions about the transparency and fairness of the election. Reports indicate that several civilians were killed or injured during the unrest.
- The United Nations Human Rights Office has also confirmed at least 10 deaths in three cities. These circumstances have destabilised the political environment in Tanzania. Samia Suluhu Hassan now faces the daunting challenge of restoring social peace in the country and restoring trust in democratic institutions.

MCQs Based on Current Affairs

1. Consider the following statements about recent developments in Nauradehi Wildlife Sanctuary in MP:

1. It has been selected as a future site for cheetah reintroduction.
 2. It was declared a National Park in 2025.
 3. It lies entirely within Sagar district.
- Which of the statements given above is/are correct?

A: 1 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

2. Consider the following statements about the Chabahar Port:

1. It is located in Iran's Sistan-Baluchestan province on the Gulf of Oman.
2. It provides India direct sea access to Afghanistan bypassing Pakistan.
3. It is jointly developed by India and Iran under the International North-South Transport Corridor (INSTC) framework.

Which of the statements given above is/are correct?

A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

3. With reference to Rare Earth Elements (REEs), consider the following statements:

1. REEs are a group of seventeen metallic elements, which include the 15 lanthanides, plus scandium and yttrium.
2. Despite their name, REEs are not truly rare in the Earth's crust.
3. China is currently the leading producer and refiner of REEs globally.

Which of the statements given above is/are correct?

A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

4. Which of the following statements about Lucknow's inclusion in the UNESCO Creative Cities Network is/are correct?

1. Lucknow became the first Indian city to be

recognised as a "City of Gastronomy".

2. The nomination was prepared by the Directorate of Tourism, Uttar Pradesh.
3. The designation was announced during the 43rd UNESCO General Conference in Samarkand, Uzbekistan.

Select the correct answer using the code given below:

A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

5. With reference to the UNESCO Creative Cities Network, consider the following statements:

1. The network was established in 2004 to promote cooperation among cities that leverage creativity for sustainable development.
2. Currently, it covers over 350 cities across more than 100 countries.
3. Indian cities Jaipur, Varanasi, and Hyderabad are part of this network.

Which of the statements given above are correct?

A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

6. Which of the following treaties or agreements has India not signed or not ratified?

1. Comprehensive Nuclear-Test-Ban Treaty.
2. Treaty on the Prohibition of Nuclear Weapons
3. Non-Proliferation Treaty (NPT).

Select the correct answer using the code below:

A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

7. With reference to the recently launched GSAT-7R satellite, consider the following statements:

1. It is India's heaviest indigenous communication satellite developed by ISRO.
2. It was launched aboard the LVM3 rocket from Sriharikota.
3. It is primarily designed to enhance communication capabilities of the Indian

Air Force.

Which of the statements given above is/are correct?

- A: 1 and 2 only
- B: 2 only
- C: 2 and 3 only
- D: 1, 2, and 3

8. With reference to the Nipah virus (NiV), consider the following statements:

1. It is a zoonotic virus with fruit bats of the Pteropus genus as its natural reservoir.
2. It can spread from human to human through close contact.
3. There is no vaccine is available for Nipah virus.

Which of the statements given above is/are correct?

- A: 1 and 2 only
- B: 2 only
- C: 2 and 3 only
- D: 1, 2, and 3

9. Consider the following statements regarding the Great Nicobar Island (GNI) Project:

1. The project aligns with India's Maritime Vision 2030 and Amrit Kaal Vision 2047.
2. Great Nicobar Island is located near the Malacca Strait and hosts Indira Point, India's southernmost tip.
3. The project's clearances have been challenged due to concerns over ecological fragility and tribal rights.

Which of the statements given above are correct?

- A: 1 and 2 only
- B: 1 and 3 only
- C: 2 and 3 only
- D: 1, 2, and 3

10. Consider the following statements regarding Primary Amoebic Meningoencephalitis (PAM):

1. It is caused by the bacterium Naegleria fowleri, commonly known as the "brain-eating bacterium."
2. The infection spreads through inhalation of contaminated droplets from person to person.
3. Amphotericin B and miltefosine are drugs sometimes used in its treatment.

Which of the statements given above are

correct?

- A: 1 and 2 only
- B: 3 only
- C: 2 and 3 only
- D: 1, 2, and 3

11. Consider the following statements regarding the Encephalomyocarditis Virus (EMCV):

1. It belongs to the family Picornaviridae and the genus Cardiovirus.
2. The virus primarily affects birds and reptiles, which act as its natural reservoirs.
3. Transmission generally occurs when animals ingest food or water contaminated with rodent excreta.

