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By Vinay Sir



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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
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Indian Society & Art and Culture

"Tribal Empowerment: Moving towards an Inclusive India through Welfare Schemes"

India's Scheduled Tribe (ST) population comprises approximately 10.42 crore people, accounting for 8.9% of the total population. Spread across 705 officially recognized tribal groups, most of these communities live in remote, forested, and underdeveloped regions. Historically, they have faced social, economic, and infrastructural exclusion. In response, the Government of India has implemented several welfare schemes aimed at socioeconomic upliftment, infrastructure development, and cultural preservation. The Ministry of Tribal Affairs (MoTA) plays a central role in tribal development. It has increased financial allocations, encouraged convergence across ministries, and restructured planning and implementation to improve last-mile delivery of government benefits.

Dharti Aaba Janbhagidari Abhiyan:

- One of the most significant recent initiatives is the Dharti Aaba Janbhagidari Abhiyan, India's largest tribal outreach and benefit saturation campaign. Running from June 15 to 30 June, 2025, it covers:
 - » 549 tribal-majority districts
 - » 207 PVTG (Particularly Vulnerable Tribal Groups) districts
 - » Over 1 lakh villages and habitations
 - » 5.5 crore tribal citizens across 31 States and UTs
- This campaign operates under two major umbrella programs:
 - » Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM-JANMAN)

- » Dharti Aaba Janjatiya Gram Utkarsh Abhiyan (DAJGUA)
- It is a flagship initiative under Janjatiya Gaurav Varsh, focused on doorstep delivery of services through benefit saturation camps. These camps provide:
 - » Aadhaar enrolments
 - » Ayushman Bharat health cards
 - » PM Jan Dhan bank accounts
 - » PM-Kisan registration
 - » Pension enrolments
 - » Scholarships and insurance schemes
 - » Skill training and employment linkages
- The campaign is guided by five key pillars:
 - » **Janbhagidari** – Led by community participation
 - » **Saturation** – Ensuring every eligible household is covered
 - » **Cultural Inclusion** – Using tribal languages, art and heritage for engagement
 - » **Convergence** – Collaboration between ministries, civil society, and youth groups
 - » **Last-Mile Delivery** – Reaching the remotest tribal habitations

Understanding Tribes in India:

- India is home to the second largest tribal population in the world, after Africa. According to the 2011 Census, STs make up 8.9% of the Indian population.
- **Adivasis:** Refers to the indigenous people of India. These communities have a deep connection with nature and possess unique

cultures, dialects, and traditional knowledge systems.

- **Scheduled Tribes (STs):** Defined in Article 366(25) of the Constitution, and notified under Article 342, STs are recognized for affirmative action.
- **PVTGs:** A sub-category identified in 1975 based on extreme vulnerability. There are 75 PVTGs across 17 States and 1 UT, characterized by:
 - » Small, homogenous populations
 - » Pre-agricultural technology
 - » Low literacy
 - » Physical isolation and declining population growth

Contributions of Tribal Communities:

- **Environmental Conservation:** Many tribal communities, like the Chenchus of Andhra Pradesh, have protected forests and wildlife for generations.
- **Economic Contribution:** Tribes like the Gond of Madhya Pradesh are known for traditional crafts and farming.
- **Indigenous Knowledge:** The Siddi tribe, of African descent, holds deep knowledge of medicinal plants, beekeeping, and forest ecology.
- **Political Representation:** Tribals have contributed significantly to India's democratic institutions, policy discourse, and cultural identity.

Major Tribal Welfare Schemes:

Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM-JANMAN)

- Launched on November 15, 2023, PM-JANMAN focuses on the upliftment of PVTG communities in 18 States and 1 UT. With a budget of Rs. 24,000 crore over 3 years, the scheme targets:
 - » Housing and drinking water
 - » Education and healthcare
 - » Road and telecom connectivity
 - » Electrification
 - » Sustainable livelihoods
- By January 2025, projects worth Rs.4,450 crore were approved, and Rs.7,356 crore sanctioned.

- An Information, Education & Communication (IEC) Campaign ran from August 23 to September 10, 2024, to:
 - » Reach 44.6 lakh individuals (10.7 lakh households)
 - » Cover 28,700 PVTG habitations in 206 districts
 - » Provide essential documents and services at the doorstep



Pradhan Mantri Adi Adarsh Gram Yojana (PMAAGY)

- Originally the Special Central Assistance to Tribal Sub-Scheme (SCA to TSS) from 1977–78, PMAAGY was revamped in 2021–22 to bridge basic infrastructure gaps in tribal-majority villages.
- **Key features:**
 - » Targets 36,428 villages with ≥50% ST population
 - » Converges 58 central and state schemes
 - » **Budget:** Rs. 7,276 crore over five years
 - » 17,616 Village Development Plans already approved
 - » Rs. 2,357.5 crore released to date

Pradhan Mantri Janjatiya Vikas Mission (PMJVM)

- This scheme promotes tribal entrepreneurship and the “Vocal for Local by Tribal” initiative. It aims to increase value

addition to Minor Forest Produce (MFPs) and support tribal enterprises.

- **Highlights:**
 - » Budget of Rs.1,612 crore over 5 years
 - » Implemented by TRIFED
 - » Establishment of:
 - 3,000 Haat Bazaars
 - 600 Warehouses
 - Van Dhan Vikas Kendras (VDVKs) and Producer Enterprises
- **Progress:**
 - » 3,959 VDVKs sanctioned in 28 States/UTs, benefiting 12 lakh tribal individuals
 - » Rs. 319.65 crore released as revolving funds for MFP procurement
 - » 87 new MFPs added under MSP for MFP scheme
 - » Rs. 89.14 crore sanctioned for 1,316 haats, 603 storage units, and 22 processing units
 - » Rs. 665.34 crore worth of procurement completed

Eklavya Model Residential Schools (EMRS)

- Launched in 2018–19, the EMRS scheme provides high-quality residential education from Classes VI to XII for tribal students.
- **Key developments:**
 - » 728 schools approved as of 2024
 - » 1.33 lakh students enrolled in 2023–24 (up from 34,365 in 2013–14)
 - » Recurring cost per student increased from Rs. 24,200 to Rs. 1,09,000

- » In October 2024, 40 EMRS were inaugurated and 25 new ones launched
- » Rs. 2,800+ crore invested in recent expansions
- » Plan to recruit 38,800 teachers and staff; 9,023 appointments already made
- **Special initiatives include:**
 - » National EMRS Cultural & Literary Fests
 - » Student educational excursions to Delhi and Amrit Udyan
 - » Collaboration with the Amazon Future Engineer Program introducing AI and coding to 50 EMRS

Conclusion:

India's tribal welfare strategy is becoming more people-centric, inclusive, and technologically enabled. Campaigns like Dharti Aaba Janbhagidari Abhiyan demonstrate a shift towards community-led development, with strong emphasis on last-mile delivery and inter-ministerial convergence. Flagship schemes like PM-JANMAN, PMAAGY, PMJVM, and EMRS collectively aim to not just address tribal underdevelopment, but to integrate tribal communities into the national growth narrative without eroding their distinct identities. The momentum created by these initiatives, if sustained and strengthened, could help bridge India's long-standing tribal development gaps and build a more equitable, empowered, and inclusive Bharat.

Short Issues

India Achieves Remarkable Milestone in Social Security Coverage

Context:

In a significant development, India has made tremendous progress in social security coverage, with nearly two out of three people now covered under at least one social security benefit. According to the International Labour

Organization (ILO), India's social security coverage stood at 64.3% in 2025. This marks a remarkable rise from just 19% in 2015 to 64.3% in 2025.

ILO Recognition and Methodology:

- The ILO's assessment included data from 32 social protection schemes — 24 focused on pension, two on maternity benefits, and two on child benefits. These include prominent initiatives such as:

- » Atal Pension Yojana
- » PM-Kisan Samman Nidhi
- » MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act)
- » Janani Suraksha Yojana
- » PM POSHAN (Midday Meal Scheme)
- To qualify under the ILO's criteria, a scheme must be legislatively backed, cash-based, actively functioning, and supported by verified time-series data from the past three years.

Implications for India's Global Engagements:

- The increase in social protection coverage will enhance India's position in trade and labor mobility negotiations by showcasing a credible and robust social protection regime. The government has initiated a data pooling exercise to consolidate beneficiary data from various social security and welfare schemes, which is expected to further increase India's total social protection coverage.

About Social Security/Protection:

- Social security is the protection that a society provides to individuals and households to ensure access to health care and to guarantee income security, particularly in cases of old age, unemployment, sickness, invalidity, work injury, maternity or loss of a breadwinner.

Key Initiatives and Schemes:

The government has launched several initiatives and schemes to provide social security and protection to citizens, including:

- **Pradhan Mantri Shram Yogi Maan-Dhan Yojana (PM-SYM):** A pension scheme for workers in the unorganized sector, with a monthly contribution of 50% by the beneficiary and an equal contribution by the Central Government.
- **Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY):** A life insurance scheme that provides Rs. 2 lakh coverage in case of death due to any cause.
- **Atal Pension Yojana:** A pension scheme that allows subscribers to receive a regular

pension after retirement, with the option to choose from a range of pension amounts.

- **Pradhan Mantri Suraksha Bima Yojana (PMSBY):** An accident insurance scheme that provides Rs. 2 lakh coverage in case of accidental death or disability.
- **Public Distribution System:** A scheme that provides subsidized food grains to eligible households.
- **Ayushman Bharat:** A health insurance scheme that provides coverage up to Rs. 5 lakh per family per year for secondary and tertiary care hospitalization.

Conclusion:

India's leap in social protection coverage from 19% to 64.3% in just ten years is a story of sustained policy focus, inter-agency collaboration, and digital innovation. As India enters the next phase of welfare consolidation, it stands as a global example of how developing nations can strengthen social resilience and promote inclusive development.

State of the World Population 2025: The Real Fertility Crisis

Context:

India, now confirmed as the world's most populous country, is witnessing a significant demographic transition, according to the United Nations Population Fund's (UNFPA) latest report titled 'State of the World Population 2025: The Real Fertility Crisis'. The report pegs India's current population at 146.39 crore, ahead of China's 141.61 crore.

Key Highlights:

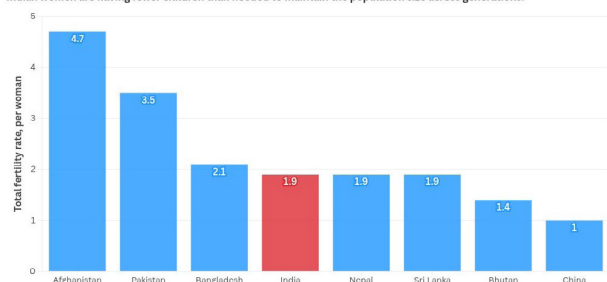
- **Population Estimates and Projections**
 - » As of April 2025, India's population is estimated at 146.39 crore (1.4639 billion), surpassing China (141.61 crore) to become the world's most populous nation.
 - » India's population is projected to peak at approximately 170 crore over the next four decades, after which it is expected to enter a phase of gradual decline.

- » These estimates are broadly in alignment with India's Technical Group projections (2019), which placed the 2025 figure at 141.10 crore.

▪ **Decline in Fertility Rate**

- » The report indicates that India's Total Fertility Rate (TFR) has declined to 1.9, falling below the replacement level of 2.1.
- » This is corroborated by India's Sample Registration System (SRS) 2021, which recorded a national TFR of 2.0.
- » The reduction in TFR reflects structural changes such as higher female education, increased contraceptive use, delayed marriage, and urbanization.

Indian women are having fewer children than needed to maintain the population size across generations.



▪ **Reframing the Fertility Crisis**

- » The report challenges prevailing narratives of overpopulation by identifying a new demographic concern: the unrealized fertility aspirations of individuals and couples.
- » The so-called “real fertility crisis” refers to the inability of people to have the number of children they desire, often due to lack of access to reproductive healthcare, information, or autonomy.
- » It emphasizes the importance of enabling reproductive agency—the right and ability to make informed, voluntary decisions about childbearing.

▪ **Youth Bulge and Working-Age Population**

- » India continues to possess a demographically young population:
 - 24% of the population is aged 0–14 years
 - 17% falls within the 10–19 years cohort

- 26% are aged 10–24 years

- » A notable 68% of the population is in the working-age group (15–64 years), indicating a window of demographic dividend.
- » Capitalizing on this dividend requires robust investments in education, health, skill development, and employment generation.

▪ **Ageing and Life Expectancy**

- » The proportion of elderly citizens (aged 65 and above) currently stands at 7%, and is projected to rise steadily as longevity increases.
- » As of 2025, life expectancy at birth is estimated to be:
 - 71 years for men
 - 74 years for women
- » This demographic shift signals the need for age-sensitive policies, including pension reforms, elderly healthcare, and social safety nets.

Delayed Census:

- India has not conducted a Census since 2011, breaking its tradition of a decennial count. The 2021 Census has been postponed, with the government now targeting March 2027 for completion.
- In the absence of recent census data, demographic assessments rely heavily on household surveys, including:
 - » Sample Registration System (SRS)
 - » National Family Health Surveys (NFHS)
 - » Demographic and Health Surveys (DHS)
 - » UN inter-agency and model-based estimates

Conclusion:

India stands at a demographic turning point. While population growth is slowing, the challenge now lies in harnessing the demographic dividend, supporting reproductive rights, and preparing for a gradual aging of the population. The upcoming Census 2026–27, delayed from 2021, will provide essential updated data to guide future planning.

Surge in Online Banking Among Rural Women

Context:

A new government survey, the Comprehensive Modular Survey: Telecom, 2025 was recently conducted by the Ministry of Statistics and Programme Implementation (MoSPI). The survey has revealed a sharp rise in the number of rural Indians, particularly women, engaging in online banking.

Key findings of the survey:

- **Rural Women at the Forefront of Growth:** Survey shows a surge in the proportion of rural women capable of conducting online banking transactions. As of the first quarter of 2025, 30.0% of rural females aged 15 and above reported the ability to perform online banking—up from 17.1% in 2022-23.
 - » The increase is even more pronounced among younger women. Among females aged 15–24 in rural areas, 51.4% reported online banking capability, more than doubling from 19.6% in 2022-23.
- **Rural Men Also Adopting Fast:** The trend is not exclusive to women. Young rural men (15–24 years) saw a massive jump in online banking capability as well—from 40.2% in 2022-23 to 73.3% in 2025.

Urban vs. Rural: A Converging Digital Divide:

- While online banking has been more widespread in urban areas, the pace of growth is now faster in rural regions. In urban India, 62.4% of individuals aged 15 and above reported engaging in online banking in early 2025, up from 50.6% two years earlier.
- At a national level, 48.9% of Indians aged 15+ reported using online banking, compared to 37.8% in 2022-23, showing substantial overall progress.

UPI Leads in digital payments:

- A key driver of this digital leap has been the Unified Payments Interface (UPI). The survey found that:

- » 86.7% of rural users used only UPI for online banking transactions.
- » In urban areas, 74.4% relied solely on UPI.
- » Just 18.0% used a mix of UPI, internet banking, and other digital platforms.

Reasons for such tremendous growth:

- The rise in digital banking is underpinned by the widespread usage of mobile phones and internet access:
 - » 70.2% owned a mobile phone—81.2% in urban and 64.6% in rural areas.
 - » Among mobile owners, 79.9% had smartphones, with 90%+ smartphone penetration among those under 29 years across both urban and rural India.
- Internet usage has grown significantly too:
 - » Among rural females, internet use rose from 42.6% in 2022-23 to 57.6%.
 - » Among rural males, usage increased from 59.5% to 72.1%.
 - » 93% of internet users accessed it daily, primarily through mobile devices.

“UPI for Her” initiative:

- The "UPI for Her" initiative, launched by the National Payments Corporation of India (NPCI) and Women's World Banking (WWB), aims to bring 200 million women into India's digital economy. This program seeks to address the specific barriers women face in adopting digital payments, promoting financial inclusion and economic empowerment.

Policy Implications:

- The findings are a strong endorsement of the Indian government's long-standing push toward financial inclusion and digital empowerment. The surge in rural online banking, especially among women, aligns with national goals of bridging the urban-rural and gender digital divides.

Conclusion:

The latest data paints a hopeful picture of a rapidly digitizing rural India, where young women are emerging as key participants in the digital economy. If sustained, these trends

could reshape India's socio-economic fabric in the years to come.

Declining Enrolment in Government Schools

Context:

Recent UDISE+ 2023-24 data and Education Ministry documents reveal a significant trend: increasing student enrolment in private schools across several Indian states, despite a greater number of government schools. The Ministry flagged this issue during consultations with states under the Samagra Shiksha and PM-POSHAN schemes.

Overview of Enrolment Trends:

- Data from the Unified District Information System for Education Plus (UDISE+) for the academic year 2023-24 reveals that while government schools constitute the majority of schools nationwide, their share of student enrolment is disproportionately low compared to private schools. For instance:
 - » In Andhra Pradesh, 73% of schools (45,000 of 61,373) are government-run, yet they account for only 46% of enrolment. Private schools (25%) enrol over 52% of students. Enrolment in unaided schools rose steadily from 2021-22 to 2023-24.
 - » In Telangana, government schools form 70% of the 42,901 schools but enrol only 38.11% of students. Private schools, with 30% share, account for 60.75% of enrolment. The upward trend in private school enrolment persisted except in 2021-22 (COVID-19).
 - » In Uttarakhand, 72% of schools are government-run, but they cater to just 36.68% of students. Private unaided schools enrol 54.39%.
 - » In Tamil Nadu, 64% of schools are government, enrolling 37% of students. Meanwhile, unaided schools, just 21% of total schools, enrol 46%. The Centre urged the state to improve the "government school brand" to attract

students.

- » In Kerala and Maharashtra, a decline in enrolments in government and aided schools was noted. Maharashtra reported a drop from 2018-19 to 2023-24, and Kerala from 2022-23 to 2023-24. Both states cited "data cleansing" using Aadhaar verification.
- » In Mizoram, Nagaland, Tripura, Arunachal Pradesh, and Meghalaya, enrolment dropped in 2023-24 compared to earlier years (2018-19 or 2022-23, depending on the state).
- » In Delhi, Ladakh, Puducherry, Dadra & Nagar Haveli and Daman & Diu, and the Andaman & Nicobar Islands, private school enrolments exceed those in government schools, which the Ministry termed a "matter of concern."

National-Level Perspective:

- According to UDISE+ data for 2023-24, private schools account for 36% of total enrolment, which translates to over 9 crore students out of a total student population of 24.80 crore. While this represents a slight increase from 33% in 2022-23 and 2021-22, it aligns closely with pre-pandemic levels seen in 2020-21 and 2019-20 (36-37%).

Implications for Education Policy:

- **Equity and Access:** With government schools traditionally serving lower-income and marginalized communities, declining enrolment may exacerbate educational inequities.
- **Quality Concerns:** The preference for private schools points to perceived or real deficits in government school quality, infrastructure, and learning outcomes.
- **Financial Implications:** Increasing private enrolment shifts the burden of education costs onto families, potentially limiting access for economically vulnerable groups.
- **Policy Prioritization:** The government must prioritize reforms and investments to enhance government schools' attractiveness and effectiveness, ensuring that public education remains inclusive and high-

quality.

Conclusion:

The Ministry has urged states to investigate the root causes and take remedial action. While government schools dominate in numbers, their declining enrolment reveals a credibility gap. The Centre's advice includes building public school brand value and improving resource use.

Karnataka's Ordinance on Gig Worker Welfare

Context:

The Governor of Karnataka recently approved the Karnataka Platform-Based Gig Workers (Social Security and Welfare) Ordinance, 2025. This ordinance is a significant regulatory intervention in India's expanding platform economy, laying the foundation for a comprehensive social security architecture for gig and platform-based workers such as delivery personnel, drivers, and service providers.

Key Features of the Ordinance:

- **Welfare Fee from Aggregator Platforms**
 - » The ordinance imposes welfare fee ranging from 1% to 5% on the value of every transaction conducted between a platform and a gig worker. This fee will serve as the primary funding source for a new social security framework.
 - » Platforms such as Swiggy, Zomato, Ola, Uber, Amazon, and others fall within the ambit of this mandate.
 - » The exact fee structure for different categories of aggregators will be notified within six months.
 - » Aggregators must deposit the fee quarterly, with provisions for annual reconciliation and interest on delayed payments.
- **Establishment of a Gig Workers' Welfare Board**
 - » A dedicated Karnataka Gig Workers Welfare Board will be formed to oversee the implementation and management of welfare measures.
- » A new Payment and Welfare Fee Verification System (PWFVS) will track transactions, verify compliance, and ensure transparency.
- » Until the system is operational, platforms may temporarily self-report quarterly payouts and receive conditional exemptions.
- **Scope of Social Security Benefits**
 - » The welfare fund will be jointly financed by platform contributions, worker contributions, and government grants. Benefits will include:
 - Healthcare and insurance coverage
 - Maternity support and income replacement
 - Old-age, disability, and accident protection
 - Targeted provisions for women workers and persons with disabilities
- **Worker Registration and Rights**
 - » All gig workers will receive a unique identification number that is valid across platforms.
 - » Aggregator platforms will be mandated to register with the Welfare Board.
 - » Worker contracts must specify:
 - Payout terms
 - Incentive structures
 - The right to refuse tasks
 - » Workers cannot be suspended or terminated without a 14-day written notice, except in cases involving violence or bodily harm.
- **Algorithmic Transparency and Non-Discrimination**
 - » Platforms must disclose decision-making logic that affects worker outcomes (e.g., allocation of tasks, ratings, incentives).
 - » The ordinance strictly prohibits algorithmic discrimination based on gender, caste, religion, or other social characteristics.
- **Grievance Redressal and Payment Protocols**
 - » A two-tier grievance redressal mechanism will be established to resolve disputes between platforms and workers.

- » Platforms must ensure timely disbursal of payments and clearly state any deductions.
- » Penalties, including interest, will apply for non-compliance with payment or transparency norms.

Conclusion:

This ordinance is the first in India to create a legal welfare structure tailored specifically for gig workers, recognizing their economic contribution while attempting to balance the asymmetry of power between platforms and individuals. It also sets a precedent by aligning state-level action with the Code on Social Security, 2020, thereby creating an operational bridge between platform-based labor and formal welfare systems.

UNESCO GEM Report 2024–25

Context:

- The UNESCO Global Education Monitoring (GEM) Report 2024–25 was released in which it found that India continue facing persistent learning crisis, gender disparities, and systemic leadership challenges.

Key Findings:

- **India's Learning Crisis:**
 - » India boasts over 95% enrolment in primary schools, yet foundational learning outcomes remain dismally low. According to ASER 2023, only 43% of Class 3 students can read a Class 2-level text. Similarly, NAS 2021 revealed that just 25% of Class 8 students demonstrated proficiency in mathematics.
- **Global and National Gender Disparities**
 - » **Reading Proficiency Gap:** Globally, only 87 boys per 100 girls achieve minimum reading proficiency. This drops to 72 boys per 100 girls in middle-income countries, indicating a reverse gender gap in literacy.
 - » **Leadership Inequality in India:** While women constitute 60% of elementary teachers, they hold only 13% of

vice-chancellor positions in central universities. This glaring gap between workforce participation and leadership representation highlights persistent gender barriers.

- **Leadership Deficits in School Governance**

- » Despite the National Education Policy (NEP) 2020 mandating 50 hours of annual professional training for school leaders, many Indian states lack formal leadership programs for principals.

- **Positive Trends**

- » **Rising Female Workforce:** India's female-dominated elementary teaching workforce is contributing to more gender-sensitive learning environments.
- » **Policy Frameworks:** The NEP 2020 emphasizes structured leadership training, a crucial acknowledgment of its impact on education outcomes.

- **Persistent Challenges**

- » **Digital Divide:** The COVID-19 pandemic magnified digital disparities, disproportionately affecting girls and marginalized communities in regions with limited tech access.

Recommendations and Way Forward:

- To address the learning crisis and bridge the implementation gap, the GEM Report recommends the following:
 - » **Strengthen Leadership Pipelines:** Institutionalize mandatory certification and training programs for school principals and heads.
 - » **Promote Women in Senior Roles:** Launch leadership acceleration programs targeting women in education to address the leadership gender gap.
 - » **Focus on Learning Outcomes:** Shift from enrolment-focused metrics to learning-centered assessments, leveraging tools like NAS and ASER.

About UNESCO:

- The United Nations Educational, Scientific and Cultural Organization (UNESCO) is a specialised agency of the United Nations (UN) aimed at promoting world peace and

security through international cooperation in education, arts, sciences, and culture

- UNESCO was founded in 1945 as the successor to the League of Nations' International Committee on Intellectual Cooperation
- It has 193 member states and 11 associate members, as well as partners in the non-governmental, intergovernmental, and private sector
- Headquartered at the World Heritage Centre in Paris

Conclusion:

The UNESCO GEM Report 2024–25 is a timely reminder that educational equity and quality go beyond enrolment numbers. Systemic leadership development, gender-balanced representation, and effective policy implementation are indispensable for transforming India's education landscape. With the right reforms, India can bridge the learning gap and realize the full potential of its vast student population.

Global Gender Gap Report 2025

Context:

The World Economic Forum's Global Gender Gap Report 2025 was launched recently.

India's Overall Ranking and Score:

- India has slipped two positions from last year, ranking 131 out of 148 countries. It had ranked 129 in 2024.
- India's overall gender parity score is 64.1%, placing it among the lowest-ranked countries in South Asia.

Dimension-Wise Performance:

- **Economic Participation and Opportunity**
 - » India improved slightly in this area, with the score rising from 39.8% to 40.7%.
 - » The estimated earned income parity increased from 28.6% to 29.9%.
 - » Labour force participation remained unchanged at 45.9%, which is India's highest so far.

- **Educational Attainment**

- » India scored 97.1% in this subindex.
- » The rise is due to better female literacy rates and increased enrolment in higher education.
- » This suggests that gender gaps in education are closing steadily.

- **Health and Survival**

- » India showed improved parity in this dimension.
- » Gains were mainly due to better sex ratio at birth and healthy life expectancy.
- » However, the report noted that overall life expectancy has declined slightly for both men and women.

- **Political Empowerment**

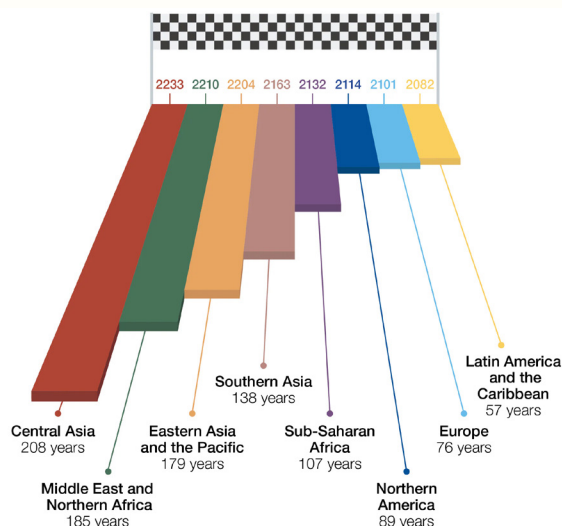
- » India saw a decline in this area.
- » Female representation in Parliament dropped from 14.7% to 13.8%.
- » Women in ministerial roles declined from 6.5% to 5.6%.
- » This led to a 0.6-point drop in the political empowerment score compared to last year.

South Asia and Global Context:

- Bangladesh ranked highest in South Asia, moving up 75 places to 24th position.
- Other South Asian rankings:
 - » Bhutan – 119
 - » Nepal – 125
 - » Sri Lanka – 130
 - » Maldives – 138
 - » Pakistan – 148 (last)
- Globally, Iceland retained the top rank for the 16th year, followed by Finland, Norway, the UK, and New Zealand.

Global Trends and Challenges:

- The global gender gap has closed to 68.8%, the best progress since the COVID-19 pandemic.
- At the current pace, full gender parity will take 123 years.
- Women now make up 41.2% of the global workforce, but only 28.8% of leadership positions.



About the Global Gender Gap Report 2025:

- The Global Gender Gap Index is a yearly report first published in 2006 by the World Economic Forum. It is the world's longest-running tool to measure gender equality.
- It tracks progress in closing gender gaps across four main areas:
 - » Economic Participation and Opportunity
 - » Educational Attainment
 - » Health and Survival
 - » Political Empowerment
- **Score mechanism:**
 - » Each area is scored between 0 and 1.
 - » A score of 1 means full equality, while 0 means complete inequality.

Significance of the Index:

- It helps countries compare their performance on gender equality.
- It acts as a guide to set goals and track improvements in areas like health, education, jobs, and politics.
- It helps policymakers and leaders focus on what matters most for their country's context.

Conclusion:

As the world faces economic, technological, and demographic changes, gender parity is not just a social goal—it is also an economic necessity. While India has made progress in education and

economic participation, significant gaps remain in political empowerment and health outcomes. Closing these gaps requires consistent policy attention, structural reforms, and societal support.

UNHCR Report 2024 on forced displacement

Context:

The United Nations High Commissioner for Refugees (UNHCR) released its Global Trends Report on Forced Displacement in 2024, offering sobering insights into the scale and complexity of human mobility driven by violence and instability.

What Is Forced Displacement?

- Forced displacement refers to situations in which individuals are compelled to flee their homes due to persecution, armed conflict, generalized violence, human rights violations, or natural disasters. Unlike voluntary migration, it is an involuntary act driven by survival needs, often leaving people in highly vulnerable conditions without legal status, access to services, or economic opportunities.

Key Findings of the 2024 Report:

- **Total Displaced:** At the end of 2024, an estimated 123.2 million people worldwide were forcibly displaced — a record high.
- **Children Disproportionately Affected:** 40% of all forcibly displaced persons were children, highlighting the long-term humanitarian and development implications.
- **Major Source Countries:** A third of all displaced persons came from just four countries: Sudan, Syria, Afghanistan, and Ukraine.
- **Internally Displaced Persons (IDPs):** A staggering 73.5 million people remained displaced within their own countries due to violence or disaster-related crises.

Major Challenges of Forced Displacement:

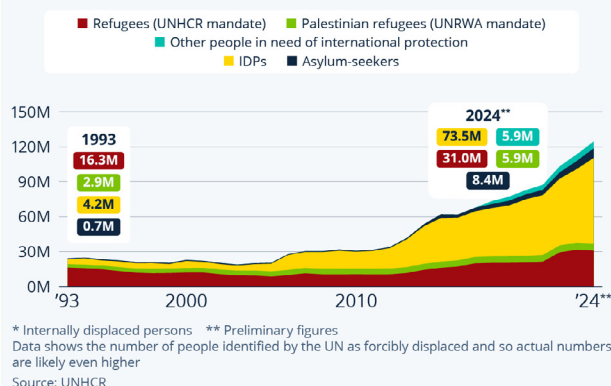
- **Food Insecurity:** Disrupted livelihoods, restricted access to resources, and logistical

challenges in delivering aid.

- **Public Expenditure Pressures:** Hosting displaced populations strains government resources, including provision of basic services and security.
- **Social Tensions:** Competition for resources leads to friction between host communities and displaced groups.
- **Unemployment and Economic Strain:** Demographic shifts affect labor markets, leading to job displacement and reduced access to essential services.

The Number of Forcibly Displaced Has Skyrocketed

Annual number of refugees under UN mandates, IDPs*, asylum seekers and other persons in need of assistance



Initiatives to Address Forced Displacement:

Forced displacement is a complex and pressing global issue, and various initiatives have been undertaken to address it. Some key initiatives include:

- **Global Compact for Migration (2018)**
 - » A non-legally binding framework for international migration
 - » Adopted by a majority of UN member states
 - » Aims to promote safe, orderly, and regular migration
- **Global Program on Forced Displacement (GPDF)**
 - » Established by the World Bank in 2009
 - » Enhances the global development response to forced displacement
 - » Aims to support countries in addressing

the root causes of forced displacement and promoting sustainable solutions for displaced populations.

About United Nations High Commissioner for Refugees (UNHCR):

- Established by the UN General Assembly in 1950
- **Headquarters:** Geneva, Switzerland
- **Purpose:** Protecting the rights and building a better future for people forced to flee their homes due to conflict and persecution
- **Achievements:** Received the Nobel Peace Prize in 1954 and 1981

Conclusion:

The record number of 123.2 million forcibly displaced people is a stark reminder of the world's fragile state. Behind every number is a human story of loss, resilience, and hope. The Global Trends Report 2024 by UNHCR calls on governments, NGOs, and global citizens alike to act with urgency, compassion, and resolve to turn displacement from a chronic crisis into a challenge met with humanity and foresight.

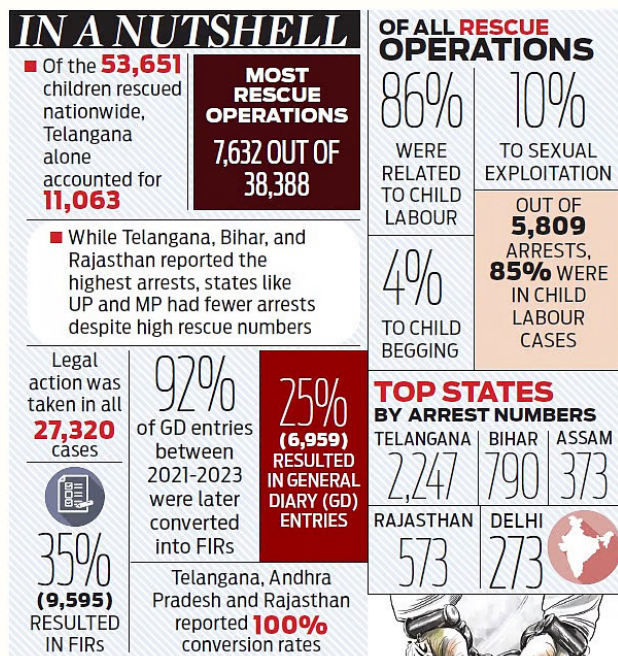
India's Child Labour Crisis

Context:

A recent national report titled "Building the Case for Zero: How Prosecution Acts as a Tipping Point to End Child Labour", has revealed disturbing trends in child labour across India, with over 53,000 children rescued in the 2024–25 period. The data, compiled by Just Rights for Children (JRC) — a network of over 250 NGOs working in collaboration with law enforcement agencies — highlights a widespread child rights crisis and enforcement gaps that need urgent attention.

Key highlights of the report:

- **Leading States in Child Labour Rescues:** According to the report, the top three states in terms of child labour rescues were:
 - » Telangana – 11,063 rescues
 - » Bihar – 3,974 rescues
 - » Rajasthan – 3,847 rescues



Other high-rescue states included Uttar Pradesh (3,804) and Delhi (2,588). In total, 38,889 rescue operations were conducted across 24 states and union territories during the period between April 1, 2024 and March 31, 2025.

- **Child Labour in the Worst Sectors:** 90% of rescued children were engaged in sectors identified as the worst forms of child labour by the International Labour Organization (ILO). These include:
 - » Spas and massage parlours
 - » Orchestras and performance groups
 - » Activities involving prostitution, pornography, and other forms of sexual exploitation

This trend signals not only the exploitation of children for economic gain but also their exposure to serious psychological and physical harm.

- **Legal Action and Enforcement Gaps:** The coordinated rescue efforts led to the registration of 38,388 FIRs and the arrest of 5,809 individuals. Out of these arrests, 85% were related to child labour offences. The highest number of arrests were reported from **Telangana, Bihar, and Rajasthan** — the same states leading in rescues.

- » However, states like **Uttar Pradesh** and **Madhya Pradesh**, despite high rescue numbers, reported relatively fewer arrests, indicating gaps in law enforcement and prosecution.

Key Recommendations and Policy Proposals:

- The report makes several crucial recommendations to address the issue holistically:
 - » Launch a **National Mission to End Child Labour** with sufficient budgetary allocations.
 - » Form **district-level Child Labour Task Forces** for coordination and follow-up.
 - » Strengthen the prosecution system to ensure justice and deterrence.
 - » Create a **Child Labour Rehabilitation Fund** for victim support.
 - » Ensure **free and compulsory education** up to 18 years, as dropout rates significantly increase vulnerability to child labour.
 - » Expand the list of hazardous occupations under child labour laws.
 - » Enforce a **zero-tolerance policy** for child labour in government procurement contracts.
 - » Implement **state-specific child labour policies** to address local challenges.
 - » Extend India's commitment to **SDG 8.7** (elimination of child labour) until 2030, with clear, time-bound goals.

Conclusion:

India is a signatory to ILO Convention 182, which mandates the elimination of the worst forms of child labour. While the scale of rescues in 2024–25 indicates growing action, the depth of exploitation shows that systemic issues remain. Legal prosecution acts as a deterrent, but justice can only be delivered when offenders are punished and victims receive proper rehabilitation. Without strong laws, strict enforcement, and long-term social support, many rescued children risk falling back into exploitative labour. The findings underline the urgent need for coordinated national efforts to

not only rescue children but also prevent child labour through education, policy reform, and community engagement.

Global Liveability Index 2025

Context:

The Economist Intelligence Unit (EIU), a renowned think tank, has recently released the "Global Liveability Index 2025". In this index, 173 cities of the world have been ranked on the basis of healthcare, education, stability, infrastructure and environment. Copenhagen, the capital of Denmark, has topped the list this time, while Vienna and Zurich have been jointly ranked second. Melbourne and Geneva have secured fourth and fifth positions respectively.

Global Liveability Index 2025: Key Points

- This index shows which cities have the best or worst living conditions.
- The assessment methodology uses 30 indicators under 5 major categories — stability, healthcare, culture and environment, education and infrastructure.
- Each indicator was rated as "acceptable", "tolerable", "uncomfortable", "undesirable" or "unbearable" and then given a total score between 1 and 100.

Key Findings:

- The global average liveability score in 2025 was 76.1, the same as last year.
- Education, healthcare and infrastructure saw improvements, while the global stability score declined by 0.2 points.
- Copenhagen has overtaken Vienna to take the top spot this time. Vienna's sustainability ranking declined, with the fear of terrorist attacks being the main reason behind this.
- Cities in Western Europe once again dominated the liveability rankings, while the Asia-Pacific region and Vancouver (Canada) also found a place in the top 10.
- In contrast, several cities in the Middle East and Africa were ranked as the least liveable, although slight improvements were recorded in health and education in these

regions.

- Syria's capital Damascus continued to rank at the bottom as the world's least liveable city, scoring only 30.7 points. Tripoli, Dhaka and Karachi also ranked low.
- Countries such as Iran (Tehran), Taiwan and India also saw a decline in stability scores, indicating growing conflicts and tensions.

World's 10 Most And Least Liveable Cities In 2025

Rank	City	Rank	City
1.	Copenhagen	173.	Damascus
2.	Vienna	172.	Tripoli
2.	Zurich	171.	Dhaka
4.	Melbourne	170.	Karachi
5.	Geneva	169.	Algiers
6.	Sydney	168.	Lagos
7.	Osaka	167.	Harare
7.	Auckland	166.	Port Moresby
9.	Adelaide	165.	Kyiv
10.	Vancouver	164.	Caracas

Importance of Livability Index:

- Urbanisation and urban migration have witnessed a rise in recent years as people are being attracted to cities in search of better lifestyle, economic opportunities and basic amenities. In this context, the concept of a "liveable city" has emerged, where environmentally friendly, inclusive and structured facilities are available for living.

What is Urbanisation?

- Urbanisation is the process in which a country or society moves from a rural to an urban lifestyle. It includes the migration of population to cities, physical and structural expansion of cities, and social and cultural changes.

Conclusion:

The Global Liveability Index 2025 not only measures the quality of life in cities, but it also highlights global urban policies, security challenges, and the state of public services. The report serves as a guideline for policymakers, urban planners, and citizens to make cities more inclusive, sustainable, and livable.

QS World University Rankings 2026

Context:

India's higher education system has recorded its most impressive performance yet in the QS World University Rankings 2026. This year, a total of 54 Indian universities have been included in the rankings, compared to only 11 in 2015. This five-fold increase reflects the structural and qualitative reforms in the Indian education sector. Eight Indian universities have been ranked for the first time, the highest number for any country this year. This includes 12 IITs, with IIT Delhi ranked 123rd globally.

India's Strong Presence:

- In the QS 2026 rankings, India has become the fourth most represented country. After the United States (192), the United Kingdom (90), and Mainland China (72), India has 54 universities included. This is not just a numerical rise but also indicates qualitative improvement. 48% of Indian institutions have improved their rankings compared to the previous year, highlighting the success of policy initiatives in the education sector.

Leading Institutions and Rankings:

- IIT Delhi secured the 123rd rank, the highest among Indian institutions. It was ranked 150th in 2025.
- IIT Madras made the biggest leap – from 227th in 2025 to 180th in 2026.
- A total of 12 IITs are included in the rankings.
- Six Indian institutions are among the global top 250.
- Five Indian institutions are in the global top

100 for employer reputation, reflecting the strong global trust in Indian graduates.

- Eight Indian institutions entered the rankings for the first time, the highest for any country this year. Their average score is higher than those of the US, UK, and Germany.

Role of Education Policy and Reforms:

- Behind this growing success lies the National Education Policy 2020 (NEP 2020) and the increasing emphasis on research and innovation. Initiatives such as promoting international collaborations in universities, improving faculty quality, and strengthening industry-academic linkages have contributed to enhanced rankings.

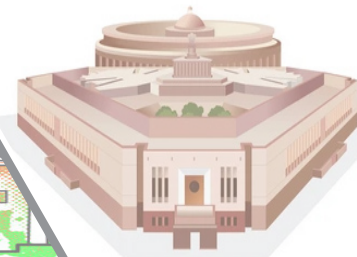
Methodology:

- QS World University Rankings uses a structured approach to assess institutions worldwide. Each ranking is built on a set of measured indicators that help evaluate different aspects of university performance. These measures are grouped as follows:
 - » **Lens:** A collection of indicators related to a general theme such as research or employability.
 - » **Indicator:** A specific area of performance such as citations per faculty or employer reputation. Institutions are scored based on each indicator, which contributes to their overall ranking.
 - » **Metric:** A detailed calculation within an indicator used to obtain an accurate score.

Conclusion:

QS World University Rankings 2026 is a milestone in the globalization of India's education system. It reflects not just a numerical achievement but also a strong indication of quality teaching, research, and global competitiveness.

Polity & Governance



India's 2027 Census: A Digital and Demographic Turning Point

The Government of India has officially announced that the 16th Census of India will be conducted in two phases, marking a major milestone in the country's data-gathering history. This will not only be India's first digital census but also the first since 1931 to conduct a full-scale caste enumeration. The reference date for most of India is March 1, 2027, while for snow-bound areas like Ladakh, Jammu & Kashmir, Himachal Pradesh, and Uttarakhand, it is October 1, 2026.

Why the Census Is Important:

- ❖ The Census is not merely a headcount. It plays a foundational role in shaping India's political, social, and economic planning. Key constitutional provisions such as Article 82 (delimitation of constituencies) and Articles 330 and 332 (reservation of seats for SCs and STs) rely on Census data.
- ❖ Government funding, infrastructure planning, and social welfare schemes are all population-based. Ministries like Health, Education, and Rural Development use Census figures to decide the location and scale of services such as schools, clinics, and roads. Census data also informs policies on employment, migration, fertility, and urbanisation.
- ❖ Beyond administration, the Census reflects the nation's evolving identity — including shifts in family structure, technology access, and caste-based inequalities. It helps planners and researchers identify

underserved populations and plan more targeted interventions.

