



Smart Leaders IAS
Since 2011

the CATALYST

A Monthly Publication for Current Affairs

JUNE 2026



Industrial Accidents in India A Persistent Safety Challenge

JUNE 2026

The CATALYST

DIRECTORS:

S. Sivarajavel, M.A.Sadik

EDITOR:

P. Mohan

EDITORIAL TEAM:

Kamesh Mani, Dr. Poornima Devi,
R. Anand raja, R. Prathiba

DESIGNER:

Thomas Kalaivanan

COVER DESIGN:

Thomas Kalaivanan



Smart Leaders IAS

The CATALYST is a monthly magazine for current affairs which tries to give aspirants an in-depth comprehension of certain topics which appeared in different sources over the month. The Magazine has been designed in such a way that the reading experience is enriching and insightful for the readers.

The contents have been grouped into a thematic structure to help aspirants focus on the overall GS syllabus.

HEAD OFFICE

RBN Tower, No.Ak-2, 4th Ave, 3rd Floor
Shanthi Colony, Anna Nagar,
Chennai - 600040.(Near Petrol Bunk)

Ph: 9626364444

TIRUNELVELI

No.106B, 3rd floor, Gilgal Complex, VOC ground opposite,
Palayamkottai - 627 002.

Ph: 9626252500

TRICHY

No.143, 4th Floor,Lakshmi Complex, Salai Road,
Thillai Nagar, Trichy - 620 018.

Ph: 9751500300 / 9786500300

KRISHNAGIRI

No:7 D, Anna Salai, near New Bus Stand,
next to Anna Arch, Londenpet, Krishnagiri

Ph : 95144 23450 / 95144 23451

**New sections will be added or removed based on the new updates we include in the forthcoming issues.*

Information contained in this work has been obtained by sources believed to be reliable. We do not guarantee the accuracy or completeness of any information published herein, and neither Smart Leaders IAS nor its authors shall be responsible for any errors, omissions, or damages arising out of use of this information.

the CATALYST

From the Editor's Desk

Whether you have joined a one-year coaching programme or are preparing through self-study, it is natural to experience a mix of excitement, uncertainty, and self-doubt.

UPSC preparation is not a sprint; it is a marathon. It rewards patience, perseverance, and consistency far more than short bursts of intense effort. The enormity of the syllabus, coupled with the realization that there is always more to learn, can sometimes feel overwhelming. During such moments, it is important to remember that meaningful achievements are built through steady progress rather than instant results.

As Ralph Waldo Emerson aptly observed,

“Nothing great was ever achieved without enthusiasm.”

Enthusiasm, however, must be sustained by discipline and purpose. Temporary motivation may inspire you for a day, but it is your daily commitment, resilience, and belief in your goal that will carry you through the long months of preparation.

For aspirants who have appeared for the Preliminary Examination already and completed your foundation, continue your Mains preparation with full dedication through December.

We would also like to draw your attention to the TN Skills Scholarship Test, recently notified by the Government of Tamil Nadu. Eligible aspirants are encouraged to make use of this valuable opportunity.

Notification: https://skilldevelopment.tn.gov.in/reports/media/landing_data/346_pdf.pdf

Registration Portal: https://portal.skilldevelopment.tn.gov.in/prelims_registration

This edition covers Current Affairs from 1 June to 30 June 2026, include topics like Nomination Rules for Members of Parliament, Industrial Safety, highlights of NFHS-6, changes in the Producer Price Index (PPI) and Wholesale Price Index (WPI), etc

Our objective is not merely to compile current affairs, but to present them in a manner that enhances conceptual understanding and examination relevance. In the coming editions, we will continue to introduce new sections, deeper analysis, and value-added content.

All feedback is welcome and suggestions to improve the magazine can be sent to smartleadersias@gmail.com.

Happy Learning, and All the Best!