Which of the statements given above are correct?

- A: 1 and 2 only
- B: 1 and 3 only
- C: 2 and 3 only
- D: 1, 2, and 3

12. Consider the following statements regarding "Digital Arrest" scams in India:

1. In a digital arrest, fraudsters typically impersonate government officials and threaten victims with arrest to extort money.
2. Such scams often involve fake video calls or AI-generated visuals to conduct mock interrogations.
3. The Supreme Court of India has recently expressed concern over these scams, noting losses of more than ₹3,000 crore nationwide.

Which of the statements given above is/are correct?

- A: 1 and 2 only
- B: 1 and 3 only
- C: 2 and 3 only
- D: 1, 2, and 3

13. Consider the following statements regarding the QS Asia University Rankings 2026:

1. The 2026 edition is the 17th edition of the QS Asia University Rankings released by Quacquarelli Symonds.
2. India is the second-most represented higher education system in the ranking after China.
3. The University of Hong Kong topped the overall rankings in Asia for 2026.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 2 only
 C: 2 and 3 only
 D: 1, 2, and 3

14. Consider the following statements regarding India–Israel defence relations:

1. According to SIPRI (2020–2024), Israel was India's third-largest arms supplier after Russia and the United States.
 2. The two countries jointly developed the Barak 8 missile system and the Drishti-10 Starliner drone.
 3. India and Israel participates military exercises such as "Blue Flag," which includes aerial combat training.
- Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

15. Consider the following statements regarding the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES):

1. CITES was adopted in 1973 and came into force in 1975.
 2. It classifies species into Appendices I, II, and III based on the level of trade regulation required.
 3. India is not a party to CITES but follows its guidelines under the Wildlife Protection Act, 1972.
- Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 2 only
 C: 1 and 3 only
 D: 1, 2, and 3

16. Consider the following statements regarding INS Ikshak, recently commissioned by the Indian Navy:

1. It is the third vessel of the Survey Vessel (Large) class being built by Mazagon Dock Shipbuilders Ltd (MDL), Mumbai.
2. The vessel is primarily designed to carry out hydrographic surveys.
3. INS Ikshak is equipped with Autonomous

Underwater Vehicles (AUVs) and Remotely Operated Vehicles (ROVs) capable of scanning up to 11,000 meters depth.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 2 only
 C: 2 and 3 only
 D: 1, 2, and 3

17. Consider the following statements regarding Vande Mataram, recently in news during its 150th year commemoration:

1. Vande Mataram was composed by Bankim Chandra Chatterjee in the year 1875 and first appeared in his Bengali novel Anandamath (1882).
2. It was first sung publicly by Rabindranath Tagore during the 1896 session of the Indian National Congress held in Calcutta.
3. Vande Mataram was adopted as India's National Song by the Constituent Assembly on January 26, 1950.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

18. With reference to the Financial Action Task Force (FATF), consider the following statements:

1. FATF was established in 1989 as an inter-governmental body to combat money laundering and terrorist financing.
2. India became a full member of FATF in 2001.
3. FATF's global standards are implemented through recommendations known as the "FATF 40 Recommendations."

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

19. Consider the following statements regarding Khangchendzonga National Park (KNP):

1. It is located in the state of Sikkim and forms part of the Khangchendzonga Biosphere Reserve.

2. It is India's first UNESCO World Heritage Site to be recognized as a "Mixed Heritage" site, combining natural and cultural values.
3. It was inscribed on the UNESCO World Heritage List in 2018.
4. The park has recently been rated "Good" in conservation status by the IUCN's World Heritage Outlook 4 review.

Which of the statements given above are correct?

- A: 1 and 2 only
 B: 1, 3 and 4 only
 C: 1, 2 and 4 only
 D: 1, 2, 3 and 4

20. Consider the following statements regarding the Central Board of Film Certification in India:

1. The CBFC operates under the Ministry of Information and Broadcasting and is governed by the Cinematograph Act, 1952.
2. All films must be certified by the CBFC before public exhibition in India.

Which of the statements given above is/are correct?