Timeline and Phases:

The 2027 Census will be conducted in two key phases:

- ❖ **House-listing and Housing Census (2026):** Conducted a year before population enumeration, this phase documents housing conditions and household characteristics. Enumerators record:
 - » Use of building (residential/commercial)
 - » Construction materials
 - » Number of rooms
 - » Access to water and electricity
 - » Ownership status
 - » Type of toilet and fuel used
 - » Availability of assets like phone, TV, or vehicle
- ❖ New additions include:
 - » Availability of internet
 - » Smartphone ownership
 - » Type of cooking gas (PNG vs LPG)
 - » Drinking water access inside the house
 - » Mobile number for Census contact
 - » Vehicle ownership (two-wheeler, car, commercial)
 - » Type of cereal consumed
- ❖ These changes indicate a growing focus on digital access, clean energy, and food habits as development indicators.
- ❖ **Population Enumeration (February 2027):** This phase involves collecting data on individuals. Each person's information is recorded, including:

- » Name, age, sex, date of birth
- » Marital status
- » Relationship to head of household
- » Educational level
- » Occupation
- » Religion and caste/tribe
- » Disability status
- » Migration history
- ❖ Significant changes in 2027:
 - » Caste enumeration for all citizens — first time since 1931.
 - » Migration reasons expanded to include climate displacement.
 - » Technology usage questions — internet and smartphone access.
 - » Gender inclusion — explicit option to identify as transgender.

The First Digital Census:

- ❖ The 2027 Census is a major technological upgrade. Unlike 2011, which used paper-based enumeration and descriptive entries, the upcoming Census will be largely conducted via a mobile app.
- ❖ **Key Digital Features:**
 - » **Self-enumeration:** Households can log in to a portal or app and submit their own details. A unique ID will be generated, which can be shown to the enumerator.
 - » **Mobile app for enumerators:** Pre-loaded with drop-down menus, coding directories, and quality-check alerts to catch errors in real-time.
 - » **Geotagging and GPS:** Accurate mapping of households with geofencing to prevent coverage gaps.
 - » **Real-time dashboards:** Monitor progress, flag inconsistencies, and provide updates.
 - » **Census Management and Monitoring System (CMMS):** Allows supervisors to manage and respond to field issues quickly.
- ❖ This digital shift aims to reduce manual errors, speed up data processing, and improve quality control.

Workforce and Logistics:

- ❖ The Census operation is one of India's

largest administrative exercises. Around:

- » 30 lakh enumerators, mainly school teachers, will be deployed.
- » 1.2 lakh supervisory staff at district and sub-district levels.
- » 46,000 trainers to conduct digital training sessions.
- ❖ Enumerators will be trained not only in app usage and data entry but also in soft skills, especially for handling refusal or fear from respondents.

INDIA'S NEXT CENSUS SCHEDULED FOR 2027

India will conduct its next nationwide population census after a 16-year gap. This census will commence on **April 1, 2026**, and conclude by **February 28, 2027**, with **March 1, 2027**, as the reference date for most of the country.

It marks the **first digital census** and the **first post-Independence census to include caste enumeration**.



Quality Control and Challenges:

- ❖ Several measures are in place to ensure data reliability:
 - » Automated checks in the app for errors like implausible age or household size.
 - » Offline mode with auto-sync for remote areas with poor connectivity.
 - » Supervisor verification of GPS-tagging errors.
 - » Soft-skill training to reduce hesitation or misinformation from respondents.
 - » Field support tools for real-time troubleshooting.
- ❖ Supervisors will recheck flagged forms,

and manual checks will help reduce inconsistencies. Errors like duplicate entries or unrealistic data will be corrected before final submission.

Data Release Schedule:

- ❖ The enumeration phase is expected to be completed within 20–21 days in February 2027. According to sources:
 - » Provisional data is likely to be released within 10 days of completion.
 - » Final data is expected within six months.
- ❖ This is significantly faster than previous censuses due to digitised processes and automated verification.

How 2027 Differs from 2011:

Aspect	2011 Census	2027 Census
Mode	Paper-based	Digital (app + self-enumeration)
Mapping	Manual area lists	GPS, geofencing
Data entry	Handwritten	Drop-down code directories
Caste data	Only SC/ST	All castes
Disability/ Gender	Limited options	Expanded options (incl. transgender)
Data quality checks	Post-enumeration	Real-time alerts and corrections
Data release	1–2 years later	Within 6 months

Political and Social Significance:

- ❖ The reintroduction of caste enumeration has triggered political debate, particularly about how it might influence future delimitation of constituencies and the distribution of parliamentary seats. While currently frozen until 2026, delimitation based on new data could reshape electoral boundaries and representation, especially in undercounted or densely populated regions.
- ❖ Caste data could also reshape welfare delivery and reservation policies, especially in states demanding socio-economic surveys of backward classes. For marginalised and underrepresented groups, it may offer a long-overdue statistical presence in national planning.

Conclusion:

The 2027 Census is not just a statistical exercise but a national moment of reflection and recalibration. With the inclusion of caste data, new digital tools, and faster delivery of results, it represents a transformative step in governance and planning. As India stands on the cusp of demographic, technological, and social change, this Census will play a critical role in shaping the country's next chapter.

Reproductive Rights and Maternity Benefits in India: Constitutional Protection, Challenges

The Supreme Court of India delivered a significant judgment reinforcing women's reproductive rights. The case involved a government school teacher who was denied maternity leave for her third child based on the Tamil Nadu government's two-child policy. The Court set aside the Madras High Court's

earlier decision and ruled that maternity leave is not just a statutory benefit but a part of a woman's fundamental right to personal liberty under Article 21 of the Constitution. This landmark ruling brings into sharp focus the evolving understanding of maternity benefits as central to women's rights, social justice,

and inclusion in a democratic society. It also raises critical questions about the challenges in the implementation of maternity laws and the need for a more inclusive and progressive policy framework.

Maternity Benefits as Reproductive Rights:

- ❖ The Supreme Court recognized maternity leave as a component of reproductive rights, which are protected under Article 21 of the Indian Constitution. These rights include a woman's autonomy to make decisions regarding childbirth, access to healthcare, and dignity during maternity. The Court also referenced international human rights standards such as the Universal Declaration of Human Rights (UDHR), which upholds the rights to health, privacy, and equality.
- ❖ By declaring maternity leave a constitutional right, the judgment strengthens the legal foundation for protecting working mothers in India. It also sets a precedent that policies aimed at population control cannot violate fundamental rights. The Court emphasized that while limiting family size might be a policy goal, it should not override a woman's right to reproductive freedom and equality.

Historical Evolution of Maternity Benefits:

- ❖ Maternity benefits have a long and complex history, both globally and in India. The idea of state-supported maternity care began in welfare states such as Germany and France in the late 19th century. These early laws aimed to reduce maternal and infant mortality and address concerns about depopulation. Over time, they became tools to bring more women into the workforce and formalize their place in the economy.
- ❖ Globally, a major milestone came in 1919 with the adoption of the Maternity Protection Convention by the International Labour Organisation (ILO). This convention mandated 12 weeks of paid maternity leave, free medical care, job security, and breaks for nursing.
- ❖ In India, the issue of maternity protection gained attention in the pre-independence era. Reformers like B. R. Ambedkar and

N. M. Joshi introduced the first version of the Maternity Benefit Act in the Bombay Legislative Council in 1929. At the time, Mumbai's textile industry employed a large number of women, who needed better healthcare support during pregnancy.

- ❖ Although business owners resisted these provisions, fearing economic loss, several provinces including Madras (1934), Uttar Pradesh (1938), West Bengal (1939), and Assam (1944) enacted their own maternity benefit laws. In the post-independence period, the central Maternity Benefit Act was enacted in 1961.

RIGHT TO MATERNITY LEAVE

MATERNITY BENEFIT ACT, 1961

DURATION OF LEAVE

- 26 weeks for first two children
- 12 weeks for third child onward
- Up to 8 weeks before delivery

26

ADDITIONAL PROVISIONS

- 6 weeks for miscarriage
- 12 weeks for adoption
- Option to work from home

PROHIBITION OF DISMISSAL

Illegal to dismiss during maternity leave

ELIGIBILITY

For establishments with 10 or more employees

Minimum 80 days of employment in the past 12 months



WAGES DURING LEAVE

- Full wages paid during leave



The Maternity Benefit Act and Its 2017 Amendment:

- ❖ The Maternity Benefit Act, 1961 regulates the employment of women before and after childbirth in establishments with 10 or

more employees, including factories, mines, plantations, shops, and government offices. Women covered under the Employees' State Insurance Act, 1948 also receive maternity benefits.

- ❖ Initially, the Act provided 12 weeks of paid maternity leave. However, the law was significantly amended in 2017. The key features of the amended Act include:
 - » **Extended Leave:** Increased paid maternity leave to 26 weeks for women with fewer than two surviving children. Women with two or more children are entitled to 12 weeks.
 - » **Creche Facilities:** Mandated the setting up of childcare facilities in establishments with 50 or more employees.
 - » **Workplace Visits:** Allowed mothers to visit the creche during work hours.
 - » **Employer Obligation:** Made it compulsory for employers to inform women about maternity benefits at the time of hiring.

Implementation Challenges

- ❖ **Limited Coverage of the Maternity Benefit Act:** Despite its progressive intent, the Maternity Benefit Act applies only to the formal sector, which employs less than 10% of working Indian women. Women in the informal sector—domestic workers, agricultural labourers, construction workers, and street vendors—are largely excluded from its protection.
- ❖ **Low Awareness and Poor Compliance:** Awareness of the Act's provisions is limited, especially among women in small private firms. Many employers fail to provide legally mandated benefits like creche facilities or nursing breaks.
- ❖ **Burden on Employers and Resulting Bias:** With no state support for funding maternity leave, the financial burden falls entirely on employers. This often leads to discrimination in hiring and promotions for women of childbearing age.
- ❖ **Impact on Workforce Participation:** According to Oxfam India's 2022 India Discrimination Report, gender discrimination accounts for 98% of the

employment gap between men and women. As a result, India's female labour force participation rate remains low—just 37%, as per the 2022–23 Periodic Labour Force Survey (PLFS).

Towards Inclusive and Gender-Neutral Policies:

- ❖ **Global Shift Toward Gender-Neutral Parental Leave:** Since 1974, when Sweden became the first to introduce shared parental leave, many countries—including Norway, Finland, Denmark, Estonia, and Ukraine—now offer up to a year of paid family or parental leave. These policies promote shared caregiving responsibilities and help challenge traditional gender roles.
- ❖ **India's Lag in Parental Leave Policy:** India lacks a national policy mandating paid paternity or parental leave, reinforcing the stereotype that caregiving is solely a woman's duty. Without systemic change, gender roles in parenting remain entrenched.
- ❖ **Exclusion of Contractual Workers from Maternity Benefits:** Despite a 2023 Delhi High Court ruling that denying maternity benefits to contractual workers is unconstitutional and inhumane, many women in universities, private firms, and service sectors are still excluded from paid leave during pregnancy.

Conclusion:

Maternity leave is more than a workplace entitlement—it is a cornerstone of reproductive justice, gender equality, and social inclusion. By connecting maternity benefits with constitutional rights, the Supreme Court has rightly positioned them as essential to a woman's dignity and autonomy. However, unless these rights are made universal, inclusive, and well-implemented, they will remain hollow for a majority of Indian women. Ensuring that all women—regardless of their employment status—can access these benefits is the next step toward achieving true gender justice.

Short Issues

Protection of Transgender Wife under Section 498A IPC

Context:

In a significant ruling, the Andhra Pradesh High Court has clarified that in a heterosexual marriage, a transgender woman can file a complaint against her husband and in-laws under Section 498A of the Indian Penal Code (IPC). This decision is seen as a major step by the judiciary towards the rights of transgender persons and gender equality. The decision aligns with the landmark Supreme Court judgment in *NALSA vs Union of India* (2014), which granted individuals the right to self-identify their gender.

Background of the Case:

- The case was filed by Vishwanathan Krishnamurthy and his parents, seeking to quash a dowry harassment case filed against them. The complaint was filed by Shabana, a transgender woman, alleging that her husband and in-laws demanded dowry and subjected her to mental harassment.
- The petitioners argued that since Shabana is a transgender woman and cannot bear children, she cannot be considered a "woman" under Section 498A IPC. However, after examining the factual aspects of the complaint, the court found the allegations vague, general, and lacking concrete evidence, and consequently quashed the proceedings against the petitioners.

Key Observations of the Court:

- Referring to the historic Supreme Court judgment in *National Legal Services Authority (NALSA) vs Union of India*, the court observed that gender identity is not confined to the sex assigned at birth. Every transgender person has the constitutional right to self-identify their gender.
- The court also noted that the Transgender Persons (Protection of Rights) Act, 2019 grants transgender persons the right to declare their gender identity without requiring medical or surgical intervention. The court cited a Madras High Court ruling

affirming that the definition of 'bride' under the Hindu Marriage Act includes transgender women.

- The court completely rejected the argument that a woman's identity is tied solely to reproductive capacity, calling it "wholly incorrect and legally unsustainable." It clarified that such a narrow definition violates Articles 14 (equality), 15 (non-discrimination), and 21 (right to life and dignity) of the Indian Constitution.
- The court reiterated that gender identity is a matter of personal identification, which cannot be based solely on physical characteristics. Denying protection under Section 498A to trans women would be discrimination based solely on gender.

Section 498A IPC:

- Section 498A of the IPC was specifically enacted to protect married women from dowry-related harassment and domestic violence. It criminalizes acts of physical or mental cruelty, dowry demands, or harassment by the husband or his relatives.
- The primary objective of this section is to provide a safe environment to women in marital life, particularly in cases involving dowry practices and domestic abuse. However, over time, concerns of misuse have also arisen, leading courts to issue guidelines to ensure that innocent persons are not unnecessarily harassed.

Conclusion:

The Andhra Pradesh High Court's decision to grant legal recognition to trans women as "women" under law further strengthens the core constitutional values of equality, dignity, and identity. The court made it clear that the definition of woman cannot be limited solely to biological traits but must rest upon an individual's self-definition and right to gender identity. This ruling not only affirms the constitutional rights of the transgender community but also ensures that they are entitled to all legal protections accorded to cisgender women, including under Section 498A IPC. It marks a crucial step towards inclusivity

and sensitivity in India's justice system and adds a new dimension to gender justice.

Navya Yojana

Context:

Recently, the Central Government launched the 'Navya' scheme on 24 June 2025 from Sonbhadra district in Uttar Pradesh. This scheme has been initiated as a pilot project under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), jointly operated by the Ministry of Women and Child Development and the Ministry of Skill Development and Entrepreneurship (MSDE). Its objective is to empower adolescent girls by providing training in both traditional and non-traditional sectors, making them self-reliant.

Main Objective:

- The full name of the 'Navya' scheme is Nurturing Aspirations through Vocational Training for Young Adolescent Girls. The aim is to provide modern and desirable skills to girls aged between 16 to 18 years, who have passed at least the 10th standard, so that they can become economically empowered.

Geographical Coverage:

- Currently, the scheme is being implemented in 27 districts across 9 states, including states from the Northeast and aspirational districts. Aspirational districts are those considered socio-economically backward and are the focus of special government initiatives. A total of 112 districts in India have been identified in this category.

Training Areas:

- Under the Navya scheme, adolescent girls will be trained in various traditional and modern job sectors, such as:
 - » Graphic Designing
 - » Drone Assembling
 - » CCTV Installation Technology
 - » Smartphone Repairing
 - » Professional Makeup Artist
- All of these fields have so far been considered 'non-traditional', especially for women.

Special Training Module:

- A 7-hour special module has been designed under this scheme, which includes the following components:
 - » Interpersonal Skills (Communication and social skills)
 - » Communication Skills
 - » Income and Expense Management
 - » Safety from Sexual Harassment at the Workplace — Awareness about POSH and POCSO Acts
- **Eligibility**
 - » Age: 16–18 years
 - » **Education:** Minimum 10th class pass
 - » **Priority:** Adolescent girls from aspirational districts



Significance and Potential:

- The Navya scheme is an important initiative in the direction of economic empowerment of women. It will not only provide employment-oriented training to adolescent girls but also help them establish their identity in non-traditional roles with greater self-confidence.
- If the pilot project proves successful, it may be implemented across the country, potentially benefiting millions of girls.

Conclusion:

The Navya scheme reinforces the spirit of government initiatives like Beti Bachao, Beti Padhao and Atmanirbhar Bharat. It is a visionary step that aims to implement gender

equality and economic empowerment at the grassroots level.

Supreme Court Clarifies Contempt Law

Context:

In a landmark reaffirmation of the separation of powers, the Supreme Court of India has ruled that laws passed by Parliament or State legislatures cannot be treated as contempt of court, even if they appear to contradict prior judicial directions.

Background:

- The ruling came as the apex court disposed of a 2012 contempt petition filed by noted sociologist and former Delhi University professor Nandini Sundar, along with other petitioners. The plea alleged that the Chhattisgarh government had violated the Supreme Court's 2011 order directing it to:
 - » Cease support to vigilante groups like Salwa Judum
 - » Stop arming tribal youth as Special Police Officers (SPOs) in anti-Maoist operations
 - » Vacate schools and ashrams occupied by security forces
 - » Compensate victims affected by SPO operations
- Instead of complying, the Chhattisgarh government passed the Chhattisgarh Auxiliary Armed Police Force Act, 2011, regularizing the SPOs and authorizing their integration into an auxiliary armed force.

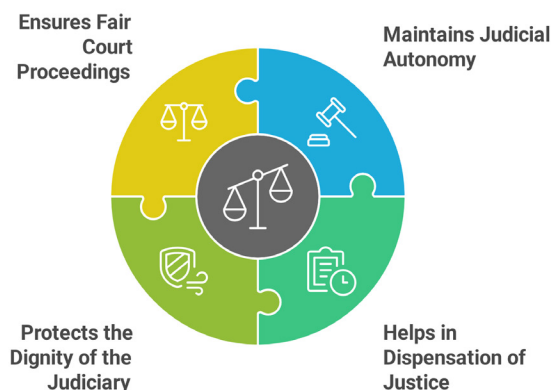
Key Observations by the Court:

- **Legislative Powers Are Plenary:** "Every State Legislature has plenary powers to pass an enactment. So long as the said enactment has not been declared ultra vires the Constitution... it would have the force of law." The Court underscored that law-making is a sovereign function, and the existence of a court order does not negate a legislature's right to legislate.
- **Law-Making Cannot Be Contempt:** "The

passing of an enactment subsequent to a court order by the legislature cannot be an act of contempt."

- **Upholding the Rule of Law and Separation of Powers:** The Court stressed the importance of maintaining a delicate constitutional balance among the three pillars of democracy—legislature, executive, and judiciary. "To ensure that the rule of law permeates and fulfils constitutional objectives... the balance between the respective sovereign functionaries must always be delicately maintained."

Benefits of Contempt of Court in India



Broader Implications of the Ruling:

- **Reinforces Legislative Supremacy:** The ruling is a reaffirmation that legislatures have sovereign law-making powers, and these cannot be questioned through contempt proceedings unless a law is declared unconstitutional.
- **Clarifies Limits of Contempt Jurisdiction:** This decision narrows the scope of contempt of court, making it clear that legislative responses to court rulings—however contentious—are not inherently punishable.
- **Strengthens Constitutional Remedies:** Petitioners and public interest litigants are reminded that the proper method to challenge an unconstitutional law is via Article 226 (High Court) or Article 32 (Supreme Court), not through contempt

petitions.

Conclusion:

The court's ruling highlights the importance of respecting the separation of powers between the judiciary and the legislature. While the court can review the constitutionality of laws, it cannot hold the legislative process in contempt. This ruling has significant implications for the relationship between the judiciary and the legislature in India.

Supreme Court's Observation on Advocate-Client Privilege

Context:

Recently, the Supreme Court of India, in a significant observation, clarified that the act of police or prosecuting agencies summoning lawyers merely for providing legal advice to their clients violates the fundamental principles of law and the professional privileges of advocates. This observation came in response to an incident where an advocate from Gujarat was summoned by the police for securing bail for his client in a loan dispute case.

Recent Developments:

- On 12th and 18th June 2025, the Enforcement Directorate (ED) issued summons to senior Supreme Court advocates Arvind Datar and Pratap Venugopal in connection with the ESOP allocation case of Care Health Insurance Ltd. This led to widespread discontent among lawyers, prompting strong criticism from the Supreme Court Bar Association.

Advocate-Client Communication: A Privilege

- The Indian Evidence Act, 1872 has now been replaced by the Bharatiya Sakshya Adhiniyam (BSA), 2023. Section 132 of the new law clearly states that communication between an advocate and their client is privileged and cannot be disclosed to a third party. This privilege applies not only to oral but also to written and electronic

communications.

- However, three exceptions are provided:
 - » If the client consents to waive this privilege,
 - » If the communication pertains to an unlawful purpose,
 - » If the advocate becomes aware of the commission of a crime during the course of their service.
- This privilege is exclusive to advocates and does not extend to chartered accountants, company secretaries, or other professionals.



Judicial Directions and Analysis:

Various High Courts across India have repeatedly asserted that lawyers cannot be summoned merely for rendering legal advice.

- A.V. Pavithran v. CBI (2024):** The Bombay High Court quashed the summons issued by the CBI to Advocate Pavithran in Goa, affirming that “once privileged, always privileged.” The court also stated that no advocate is permitted to disclose information obtained during the course of their professional duty.
- Praram Infra v. State of Madhya Pradesh (2025):** Similarly, the Madhya Pradesh High Court quashed the summons issued to Advocate Rahul Maheshwari, stating that if the advocate is neither an accused nor a witness, such summons are inappropriate.

Conclusion:

A judicial system where lawyers can freely defend their clients is a cornerstone of democracy. If advocates are repeatedly subjected to summons

or interrogations, it severely undermines the independence of their profession, the privacy of the client, and the right to access justice.

Election Commission Moves to Delist 345 Registered Unrecognized Political Parties

Context:

The Election Commission of India (ECI) has initiated a significant exercise to clean up the political landscape by delisting 345 Registered Unrecognized Political Parties (RUPPs). This step comes after these parties failed to comply with basic requirements, including participation in elections and maintaining verifiable contact details.

About Registered Unrecognised Political Parties (RUPPs):

- Registered Unrecognized Political Parties are associations or bodies registered with the ECI under Section 29A of the Representation of the People Act, 1951. While they are not recognized as national or state parties, they still enjoy certain benefits. These include:
 - » Access to electoral rolls
 - » Entitlement to tax exemptions on contributions
 - » Other privileges intended to encourage genuine political participation
- Currently, there are over 2,800 RUPPs across India. However, over the years, many of these entities have been found inactive or untraceable, raising concerns about their misuse and relevance.

Key Highlights of the Delisting Exercise:

- **Nationwide Scrutiny of RUPPs:** The ECI undertook a comprehensive assessment to identify parties that have failed to meet the basic criterion of contesting elections. To qualify as active, a RUPP must participate in at least one election to the Lok Sabha or the State Legislative Assembly or in by-elections.
- **Criteria for Delisting:** The 345 parties

shortlisted for possible delisting met two conditions:

- » They have not contested any election since 2019 (a period of over six years).
- » Their offices could not be physically located at the addresses provided during registration.
- **State-wise Identification:** These inactive or untraceable RUPPs belong to different States and Union Territories across the country, indicating that the problem is widespread rather than limited to any one region.
- **Due Process and Safeguards:** To ensure that no genuine political party is unfairly delisted, the ECI has issued instructions to all Chief Electoral Officers (CEOs) in States and UTs to serve show-cause notices to the concerned parties. Each party will be given an opportunity to respond and present their case in a hearing before the final decision is made.
- **Objective of the Exercise:** The move aims to improve transparency and accountability in the political system. The ECI has stated that this is only the first phase of the clean-up process, with further scrutiny of remaining RUPPs planned in the coming months.

Significance:

- It prevents misuse of party registration for purposes like money laundering and tax evasion.
- It helps maintain the integrity of electoral rolls and records.
- It ensures that privileges and public resources are used only by parties genuinely committed to electoral participation.

Conclusion:

Under the Representation of the People Act, once an association is registered as a political party, it gains certain advantages. However, these privileges must be accompanied by accountability. In the past, reports have indicated that some RUPPs have acted merely as conduits for questionable financial transactions. This step by the ECI demonstrates

its commitment to upholding clean electoral processes and weeding out non-serious entities from the country's political ecosystem. By continuing this exercise, the Commission aims to strengthen democratic institutions and public trust.

Organ Transplantation in India

Context:

A recent report released by the Union Ministry of Health and Family Welfare on June 19 has brought to light the critical challenges faced by India's organ transplantation programme. Compiled by the National Organ and Tissue Transplant Organisation (NOTTO), the report is based on a high-level review of government hospital performance in transplant activities.

Key highlights of the Report:

- **Inadequate Transplant Numbers:** Despite rising demand, India continues to lag behind in organ transplant procedures.
 - » In 2023, only 13,476 kidney transplants were conducted in both public and private hospitals combined. This figure is significantly lower than the estimated annual requirement of one lakh transplants.
 - » The report states that government hospitals lack the capacity to meet this growing need, making it essential to create new transplant centres and expand existing ones.
- **Infrastructure Gaps in Public Hospitals:** One of the most pressing issues is the absence of dedicated infrastructure in public sector hospitals.
 - » Many facilities do not have separate transplant operation theatres or intensive care units (ICUs) required for donor and recipient care. ICU beds are particularly critical for maintaining brain-stem dead donors, but trauma centres often have no vacant beds due to high patient inflow. This undermines
- timely organ retrieval and reduces the number of successful transplants.
- » The lack of in-house Human Leukocyte Antigen (HLA) cross-matching laboratories in institutions such as AIIMS is another concern. Hospitals depend on external labs, resulting in delays and complications in scheduling and conducting transplants.
- **Human Resource Shortages:** The report highlights a severe shortage of specialised medical personnel, including transplant surgeons, nephrologists, urologists, anaesthetists, neurologists, and intensivists.
 - » Even where trained staff are available, frequent transfers disrupt continuity and hinder the long-term development of transplant programmes. This shortage not only affects service delivery but also limits the training of future specialists in the field.
- **Financial Burden on Patients:** Post-transplant care, especially the lifelong use of immunosuppressant drugs, is financially unsustainable for many patients.
 - » The current government schemes often provide support only for the first year after transplant, leaving patients vulnerable to high out-of-pocket expenses.
 - » Many hospitals have reported difficulties in running or restarting transplant programmes due to limited financial allocations.

Recommendations:

- The report recommends that the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) be expanded to include liver and heart transplants, along with lifelong coverage for immunosuppressant therapy. This would ease the financial burden on patients and increase access to transplants, especially for economically disadvantaged groups.
- **Other key suggestions include:**
 - » Setting up dedicated transplant units in more government hospitals.
 - » Increasing ICU and laboratory

infrastructure.

- » Building a stable, well-trained pool of transplant professionals within the public sector.

Conclusion:

The organ transplantation ecosystem in India faces structural and systemic challenges that require urgent attention. Bridging the infrastructure gaps, addressing the shortage of specialised manpower, and providing comprehensive financial protection to patients are essential steps to strengthen the transplant framework. A coordinated national effort is necessary to improve outcomes, ensure equity in access, and save lives through timely and effective transplants.

DHRUVA Policy

Context:

The Department of Posts recently released a landmark policy document titled DHRUVA (Digital Hub for Reference and Unique Virtual Address). This marks a major step toward building a national-level Digital Address Digital Public Infrastructure (DPI) to modernize the way addresses are managed and shared across India.

What Is DHRUVA?

- The DHRUVA policy builds on DIGIPIN's framework and defines the structure for a secure, interoperable, and consent-based address infrastructure. It aims to treat address information as foundational public infrastructure, just like Aadhaar or UPI, to ensure smoother and more inclusive service delivery.

Key features include:

- **Address-as-a-Service (AaaS):** A model where address data becomes a service that can be securely shared and used across sectors.
- **User Autonomy:** Citizens will have control over their digital address data, including how it is shared and accessed.
- **Cross-Sector Integration:** DHRUVA is designed to work across government departments,

private businesses, and digital platforms to support unified, efficient service delivery.

- The initiative aims to create a standardized, geo-coded addressing system that simplifies address use for both public and private service delivery. At the heart of this system is the Digital Postal Index Number (DIGIPIN) — a National Addressing Grid.
- DIGIPIN introduces a structured format for locating addresses logically, using a naming pattern with directional properties. The system is freely accessible to the public and supports India's broader goals in geospatial governance.

Why It Matters?

- Addresses are critical to governance, logistics, financial inclusion, e-commerce, and disaster response. Yet, India currently lacks a standard system for digital addresses. DHRUVA aims to address this gap by building a national-level digital address layer that improves the efficiency, accuracy, and reliability of address usage.
- The policy is aligned with the broader vision of Digital India and ease of living, offering multiple benefits:
 - » Faster and more accurate delivery of public services and welfare schemes
 - » Improved last-mile logistics for private sector and e-commerce
 - » Better emergency and disaster response through precise location data
 - » Support for financial inclusion and authentication in digital banking services

Conclusion:

The Department of Posts envisions DHRUVA as a co-created ecosystem, inviting ministries, state governments, startups, logistics firms, and citizens to participate. The goal is to build an inclusive system that evolves with user needs and technological advancements. The policy document is open for public feedback, and stakeholders are encouraged to share suggestions to refine and improve the framework. This participatory approach will help ensure that DHRUVA remains relevant,

secure, and people-centric.

Chhattisgarh Homestay Policy

Context:

The Chhattisgarh government has approved a new homestay policy for the year 2025 to 2030, aimed at promoting tourism in rural and tribal-dominated areas, especially in the Maoist-affected Bastar division. The policy was approved in a cabinet meeting chaired by Chief Minister Vishnu Dev Sai. The decision comes at a time when security forces are actively carrying out anti-Naxal operations in the Bastar region.

- Regions like Bastar and Surguja are famous for Chhattisgarh's cultural diversity, natural beauty and rich tribal heritage. Through the homestay policy, these areas will not only be made attractive for domestic and foreign tourists, but local people will also get new employment and income opportunities.

Experience local life and culture:

- According to government officials, through homestay projects, tourists will get a first-hand experience of rural lifestyle, local culture, tribal art, handicrafts and food. Local artisans, artists and farmers will be directly benefited through their products and services, which will also strengthen the national campaign like 'Vocal for Local'.
- This policy will not only be a means of economic development but will also promote social harmony and cultural understanding. Areas like Bastar, which have till now remained under the shadow of security and underdevelopment, will be seen emerging on the tourism map under this policy.

Key Benefits of Chhattisgarh Homestay Projects:

There are several wide-ranging and lasting benefits associated with the Homestay Policy 2025–30 implemented by the Chhattisgarh Government. These benefits are directly linked to the economic, social, cultural and environmental development of the state. Its main benefits are as follows:

- **Economic empowerment of rural and tribal areas**
 - » Local people will get new sources of income. They will be able to earn extra money by renting their homes to tourists.
 - » Women and youth will get self-employment opportunities, which will also reduce migration.
- **Promotion of tourism**
 - » Tourist attraction will increase in the less developed but culturally rich areas of the state.
 - » This policy will bring Chhattisgarh on the sustainable and experiential tourism map of India.
- **Conservation of local culture, art and handicrafts**
 - » Tourists will experience local dance, music, cuisine, and craftsmanship first-hand, which will preserve these traditional forms.
 - » Sales of local products will increase, which will benefit the artisans economically.
- **Peace and development in Maoist-affected areas**
 - » Areas like Bastar and Surguja will join the mainstream of development, which will inspire the youth there to join development instead of violence.
 - » Trust building between the government and the general public will be strengthened.
- **Sustainable tourism**
 - » The homestay model makes limited use of natural resources and is compatible with the local ecology.
 - » This can prevent environmental damage caused by large hotel industries.
- **Emphasis on 'Vocal for Local'**
 - » Self-reliance will increase by giving priority to local products and services.
 - » This policy will also strengthen the goals of the Self-reliant India campaign.

Conclusion:

Chhattisgarh Homestay Policy 2025-30 is the result of a far-sighted thinking, which will

provide a new base to the tourism, rural economy and social inclusion of the state. It will not only bring positive change in sensitive areas like Bastar, but will also lead Chhattisgarh on the path of inclusive and sustainable development.

“Mediation for Nation” Campaign

Context:

The increasing burden of pending cases on the Indian judiciary has not only affected institutional efficiency but also made access to justice challenging for ordinary citizens. In this backdrop, the “Mediation for Nation” campaign, starting from 1st July 2025, is a commendable initiative aimed at resolving pending cases swiftly and amicably through mediation. The campaign will run till 30th September 2025 and is being jointly implemented by the National Legal Services Authority (NALSA) and the Mediation and Conciliation Project Committee (MCPC).

Objectives of the Campaign:

- The core objective of this campaign is to identify suitable pending cases in courts and guide them towards resolution through mediation. The initiative will be implemented from the lower courts to the High Courts across the country. A key aspect of the campaign is to build public trust in mediation as an effective, speedy, cost-efficient, and reliable legal mechanism.

Types of Cases Covered

- Under this campaign, categories of cases eligible for mediation include:
 - » Matrimonial disputes
 - » Accident claims
 - » Domestic violence
 - » Cheque bounce cases
 - » Commercial disputes
 - » Service and consumer disputes
 - » Debt recovery
 - » Property disputes
 - » Eviction matters
 - » Land acquisition cases

- » other suitable civil matters.

Significance of the Campaign:

- **Governance and Judicial Reforms:** This campaign promotes the use of Alternative Dispute Resolution (ADR) mechanisms, which enhances transparency and efficiency within the judicial system and helps reduce case backlogs.
- **Social Impact:** Citizens, especially from rural and weaker sections, will benefit from faster, respectful, and affordable dispute resolution.
- **Policy Relevance:** The initiative sends a clear message to policymakers about the need to strengthen parallel dispute resolution mechanisms like mediation alongside traditional courts.

Why is This Campaign Needed?

- India's judicial processes are often slow, technical, and expensive, causing delays of several years in delivering justice. According to the India Justice Report 2025:
 - » Over 3 crore cases are pending in lower courts
 - » Around 60 lakh in High Courts
 - » More than 70,000 in the Supreme Court
- Additionally, resolving minor disputes — such as family, property, or service-related issues — can result in high financial and emotional stress. Mediation offers a dialogue-based, affordable, and less stressful alternative for dispute resolution.
- **Constitutional Relevance:** Article 39A of the Indian Constitution emphasizes equal and accessible justice for all. For people in rural areas and marginalized communities, mediation serves as a powerful tool to obtain justice in a cost-effective, timely, and dignified manner.

Conclusion:

The “Mediation for Nation” campaign is a practical, humane, and justice-oriented approach that strengthens India’s legal system. It not only helps reduce the burden on courts but also ensures timely, participatory, and respectful justice for all citizens.

New Regulations for Ladakh

Context:

In June 2025, the Government of India notified a set of five regulations to address long-standing demands from Ladakh's civil society. These regulations aim to protect the region's unique cultural identity, secure jobs for locals, and improve representation in governance. The move comes after years of protests and demands for constitutional safeguards since Ladakh was carved out as a separate Union Territory in 2019.

Key Regulations Notified:

- Ladakh Civil Services Decentralization and Recruitment (Amendment) Regulation, 2025 introduced, for the first time, a domicile requirement for government jobs. A domicile is defined as a person who has lived in Ladakh for 15 years, studied for 7 years and appeared for Class 10 or 12 exams locally, or children of Central Government employees with 10 years of service in Ladakh.
- Ladakh Civil Services Domicile Certificate Rules, 2025 outline the process to get domicile certificates. The tehsildar issues the certificate, while the Deputy Commissioner hears appeals. Applications can be submitted online or offline.
- Union Territory of Ladakh Reservation (Amendment) Regulation, 2025 raises the total reservation for SC, ST, OBC, and other backward classes to 85%, excluding the 10% quota for Economically Weaker Sections. This expanded reservation applies to admissions in professional institutions like engineering and medical colleges.
- Ladakh Official Languages Regulation, 2025 recognises English, Hindi, Urdu, Bhoti, and Purgi as official languages. It also commits to promoting Shina, Brokskat, Balti, and Ladakhi to preserve cultural diversity.
- Ladakh Autonomous Hill Development Councils (Amendment) Regulation, 2025 reserves one-third of seats for women in the Hill Development Councils of Leh and Kargil through a rotation system.

Background and Demands:

- After the abrogation of Article 370, Ladakh became a Union Territory without a legislature. While the change separated it administratively from Jammu and Kashmir, it also meant that Ladakh remained under direct central rule without local law-making powers.
- Local organisations like the Leh Apex Body and the Kargil Democratic Alliance have demanded Sixth Schedule status to secure constitutional protections similar to those granted to tribal areas in northeastern states. They argue that such provisions are necessary to protect Ladakh's fragile ecosystem, traditional livelihoods, and unique tribal culture.
- The hunger strike by Sonam Wangchuk and widespread demonstrations in 2024 and 2025 brought these issues into national focus.

Limitations and Criticism:

- No legal restrictions on land ownership by outsiders, raising fears about demographic changes and ecological strain.
- No legislature or autonomous district councils with law-making powers, unlike the Sixth Schedule provisions.
- Cultural protections are mostly symbolic, with no clear roadmap for integrating local languages into governance or education.
- The domicile period of 15 years is considered too short by many local leaders, who have demanded 30 years.

Conclusion:

The government's notification of these regulations is an important step in recognising the aspirations of Ladakh's people. However, the absence of constitutional safeguards and land protection mechanisms means that many concerns remain unaddressed. As discussions with the Ministry of Home Affairs continue, Ladakhi leaders are expected to push for stronger legal guarantees to secure their region's identity, environment, and future.



International Relations

The Iran-Israel conflict and wider implications on the Central Asia region: An analysis

In June 2025, Iran and Israel fought a brief but intense war that lasted 12 days. The conflict began on June 13 when Israel launched "Operation Rising Lion," a major military campaign targeting Iran's nuclear infrastructure and military leadership. Israel claimed its attacks were necessary to delay Iran's nuclear programme, which Israeli intelligence believed was advancing rapidly. The strikes hit several critical sites and eliminated many senior Iranian military officials. The damage was severe:

- » Iran's main nuclear facilities were attacked
- » Large parts of the air defense systems were destroyed
- » Over 600 people, including civilians, died

❖ Despite these heavy losses, Iran refused

to surrender. The Iranian government recovered quickly and launched waves of ballistic missile and drone attacks on Israeli cities and military targets.

Historical Background: From Cooperation to Hostility:

❖ Pre-1979 Relations:

- » Before 1979, Iran and Israel were not enemies. In fact, Iran was one of the first Muslim-majority countries to recognize Israel after its creation in 1948.

» Iran's then-ruler, Shah Mohammad Reza

Pahlavi, maintained close ties with Israel. The two countries cooperated in trade, especially oil sales, and shared intelligence. Israel, surrounded by hostile Arab neighbors, followed a

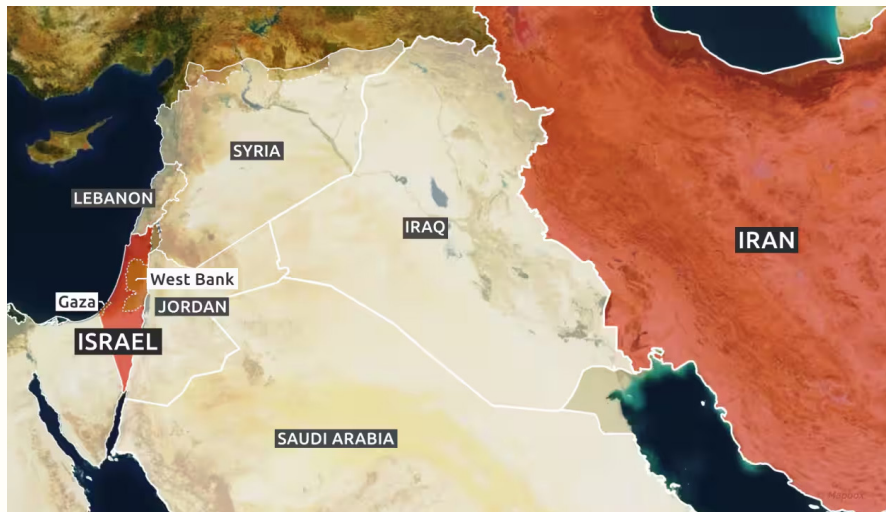


“periphery doctrine,” under which it built alliances with non-Arab states like Iran and Turkey to balance Arab power.

- » Both nations were also strong allies of the United States.

❖ **The 1979 Islamic Revolution:**

- » The situation changed completely in 1979 when the Shah was overthrown, and Iran became an Islamic Republic under Ayatollah Khomeini. The new leadership viewed Israel as an occupier of Palestinian land and called it the “Little Satan.” The United States was labeled the “Great Satan.”



- » Iran began to support anti-Israel groups, especially those active in Lebanon and Palestine, and openly opposed Israeli policies.

❖ **The Shadow War:**

- » Even though Iran and Israel did not fight a full-scale war until 2025, they were locked in a long-running “shadow war.”
- » Israel conducted airstrikes against Iranian-linked targets in Syria to prevent weapons transfers to Hezbollah.
- » Iran funded and armed groups like Hezbollah in Lebanon and Hamas in Gaza.
- » In 2010, a cyberattack using a virus called Stuxnet disrupted Iran’s uranium enrichment programme. The attack, believed to be a joint U.S.-Israeli operation, was the first known cyberattack targeting industrial equipment.

- ❖ These actions deepened mutual hostility and laid the groundwork for the 12-day war.

Role of the United States:

- ❖ The United States played an important role in

the conflict. Initially, U.S. President Donald Trump supported Israel’s campaign and called for Iran’s “unconditional surrender.” U.S. forces helped intercept many of the missiles fired at Israel.

- ❖ But when Iran launched retaliatory strikes on American military bases in Qatar and Iraq, the U.S. grew concerned about a wider war. The American leadership, remembering the long wars in Iraq, Libya, and Afghanistan, was reluctant to get involved in another prolonged conflict.
- ❖ Eventually, the U.S. joined Israel in striking Iran’s nuclear plants to give Israel an exit strategy but then pushed strongly for a ceasefire. This diplomatic pressure forced Israeli Prime Minister Benjamin Netanyahu to end the fighting, even though he had earlier suggested that the campaign could overthrow the Iranian regime.
- ❖ American intelligence later assessed that Iran’s nuclear programme was only delayed by a few months, not years, showing the limits of military action.

Impact on Central Asia:

Although Iran and Israel are not immediate neighbors of Central Asia, the conflict has significant ripple effects across the region, particularly for countries like Turkmenistan, Uzbekistan, and Kazakhstan.

- ❖ **Economic Consequences:** Iran plays a vital role in Central Asia’s trade and energy routes.

Turkmenistan depends on natural gas sales to Iran. Kazakhstan and Uzbekistan use Iranian ports to export goods. The North-South Transport Corridor—connecting Russia, Kazakhstan, Turkmenistan, and Iran to the Indian Ocean—is a strategic lifeline. Any disruption, such as damage to Iranian logistics infrastructure or ports like Chabahar, can drive up inflation, delay exports, and hurt already fragile economies.

- ❖ **Aviation Risks:** Iranian airspace is crucial for flights connecting Central Asia to the Gulf. Airlines such as Air Astana and FlyArystan have had to reroute to avoid Iranian airspace, causing longer travel times and higher costs.
- ❖ **Security Concerns:** Iran has tried to exert ideological influence across Central Asia by appealing to shared religious ties. There are also credible reports that Iran has tried to recruit Central Asian nationals for anti-Israeli activities. For example, Uzbek nationals allegedly linked to Iran were involved in the murder of an Israeli rabbi in the UAE in 2024. This raises concerns about radicalization in countries with young, economically vulnerable populations.
- ❖ **Migration Risks:** If instability escalates further in Iran, there could be waves of refugees heading east into Central Asia. Turkmenistan, which shares a land border with Iran, could face a humanitarian and security crisis, including pressure on resources and social tensions.