CONTENTS

POLITY AND GOVERNANCE

PRISON STATISTICS INDIA REPORT FOR 2024.	6
RIGHT TO BE FORGOTTEN AS FUNDAMENTAL RIGHTS	7
ASSAM-MEGHALAYA BORDER DISPUTE	8
FEDERALISM IN EDUCATION	8
REJECTION OF RAJYA SABHA NOMINATION - RPA ACT CRITERIA	10
COMMITTEE FOR DEMOGRAPHIC GOVERNANCE	10
FCRA ACT - RECENT CHANGES AND ITS EFFECT OF CIVIL SOCIETY.	11
VIKSHIT BHARAT YOUTH PARLIAMENT 2026:	12
REFORM PUBLIC EXAMINATION ACT 2024	13
MODERNIZING CRIMINAL JUSTICE SYSTEM- NATIONAL AUTOMATED FINGER PRINT IDENTIFICATION SYSTEM. (NAFPIS):	14
DISHA 2.0 - EASE OF JUSTICE.	15
NATIONAL SPORTS BOARD- UNDER NATIONAL SPORTS GOVERNANCE ACT, 2025.	16
PM RASHTRIYA BAL PURASKAR 2026	17
TENTH SCHEDULE REFORMS	17
RIGHT TO TRAUMA CARE IS INTEGRAL PART OF AR 21 (SAVELIFE FOUNDATION VS UOI)	18
GUIDELINES FOR NATIONAL AMBULANCE SERVICE 2026.	19
JAN VISHWAS (AMENDMENT OF PROVISIONS) ACT, 2026	19
NICOBAR TRIBAL COUNCIL	20
THE GLOBAL UNDER-16	20
SOCIAL MEDIA BANS	20
AR. 21 EXPANSION- RIGHT TO WALK ON DEMARCATED FOOTPATHS.	21
HARGILA ARMY	22

INTERNATIONAL RELATIONS

INDIA MYANMAR RELATIONS	24
SEC 301 OF US TRADE ACT 1974 AND ITS IMPLICATIONS ON INDIA	24
INDIA-FRANCE SPECIAL GLOBAL STRATEGIC PARTNERSHIP	25

BRICS INDORE DECLARATION	26
G7 SUMMIT AND INDIA	27
CANADA REQUEST FOR IORA	28
PM MODI CONFERRED SEYCHELLES' HIGHEST ENVIRONMENTAL HONOUR	29
INDIA-NEPAL BORDER DISPUTE	30

SOCIETY AND SOCIAL JUSTICE

NFHS-6 HIGHLIGHTS	33
RISA TIMELESS TRIBAL INCENTIVISING BIGGER FAMILY - ANDHRA PRADESH INITIATIVE	34
SCHEDULE K OF DRUG RULES 1945	35
PIL FOR REHABILITATION & MENTAL HEALTH CENTERS CATERING TO CHILDREN WITH DISABILITIES	36
SHATAYU & JEEVAN CAREGIVER NETWORK	36
AAROGYA SETU 2.0 - NATIONAL HEALTH APP	37
BHARAT TAXI COOPERATIVE	38
SAMAGRA SHISHU BAL SWASTHYA KARYAKRAM (SSBSK)	39
ANAEMIA MukT BHARAT ABHIYAAN	40
CONTROL DRUG ABUSE: WHOLE-OF-SOCIETY APPROACH	41
ACADEMIC BANK OF CREDITS, APAAR, AND BHARAT PRAMAN CHAIN	41
10 YEARS OF PRADHAN MANTRI SURAKSHIT MATRITVA	42
ABHIYAAN (PMSMA)	42

ECONOMIC DEVELOPMENT AND AGRICULTURE

LAND PORT MANAGEMENT SYSTEM	45
ROLE OF REMITTANCE IN EXTERNAL FINANCE STABILITY OF INDIA	45
FIRST BLUE BOND OF INDIA	46
PM - UJJWALA SCHEME	47
MISSION "SENEHJORI"	47
ELIMINATION OF LONG-TERM CAPITAL GAINS TAX (LTCG) AND WITHHOLDING TAX ON INTEREST FOR FPIS	48
E85 FUEL IN INDIA	49
INSOLVENCY AND BANKRUPTCY CODE REFORMS	50
LAND PORTS	51