- A: 1 only
 B: 2 only
 C: Both 1 and 2
 D: None

21. Consider the following statements regarding Section 49M of the Wildlife (Protection) Act, 1972 (as amended in 2022):

1. It provides for the registration of possession, transfer, birth, and reporting of death of living scheduled animal species listed in CITES Appendices.
2. It applies only to animals listed under Schedule I of the Wildlife (Protection) Act.
3. The rules require all persons possessing such animals to register their specimens with the State Chief Wildlife Warden through the PARIVESH 2.0 portal.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

22. With reference to the 2025 United Nations Climate Change Conference (COP30), consider the following statements:

1. COP30 is being hosted by Brazil in the city of Belém, located in the Amazon region, at the Hangar Convention Centre.
2. The Brazilian government symbolically transferred the nation's capital from Brasília to Belém during the conference period.
3. André Corrêa do Lago, a Brazilian diplomat with experience in global climate negotiations, serves as the President of COP30.
4. The decision to host COP30 in Belém was first announced during COP28 and officially confirmed in 2024.

Which of the statements given above are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 1, 2 and 3 only
 D: 1, 2, 3 and 4

23. Consider the following statements regarding the Tropical Forest Forever Facility (TFFF):

1. It is a permanent, self-financing fund aimed at providing grants to countries for afforestation projects.
2. The fund aims to raise \$125 billion by mobilizing both public and private capital.
3. Payments from the fund are linked to verified forest conservation performance.
4. It is hosted and managed by the United Nations Environment Programme (UNEP).

Which of the statements given above are correct?

- A: 1 and 2 only
 B: 1, 3 and 4 only
 C: 2 and 3 only
 D: 1, 2, 3 and 4

24. With reference to the recent developments in India-Angola relations, consider the following statements:

1. Angola is joined all three major India-led global initiatives — the International Solar Alliance (ISA), Global Biofuel Alliance (GBA), and International Big Cat Alliance (IBCA).
2. India is Angola's largest trading partner and its biggest oil importer.
3. A Memorandum of Understanding (MoU) on fisheries and marine resources was signed during the visit of the Indian President to Angola.

Which of the statements given above are correct?

- A: 1 and 2 only
 B: 1 and 3 only

- C: 2 and 3 only
 D: 1, 2, and 3

25. With reference to the BioE3 Policy (Biotechnology for Economy, Environment, and Employment) and India's nutritional transformation, consider the following statements:

1. The BioE3 policy aims to accelerate the bioeconomy through high-performance biomanufacturing and promote sustainability.
 2. It includes initiatives such as establishing Biomanufacturing and Bio-AI hubs to strengthen bio-innovation ecosystems.
 3. Under this framework, functional foods and smart proteins are being promoted as part of India's shift from food security to nutritional security.
 4. The policy is administered by the Ministry of Agriculture and Farmers' Welfare.
- Which of the statements given above are correct?

- A: 1 and 2 only
 B: 1, 3 and 4 only
 C: 1, 2 and 3 only
 D: 1, 2, 3 and 4

26. With reference to India's new Guidelines for Governance of Artificial Intelligence (AI), consider the following statements:

1. The framework is built around seven guiding "Sutras" that balance innovation with ethical and human-centric AI design.
2. The guidelines propose enacting a separate national law on AI to regulate emerging technologies.
3. The AI Safety Institute (AISi) is envisaged as India's apex agency for testing, certification, and bias mitigation of AI systems in the new framework.

Which of the statements given above are correct?

- A: 1 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

27. With reference to Tribunals in India, consider the following statements:

1. Tribunals were introduced through the 42nd Constitutional Amendment Act, 1976, under

Articles 323A and 323B of the Constitution.

2. Article 323A empowers both Parliament and State Legislatures to establish tribunals for service matters.
3. Article 323B enables the establishment of tribunals dealing with matters such as taxation, industrial disputes, and land reforms.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

28. Consider the following statements regarding DNA (Deoxyribonucleic Acid):

1. DNA is made up of a sugar-phosphate backbone and four nitrogenous bases — Adenine, Thymine, Cytosine, and Guanine.
2. In DNA, Adenine pairs with Guanine, and Cytosine pairs with Thymine through hydrogen bonding.
3. DNA replication, transcription, and translation together constitute the central dogma of molecular biology.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

29. With reference to Ricin, consider the following statements:

1. Ricin is a protein toxin derived from the seeds of *Ricinus communis*, which is also used for castor oil production.
2. Ricin causes cellular damage primarily by inhibiting DNA replication.
3. Ricin exposure can occur through ingestion, inhalation, or injection.
4. A specific antidote is available globally for ricin poisoning.

How many of the above statements are correct?

- A: Only one
 B: Only two
 C: Only three
 D: All four

30. With reference to India's ranking in the Climate Risk Index 2026, consider the following

statements:

1. India ranks 9th in the long-term CRI covering 1995–2024.
2. India ranks 3rd globally in terms of economic losses in 2024.
3. India ranks 15th in the CRI for 2024.
4. India is among the top three globally in people affected by extreme weather in 2024.