Strategic Balance and Foreign Policy Dilemmas:

- ❖ The Iran-Israel conflict is testing Central Asia's balancing strategies. While Iran remains important for energy and logistics, Israel is increasingly viewed as a gateway to Western technology in agriculture, cybersecurity, and water management.
- ❖ Regional governments have so far adopted a cautious tone. Kazakhstan and Uzbekistan issued security warnings to their citizens but avoided condemning Iran directly, reflecting their dependence on Iranian

transit routes and energy supplies. Central Asian countries want to preserve their neutrality but will likely need to reassess their security frameworks and diplomatic alignments if hostilities resume.

Need for a Diplomatic Solution:

- ❖ The most striking lesson from the conflict is the failure of military action to produce lasting solutions. Even after extensive strikes, Iran's nuclear capabilities were only briefly delayed, while the region edged closer to a major war.
- ❖ For diplomacy to succeed, several factors are critical:
 - » Serious negotiations that address both Israel's security concerns and Iran's demands for economic relief.
 - » International guarantees to monitor and verify Iran's nuclear program.
 - » Efforts to rein in proxy groups that deepen cycles of retaliation.
 - » Broader regional dialogue, possibly through the United Nations or regional security forums, to manage escalation risks.

Conclusion:

The Iran-Israel conflict has underlined the fragility of West Asia's security architecture and revealed how even distant neighbors like Central Asia are directly affected by war. As the ceasefire holds for now, the situation remains highly unstable. A return to open conflict could further disrupt trade, endanger civilians, and undermine already fragile non-proliferation norms. Long-term stability will depend not on tactical pauses or military strikes, but on sustained diplomacy, regional cooperation, and credible commitments to peace. Without addressing core grievances, the region will remain trapped in a cycle of escalation, with consequences felt far beyond its borders.

India's Strategic Outreach to Cyprus, Canada, and Croatia: A Confident Step in Foreign Policy

From 15 to 19 June 2025, Prime Minister Narendra Modi undertook a significant three-nation tour of Cyprus, Canada, and Croatia. Though geographically limited, the visit was high in strategic depth and intent. Each leg of the journey was packed with symbolism and substance, reflecting India's rising profile as a shaping power in global diplomacy. This tour aligns India's expanding aspirations with its realistic strategic interests across the Mediterranean, the Transatlantic West, and Eastern Europe.

Purpose & Broader Significance:

- ❖ This trip aimed to deepen bilateral relations and strengthen India's strategic foundations in three critical regions:
 - » **Cyprus and Croatia:** As potential nodes in the India-Middle East-Europe Economic Corridor (IMEC).
 - » **Canada:** As a platform for engaging global leaders at the G7 Summit and initiating a subtle diplomatic reset.
- ❖ The tour reflects the maturation of India's foreign policy, shifting from reactive balancing to proactive shaping of global narratives.

Cyprus: A Mediterranean Strategic Anchor

Cyprus:

Prime Minister Modi's visit to Cyprus (15–16 June) was the first by an Indian PM in over two decades.

Canada:

PM Modi visited Kananaskis, Canada, to participate in the G7 Summit, marking his sixth consecutive appearance at this global forum of the world's advanced economies.

Prime Minister Modi's visit to Cyprus (15–16 June) was the first by an Indian PM in over two decades. It signified India's intent to engage more deeply with a region that is gaining strategic prominence.



Croatia:

The final leg of the tour saw PM Modi arrive in Croatia, the first-ever visit by an Indian Prime Minister to the country since diplomatic ties were established in 1992.

- ❖ **Geopolitical Messaging:** The visit underscored India's support for a bi-zonal, bi-communal federation for Cyprus, in line with UN parameters. This reiteration of India's stance was welcomed by Cypriot leadership and sent a subtle signal to Turkey, a nation closely aligned with Pakistan and often critical of India on international platforms like the Organisation of Islamic Cooperation (OIC).
- ❖ **Strategic Cooperation:** India and Cyprus signed agreements to boost cooperation in maritime security, cybersecurity, and naval

exchanges, hinting at a shift towards more strategic engagement.

- ❖ **Economic and Diplomatic Importance:** Cyprus reaffirmed support for India-EU Free Trade Agreement (FTA) negotiations. The country also presents a potential hub for Indian exports and financial services targeting Southern Europe.
- ❖ **Soft Power and Diaspora:** PM Modi addressed the Indian community in Limassol, celebrating the diaspora's contributions to India-Cyprus relations. In a symbolic gesture, he was awarded Cyprus's highest civilian honour.

Canada: Global Diplomacy and a Measured Reset

PM Modi visited Kananaskis, Canada, to participate in the G7 Summit, marking his sixth consecutive appearance at this global forum of the world's advanced economies.

- ❖ **G7 Platform:** India, though not a G7 member, has become a permanent guest due to its growing economic and diplomatic relevance. PM Modi put forward India's perspectives on:
 - » AI regulation based on trust and ethics.
 - » Quantum technology and its moral implications.
 - » Climate finance with a focus on Global South.
 - » Energy justice and democratic resilience.
- ❖ **Diplomatic Undertones:** The visit came after a year of strained India-Canada relations, primarily due to the Khalistani separatist issue. While no formal bilateral meetings were publicly announced, backchannel diplomacy was active. The message was clear: India is open to engaging but will not compromise on national security.
- ❖ **Economic Engagement:** Discussions with Canadian businesses focused on strategic minerals, green hydrogen, and education. This points to India's continued willingness to work with Canada while maintaining its core interests.

Croatia: Opening the Eastern European Gateway

The final leg of the tour saw PM Modi arrive in Croatia, the first-ever visit by an Indian Prime Minister to the country since diplomatic ties were established in 1992.

- ❖ **Geostrategic Positioning:** Croatia, a member of both the EU and NATO, lies at the heart of the Adriatic-Balkan corridor. It is strategically located along European transport routes like the Trans-European Transport Network (TEN-T) and offers access to Adriatic ports—Rijeka, Split, and Ploče.
- ❖ **IMEC Relevance:** Croatia is a strong candidate for hosting key terminals of the India-Middle East-Europe Economic Corridor (IMEC). This enhances India's ability to project economic power and logistical presence into Central and Eastern Europe.
- ❖ **Bilateral Relations and Trade:**
 - » India recognised Croatia soon after its independence in 1992, and relations have been friendly since the Yugoslav era.
 - » Trade has steadily increased—from \$199.45 million in 2017 to \$337.68 million in 2023.
 - » India exports pharmaceuticals, machinery, chemicals, and garments, while Croatia exports chemicals, instruments, rubber, and timber.
- ❖ **Technology and Innovation:** Discussions with PM Andrej Plenkovic and President Zoran Milanovic centred on digital innovation, maritime logistics, technology transfer, tourism, and defence cooperation.
- ❖ **Cultural and Civilisational Connect:**
 - » PM Modi was gifted a reprint of the first Sanskrit grammar book written in Latin by Croatian scholar Filip Vezdin in 1790.
 - » Croatian contributions to Indian culture include work on churches in Goa and continued academic interest in Indian studies.
- ❖ **Strategic Outlook:** India is consciously expanding its footprint beyond Western Europe. The focus on Central and Eastern Europe (CEE) is aimed at:

- » Countering China's BRI influence in the Balkans.
- » Engaging with Three Sea Initiative (3SI) countries.
- » Building support for India's global aspirations, including UNSC membership.

Strategic Themes of the Tour

Across all three countries, the tour highlights a common thread—India's evolving foreign policy doctrine, based on realism, vision, and influence-building.

❖ **Mediterranean Engagement**

- » Cyprus anchors India's presence in the Eastern Mediterranean, offering diplomatic and maritime leverage.
- » Strategic proximity to Turkey and Suez-linked trade routes adds geopolitical value.

❖ **Western Bloc Recalibration**

- » Canada provides a platform for engaging with the G7, pushing India's stance on tech ethics, climate equity, and multilateral governance.
- » Diplomatic restraint shown in Canada marks India's mature response to bilateral challenges.

❖ **Eastern European Outreach**

- » Croatia serves as India's gateway to Eastern and Central Europe, often neglected in Indian diplomacy.
- » It helps diversify India's European engagement, moving beyond Paris, Berlin, and Brussels.

❖ **IMEC Alignment**

- » Both Cyprus and Croatia are crucial to the success of IMEC, India's proposed

counter to China's Belt and Road Initiative (BRI).

- » These nations offer port access, trade gateways, and EU integration that IMEC aims to capitalise on.

❖ **Civilisational and Cultural Diplomacy**

- » Cultural references—like Sanskrit scholarship in Croatia and diaspora engagement in Cyprus—highlight the soft power dimension of India's diplomacy.
- » These elements strengthen long-term people-to-people ties and reinforce India's global image.

Conclusion:

PM Modi's tour stands out for its substance over spectacle. It was marked by quiet confidence, strategic intent, and long-term vision. At a time when the world faces war, technological disruption, and economic volatility, India is seen increasingly as a reliable and balanced power. This visit added three important nodes—Cyprus, Canada, and Croatia—to India's growing diplomatic and strategic grid. As global alliances shift and new corridors of influence emerge, India's foreign policy is no longer reactive. It is purpose-driven, anticipatory, and deeply interconnected. Whether it's shaping global norms at the G7 or building regional corridors in the Mediterranean and Balkans, India's moves are deliberate and decisive. This tour is yet another chapter in India's evolution as a responsible global player—a nation that seeks influence not through coercion but through vision, partnerships, and shared growth.

Short Issues

U.S. 'Golden Dome' Missile Defence System

Context:

The United States' proposed 'Golden Dome'

missile defence system has triggered geopolitical debate following an offer extended to Canada. The offer, presented by U.S. President Donald Trump, links Canada's access to the system with conditions that have raised significant concerns about national sovereignty and

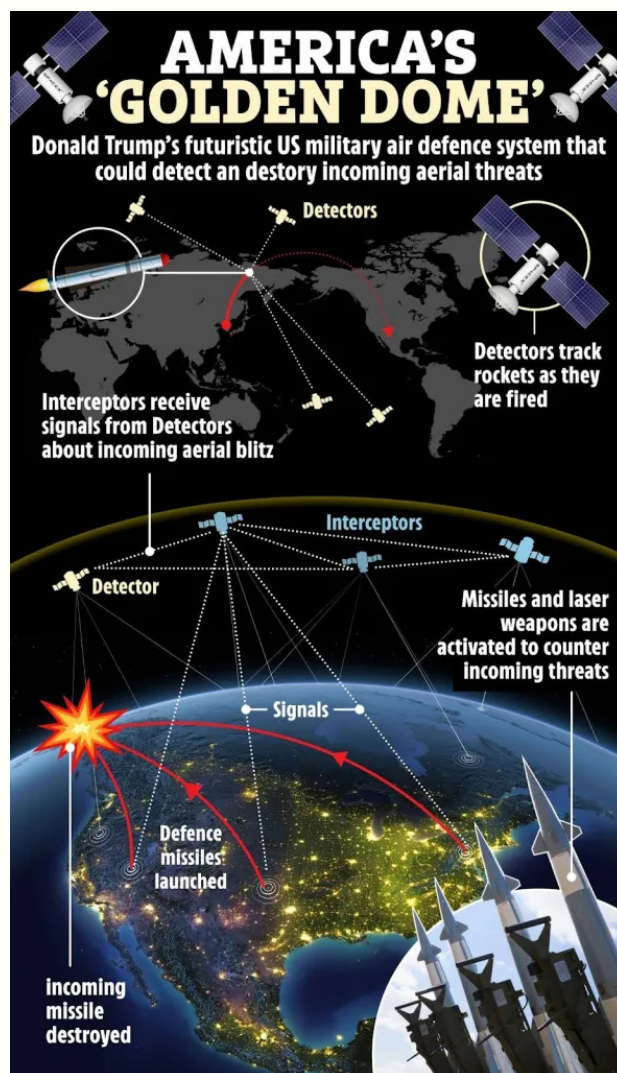
bilateral relations.

About the Golden Dome defense systems:

- The Golden Dome is conceived as a response to the evolving nature of missile threats posed by state actors such as Russia, China, North Korea, and Iran.
- The increasing sophistication of ICBMs (Intercontinental Ballistic Missiles), hypersonic glide vehicles, and submarine-launched ballistic missiles (SLBMs) has rendered conventional missile defence systems inadequate.
- **Key objectives of the Golden Dome include:**
 - » Rapid interception of ICBMs during the boost phase
 - » Neutralization of hypersonic projectiles before atmospheric re-entry
 - » Global, persistent surveillance using satellite constellations
 - » Autonomous engagement systems with artificial intelligence for rapid targeting

Comparison with Existing Systems:

- **Iron Dome (Israel)**
 - » Developed by Rafael Advanced Defense Systems and operational since 2011
 - » Short-range system using ground-based radar and Tamir interceptors
 - » Effective against rockets, mortars, and drones from non-state actors
 - » Localized protection with limited scalability
- **U.S. Systems (Current)**
 - » **Ground-based Midcourse Defense (GMD):** Targets long-range ballistic missiles in midcourse phase; limited coverage
 - » **Aegis BMD:** Ship-based interceptors using SM-3 and SM-6 missiles
 - » **THAAD (Terminal High Altitude Area Defense):** Targets missiles during terminal descent phase
 - » **Patriot systems:** Designed for shorter-range tactical threats
- None of these systems offer real-time, global protection or space-based interception. The Golden Dome aims to synthesize and supersede these approaches.



The Space-Based Interception Component:

- Trump's proposal centers around deploying thousands of Low Earth Orbit (LEO) satellites, forming an autonomous detection and interception grid. This would constitute the first operational use of orbital kinetic or directed-energy weapons for missile defence.

Key Features:

- **Early-boost phase targeting:** Intercepting missiles during launch is ideal but technologically demanding due to limited time and geographical proximity requirements

- **AI-assisted targeting:** Satellites would coordinate via machine learning algorithms for rapid threat identification
- **Directed-energy weapons (DEWs):** Lasers or microwave-based systems are under consideration but are not yet combat-proven
- **Orbital permanence:** 24/7 global coverage, bypassing limitations of radar line-of-sight

Iron Dome vs Golden Dome:

Feature	Iron Dome (Israel)	Golden Dome (Proposed, USA)
Purpose	Regional missile defence	Global missile defence
Tech Basis	Radar + ground interceptors	Integrated radar + space-based systems
Coverage	Local (Israel)	National/global (USA)
Primary Threats	Non-state actors (e.g. Hezbollah, Hamas)	State actors with ICBMs (e.g. China, Russia)
Use of Space	None	Central component

Conclusion:

The proposed inclusion of Canada in the U.S. Golden Dome missile defence system underscores the complex intersection of security, sovereignty, and diplomacy. While the programme offers substantial technological and strategic benefits, the conditions tied to Canada's involvement present serious political and ethical challenges. The outcome of this proposal may shape future models of defence cooperation and redefine the parameters of national alliance in the context of 21st-century geopolitical dynamics.

Revival of the Russia-India-China (RIC) Trilateral Format

Context:

For the first time in nearly five years, Russia

is pushing to revive the long-dormant Russia-India-China (RIC) trilateral format – a strategic dialogue. The (RIC) trilateral format is on dormant position since Galvan valley clash between India and China in 2020.

Background and Significance of the RIC Format:

- The Russia-India-China (RIC) trilateral format, initiated in the late 1990s, is a strategic dialogue aimed at fostering cooperation among the three nations in foreign policy, economics, and security.
- The RIC format was envisioned as a counterbalance to Western dominance, promoting a multipolar world order. Over the years, it facilitated over 20 ministerial-level meetings, fostering cooperation in various areas.



Reasons Behind Russia's Push for Revival:

- **Easing India-China Tensions:** Russia's Foreign Minister Sergey Lavrov highlighted the recent understanding between India and China to ease border tensions, creating a favorable environment for reactivating the RIC dialogue.
- **Countering Western Influence:** Russia perceives the growing influence of Western alliances, such as NATO and the Quad, as a threat to regional stability. The RIC could serve as a platform to resist such external pressures.
- **Strengthening Eurasian Security Architecture:** By reviving the RIC, Russia aims to promote a "single and equitable system of security and cooperation in Eurasia," aligning with

Moscow's broader strategy to establish a multipolar world order.

Challenges to the RIC Revival:

- **Lingering India-China Border Disputes:** Unresolved border issues between India and China remain a significant hurdle, and the trust deficit could impede the effectiveness of the RIC format.
- **India's Strategic Alignments:** India's participation in the Quad and its deepening ties with Western nations reflect its strategic balancing act, which may pose diplomatic challenges for New Delhi.
- **Russia-China Dynamics:** Russia's growing closeness with China might raise concerns in India about the impartiality of the RIC platform.

Implications and Future Prospects:

- The revival of the RIC format would have significant implications for regional cooperation and global geopolitics. While recent improvements in India-China relations provide a window of opportunity, several challenges need to be addressed to ensure the RIC's effectiveness. The success of this trilateral initiative will depend on the political will of all three nations to navigate complex geopolitical dynamics and prioritize mutual interests.

Conclusion:

Russia's push for the RIC revival reflects its strategic intent to bolster regional cooperation and counterbalance Western influence. As the RIC format moves forward, it will be crucial for the three nations to address the existing challenges and work towards a common goal of promoting regional stability and cooperation.

China Launches IOMed

Context:

China has officially launched a new international legal body called the International Organisation for Mediation (IOMed). It aims to offer a peaceful, dialogue-based way to resolve disputes, positioning itself as an alternative to

traditional bodies like the International Court of Justice (ICJ) and the Permanent Court of Arbitration (PCA).

About IOMed:

- IOMed is described by China's state media as the world's first intergovernmental international legal organisation that focuses only on mediation.
- Unlike courts or arbitration panels, it does not issue binding judgments but helps parties reach agreements through discussion and compromise.
- It is meant to fill what China calls a "critical gap" in current global dispute resolution systems.
- IOMed will be headquartered in Hong Kong.

WHAT IS IOMed PURPOSE:

**To mediate state-to-state
disputes through non-oercive
dialogue rather than binding rules**

HOW IT DIFFERS:

SCO	Open to democratic and non-authoritarian states
EU	Involves smaller nations outside Western alliances
UN	An alternative to playing by UN-defined rules
G7	Broadly inclusive, Global South-friendly grouping
BRICS	Non-economic functions take center stage

Who are the Members?

- At a high-level ceremony in Hong Kong, over 30 countries joined China as founding members. These include:

- » Indonesia
- » Pakistan
- » Belarus
- » Cuba
- » Cambodia
- Delegates from around 50 countries and 20 international organisations, including the United Nations, attended the event.

What will IOMed Do?

- IOMed aims to resolve a wide range of disputes, including:
 - » Conflicts between countries
 - » Disputes between a country and foreign nationals
 - » International business or commercial disagreements
- The organisation's goal is to provide a flexible, non-confrontational method to settle issues, moving away from the win-lose approach seen in traditional legal bodies.

Other Dispute-Resolution Bodies:

- **International Court of Justice (ICJ):**
 - » It is the main judicial organ of the United Nations, created in 1945.
 - » Based in The Hague, Netherlands, it settles legal disputes between states and gives legal opinions to UN bodies.
- **Permanent Court of Arbitration (PCA):**
 - » Set up in 1899, it was the first intergovernmental organisation for resolving disputes through arbitration.
 - » Also headquartered in The Hague, it provides services for resolving conflicts between states, private parties, and international organisations.

China's Diplomatic Message:

- IOMed reflects China's values of solving problems through dialogue and consensus, not confrontation. The initiative shows a desire to move beyond the "zero-sum mindset" where one side's gain is another's loss.
- China also sees IOMed as a way to increase its global influence, especially among developing nations, many of whom support the new organisation. It is also seen as a

part of China's broader efforts to reshape international institutions to reflect the views and interests of the Global South.

Major Concerns:

- **Neutrality:** Since China is the driving force behind IOMed, some observers question whether it will be truly impartial.
- **Transparency:** Details about how the organisation will operate—such as who will serve as mediators and how cases will be handled—are still unclear.
- **Political Climate:** Hong Kong's recent political changes raise questions about the independence of any institution based there.

Conclusion:

The launch of IOMed marks China's attempt to reshape global dispute resolution by promoting mediation over litigation or arbitration. While it signals a shift toward dialogue-based conflict resolution, the organisation's long-term credibility and effectiveness will depend on transparency, neutrality, and international acceptance.

India-Paraguay Ties

Context:

Paraguayan President Santiago Peña Palacios is currently made a three-day state visit to India from June 2 to 4, 2025, marking only the second-ever visit by a Paraguayan head of state.

Building Bridges in Clean Energy and Technology:

- One of the most significant outcomes of this visit has been the decision to deepen cooperation in clean energy, particularly in green hydrogen and biofuels. Paraguay, with its vast hydroelectric resources, and India, a global leader in renewable energy deployment, are natural partners in advancing a low-carbon future.
- To institutionalise these growing ties, India and Paraguay signed a Memorandum of Understanding establishing a Joint

Commission Mechanism. This mechanism will serve as a formal platform to regularly review cooperation and identify new areas for engagement.

Shared Global Vision:

- Both nations expressed strong alignment on major global concerns, including:
- Counter-terrorism and transnational threats such as cybercrime and drug trafficking
- Climate change and renewable energy transitions
- Multilateral reforms, especially within the UN system



Expanding Economic & Trade Engagement:

- Paraguay is steadily becoming a key trade partner for India in Latin America. Indian companies—especially in the automobile and pharmaceutical sectors—have a growing presence in Paraguay, while Paraguayan firms are also increasingly active in India.
- Both Prime Minister Modi and President Peña emphasised the scope for expanding bilateral trade, particularly in areas like agri-tech, clean energy, infrastructure, and advanced manufacturing.

About Paraguay:

- Paraguay is a landlocked country in south-central South America, bordered by Bolivia, Brazil, and Argentina. Its capital, Asunción, lies along the Paraguay River.
- **Key Geographical Features:**
 - » Paraguay River divides the country into

two distinct regions:

- Eastern Region (Región Oriental) – subtropical, more fertile and densely populated
- Western Region (Chaco Boreal) – tropical, drier, and sparsely inhabited
- » **Major Rivers:** Paraguay, Paraná, Pilcomayo, and Apa
- » **Lakes and Valleys:** Central and western Paraguay are defined by the Paraná and Paraguay valleys, and notable lakes such as Ypacaraí and Ypoá
- » **Mountain Ranges:** The Amambay, Mbaracayú, and San Rafael ranges form part of the Brazilian Plateau, with Mount San Rafael (850 m) being the highest peak
- » **Climate:** Eastern Paraguay experiences humid subtropical conditions with 1,400–1,650 mm of rainfall annually, while the Chaco region to the west is tropical and semi-arid, with about 760 mm of rainfall
- » Paraguay is one of the world's top hydropower exporters, making it especially relevant to India's green energy goals.

Conclusion:

President Peña's visit marks a turning point in India-Paraguay relations. Backed by strong political will, shared global perspectives, and growing economic synergy, the partnership is evolving into a dynamic and multifaceted engagement. With structured mechanisms in place and a deepening focus on clean energy, digital growth, and strategic trade, India and Paraguay are poised to strengthen their position as cooperative actors in an increasingly interconnected and multipolar world.

**Vietnam Officially Joins
BRICS as 'Partner Country'**

Context:

Vietnam has officially joined the BRICS group

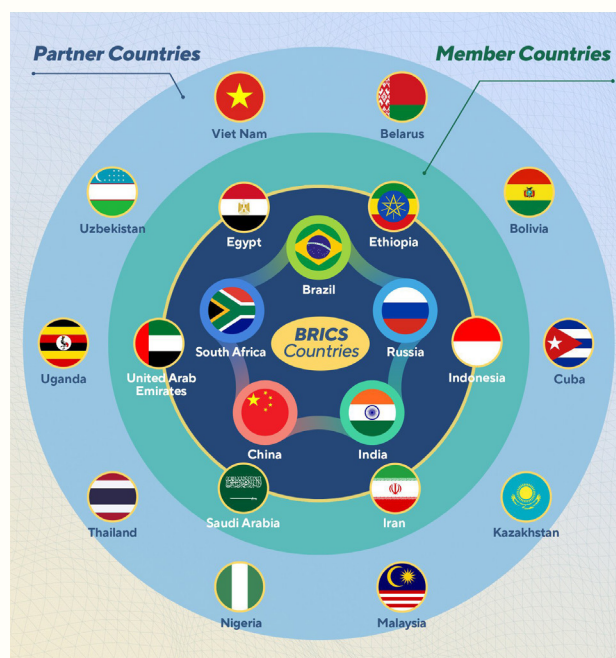
as a “Partner Country,” marking a milestone in its growing diplomatic and economic engagement on the global stage. This category was introduced during the 2024 BRICS Summit held in Kazan, Russia, as part of the bloc’s efforts to expand global engagement without immediate full membership.

Partner Country Status:

- Vietnam is now the 10th country to be officially recognized under this category. The current list of BRICS partner countries includes:
 - » Vietnam
 - » Belarus
 - » Bolivia
 - » Kazakhstan
 - » Cuba
 - » Malaysia
 - » Nigeria
 - » Thailand
 - » Uganda
 - » Uzbekistan
- This model allows BRICS to collaborate with a wider set of countries on shared goals such as economic development, South-South cooperation, financial reform, and multipolar diplomacy—without requiring full integration into the decision-making framework.

Economic and Strategic Benefits for Vietnam:

- **Market Access:** Closer ties with BRICS economies could open new trade and investment avenues.
- **Development Cooperation:** Vietnam can tap into development finance through institutions like the New Development Bank (NDB).
- **Technology & Infrastructure:** Opportunities in digital infrastructure, renewable energy, and transportation.
- **Diplomatic Leverage:** Greater visibility and voice in reshaping global institutions.



About BRICS:

- BRICS is an acronym that stands for Brazil, Russia, India, China, and South Africa. The term BRIC (Brazil, Russia, India, and China) was coined by British economist Jim O'Neill in 2001. This grouping represents some of the world's largest emerging economies, which have significant influence in global affairs.
 - » **Formation:** BRIC started functioning as a formal grouping in 2006, with its first summit held in Russia in 2009.
 - » -South Africa joined the grouping in 2010, making it BRICS.
- **Members:**
 - » Initial 5 members: Brazil, Russia, India, China, and South Africa.
 - » New members (BRICS+): Egypt, Ethiopia, Iran, Indonesia, and the United Arab Emirates.
- **Significance:**
 - » **Population:** BRICS countries represent 45% of the world's population.
 - » **GDP:** The bloc accounts for 37.3% of world GDP, surpassing the EU's 14.5% and the G7's 29.3%.
- **Objectives:**
 - » **Promoting Cooperation:** BRICS aims to

foster cooperation among its member countries in areas such as economics, politics, and social development.

- » **Challenging Global Governance:** The bloc seeks to challenge the existing global governance structures and promote a more multipolar world order.

Conclusion:

Vietnam's accession as a BRICS partner country represents a strategic alignment of mutual interests. For BRICS, it adds economic diversity and geopolitical depth. For Vietnam, it offers new avenues to strengthen its role as a rising global player. As global dynamics shift toward multipolarity, Vietnam's balanced approach and active multilateralism could serve as a model for others navigating an increasingly complex world order.

Prime Minister Modi's Visit to Cyprus

Context:

Prime Minister Narendra Modi's recent visit to Cyprus marks a notable shift in India's foreign policy engagement with the Eastern Mediterranean. It is the first such visit by an Indian Prime Minister in over two decades and carries far-reaching diplomatic, strategic, and economic implications.

Key highlights of the Visit:

- This visit is only the third by an Indian Prime Minister to Cyprus in four decades, following Indira Gandhi (1982) and Atal Bihari Vajpayee (2002). Modi's outreach signals renewed intent to deepen bilateral ties, elevating Cyprus in India's diplomatic calculus.
- **Geopolitical Signal to Turkey and Pakistan:** The visit gains added strategic weight against the backdrop of Operation Sindoor and Turkey's vocal support for Pakistan. Ankara's position, especially following the April 22 Pahalgam terror attack, triggered widespread disapproval in India.
 - » Cyprus, by contrast, condemned the

act and promised to escalate the issue of cross-border terrorism within EU forums.

- » Modi's presence in Nicosia can be interpreted as a counterbalance to Turkish influence and a reaffirmation of solidarity with Cyprus in its territorial conflict with Turkey over Northern Cyprus.

Significance of Cyprus:

- Despite its Asian geography, Cyprus is a member of the European Union. Its strategic location in the Eastern Mediterranean—proximate to Turkey, Syria, and the Middle East—makes it a valuable node for India's ambitions in European markets.
- The opening of an office by Eurobank, one of Cyprus's largest financial institutions, in Mumbai signals increasing financial and commercial synergies.
- **India-Middle East-Europe Economic Corridor (IMEC):** Cyprus features prominently in the proposed India-Middle East-Europe Economic Corridor (IMEC), which aims to enhance connectivity and trade between Asia and Europe. Modi's visit aims to cement Cyprus's role in this infrastructure and economic initiative, potentially offering India a stable Mediterranean partner for logistical and maritime access.
- **Supporting India-EU Negotiations:** Cyprus is slated to hold the presidency of the EU Council in 2026. With India pushing to conclude its Free Trade Agreement (FTA) negotiations with the EU by the end of 2025, Cyprus could serve as a strategic ally in advancing India's interests.
- **Energy and Natural Gas Cooperation:** Cyprus is actively exploring offshore natural gas in the geopolitically tense Eastern Mediterranean, where Turkish claims and military activity persist. India, aiming to diversify energy sources, sees Cyprus as a key partner in natural gas extraction and infrastructure.
- **Investment and Taxation Framework:** Cyprus is a significant source of foreign direct investment (FDI) into India and benefits from a Double Taxation Avoidance Agreement

(DTAA) that facilitates smoother financial flows.

About the Grand Cross of the Order of Makarios III:

- PM Modi was also awarded the Grand Cross of the Order of Makarios III, Cyprus's highest civilian honour during the visit. The award recognizes global leaders for outstanding contributions to diplomacy, peace, and human values.

Conclusion:

Prime Minister Modi's visit to Cyprus goes beyond symbolism, reflecting India's strategic outreach to smaller yet crucial states. It signals disapproval of the Turkey-Pakistan axis while positioning Cyprus as a key partner in India's EU and Mediterranean strategy.

India Surpasses Pakistan in Nuclear Warheads

Context:

India has overtaken Pakistan in the number of nuclear warheads it possesses, although China remains far ahead of both countries, according to the Stockholm International Peace Research Institute (SIPRI) Yearbook 2025.

Key Highlights of the report:

- As of January 2025, SIPRI estimates:
 - » India: 180 stored nuclear warheads
 - » Pakistan: 170 stored nuclear warheads
 - » China: 600 nuclear warheads (24 deployed)
- These estimates place India ahead of Pakistan in the nuclear arms race for the first time in years. However, China's nuclear arsenal is more than triple that of India.
- According to the report, India slightly expanded its nuclear arsenal in 2024 and made notable progress in developing new nuclear delivery systems, especially its 'canisterised' missiles.
 - » These missiles are designed for rapid deployment and can carry nuclear warheads already mated during

peacetime—a potential shift from India's long-standing policy of storing warheads separately from delivery systems.

- SIPRI notes that this change could represent a significant doctrinal evolution in India's nuclear posture, particularly as part of its growing focus on deterring not just Pakistan but China as well.
- India's nuclear weapons are now assigned to a maturing nuclear triad, comprising:
 - » Land-based missiles
 - » Aircraft capable of delivering nuclear weapons
 - » Nuclear-powered ballistic missile submarines (SSBNs) conducting sea-based deterrence patrols

China's Rapid Expansion:

- China's nuclear buildup remains the most dramatic in Asia, with 600 warheads now in its arsenal—up from 410 in 2023. SIPRI notes that 24 of these are already deployed, meaning they are either mounted on missiles or ready for immediate use by operational forces.
- China has also developed at least two types of missiles capable of carrying multiple independently targetable re-entry vehicles (MIRVs)—a capability that only the US, Russia, UK, and France had until the mid-2000s. India, Pakistan, and North Korea are all reportedly pursuing similar capabilities.

Nuclear Powers and Global Trends:

- United States and Russia remain dominant, with 5,459 and 5,177 warheads respectively (including retired stockpiles).
- All nine nuclear-armed states (US, Russia, UK, France, China, India, Pakistan, Israel, and North Korea) are modernising their arsenals.
- Dual-capable missile systems, usable for both conventional and nuclear payloads, are being deployed by Russia, China, India, Pakistan, and North Korea.

India's Geostrategic Focus Shifting Toward China:

- Although Pakistan remains India's primary

nuclear focus, SIPRI notes that India is increasingly developing longer-range weapons that can reach deep into Chinese territory. This aligns with India's broader strategic shift toward counterbalancing China's military growth, particularly in the context of border tensions and regional rivalry in the Indo-Pacific.

- SIPRI also identified India as one of the top five arms importers globally from 2020 to 2024, alongside Ukraine, Qatar, Saudi Arabia, and Pakistan. These five nations together accounted for 35% of global arms imports, underscoring the centrality of arms acquisition to strategic planning in South Asia.

Conclusion:

As nuclear doctrines shift and weapons capabilities grow more sophisticated, SIPRI's findings stress the need for transparency, arms control dialogue, and confidence-building measures in Asia to avert miscalculations and crises.

India Canada relationship

Context:

Prime Minister Narendra Modi and Canadian Prime Minister Mark Carney met on the sidelines of the G7 summit in Kananaskis, Canada, where they agreed to restore High Commissioners to each other's capitals and resume trade talks.

Key Outcomes of the Meeting:

- **Restoration of High Commissioners:** India and Canada will appoint new High Commissioners to each other's capitals, with the process expected to be completed by July.
- **Trade Talks:** The two countries will resume negotiations on the Early Progress Trade Agreement (EPTA), aiming to pave the way for a Comprehensive Economic Partnership Agreement (CEPA).
- **Collaboration in Emerging Areas:** India and Canada plan to cooperate in areas like clean energy, artificial intelligence, digital

transformation, LNG, food security, critical minerals, higher education, mobility, and supply chain resilience.

Background to the Diplomatic Row:

- The diplomatic rift between India and Canada began in September 2023, when former Canadian Prime Minister Justin Trudeau accused the Indian government of orchestrating the killing of Khalistani activist Hardeep Singh Nijjar in Canada. India denied the allegations, and the two countries expelled several diplomats, suspended visa services, and halted trade talks.

Key Aspects of India-Canada Relations:

- **Strategic and Security Cooperation:** Both countries support a rules-based order in the Indo-Pacific, crucial for regional security, peace, and trade. Canada's Indo-Pacific strategy recognizes India as a "critical partner" and China as an "increasingly disruptive global power".
- **Economic and Trade Relations:** Bilateral trade in goods reached \$9.36 billion in 2023, with India exporting \$3.80 billion and importing \$5.56 billion. Trade in services totaled \$9.99 billion. Canada is the 10th largest trading partner for India.
- **Investment Opportunities:** Canadian pension funds have invested over \$75 billion in India, viewing it as a favorable destination for investments.
- **Diaspora Connection:** Canada hosts one of the largest Indian diasporas, with approximately 1.8 million individuals of Indian origin, accounting for over 3% of Canada's population.
- **Civil Nuclear Cooperation:** The Nuclear Cooperation Agreement (NCA) signed in 2010 facilitates cooperation in nuclear energy.
- **Defense Cooperation:** The Memorandum of Understanding (MoU) between DRDO and Canadian Commercial Corporation (CCC) promotes development of military and defense-related technology.

Conclusion:

The meeting between Modi and Carney marks a significant step towards resetting India-Canada ties. With the appointment of new High Commissioners and the resumption of trade talks, both countries aim to strengthen their relationship and cooperate in emerging areas. However, the outcome of the Canadian trial related to Nijjar's killing and the evidence presented will be crucial in determining the future trajectory of India-Canada relations.

Global Hunger Hotspots: UN Warns of Escalating Food Insecurity in Conflict Zones

Context:

A joint report released by the Food and Agriculture Organization (FAO) and the World Food Programme (WFP) on June 16, 2025, has identified five countries as global hunger hotspots of highest concern: Sudan, South Sudan, Mali, Haiti, and Palestine. The Hunger Hotspots: FAO-WFP Early Warning on Acute Food Insecurity report highlights conflict, economic shocks, and climate-related hazards as the primary causes behind rising hunger and starvation.

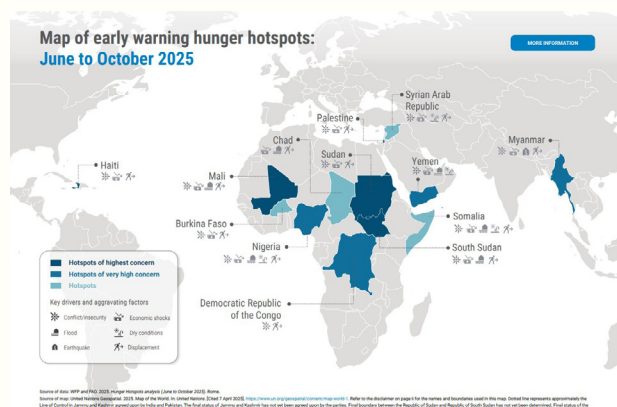
Countries at Highest Risk:

- **Sudan:** Still reeling from a 2024 famine, Sudan remains in crisis due to ongoing conflict and mass displacement. An estimated 24.6 million people face severe food insecurity (IPC Phase 3 or above), with 637,000 at catastrophic levels (IPC Phase 5).
- **South Sudan:** Between April and July 2025, nearly 7.7 million people — about 57% of the population — are projected to suffer extreme food shortages. Around 63,000 may experience famine-like conditions, triggered by floods, economic hardship, and political instability.
- **Mali:** Roughly 2,600 people in Mali risk starvation between June and August 2025. The crisis is driven by armed conflict and surging food prices.

- **Palestine (Gaza):** All 2.1 million residents of Gaza are experiencing severe food insecurity, with 500,000 at risk of famine by September 2025. Ongoing military actions and a blockade have devastated access to food.
- **Haiti:** Gang violence has displaced thousands in Haiti. As of now, 8,400 people are already facing catastrophic levels of hunger.

Broader Global Concerns:

- The report also highlights deteriorating conditions in 13 countries, with armed conflict being the primary driver in 12 of them. Countries of significant concern include Yemen, the Democratic Republic of the Congo (DRC), Myanmar, and Nigeria. The DRC has re-entered the list due to escalating violence, while Nigeria faces the added challenge of adverse weather in 2025.
- Other critical hotspots include Burkina Faso, Chad, Somalia, and Syria. Conversely, some nations — including Ethiopia, Kenya, Mozambique, Zimbabwe, and Lebanon — have shown temporary improvements, largely due to better harvests and reduced military conflict. However, these gains remain fragile.



Key Drivers of Food Insecurity:

- **Conflict and Political Instability:** Armed violence disrupts farming, destroys infrastructure, and displaces populations, severely reducing food availability.
- **Economic Shocks:** Inflation, declining

purchasing power, and weak social safety nets are making food inaccessible for millions.

- **Climate Shocks:** Droughts, floods, and erratic weather patterns are damaging crops and livelihoods. The ongoing La Niña event is expected to worsen drought in parts of East Africa.
- **Disruption of Access:** Humanitarian aid is often unable to reach conflict zones due to access restrictions and infrastructure damage.

Recommendations for Action:

- **Enhance Humanitarian Access:** Negotiate access in conflict zones and improve logistics infrastructure to support aid distribution.
- **Strengthen Early Warning Systems:** Use real-time data on weather, market trends, and conflict to act before crises escalate.
- **Promote Climate-Resilient Agriculture:** Support drought-resistant crops, improved irrigation, and soil conservation.
- **Support Economic Access to Food:** Expand social protection, stabilize prices, and improve market access for vulnerable communities.
- **Foster Peacebuilding Efforts:** Address root causes of conflict through mediation, governance support, and local peacebuilding.
- **Ensure Nutrition-Focused Aid:** Include maternal and child nutrition, food fortification, and dietary education in response plans.
- **Build Local Capacities:** Empower community organisations and local institutions for sustainable and inclusive food security responses.

The report calls for immediate global attention and coordinated action to prevent famine and build long-term food resilience in the most vulnerable regions.

Financial assistance of \$ 1.5 billion to Bangladesh

Context:

Recently, the Asian Development Bank (ADB) and the World Bank have announced to provide a total loan assistance of more than \$ 1.5 billion to Bangladesh.

Key points:

- The Asian Development Bank (ADB) has approved a total assistance of \$ 900 million to Bangladesh, out of which \$ 500 million is being given as policy-based assistance to strengthen the banking sector.
- Its objective is to improve governance, asset quality and overall stability in the banking system. This step will help bring transparency and accountability in Bangladesh's financial sector.
- Additionally, ADB has also provided loan assistance of \$400 million for the second phase of the Climate-Resilient and Inclusive Development Program (CRIDP).
- The project aims to deal with the effects of climate change, reduce greenhouse gas emissions and promote inclusive economic growth.
- The World Bank has also approved a total assistance of \$640 million for two important projects. One of these projects is related to improving gas supply, while the other aims to improve air quality.
- Both these projects are linked to the objectives of Sustainable Development Goals (SDGs).

Why does Bangladesh need this financial assistance?

- **Pressure on foreign exchange reserves:** Bangladesh's foreign exchange reserves have been continuously declining for the last few years. The main reason for this is—
 - » Increase in import bill, especially increase in import of fuel and food grains.
 - » No expected increase in exports and remittances (migrant income).
 - » Devaluation of local currency Taka against dollar.

In this situation, the country needed additional foreign currency for imports and debt repayment, which could be partially met

with the help of ADB and World Bank.

▪ **Structural problems in the banking sector:** Bangladesh's banking sector has several institutional weaknesses:

- » Increasing NPAs (Non-Performing Assets) or bad loans.
- » Ineffective governance in government banks and lack of transparency in loan disbursement.
- » Lack of financial discipline.

To address these challenges, ADB has provided a policy-based loan of \$500 million which is planned to improve the banking sector.

▪ **Deep impact of climate change:**

- » Bangladesh is a climate-sensitive country, which is badly affected by problems like sea-level rise, floods, cyclones and coastal erosion.
- » Agriculture and rural life are most affected.
- » There is a risk of displacement of millions of people.
- » In this context, ADB has provided assistance of \$400 million for climate adaptation, sustainable development and inclusive infrastructure building.

▪ **Energy and environmental challenges**

- » Instability in gas supply and energy shortages in the industrial sector were hampering growth.
- » Air pollution has increased to dangerous levels especially in cities like Dhaka.
- » To deal with these problems, the World Bank approved \$640 million in aid for gas supply and air quality improvement projects.

About Asian Development Bank and World Bank:

- The Asian Development Bank (ADB) was established in 1966, headquartered in Manila, Philippines. Its objective is to promote poverty alleviation, infrastructure development and sustainable development in the Asia-Pacific region.
- The World Bank was established in 1944 and is headquartered in Washington D.C. This organization provides loans and grants globally in areas such as education, health,

agriculture, energy and poverty alleviation.

Conclusion:

This assistance will also ease the pressure on Bangladesh's foreign exchange reserves to some extent, which has been under strain in recent years due to external debt and import dependence.

Global Peace Index 2025

Context:

Recently, the Institute for Economics and Peace (IEP) released the Global Peace Index (GPI) 2025. According to it, the global level of peace has deteriorated by 0.36 per cent. This marks the 13th consecutive deterioration in the global state of peace.