ONE STATION ONE PRODUCT	52
LABOUR CODES	53
NATIONAL CRITICAL MINERALS MISSION	54
TREDS PLATFORM	55
NEED FOR INDEX OF SERVICE PRODUCTION	55
BHIM UPI TO OFFER FINANCIAL PRODUCTS	56
INDIA AI MISSION LAUNCHES 'VARYA' – INDIA'S INDIGENOUS AI VIDEO GENERATION MODEL	57
NFSA DRAFT AMENDMENT	58
SINTERED RARE EARTH PERMANENT MAGNET SCHEME (REPM)	58
KISAN SARATHI PLATFORM - REAL TIME ADVISORY PLATFORM	59
NEW SERIES OF IIP	60
INTRODUCTION ON PPI AND BASE YEAR CHANGE OF WPI	61

GEOGRAPHY, ENVIRONMENT, BIO-DIVERSITY AND DISASTER MANAGMENT

LITANI RIVER AND BEAUFORT CASTLE	63
PADMA BARRAGE PROJECT OF BANGLADESH	64
GREAT NICOBAR PROJECT	65
ZOJILA TUNNEL	66
BLUE MICROMOON	67
INDIA'S 100TH RAMSAR SITE	68
SHRINKING SAMBHAR LAKE	69
DELAYED ARRIVAL OF THE SOUTHWEST MONSOON IN INDIA	70
SUPER EL NIÑO AND INDIA'S NATIONAL MONSOON MISSION	71
INDUSTRIAL ACCIDENTS IN INDIA: A PERSISTENT SAFETY CHALLENGE	72
SOLAR POTENTIAL OF INDIA'S RESERVOIRS	73
BAN ON PARAQUAT	73
QR CODE-BASED DRUG TRACEABILITY FRAMEWORK: STRENGTHENING THE FIGHT AGAINST ANTIMICROBIAL RESISTANCE (AMR)	74
PRIME MINISTER'S NATIONAL RELIEF FUND (PMNRF)	75
GLACIAL LAKE OUTBURST FLOOD (GLOF)	76

SCIENCE AND TECHNOLOGY

FUTURE OF INDIA'S SEMICONDUCTOR INDUSTRY	79
QUARK-GLUON PLASMA (QGP)	79
SKYCAST SYSTEM	80
MAVEN (MARS ATMOSPHERE AND VOLATILE EVOLUTION) MISSION	81
COAL GASIFICATION TECHNOLOGY	83
BRAIN-EATING AMOEBA (NAEGLERIA FOWLERI)	83
GRAPES-3 MISSION	84
COMPRESSED BIOGAS (CBG) BLENDING	85
SMART SEED COATING TECHNOLOGY	86
ENVIRONMENTAL IMPLICATIONS OF AI DATA CENTRES	87
INDIAN PHARMACOPOEIA COMMISSION (IPC)	87
AQUEOUS ZINC-ION BATTERY (AZIB)	88
ICAR-FUSICONT TECHNOLOGY	88
FAST X-RAY TRANSIENTS (FXTS)	89

SECURITY

RUDRAM II MISSILE	92
BRAHMOS MISSILE DEAL WITH VIETNAM	92
SIPRI YEARBOOK REPORT ON INDIA	92
FIRST MADE-IN-INDIA C-295 CARRIES OUT MAIDEN TEST FLIGHT	93
NETRA: INDIA AIRBORNE SURVEILLANCE PLATFORM TO IAF	93
PROJECT BRAHMANK	94
NAXAL FREE INDIA	94

HISTORY ART & CULTURE

GALLANTARY AWARDS	97
BIRSA MUNDA ANNIVERSARY	98
DISCOVERY OF PETROGLYPHS IN THE BHONDSI STRETCH OF THE ARAVALLI FORESTS	98
THEME OF 12TH INTERNATIONAL YOGA DAY	99
RAKHIGARHI HUMAN SKELETAL REMAINS	100
REPARTRATION OF ANTIQUITIES:	100

POLITY & GOVERNANCE

What's Inside?