Select the correct answer:

- A: 1 and 2 only
 B: 1,3 and 4 only
 C: 2 ,3 and 4 only
 D: 1, 2, 3 and 4

31. With reference to the Digital Personal Data Protection (DPDP) Rules, 2025, consider the following statements:

1. Under the rules Data Fiduciaries must provide itemised notice to data principals specifying the purpose of collection and data retention period.
2. Right to withdraw consent is explicitly recognised under the rules.
3. Data fiduciaries must notify the Data Protection Board (DPB) within 72 hours of becoming aware of a data breach.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 2 only
 C: 2 and 3 only
 D: 1, 2, and 3

32. Consider the following statements regarding the Data Protection Board of India (DPB):

1. It functions as the adjudicatory body under the DPDP Act.
2. It is headquartered in the National Capital Region (NCR).
3. It consists of seven members including the Chairperson.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

33. With reference to Narcoterrorism, consider the following statements:

1. The term was first coined to describe the

use of drug trafficking by terrorist groups to fund ideological activities.

2. In the contemporary context, narcoterrorism includes the use of drones and maritime routes for transporting narcotics and weapons.
3. Narcoterrorism undermines national security by promoting corruption, crime, and destabilization of state institutions.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

34. With reference to Next-Generation Man-Portable Autonomous Underwater Vehicles (MP-AUVs) developed by DRDO's NSTL, consider the following statements:

1. They require large, specialized launch platforms for deployment.
2. They can autonomously execute missions without real-time human control.
3. They are equipped with sensors such as side scan sonar and underwater cameras.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 2 only
 C: 2 and 3 only
 D: 1, 2, and 3

35. With reference to the Export Promotion Mission (EPM), consider the following statements:

1. It aims to unify multiple fragmented export schemes into a single outcome-based framework.
2. It will be implemented by the Directorate General of Foreign Trade (DGFT) through an integrated digital platform.
3. The Mission focuses exclusively on financial incentives for exporters.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 2 only
 C: 2 and 3 only
 D: 1, 2, and 3

36. With reference to the Seshachalam Biosphere Reserve, consider the following statements:

1. It is the first biosphere reserve of Andhra Pradesh.
2. It is known for extensive forests of red sandalwood (*Pterocarpus santalinus*).
3. It is located in the Western Ghats near Tirupati.

Which of the above statements is/are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

37. With reference to the Zoological Survey of India (ZSI), consider the following statements:

1. It functions under the Ministry of Environment, Forest and Climate Change.
2. It was established in 1916 and is headquartered in Kolkata.
3. It is responsible for preparing India's Red Data Book on threatened fauna.

Which of the above statements are correct?

- A: 1 and 2 only
 B: 2 only
 C: 2 and 3 only
 D: 1, 2, and 3

38. With reference to the National Platform for Climate and Nature Finance announced at COP30, consider the following statements:

1. The platform aims to replace the project-based approach to climate finance with a programmatic investment approach.
2. It is a country-driven initiative coordinated through the Green Climate Fund (GCF).

Which of the above statements are correct?

- A: 1 only
 B: 2 only
 C: Both 1 and 2
 D: None

39. With reference to the Juvenile Justice (Care and Protection of Children) Act, 2015, consider the following statements:

1. The Act allows juveniles aged 16–18, involved in heinous offences, to be tried as adults after assessment by the Juvenile Justice Board (JJB).
2. The 2015 Act completely replaces all previous personal laws on adoption, including the Hindu Adoptions and Maintenance Act,

1956.

3. The Act grants statutory status to the Central Adoption Resource Authority (CARA) to streamline adoption procedures.

Which of the statements given above is/are correct?

- A: 1 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

40. With reference to the 7th NSA-level Meeting of the Colombo Security Conclave (CSC) held in November 2025, consider the following statements:

1. The meeting was chaired by India's National Security Adviser in New Delhi.
2. Seychelles participated as an observer state at CSC.
3. Malaysia attended the meeting for the first time as a guest country.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 2 only
 C: 1 and 3 only
 D: 1, 2, and 3

41. With reference to UNICEF, consider the following statements:

1. UNICEF was originally created in 1946 to provide relief to children affected by World War II.
2. UNICEF relies primarily on assessed contributions from UN member states for its funding.
3. UNICEF became a permanent part of the UN System in 1953.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

42. With reference to the Light Combat Aircraft (LCA) Tejas, consider the following statements:

1. Tejas is India's first indigenously designed and produced 4.5-generation fighter aircraft.
2. It is developed by Hindustan Aeronautics Limited (HAL) in collaboration with the

Aeronautical Development Agency (ADA).