Scope and Methodology of the Report:

- The GPI 2025 covers 163 countries, representing 99.7% of the world's population. The report evaluates peace using 23 qualitative and quantitative indicators across three key domains:
 - » Level of societal safety and security
 - » Intensity of domestic and international conflict
 - » Degree of militarisation

Key Findings:

- According to the report, there are currently 59 active state-based conflicts in the world, the highest since the Second World War.
- Over 1,000 conflict-related deaths were recorded in 17 countries in the past year.
- Since 2008, 17 out of 23 indicators have shown deterioration.
- In 2025, 94 countries recorded a fall in peacefulness, while 66 improved and 1 remained unchanged.
- Only 9% of conflicts end in decisive military victory, and just 4% are resolved through negotiation. This points to the growing trend of 'forever wars'.

India's Position:

- India ranked 115th in the GPI 2025 with a score of 2.229, showing an improvement of

0.58% in peacefulness. This marks a steady upward trend in India's rankings:

- » 2024 – 116th
- » 2023 – 126th
- » 2020 – 139th
- » 2019 – 141st

- This improvement reflects gradual progress in internal security, border management, and political stability in the country.

Regional Analysis – South Asia:

- The report highlights that South Asia recorded the largest average deterioration in peacefulness among all regions. In particular, Bangladesh and Pakistan showed significant declines. Afghanistan remains the most unstable and least peaceful country in both the region and the world.

International Perspective:

- The report states that the world is heading towards a new phase of geopolitical polarisation. Increasing competition among major powers, the rise of mid-level powers, and an arms race in advanced military technologies (such as AI drones and space weapons) have further complicated global conflicts.
- Additionally, the report notes that since 2022, every nuclear-armed country has expanded its arsenal. A recent report by Stockholm International Peace Research Institute (SIPRI) also confirms this renewed nuclear arms race.

Most Peaceful Countries:

- According to GPI 2025, Iceland remains the most peaceful country in the world since 2008. It is followed by Ireland, New Zealand, and Austria.

Conclusion:

GPI 2025 clearly highlights the continuing decline in global peace and the failure of traditional conflict resolution strategies. According to the report, investment in 'positive peace' is the only sustainable solution, which can drive economic growth, social welfare, and global stability. India's improvement

is encouraging, but the regional and global challenges remain significant.

India's Remarkable Progress in SDGs

Context:

Achieving the Sustainable Development Goals (SDGs) remains a major global challenge, especially for developing countries. In this direction, India has recorded a significant milestone. According to the recently released Sustainable Development Report 2025 by the United Nations Sustainable Development Solutions Network (UN SDSN), India has secured the 99th rank in the SDG Index. This is India's best performance so far, reflecting its commitment and consistent efforts towards sustainable development.

SDG Index and India's Position:

- The SDG Index measures countries' progress on 17 Sustainable Development Goals on a scale of 0 to 100. India scored 67 in 2025, showing a steady improvement from previous years: 121st in 2022, 112th in 2023, and 109th in 2024.
- In this year's report, Finland has secured the top position, followed by Sweden and Denmark. China is ranked 49th, while the United States, due to distancing itself from the global SDG agenda, has been placed at the last position (193rd). Among India's neighboring countries, Bhutan is ranked 74th, Nepal 85th, Bangladesh 114th, and Pakistan 140th.

Regional and Global Trends:

- The report highlights that East and South Asia have made the fastest progress on the SDGs since 2015. Countries like Nepal, Cambodia, the Philippines, Bangladesh, and Mongolia have shown significant improvement. This progress is attributed to rapid growth in economic and social indicators, improved technological access, and better basic infrastructure and services.



Challenges and Policy Constraints:

- Despite progress in some regions, global advancement towards achieving the SDGs remains very slow. According to the report, only 17% of the SDG targets are likely to be achieved by 2030.
- Key barriers identified include:
 - » Armed conflicts and wars
 - » Structural inequalities
 - » Limited financial resources for developing countries
 - » Environmental degradation
- Specific areas of concern include:
 - » Obesity (SDG 2)
 - » Press freedom (SDG 16)
 - » Biodiversity conservation (SDG 15)
 - » Corruption and institutional reliability (SDG 16)

Need for Financial System Reform:

- The report emphasizes that the current global financial system is structurally biased, favoring wealthy nations while failing to ensure adequate resource flows to developing and emerging economies. In this context, the upcoming International Conference on Financing for Development (FfD4) to be held in Seville, Spain, holds significant relevance.

Conclusion:

India's rising position in the SDG Index not only reflects its policy-driven developmental approach but also highlights its emergence as a responsible and active participant in the global sustainable development discourse. However, further substantive improvements

and investments are needed in critical areas such as health, environmental governance, institutional transparency, and social inclusion to achieve the SDGs comprehensively by 2030.

India's Firm Stand Against Terrorism at the SCO Meeting

Context:

On June 26, 2025, at the Shanghai Cooperation Organisation (SCO) Defence Ministers' meeting held in Qingdao, China, India took a clear and firm stance on terrorism by refusing to sign the joint communiqué. The decision was driven by the fact that the document failed to mention the April 22 terrorist attack in Pahalgam, Jammu & Kashmir, while it did highlight the hijacking of the Jaffar Express in Pakistan in March.

Key Highlights of the Meeting:

- India strongly criticized the double standards on terrorism and reiterated its "zero tolerance" policy, urging all 11 member states of the SCO to adopt a united front against terrorism.
- India expressed deep objection to the omission of the Pahalgam terror attack in the SCO joint statement. In contrast, the inclusion of the train hijacking incident in Pakistan was viewed by India as biased and unacceptable.
- India warned that if terrorist organizations were to gain access to Weapons of Mass Destruction (WMDs), it would pose a grave threat to global peace and stability. It stressed the need for decisive global action to counter such threats.
- By refusing to endorse the joint declaration, India made it clear that it will not compromise on the issue of terrorism, even in the name of consensus.

Why is India's Stand Significant?

- The SCO has traditionally been influenced by Russia and China. However, with Russia preoccupied with the Ukraine war, China's role within the organization has increased significantly. This year, China is chairing

the SCO, and Pakistan remains one of its close allies. Beijing has, in the past, shielded Pakistan from international criticism on terrorism-related issues.

- India's refusal to sign the draft statement is not merely a diplomatic disagreement—it reflects India's uncompromising stance against terrorism. It underscores New Delhi's clear message that it will not overlook selective narratives or biased omissions when it comes to matters of national and global security.



About the SCO:

- The Shanghai Cooperation Organisation (SCO) is a major regional group comprising India, China, Russia, Pakistan, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Iran, and Belarus.
- Established in 2001 in Shanghai, the SCO focuses on promoting security cooperation, counter-terrorism, and regional stability.
- It also houses a "Regional Anti-Terrorism Structure (RATS)," which facilitates intelligence sharing and coordination on terrorism-related issues.

Conclusion:

India has once again demonstrated that it will not tolerate terrorism in any form. Be it cross-border terrorism or double standards adopted

by certain nations, India is no longer willing to remain silent or compromise. The Defence Minister's forthright approach at the SCO signals not only the prioritization of national security but also highlights India's principled and leadership-oriented stance at global forums.

India-Vietnam Strengthen Comprehensive Strategic Partnership

Context:

India and Vietnam held the 13th Political Consultation and the 10th Strategic Dialogue in New Delhi. The talks were co-chaired by Secretary (East) in the Ministry of External Affairs (MEA), P. Kumaran, and Deputy Foreign Minister of Vietnam Nguyen Manh Cuong. These regular meetings are important to review and advance cooperation.

Key Highlights of the Meeting:

- Review of Comprehensive Strategic Partnership**
 - Both sides assessed progress under the Joint Vision for Peace, Prosperity and People adopted in December 2020.
 - They discussed implementation of the Plan of Action for 2024-2028 signed in August 2024 during the Vietnamese Prime Minister's visit to India.
- Defence and Security Cooperation**
 - India and Vietnam agreed to expand defence cooperation, especially in maritime security.
 - They discussed joint naval exercises, information sharing, and capacity building.
 - Both sides stressed the importance of peace and stability in the Indo-Pacific region.
- Economic and Trade Engagement**
 - Strengthening trade and investment ties was a major focus.
 - Cooperation will deepen across sectors such as agriculture, pharmaceuticals, energy, information technology, digital

payments, and fintech.

- » The two countries agreed to promote connectivity and explore new areas of collaboration in science, technology, and space applications.



■ **Cultural and Development Cooperation**

- » Both countries expressed satisfaction with ongoing development projects, including heritage conservation and restoration.
- » Quick Impact Projects, Indian Technical and Economic Cooperation (ITEC) and e-ITEC training programmes, and scholarships are supporting Vietnam's development needs.

■ **Counterterrorism Cooperation**

- » India and Vietnam unequivocally condemned terrorism in all forms and manifestations, including cross-border terrorism.
- » The Indian side appreciated Vietnam's consistent support to India's fight against terrorism.

■ **Regional and International Issues**

- » Both sides exchanged views on regional and global issues of mutual interest.
- » Vietnam's role as a key partner in India's Act East Policy, the MAHASAGAR Vision, and the Indo-Pacific vision was reaffirmed.

India-Vietnam Relations:

- Vietnam holds the 84th position in FDI

equity inflows into India, with cumulative FDI of US\$12.69 million from April 2000 to September 2024. Vietnam occupies a central place in India's Act East Policy and Indo-Pacific strategy.

- In 2023–24, bilateral trade reached US\$14.81 billion. Indian exports stood at US\$5.47 billion, and imports from Vietnam at US\$9.34 billion. Vietnam is diversifying trade and tapping India's growing market.
- Major Vietnamese exports to India include mobile phones and components, computers, electronics, chemicals, plastics, rubber, coffee, pepper, and cashew.
- Key Indian exports to Vietnam are iron and steel products, textiles, fishery products, corn, pharmaceuticals, and auto spare parts.
- India is Vietnam's 8th largest trading partner, while Vietnam is India's 15th largest trading partner and 4th in Southeast Asia.
- Under the Mekong Ganga Cooperation framework, India funds Quick Impact Projects (QIPs) valued at US\$50,000 each. India has 317 valid projects worth over US\$1 billion in Vietnam, ranking 23rd out of 129 investing countries.

Conclusion:

The 13th Political Consultation and 10th Strategic Dialogue have further strengthened the India-Vietnam Comprehensive Strategic Partnership. Both countries have set clear priorities for deeper cooperation in security, trade, culture, and regional affairs. The talks underscored the shared commitment to peace, stability, and prosperity in the Indo-Pacific region and beyond.



Environment & Ecology



"The deepening crisis of climate change in Asia"

The World Meteorological Organization (WMO) has released its State of the Climate in Asia 2024 report, painting a stark picture of intensifying climate change impacts across the continent. Asia is now warming at nearly twice the global average, with the 1991–2024 trend almost double that of 1961–1990. This rapid warming has triggered a rise in extreme weather events, putting immense pressure on lives, livelihoods, ecosystems, and economies.

Key Highlights of Report:

- ❖ **Rapid Warming and Record Temperatures:** In 2024, Asia recorded an average temperature 1.04°C higher than the 1991–2020 baseline, making it either the warmest or the second warmest year on record, depending on the dataset. This is consistent with a longer-term warming trend where land areas—especially in large continental regions like Asia—are heating up faster than the oceans.
- ❖ Several regions experienced extreme and prolonged heatwaves. From April to November, East Asia saw recurring temperature spikes. Monthly average temperature records were broken multiple times:
 - » Japan in April, July, and October,
 - » Republic of Korea in April, June, August, and September,
 - » China in April, May, August, September, and November.
- ❖ Southeast Asia, Central Asia, and parts of the Middle East were also hit by intense heatwaves. Myanmar set a new national temperature record of 48.2°C in 2024.
- ❖ India was significantly impacted. Several regions experienced deadly heatwaves that led to over 450 reported deaths. In addition, multiple extreme weather events were recorded:
 - » Over 350 deaths due to landslides caused by intense rainfall in Wayanad, Kerala.
 - » Around 1300 fatalities due to lightning strikes across various states.
- ❖ **Glacier Melting Accelerates in the Hindu Kush Himalayas:** The report highlights an alarming trend of glacier retreat across high-mountain Asia, particularly in the Hindu Kush Himalayan region, which is the origin of major Asian rivers like the Indus, Ganges, and Brahmaputra. These rivers support the water needs of nearly a quarter of the world's population.
- ❖ Between 2023 and 2024, 23 out of 24 monitored glaciers in this region showed continued mass loss. The main causes were:
 - » Reduced winter snowfall.
 - » Intensified summer heat.
- ❖ Significant glacier loss was reported in:
 - » Central Himalayas – covering parts of Nepal, Sikkim, and the Tibet Autonomous Region.
 - » Tian Shan range – stretching across China, Kyrgyzstan, and Kazakhstan.
- ❖ **Marine Heatwaves and Rising Sea Surface Temperatures:** Asia's oceans are warming at a dangerous pace. The sea surface

temperature (SST) has been rising at a rate of 0.24°C per decade, almost double the global average of 0.13°C per decade.

- ❖ In 2024, the continent recorded its most extensive marine heatwave since satellite records began in 1993:
 - » Affected nearly 15 million square kilometers of ocean – about one-tenth of the Earth's total ocean surface.
 - » Especially intense warming was recorded in the northern Indian Ocean, Yellow Sea, East China Sea, and waters around Japan.

❖ **Rising Sea Levels Threaten Coastal Populations:**

The Indian and Pacific Ocean sides of Asia have seen sea levels rise faster than the global average. This poses a direct threat to low-lying coastal cities and island nations, increasing the risk of:

- » Coastal flooding,
- » Saltwater intrusion into freshwater systems,
- » Loss of habitable land and displacement of communities.

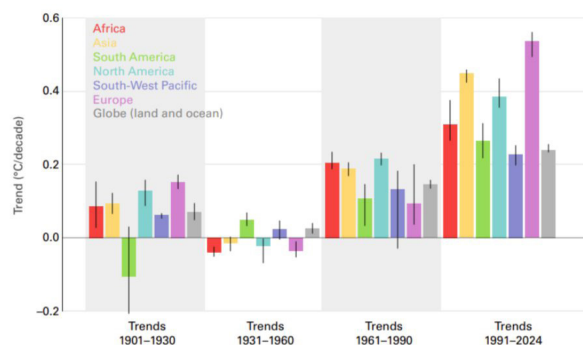
❖ **Extreme Weather:** Asia faced a range of destructive weather events in 2024:

- » Heavy rainfall events caused widespread flooding and landslides in several countries, resulting in significant casualties and displacement.
- » Tropical cyclones left a trail of destruction across coastal regions.
- » Severe droughts impacted agriculture and water supplies, leading to heavy economic losses and worsening food insecurity.
- » India, in particular, witnessed the compounded impacts of rain-triggered disasters, deadly heatwaves, and lightning-related deaths, underscoring the need for robust disaster preparedness and climate adaptation strategies.

❖ **The Urgency of Early Warning Systems:**

The report underscores the critical importance of early warning systems and anticipatory action in reducing climate-related losses. A case study from Nepal demonstrates that communities with access

to strengthened early warning systems were better able to respond to weather extremes, safeguarding lives and livelihoods.



Socioeconomic Impacts of Weather and Climate Hazards:

- ❖ Climate-related disasters such as floods, droughts, storms, and heatwaves are causing widespread and interconnected socioeconomic impacts:
 - » **Food Insecurity:** Crop failures and livestock losses from extreme weather are worsening food insecurity globally. This is now one of the worst food crises in modern history.
 - » **Population Displacement:** Climate events force large-scale displacement, straining local resources, increasing health risks in shelters, and triggering social instability.
 - » **Economic Losses:** Infrastructure, agriculture, and livelihoods are severely affected, slowing economic recovery and deepening poverty in vulnerable regions.
 - » **Widening Inequality:** Climate shocks disproportionately impact poorer and marginalized communities, worsening inequalities (SDGs 1, 2, 3, 4, 5, 6, 7, and 10), especially for women and girls.
 - » **Global Spillover Effects:** Disasters affect global markets through rising food prices, disrupted supply chains, and increased humanitarian costs, threatening global economic stability.

About World Meteorological Organization:

- ❖ The World Meteorological Organization

(WMO) is a UN specialised agency responsible for weather, climate, water, and related geophysical sciences. It was established on 23rd March 1950 through the WMO Convention and evolved from the International Meteorological Organization (IMO) formed in 1873.

- » **Headquarters:** Geneva, Switzerland
- » **Members:** 192 Member States and Territories (including India)
- » **Functions:** Coordinates global meteorological, hydrological, and climate-related activities.

Policy Relevance and Way Forward:

- ❖ The State of the Climate in Asia report provides vital data to inform national and regional climate policies. It highlights that urgent action is needed in the following areas:
 - » Strengthening climate resilience through early warning infrastructure,
 - » Protecting water sources in glacier-fed river basins,
 - » Safeguarding marine ecosystems from warming seas,
 - » Mitigating urban heat risks, especially

for vulnerable populations,

- » Accelerating adaptation strategies in agriculture, infrastructure, and disaster management.
- ❖ As Asia accounts for over half the world's population, the impacts of climate change in this region will have global repercussions. The findings from this report should serve as a wake-up call for governments, communities, and stakeholders to act swiftly and decisively.

Conclusion:

The year 2024 marked a turning point in Asia's climate trajectory. With record-breaking heat, widespread glacier loss, marine heatwaves, and extreme weather disasters, the region is under mounting pressure. If current trends continue, the consequences for food security, water access, public health, and biodiversity will be profound. The WMO report sends a clear message: climate change is not a distant threat—it is a present and escalating crisis. Asia, home to some of the world's most populous and climate-vulnerable countries, must now lead the way in climate adaptation, mitigation, and resilience-building.

Oceans at Risk: Climate Crisis, Marine Health, and India's Maritime Responsibility

The oceans are vital to life on Earth. They support economies, stabilise the climate, and sustain millions of livelihoods, especially for coastal nations like India. As environmental challenges mount due to climate change, pollution, and overexploitation, the need for a sustainable approach to ocean resources has become urgent. At the Third United Nations Ocean Conference (UNOC3) held in Nice, India strongly advocated for urgent, coordinated global action on ocean sustainability. The Union Minister of Earth Sciences (Independent Charge), Dr. Jitendra Singh laid out a comprehensive vision of India's marine initiatives and international commitments. The

conference, co-hosted by France and Costa Rica under the theme "Accelerating Action and Mobilizing All Actors to Conserve and Sustainably Use the Ocean," provided a crucial platform for reinforcing global cooperation on Sustainable Development Goal 14 (SDG 14): Life Below Water.

Why the Oceans Matter More Than Ever:

- ❖ Oceans cover more than 70% of Earth's surface and hold 97% of its water. They sustain about 94% of all known life forms, making them the Earth's largest and most complex ecosystem. But their importance doesn't end there.
- ❖ **Oceans:**

- » Produce over 50% of the oxygen we breathe through microscopic marine plants like phytoplankton.
- » Act as a carbon sink, absorbing around 23% of the CO₂ released by human activities annually.
- » Drive the global water cycle and regulate climate through ocean currents.
- » Contain continental shelves rich in oil and gas reserves, such as the Persian Gulf, Gulf of Mexico, and Bombay High.
- » Support livelihoods through fishing, tourism, maritime transport, and energy.
- ❖ Despite their importance, oceans today are under unprecedented stress. Rising greenhouse gas emissions have made them:
 - » **Warmer:** Over 90% of the excess heat trapped by global warming is absorbed by oceans.
 - » **More acidic:** Oceans are now 30% more acidic than they were before the industrial revolution.
 - » **Oxygen-deprived:** Warmer waters hold less oxygen, threatening marine biodiversity.
- ❖ These changes have serious consequences. For instance, warming oceans disrupt marine food chains, particularly by reducing phytoplankton, the base of the food web. A 2021 IPCC report revealed that the Indian Ocean has been warming faster than any other ocean since the 1950s, causing a 20% drop in phytoplankton in the western Indian Ocean alone.

Coral Reefs: The Dying Rainforests of the Sea

- ❖ Among the most visible and devastating impacts of ocean warming is coral bleaching. Corals, often called the "rainforests of the sea," are vital marine ecosystems. When ocean temperatures rise, corals expel the algae (zooxanthellae) that live inside their tissues—causing them to turn white and become more vulnerable to disease and death.
- ❖ The International Coral Reef Initiative (ICRI)

has confirmed that the period from January 2023 to March 2025 witnessed the fourth global mass bleaching event, affecting 84% of the world's coral reefs across 82 countries. This widespread stress threatens marine biodiversity and millions of people who depend on coral reefs for food, tourism, and coastal protection.

Ice Melt, Rising Seas, and Coastal Vulnerability:

- ❖ In polar regions, warming oceans are accelerating the melting of glaciers and breaking off of ice masses, leading to rising sea levels. For India, the implications are particularly severe:
 - » Cities like Mumbai, Chennai, and Kolkata face growing risks of flooding, seawater intrusion, and infrastructure damage.
 - » Underground drinking water sources are at risk of salinisation.
 - » Coastal livelihoods and infrastructure critical to trade and national security are exposed to rising climate risks.



The Indian Ocean Region:

- ❖ India's maritime geography is both a strength and a challenge. With 11,098 km of coastline and a vast Exclusive Economic Zone (EEZ) extending 200 nautical miles into the sea, India is strategically positioned in the Indian Ocean.

- » Roughly 30% of India's population lives in coastal areas.
- » The blue economy contributes about 4% of India's GDP.
- » Yet, large parts of the EEZ remain unexplored and underutilised.
- ❖ Climate change, however, is already undermining marine wealth. For example, oil sardine catch in Kerala dropped by 75% in 2021, according to the Central Marine Fisheries Research Institute (CMFRI)—a loss driven by ocean warming, altered currents, and reduced plankton.
- ❖ On top of ecological risks, strategic challenges are growing. China's "String of Pearls" strategy—building maritime infrastructure in the Indian Ocean—is seen as a geopolitical counterweight to India's maritime influence.

India's Expanding Role in Global Ocean Stewardship:

- ❖ **Deep-Sea Exploration:** A major milestone is India's Deep Ocean Mission, especially the 'Samudrayaan' project—its first manned submersible, set to be deployed by 2026. Designed to explore depths of up to 6,000 meters, this marks a significant leap in India's ocean research capabilities and global scientific participation.
- ❖ **Blue Economy:** India's Blue Economy push, led by the Sagarmala Programme and Pradhan Mantri Matsya Sampada Yojana (PMMSY), is transforming marine infrastructure and livelihoods. Over 600 port-led projects worth USD 80 billion have been implemented.
 - » Additionally, USD 2.5 billion has been invested in modernizing the fisheries sector, resulting in a 10% increase in fish production and the creation of over 1,000 Fish Farmer Producer Organizations since 2022.
- ❖ **Marine Biodiversity:** India has expanded Marine Protected Areas (MPAs) to 6.6% of its Exclusive Economic Zone, supporting global biodiversity targets. More than 10,000 hectares of mangroves have been restored

as part of nature-based climate adaptation efforts, which also include shoreline management strategies for resilient coastal communities.

- ❖ **Plastic and Waste Management:** India continues to address marine litter through the 'Swachh Sagar, Surakshit Sagar' campaign. Since 2022, it has cleaned over 1,000 km of coastline and removed more than 50,000 tonnes of plastic waste. A draft National Marine Litter Policy has been developed, and India remains a strong advocate for a Global Plastics Treaty and faster ratification of the BBNJ (High Seas) Agreement.
- ❖ **Launch of the SAHAV Portal:** India launched SAHAV, a new digital ocean data portal, to provide open access to marine data. This platform supports better decision-making by offering transparent, science-based insights for researchers, policymakers, and the public.
- ❖ **International Cooperation:** India's role in global marine governance has expanded through its co-leadership of the 'Blue Talks' with France and Costa Rica and its engagement in high-level sessions like the India-Norway event on Marine Spatial Planning. These efforts reflect India's shift from national efforts to proactive international leadership in sustainable ocean management.

Conclusion:

Oceans sustain life on Earth in countless visible and invisible ways. Yet today, they are being pushed to the brink by human activity and inaction. As climate impacts intensify, it is not just marine biodiversity that is at risk—but also the security, economy, and well-being of billions of people. India, with its vast coastline and strategic location, has much to gain—and even more to lose—from the health of its oceans. The time to act is now, not only to protect marine ecosystems but also to build a resilient maritime future that can support both people and planet.

Short Issues

UN Ocean Conference 2025

Context:

The third United Nations Oceans Conference (UNOC) concluded recently in Nice, France, with a major breakthrough for global ocean governance. The conference, which focused on protecting marine biodiversity and promoting sustainable use of the world's oceans, saw significant movement towards ratifying the Biodiversity Beyond National Jurisdiction (BBNJ) Agreement, also known as the High Seas Treaty.

What is the BBNJ Treaty?

- The High Seas Treaty aims to regulate human activities in international waters — parts of the ocean that lie beyond the jurisdiction of any single country. These areas, often termed “global commons”, are vulnerable to overfishing, unregulated mining, and exploitation of marine genetic resources. The BBNJ agreement supports the global target of protecting 30% of ocean and coastal areas by 2030, as per the Convention on Biological Diversity (CBD).
- The treaty covers four key areas:
 - » Creation of marine protected areas (MPAs) beyond national jurisdiction
 - » Environmental impact assessments (EIAs) for activities in the high seas
 - » Access to and sharing of benefits from marine genetic resources
 - » Capacity building and transfer of marine technology to developing nations
- As of June 2025, 56 countries have ratified the treaty. 60 ratifications are required to trigger a 120-day countdown for it to become legally binding. 160 countries have signed the treaty, but ratification requires domestic legal alignment.
- The U.S. and India have not ratified it, though India has stated it is “in process.” The UN expects to reach 70 ratifications by September and host the first BBNJ Conference of Parties (COP) in 2026.

Hurdles in Implementation:

- The major challenge is determining how to fairly share benefits from marine genetic resources, often found in deep-sea environments. These have potential in medicine, biotech, and agriculture, but lie outside national control, raising issues of profit-sharing.
- Environmental groups also point out the treaty lacks a clear ban on extraction, warning that without such restrictions, oceans remain vulnerable to exploitation.

Major Announcements at UNOC 2025:

- **European Commission:** €1 billion for ocean conservation and sustainable fisheries
- **French Polynesia:** Creation of world's largest marine protected area (entire EEZ, ~5 million sq km)
- **New Zealand:** \$52 million for ocean governance in the Pacific
- **Germany:** €100 million to clear legacy munitions in Baltic and North Seas
- **37-nation High Ambition Coalition for a Quiet Ocean:** Led by Panama and Canada to combat ocean noise pollution
- **Italy:** €6.5 million to boost marine surveillance
- **Canada:** \$9 million for climate resilience in Small Island Developing States
- **Spain:** Five new marine protected areas to cover 25% of its marine territory
- **UN Agencies:** Launch of One Ocean Finance, a global initiative to mobilise investment in blue economy sectors

Conclusion:

As the BBNJ Treaty nears legal enforcement, the focus now shifts to ensuring meaningful implementation and genuine cooperation among nations to protect the high seas — one of the planet's last ungoverned frontiers.

International Big Cat Alliance

Context:

The first Assembly of the IBCA was recently convened in New Delhi, where Environment

Minister Bhupender Yadav was unanimously endorsed as the first President of the IBCA by representatives from nine founding countries. The Assembly ratified the Headquarters Agreement, officially establishing IBCA's base of operations in India, along with affiliated regional offices in future member states.



About IBCA:

- The IBCA was launched by Prime Minister Narendra Modi on April 9, 2023, during an event commemorating the 50th anniversary of Project Tiger.
- The initiative's main objective is the conservation of seven major big cat species: the Tiger, Lion, Leopard, Snow Leopard, Cheetah, Jaguar, and Puma.
- In a cabinet meeting on February 29, 2024, the government officially approved the establishment of the IBCA, with its headquarters based in India.
- The establishment of the IBCA was spearheaded by the National Tiger Conservation Authority (NTCA), a nodal organization under the Ministry of Environment, Forest & Climate Change (MoEFCC).
- The membership of the IBCA is open to all UN member countries, especially those that host these species, and to non-range countries that are interested in supporting big cat conservation efforts. Out of 95 range countries globally, 25 countries had formally joined IBCA as of September 2024.

Why was the IBCA created?

- The IBCA was created to:
 - » Address the rising threats to big cats

globally.

- » Consolidate conservation efforts and share best practices.
- » Enable collaborative research, capacity building, and funding support.
- » Safeguard ecosystems through apex predator protection.

Functions of the IBCA:

- » Collaboration among countries for conservation strategies.
- » Technology sharing, research, and data exchange.
- » Financial support for member nations.
- » Anti-poaching coordination and training.
- » Promoting eco-tourism and sustainable development.
- » Monitoring big cat populations across borders.

Big Cats under Protection & Their Conservation Status:

Big Cat Species	Scientific Name	IUCN Status	CITES Status	Wildlife
Tiger	Panthera tigris	Endangered	Appendix I	Schedule 1
Asiatic Lion	Panthera Leo persica	Endangered	Appendix I	Schedule 1
Leopard	Panthera pardus	Vulnerable	Appendix I	Schedule 1
Snow Leopard	Panthera uncia	Vulnerable	Appendix I	Schedule 1
Cheetah		Vulnerable	Appendix I	Schedule 1
Jaguar	Panthera onca	Near	Appendix I	Not found in India
Puma	Puma concolor	Least Concern	Appendix I	Not found in India

Conclusion:

The IBCA has the potential to make a significant impact on big cat conservation globally. With its comprehensive approach and collaborative framework, the alliance can help protect these

magnificent creatures and their habitats for future generations.

Portulaca Bharat

Context:

A new species of flowering plant, *Portulaca bharat*, has been discovered in the Aravali hills near Jaipur, Rajasthan. This rare find, made in the rocky and semi-arid slopes near the historic Galtaji temple, highlights the hidden biodiversity of India's dryland ecosystems and underscores the importance of habitat conservation in underexplored regions.

Key Highlights of the research:

- *Portulaca bharat* is a newly discovered flowering plant species found in the rocky crevices of dry hill slopes in the Aravali hills near Jaipur. So far, only 10 individuals of this species have been found in the wild, making it extremely rare and vulnerable.
- The plant was cultivated under controlled conditions in Hamirpur (Himachal Pradesh) and Lucknow to assess growth patterns and morphological stability. Following comparison with national herbarium collections, the plant was officially confirmed as a new species.
- Due to the limited information available, it has been provisionally listed as "Data Deficient" under the IUCN Red List guidelines.
- The discovery has been formally documented and published in *Phytotaxa*, an international scientific journal. The research team included members from the Botanical Survey of India (BSI) based in Kolkata and Dehradun.

Botanical Features of *Portulaca bharat*:

- » Opposite and slightly concave leaves
- » Pale-yellow flowers fading to creamish-white at the tips
- » Presence of glandular hairs on stamen filaments
- » Thick root system adapted to arid conditions

- These traits distinguish *Portulaca bharat* from other known Indian species within the genus *Portulaca*, a group of hardy succulent plants adapted to tropical and semi-arid environments.

Ecological Significance:

- The genus *Portulaca* includes approximately 153 species globally, with 11 known from India, including four endemics.
- *Portulaca bharat* adds to India's endemic flora and reinforces the ecological importance of semi-arid zones like the Aravalis.
- The Aravali Range, among the oldest mountain systems on Earth, supports unique microhabitats and is a hotspot for plant endemism.

PORTULACA BHARAT

A RARE FLORAL TREASURE UNEARTHED NEAR JAIPUR

A rare new species of flowering plant, named *Portulaca bharat*, was recently discovered in the Aravalli Hills near Jaipur and officially documented on 17 June 2025 in the journal *Phytotaxa*.



Found near the Galtaji Temple, only about 10 plants have been observed so far. The species stands out with its pale-yellow flowers, thick roots, and uniquely shaped leaves—features that help it survive in dry, rocky terrain. The plant belongs to the *Portulaca* genus, which has 11 Indian species, four endemic.

Discovered by Nishant Chauhan with Botanical Survey of India scientists, *P. bharat* is classified 'Data Deficient' by IUCN due to its highly restricted range and presence.

Conservation Concerns:

- With only a single known population and highly specific habitat requirements, *Portulaca bharat* is vulnerable to climate change, land degradation, and habitat loss.

- Researchers stress the need for targeted field surveys, in situ habitat protection, and ex situ conservation efforts.
- Dryland ecosystems like the Aravalis remain neglected in conservation planning despite their biodiversity value.

Broader Implications:

- The discovery of *Portulaca bharat* opens new directions in:
 - » Phytogeographical research, by tracing evolutionary patterns in dry zones
 - » Conservation biology, focusing on micro-endemics
 - » Climate resilience studies, through plants adapted to extreme conditions

Conclusion:

Portulaca bharat is not just a botanical discovery—it is a timely reminder of the ecological wealth that remains hidden in India's drylands. Strengthening conservation measures and investing in scientific surveys are essential to protect such rare species and their fragile habitats.

50 years of Crocodile Conservation

Context:

Odisha recently celebrated World Crocodile Day on 17 June. In 2025, India is observing 50 years of its Crocodile Conservation Programme. This national effort, which began in 1975, is one of the country's most successful examples of species recovery. Odisha played a key role in starting and sustaining this programme.

Background:

- The Crocodile Conservation Project was launched on April 1, 1975, with support from the Government of India and the Food and Agriculture Organization (FAO) of the United Nations. The aim was to protect all three native crocodilian species of India:
 - » Gharial (*Gavialis gangeticus*)
 - » Saltwater crocodile (*Crocodylus porosus*)
 - » Mugger or marsh crocodile (*Crocodylus*

palustris)

- At the time of the project's launch, all three species were at risk of extinction due to habitat loss, hunting, and human disturbance.

Odisha's Role:

- Odisha became the centre of India's first scientific crocodile conservation work. The state is the only one in the country where all three crocodilian species are found in the wild. Specific sites in Odisha were identified for each species:
 - » Tikarpada for gharials (Mahanadi River)
 - » Dangamal for saltwater crocodiles (Bhitarkanika mangroves)
 - » Ramatirtha for muggers (river stretches in Mayurbhanj district)
- In 1975, Odisha also became the first state to set up crocodile incubation and rearing centres. These centres collected eggs laid in the wild, incubated them under controlled conditions, and reared hatchlings until they reached a safe size for release into natural habitats.
- The first successful hatchings took place in June 1975 at Tikarpada and Dangamal, just two months after the project began.

Major Achievements:

- Odisha was the first state to appoint trained wildlife biologists for crocodile conservation.
- It established breeding pools for gharials at Nandankanan Zoo and Dangamal.
- It carried out the first release of captive-reared gharials and saltwater crocodiles into the wild.
- Odisha also participated in international collaborations, including the import of an adult male gharial from the Frankfurt Zoological Society to improve breeding.
- Bhitarkanika and Satkosia were declared protected areas for crocodiles and later upgraded to National Park and Tiger Reserve status.

Current Status:

- India now holds about 80% of the world's wild gharial population, estimated at around

3,000 individuals.

- The saltwater crocodile population in the wild has increased to about 2,500, with the largest population in Bhitarkanika, Odisha.
- The mugger crocodile has also made a strong recovery, with wild numbers now estimated between 8,000 and 10,000.

New Gharial Project:

- In March 2025, a new national conservation project for gharials was announced. This project aims to reintroduce gharials into their former habitats across the Ganges and its tributaries, as well as into the Brahmaputra and Indus River systems. The project also plans to strengthen the existing population in the Mahanadi River in Odisha.

Conclusion:

India's crocodile conservation efforts over the last 50 years have led to a significant increase in wild populations of all three species. Odisha's early and continued efforts in conservation, research, and habitat protection have played a central role in this success. As the programme enters its sixth decade, further steps are being planned to expand and strengthen crocodile conservation across the country.

Eurasian Otter Spotted in Kashmir

Context:

The Eurasian otter (*Lutra lutra*), a species long believed to be extinct in Kashmir, was recently spotted in the Lidder River in south Kashmir's Srigufwara area. This unexpected sighting marks a major development in local wildlife conservation, as it is the third such appearance of the otter in the Valley in 2025.

About Eurasian Otters:

- Otters belong to the mammal group called Mustelidae and are found in both freshwater and marine habitats.
- In Jammu & Kashmir, they are known as Vodur and play an important role in keeping aquatic ecosystems healthy.

- They are mostly active during dawn and dusk (called crepuscular animals).
- They are found in the Himalayas, northeast India, and the Western Ghats.
- Eurasian otters eat fish, crustaceans, and amphibians, and sometimes they also feed on reptiles, birds, eggs, insects, and worms.
 - » **Conservation Status:** They are listed as Near Threatened by the IUCN, included under Schedule I of the Wildlife Protection Act, 1972, and placed in Appendix I of CITES.
 - » **Other Otter Species in India:** India is also home to the Smooth-coated Otter (found throughout the country) and the Small-clawed Otter (found in the Himalayas and southern India).

Factors causing population decline:

- **Water Pollution:** Increasing pollution in Kashmir's rivers and lakes — due to sewage, plastic waste, agricultural runoff, and unregulated tourism — degraded the otter's natural habitat. As the otter relies on clean water and healthy fish populations, polluted ecosystems pushed it out.
- **Hunting for Fur:** In the past, otters were also hunted for their soft, water-resistant fur, reducing their numbers drastically.



Why this Sighting is significant?

- The return of the Eurasian otter is a positive ecological sign. As a top predator in freshwater habitats, otters help maintain balance in aquatic food chains. Their presence often indicates a relatively healthy river system.

- However, experts caution that a few sightings do not mean the population is fully recovering. These may be isolated individuals or remnants of a small, hidden population. More field research and long-term monitoring will be needed.

About the Lidder River:

- The Lidder River is a clean and fast-flowing river in south Kashmir. It starts from the Himalayan glaciers and flows through the beautiful Lidder Valley, including the town of Pahalgam.
- Near the town, the river splits into two branches — the East Lidder and the West Lidder. It is a branch of the Jhelum River and is important for fish, wildlife, and local people.
- The river also helps support tourism and adds to the natural beauty of the area.

Dhanushkodi Lagoon Declared Greater Flamingo Sanctuary

Context:

On June 5, 2025, during World Environment Day celebrations in Chennai, Tamil Nadu Chief Minister M.K. Stalin announced the declaration of a 5.3 sq km (524.8 hectares) lagoon in Dhanushkodi as a Greater Flamingo Sanctuary.

- This ecologically sensitive wetland, located at the southern tip of Rameswaram Island, is a vital stopover along the Central Asian Flyway, one of the world's major migratory bird routes.

Ecological Significance of the Lagoon:

- The newly declared sanctuary is rich in biodiversity and plays a crucial role in supporting migratory and resident bird populations.
- The latest wetland bird census recorded 10,761 individual birds from 128 different species, reflecting the area's importance as a roosting and feeding ground.

Marine and Coastal Ecosystems:

- Beyond avifauna, the Dhanushkodi lagoon

is also a nursery habitat for:

- » Fish
- » Molluscs
- » Crustaceans
- These organisms depend on the lagoon's brackish waters and rich plant life for their early development stages. This, in turn, supports local fisheries that are vital for community livelihoods.
- The Dhanushkodi beach, adjacent to the lagoon, is also known as an important nesting site for marine turtles, adding to the ecological value of the area.

Mangrove Forests and Botanical Richness:

- The sanctuary's ecosystem features a unique combination of sand dunes, marshes, and mangrove forests. The area is home to 47 plant species, including critical mangroves like:
 - » Avicennia
 - » Rhizophora
- These mangroves serve multiple ecological functions:
 - » Stabilizing the coastline
 - » Preventing erosion
 - » Acting as a natural buffer against storm surges
 - » Providing shelter for marine organisms and birds
- Other plant types—including herbs, shrubs, and trees—support a broader web of life, including insects, birds, and small mammals, making the area a vibrant and interconnected ecosystem.

Flamingos in India:

- India is home to two flamingo species — the Greater Flamingo (*Phoenicopterus roseus*) and the Lesser Flamingo (*Phoeniconaias minor*).
- Greater Flamingo is the largest and most widespread species, recognized by its pinkish-white body, black-tipped pink beak, and yellowish eyes. It inhabits both brackish and freshwater wetlands across India, excluding the high Himalayas, East, and Northeast. It is the state bird of Gujarat.
 - » **Conservation Status:** IUCN – Least

Concern; CITES – Appendix II.

- Lesser Flamingo is the smallest flamingo species, notable for its “hallux” or hind toe. It primarily feeds on blue-green algae and is mostly found in the brackish wetlands of western India, including Gujarat, Rajasthan, and Mumbai.
 - » **Conservation Status:** IUCN – Near Threatened; CITES – Appendix II.

Conservation and Community Impact:

- Declaring this wetland a sanctuary is not only a biodiversity win but also a step towards formal habitat protection for both migratory and resident birds. The Tamil Nadu government aims to:
 - » Ensure long-term ecological integrity
 - » Promote public awareness about wetland conservation
 - » Encourage responsible tourism

Conclusion:

The declaration of the Dhanushkodi lagoon as a Greater Flamingo Sanctuary is a vital step in protecting Tamil Nadu’s fragile wetland ecosystems. It safeguards diverse bird species, supports marine life, and strengthens local livelihoods through conservation-driven tourism and fisheries.

Rajasthan’s Udaipur and Phalodi Sites Gain Ramsar Recognition

Context:

On World Environment Day, India added two new wetlands to its growing list of internationally recognized conservation areas under the Ramsar Convention. The newly designated Ramsar sites include Menar Wetland Complex in Udaipur and Khichan Wetland in Phalodi. This addition elevates the country’s tally of wetlands of international importance to 91.

About Ramsar Convention:

- The Ramsar Convention, signed in 1971 in Ramsar, Iran, is an intergovernmental treaty aimed at the conservation and sustainable

use of wetlands. Wetlands recognized under this treaty are known as Ramsar sites or wetlands of international importance.

- According to the Convention, wetlands are broadly defined as:
 - » “Areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt... including areas of marine water the depth of which at low tide does not exceed six metres.”
- Wetlands designated under the Ramsar Convention must meet one or more of nine criteria, such as:
 - » Representing rare or unique wetland types
 - » Supporting vulnerable, endangered, or critically endangered species
 - » Providing refuge for migratory birds and fish populations

About Menar Wetland Complex:

- Situated in southern Rajasthan, the Menar Wetland Complex consists of three main ponds — Braham Talab, Dhand Talab, and Kheroda Talab — interconnected through agricultural land that floods during the monsoon. This seasonal flooding transforms farmlands into vibrant habitats, supporting:
 - » 110 species of waterbirds, including 67 migratory species.
 - » Notable birds such as the critically endangered white-rumped vulture and long-billed vulture.

India's Ramsar Tally Rises to 91

2 more wetlands get
Ramsar tag



Rajasthan's

Menar Wetland Complex (Udaipur)

Khichan Wetland (Phalodi)

Designated as **Wetlands of International Importance**
under **Ramsar Convention**

About Khichan Wetland:

- Located in the northern Thar Desert, the Khichan Wetland includes two main water bodies — Ratri Nadi and Vijaysagar Talab — along with riparian zones and scrubland. This arid landscape is uniquely adapted to host:
 - » Over 150 bird species, many of which are migratory
 - » Massive wintering flocks of demoiselle cranes, with numbers exceeding 22,000 individuals annually

Global and Asian Ranking:

- **Global Ranking:** India(91) is ranked third globally, after the United Kingdom (176 sites) and Mexico (144 sites).
- **Asian Leadership:** India leads Asia in the number of Ramsar sites.

Importance of Wetlands:

- Wetlands are essential ecosystems that provide numerous benefits, including:
 - » **Biodiversity Conservation:** Wetlands support diverse flora and fauna, and provide habitats for migratory birds.
 - » **Flood Control:** Wetlands help regulate water flows, preventing floods and

maintaining water quality.