सत्यमेव जयते

1. PRISON STATISTICS INDIA REPORT FOR 2024.
2. RIGHT TO BE FORGOTTEN AS FUNDAMENTAL RIGHTS
3. ASSAM-MEGHALAYA BORDER DISPUTE
4. FEDERALISM IN EDUCATION
5. REJECTION OF RAJYA SABHA NOMINATION - RPA ACT CRITERIA
6. COMMITTEE FOR DEMOGRAPHIC GOVERNANCE
7. FCRA ACT - RECENT CHANGES AND ITS EFFECT OF CIVIL SOCIETY.
8. VIKSHIT BHARAT YOUTH PARLIAMENT 2026:
9. REFORM PUBLIC EXAMINATION ACT 2024
10. MODERNIZING CRIMINAL JUSTICE SYSTEM- NATIONAL AUTOMATED FINGER PRINT IDENTIFICATION SYSTEM. (NAFPIS):
11. DISHA 2.0 - EASE OF JUSTICE.
12. NATIONAL SPORTS BOARD UNDER NATIONAL SPORTS GOVERNANCE ACT, 2025.
13. PM RASHTRIYA BAL PURASKAR 2026
14. TENTH SCHEDULE REFORMS
15. GUIDELINES FOR NATIONAL AMBULANCE SERVICE 2026.
16. JAN VISHWAS (AMENDMENT OF PROVISIONS) ACT, 2026
17. NICOBAR TRIBAL COUNCIL
18. THE GLOBAL UNDER-16 SOCIAL MEDIA BANS
19. AR. 21 EXPANSION- RIGHT TO WALK ON DEMARCATED FOOTPATHS.
20. HARGILA ARMY

PRISON STATISTICS INDIA REPORT FOR 2024.

The Prison Statistics India (PSI) 2024 Report was officially published by the National Crime Records Bureau (NCRB) under the Ministry of Home Affairs.

Core Statistical Highlights (2024)

Metric	2024 Value / Statistic	Trend & Context
Total Number of Prisons	1,333 jails nationwide	Marginal 0.1% increase in infrastructure.
Sanctioned Capacity	4.53 lakh inmates	Expanded by 3.3% due to modern renovations.
Actual Inmate Population	5.11 lakh inmates	Decreased by 3.5% compared to the previous year.
National Occupancy Rate	112.7%	Fell to a decade-low (down from 120.8% in 2023).
Undertrial Share	73% of total inmates	High pre-trial detention drives chronic system bottlenecks.
Convict Share	26.6% of total inmates	Declined steadily from 32% in 2016.
Gender-wise Demographics	95.8% male, 4.14% female	Only 34 exclusive women jails exist across India.

Key Structural Trends

1. Severe Regional Overcrowding Disparities

While the nationwide baseline improved, overcrowding is heavily localized. More than half of the States and UTs operate well beyond 100% capacity.

Worst Performers: Delhi registered the highest occupancy at 194.6%, followed by Meghalaya (163.5%) and Jammu & Kashmir (148.3%).

Best Turnarounds: Chhattisgarh drastically reduced its extreme overcrowding from 234% in 2015 down to 127.6% in 2024.

2. The Crisis of Undertrials

Pre-trial detentions remain the primary driver of institutional overstretch:

In Delhi and Bihar, over 87% of the entire inmate population comprises unconvicted undertrials.

Long Detentions: While 69.9% of undertrials have been held for less than a year, a critical 2.4% (9,028 individuals) have languished in prison for over 5 years without a conviction.

3. Shift in Socio-Demographic Composition

Productive Age-Bracket: 86.3% of prisoners are aged between 18 and 50 years, stripping households of primary breadwinners and driving vulnerable families into poverty.