3. Tejas has been certified as the world's lightest supersonic fighter aircraft.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

- 43. Tejas Mk-1A variant, recently inducted into the IAF, includes which of the following enhancements compared to Tejas Mk-1?**

1. Active Electronically Scanned Array (AESA) Radar
2. Air-to-Air Refuelling Capability
3. Electronic Warfare (EW) Suite
4. Beyond-Visual-Range advanced missiles

Select the correct answer:

- A: 1 and 2 only
 B: 1, 3 and 4 only
 C: 1, 2 and 3 only
 D: 1, 2, 3 and 4

- 44. Consider the following statements regarding the constitutional and procedural framework for appointing the Chief Justice of India:**

1. Article 124(2) of the Constitution provides for the appointment of Supreme Court judges, including the CJI, by the President after consultation.
2. The convention of appointing the senior-most judge as the next CJI is explicitly mandated by the Constitution.

Which of the statements given above is/are correct?

- A: 1 only
 B: 2 only
 C: Both 1 and 2
 D: None

- 45. With reference to the India–Brazil–South Africa (IBSA) Dialogue Forum, consider the following statements:**

1. IBSA was established as a trilateral grouping in 2003 to promote South–South cooperation and democratic global governance.
2. IBSA includes three regional powers from Asia, Africa, and Latin America.
3. IBSA is a formal treaty-based organisation with a permanent secretariat in New Delhi.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

- 46. With reference to Clause 6 of the Assam Accord, consider the following statements:**

1. Clause 6 mandates constitutional, legislative, and administrative safeguards to protect the cultural, social, and linguistic identity of the Assamese people.
2. The High-Level Committee on Clause 6 implementation, led by Justice (Retd.) Biplab Kumar Sharma, recommended a total of 57 measures, all of which have been accepted by the Assam Cabinet.
3. Clause 6 explicitly defines who qualifies as an "Assamese person."

Which of the statements given above is/are correct?

- A: 1 only
 B: 2 only
 C: 2 and 3 only
 D: 1, 2, and 3

- 47. With reference to INS Mahe, consider the following statements:**

1. INS Mahe is the first ship of the Mahe-class Anti-Submarine Warfare Shallow Water Craft (ASW-SWC) built by Mazagon Dock Shipbuilders Ltd (MDL).
2. The ship incorporates low acoustic signature and low radar cross-section as part of its stealth features.
3. The crest of INS Mahe features the traditional Urumi sword associated with Kalarippayattu.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

- 48. With reference to the Highly Agile Modular Munition Extended Range (HAMMER) weapon system, consider the following statements:**

1. HAMMER is a modular air-to-ground

weapon capable of carrying warheads of up to 1000 kg.

2. The weapon has a maximum range of about 150 km, giving it long-range deep-strike capability.
3. It is designed to function in all-weather conditions and is resistant to electronic jamming.
4. It is compatible only with Rafale aircraft since it was originally developed in France.

How many of the above statements are correct?

- A: Only one
B: Only two
C: Only three
D: All four

49. With reference to Article 240 of the Constitution, consider the following statements:

1. Article 240 empowers the President to make regulations for certain Union Territories, which have the same force as Acts of Parliament.
2. Presidential regulations under Article 240 can amend or repeal any existing Central law as applicable to that Union Territory.
3. Chandigarh is currently governed under Article 240.
4. Puducherry always falls under Article 240

since it is a Union Territory with a legislature.

How many of the above statements are correct?

- A: Only one
B: Only two
C: Only three
D: All four

50. With reference to the procedure for selecting the United Nations Secretary-General (UNSG), consider the following statements:

1. A formal nomination can only be made after a joint letter is issued by the Presidents of the UN General Assembly (UNGA) and the UN Security Council (UNSC).
2. A candidate requires at least 9 votes in the UNSC and must avoid a veto by any P5 member to be recommended to the UNGA.
3. The UNGA may reject the candidate recommended by the UNSC and appoint another candidate independently.

Which of the statements given above is/are correct?

- A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

ANSWER

1	A
2	A
3	D
4	C
5	D
6	D
7	A
8	D
9	D
10	B

11	B
12	D
13	D
14	C
15	A
16	C
17	A
18	B
19	C
20	C

21	B
22	C
23	C
24	B
25	C
26	B
27	B
28	B
29	B
30	B

31	D
32	A
33	C
34	C
35	A
36	A
37	D
38	C
39	B
40	C

41	B
42	A
43	D
44	A
45	A
46	A
47	C
48	B
49	B
50	A



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