- » **Water Resources:** Wetlands are a vital source of freshwater, supporting human consumption, agriculture, and industry.
- » **Habitat for Migratory Birds:** Wetlands provide crucial habitats for migratory birds, supporting their survival and migration patterns.

Conclusion:

India's expanding Ramsar wetland count reflects its dedication to ecological sustainability. The recent additions underscore the importance of ongoing conservation initiatives, ensuring the protection of these critical ecosystems for future generations.

A New Species of Parasitic Wasp Discovered in Chandigarh

Context:

Scientists have rediscovered the *Losgna* genus in India after nearly six decades and described a New Species of Parasitic Wasp, *Losgna occidentalis*, collected from an urban dry scrub forest in Chandigarh. This discovery highlights the unexplored richness of India's biodiversity and underscores the importance of taxonomy and conservation efforts.

About wasp:

- A wasp is any insect of the narrow-waisted suborder Apocrita of the order Hymenoptera which is neither a bee nor an ant; this excludes the broad-waisted sawflies, which look somewhat like wasps, but are in a separate suborder.

Significance of the Discovery:

- The rediscovery of the *Losgna* genus in India is significant for several reasons:
 - » **New Species:** The discovery of *Losgna occidentalis* represents a new species of parasitic wasp, highlighting the vast unexplored biodiversity in India.
 - » **Westernmost Record:** *Losgna occidentalis* is the westernmost known occurrence

of the genus, with prior records coming exclusively from tropical forests of eastern India and adjacent regions of Southeast Asia.

- » **Importance of Taxonomy:** The discovery emphasizes the importance of solid taxonomic work and international collaboration in documenting and conserving India's biodiversity.



Conservation Implications:

- The discovery of *Losgna occidentalis* has important implications for conservation efforts:
 - » **Habitat Conservation:** The discovery highlights the need to conserve and protect urban dry scrub forests and other habitats that support unique and endemic species.
 - » **Biodiversity Conservation:** The finding emphasizes the importance of documenting and conserving India's biodiversity, particularly in the face of habitat loss and climate change.
 - » **Citizen Science:** The discovery showcases the potential for citizens to contribute to scientific research and conservation efforts by exploring local habitats and collecting specimens responsibly.

About *Losgna Occidentalis*:

- *Losgna occidentalis* belongs to the Ichneumonidae family, known for laying eggs on or inside other arthropods. Wasps in this group serve as pollinators and biological control agents, contributing to ecological balance. The genus *Losgna* had not been

recorded in India since 1965, making this discovery significant.

Conclusion:

The rediscovery of the *Losgna* genus in India and the description of *Losgna occidentalis* is a significant breakthrough that highlights the importance of taxonomy, conservation, and international collaboration. This discovery serves as a reminder of the vast unexplored biodiversity in India and the need to protect and conserve our natural heritage.

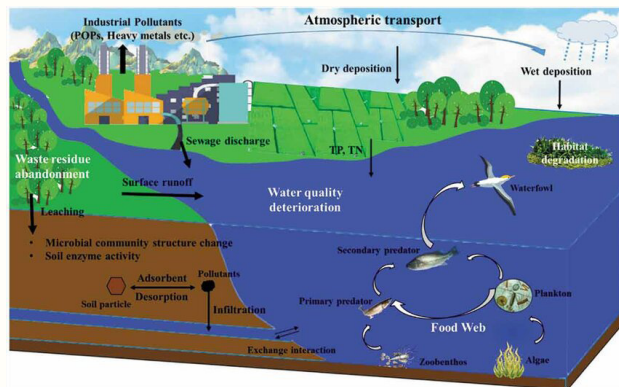
How Industrial Pollution Is Altering Ocean Ecosystems

Context:

A new study published in the Proceedings of the National Academy of Sciences (June 2, 2025) has provided strong observational evidence that industrial pollution is reshaping nutrient cycles and shifting ecosystem boundaries in the ocean — especially in the North Pacific. The research highlights the growing role of human-made iron emissions in stimulating phytoplankton blooms and speeding up nutrient depletion in surface waters.

Key Findings from the Study:

- **Human-Generated Iron Boosts Phytoplankton Growth:** About 39% of the surface ocean iron during spring was found to originate from atmospheric pollution, especially industrial emissions from East Asia. These iron particles, carried by westerly winds, enter the ocean and stimulate the growth of phytoplankton — tiny plant-like organisms that form the base of the marine food web.
- **Seasonal Patterns in Iron Levels:** The iron input peaks in spring, coinciding with stronger winds and phytoplankton blooms. Researchers used data from spring cruises (2016, 2017, and 2019) and one autumn cruise (2018) to measure seasonal changes in iron concentration.



- **Detectable Isotopic Signature:** The iron from pollution has a distinct isotopic signature that makes it identifiable in ocean water samples. Using mass spectrometry and trace-metal clean techniques, the team confirmed the anthropogenic source of iron.
- **Faster Nutrient Consumption:** With more iron, phytoplankton growth increases, leading to faster consumption of nitrates — a key nutrient. This process may be pushing ocean regions into nitrogen limitation, where essential nutrients become too scarce to support the same level of productivity.
- **Long-Term Changes in Ecosystem Boundaries:** Over the last 25 years, enhanced iron input has intensified spring phytoplankton blooms but also accelerated nutrient depletion. This has likely caused the retreat of the transition zone chlorophyll front (TZCF) — the boundary between nutrient-rich and nutrient-poor waters. The northward movement of this boundary is a sign of shifting ocean productivity patterns.

Why This Matters?

- Phytoplankton are the foundation of ocean food chains, supporting everything from zooplankton to fish, seabirds, and whales. However, if parts of the ocean become nutrient-poor due to excess iron-induced nutrient drawdown, it could trigger cascading ecological and economic consequences.
 - » Marine biodiversity may decline, especially among species that cannot migrate or adapt quickly.
 - » Fisheries and coastal economies could

suffer from shrinking fish stocks.

- » Changes in phytoplankton activity may also disrupt global carbon cycling, as these organisms play a key role in capturing carbon dioxide.
- » Additionally, through the processes of bioaccumulation and biomagnification, such disruptions can further impact human health.

Conclusion:

This study offers a clear example of how human-driven pollution is influencing even the remotest parts of the planet, altering natural cycles in the ocean. As atmospheric iron pollution continues, especially from industrial sources, it may further expand nutrient-poor regions, threatening the balance of marine ecosystems. Monitoring and managing such impacts will be essential as part of global ocean governance and climate strategies.

Droughts: A Growing Concern in a Changing Climate

Context:

The recent OECD's Global Drought Outlook highlights how climate change is making droughts more frequent, longer, and more severe. These droughts are now threatening water security, ecosystems, agriculture, and economies around the world.

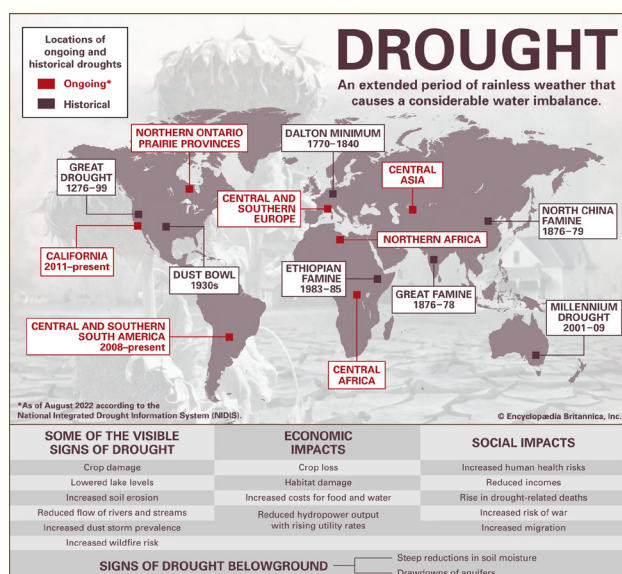
Key findings:

- The global land area affected by drought has doubled since 1900, and 40% of the planet now experiences increasingly frequent and intense drought conditions.
- Events once considered rare are becoming the new normal. Europe's extreme drought in 2022 and the ongoing multi-year drought in North America underscore this shift.
- Rising global temperatures are disrupting precipitation patterns and accelerating evaporation, thereby reducing available freshwater. According to the IPCC (2021), in a world with 4°C of warming, droughts could become up to seven times more frequent and

intense compared to pre-industrial times.

Human and Social Costs:

- Droughts account for just 6% of natural disasters but cause a disproportionate 34% of disaster-related deaths (WMO, 2021).
- They worsen poverty, drive migration, and deepen inequalities, especially in vulnerable regions. Prolonged droughts often force families to abandon their land, creating cycles of displacement and food insecurity.



Environmental Degradation:

- Droughts lead to desertification, biodiversity loss, and widespread ecosystem degradation. Since 1980, 37% of global land has experienced significant soil moisture loss, with rivers and aquifers also declining.
- These changes disrupt not only ecosystems but also critical services like carbon storage, water purification, and climate regulation.

Economic Impacts:

- The economic toll of droughts is growing rapidly. The cost of an average drought episode has more than doubled since 2000 and is projected to rise by 35% to 110% by 2035.
- Agriculture is especially vulnerable: crop yields can fall by up to 22% in particularly dry years, threatening global food supply

chains. Meanwhile, hydropower output, river transport, and industrial productivity are also at risk as water scarcity deepens.

Key Initiatives for Drought Prevention:

- **United Nations Convention to Combat Desertification (UNCCD)'s Drought Initiative:** Aims to enhance drought resilience and sustainable land management.
- **International Drought Management Program:** Led by the World Meteorological Organization and the Global Water Partnership, this program promotes integrated drought management.

Watershed Management:

- This involves a holistic approach to managing land and water resources in a specific watershed area. It includes soil and water conservation measures, afforestation, and promoting sustainable agricultural practices to enhance water infiltration and storage.

India initiatives:

- India has implemented various policies and programs, such as the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) and the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), to address drought and promote water conservation

Conclusion:

Droughts are a growing concern in a changing climate, with significant impacts on water security, ecosystems, and economies. By understanding the causes and consequences of droughts, develop effective strategies to build resilience and adapt to a drier future. Investing in drought resilience and adapting water management practices are critical steps towards mitigating the impacts of droughts and ensuring a sustainable future.



Science & Technology



India's Human Spaceflight Journey: Axiom-4 Mission and the Road to Gaganyaan

India's space journey has always been driven by big dreams and steady progress. From launching satellites to sending probes to the Moon and Mars, the country has shown that it can achieve remarkable feats with limited resources. Now, India is taking a major step forward by preparing for human spaceflight.

The recent Axiom-4 mission, which carried an Indian astronaut Shubhanshu Shukla, to the International Space Station, is a milestone that goes beyond a single voyage. It shows how India is using international partnerships and commercial opportunities to learn faster, gain experience, and build confidence. This mission is not just about reaching space—it is about laying the groundwork for India's future as a leading spacefaring nation. The experience gathered from Axiom-4 will directly support Gaganyaan, India's own human spaceflight programme, and help develop the skills, technologies, and systems needed for more complex missions in the years ahead.

A New Model for Space Exploration:

❖ Axiom-4 is the fourth private astronaut mission conducted by NASA and Axiom Space, a leading commercial space company. This mission reflects the changing nature of space exploration, where private firms are increasingly taking up roles that were once the exclusive domain of government agencies.

❖ The four-member international crew included Commander Peggy Whitson from the United States, Shubhanshu Shukla as pilot from India, and mission specialists from Poland and Hungary. This diverse crew not only carried out scientific tasks but also demonstrated the growing spirit of global collaboration in space.

❖ SpaceX served as the launch provider. Its Falcon 9 rocket lifted off from Launch Complex 39A at Kennedy Space Center in Florida. About 16 hours after launch, the spacecraft docked with the ISS, starting a planned 14-day mission focused on scientific experiments.

Strategic Shift in India's Approach:

❖ India's participation in Axiom-4 highlights a new, pragmatic approach to building its space capabilities. Traditionally, countries depended on bilateral government agreements for astronaut flights. With NASA no longer sponsoring foreign astronaut missions, India turned to commercial space services. This decision reflects an understanding of the evolving global landscape where partnerships with private companies are essential for faster progress.

❖ ISRO was an equal partner in this mission. A large Indian team was present in the US to help plan, monitor, and troubleshoot during the final stages of preparation. The experience gained here will be invaluable as India works toward its indigenous

Gaganyaan mission.

Scientific Experiments: Direct Relevance for Gaganyaan:

- ❖ The mission is expected to carry out around 60 experiments representing 31 countries, with several studies designed to support the Gaganyaan programme:
 - » **Microgravity Crop Growth:** Indian scientists will assess how crops such as moong and methi germinate and grow in zero gravity. This research will help develop India-specific space food systems and identify robust plant varieties suitable for long-duration missions.
 - » **Human Physiology:** Studies will examine skeletal muscle dysfunction, cellular responses, and pathways of muscle loss in microgravity. These findings will inform health protocols to maintain astronaut fitness during extended stays and contribute to medical research for muscle-related diseases on Earth.
 - » **Mental Health and Cognitive Performance:** Experiments will explore how microgravity affects cognition, screen use, and stress. Insights will guide spacecraft interior design and psychological support systems.
 - » **Life Support Systems:** Investigations into cyanobacteria and microalgae will test their potential for producing oxygen, recycling waste, and supplying food on future spacecraft. This is directly linked to designing sustainable life-support systems for Gaganyaan and India's planned space station.

International Space Station as a Learning Platform:

- ❖ The ISS, operating since 1998, orbits approximately 400 kilometres above Earth and is recognised as humanity's premier laboratory in space. Managed by a coalition of NASA, Roscosmos, ESA, JAXA, and CSA, it has enabled thousands of scientific studies and trained multiple generations of astronauts.

- ❖ However, the ISS is nearing the end of its operational life, with controlled deorbiting planned by 2030–2031. This transition creates opportunities for commercial stations such as Axiom Station, which will initially attach to the ISS before becoming an independent platform. Accessing the ISS through missions like Axiom-4 provides India with vital real-world experience that will be impossible to replicate once the station is retired.



Significance for India:

- ❖ **Building Indigenous Capability through Gaganyaan:** The Gaganyaan mission, approved in 2018, aims to demonstrate India's independent human spaceflight capability. The programme is designed to send a three-member crew to a 400-kilometre low Earth orbit for up to three days. Initial uncrewed test flights are scheduled for the next few years, with the first crewed mission targeted by 2027.
- ❖ Participation in Axiom-4 is expected to directly strengthen Gaganyaan in several operational areas:
 - » Pre-launch quarantine procedures and medical readiness
 - » Spacecraft ingress and egress protocols

- » Microgravity health diagnostics
- » Emergency procedures and contingency planning
- » International mission coordination and operations

❖ **Long-Term Vision and Ambitions:**

India's ambitions go far beyond the initial Gaganyaan flights. The Indian space programme envisions launching the first module of a national space station, the Bharatiya Antariksh Station, by 2028, with the station becoming fully operational by 2035. A crewed lunar mission is also planned by 2040. These milestones will place India among the few nations capable of independent human space operations across Earth orbit and the Moon. Crossing the Karman Line on Axiom-4 represents the first step in this roadmap, providing operational insights and scientific data that will de-risk future missions.

❖ **Economic and Technological Impact:**

Human spaceflight is a catalyst for technological advancement and economic growth. The Gaganyaan mission already engages over 500 MSMEs and private enterprises supplying components, subsystems, and materials. This effort helps build a vibrant domestic space-tech ecosystem and generates skilled employment.

- » India currently accounts for about 2% of the \$500 billion global space economy. The government's vision aims to grow this share to 8% by 2033, expanding India's space economy to approximately

\$44 billion. This growth will drive innovation in advanced materials, automation, artificial intelligence, and sustainable life-support technologies.

❖ **Diplomatic Leverage and Global Standing:**

The mission significantly raises India's profile as an emerging space leader. Demonstrated human spaceflight capability serves as a powerful diplomatic tool, strengthening partnerships and opening new avenues of cooperation. Recent collaborations with Russia on astronaut training, France on life-support systems, and Australia on crew recovery underscore India's commitment to proactive international engagement in space exploration.

Conclusion:

India's participation in the Axiom-4 mission marks a decisive step toward achieving independent human spaceflight. By embracing commercial partnerships, India is accelerating the development of critical skills, validating technologies, and preparing a new generation of space professionals. The scientific experiments will enrich knowledge vital for Gaganyaan and future missions, while the operational lessons will help ensure mission safety and success. As the nation looks ahead to a national space station and a crewed lunar landing, this experience will remain a cornerstone of India's progress in space. The momentum generated is expected to inspire youth, strengthen technological capability, and position India as a major space power in the decades to come.

India's AI-Driven Biomanufacturing: Innovation, Challenges, and the Road Ahead

India is at a critical point in its journey to use artificial intelligence (AI) for transforming biotechnology and healthcare. With major policies like the BioE3 Policy and the IndiaAI Mission, the country has shown a strong vision to become a global leader in AI-based

biomanufacturing. This means using AI not just to speed up production, but to completely change how biological products like vaccines, drugs, and diagnostics are designed, developed, and delivered.

However, alongside this ambition, India faces a significant challenge. Its regulatory and

safety frameworks have not kept pace with the rapid growth of AI in the biotechnology sector. If not addressed quickly, these gaps may slow down progress and reduce public trust in AI-driven innovations.

Biomanufacturing in India: A New Chapter:

- ❖ India has long been known as the “pharmacy of the world.” It supplies over 60% of global vaccine demand and is a major exporter of affordable generic medicines. This success is built on large-scale production, low costs, and consistent quality. But the global biotechnology landscape is now changing. Countries are moving from bulk manufacturing to more sophisticated, AI-driven systems that improve efficiency, accuracy, and adaptability.
- ❖ In modern biomanufacturing facilities, AI is already being used in many ways:
 - » Robots carry out precise, repetitive tasks without human error.
 - » Sensors collect thousands of data points every second.
 - » AI algorithms analyse this data in real-time to optimise processes.
- ❖ AI helps ensure that the production environment stays stable. If something starts to go wrong — for example, a shift in pH or a rise in temperature — the AI system can predict the issue and adjust the system automatically. This results in fewer errors, less waste, and better-quality products.

Indian Companies Leading the Change:

- ❖ Several Indian companies are already using AI to improve their biotechnology operations:
 - » Biocon, a major biopharmaceutical company, uses AI in its biologics manufacturing. AI improves drug screening and fermentation processes, reducing costs while maintaining quality.
 - » Strand Life Sciences, based in Bengaluru, uses AI in genomics and personalised medicine. Their AI models can analyse complex genetic data to find better drug targets and predict patient responses.

- » Wipro and Tata Consultancy Services (TCS) are helping pharmaceutical companies use AI for drug discovery, clinical trials, and treatment predictions.
- ❖ These examples show that India is not just following global trends but also developing its own capabilities in AI for healthcare and biomanufacturing.

Government Initiatives: BioE3 and IndiaAI Mission:

Recognising the potential of AI in biotechnology, the Government of India has launched two key initiatives:

- ❖ **BioE3 Policy (2024):** This policy outlines plans to create:
 - » Advanced biomanufacturing hubs
 - » Biofoundries for research and product development
 - » Bio-AI Hubs that bring together experts in science, technology, and data analytics
- ❖ These hubs will support startups, researchers, and large companies by providing infrastructure, funding, and policy support to bring ideas from the lab to the market.
- ❖ **IndiaAI Mission:** This mission supports the growth of AI in a responsible and ethical way. It promotes:
 - » Explainable AI, which makes decision-making transparent
 - » Efforts to reduce algorithmic bias
 - » Development of frameworks for safe and trustworthy AI systems
- ❖ Together, these programmes aim to make India a global leader in AI-powered biotechnology — not just in terms of scale, but also in safety, ethics, and innovation.

The Regulatory Challenge:

- ❖ Despite these efforts, India’s regulatory framework is still designed for older technologies. The rules for approving new drugs, biologics, and manufacturing systems were made long before AI became part of the process. This creates several problems:
 - » There are no clear guidelines on how

to test and approve AI models used in manufacturing.

- » It is unclear who is responsible if an AI-driven system makes a mistake.
- » There are no standards for ensuring that the training data used by AI is representative of India's diverse environments.
- ❖ For example, an AI system trained on data from a high-tech facility in Bengaluru might not perform well in a small-town factory in Baddi or Indore. Factors like local climate, water quality, and electricity supply can affect production, and if the AI is not trained on diverse data, it might fail to adjust properly.

Global Models India Can Learn From:

- ❖ Other countries are already creating smarter, risk-based regulatory systems for AI:
 - » The European Union's AI Act (2024) classifies AI tools by risk level. High-risk applications like AI in gene editing require strict audits and testing.
 - » The U.S. Food and Drug Administration (FDA) introduced a seven-step framework for evaluating AI in healthcare. It includes tools like Predetermined Change Control Plans, which allow AI systems to evolve safely over time while maintaining strict oversight.
- ❖ India does not yet have such systems. Without context-aware and flexible regulation, AI innovations could stall or lead to failures, especially in high-stakes sectors like health and biotechnology.

Broader Impact of AI in Biotech and Healthcare:

- ❖ AI's role goes far beyond manufacturing. It is also transforming:
 - » **Drug discovery:** AI can screen millions of compounds virtually, saving time and money.
 - » **Molecular design:** AI helps develop drugs with fewer side effects and better efficacy.
 - » **Clinical trials:** AI tools make trials faster

and more accurate by selecting better participants.

- » **Healthcare delivery:** AI improves patient diagnosis, predicts disease risk, and enables precision medicine.
- ❖ **In India, AI-based systems could help:**
 - » Predict disease outbreaks in remote areas
 - » Create personalised treatment plans based on genetic data
 - » Reduce supply chain problems by forecasting medicine demand
- ❖ These applications show how AI can strengthen India's entire healthcare ecosystem.

Key Challenges That Must Be Solved:

- ❖ **Data Governance:** AI models are only as good as the data they are trained on. India needs rules to ensure datasets are:
 - » Clean and accurate
 - » Free from bias
 - » Inclusive of India's geographic and population diversity
- ❖ **Intellectual Property (IP):** When AI tools help invent new drugs or processes, questions about who owns the invention must be clearly defined. Without clear IP laws for AI, legal disputes could increase.
- ❖ **Skilled Workforce and Infrastructure:** India needs to build talent in AI, data science, and biotechnology — not just in metros, but also in smaller towns and Tier-2 cities. Infrastructure investments must also support this distributed growth.

The Way Forward:

- ❖ Build an adaptive, risk-based regulatory system that includes context-of-use, model validation, and continuous oversight.
- ❖ Invest in infrastructure and human capital across the country, ensuring regional inclusion.
- ❖ Encourage collaboration among government bodies, industry leaders, academic institutions, and international organisations to share knowledge and set global benchmarks.

Short Issues

BSNL Launches India's First Indigenous SIM-less 5G FWA Service

Context:

On 18 June 2025, Bharat Sanchar Nigam Limited (BSNL) soft-launched Quantum 5G FWA, India's first 100% indigenous, SIM-less 5G Fixed Wireless Access (FWA) solution in Hyderabad. This launch marks a critical milestone in India's digital infrastructure journey, especially in the context of self-reliance and affordable broadband expansion.

What is Fixed Wireless Access (FWA)?

- Fixed Wireless Access (FWA) is a broadband technology that delivers high-speed internet using radio signals, eliminating the need for physical fibre cables. A base station transmits signals to a receiver installed at the user's premises, offering a cost-effective and rapidly deployable alternative to traditional fibre-based services.
- FWA is particularly useful in regions where fibre infrastructure is difficult or expensive to install. It is suited for in-home, non-mobile broadband usage and has shown high customer satisfaction globally, comparable to fibre.

Key Features of Quantum 5G FWA:

- **SIM-less Architecture:** Quantum 5G FWA uses BSNL's Direct-to-Device platform, allowing automatic authentication of the customer premises equipment (CPE) without requiring a physical SIM card. This simplifies setup and enhances user experience.
- **Fully Indigenous Technology:** Developed entirely by Indian vendors under the Atmanirbhar Bharat initiative, the core network, radio access network (RAN), and CPE represent a fully home-grown 5G solution. This reduces dependency on foreign technology and strengthens India's telecom sovereignty.
- **High-Speed Performance:** Demonstrations

in Hyderabad showed download speeds of 980 Mbps and upload speeds of 140 Mbps, with latency under 10 milliseconds. These figures support UHD streaming, cloud-based applications, and real-time remote work.

- **Rapid, Fibre-Free Deployment:** The FWA solution covers 85% of households in Hyderabad using BSNL's existing tower network, requiring no trenching or cable installation. This is particularly advantageous in underserved or infrastructure-deficient areas.

Rollout Plan:

- Pilot deployments are scheduled in:
 - » Bengaluru
 - » Pondicherry
 - » Visakhapatnam
 - » Pune
 - » Gwalior
 - » Chandigarh

Enterprise Use and Future Outlook:

- The same 5G standalone (SA) core infrastructure will support enterprise-grade services such as edge computing, network slicing, and SLA-backed connectivity. BSNL plans to target MSMEs, industrial parks, and smart manufacturing zones with these capabilities, creating a foundation for smart industry applications.

Strategic Significance:

- Quantum 5G FWA positions BSNL as a first mover in India's public sector 5G ecosystem. It marks a departure from foreign vendor dependence and highlights India's engineering capabilities in telecom. The focus on SIM-less design, indigenous manufacturing, and rural-ready deployment makes this launch particularly aligned with national objectives of digital inclusion and self-reliance.
- The launch event saw participation from BSNL's Board, senior DoT officials, industry representatives, and academic collaborators—signalling institutional support for indigenous telecom innovation.

Conclusion

Quantum 5G FWA represents a significant leap in India's digital connectivity strategy. By combining high-speed access with indigenous design and a simplified delivery model, BSNL is laying the groundwork for scalable, future-ready broadband access across India.

How DNA Identification Helps Reunite Victims with Families

Context:

The tragic crash of an Air India Boeing 787 Dreamliner in Ahmedabad has brought DNA identification to the forefront as a crucial tool in confirming the identities of the deceased. In large-scale disasters where victims' bodies may be disfigured, burned, or fragmented, DNA testing becomes the gold standard for ensuring accuracy and dignity in identification.

Why DNA Identification Matters?

- Every human (except identical twins) has a unique DNA sequence, present in almost every cell of the body. In the aftermath of aviation disasters, where physical recognition becomes near impossible, DNA analysis provides a scientific and dependable method to connect remains with grieving families.

DNA Analysis Methods:

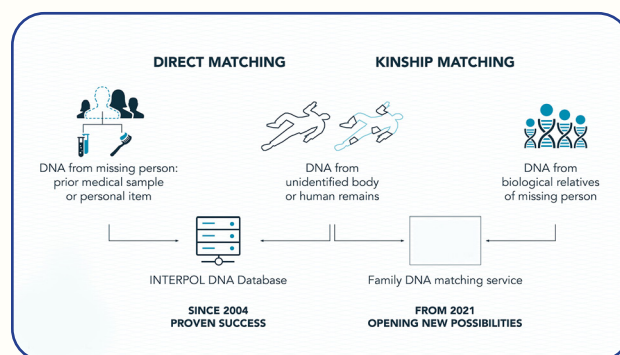
- Multiple analytical techniques are used depending on the quality of the recovered material, including:
 - » **Short Tandem Repeat (STR) Analysis:** Evaluates short, repeated sequences in nuclear DNA that vary greatly between individuals.
 - » **Mitochondrial DNA (mtDNA) Analysis:** Used when nuclear DNA is degraded or unavailable, this method analyzes DNA inherited from the mother.
 - » **Y-Chromosome STR Analysis:** Focuses on the Y chromosome, inherited from father to son, to match remains to paternal male relatives.

» Single Nucleotide Polymorphism (SNP)

Analysis: Used when DNA is severely degraded, this method analyzes single base variations in DNA sequences.

What is DNA?

- DNA, or Deoxyribonucleic Acid, is the molecule that stores the genetic instructions an organism needs to develop, survive, and reproduce. It exists primarily in the nucleus of cells, with small amounts in the mitochondria.
- DNA is shaped like a double helix, resembling a twisted ladder:
 - » **Backbone:** Alternating sugar (deoxyribose) and phosphate.
 - » **Bases:** Four nitrogenous bases—Adenine (A), Thymine (T), Cytosine (C), and Guanine (G).
 - » **Base Pairing:** A pairs with T, and C pairs with G.
- DNA works as:**
 - » Stores genetic information
 - » Guides protein synthesis
 - » Enables inheritance
 - » Controls cell functions and development



Significance of DNA:

DNA (Deoxyribonucleic Acid) carries genetic instructions vital to life. Its applications span key fields:

- Forensic Science**
 - » **Crime Solving:** Matches DNA from crime scenes with suspects.
 - » **Paternity Tests:** Confirms biological relationships.
 - » **Missing Persons:** Identifies remains in

disasters or investigations.

- » **Justice:** Exonerates the wrongly convicted.

▪ **Medicine**

- » **Genetic Research:** Aids disease understanding and treatment.
- » **Gene Therapy:** Repairs faulty genes.
- » **Personalized Care:** Tailors treatments to individual DNA profiles.

▪ **Agriculture**

- » **Better Crops:** Enhances yield, nutrition, and disease resistance.
- » **Animal Breeding:** Improves livestock through genetic selection.
- » **Pest Control:** Identifies pests for precise targeting.

SHOX Gene

Context:

A recent study published in the Proceedings of the National Academy of Sciences (PNAS) analysed genetic data from over 9 lakh individuals using three major biobanks. The study provided rare evidence on how variations in sex chromosomes affect height.

Chromosome Variations and Height:

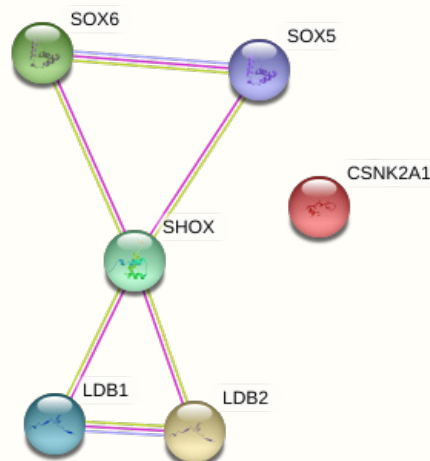
- The study compared individuals with additional X or Y chromosomes. Findings included:
 - » An extra Y chromosome led to a greater increase in height than an extra X chromosome.
 - » This pattern was consistent across various population groups, suggesting a strong genetic influence.
 - » Researchers used statistical models to isolate the role of sex chromosomes from hormonal influences and known conditions like Turner and Klinefelter syndromes.
 - » The results showed that genetic contribution from the Y chromosome explains up to 22.6% of the average height difference between men and women.
- The study also ties into broader societal and

health issues:

- » Over the past century, men have gained height faster than women.
- » Social preferences often favor taller men, though researchers caution that taller individuals may face increased risks for certain cancers, due to more frequent cell division.

SHOX Gene and Its Function:

- The SHOX (Short Stature Homeobox) gene regulates bone growth and is located in the pseudoautosomal region 1 (PAR1)—a segment shared by both the X and Y chromosomes.
- In females (XX), one X chromosome is mostly inactive, but genes in PAR1 (including SHOX) remain partially active.
- In males (XY), both the X and Y chromosomes actively express the SHOX gene, resulting in higher gene activity and greater height potential.



Other conditions related to SHOX:

- When one copy of SHOX gene is missing or not working properly (a condition called SHOX haploinsufficiency), it can lead to short stature and certain skeletal problems.
- SHOX haploinsufficiency is known to cause short stature in the following conditions:
 - » Turner Syndrome
 - » Leri-Weill Syndrome (LWS)
 - » Some cases of idiopathic short stature

(short stature with no known cause)

Conclusion:

While hormones remain important for growth, this study confirms that sex-linked genetic factors—especially SHOX gene expression—play a major role in explaining height differences between men and women. These findings strengthen the understanding of sex-based biological variation and offer a foundation for further genetic research related to growth and health outcomes.

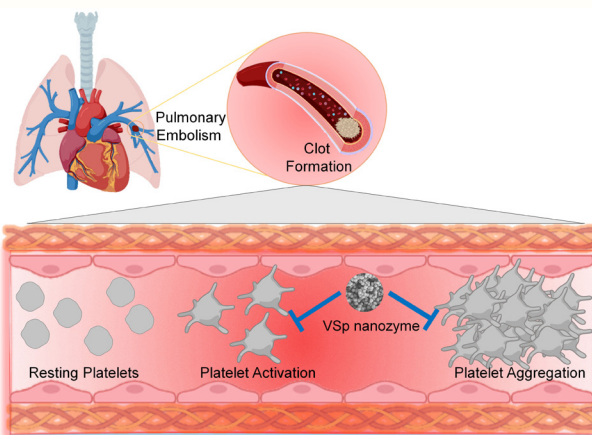
New nanozyme technology developed to prevent abnormal blood clots

Context:

Scientists at the Indian Institute of Science (IISc), Bengaluru have developed an artificial metal-based nanozyme that can be useful in effectively controlling abnormal blood clotting processes such as pulmonary thromboembolism (PTE). This discovery can not only be helpful in dealing with serious health problems, but is also considered a major step towards preventing life-threatening conditions like stroke.

Normal process of blood clotting and its risks:

- When a blood vessel in the body is injured, special blood cells called platelets become active and gather at that spot and stop bleeding by forming a clot. This process, called "hemostasis," is driven by the coordination of various proteins and chemical signals, such as collagen and thrombin. But when this process becomes abnormal, such as during diseases like pulmonary thromboembolism (PTE) or COVID-19, the amount of "oxidative stress" and "reactive oxygen species (ROS)" in the body becomes unbalanced.
- This causes platelets to become overly active, and unnecessary clots start forming in the blood vessels, increasing the risk of thrombosis.



Prevention of platelet activation and pulmonary thromboembolism by VSp nanozyme

New artificial metal-based nanozymes:

- The IISc team has developed nanomaterials that act like natural antioxidant enzymes in the body. These nanozymes control reactive oxygen species (ROS) and prevent excessive activation of platelets, thereby preventing unnecessary blood clots.
- The researchers created redox-active nanomaterials of different sizes and structures and tested them on platelets obtained from human blood. As a result, it was found that spherical vanadium pentoxide (V_2O_5)-based nanozymes proved to be the most effective.

Reactive Oxygen Species (ROS):

- When our cells make energy (such as in mitochondria) or when the body is fighting an infection, some oxygen molecules undergo an incomplete chemical reaction and turn into an unstable and highly reactive form. These are called reactive oxygen species (ROS). It is very important to maintain their balance. When their quantity increases, oxidative stress occurs, which can become the root cause of many serious diseases.

Nanozyme:

- Nanozyme is an artificially developed nanometer-sized substance that acts like natural enzymes. That is, it helps in accelerating biochemical reactions (catalysis). It is made by chemical methods.

Way forward:

The research team is now planning to test the usefulness of this technology in conditions like ischemic stroke, which occurs due to blockage of blood vessels. This research is a significant milestone in the field of nanomedicine in India, which can provide accurate, rapid and safe solutions to serious health problems in the future.

Bharat Gen': India's AI-based Multimodal Language Model

Context:

Recently, Union Minister for Science and Technology, Dr. Jitendra Singh, officially launched 'Bharat Gen', an indigenous artificial intelligence (AI)-based multimodal Large Language Model (LLM) developed specifically for India's diverse linguistic and cultural ecosystem.

What is Bharat Gen?

- Developed under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), Bharat Gen is being implemented through the TIH Foundation for IoT and IoE at IIT Bombay. The initiative is backed by the Department of Science and Technology (DST) and is the result of a collaborative effort involving leading academic institutions, research experts, and technology innovators across India.

Key Features of Bharat Gen:

- Multimodal Capabilities:** Bharat Gen integrates text, speech, and image modalities, offering seamless AI solutions in multiple formats.
- Multilingual Support:** The platform supports 22 Indian languages, making it a valuable tool for diverse linguistic and cultural contexts.
- Ethical and Inclusive:** Bharat Gen is designed to be "ethical, inclusive, multilingual, and deeply rooted in Indian values and ethos," ensuring that AI development is aligned

with national priorities.



About Multimodal AI:

- Unlike traditional AI models that handle only text, multimodal LLMs can process a combination of input types, including:
 - » **Text:** Reading and generating content in multiple Indian languages.
 - » **Speech:** Understanding spoken queries and responding in regional dialects.
 - » **Images:** Interpreting visuals, such as medical scans or educational graphics.

Applications and Impact:

- Healthcare:** Bharat Gen can facilitate better patient care, especially in remote regions, by enabling AI doctors to communicate fluently in patients' native languages.
- Education:** The model can aid learning by using visuals alongside text, making educational content more engaging and accessible.
- Governance:** Bharat Gen can enhance citizen engagement and grievance redressal through multilingual feedback systems in government platforms like CPGRAMS.
- Agriculture:** The model can provide region-specific AI solutions, supporting agricultural development and improving productivity.

Conclusion:

The launch of Bharat Gen signifies a bold leap toward creating an AI ecosystem that is truly Indian in language, spirit, and vision. It aims to democratize access to cutting-edge AI, ensuring that benefits reach every citizen, regardless of language, literacy, or location. As India accelerates its position in the global

AI race, Bharat Gen stands as a testament to the country's technological capability, cultural awareness, and commitment to inclusive development.

India's Flue Gas Desulphurisation Policy

Context:

In a significant recommendation, a committee led by Principal Scientific Advisor (PSA) Ajay Sood has advised the Indian government to roll back its 2015 policy mandating Flue Gas Desulphurisation (FGD) units in all coal-fired thermal power plants (TPPs). This has reignited the debate on balancing energy needs, costs, and public health

About Flue Gas Desulphurisation (FGD):

- Flue Gas Desulphurisation (FGD) units are designed to remove sulphur dioxide (SO_2) emissions from the exhaust of thermal power plants. SO_2 is released when coal is burned and contributes significantly to air pollution and climate change. It also leads to the formation of $\text{PM}_{2.5}$, a dangerous form of particulate matter linked to respiratory and cardiovascular diseases.
- FGDs work by treating the flue gas with a basic compound to neutralise the acidic SO_2 . The three main FGD technologies in use are:
 - » **Dry Sorbent Injection:** Uses powdered limestone or other sorbents that react with SO_2 , removed through filters.
 - » **Wet Limestone Treatment:** Uses limestone slurry to convert SO_2 into gypsum, an industrial byproduct. This is the most efficient and widely used method.
 - » **Seawater-Based FGDs:** Adopted in coastal areas, where seawater absorbs SO_2 and is then treated before discharge.

Concerns regarding SO_2 emissions:

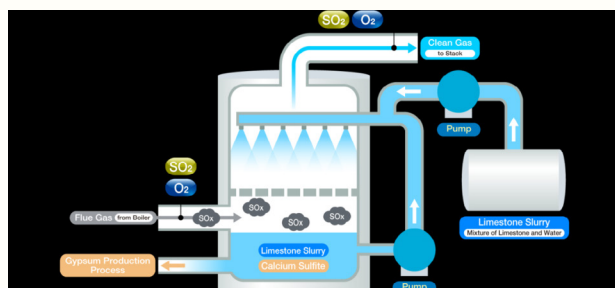
- Sulphur dioxide contributes to both climate warming and public health problems. It forms secondary particulates that significantly increase $\text{PM}_{2.5}$ levels in the

air.

- Research has shown that 15% of India's $\text{PM}_{2.5}$ pollution is linked to coal-fired power plants, with 80% of that due to SO_2 emissions. These emissions are harder to regulate but have far-reaching impacts on human health and air quality.

The 2015 FGD mandate:

- In 2015, the Ministry of Environment, Forest and Climate Change required all 537 coal-fired TPPs to install FGDs by 2018. However, the implementation has been extremely slow:
 - » As of April 2025, only 39 plants have installed FGDs.
 - » Deadlines have been extended to 2027, 2028, and 2029, depending on plant category.
 - » In December 2024, the government further extended deadlines without explanation.
 - » A government-commissioned study in 2025 recommended repealing the FGD mandate altogether.

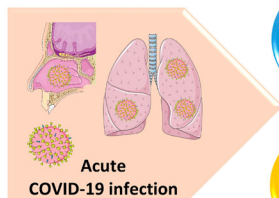


Concerns against FGD installation:

- FGD units are expensive, with the Central Electricity Authority estimating a cost of Rs.1.2 crore per megawatt (MW).
- India's coal-based capacity stood at 2,19,338 MW in April 2025, almost half of the total electricity generation capacity. Installing FGDs across this capacity would cost over Rs.2.6 lakh crore.
- Officials argue that with 97,000 MW of new coal-based power expected, FGD compliance would add Rs.97,000 crore to infrastructure costs and could raise consumer tariffs. This

economic argument is driving calls to ease or withdraw the mandate.

- However, researchers counter this by noting:
 - » FGDs would raise tariffs by only Rs.0.72 per kWh — mostly due to fixed costs.
 - » Variable costs remain under Rs.0.10 per kWh, making the impact manageable.
 - » Cleaner air reduces healthcare costs, improves productivity, and prevents premature deaths — creating long-term economic savings.



Conclusion:

There is no viable alternative to FGDs for removing SO₂ emissions. Coal washing does not remove sulphur embedded in the coal's structure. With coal consumption expected to increase, especially among older, inefficient, state-run plants, skipping FGD compliance could severely degrade air quality. Abandoning the FGD mandate would also weaken the National Clean Air Programme (NCAP), which has seen over Rs. 6,000 crore in investments. It risks reversing gains made in air quality management and environmental protection.

A Global Genetic Study on Long COVID

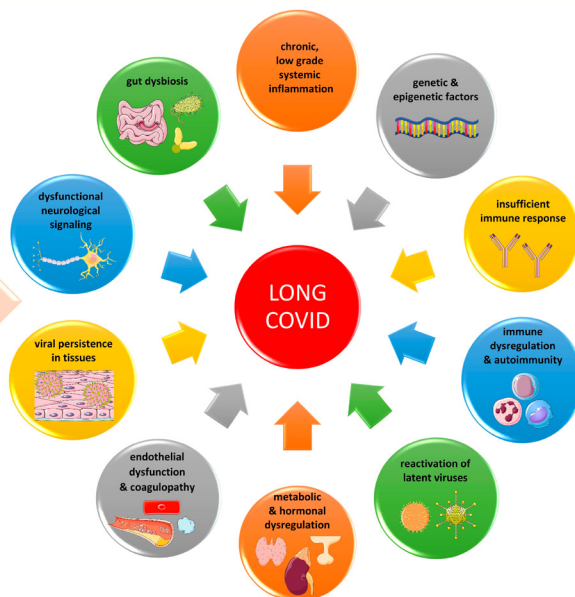
Context:

A new study published in Nature Genetics throws lights upon how genetics plays a role in long COVID. This study used a research method called Genome-Wide Association Study (GWAS), which scans the DNA of many people to find small changes (called SNPs) that appear more often in those with a specific disease.

- The study used data from 33 research

groups in 19 countries.

- » It included 6,450 people with long COVID and over 1 million people without it.
- » A follow-up study tested the findings in another 9,500 long COVID cases and 800,000 controls.



Key Finding: The FOXP4 Gene

- The study found that people who had a particular genetic variation near the FOXP4 gene were 63% more likely to develop long COVID. This variant is known as rs9367106.
 - » FOXP4 is active in the lungs, especially in type 2 alveolar cells—cells that repair the lungs and respond to infections.
 - » People with this variant had higher levels of FOXP4 activity in their lung tissue.
 - » Even people who were not hospitalised for COVID showed increased risk if they had this genetic variant.
 - » The variant is more common in East Asians (36%) than in Europeans (1.6%), showing how genetic risk varies by ancestry.
- Further testing showed that people with slightly higher FOXP4 levels after infection were more than twice as likely to suffer from long COVID.
- A final method called co-localisation analysis

showed a 91% chance that this genetic change influences both FOXP4 activity and long COVID risk.