Marginalised Communities: The Law Commission’s 268th Report highlights poverty as the main barrier to bail. However, a multi-decade analysis shows the prison share of Scheduled Castes (SCs) dropped to 16.62% and Scheduled Tribes (STs) to 9.19% in 2024, closing in on their actual general population ratios.

Education Vulnerability: The majority of inmates possess educational qualifications below Class 10, highlighting a direct correlation between socio-economic deficit and incarceration.

4. Staff Shortages and Stress

Administrative stress remains high due to severe institutional vacancies. In Delhi alone, out of a sanctioned strength of 6,516 personnel, only 2,447 positions are actively filled, leaving 4,069 posts vacant.

Way Forward & Reform Frameworks

Legal Enforcement: Rigorous implementation of the Bharatiya Nagarik Suraksha Sanhitā (BNSS), 2023 provisions regarding bail limits, and adoption of the Model Prisons Act, 2023.

Judicial Overhaul: Expanding fast-track courts, leveraging video conferencing, and integrating the Supreme Court's FASTER system to speed up release orders.

Alternative Incarceration: Institutionalising open prisons and community service options for non-violent, first-time offenders as recommended by the Supreme Court.

Administrative Reforms: Creating an All India

Service for Prisons to professionalise management, security, and rehabilitation measures

Justice Amitava Roy Committee report: Key recommendations to improve prison conditions and uphold human rights include implementing special fast-track courts, redesigning facilities to prevent suicides, enhancing legal aid with a 1:30 lawyer-to-prisoner ratio, and modernizing, gender-sensitive infrastructure.

RIGHT TO BE FORGOTTEN AS FUNDAMENTAL RIGHTS

Judicial Evolution and Legal Status in India

1. The Foundation: K.S. Puttaswamy Judgment (2017)

The Supreme Court, in the landmark Justice K.S. Puttaswamy v. Union of India case, unanimously declared privacy a fundamental right.

Informational Self-Determination: The apex court observed that an individual must have control over their digital existence.

The Digital Footprint: Justice S.K. Kaul noted that while humans naturally forget, the internet preserves records indefinitely. Individuals should not be permanently shackled by a past mistake or digital record that has lost contemporary relevance

2. Recent High Court Rulings (2026 Guidelines)

Due to a lack of explicit statutory legislation, High Courts have heavily shaped this right:

Laksh Vir Singh Yadav v. Union of India (Delhi HC, June 2026): The Delhi High Court explicitly ruled that the Right to be Forgotten is a fundamental right under Article 21.

The Mandate: The court directed search engines (like Google) and online legal repositories (like IndianKanoon) to de-index and mask personal identifiers from search functionalities concerning past acquittals. This bridges the gap where a person is cleared by a court, but perpetually

convicted by internet search queries.

3. Statutory Provisions

Digital Personal Data Protection (DPDP) Act, 2023: While it does not explicitly use the term "Right to be Forgotten," Section 12 of the Act provides the "Right to Erasure". It mandates data fiduciaries to delete personal data once its processing purpose is fulfilled or when consent is withdrawn

The Constitutional Conflict: Core Challenges

RTBF vs. Freedom of Expression (Article 19): Forcing search engines or news websites to scrub content can compromise media freedoms and create a chilling effect on digital archives.

RTBF vs. Open Justice & Public Records: Erasing or de-indexing court judgments runs contrary to the principle of transparency in the judiciary. Legal precedents need to remain accessible for systemic consistency.

The Proportionality Test: Any restriction on informational privacy must clear the strict triple-test laid down in Puttaswamy: Legality (backed by law), Necessity (serves a state/public aim), and Proportionality (the least intrusive method used)

Reasonable Restrictions: When RTBF Does Not Apply

The Supreme Court and major global regulations (like Europe's GDPR) clarify that the

Right to be Forgotten is not absolute. It must yield when personal data is necessary for:

Public Interest or Public Health: Tracking public history, criminal tracking registers, or epidemiological data.

Legal and Statutory Obligations: Maintaining institutional financial records, tax audits, or pending trial proceedings.