What is Long COVID?

- The World Health Organization (WHO) defines long COVID as symptoms that start within three months of a COVID infection and last at least two months without any other known cause. These symptoms often include:
 - » Constant tiredness or fatigue
 - » Breathing difficulties
 - » Brain fog or memory issues

Significance for India:

- India has seen multiple waves of COVID-19 and still lacks widespread awareness or tracking of long COVID cases. Studies in India show long COVID symptoms in:
 - » 45% to 80% of patients depending on the study
 - » 16.5% of hospitalised patients still reported symptoms like fatigue and breathlessness even a year after recovery
- However, the global study had very limited South Asian data. This is a big gap, because:
 - » India has unique health challenges like high air pollution, underdiagnosed lung disease, and unequal healthcare access.
 - » The effect of the FOXP4 gene variant in Indian populations is still unknown.

India's Genomic Progress

- India's GenomeIndia Project has sequenced genetic data from 10,000 individuals across various regions. Although not focused on disease, this is a first step toward understanding how genes affect health in Indians.
- This database can support future Indian studies on conditions like long COVID, helping doctors and researchers create more tailored treatment and care models.

Conclusion:

This global study has taken an important step in linking genetics to long COVID through the FOXP4 gene. But for countries like India, more local research is needed to understand how

these findings apply here.

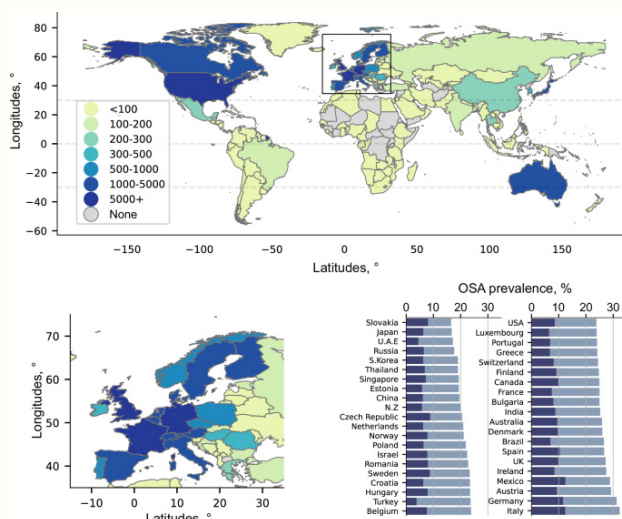
Warmer Climate impacts on Sleep Apnoea

Context:

A study, published in the journal Nature Communications, has revealed that warmer temperatures could exacerbate sleep apnea, a common sleep disorder characterized by breathing difficulties during sleep. The research suggests that as global temperatures rise, the prevalence and severity of sleep apnea could increase, impacting health, wellbeing, and the economy.

About Obstructive Sleep Apnoea (OSA):

- Obstructive Sleep Apnoea (OSA) is a sleep disorder characterised by repeated interruptions in breathing during sleep due to the collapse or narrowing of the upper airway.
- These interruptions can lead to lower blood oxygen levels, fragmented sleep, loud snoring, and daytime fatigue.
- OSA is also linked to an increased risk of heart disease, stroke, diabetes, depression, and neurodegenerative conditions such as Parkinson's disease and dementia.



Study Findings:

- Globally, higher temperatures were

associated with a 45% higher probability of experiencing OSA on any given night.

- The increased risk was most pronounced in European nations, but countries with lower GDP per capita—including India, Israel, and Brazil—were found to face a greater vulnerability due to limited adaptive infrastructure like air conditioning and healthcare access.
- The study projects that under a climate warming scenario where average global temperatures rise by 1.8°C above pre-industrial levels, the burden of OSA could double by 2100. This includes not just more people developing the disorder but also greater severity in existing cases.
- In 2023 alone, the study estimated that climate-exacerbated sleep apnoea was responsible for:
 - » Loss of 780,000 healthy life years
 - » 105 million lost workdays across 29 countries
 - » An economic toll of USD 98 billion, comprising:
 - USD 68 billion in wellbeing-related losses
 - USD 30 billion in workplace productivity losses.

A Looming Public Health Challenge:

- Poor sleep is often an under-recognised public health issue, yet it is foundational to physical, mental, and cognitive health.
 - » **Cardiovascular Disease:** Sleep apnea has been linked to an increased risk of cardiovascular disease.
 - » **Mental Health:** Sleep apnea is also associated with mental health conditions, including anxiety, depression, dementia, and Parkinson's disease.

Way forward:

- **Climate adaptation measures:** Wider access to cooling infrastructure such as air conditioning, especially in vulnerable regions.
- **Public health initiatives:** Greater awareness, screening, and treatment for sleep apnoea.
- **Healthcare investment:** Scaling up sleep

medicine infrastructure and training, especially in low- and middle-income countries.

- **Climate action:** Reducing global greenhouse gas emissions to limit warming and associated health impacts.

Sickle Cell Disease

Context:

Recently, World Sickle Cell Awareness Day was observed on 19 June 2025. This year's theme was - 'Global Action, Local Impact: Empowering Communities for Effective Self-Advocacy'. Sickle cell disease is a chronic, hereditary blood disorder. This disease is commonly found in tribal people, affecting millions of people worldwide. This day recognized by the United Nations strengthens global efforts to create early diagnosis, effective treatment and supportive community environment for people affected by this disease.

What is sickle cell disease?

- Sickle cell disease (SCD) is a genetic blood disorder in which the body produces abnormal hemoglobin. This hemoglobin makes red blood cells deformed (sickle/ moon shaped), making them hard and sticky. These cells obstruct blood flow, which impedes oxygen supply and can lead to pain, swelling, infection and organ damage.

Situation in India:

- An estimated 1 million people in India are affected by the disease.
- Major affected states: Odisha, Jharkhand, Chhattisgarh, Madhya Pradesh and Maharashtra, especially in tribal areas.
- According to a 2024 meta-analysis report (Priyanka Rao et al.):
 - » Prevalence of sickle cell disease (SCD): 1.17%
 - » Prevalence of sickle cell carrier (trait): 5.9%

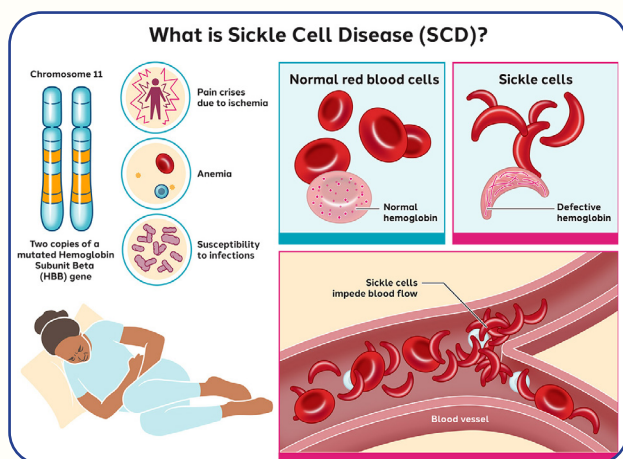
Symptoms:

- Anemia, leading to fatigue and weakness

- Recurrent pain crises
- Swelling of hands and feet, jaundice, increased susceptibility to infections, delayed development
- Stroke, acute chest syndrome, splenic failure and priapism in severe cases

Treatments and innovations:

- Drugs like hydroxyurea
- Blood transfusions
- Bone marrow transplant, which may be the only permanent cure
- Painkillers and antibiotics
- Advances in gene therapy:
 - » Casgevy and Lyfgenia approved by the FDA in the US in December 2023 o In May 2024, a 12-year-old boy was given the first Casgevy-based gene therapy.



Government of India initiatives:

- **National Mission for Elimination of Sickle Cell Anemia (2023)**
 - » **Objective:** Eliminate the disease from the category of public health crisis by 2047
 - » **Target:** Screening, counseling, affordable treatment, and public awareness in 17 high-affected states
 - » **Main challenge:** Access to medicines and treatment, especially in rural and tribal areas.

Key Takeaways:

- Sickle cell disease is a serious but preventable genetic disease.

- In India, the disease is more prevalent in socio-economically backward communities, especially tribal groups.
- This challenge can be addressed only through a three-pronged strategy of policy, science and community-based interventions.

Conclusion:

Sickle cell disease is not just a genetic problem but a widespread social, economic and public health challenge. To overcome this, public awareness at the grassroots level, timely diagnosis, scientific research and effective policy implementation are essential.

Big achievement in green hydrogen production from solar energy

Context:

Recently India has achieved a major breakthrough in the field of green energy. Scientists have developed a next-generation device that splits water molecules and produces green hydrogen using only solar energy. This research has been published in the Journal of the Royal Society of Chemistry. This achievement not only reflects India's scientific capability but is also a revolutionary step towards global climate goals.

Highlights of the research:

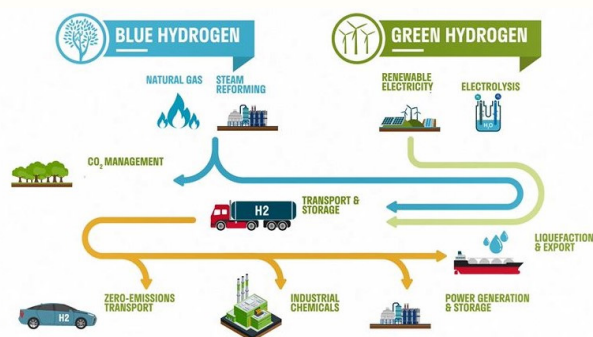
- Making progress in the field of green energy, scientists at the Center for Nano and Soft Matter Sciences (CeNS), Bengaluru, an autonomous institute of the Department of Science and Technology, have developed a state-of-the-art photoelectrochemical (PEC) device.
- The most prominent feature of this device is that it uses solar energy and renewable energy available in abundance on earth.
- It uses a silicon-based photoanode based on N-i-P heterojunction architecture.
- These architectures together provide a better separation and transfer of charge from the photo-current.
- The material is prepared using magnetron

sputtering technology which is a process that can be repeated at industrial scale.

- The experiment demonstrated high efficiency in producing hydrogen directly from solar energy. Most notably, the device showed only 4% performance degradation over 10 hours of continuous operation which is exceptional for silicon-based photoelectrochemical (PEC) systems.

What is Green Hydrogen?

- Green hydrogen is hydrogen gas obtained by breaking down water (H_2O) through electrolysis, and the electricity used in the process comes entirely from renewable energy sources (such as solar or wind power). Since no carbon dioxide (CO_2) or greenhouse gases are emitted in this production process, it is called “Green”.



Key Benefits of Green Hydrogen:

Benefits	Description
Zero carbon emissions	It does not pollute like fossil fuels, which helps in fighting climate change.
De-carbonisation of industries	It can be used in heavy industries like steel, fertilizers, chemicals, etc. to reduce carbon emissions.
Clean transport fuel	Hydrogen-powered vehicles are more environmentally friendly than conventional vehicles.
Capable of energy storage	Green hydrogen can be stored and converted into energy as required.

Step towards energy self-sufficiency

India can produce hydrogen from its domestic renewable resources, reducing dependence on imports.

Conclusion:

This achievement in the field of green energy not only reflects India's scientific capability but is also a revolutionary step towards global climate goals. Scientists believe that in the coming years, this technology can make hydrogen-based energy systems, from domestic use to industrial plants, completely based on solar energy. This achievement of India is not only a step towards self-reliance in the energy sector but also creates a clean, sustainable and innovative future.

Gold Loans in India: Financial inclusion vs regulatory stringency

As India grapples with economic volatility and rising household debt, the spotlight has returned to a traditional yet increasingly vital financial instrument — gold loans. Following the Reserve Bank of India's (RBI) recent draft guidelines on regulating gold-backed credit, the Finance Ministry has recommended two key relaxations: exempting loans below Rs. 2 lakh and delaying the implementation date to January 1, 2026. These developments, spurred in part by Tamil Nadu Chief Minister M.K. Stalin's intervention, underscore how deeply embedded gold loans are in India's socio-economic fabric — and how fraught the landscape is without sound regulation.

The Cultural and Economic Importance of Gold in India:

- ❖ Gold in India is more than just a precious metal — it is a deeply rooted cultural, religious, and economic asset. From weddings to religious festivals, gold plays a central role in rituals and is seen as a symbol of wealth, security, and status. Indian households collectively hold vast quantities of gold, often in the form of jewellery, passed down through generations.
- ❖ This emotional and economic significance means gold rarely gets liquidated unless absolutely necessary. But when it does, gold becomes a readily accessible collateral, offering individuals a quick path to short-term credit. In a country where a large section of the population remains outside the formal credit ecosystem, gold loans function

as a critical bridge between informal needs and formal finance.

GOLD LOANS: GROSS NPAs AND LOAN OUTSTANDING

(Amount in Rs crore)

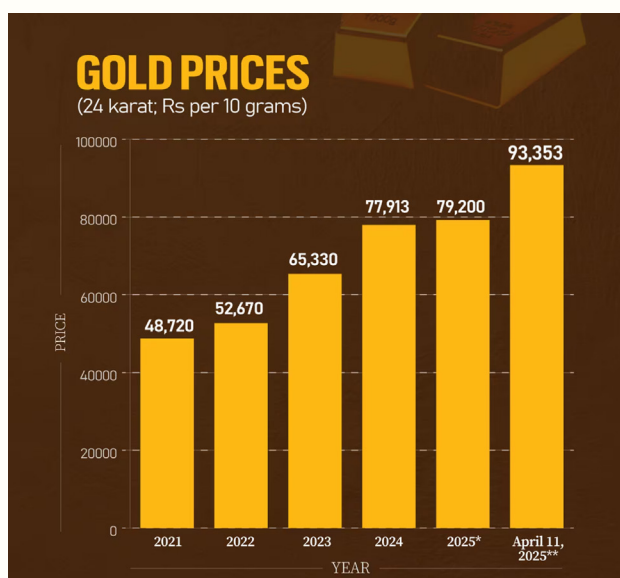


Source: RBI RTI reply

Why Gold Loans Are Booming?

- ❖ Several economic and operational factors have led to a surge in gold loan uptake:
 - » **Ease of Access:** Gold loans are available even to those without a strong credit history, making them accessible to the unbanked or underbanked.
 - » **Quick Disbursement:** Processing can take as little as a few hours — a lifeline during medical emergencies, school fee deadlines, or sudden expenses.
 - » **Low Interest Rates:** As secured loans, gold loans offer significantly lower interest rates than personal loans or payday loans.

- » **Minimal Documentation:** Borrowers usually require only basic KYC documents like Aadhaar and PAN.
 - » **Flexible Repayment:** Repayment options include bullet payments, EMIs, or interest-only schemes.
 - » **No Credit Score Requirement:** Since the loan is asset-backed, lenders are less concerned with credit scores.
 - » **Asset Retention:** Gold loans allow households to monetize idle assets without selling them.
- ❖ Gold loans are offered by a wide range of institutions — banks, NBFCs, and dedicated gold loan companies — ensuring widespread availability across geographies and income groups.



Rising NPAs and Regulatory Gaps:

- ❖ As the value of gold skyrockets (Rs. 95,760 per 10 grams for 24-carat as of June 2025), gold-backed lending has risen sharply — but so have the risks.
- » **Rising NPAs:** RBI data shows that gold loan NPAs from commercial banks rose from Rs. 1,404 crore in 2023 to Rs. 2,040 crore by end-2024. For NBFCs, NPAs jumped from Rs. 3,904 crore to Rs. 4,784 crore in the same period.
 - » **Valuation and Recovery Challenges:**

While the presence of gold as collateral provides comfort to lenders, challenges persist: improper valuation, inflated loan-to-value (LTV) ratios, crashing gold prices, and slow auction processes can jeopardize recoveries.

- » **Emotional Toll on Borrowers:** In many Indian homes, jewellery holds not just monetary but emotional and ancestral value. Losing it in an auction due to default can be traumatic, adding a human cost to financial failure.

RBI's New Draft Guidelines: An Attempt to Stabilize the Sector

To address these issues, the RBI has proposed comprehensive draft guidelines aimed at standardizing procedures, improving accountability, and mitigating systemic risks. These include:

- ❖ **Loan-to-Value (LTV) Cap**
 - » Capped at 75% of the market value of gold for consumption loans. This helps prevent over-lending based on inflated prices.
- ❖ **Standardized Valuation Procedures**
 - » Mandatory certified assayers with clean records.
 - » Valuation to be based on 22-carat gold rates — using either the 30-day average or the previous day's closing price, whichever is lower.
 - » Silver collateral must be valued at 999 purity.
- ❖ **Proof of Ownership**
 - » Borrowers must either submit the original bill of sale or a declaration detailing ownership.
- ❖ **Loan Purpose Differentiation:** Consumption vs. Income-Generating Loans:
 - » Bullet repayment loans capped at 12 months.
 - » For income-generating loans, disbursement must be based on projected cash flows, not just collateral value.
 - » Dual use of gold (for both consumption and income loans) is prohibited.

- ❖ **Collateral Limits:** Maximum pledge:
 - » 1 kg of gold/silver ornaments per borrower
 - » 50 grams of gold coins
 - » 500 grams of silver coins
- ❖ **Prohibition on Certain Collaterals**
 - » No loans against gold bars, bullion, ingots, or re-pledged gold.
- ❖ **Repayment and Auction Terms**
 - » Transparent loan agreements, repayment options, and interest rates are mandatory.
 - » In case of default, lenders must issue prior notice before auctioning the gold. Any surplus post-auction must be refunded to the borrower.
- » Exempting gold loans under Rs. 2 lakh from the new guidelines.
- » Delaying the enforcement of rules until January 1, 2026, giving time for systemic alignment.
- ❖ This response reflects a key policy tension: ensuring financial inclusion without compromising regulatory integrity.

Conclusion:

The RBI's gold loan guidelines aim to formalize what has long been a semi-formal lending space, without stifling its accessibility. As India becomes increasingly credit-dependent — yet still rooted in gold as a store of value — this regulatory clarity is essential. However, a phased and flexible rollout, as advised by the Finance Ministry, appears necessary to balance regulatory goals with ground realities. In an era of economic uncertainty, gold loans will remain vital for millions of Indian households. But to protect both the borrower's dignity and the lender's solvency, smart regulation, not blanket control, is the way forward.

Finance Ministry's Response: Social Sensitivity Meets Regulatory Prudence

- ❖ After pushback from states like Tamil Nadu, which argued that the new norms could restrict access to credit for lower-income households, the Finance Ministry has stepped in with two key proposals:

India's Economic Outlook for 2024–25: A Balancing Act Amid Global Uncertainty

India's economy appears to be settling into its long-term trajectory, with the National Statistics Office (NSO) pegging GDP growth at 6.5% for 2024–25, and a surprisingly strong 7.4% growth in the fourth quarter. These provisional estimates, based on broader datasets than the advance estimates, offer a more stable platform for forecasting in an otherwise volatile global landscape. The first and second advance estimates had projected growth at 6.4% and 6.5% respectively, indicating consistency and reliability in the revised data.

This return to trend is significant. India's average annual growth during the decade preceding the COVID-19 pandemic stood at 6.6%, and recent numbers suggest that the economy is realigning with this baseline. However, the positive surprises seen in GDP

revisions over the past three years may be tapering off.

Growth Revisions and Nominal Trends:

- ❖ For fiscal year 2023–24, GDP growth has seen sharp upward revisions:
 - » First Advance Estimate: 7.3%
 - » Provisional Estimate: 8.2%
 - » Final Revision: 9.2%
- ❖ The nominal GDP, which accounts for inflation, rose by 9.8%, expanding the economy's size from \$3.6 trillion in 2023–24 to \$3.91 trillion in 2024–25. In India's national accounting framework, provisional estimates carry greater weight than the two earlier estimates, making them a more durable basis for economic forecasting until the next update in early 2026.

Consumption, Investment, and Fiscal Dynamics:

- ❖ Private consumption grew a robust 7.2%, largely buoyed by rural demand, while urban consumption remained relatively subdued. Yet, a moderation was visible in the final quarter, with overall consumption growth slowing to 6%.
- ❖ Government consumption expenditure was restrained throughout the year, rising by only 2.3% annually and contracting -1.8% in Q4. On the other hand, capital investment gained momentum, particularly in the last quarter, with central government capex exceeding the revised estimates for the full fiscal year. This public investment push contributed to investment growth outpacing GDP.

Sectoral Performance:

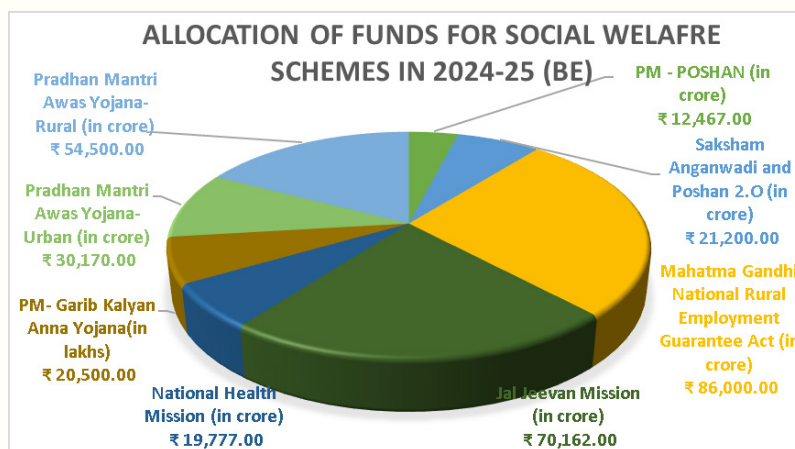
- ❖ The supply-side story was mixed. Agriculture and services performed strongly, while manufacturing continued to underperform, growing by just 4.5%—a pace slower even than agriculture. Construction, a labour-intensive sector, expanded 9.4%, following on from double-digit growth the previous year. This bodes well for employment generation.
- ❖ Meanwhile, merchandise exports were nearly flat, coming in at \$437.41 billion, compared to \$437.07 billion in 2023-24, suggesting stagnation in India's traditional export sectors.

External Headwinds and Trade Dependencies:

- ❖ The global trade environment is becoming increasingly complex, with the reimposition of reciprocal tariffs between the US and China and the broader geopolitical uncertainty affecting trade flows. India's economy, though largely domestic demand-driven, is increasingly integrated into global value chains and capital markets, making it

susceptible to external shocks.

- ❖ Direct effects on India arise from the slowdown in US growth, expected to decelerate from 2.8% in 2024 to 1.5% in 2025, reducing demand for Indian exports. Rising US tariffs further erode Indian competitiveness.
- ❖ Indirect effects are likely to emerge through other key export markets, notably the European Union and Asia. S&P Global projects global GDP growth to fall from 3.3% in 2024 to 2.7% in 2025. China, facing tariff-driven overcapacity and deflationary pressures, may divert surplus goods to third countries like India, intensifying competitive pressures.



- ❖ A temporary reprieve came in the form of a recent agreement between the US and China to reduce tariffs by 115% for 90 days, but this truce is short-lived. The post-90-day scenario remains unpredictable, keeping global investors on edge and delaying private investment decisions.

Buffers and Resilience:

- ❖ Despite external uncertainties, India enters FY 2025-26 with several macroeconomic buffers:
 - » Foreign exchange reserves are at a comfortable \$686 billion.
 - » Current account deficit remains modest.
 - » Government's external debt is moderate.
- ❖ India's export composition also provides resilience. Services exports now account for nearly half of total exports and are relatively

insulated from the volatility affecting global goods trade. According to the WTO:

- » Global goods trade is expected to contract 0.2% in calendar 2025.
- » Services trade is projected to grow 4%, offering India a cushion against the global slowdown.

- ❖ Although services exports will also slow, their relative stability offers India a structural advantage.

Monetary Policy and Consumption Outlook:

- ❖ A record wheat harvest, strong pulses output, and a favourable monsoon forecast are expected to keep food inflation in check and boost agricultural incomes. Additionally, crude oil prices are forecast to remain low—averaging around \$65 per barrel—providing relief on the import bill and giving the Reserve Bank of India (RBI) more headroom to support growth.
- ❖ The RBI is expected to undertake two 25 basis-point rate cuts this fiscal, creating a more accommodative monetary environment. Lower interest rates, combined with income tax cuts announced in the Union Budget, are likely to stimulate urban discretionary consumption.
- ❖ Moreover, low food inflation disproportionately benefits lower-income households, for whom food and fuel make up a larger share of the consumption basket. This will help boost rural and low-income urban spending, reinforcing the consumption revival.

Investment Climate and Supply Chain Shifts:

- ❖ The government's early fiscal push is visible. In April 2025 alone, central government capital expenditure reached Rs.1.59 lakh crore, about 14.3% of the annual budgeted target. However, the prospects for private investment remain mixed due to continued global volatility and uncertainty over capital flows and exchange rates.
- ❖ Despite this, India is benefiting from global supply-chain realignments:

- » Apple plans to manufacture most iPhones for the US market in India.
- » A Vietnamese electric vehicle company is setting up a plant in India with launches expected this year.

- ❖ Large and mid-sized Indian corporates, which are currently in strong financial health, are well-positioned to tap into these opportunities. Nevertheless, for India to sustain and expand this investment momentum, structural reforms addressing land, labour, and regulatory bottlenecks remain critical.

Way forward:

- ❖ India's GDP is expected to grow at 6.5% in 2024–25, broadly aligned with its long-term average. However, risks are tilted to the downside, particularly given the evolving global trade dynamics and subdued private investment.
- ❖ Key factors that could support and stabilize growth include:
 - » Continued strength in rural demand.
 - » Expansion of public capital expenditure.
 - » Stable agricultural output and benign commodity prices.
 - » Increasing integration into global manufacturing supply chains.
- ❖ Looking ahead, India's ability to navigate structural constraints and respond nimbly to external shocks will determine how well it can preserve macroeconomic stability while unlocking its full growth potential.

Short Issues

Kolhapuri Chappal Controversy

Context:

Recently, a controversy has erupted over the sandals showcased in the new collection of Italy's luxury fashion brand Prada. Kolhapuri chappal manufacturers in India have alleged that this design is a copy of Kolhapuri chappals, a traditional product granted a Geographical Indication (GI) tag by the Government of India. This controversy is not only an infringement of intellectual property rights (IPR) but also a serious issue concerning India's cultural identity and the rights of its artisans. However, following growing criticism, Prada described its product as inspired by Kolhapuri chappals.

Cultural and Economic Significance of Kolhapuri Chappals:

- Kolhapuri chappals are a symbol of Maharashtra's centuries-old craftsmanship. Made from pure leather, these chappals are not only a mark of local identity but also a source of livelihood for thousands of artisans. They were granted GI tag in 2019, which means this specific design and manufacturing technique is linked to Kolhapur and nearby areas and enjoys legal protection.
- The sandal design presented by Prada is considered an exact replica of Kolhapuri chappals, but there is no mention of the Indian source or inspiration. Its price is nearly Rs.1 lakh, while the same design is produced by thousands of artisans in India at a fraction of that cost.

Geographical Indication (GI) Tag:

- A Geographical Indication (GI) tag is a type of intellectual property right that connects a product to its specific geographical region. It means the quality, reputation, or unique characteristics of the product depend on its geographical origin. Examples: Kolhapuri chappal, Darjeeling tea, Banarasi saree, etc.
- **Significance of GI:**
 - » Provides recognition and market benefit

to local artisans and farmers.

- » Protects the reputation of the product from fake or inferior versions.
- » Preserves regional livelihoods, tradition, and cultural heritage.
- » Enhances competitiveness in the global market.

Legal and Ethical Aspects:

- Copying a GI-tagged product is considered a legal violation under the Geographical Indications (Registration and Protection) Act, 1999:
 - » **Criminal action:** Selling or producing fake products can lead to up to 6 months of jail and a fine (Rs.50,000 or more).
 - » **Civil action:** A court injunction can stop the sale of fake products and damages can be claimed.
 - » **Customs measures:** Import-export of counterfeit products can be banned.
 - » **Protection of brand reputation:** Legal action protects product identity and the livelihood of local artisans.
- At the international level, the following remedies are available to protect GI-tagged products:
 - » **TRIPS Agreement (under WTO):** Member countries are required to protect GIs. India can file a complaint in the WTO.
 - » **WIPO (World Intellectual Property Organization):** GI can be internationally registered and protected through WIPO (under the Lisbon Agreement).
 - » **Diplomatic steps:** India can negotiate bilateral agreements with other countries to prevent imitation of GI products.
 - » **Litigation in foreign courts:** GI holders can also take legal action against sellers of fake products in foreign markets.
- From an ethical perspective, it is clear that global brands, while drawing inspiration from traditional designs, should acknowledge their origin, credit local artisans, and consider revenue sharing.

Conclusion:

The Prada and Kolhapuri chappal controversy is not limited to a design dispute but has

become an issue of protecting India's cultural and intellectual property globally. If this matter is not addressed effectively in time, other GI-tagged products such as Banarasi sarees, glass bangles, and Madhubani paintings may also face similar threats. This is the time for India not just to protect GI tags legally, but also to create moral and diplomatic pressure globally for the protection of cultural heritage. This is not merely design theft but a form of "cultural theft" when a global brand markets a traditional craft for profit without crediting the local artisans.

World Investment Report 2025

Context:

India has improved its position among the world's top destinations for Foreign Direct Investment (FDI), even as actual inflows saw a minor decline, according to the World Investment Report 2025 released by the United Nations Conference on Trade and Development (UNCTAD).

Key Highlights:

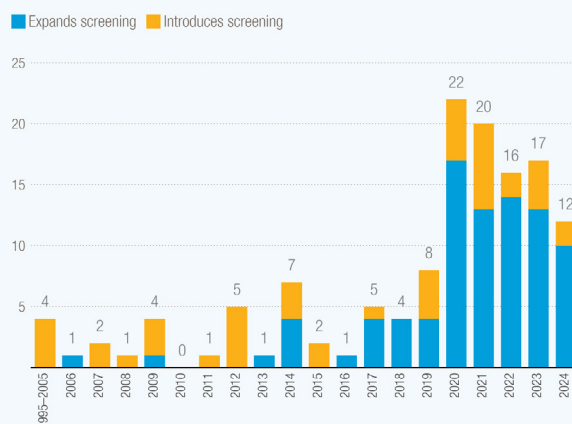
- **FDI Inflows:**
 - » India attracted \$27.6 billion in FDI in 2024, slightly down from \$28.1 billion in 2023.
 - » Despite the dip, India moved up one rank to become the 15th largest FDI recipient globally, compared to 16th in 2023.
- **Greenfield Investments and Project Finance:**
 - » India ranked 4th globally in greenfield project announcements, with 1,080 projects in 2024.
 - » It was also among the top five economies for international project finance deals, recording 97 transactions.
 - » This rise signals strong investor confidence despite the drop in actual inflows.
- **Global Context:**
 - » The United States retained its position as the top FDI destination, with inflows rising from \$233 billion (2023) to \$279

billion (2024).

- » The US also led in both greenfield announcements and project finance deals—more than double India's count.
- » China's FDI inflows fell by 29%, dropping it to 4th place from 2nd in 2023.
- » ASEAN saw a 10% increase in inflows to \$225 billion, marking a new record.
- » West Asia remained stable, with the UAE attracting strong inflows.

Investment screening gains ground, especially in developed countries

Number of countries introducing or expanding security-related investment screening, 1995–2024



Source: UN Trade and Development (UNCTAD), based on Investment Policy Monitor database, accessed 31 March 2025.

- **India's Outbound FDI:**
 - » India's FDI outflows rose to \$24 billion in 2024, up from \$14 billion in 2023.
 - » It improved its position from 23rd to 18th globally in outward investment rankings.
 - » Indian investors announced 20% more greenfield projects, placing India among the top 10 global investor countries.
- **Sectoral Focus:**
 - » India's outbound investments concentrated on semiconductors and basic metals.
 - » Domestically and abroad, EV and battery assembly facilities were announced, aligning with the push for green and advanced manufacturing.

About UNCTAD:

- The United Nations Conference on Trade and Development (UNCTAD) was established in 1964 as a permanent intergovernmental body by the UN General Assembly.
- Its goal is to help developing, least developed, and transitioning economies integrate into the global economy. It supports countries in understanding development challenges, diversifying economies, and managing financial risks.
- UNCTAD has 195 member nations, including India, and is headquartered in Geneva, Switzerland.
- Its key reports include the Trade and Development Report, World Investment Report, and The Least Developed Countries Report.

Conclusion:

While India saw a slight fall in actual FDI inflows, it recorded a significant surge in greenfield announcements and outbound investments. This reflects India's increasing relevance in global value chains, particularly in high-tech and green sectors. The rise in project-level investments and expansion in outward FDI suggests a robust long-term outlook for India's role in global capital flows.

World Bank Retains India's FY26 Growth Forecast at 6.3%

Context:

In its latest Global Economic Prospects report, the World Bank retained its FY26 GDP growth forecast for India at 6.3%, despite a global economic slowdown driven by policy uncertainty and trade tensions. This forecast reaffirms India's position as the fastest-growing large economy.

India's Economic Outlook:

- **FY26 GDP growth forecast:** Unchanged at 6.3%
- **FY27 growth projection:** projected at 6.5%
- **FY28 projection:** Estimated to rise to 6.7%, supported by robust services and a moderate recovery in exports

- **Domestic inflation:** Expected to average 3.7% in FY26, giving policymakers room to stimulate growth
- **Public debt-to-GDP ratio:** Projected to gradually decline, aided by fiscal consolidation and revenue buoyancy

Global Economy forecast:

- While India's growth resilience stood out, the broader global picture painted by the World Bank was far more concerning. Growth projections were revised down for nearly 70% of the world's economies, driven by surging trade tensions, policy unpredictability, and waning investment confidence.
 - » **Global growth for 2025:** Lowered to 2.3% (from 2.7% in January), the slowest pace outside recessions since 2008
 - » **2026 forecast:** Marginal improvement to 2.4%
 - » **2027 outlook:** Slight uptick to 2.6%, still below pre-pandemic norms

Factors Driving Global Slowdown:

- **Trade Retrenchment:** Trade growth has decelerated from an average of 5% in the 2000s to below 3% in the 2020s, mirroring slowing global output.
- **Investment Drag:** Policy instability and financial volatility have weakened global capital flows. The report noted rising global debt levels paired with declining investment growth.
- **Tariff Wars:** The resurgence of protectionist policies, notably by the US and China, has rattled global supply chains. The Trump administration's April 2025 tariff rollout, although temporarily paused, remains a major uncertainty.
- **Geopolitical Tensions:** Ongoing trade negotiations between the US and China, marred by export controls and retaliatory measures, could either further depress or marginally lift growth depending on the outcome.

RBI and Fiscal Strategy:

- The Reserve Bank of India (RBI) recently

took an accommodative turn, slashing the repo rate by 50 bps to 5.50%—bringing total rate cuts in 2025 to 100 bps. The Monetary Policy Committee (MPC) emphasized the need to stimulate private consumption and investments, especially with inflation staying comfortably within the target range.

- Despite the World Bank's modest projection, the RBI and Indian government remain more optimistic, with official FY26 growth forecasts ranging from 6.3% to 6.8%.

Conclusion:

While global economic headwinds persist, India continues to stand out as a beacon of relative stability and growth. The World Bank's stable outlook reaffirms India's resilience, but also underscores the need for continued policy support, export diversification, and investment in productivity-enhancing reforms to sustain momentum in a rapidly shifting global landscape.

Government eases SEZ Norms

Context:

The Union government recently notified changes to the regulations for the setting up of special economic zones (SEZs) for the manufacturing of semiconductors or electronic parts.

Key changes proposed:

- **Reduced Land Requirement:** The minimum contiguous land area required for semiconductor/electronics SEZs has been reduced from 50 hectares to 10 hectares (Rule 5 amendment of SEZ act, 2006).
- **Domestic Supply Allowed:** SEZ units can now supply to the domestic market (Rest of India) after paying applicable duties, in addition to exporting (Rule 18 amendment of SEZ act, 2006).
- **Relaxation in Land Encumbrance Rules:** The Board of Approval may now relax the requirement for SEZ land to be encumbrance-free if it is mortgaged or leased to the government or authorized agencies (Rule 7 amendment of SEZ act,

2006).

- **Inclusion of Free-of-Cost Goods in NFE:** The value of free-of-cost goods can now be included in Net Foreign Exchange (NFE) calculations, improving the export-import balance.

Impact of relaxation:

- **Boost high-tech manufacturing:** The amendments will promote pioneering investments and boost manufacturing in high-tech sectors.
- **Create high-skilled jobs:** The growth of semiconductor manufacturing ecosystem will create high-skilled jobs in the country.
- **Attract investments:** The changes will attract investments in the semiconductor and electronics manufacturing sectors.

New Projects:

- Following the notification, two SEZ facilities have been approved in Gujarat and Karnataka with a total investment of Rs.13,100 crore. Micron Semiconductor Technology India will establish an SEZ facility in Sanand, Gujarat, with an estimated investment of Rs. 13,000 crore, while Aequs will establish an SEZ in Dharwad, Karnataka, with an estimated investment of Rs.100 crore.

SPECIAL ECONOMIC ZONE (SEZ)

Need of SEZs



About Special Economic Zones (SEZs):

- SEZs are specially designated areas treated as foreign territory for trade and customs, aimed at boosting exports, employment, and investment through tax and regulatory

incentives. They are governed by the SEZ Act, 2005 and SEZ Rules, 2006.

- Currently, 276 SEZs are operational in India. Total exports from SEZs in 2023-2024 stood at USD 163.69 billion.

Key benefits of SEZs in India:

- Duty-free import of goods for development
- Tax exemptions (e.g., GST zero-rating)
- Single-window clearances
- Foreign direct investment incentives
- Up to USD 500 million ECB allowed per year

About Special Economic Zones (SEZ) Act of 2005:

- The Special Economic Zones (SEZ) Act of 2005, which came into effect in February 2006, aims to promote exports, attract foreign investment, and create employment by establishing SEZs. It replaced the earlier Export Processing Zones (EPZs).
- The Act facilitates SEZ development through a single-window approval process and offers fiscal incentives like duty-free imports and tax exemptions.

Conclusion:

The government's decision to ease SEZ norms is a significant step towards promoting high-tech manufacturing and creating a favorable business environment in the country.

India Pulls 269 Million Out of Extreme Poverty in 11 Years: World Bank Report

Context:

According to the latest World Bank data, India has achieved a landmark milestone in poverty reduction, with 269 million people lifted out of extreme poverty between 2011-12 and 2022-23.

About World Bank poverty line:

- The World Bank defines extreme poverty as individuals living on less than a specific amount of money per person per day, adjusted using Purchasing Power Parity (PPP) to account for differences in the cost

of living and inflation between countries.

- Currently, the World Bank's International Poverty Line (IPL) is set at \$3.00 per person per day, according to the World Bank. This line is used to measure extreme poverty in low-income economies.
 - » **Low-Income Countries:** \$3 per person per day, up from \$2.15
 - » **Lower Middle-Income Countries (LMIC):** \$4.20 per person per day, up from \$3.65
 - » **Upper Middle-Income Countries:** \$8.40 per person per day, up from \$6.85 (some sources state \$8.30)

Key finding by the World Bank:

- The total number of Indians living in extreme poverty—dropped from 344.47 million in 2011-12 to 75.24 million in 2022-23.
 - » **Extreme Poverty Rate:** India's extreme poverty rate dropped to 5.3% in 2022-23 from 27.1% in 2011-12.
 - » **Rural and Urban Poverty:** Rural extreme poverty decreased from 18.4% to 2.8%, while urban extreme poverty declined from 10.7% to 1.1% during the same period.
 - » **States Contributing to Poverty Reduction:** Five states - Uttar Pradesh, Maharashtra, Bihar, West Bengal, and Madhya Pradesh - accounted for 65% of India's extreme poor in 2011-12 and contributed to two-thirds of the overall reduction in poverty by 2022-23.

Multidimensional Poverty Progress:

- Beyond income-based metrics, India also made significant progress in Multidimensional Poverty Index (MPI) indicators, which consider access to health, education, and living standards.
 - » In 2005-06, MPI stood at 53.8%.
 - » It fell to 16.4% by 2019-21.
 - » By 2022-23, MPI had declined further to 15.5%, signaling improvements in access to healthcare, schooling, sanitation, and basic services.

Driver of poverty reduction:

- The World Bank report attributes this

sharp poverty reduction to a combination of targeted welfare programs and economic growth, backed by technology and governance reforms. Key initiatives include:

- **PM Awas Yojana:** Affordable housing for rural and urban poor.
- **PM Ujjwala Yojana:** Distribution of free LPG connections to promote clean cooking fuel.
- **Pradhan Mantri Jan Dhan Yojana:** Financial inclusion through bank accounts.
- **Ayushman Bharat:** Free healthcare coverage for low-income families.
- **Direct Benefit Transfer (DBT):** Ensures subsidies reach beneficiaries directly, reducing leakage.
- **Digital public infrastructure:** Platforms like Aadhaar and mobile banking have expanded access and transparency.

Conclusion:

India's remarkable journey from 344 million people living in extreme poverty to 75 million in just over a decade underscores a transformative phase in its development trajectory. With continued focus on inclusive growth, digital governance, and social welfare, the country appears poised to further narrow its poverty gap—potentially serving as a global model for poverty alleviation.

Chenab Bridge: A Gateway to Connectivity and Growth in Jammu & Kashmir

Context:

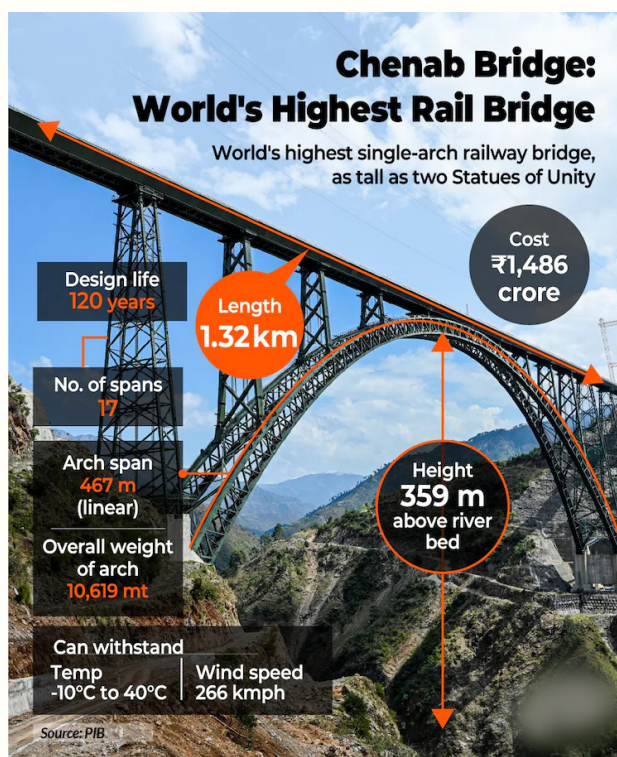
Prime Minister Narendra Modi recently inaugurated Chenab marking a historic moment in India's infrastructure journey. As the world's highest railway arch bridge, the Chenab Bridge is a symbol of modern engineering and regional integration. It forms a critical part of the Udhampur-Srinagar-Baramulla Rail Link (USBRL) project, connecting the Kashmir Valley to the national railway network for the first time.

Strategic Importance:

- The bridge, along with the newly opened

Anji Khad Bridge, enhances connectivity between Jammu and Srinagar. Until now, Kashmir lacked rail connectivity with the rest of the country. The launch of Vande Bharat Express trains between Katra and Srinagar will reduce travel time from 6 hours by road to less than 3 hours by rail.

- PM Modi emphasised that the USBRL project is a symbol of a new, empowered Jammu & Kashmir and a testament to India's growing capabilities.



Key Technical Features:

- **Height:** At 359 metres above the riverbed, the bridge is taller than the Eiffel Tower.
- **Length:** It stretches 1,315 metres (1.3 km).
- **Main Arch Span:** 467 metres, among the longest in the world.
- **Train Speed & Lifespan:** Trains can run at 100 km/h; the bridge is designed to last 120 years.
- **Wind & Earthquake Resistance:** Withstands winds up to 260 km/h and major earthquakes.
- **Blast-Proof:** Designed to be explosion-

resistant.

- **Technology Used:** Made with structural steel to withstand temperatures from -10°C to 40°C . Precision ensured using Tekla software.
- **Cost:** Built at an estimated Rs.1,486 crore.

Significance of such projects:

- Constructing such a bridge in the Himalayan terrain posed major challenges. Engineers built 26 km of approach roads and a 400-metre tunnel to reach the site. Each of the 93 deck segments weighed approximately 85 tonnes, requiring millimetre-level precision. The foundation was secured to mountain slopes, showcasing exceptional engineering skill.
- The project was executed under Konkan Railway Corporation, with contributions from IITs, DRDO, and the Geological Survey of India.

Conclusion:

The Chenab Bridge is more than just an infrastructure project. It stands as a symbol of unity, strength, and progress, connecting the people of Jammu & Kashmir with the rest of the country. With enhanced connectivity, the bridge is set to boost tourism, trade, and employment, ushering in a new era of prosperity in the region.

Government Notifies Guidelines for SPMEPCI

Context:

The Ministry of Heavy Industries (MHI) has issued comprehensive guidelines for the Scheme to Promote Manufacturing of Electric Passenger Cars in India (SPMEPCI). The scheme is designed to attract global investments, boost local manufacturing, and help India meet its ambitious Net Zero by 2070 target.

Objective of the Scheme:

- Attract fresh investments from global EV manufacturers.
- Promote India as a manufacturing destination for electric vehicles.

- Support the Make in India and Aatmanirbhar Bharat initiatives.
- Generate employment and reduce environmental impact.

Key Features of the Scheme:

- **Import Duty Concessions**
 - » Approved applicants can import Completely Built Units (CBUs) of electric four-wheelers with a minimum CIF (Cost, Insurance, and Freight) value of \$35,000 at a reduced customs duty of 15%.
 - » This reduced rate will apply for five years from the date of approval.
 - » **Import limit:** A maximum of 8,000 electric vehicles per year. Unused annual import quota can be carried forward.
 - » Total duty foregone is capped at the lower of Rs.6,484 crore or the amount of investment made by the applicant.
- **Investment Criteria**
 - » **Minimum investment:** Rs.4,150 crore (~\$500 million) to be made within three years of approval.
 - » No upper limit on investment.
 - » Investments can be made in greenfield or brownfield projects (the latter must be physically demarcated from existing operations).
 - » Eligible expenditures include:
 - New plant, machinery, and equipment
 - Associated utilities and R&D infrastructure
 - Buildings (up to 10% of total investment)
 - Charging infrastructure (up to 5% of total investment)
- **Domestic Value Addition (DVA) Requirements:** To qualify and retain benefits, approved manufacturers must:
 - » Achieve minimum 25% DVA within 3 years
 - » Achieve minimum 50% DVA within 5 years
 - » DVA certification will follow procedures outlined under the PLI Auto Scheme and be conducted by agencies approved

by MHI.

- **Bank Guarantee:** Applicants must provide a Bank Guarantee (BG) from a scheduled commercial bank in India equivalent to:
 - » The total duty to be forgone, or
 - » Rs.4,150 crore, whichever is higher.



Scheme to Promote Manufacturing of Electric Passenger Cars in India (SPMEPCI)

Key Features of the Scheme

- The Scheme will attract investments from global EV manufacturers and promote India as a manufacturing destination for e-vehicles.
- Under the Scheme Approved applicants would be required to make minimum investment of Rs. 4,150 crores in line with the provisions of the scheme.
- To encourage the global manufacturers to invest under the Scheme, the approved applicants will be allowed to import Completely Built-in Units (CBUs) of e-4W with a minimum CIF value of USD 35,000 at reduced customs duty of 15% for a period of 5 years from the Application Approval Date.
- A critical component of the scheme is the emphasis on domestic value addition, with mandatory localization of at least 25% within the first three years, progressively increasing to 50% within five years.
- The Scheme will also help put India on the global map for manufacturing of EVs, generate employment and achieve the goal of "Make in India".



Eligibility Criteria:

To qualify for the scheme, applicants must meet the following thresholds:

Parameter	Requirement
Global Group Revenue (from automotive manufacturing)	Minimum Rs.10,000 crore
Global Investment in Fixed Assets (Gross Block)	Minimum Rs.3,000 crore

Strategic Importance:

- This policy represents a carefully calibrated effort to:
 - » Introduce international EV brands to the Indian market.
 - » Encourage them to set up manufacturing bases in the country.
 - » Ensure technology transfer and

localization.

- » Create a comprehensive EV ecosystem, including supply chains and charging infrastructure.

Conclusion:

With these guidelines, India is now positioned to become a global EV manufacturing powerhouse, attracting the world's top electric carmakers while nurturing domestic capabilities for long-term sustainable growth.

India's Provisional GDP Estimates for FY25

Context:

The Ministry of Statistics and Programme Implementation (MoSPI) has released the Provisional Estimates (PEs) for India's Gross Domestic Product (GDP) and Gross Value Added (GVA) for the financial year 2024–25. These estimates serve as a critical indicator of the nation's economic performance and provide valuable input for fiscal planning, monetary policy, and investment decisions.

Key findings:

- **Overall GDP Performance**
 - » India's economy posted a robust performance in FY 2024–25. The Real Gross Domestic Product (GDP) grew by 6.5%, reaching Rs.187.97 lakh crore at constant prices (2011–12 base year). This reflects the economy's resilience amid global uncertainties and domestic structural adjustments.
 - » On the other hand, Nominal GDP, which includes inflation, expanded by 9.8%, reaching Rs.330.68 lakh crore. The higher nominal growth relative to real growth indicates the influence of moderate inflationary pressures in the economy.
- **Primary Sector**
 - » The primary sector, encompassing agriculture, forestry, and fishing, saw a rebound in growth to 4.4%, compared to just 2.7% in the previous fiscal

year. Favorable monsoons, improved agricultural productivity, and stable rural demand were key contributors.

- » Notably, the Q4 growth of the primary sector was 5%, showing strong seasonal performance and contribution to rural income stability.

- **Consumption and Investment:**

- » Private Final Consumption Expenditure (PFCE) grew by 7.2%, indicating a revival in consumer demand. This reflects increased spending by households, particularly in urban areas, possibly fueled by rising disposable incomes and improved job market conditions.
- » Gross Fixed Capital Formation (GFCF), a proxy for investment in physical assets like machinery, buildings, and infrastructure, grew by 7.1%. This signals continued investor confidence and expansion in productive capacity.

- **Manufacturing Sector:**

- » Despite the broad-based recovery, the manufacturing sector continues to underperform. Its Compound Annual Growth Rate (CAGR) stood at just 4.04%, compared to agriculture's 4.72%.
- » This sluggish growth in manufacturing raises concerns about employment generation, as the sector is traditionally a major source of jobs, especially for semi-skilled labor. Structural bottlenecks, weak global demand, and domestic competitiveness issues likely contributed to this muted performance.

Positives findings:

- **Consistent Economic Expansion:** India remains one of the fastest-growing major economies despite global uncertainties.
- **Resilience in Agriculture:** GVA in agriculture has grown faster than manufacturing since FY20.

Challenges:

- **Slowing Nominal GDP Growth:** FY25 shows the third-slowest nominal GDP growth since 2014 at 9.8%.
- **Manufacturing Lag:** Manufacturing GVA

growth lags behind agriculture, highlighting industrial stagnation.

- **Employment Concerns:** Sluggish manufacturing explains high urban youth unemployment and increased labor migration to rural areas.

Significance:

- The provisional GDP data offers critical input for fiscal planning, monetary policy, and investment strategies, reflecting India's macroeconomic stability while exposing vulnerabilities in key growth engines like manufacturing.

Conclusion:

India's provisional GDP data indicates moderate economic resilience with real growth at 6.5%, but deeper issues persist, especially in manufacturing. Addressing sectoral imbalances and revitalizing industrial growth are vital for sustainable development.

NSO Statistical Report 2025

Context:

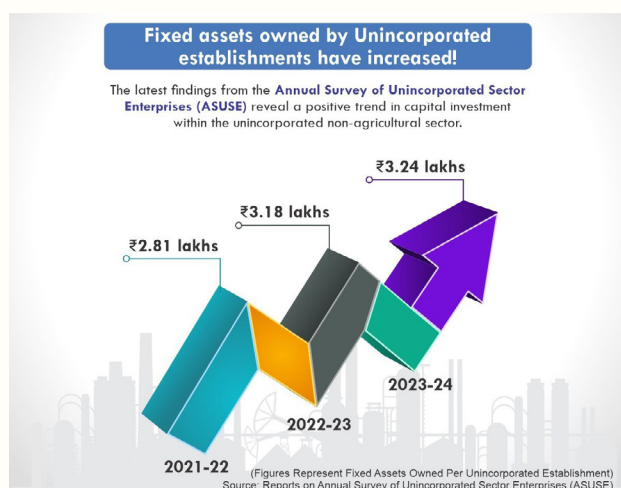
The National Statistics Office (NSO) under the Ministry of Statistics and Programme Implementation (MoSPI) has released its annual "Statistical Report on Value of Output from Agriculture and Allied Sectors (2011–12 to 2023–24)." This detailed publication provides updated data on crop, livestock, forestry, and fishing activities across India, both at current and constant prices (base year 2011–12).

Key Highlights of the Report:

- **Growth in GVA and GVO:** The Gross Value Added (GVA) of agriculture and allied sectors at current prices rose sharply by about 225%, from Rs. 1,502 thousand crore in 2011–12 to Rs. 4,878 thousand crore in 2023–24. At constant prices, the Gross Value of Output (GVO) increased steadily by 54.6%, reaching Rs.2,949 thousand crore.
- **Dominance of the Crop Sector:** The crop sector remained the single largest contributor to GVO. In 2023–24, its output stood at Rs.1,595 thousand crore (constant

prices), accounting for 54.1% of total agricultural GVO. Within this, cereals and fruits & vegetables together made up more than half (52.5%) of crop output. Paddy and wheat alone represented around 85% of cereal GVO.

- **Regional Patterns in Cereal Production:** Five States—Uttar Pradesh, Madhya Pradesh, Punjab, Telangana, and Haryana—collectively contributed nearly 53% of India's cereal GVO in 2023–24. Although Uttar Pradesh retained the top position, its share decreased from 18.6% in 2011–12 to 17.2% in 2023–24.



- **Changing Dynamics in Fruits and Vegetables:** In fruits, Banana overtook Mango as the largest contributor in 2023–24, with GVO of Rs.47.0 thousand crore compared to Mango's Rs.46.1 thousand crore. Potato remained the leading vegetable throughout the period, rising from Rs.21.3 thousand crore to Rs.37.2 thousand crore. Floriculture also expanded significantly, almost doubling its output to Rs.28.1 thousand crore, indicating a shift toward high-value horticulture.
- **Rise of Condiments and Spices:** Madhya Pradesh emerged as the top producer in condiments and spices with a 19.2% share in 2023–24. Karnataka (16.6%) and Gujarat (15.5%) followed, reflecting regional diversification in spice cultivation.

- **Livestock Sector Expansion:** Livestock products saw marked growth, with GVO increasing from Rs.488 thousand crore to Rs.919 thousand crore. Milk remained dominant but slightly reduced its share from 67.2% to 65.9%. The meat group grew from 19.7% to 24.1%, highlighting rising demand for animal protein.
- **Forestry and Logging Trends:** Forestry output grew moderately, from Rs. 149 thousand crore to Rs. 227 thousand crore. The share of industrial wood increased substantially from 49.9% to 70.2%, suggesting shifts in forestry use.
- **Importance of Fisheries:** Fishing and aquaculture became increasingly significant, with their share in agricultural GVO rising from 4.2% to 7%. Notably, the share of marine fish expanded from 42.3% to 49.8%, while inland fish declined proportionately. Major production shifts occurred in West Bengal and Andhra Pradesh.

Conclusion:

The report underscores the steady growth and changing composition of India's agriculture. The increasing role of horticulture, livestock diversification, and fisheries points to evolving consumption patterns and commercial opportunities. These insights are crucial for planning policies aimed at boosting farmer incomes, improving food security, and promoting sustainable development in rural areas.

National Turmeric Board Inaugurated in Telangana

Context:

On June 29, 2025, Union Home Minister Amit Shah inaugurated the headquarters of the National Turmeric Board in Nizamabad, Telangana. This marks a significant milestone for India's turmeric sector, which has long awaited dedicated institutional support to improve farmers' incomes and promote exports.

The significance of the Board:

- Despite turmeric's popularity, farmers have

struggled to get fair prices and modern support. Until now, the Spices Board of India handled turmeric promotion along with over 50 other spices, which limited focused efforts. For decades, turmeric farmers demanded a separate board to address their crop's unique challenges.

- The National Turmeric Board was officially notified in October 2023 and launched in January 2025. However, it only became functional with the opening of its headquarters in June.
- Telangana was selected as the Board's base because it is a major turmeric-producing state. In 2024–25, it ranked as India's third-largest producer of turmeric.

Key Functions and Targets:

- The National Turmeric Board will operate under the Union Ministry of Commerce and Industry. Its primary functions include:
 - » Developing high-quality planting materials and modern cultivation practices.
 - » Promoting processing, packaging, branding, and marketing of turmeric.
 - » Supporting export efforts to meet international standards.
 - » Training and capacity building for farmers.
- To achieve these goals, the central government has allocated Rs. 200 crore. This funding will be used for crop quality improvement, research, and initiatives to raise farmer incomes.
- One of the government's targets is to increase turmeric exports to \$1 billion by 2030. India's growing reputation as a supplier of high-quality turmeric, especially in health and organic markets, will help achieve this.

About Turmeric:

- Turmeric (*Curcuma longa*) is native to India and has been a vital part of Indian food, medicine, and culture for centuries.
- Known for its anti-inflammatory and antioxidant properties, turmeric has become popular worldwide, especially in health and wellness products like turmeric lattes,

dietary supplements, and organic skincare.

- India is the largest producer, consumer, and exporter of turmeric globally. In 2022–23, India cultivated turmeric on 324,000 hectares, producing 1.16 million tonnes, which accounted for more than 75% of global production. India also commanded over 62% of world trade in turmeric.

Benefits for Farmers:

- Turmeric farmers often rely on intermediaries who take a share of their earnings. With the Board's support, farmers are expected to access better markets and sell their produce at higher prices. In 2025, farmers earned about Rs.18,000–Rs.19,000 per quintal of turmeric.
- The government plans to help raise this price by an additional Rs.6,000–Rs.7,000 per quintal within the next three years.
- To support export readiness, the National Cooperative Exports Ltd and National Cooperative Organics Ltd will work closely with turmeric producers. These agencies will assist in:
 - » Ensuring quality and safety standards.
 - » Developing appropriate packaging.
 - » Training farmers on harvesting and post-harvest handling.

Conclusion:

The creation of the National Turmeric Board represents a dedicated effort to strengthen India's position in the global turmeric market, improve farmer welfare, and modernize the supply chain. With proper funding and institutional support, turmeric farmers can expect more stable incomes and greater opportunities in both domestic and export markets.



Internal Security

"Self-reliance in the Defense Sector: expanding India's strategic capabilities"

India's defence sector has seen major progress over the last decade. What was once mostly dependent on imports is now becoming a self-reliant and growing industry. The government has set an ambitious goal of achieving Rs. 3 lakh crore in defence exports by 2029, with Indian defence products already being exported to over 90 countries. This shift is part of a larger plan to strengthen India's military and reduce dependence on foreign suppliers. The defence budget has increased significantly—from Rs.2.53 lakh crore in 2013–14 to Rs.6.81 lakh crore in 2025–26—showing the government's strong focus on national security. Efforts like Make in India, the development of defence corridors, support for private companies, and investment in new technologies have all contributed to this transformation. Today, India is not only modernising its armed forces but also becoming a key player in the global defence market.

From Import Reliance to Record Output:

- ❖ Over the last decade, India has undergone a dramatic shift in defence production. In 2014–15, domestic output stood at Rs.46,429 crore. By 2023–24, this figure had soared to Rs.1.27 lakh crore—a near 174 percent increase.
- ❖ This transformation isn't accidental. The government, guided by a political vision and consistent reforms, consciously shifted focus to domestic procurement. This strategic pivot empowered both public sector undertakings (PSUs) and private players to build a robust manufacturing base spanning air, land, sea, and electronic

systems.

- ❖ The momentum continued into 2024–25. The Ministry of Defence signed 193 contracts worth Rs.2,09,050 crore—the highest ever in a single year. Remarkably, 177 of those contracts (Rs.1,68,922 crore) were awarded to Indian firms, reflecting a clear shift from imports to local production. This doesn't just increase production—it creates jobs, sharpens technological capabilities, and strengthens the defence ecosystem at home.

Major pillars of indigenous defence development:

- ❖ **Defence Industrial Corridors:** Strategic defence manufacturing requires infrastructure. In response, India established two Defence Industrial Corridors:
 - » Uttar Pradesh and Tamil Nadu, covering 11 industrial nodes.
 - » As of February 2025, investment commitments stood at Rs.8,658 crore, with 253 MoUs signalling an additional Rs.53,439 crore in potential investment.
- ❖ **The Positive Indigenisation Lists:** Policy is a powerful catalyst. India has released five "Positive Indigenisation Lists" that restrict imports and nudge domestic production. Covering 5,500+ line items, these lists had already seen 3,000 items indigenised by February 2025. These include:
 - » Artillery guns
 - » Assault rifles
 - » Corvettes
 - » Sonar systems
 - » Transport aircraft
 - » Light Combat Helicopters (LCHs)

- » Radars
- » Wheeled armoured platforms
- » Rockets, bombs
- » Armoured vehicles for command-posts and dozing

The Role of iDEX in innovation:

- ❖ In April 2018, the Innovation for Defence Excellence (iDEX) programme was launched to energize defence innovation through grassroots inventors—MSMEs, startups, research institutions, and academia. Key highlights:
 - » Support through grants up to Rs.1.5 crore per project.
 - » Total procurement of 43 items worth Rs.2,400 crore from iDEX-supported entities.
 - » Allocation of Rs.449.62 crore for FY 2025–26—including the ADITI sub scheme.
 - » 549 problem statements, 619 participants, and 430 contracts by February 2025.

Structural Policy Reforms & Investment Climate:

- ❖ **FDI liberalisation (Sept 2020):** Automatic route up to 74 percent, government route above that. Total FDI since April 2000 stands at Rs.5,516.16 crore.
- ❖ **Tata Aircraft Complex, Vadodara (Oct 2024):** To build C 295 transport ships—40 out of the 56 aircraft project are Indian made.
- ❖ **Manthan (Aero India 2025):** Defence innovation conclave in Bengaluru, connecting startups, investors, academia, and defence.
- ❖ **Defence Testing Infrastructure Scheme (DTIS):** Supports eight greenfield test facilities; seven already approved (UAS, EW, electro optics, communications).
- ❖ **Domestic Procurement Emphasis:** Under DAP 2020, 75 percent of the FY 2025 26 modernisation budget (Rs.1,11,544 crore) is reserved for domestic production.

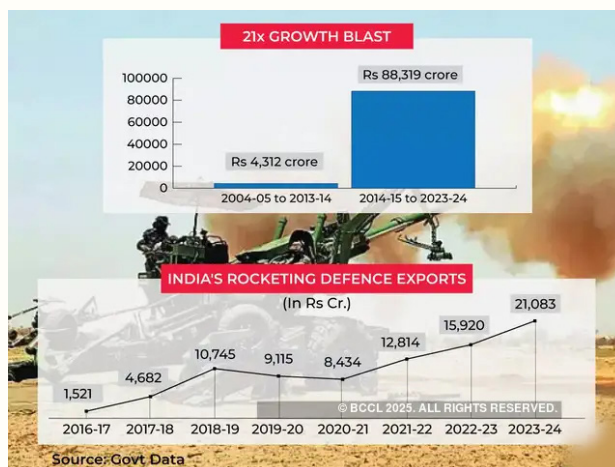
India's Defence Exports:

- ❖ From Rs.686 crore in 2013–14 to

Rs.23,622 crore in 2024–25, Indian defence exports have grown 34 fold. The diversification and depth of exports signal India as a globally trusted defence innovator.

❖ **Key indicators from 2024–25:**

- » Rs.15,233 crore from private sector, Rs.8,389 crore from DPSUs (up from Rs.15,209 crore and Rs.5,874 crore respectively in 2023–24).
- » 42.85 percent growth in DPSU exports.
- » 1,762 export authorisations (16.9 percent increase), with 17.4 percent more exporters.
- » Products exported include bullet-proof jackets, patrol ships, Dornier aircraft, Chetak helicopters, torpedoes.
- » Reach extends to 100+ countries, including the US, France, Armenia.
- » Significant milestone: BrahMos missile contract with the Philippines (Jan 2022), US\$375 million.



Major Acquisitions & Indigenous Programmes:

- ❖ **BrahMos Missiles:** March 2024 contract worth Rs.19,518.65 crore, plus Rs.988.07 crore for ship-launched versions. Expected to generate 900,000 man days JV-level and 13.5 million man days in ancillary industries (MSMEs).
- ❖ **MQ 9B Drones:** Purchase of 31 drones from the U.S. for long-range surveillance and precision roles.

- ❖ **LCH Prachand Helicopters:** March 28, 2025 contracts for 156 helicopters, worth Rs.62,700 crore, with deliveries starting in three years. “Over 65% indigenous content” and 250 MSMEs involved—8,500+ jobs generated.
- ❖ **Advanced Medium Combat Aircraft (AMCA):** In May 2025, the AMCA Execution Model approved; ADA to drive it via industry partnerships.
- ❖ **KC 135 Flight Refuelling Aircraft:** First ever wet-lease for in service training; deployed within six months.
- ❖ **ATAGS Artillery:** Approved procurement of 307 guns and 327 gun towing vehicles (~Rs.7,000 crore). Co-developed by DRDO, Bharat Forge, TAS, range of 40 km, automatic loading; tested rigorously.

Challenges and Opportunities:

- ❖ **Domestic Production:** Maintaining momentum requires deepening R&D and scaling up production capacity. As India aims to hit Rs.50,000 crore in exports by 2029, it must focus on technology parity with global players.
- ❖ **Procurement Efficiency:** DAP 2020’s domestic procurement push is welcome. Even so, bureaucracy and acquisition timelines can limit agility. Streamlined processes, transparent evaluation, and robust industry feedback will be critical.
- ❖ **Innovation Ecosystem:** iDEX has laid the groundwork. However, scaling from prototypes to full-scale production remains a challenge. Better incubation, testing support, finance, and market access are needed to bridge early-stage tech to defence-grade systems.
- ❖ **Skill Development:** High end production demands a skilled workforce—especially in aerospace, avionics, digital systems, and systems integration. Defence corridors and testing hubs should be matched with vocational training and R&D education.
- ❖ **Export Strategy:** Exporting advanced systems—missile systems, UAVs, combat aircraft—requires not just quality but seamless global supply chains, export

compliances, certifications, and diplomatic agreements. Partnerships with friendly countries, tech transfer pacts, and offset mechanisms will be key.

- ❖ **Regional Security Dynamics:** South Asia’s evolving threat environment (China, Pakistan, proxy networks) underscores the need for domestic defence readiness. Indigenous capabilities must be backed by strategic doctrine, diplomacy, and integrated warfare preparedness.

Conclusion:

India’s rising defence industrial capability is delivering on its ambition of becoming self reliant and globally competitive. The path from being a buyer to becoming a builder and exporter of defence systems is now well paved. Strategic clarity, supportive policies, infrastructure, investment, and innovation are all aligning. But ambition must meet action. India must now shift from scaling manufacturing to mastering high-end systems, from military only capability to dual use technologies, and from market insulation to global standards and partnerships. With clear political will and sustained reform, India can transcend its historical defence-import dependency and emerge as a global defence manufacturing powerhouse—stronger, safer, and truly Aatmanirbhar.

Short Issues

Drones and the Evolution of Modern Warfare

Context:

India is witnessing a strategic shift in military doctrine, with drones playing a growing role in conventional warfare. Former Army Chief General M.M. Naravane has urged urgent policy and legal action against drone threats, following Ukraine's successful long-range drone strikes on Russian airbases and India's own use of drones in Operation Sindoor after the Pahalgam terror attack.

Global Lessons in Drone Warfare:

- **Nagorno-Karabakh (2020):** Azerbaijan used Israeli Harop loitering munitions to defeat advanced air defences.
- **Ukraine:** Integrated military and commercial UAVs, including modified off-the-shelf drones, into operations like Operation Spider Web, which struck Russian assets.
- **Myanmar:** Rebel forces used 3D-printed drones to counter superior military forces, showcasing low-cost asymmetric warfare potential.

Military and Commercial Drone Convergence:

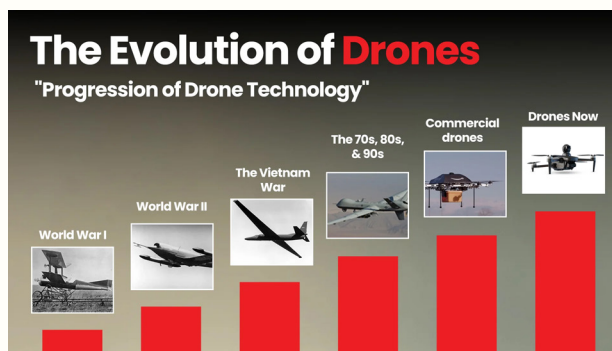
- The line between military and civilian drone technologies is blurring. Drones like Turkey's TB-2, Iran's Shahed, and China's Wing Loong employ dual-use systems, making them accessible and scalable for both states and insurgent groups. Key enablers include:
 - » Open-source software;
 - » Modular hardware;
 - » 3D printing (e.g., Ukraine's Titan Falcon, Myanmar's Liberator).

Drone Resilience and Countermeasures:

- Despite their advantages, drones remain vulnerable to electronic warfare, conventional air defences, and soft- and hard-kill systems. However, modern drones are evolving in response:
 - » **AI-based Navigation:** Ukraine has

employed machine vision and pre-loaded terrain data to help drones navigate around radar systems.

- » **Swarm Tactics:** Russia and China utilize saturation attacks to overwhelm enemy defences with large numbers of expendable drones.
- » **Fibre-Optic Tethering:** Ukrainian forces have used fibre-optic guidance to bypass electronic jamming.
- India's counter-drone capability includes a mix of soft- and hard-kill systems, integrated within the Integrated Air Command and Control System (IACCS), which proved effective during recent escalations with Pakistan.



India's Drone Ecosystem:

- The critical lesson from Ukraine and similar theatres is the importance of a robust and responsive defence industrial base. India faces a unique two-front threat from China and Pakistan, both of whom have invested heavily in unmanned systems:
 - » **China:** Possesses a diverse fleet, including long-range and swarm-capable systems like the Soaring Dragon and CH-901.
 - » **Pakistan:** Continues to enhance its drone capabilities via partnerships with China and Türkiye.
- India must address longstanding issues in its procurement ecosystem:
- **Challenges:**
 - » Unpredictable procurement timelines discourage industry investment.
 - » Lack of volume orders undermines scalability and innovation.

Recommendations:

- » Develop surge manufacturing capacity for drones, loitering munitions, and missile systems.
- » Incentivize private sector participation and modular design to ensure redundancy.
- » Prioritize 3D printing and domestic component ecosystems to reduce foreign dependencies.

Internal Security and Non-State Threats:

- India must also prepare for the threat of weaponised commercial drones in the hands of non-state actors. Attacks on strategic infrastructure using low-cost drones are not hypothetical — they are an operational reality. This demands:
 - » Integration of counter-drone technologies within internal security frameworks;
 - » Training and equipping law enforcement agencies with early warning and response systems;
 - » Civil-military coordination in drone detection and mitigation strategies.

Conclusion:

Drones are redefining modern conflict. India must scale production, invest in innovation, and fully integrate drone capabilities across its armed forces and internal security apparatus. In future wars, success will hinge not just on weapon quality, but on the ability to adapt, replace, and deploy at scale and speed.

India's I-STAR Aircraft Project

Context:

India is set to boost its airborne intelligence and strike power with the upcoming purchase of I-STAR (Intelligence, Surveillance, Target Acquisition, and Reconnaissance) aircraft for the Indian Air Force. The Rs.10,000 crore project is a major move to modernize the country's defence and strengthen its ability to handle growing security threats in the region.

Overview of the I-STAR System:

- I-STAR aircraft are high-altitude systems equipped to conduct multi-spectral surveillance and reconnaissance missions.
- These aircraft provide continuous, real-time intelligence on the battlefield, enabling precise detection and tracking of high-value enemy assets such as mobile air defence units, radar sites, and command centres.
- The system is designed to operate at stand-off distances, allowing the IAF to identify and engage targets without crossing into hostile airspace, thereby reducing risks of escalation and enhancing operational safety.

Procurement and Indigenous Technological Integration:

- The project involves the procurement of three advanced aircraft from international aerospace manufacturers, likely Boeing or Bombardier.
- Crucially, these aircraft will be fitted with fully indigenous sensor and electronic warfare systems developed by the Defence Research and Development Organisation's (DRDO) Centre for Airborne Systems (CABS).
- The indigenous systems, which include radar, electro-optical, and electronic intelligence components, have been extensively tested and validated, enabling rapid integration and deployment.
- This approach exemplifies India's strategic push towards self-reliance (Atmanirbhar Bharat) in defence technologies, combining proven foreign platforms with domestically developed sophisticated avionics.

Strategic and Operational Significance:

- The I-STAR aircraft will enhance the IAF's capability for 24/7 surveillance and target acquisition, including in complex and rugged terrains, under all weather conditions.
- By providing a dynamic and accurate battlefield picture, these platforms will enable coordinated and surgical strikes on critical enemy infrastructure such as air defence units and communication nodes.
- The ability to conduct stand-off precision strikes is vital in contemporary conflict

scenarios where minimizing collateral damage and avoiding escalation are strategic priorities.

- The timing of the project aligns with India's ongoing Operation Sindoor, aimed at neutralizing threats along the Pakistan border, highlighting the immediate operational relevance of enhanced ISR (Intelligence, Surveillance, Reconnaissance) capabilities.

Global Context and National Security Impact:

- Globally, only a selected group of nations—including the United States, United Kingdom, and Israel—operate comparable airborne ISR and strike coordination platforms, underscoring the advanced nature of the capability India is acquiring.
- The integration of indigenous systems on these platforms strengthens India's strategic autonomy by reducing dependence on foreign intelligence sources and enhancing control over critical military technologies.
- Beyond tactical gains, I-STAR aircraft will bolster India's deterrence posture and rapid response capabilities, providing policymakers with calibrated options for conflict management.

Conclusion:

The I-STAR project represents a significant modernization milestone for India's air power, enabling a fusion of global aerospace technology with indigenous high-tech surveillance systems. As India joins the ranks of nations with advanced ISR platforms, it affirms its commitment to maintaining operational readiness and strategic edge in an increasingly volatile regional environment.

India's Emergency Defence Procurements

Context:

Recently, the Ministry of Defence signed 13 contracts worth Rs.1,981.90 crore aimed at rapidly inducting critical equipment. These

acquisitions follow Operation Sindoor, in which India targeted terror infrastructure across the border in Pakistan. The operation led to three days of retaliatory strikes by both countries before a ceasefire was reached, highlighting the urgent need for swift capability augmentation.

MoD CONCLUDED 13 CONTRACTS UNDER EMERGENCY PROCUREMENT MECHANISM WORTH ₹1,981CR AGAINST AN OVERALL SANCTIONED OUTLAY OF ₹2,000CR FOR ARMY



What Is the Emergency Procurement Mechanism?

- The EP mechanism allows the Armed Forces to bypass the usually lengthy procurement procedures and acquire mission-critical systems on a fast-track basis. This is the sixth phase of such procurements. Unlike conventional capital and revenue procurement processes, EP contracts are concluded within compressed timelines to ensure immediate operational readiness.
- Emergency procurement powers were first granted after the 2016 surgical strikes

and were invoked again following the 2019 Balakot airstrikes. They gained further prominence during the 2020 Ladakh standoff with China, leading to repeated extensions to cover evolving security challenges along the Line of Actual Control (LAC).

Key Equipment Being Procured:

- According to the Defence Ministry, the contracts cover a wide range of modern systems and protective gear:
 - » Integrated Drone Detection and Interdiction Systems (IDDIS) for counter-drone operations
 - » Very Short Range Air Defence Systems (VSHORADS) including launchers and missiles
 - » Low Level Lightweight Radars (LLLR) for enhanced surveillance
 - » Loitering munitions, including Vertical Take-Off and Landing (VTOL) systems
 - » Bulletproof jackets and ballistic helmets to improve soldier protection
 - » Quick Reaction Fighting Vehicles (QRFVs) to enhance mobility
 - » Night sights for rifles to improve combat effectiveness in low-visibility conditions
- The ministry highlighted that these acquisitions were finalised against a sanctioned outlay of ₹2,000 crore, with most systems sourced from domestic manufacturers under the government's self-reliance drive in defence production.

Recent Policy Moves:

- Defence Secretary announced that the government had authorised the Army, Navy, and Air Force to spend up to 15% of their capital budgets on emergency procurements. This is intended to replenish operational stocks and bridge capability gaps swiftly.
- In the past five years, emergency powers have been used to acquire a wide range of advanced platforms and munitions:
 - » HAMMER air-to-ground precision-guided weapons for Rafale jets
 - » Spice bombs for precision strikes
 - » Man Portable Air Defence Systems

(MANPADS) for frontline troops

- » Armour-Piercing Fin-Stabilised Discarding Sabot (APFSDS) ammunition for T-72 and T-90 tanks
- » Hundreds of UAVs, loitering munitions, swarm drones, and counter-drone systems
- These procurements have significantly improved India's capabilities in surveillance, precision targeting, and mobility.

Conclusion:

The Ministry of Defence has emphasised that the EP route remains a key enabler in ensuring timely induction of modern operational equipment. The approach demonstrates a clear shift towards an agile and responsive procurement framework that aligns with India's evolving security landscape. By combining indigenous manufacturing with accelerated timelines, India aims to maintain a credible deterrence posture and safeguard national interest.

Power Packed News

Collection of President Murmu's speeches

- Defence Minister Rajnath Singh on 23 June released 'Wings to Our Hopes - Volume II', a compilation of 51 speeches of President Draupadi Murmu for the second year (August 2023 - July 2024). The compilation has been compiled by Rashtrapati Bhavan and published by Publications Division, Ministry of Information and Broadcasting. Ministers Ashwini Vaishnav, L. Murugan were also present at the release ceremony.
- The book takes forward the discourse focused on governance, inclusiveness and national aspirations. It will be available in Hindi and English including e-book.
- The Publications Division has been documenting the speeches of the President and the Prime Minister for the last eight decades and also publishes books on the national freedom movement, art, culture and literature.

New Delhi 2025 World Para Athletics Championships

- The Paralympic Committee of India (PCI) unveiled the official logo and mascot 'Viraj' for the 2025 World Para Athletics Championships to be held in New Delhi.
- The mascot Viraj depicts a young elephant with a bladed prosthetic limb, symbolizing courage, resilience and hope.
- Present at the event on June 20 were Delhi Chief Minister Rekha Gupta, PCI Patron Vanathi Srinivasan, and actress-MP Kangana Ranaut, who is also the brand ambassador of the championship.
- The official logo reflects India's cultural heritage and the vibrancy of New Delhi.
- The championship, to be held in October 2025, will be the biggest ever para athletics event in India, with athletes from over 100 countries expected to participate.

Tripura becomes third fully literate state

- Tripura has earned the distinction of becoming the third Indian state after Mizoram and Goa to achieve full functional literacy under the 'ULLAAS – Nav Bharat Literacy Programme'.
- This achievement is based on the national standard of literacy of citizens aged 15 years and above. Chief Minister Manik Saha shared this historic announcement at Rabindra Satbarshiki Bhawan in Agartala.
- The literacy rate of the state has gone up to 95.6%, up from only 20.24% in 1961. 'ULLAAS' is a centrally sponsored scheme, which will run from 2022 to 2027 and provides basic literacy, numeracy and life skills to adults in line with the National Education Policy 2020.
- This transformative step of Tripura is an important milestone in the direction of education.

Group Captain Shubhanshu Shukla second Indian to reach space

- Indian Air Force Group Captain Shubhanshu Shukla created history on June 25 by traveling to the International Space Station (ISS) under the commercial mission of Axiom Space. He became the second Indian to go to space after Rakesh Sharma.
- 39-year-old Shukla has flown more than 2,000 hours on various fighter aircraft. He was part of the crew selected for the Gaganyaan mission in 2019.
- His mission, Axiom-4, launched from Florida in collaboration with both NASA and ISRO.
- He was accompanied by astronauts Tibor Kapu of Hungary, Slawoj of Poland, and commander

Peggy Whitson.

- The mission marks the return of human flight to space for India, Hungary and Poland and reflects India's progress in the space sector.

Christy Coventry becomes first woman head of IOC

- Former Zimbabwean Olympic swimmer Christy Coventry became the first woman and first African head of the International Olympic Committee (IOC) on 23 June 2025.
- She was elected in March 2025, where she defeated six other candidates. Her term will be for eight years, including overseeing the Los Angeles 2028 Summer Olympics.
- She stressed the relevance of the Olympic movement and the need to adapt to change.
- Outgoing president Thomas Bach, who held the position for 12 years, was bid farewell by handing over the symbolic key and now becomes honorary president. This historic shift is a significant step towards IOC's inclusivity and diversity.

Aralam Butterfly Sanctuary: India's first butterfly reserve

- Kerala's Aralam Wildlife Sanctuary is now officially declared as the 'Aralam Butterfly Sanctuary', making it India's first butterfly reserve.
- Spread across 55 sq km, the sanctuary is home to over 266 butterfly species, representing 80% of Kerala's total butterfly population. The recognition came after 25 years of continuous surveys and conservation efforts.
- The sanctuary springs to life during the seasonal migration period from October to February. Species like the Common Albatross add to the biodiversity here.
- Elephants, leopards and giant squirrels are also found in the sanctuary along with butterflies. It reflects the state's commitment towards conserving biodiversity.

India to host 2029 World Police and Fire Games

- India has been awarded the hosting rights of the 2029 World Police and Fire Games (WPFG). The decision came after a successful bid presentation by Indian delegates to the WPFG Federation in Birmingham, USA.
- The games will be held in Ahmedabad, Gandhinagar and Ekta Nagar. The WPFG is one of the largest multi-sport events in the world, with police, fire and emergency service personnel from 70+ countries participating.
- The event is held biennially and is open to active and retired personnel. The Union Ministry of Home Affairs also supported the effort.
- The event will be a historic opportunity to showcase the capability and sporting participation of internal security forces in India on a global platform.

ICC makes major changes to cricket rules

- The ICC has introduced several new rules across all formats of cricket from July 2025. Test matches now have a stop clock – failure to bowl the next over in 60 seconds will result in a warning and a 5-run penalty for repeating the over.
- In concussion cases, it has been made mandatory to nominate a pre-match substitute and a minimum of 7 days of rest. There will be a six-month trial of rules on wide deliveries in ODIs

and T20s.

- The stricture on shining the ball with saliva has been removed; now the umpires will take decisions according to the condition of the ball.
- According to the change in DRS, if the ball tracking shows 'umpire's call' in the review of the secondary out, then the original decision will remain. These rules aim to make the game fast, safe and transparent.

India's first quantum computing valley hub

- India's first quantum computing valley will be launched in Amaravati, Andhra Pradesh by January 2026. This tech hub will promote research, innovation and industry collaboration.
- IT Secretary Katamneni Bhaskar announced this and said that it will benefit the education, health, agri-tech, pharma and med-tech sectors. Supported by the Ratan Tata Innovation Hub, this center will be helpful in startup development and job creation.
- In line with the National Quantum Mission, this center will also enable secure networking under the 'QNU Project' on the security front.
- Global companies like IBM and Google are already partners in this effort. The establishment of Logical Qubit Quantum Systems is proposed in Amravati, which is an important step towards India's goal of technological self-reliance.

Parag Jain becomes new RAW chief

- The central government on June 28, 2025 appointed senior IPS officer Parag Jain as the head of Research and Analysis Wing (RAW) for a fixed term of two years. He will replace the current chief Ravi Sinha, who will retire on June 30.
- Jain, a 1989 batch officer of Punjab cadre, is currently the director of Aviation Research Center and has played a key role in operations in Jammu and Kashmir during Operation Sindoor, Article 370.
- RAW was established in 1968 after the Indo-China and Indo-Pak wars.
- It is India's premier foreign intelligence agency, whose motto is "Dharmo Rakshati Rakshitah". Its objective is to collect intelligence from abroad, combat terrorism and proliferation, and protect strategic interests.

AYUSH Nivesh Sarathi Portal

- The Ministry of AYUSH in collaboration with Invest India has recently launched the 'Ayush Nivesh Sarathi Portal', aimed at encouraging investments in the AYUSH sector (Ayurveda, Yoga, Naturopathy, Unani, Siddha and Homeopathy) in India and abroad.
- The portal serves as an integrated platform for investors, policy makers and industry representatives where government policies, incentive schemes and investment projects are easily available.
- The main objective is to simplify the investment process, promote 100% FDI, motivate private sector participation and integrate various government schemes.
- The portal has key features such as investor-centric interface, live dashboard, global reach and multilingual facility.
- This initiative will boost India's fast growing \$50 billion AYUSH industry, which is expected to reach \$200 billion by 2030. Exports from the sector reached \$651.17 million in FY 2023-24.

This portal also has the potential to give new direction to medical value travel, startups and global health diplomacy.

Poson Poya Festival in Sri Lanka

- Recently, the festival of 'Poson Poya' was celebrated with great enthusiasm and devotion in Sri Lanka. This festival is celebrated on the full moon day of June and has deep historical and cultural significance.
- This is the day when Arahata Mahindra, son of Emperor Ashoka, preached Buddhism to King Devanampiyatissa of Sri Lanka in 247 BC in the Mihintale hill station.
- This event is considered as the formal establishment of Buddhism in Sri Lanka, which deeply influenced the religious, moral and political structure of the country.
- Buddhism originated in India in the sixth century BC, when the need for an alternative spiritual path was felt in a society torn by social inequality and rituals. This religion founded by Siddhartha Gautama opposes the caste system and brahminical dominance and emphasizes meditation, morality and compassion.
- Different branches of Buddhism—Theravada, Mahayana, Vajrayana and Navayana—developed in different countries and social contexts. The Theravada branch has a major influence in Sri Lanka.
- Poson Poya is not just a religious festival but a symbolic commemoration of cultural ties between India and Sri Lanka.
- The festival is a living example of the sustainability of Buddhist values in Sri Lankan society and the international acceptance of Indian Buddhist heritage.