Scientific, Historical, or Statistical Research: Preserving the integrity of scholarly data and historical truths

Way Forward for Policy Formulation

ASSAM-MEGHALAYA BORDER DISPUTE

The Assam-Meghalaya border dispute is a 54-year-old territorial conflict over an 884.9 km shared boundary.

Historical Genesis of the Conflict

The Reorganisation Baseline: Prior to statehood, Meghalaya was an autonomous hill state within undivided Assam. It was carved out as a full-fledged state under the Assam Reorganisation (Meghalaya) Act, 1969.

The Core Contention: The 1969 delineation was based on a 1951 committee report. This report transferred large chunks of the East Jaintia Hills, Ri-Bhoi, and West Khasi Hills to Assam's Kamrup and Karbi Anglong districts.

Traditional Tribal Rights: Meghalaya rejected this statutory boundary, arguing that these territories historically belonged to indigenous

Comprehensive Judicial Framework: The Supreme Court needs to formally codify uniform, national boundaries specifying when a lower court judgment can be de-indexed.

Role of the Data Protection Board (DPBI): Empowering the regulatory board under the DPDP Act, 2023 to quickly adjudicate erasure requests without clogging standard judicial benches.

Technological Architecture: Promoting "masking by design" in e-courts, where sensitive personal details of victims, juveniles, or acquitted individuals are automatically redacted before publishing court orders.

Khasi, Jaintia, and Garo tribal chieftains (Syiems) and could not be unilaterally annexed by an act of Parliament.

Constitutional Machinery for Resolution

Article 131 (Original Jurisdiction): Allows states to approach the Supreme Court directly to resolve disputes between two or more states.

Article 263 (Inter-State Council): A Presidentially-appointed council empowered to investigate, discuss, and advise on inter-state friction points to optimize policy coordination.

Zone Councils: The North-Eastern Council (NEC), statutory bodies set up under the NEC Act of 1971, serves as the main regional forum to debate boundary security and development constraints.

FEDERALISM IN EDUCATION

Federalism in education has evolved from an administrative arrangement into a high-stakes arena of Centre-State friction. While national policies strive for standardization and global competitiveness, state governments demand autonomy to protect regional identities, local languages, and distinct socio-economic priorities

Constitutional Evolution and Dual Authority:

The Concurrent Shift (1976): The 42nd Constitutional Amendment shifted education from the State List to Entry 25 of the Concurrent List. This established a system of shared responsibility, aimed at providing cohesive national direction while balancing local execution.

The Asymmetric Twist (Entry 66): Even on concurrent matters, Entry 66 of the Union List gives the Parliament ultimate supremacy over the “coordination and determination of standards” in higher education and research. Consequently, statutory frameworks designed by central bodies like the University Grants Commission (UGC) hold legislative primacy over state laws.

Contemporary Flashpoints in Educational Federalism

1. Implementation of the National Education Policy (NEP) 2020

The NEP 2020 aims to unify India’s fragmented educational framework, but it has faced considerable political pushback from states like Tamil Nadu, Kerala, and West Bengal over mandates like the three-language formula.

Judicial Check: In a landmark federal clarification, the Supreme Court dismissed a petition seeking to mandate NEP implementation nationwide. The apex court ruled that it cannot compel states to adopt a national policy, affirming that policy implementation remains an autonomous state prerogative unless fundamental rights are breached.

2. Fiscal Leverage and Conditionality-Based Funding

A major grievance for states is the weaponization of central funds. Financial assistance via Centrally Sponsored Schemes (CSS) like Samagra Shiksha Abhiyan and university infrastructure grants are increasingly tied to strict compliance with central mandates. Additionally, central education cesses collected under Article 270 bypass the divisible tax pool entirely, starving states of unconditional revenue.

3. Chancellor Governance Disagreements

The dual role of centrally-appointed Governors serving as ex-officio Chancellors of state universities has led to regular administrative standoffs regarding Vice-Chancellor appointments.