SEEDS Initiative and India-Suriname Cooperation

- India recently dispatched the last consignment of machinery for a passion fruit processing unit in Suriname under the SEEDS (Supply of Equipment for Efficient Development of SMEs) initiative. This initiative is a significant effort to promote sustainable and inclusive economic development in developing countries under India's South-South Cooperation.
- Under this, India has provided a grant of \$1 million to Suriname and the project is being implemented with technical assistance from NABCONS.
- The project aims to empower small and medium enterprises (SMEs) in Suriname, add value to agricultural products and promote employment generation.
- Passion fruit, which is rich in vitamins A, C, fibre and antioxidants, was selected due to its export potential and nutritional value.
- The SEEDS initiative strengthens bilateral relations between India and Suriname, builds local capacities and promotes India's soft power. It is also an example of economic diplomacy in India's foreign policy and deepening relations with the Indian diaspora.
- Suriname, a forested country located on the north-eastern coast of South America, has Paramaribo as its capital and Dutch as its official language. The project also strengthens India's image as a responsible global partner.

Performance Grading Index (PGI) 2.0

- The Performance Grading Index (PGI) 2.0, released by the Union Ministry of Education, presents a combined assessment for the years 2022–23 and 2023–24. It rates the performance of states

and union territories in school education on a 1000-point system based on six areas—learning outcomes, access, infrastructure, equity, governance process and teacher training.

- In 2023–24, no state could make it to the first four levels (Level 1–4). Chandigarh topped "Prachishta-1" (Level 5) with 703 points. It was followed by Punjab, Delhi, Gujarat, Odisha, Kerala etc. states in "Prachishta-3" (Level 7). Only Meghalaya remained in "Aspirational-3" (Level 10).
- Subject-wise, most states ranked below average in "Learning Outcomes". Odisha topped in the "Access" area, while Bihar and Jharkhand showed significant improvement. Chandigarh topped in "Infrastructure" and the performance of all states was relatively balanced in the area of "Equity".
- This report clearly shows that most of the states in India are still far from the highest standards of education. It provides guidance to policymakers towards improving the quality of education, increasing investment in infrastructure and teacher training.

Global Tobacco Control Award 2025 to India

- India has been awarded the Bloomberg Philanthropies Global Tobacco Control Award for the year 2025. This honor was given to the National Tobacco Control Cell of the Ministry of Health at the World Conference on Tobacco Control held in Dublin, Ireland.
- This honor has been given under the 'O' category (helping to quit tobacco) of WHO's MPOWER framework. The National Tobacco Control Program (NTCP) is playing a major role in India's tobacco control efforts.
- Under this, free consultation services are being provided in 1800-11-2356 helpline, four major treatment centers like NIMHANS, 675 district hospitals, 302 dental colleges and 361 medical colleges.
- Apart from this, tobacco cessation services have been integrated in 607 NCD clinics and Ayushman Arogya Mandirs.
- According to the WHO report, the number of smokers has declined by 26% globally between 2007 and 2023.
- In India, the adult smoking rate was 7% in 2023, which is a positive sign. However, the consumption of smokeless tobacco products like gutkha, khaini is still a matter of concern.
- Along with India, Mauritius, Mexico, Montenegro, Philippines and Ukraine have also received this award. This achievement establishes India as a leading nation in global tobacco control efforts.

Chandipura Virus and Favipiravir

- A recent study by Pune-based National Institute of Virology (NIV) has found that the antiviral drug Favipiravir has shown effective protection against Chandipura virus (CHPV) in pre-clinical trials. The virus is an emerging encephalitic virus that is mainly transmitted by sand flies and particularly affects children under the age of 15 years.
- The Chandipura virus belongs to the Rhabdoviridae family and its infection can lead to high fever, seizures, brain swelling and even death. It was identified in Maharashtra in 1965.
- During a major outbreak in Andhra Pradesh in 2003, more than 300 children were infected, and the mortality rate was more than 50%. Its re-emergence in 2024 has made it a serious public health threat. Currently, 64 cases have been confirmed, most of them from Gujarat.
- Favipiravir, which is commonly used to treat influenza, has been found effective in reducing

the amount of virus and reducing mortality in tests on mice. However, at present there is no specific treatment or vaccine available for CHPV.

- Therefore, symptom-based treatment, vector control, hygiene and public awareness are the main preventive measures. Scientists are also working towards vaccine development.

India ranked 71st in Energy Transition Index 2025

- According to the 'Fostering Effective Energy Transition 2025' report released by the World Economic Forum, India has come down to 71st place in the list of 118 countries, eight places down compared to last year.
- Sweden, Finland, Denmark, Norway and Switzerland are in the top five. China ranked 12th and the US 17th, while Pakistan ranked 101st. India has made commendable progress in many areas such as energy efficiency, clean technologies and improving methane emissions.
- The country has also increased its ability to attract energy investment. The report said that India and China made the most progress among the major economies.
- The US topped the list in energy security, while India was the leader in efficiency and investment growth.
- The report measured performance on five readiness factors: political commitment, finance, innovation, infrastructure, and human capital.
- While 77 of the 118 countries improved scores, only 28% of the countries made progress in all three dimensions—energy security, sustainability, and equity. Global emissions reached a record 37.8 billion tonnes, mainly due to a 2.2% increase in energy demand.

India Post Payments Bank wins Digital Payments Award

- India Post Payments Bank (IPPB) has been awarded the Digital Payments Award 2024-25 by the Department of Financial Services, Ministry of Finance. The award was presented by Finance Minister Nirmala Sitharaman and Minister of State for External Affairs Pankaj Choudhary at a ceremony held in New Delhi.
- The bank was honored for promoting digital payments and financial inclusion across the country. IPPB ranked first among all payment banks in the Performance Index for the year 2024-25 and also received a Special Mention for the year 2023-24.
- Its doorstep banking model, operated by over 2 lakh postmen and Gramin Dak Sevaks, provides tech-enabled citizen-centric banking services. Started on 1 September 2018, the bank is 100% owned by the Government of India and operates under the Department of Posts.
- Today, the bank has reached 11 crore customers in 5.57 lakh villages and towns of the country, providing services in 13 languages. Due to this strong technological infrastructure, it is making digital banking accessible even in the most remote areas of the country.

Operation Sindhu

- The Government of India carried out the safe return of Indian citizens stranded in Iran under a special evacuation operation called "Operation Sindhu". This operation started on 18 June 2025, when the safety of Indians living there, especially students, was in danger due to the escalating conflict between Israel and Iran.
- Under the operation, first 110 Indian students were evacuated from Iran to Armenia, from where they were airlifted to Delhi. This mission reflects India's "Vasudhaiva Kutumbakam"

policy and commitment to the safety of its citizens.

- The Ministry of External Affairs, Ministry of Civil Aviation and Ministry of Defence acted swiftly with mutual coordination in this operation. This operation is an example of India's crisis-management capabilities and readiness to respond to global events.
- Earlier, India had also carried out successful operations like 'Operation Ganga' during the Ukraine crisis and 'Operation Kaveri' during the Sudan conflict. Operation Sindhu not only reflects the sensitivity of the government but also underlines its responsibility towards Indians abroad.

UPSC's new initiative 'Pratibha Setu'

- The Union Public Service Commission (UPSC) has launched the 'Pratibha Setu' initiative to provide employment opportunities to talented candidates who cleared the exam but were left out of the final merit list.
- This is the new name of 'Public Disclosure Scheme (PDS)', which has been active since 2018. This database contains profiles of more than 10,000 candidates who cleared all the stages but could not get selected.
- Verified government and private employers have been given access to this databank through a secure login. They can select these talented candidates, whose qualifications are similar to those of the selected candidates.
- A brief biodata is provided with the education, qualifications and contact details of the candidates. This not only provides a new opportunity to the candidates but also opens the way for employers to get trained and competent resources.
- This initiative is a step to take UPSC's transparency, social responsibility and identification of qualified talent to a new level. This will also give an opportunity to the participants who are out of the government examination system to get a place in prestigious organizations.

Kashmiri folk singer Ustad Ghulam Nabi Shah passes away

- Renowned Kashmiri folk singer and cultural icon Ustad Ghulam Nabi Shah, popularly known as "Humle Bulbul", passed away at Dangiawacha Rafiabad in Baramulla.
- He served the Information Department of Jammu and Kashmir for over three decades and brought recognition to Kashmiri folk music at national and international platforms.
- Shah, who was adept at playing sarangi, was famous for his 'Glass Dance' and 'Baccha Nagma' dance style, in which he used to dance by balancing a glass of water on his head.
- In 2011, he was awarded the Sher-e-Kashmir Sheikh Abdullah Award. His art played an important role in keeping the rich cultural heritage of Kashmir alive.

South Africa won the World Test Championship title

- South Africa won the ICC World Test Championship title for the first time by defeating Australia by 5 wickets in the final played at Lord's on 14 June 2025.
- Successfully chasing a target of 282 runs, it became the second-largest win in the fourth innings at the historic venue.
- Aiden Markram played a brilliant innings of 136 runs. This is South Africa's second ICC trophy after 1998. Earlier, New Zealand (2021) and Australia (2023) have been the winners.
- The championship started in 2019 and is a league-based competition for Test cricket. This

victory also helped South Africa break the image of a "team that misses at crucial moments".

TRAI launches pilot project for digital consent registry

- The Telecom Regulatory Authority of India (TRAI) has launched a pilot project on digital consent registry to deal with the problem of spam calls and messages. This pilot has been started in collaboration with RBI and some major banks, so that the consent of consumers can be verified and protected through digital means.
- TRAI found that most spam communications come from companies with which consumers have previously transacted, but their consent is often taken offline and unauthorized.
- This pilot is being conducted under the Telecom Commercial Communications Customer Preference Regulations, 2018. It aims to create a transparent, secure and interoperable digital consensus ecosystem.

PM Modi receives Cyprus' highest civilian honor

- On 16 June 2025, Prime Minister Narendra Modi was awarded Cyprus' highest civilian award "Grand Cross of the Order of Makarios III". This honor was given to him by Cyprus President Nikos Christodoulides.
- PM Modi dedicated this honor to the 1.4 billion citizens of India and described it as a symbol of strong democratic values and mutual cooperation between India-Cyprus.
- The award was established in 1981 and is given for contribution to international peace, relations and goodwill. This visit gave a new dimension to the strategic and diplomatic partnership in bilateral relations between India-Cyprus.

Blaze Metreveli becomes the first female head of MI6

- British Prime Minister Keir Starmer has appointed Blaze Metreveli as the first female head of MI6. This is the first time in its 116-year history that a woman has been entrusted with the leadership of this prestigious intelligence agency.
- Metreveli previously served in a senior position at MI5 and then as Director of Technology and Innovation (Q) at MI6. She will replace the current chief Sir Richard Moore, who will step down in the autumn. Her appointment comes at a time when Britain is facing national security challenges such as cyber attacks and foreign interference. This appointment is also a historic step towards empowering women leadership.

PM Modi's Croatia visit

- Prime Minister Narendra Modi completed his first official visit to Croatia on 15–16 June 2025, which was an important step towards strengthening India-Croatia relations.
- He met Prime Minister Andrej Plenkovic in Zagreb and discussed cooperation in areas such as trade, shipbuilding, defense, and cyber security.
- Four major agreements were signed between the two countries, including agriculture, cultural exchange, science and technology, and the establishment of a Hindi Chair at the University of Zagreb. Modi was presented a reprinted copy of a historical Sanskrit grammar text and a special book. The visit was helpful in further deepening the strategic partnership and cultural engagement.

Gyan Post

- The Department of Posts of the Government of India has launched a new service called 'Gyan Post' for affordable and accessible delivery of educational, cultural, religious and social books. The aim of this service is to ensure equal access to education across the country, especially in rural and remote areas.
- 'Gyan Post' has been designed in line with the objectives of the New Education Policy (NEP), which is an important step towards making quality education and study material accessible to all citizens.
- This service will be operated through all post offices in the country. A maximum fee of Rs.20 has been fixed for book parcels up to 300 grams and Rs.100 for parcels up to 5 kg (excluding taxes). Tracking facility of parcels will also be provided, ensuring transparency and trust.
- This initiative will not only help in reducing educational inequality, but small publishers and distributors will also benefit from nationwide reach. This is a testimony to the commitment of the Department of Posts to social concerns even in the age of digital delivery.

Tiger Claw Joint Air Force Exercise

- The Indian Air Force (IAF) and the United States Air Force (USAF) successfully conducted a joint military exercise called 'Tiger Claw' in North India from May 26 to June 10, 2025.
- The exercise was conducted at the Garud Regimental Training Center (GRTC) in Chandinagar, Uttar Pradesh. Its aim was to enhance mutual synergy in special operations and develop joint strategies.
- During the 'Tiger Claw' exercise, the air forces of both the countries conducted intensive training, exchange of strategic information and joint missions.
- This exercise was an important step towards coordination between the Indian Garud Commandos and the US Special Forces. This exercise is a reflection of the ever-strengthening strategic partnership between India and the US.
- This exercise is also helpful in the direction of establishing the Joint Special Operations Unit of India's three armies - AFSOD (Armed Forces Special Operations Division).
- This tri-service unit, approved in 2019, includes soldiers trained for special missions. This will give a new direction to India's combat capability and international cooperation.

India became the President of the IIAS

- On 3 June 2025, India achieved a historic feat by becoming the President of the International Institute of Administrative Sciences (IIAS). India defeated Austria in the final round of voting.
- The Indian candidate, V. Srinivas, Secretary of the Department of Administrative Reforms and Public Grievances (DARPG) was nominated by Prime Minister Narendra Modi in 2024.
- India got 87 votes, and Austria got 54 votes in the election. India received 61.7% support out of a total of 141 votes. South Africa withdrew its candidature in favour of India in May 2025. This was the first time in the 100-year history of IIAS that the President was selected by voting.
- India's presidency will promote North-South cooperation in global governance, as well as encourage digital governance and inclusive policies.
- Prime Minister Modi's vision of "maximum governance, minimum government" will be made the guiding principle during the 2025-28 presidency. Established in 1930, this institution plays an important role in global policy discussions on public administration. Its headquarters

is located in Brussels and India has been a member since 1998.

President Murmu confers Vishisht Seva Awards

- On June 4, 2025, President Draupadi Murmu conferred Vishisht Seva Medals to 92 officers of the Armed Forces, Coast Guard and Border Roads Organisation during the Defence Investiture Ceremony-II held at Rashtrapati Bhavan.
- The awards included 30 Param Vishisht Seva Medals (PVSM), 5 Uttam Yudh Seva Medals (UYSM), and 57 Ati Vishisht Seva Medals (AVSM). These honours recognise exceptional service, combat efforts and leadership qualities.
- Lt Gen Manoj Kumar Katiyar, Dheeraj Seth, Air Marshal Narmdeshwar Tiwari and Nagesh Kapoor were awarded the PVSM. Tiwari took over as the Vice Chief of the Air Force on May 2, while Kapoor became the head of the South Western Air Command on May 1. Lt Gen Rajeev Ghai received the UYSM for his contribution to Operation Sindoor.
- Lt Gen Bhavnish Kumar received the AVSM for leading the 2025 Republic Day parade. Through these awards, India has honoured the selfless service and unparalleled dedication of the brave officers who contributed significantly in enhancing the security and pride of the nation.

Lee Jae-myung becomes the new President of South Korea

- Lee Jae-myung has officially taken over as the 21st President of South Korea for a term of 5 years. He represents the Liberal Democratic Party and defeated Kim Moon-soo of the People's Power Party in the recently held presidential election. The National Election Commission confirmed the election results.
- This election took place after the removal of former President Yoon Suk-yol, who was removed from office for attempting to impose martial law. Lee Jae-myung described Yoon's action as an "attempt to coup" and promised to prevent recurrence of such incidents.
- In his address, Lee expressed his desire to restore dialogue with North Korea, while reiterating his commitment to continue a strong security partnership with the US.
- South Korea is a unitary presidential republic whose capital is Seoul and the currency is the South Korean won. It is an East Asian country with a land border with North Korea. Lee's leadership is considered important in strengthening political stability and democracy in the country.

India's first e-waste eco park in Delhi

- The Delhi government is setting up India's first e-waste eco park in Holambi Kalan. The park will be spread over 11.4 acres and will scientifically manage 51,000 metric tonnes of e-waste per year.
- It will cover all 106 categories listed under the 2022 e-waste rules. The project has an initial investment of Rs 150 crore and an operational budget of Rs 325 crore. It is expected to generate revenue of about Rs 350 crore.
- The project will be developed in public-private partnership under the DBFOT model. The construction work will be completed in 18 months and it will process 25% of Delhi's total e-waste.
- India is the third largest e-waste producer in the world and Delhi contributes 9.5% of it. This park is the first of four proposed such parks in the country.

Exercise 'Khaan Quest'

- On 11 June 2025, a contingent of the Indian Army arrived in Ulaanbaatar, Mongolia to participate in the multinational military exercise 'Khaan Quest'. The exercise was held from 14 to 28 June and involved armies from several countries.
- The main objective of the exercise is to enhance readiness for peace missions under the Charter VII of the United Nations. It includes setting up posts, patrolling, clearance and IED response operations. The Indian contingent included 40 soldiers of the Kumaon Regiment, a woman officer and two women soldiers. The exercise started in 2003 between the US and Mongolia and has now become an annual platform for global peacekeeping.

Exercise Shakti-2025

- The joint military exercise 'Shakti-2025' between India and France was held at La Cavalerie, France from 18 June to 1 July 2025. It was the eighth edition of the Exercise Shakti series.
- It aimed to promote joint preparedness for multi-domain operations in sub-conventional warfare scenarios. The armies of the two countries shared strategies, techniques and procedures which enhanced mutual understanding and interoperability.
- Exercise Shakti is biennial and is held alternately in India-France. The last edition took place in May 2024 at Umroi, Meghalaya. The exercise is an important step towards strengthening India-France defence cooperation.

Air India plane crash

- The Air India Boeing 787-8 Dreamliner aircraft crashed shortly after takeoff from Ahmedabad at 1:39 pm. The London-bound flight had 242 people on board, including 230 passengers and 12 crew members.
- The accident killed 241 people and only one passenger, Vishwash Kumar Ramesh, survived.
- The plane crashed over Ahmedabad's BJ Medical College, killing several medical students. Former Gujarat chief minister Vijay Rupani was among the dead. The pilot made a 'mayday' call as soon as he took off, indicating a full emergency.
- Tata Group chairman N. Chandrasekaran announced a compensation of Rs.1 crore to each victim's family and bearing the cost of treatment of the injured. The Tata Group will also build a new hostel at BJ Medical College. The accident is being investigated by the Aircraft Accident Investigation Bureau (AAIB), a government of India body set up in 2012.

Karol Nawrocki becomes the new President of Poland

- Karol Nawrocki has registered a historic victory in Poland's presidential election. He contested as an independent candidate but had the support of the opposition Law and Justice (PiS) party.
- Nawrocki got about 51% of the vote, while the ruling Civic Coalition candidate and Warsaw Mayor Rafal Trzaskowski got a little over 49%. This was Nawrocki's first attempt at the presidency and he seemed to be lagging behind in pre-election opinion polls and exit polls, but the final result surprised everyone.
- He will now replace the current President Andrzej Duda, whose second and final term ends on 6 August 2025. Nawrocki's election is seen as a possible change in Poland's political direction,

especially at a time when the conflict between right-wing and liberalism is increasing in Europe.

- Poland is a unitary semi-presidential republic located in Central Europe. Its capital is Warsaw and the currency is zloty. Navroki's victory has increased the possibility of a change in the political balance.

Flipkart gets NBFC license

- Indian e-commerce company Flipkart has achieved a major milestone by obtaining a non-banking financial company (NBFC) license from the Reserve Bank of India (RBI).
- Flipkart has become the first major Indian e-commerce company to achieve this feat. Now the company will be able to provide loans directly to its customers and sellers, although it cannot accept public deposits.
- This change is quite different from its previous model, where it used to finance through banks like Axis Bank and IDFC. The new model will be more direct and profitable. Flipkart will provide loan services through its main platform and fintech app Super.money.
- This move not only reflects the expansion of digital finance but also strengthens Flipkart's position in the competitive market. Especially when rival Amazon has recently acquired NBFC Exio but has not yet received regulatory approval.
- Flipkart's valuation had reached \$37 billion after a \$1 billion funding round led by Walmart in 2024. Now, the company is shifting its holding structure from Singapore to India. This development reflects the trend of integration of e-commerce and financial services.

Luis Montenegro again becomes Prime Minister of Portugal

- On 29 May 2025, President Marcelo Rebelo de Sousa reappointed Luis Montenegro as the Prime Minister of Portugal. He will lead the 25th government of Portugal. Montenegro's Democratic Alliance (AD) won 91 seats in the elections, giving them the mandate to form the government. The right-wing Chega party came in second with 60 seats, while the Socialist Party (PS) got 58 seats.
- The Chega party had demanded changes in the constitution, which Montenegro rejected outright. His stance makes it clear that he wants to maintain distance from radical right-wing ideas. Portugal is located on the Iberian Peninsula in southwestern Europe, with its capital in Lisbon and its currency being the euro. It is a unitary semi-presidential republic. Montenegro's return is seen as crucial to maintaining political stability, especially at a time when right-wing forces are on the rise in many parts of Europe.

20% reservation for former Agniveers in UPP recruitment

- The Uttar Pradesh government on June 3, 2025, approved a proposal to provide 20% horizontal reservation in police recruitment to former Agniveers. This reservation will be applicable in direct recruitment of police constable, provincial armed constabulary (PAC), mounted police and firemen posts. It will be effective across all categories – general, SC, ST and OBC – in their respective reservation categories.
- Former Agniveers will also be given an age relaxation of three years. The first recruitment drive under this policy will begin in 2026, when the service period of the first Agniveer batch ends.
- The decision is a significant step towards providing permanent post-service employment to youth who have served for four years under the central government's Agniveer scheme.

- The Agneepath scheme, which launched on June 15, 2022, aims to increase the recruitment of youth in military services and reduce pension expenditure. This decision will not only increase opportunities for former Agniveers but will also bring discipline and military efficiency in the police force.

Thailand's Opal becomes Miss World 2025

- Thailand's Opal Suchata Chuangsri won the Miss World 2025 pageant held at the Hitex Exhibition Centre in Hyderabad on 31 May 2025. She created history by becoming the first woman from Thailand to win the title.
- She received the crown from Czech Republic's Kristina Piskova, who was Miss World 2024. The 72nd edition of the pageant saw 108 participants from across the world.
- Ethiopia's Haset Dereje was the first runner-up and Poland's Maja Klajda was the second runner-up. India was represented by Nandini Gupta and she managed to make it to the top 20. Opal is a model and a student of international relations. She aims to become an ambassador in the future. She is interested in psychology and anthropology and works as a volunteer in organisations related to breast cancer. Her special talent is playing the ukulele upside down. Her social initiative Opal for Her focuses on women's education and empowerment.

D Gukesh creates history by defeating Carlsen

- Indian chess player Domraju Gukesh registered his first classical format win over former world number 1 Magnus Carlsen in the sixth round of the Norway Chess 2025 tournament.
- The feat makes him the second Indian player to defeat Carlsen after Grandmaster Rameshbabu Praggnanandhaa. With this win, Gukesh has 8.5 points and has moved to third place in the points table. He is only one point behind Carlson and Fabiano Caruana of the US.
- The tournament, which began on May 27, marks Carlsen's return to classical chess after almost a year. D Gukesh also recently won the World Chess Championship title and this is his first classical win after that.
- Norway Chess is a prestigious annual tournament, held between May and June and is known for the participation of world-class players. This historic win by Gukesh is a proud achievement for Indian chess and is a sign of his growing dominance in the times to come.

Serena Williams wins Spain's prestigious award

- Former American tennis legend Serena Williams has been awarded the "Princess of Asturias for Sports" award for 2025. This is Spain's most prestigious award, given for excellence in sports, literature, science, art, etc.
- The organizers described Serena as one of the greatest tennis players in sports history and also praised her contribution off the court. She has been a strong supporter of gender equality and equal opportunities in society. Serena's major career achievements include the first Grand Slam in 1999, the Olympic gold medal in 2012 and the 23rd Grand Slam in 2017. She has won a total of 73 singles titles and four Olympic golds. This award worth 50,000 euros is given in eight major categories. Its former winners include skier Lindsay Vonn, the IOC Refugee Olympic Team and the New Zealand rugby team.
- This honorable achievement of Serena has once again recognized both her unique career and social contribution on the global stage.

MCQs Based on Current Affairs

1. Which of the following best explains the policy concern over declining enrolment in government schools?

- A: It suggests that government schools are no longer needed due to market alternatives.
- B: It reflects systemic issues in public school quality and access that could widen social inequalities.
- C: It implies that private schools offer more jobs to teachers, solving unemployment.
- D: It indicates parents are unwilling to educate children through formal institutions

2. Consider the following statements and choose from the options below:

Statement 1: India's manufacturing sector continues to underperform despite overall GDP growth.

Statement 2: The decline in manufacturing is largely due to high import tariffs and weak rural demand

- A: Both statements are correct and Statement 2 is the correct explanation
- B: Both statements are correct but Statement 2 is not the correct explanation
- C: Statement 1 is correct but Statement 2 is incorrect
- D: Statement 1 is incorrect but Statement 2 is correct

3. How many of the following statements regarding 'Pradhan Mantri Jan Dhan Yojana' are correct?

- 1. PMJDY accounts are eligible for schemes like PMJJBY, PMSBY, and Atal Pension Yojana.
- 2. Overdraft facility of ₹ 10,000 is available under PMJDY to all account holders without age restrictions.
- 3. PMJDY accounts opened after August 2018 offer accidental insurance cover up to ₹ 2 lakh.
- 4. Small Accounts (Chota Khata) under PMJDY can be opened even without valid identity documents.

- A: One only
- B: Only two

C: Only three

D: All four

4. With reference to the International Organisation for Mediation (IOMed), how many of the following statements are correct?

- 1. IOMed is an international court that issues binding judgments in inter-state disputes.
- 2. It is headquartered in Hong Kong and focuses only on mediation.
- 3. Over 30 countries, including Indonesia and Pakistan, are founding members.
- 4. IOMed's aim is to offer a non-confrontational alternative to traditional legal bodies

A: Only one

B: Only Two

C: Only Three

D: All four

5. Which of the following statements about illegal immigration in India is NOT correct?

- A: Illegal migrants can include those who overstay a valid visa.
- B: Economic burden and labor market impacts are among the concerns about illegal immigration.
- C: India grants refugee status to all illegal Bangladeshi migrants under the Citizenship Act, 1955.
- D: Political instability and persecution in source countries contribute to migration into India

6. With reference to the Russia-India-China (RIC) trilateral format, how many of the following statements are correct?

- 1. The RIC format was started in the early 2000s as an economic bloc like BRICS.
- 2. One of its aims is to promote a multipolar world order.
- 3. It has remained inactive since the 2020 Galwan Valley clash.

4. Russia supports its revival to counter Western groupings like NATO and Quad.

- A: Only one
 B: Only two
 C: Only three
 D: All four

7. Which of the following statements about Address-as-a-Service (AaaS) under the DHRUVA policy is NOT correct?

- A: AaaS treats address data as a sharable service infrastructure.
 B: It allows users to retain control over who accesses their address.
 C: AaaS allows private sector delivery firms to modify government address records.
 D: AaaS is designed to improve service delivery in both public and private sectors.

8. What is meant by “asymmetric threats” in the context of national security?

- A: Threats that require UN Security Council approval to counter
 B: Low-cost, high-impact threats like terrorism, cyberattacks, and proxy wars
 C: Threats that involve direct conventional war between nuclear states
 D: Natural disasters and pandemics affecting national morale

9. Which of the following countries share a direct border with Paraguay?

1. Brazil
2. Uruguay
3. Bolivia
4. Argentina

Options:

- A: 1 and 2 only
 B: 1, 3 and 4 only
 C: 2, 3 and 4 only

D: All four

10. Which of the following statements are correct about the impact of industrial pollution on ocean ecosystems?

1. Human-generated iron from air pollution stimulates phytoplankton growth.
2. Increased phytoplankton growth slows down nutrient loss in surface waters.
3. Changes in iron levels are shifting ecosystem boundaries in the ocean.
4. Iron pollution in oceans cannot be traced back to its original sources.

How many of the above statements are correct?

- A: Only 1
 B: Only 2
 C: Only 3
 D: All four

11. Which of the following statements about the SPMEPCI scheme is/are correct?

1. The scheme allows 100% customs duty exemption for electric four-wheelers below a certain value.
2. Manufacturers must meet a minimum 25% Domestic Value Addition (DVA) within 3 years to retain benefits.
3. The scheme permits both greenfield and brownfield investments, subject to specific conditions.

Select the correct answer using the code below:

- A: 1 and 2 only
 B: 2 and 3 only
 C: 1 and 3 only
 D: All four

12. Sanctuary/Wetland — State

1. Sakkarakottai Bird Sanctuary — Tamil Nadu
2. Khecheopalri Wetland — Sikkim
3. Udhwa Lake — Jharkhand
4. Khichan Wetland — Gujarat

12 Which of the above pairs are correctly matched?

- A: 1, 2 and 3 only
 B: 1, 3 and 4 only
 C: 2 and 4 only
 D: All four

13. the doctrine of separation of powers important in the context of law-making and judicial authority?

- A: It allows courts to control the legislature.
 B: It protects legislative sovereignty while respecting judicial review.
 C: It gives the executive absolute authority over laws.
 D: It removes the need for judicial review of laws.

14. With reference to India's Plastic Waste Management Rules and related domestic policies, which of the following statements is/ are correct?

- India has banned plastic carry bags below 120 microns since 1st July 2022.
- The Packaging Regulations issued by FSSAI allow the use of recycled plastics for storing food.
- Extended Producer Responsibility (EPR) portal allows registration of plastic waste processors.

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

15. Consider the following statements about the Chenab Bridge project:

- Its height above riverbed exceeds that of both the Qutub Minar and the Eiffel Tower.
- The bridge can withstand earthquakes and wind speeds exceeding 200 km/h.
- It is designed to support both passenger and freight trains operating at speeds up to 100 km/h.
- It is a cable-stayed bridge developed with the assistance of the Asian Infrastructure Investment

Bank (AIIB). How many of the above statements are correct?

- A: Only one
 B: Only two
 C: Only three
 D: All four

16. Consider the following statements:

Statement 1: The Dhanushkodi lagoon supports rich faunal diversity, including turtles, flamingos, and crustaceans.

Statement 2: The presence of halosaline levels in the lagoon deters plant life and leads to lower biodiversity.

Which of the following is correct?

- A: Statement 1 is correct and Statement 2 is its correct explanation.
 B: Statement 1 is correct but Statement 2 is incorrect.
 C: Both Statement 1 and Statement 2 are correct and related.
 D: Both Statement 1 and Statement 2 are incorrect.

17. Which pairs are correct?

Report	Published By
1. GEM Report	UNESCO
2. ASER Report	Pratham NGO
3. NAS	Ministry of Education
4. PISA	World Bank

- A: 1 and 2 only
 B: 1, 2, and 3 only
 C: 2 and 4 only
 D: All four

18. With reference to report was prepared by the National Tiger Conservation Authority (NTCA) and the Wildlife Institute of India (WII) on the status of ungulates in India, consider the following statements:

- The chital (spotted deer) population is widespread

and adapts well to human-modified landscapes.

2. Barasingha populations have expanded and now occupy most of their historic habitats.
3. Wild buffalo populations are small, genetically isolated, and vulnerable to extinction.
4. Ungulate populations are evenly distributed across all forest regions in India.

How many of the above statements are correct?

- A: One only
 B: Two only
 C: Three only
 D: All Four

19. With reference to Stratospheric Aerosol Injection (SAI), consider the following statements:

1. It aims to reflect solar radiation back into space to reduce global temperatures.
2. It draws inspiration from the natural cooling effects of volcanic eruptions.
3. Sulphur dioxide is the primary chemical used in SAI.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 2 and 3 only
 C: 1 and 3 only
 D: 1, 2 and 3

20. With reference to the Multidimensional Poverty Index (MPI), consider the following statements:

1. MPI includes indicators from health, education, and living standards.
2. India's MPI fell sharply from 53.8% in 2005-06 to 15.5% by 2022-23 indicating major improvements in access to basic services.
3. MPI only considers income and expenditure levels.

Which of the above statements is/are correct?

- A: 1 only
 B: 1 and 2 only
 C: 2 and 3 only
 D: 1, 2 and 3

21. Which one of the following best describes the strategic value of I-STAR aircraft for India?

Options:

- A: They provide long-range cargo airlift during disaster relief.
 B: They ensure India's participation in international air patrol missions.
 C: They enable precise surveillance and targeting without entering enemy airspace.
 D: They are used primarily for training pilots in combat flying.

22. With reference to cryptobiosis in organisms, consider the following statements:

1. Cryptobiosis is a survival strategy where metabolic activity comes to a near-complete halt.
2. It helps organisms survive extreme environmental conditions like radiation, desiccation, and vacuum.
3. All organisms that must enter a state of cryptobiosis depend on oxygen to maintain this condition.

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

23. Consider the following Assertion/ Reason and choose the correct option:

Assertion (A): Tardigrades are considered ideal models for space biology experiments.

Reason (R): They can repair their DNA and survive in a vacuum without permanent damage.

- A: Both A and R are true, and R is the correct explanation of A.
 B: Both A and R are true, but R is not the correct explanation of A.
 C: A is true, but R is false.
 D: A is false, but R is true.

24. Consider the following statements about the

Poson Poya festival:

1. It commemorates the first sermon of the Buddha in India.
2. It marks the arrival of Arahant Mahinda in Sri Lanka.
3. It is celebrated during the June full moon.

Which of the above statements are correct?

- A: 1 and 2 only
 B: 2 and 3 only
 C: Only 1 and 3
 D: 1, 2, and 3

25. Consider the following pairs of Buddhist sects and their features:

Sect	Feature
Theravada	Focuses on ritualistic practices
Mahayana	Promotes Bodhisattva ideal and universal salvation
Vajrayana	Uses tantric rituals and mantras
Navayana	Modern, socially engaged Buddhism

How many of the above pairs are correctly matched?

- A: Only 1
 B: Only 2
 C: Only 3
 D: All four

26. Which of the following changes has been made in the SEZ rules for semiconductor and electronics manufacturing?

- A: SEZ units are now exempted from paying any duty for domestic sales.
- B: Minimum land requirement has been reduced from 50 hectares to 10 hectares.
- C: SEZs can only export and not sell to the domestic market.
- D: SEZ land must be completely free of any mortgage or lease.

27. With reference to India's current population

trends as per UNFPA's State of the World Population 2025, consider the following statements:

1. India's population has already peaked and is now in decline.
2. The Total Fertility Rate (TFR) in India has fallen below the replacement level.
3. The proportion of working-age population in India is more than two-thirds.

Which of the above statements is/are correct?

- A: 1 and 2 only
 B: 2 and 3 only
 C: 1 and 3 only
 D: 1, 2 and 3

28. With reference to India's economic outlook for FY26, as per the latest World Bank Global Economic Prospects report, consider the following statements:

1. India's GDP growth for FY26 is projected at 6.3%.
2. India is no longer the fastest-growing major economy in the world.
3. India's inflation for FY26 is expected to remain below 4%.
4. India's public debt-to-GDP ratio is projected to rise significantly.

Which of the above statements is/are correct?

- A: 1 and 3 only
 B: 1, 2 and 4 only
 C: 1, 3 and 4 only
 D: 2 and 4 only

29. Consider the following statements:

Statement 1: India has one of the lowest female labour force participation rates globally.

Statement 2: A lack of universal maternity protection discourages women from continuing work post-childbirth.

Which of the following is correct?

- A: Both statements are true and Statement 2 is the

correct explanation for Statement 1

- B: Both statements are true but Statement 2 is not the correct explanation
 C: Statement 1 is true but Statement 2 is false
 D: Statement 1 is false but Statement 2 is true

30. With reference to the Axiom-4 (Ax-4) mission, consider the following statements:

1. It is part of NASA's regular astronaut rotation programme.
2. The spacecraft used is launched by SpaceX.
3. Shubhanshu Shukla is part of the crew.
4. The mission includes experiments related to diabetes and crop growth in space.

How many of the above statements are correct?

- A: Only 1
 B: Only 2
 C: Only 3
 D: All four

31. Consider the following statements:

1. Coral bleaching occurs when corals expel algae due to increased temperatures.
2. Coral reefs are among the most resilient marine ecosystems to climate change.
3. The fourth global mass bleaching event occurred between 2023 and 2025.

Which of the above statements is/are correct?

- A: 1 and 2 only
 B: 2 and 3 only
 C: Only 1 and 3
 D: 1, 2, and 3

32. Consider the following statements about the Etalin Hydropower Project:

1. It is proposed as a run-of-the-river project on the Dri and Talo rivers.
2. It involves the construction of a large dam for water storage.
3. The project is located in an ecologically sensitive

zone in Arunachal Pradesh.

How many of the above statements are correct?

- A: Only 1
 B: Only 2
 C: All three
 D: None

33. Which of the following are key features of PM-SYM (Pradhan Mantri Shram Yogi Maan-Dhan Yojana)?

1. It targets workers in the unorganized sector
2. Government contributes 100% of the monthly premium
3. It provides pension after the age of 60

Options:

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: All of the above

34. Consider the following statements about the Iron Dome system:

1. It is operational in Israel since 2011.
2. It can intercept hypersonic glide vehicles.
3. It uses Tamir interceptors and radar systems.
4. It is scalable for global deployment.

How many of the above statements are correct?

- A: Only 1
 B: Only 2
 C: Only 3
 D: All four

35. Which of the following statements regarding Eurasian otters are correct?

1. They belong to the Mustelidae family.
2. They are found in both freshwater and marine habitats.
3. They are endemic to India.

- A: 1 and 2 only
 B: 2 and 3 only

C: Only 1 and 3

D: 1, 2, and 3

36 Which one of the following best describes the role of the iDEX initiative?

A: A procurement portal for defence PSUs

B: A startup-based innovation platform for defence R&D

C: A testing mechanism for imported arms

D: A scheme for skill development in armed forces

37 Which of the following statements is/are true?

1. DNA is found only in blood cells.

2. All humans except identical twins have unique DNA.

3. Y-Chromosome analysis is useful for identifying both male and female relatives.

Select the correct answer using the code:

A: 1 and 3 only

B: Only 2

C: 2 and 3 only

D: 1, 2, and 3

38 With reference to Vietnam's new status in BRICS, how many of the following statements are correct?

1. Vietnam became a full member of BRICS in 2024.

2. The BRICS Partner Country model allows closer cooperation without full membership.

3. Vietnam joined as the 10th country under the Partner Country category.

4. BRICS Partner Countries have equal voting rights in BRICS decisions.

Options:

A: Only 1

B: Only 2

C: Only 3

D: All four

39 Consider the following statement and choose the correct option:

Assertion (A): Flue Gas Desulphurisation (FGD) systems contribute significantly to public health improvements in areas near coal-based thermal power plants.

Reason (R): Sulphur dioxide (SO₂) emissions from thermal power plants are a major precursor to fine particulate matter (PM_{2.5}), which is strongly linked to respiratory and cardiovascular diseases.

A: Both A and R are correct, and R is the correct explanation of A.

B: Both A and R are correct, but R is not the correct explanation of A.

C: A is correct, but R is incorrect.

D: A is incorrect, but R is correct.

40. Consider the following statements regarding India–Cyprus relations:

1. Cyprus is scheduled to assume the presidency of the Council of the European Union in 2026.

2. India and Cyprus have signed a bilateral Free Trade Agreement (FTA).

3. Cyprus is conducting offshore natural gas exploration in contested areas of the Eastern Mediterranean near Turkey.

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

41. Consider the following statements about the Lokpal:

1. The Lokpal can supervise investigations by the Directorate of Enforcement (ED).

2. It has powers similar to a civil court during preliminary inquiries.

3. It can investigate complaints against the Prime Minister in all matters without restriction.

Which of the above statements is/are correct?

A: Only 2

- B: Only 1 and 2
 C: 2 and 3 only
 D: 1, 2, and 3

42. How many of the following statements about the SEEDS initiative are correct?

1. It is implemented by NABARD directly.
2. It supports SMEs in partner countries.
3. It involves both financial and technical assistance.
4. It is focused only on South Asia.

Options:

- A: Only 1
 B: Only 2
 C: Only 3
 D: All four

43. With reference to India's Crocodile Conservation Project, consider the following statements:

1. It was supported by the Food and Agriculture Organization (FAO) of the United Nations.
2. It aimed to conserve all three native species of crocodilians.
3. Odisha was the first state to establish crocodile incubation and rearing centres.

How many of the above statements are correct?

- A: Only 1
 B: Only 2
 C: All three
 D: None

44. Which of the following is/are components of watershed management?

1. Afforestation
2. River interlinking
3. Sustainable farming
4. Soil and water conservation

- A: 1, 2 and 4 only
 B: 1, 3 and 4 only
 C: 2 and 4 only
 D: All four

45. How many of the following statements about SEZ reforms for semiconductors are correct?

1. The minimum land area required for a semiconductor SEZ has been reduced from 50 hectares to 10 hectares.
2. SEZs can now sell products in the domestic market after paying applicable duties.
3. Encumbrance-free land is still strictly required for SEZ approval.

- A: Only 1
 B: Only 2
 C: All three
 D: None

46. Which of the following statements are correct with reference to the Shanghai Cooperation Organisation (SCO)?

1. It was established in Shanghai in 2001.
2. Its main objective is to promote economic cooperation only.
3. India and Iran are its founding members.

Select the correct answer using the code given below:

- A: Only 1
 B: 2 and 3 only
 C: Only 1 and 2
 D: All of the above

47. Which of the following statements is correct in the context of 'Navya Yojana'?

- A: This scheme has been launched only to assist graduate girls in higher education.
 B: This scheme focuses only on traditional handicraft training.
 C: This scheme has been launched to train adolescent girls aged 16–18 years in non-traditional skills under the Pradhan Mantri Kaushal Vikas Yojana.
 D: This scheme has been launched only for women in urban areas.

48. Consider the following statements based on

WMO's 2024 Report:

1. Asia's warming rate since 1991 is nearly twice the global average.
2. The average sea surface temperature in Asian waters is rising slower than land temperatures.
3. In 2024, marine heatwaves in Asia affected more than 10% of the world's ocean area.

How many of the above statements are correct?

- A: Only 1
 B: Only 2
 C: All three
 D: None

49. With reference to the Chandipura Virus (CHPV), how many of the following statements are correct?

1. CHPV was first identified from febrile cases in Andhra Pradesh in 1965.
2. It primarily affects the adult population above 40 years of age.
3. The virus belongs to the Rhabdoviridae family.
4. Sand flies are considered probable vectors of CHPV.

Options:

- A: Only 1
 B: Only 2
 C: Only 3
 D: All four

50. Which of the above statements is/are correct regarding CAR T-cell therapy?

1. It involves modifying a patient's T cells outside the body.
2. It is mainly used for treating autoimmune diseases.
3. It is currently very expensive and requires hospitalisation.

- A: 1 and 2 only
 B: 1 and 3 only
 C: 2 and 3 only
 D: 1, 2, and 3

ANSWER

1	B
2	C
3	C
4	C
5	C
6	C
7	C
8	B
9	B
10	C

11	B
12	A
13	B
14	B
15	C
16	B
17	B
18	B
19	D
20	B

21	C
22	A
23	A
24	B
25	C
26	B
27	B
28	A
29	A
30	B

31	B
32	B
33	C
34	C
35	A
36	B
37	B
38	B
39	A
40	B

41	A
42	C
43	C
44	B
45	B
46	A
47	C
48	B
49	B
50	B

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GS FOUNDATION BATCH



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ETHICS *by* **SHWETA MA'AM**

📍 **A-12 Sector - J, Aliganj, Lucknow**

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