In early 2026, a high-level committee report tabled in the Tamil Nadu Legislative Assembly argued that this arrangement allows authority without democratic responsibility, formally recommending that education be transferred back to the State List.

4. Institutional and Digital Consolidation

VBSA Bill: The proposed Viksit Bharat Shiksha Adhishthan (VBSA) Bill seeks to merge individual apex bodies (UGC, AICTE, NCTE) into a single, centralized mega-regulator. States view this as an institutional overreach that dilutes the advisory role of provincial bodies.

Digital Centralization: Global tools and centralized architectures—such as the Academic Bank of Credits (ABC) and centralized entrance exams (CUET, NEET)—frequently overlook the structural variance between diverse state board

Institutional Recommendations for Balance

To defuse these structural blockages, multiple constitutional commissions have recommended specific cooperative frameworks

Sarkaria Commission (1988): Advised that while the Union government should establish uniform structural norms and minimum qualifications (Entry 66), the actual field execution and contextual tailoring of educational policies must lie entirely with the state governments.

Punchhi Commission (2010): Recommended depoliticizing higher education by divesting Governors of their statutory Chancellor roles, reducing friction between elected state cabinets and Raj Bhavans.

CABE Reinvigoration: Experts argue for revitalizing the Central Advisory Board of Education (CABE) as a robust, consensus-driven platform, ensuring central legislative overhauls are negotiated rather than imposed as top-down mandates curricula and central syllabi.

REJECTION OF RAJYA SABHA NOMINATION - RPA ACT CRITERIA

Incomplete Affidavits (Form 26)

Under the Conduct of Elections Rules, 1961, candidates must submit Form 26. This disclosure covers criminal antecedents, assets, liabilities, and educational qualifications.

The Blank Column Rule: In line with the Supreme Court's mandate in *Resurgence India v. ECI* (2013), if a candidate leaves any column blank in the affidavit, the RO will issue a notice to rectify it. If they still fail to fill it, it is treated as a defect of a substantial character, and the nomination is rejected.

Active Judicial Precedents:

Recent Flashpoint: In June 2026, the Rajya Sabha nomination of senior leader Meenakshi Natarajan was rejected by the RO in Madhya Pradesh due to the non-disclosure of a pending criminal complaint.

The Supreme Court reiterated that omission

of material facts or criminal antecedents directly invalidates the nomination on transparency ground.

Judicial Bar & Remedy (Article 329(b))

Once a Returning Officer either accepts or rejects a nomination, their administrative decision is final at that stage.

No Interventions Mid-Election: Under Article 329(b) of the Constitution, courts cannot stall or halt an ongoing election process. Even if the RO makes an error, the aggrieved candidate cannot get an immediate stay or injunction.

The Only Remedy: The candidate can challenge the decision only after the entire election concludes, by filing an Election Petition under Section 100 of the RPA, 1951 in the respective High Court. If the High Court finds that the nomination was "improperly rejected", it can declare the entire election of the winning candidate null and void.

COMMITTEE FOR DEMOGRAPHIC GOVERNANCE

Context: The High-Level Committee on Demographic Change, chaired by retired Supreme Court Judge Justice Prakash Prabhakar (P.P.) Naolekar, was constituted by the Ministry of Home Affairs (MHA)

Terms of Reference & Objectives

The primary mandate of the committee is to address demographic deviations through data-driven governance. Its key focus areas include

Scientific Assessment: Conducting a comprehensive, empirical evaluation of population shifts driven by "illegal immigration and other abnormal or unnatural causes".

Granular Community Analysis: Tracking structural, localized population variations at the district, village, and community levels to detect abnormal growth clusters.

Identifying Drivers: Examining root causes behind demographic shifts, including cross-border infiltration, orchestrated migration, socio-environmental factors, and economic attractors.

Actionable Mechanism: Formulating a streamlined, time-bound framework for the identification, detention, and deportation of undocumented immigrants.

Demographic Monitoring: Recommending institutional policy measures for long-term population stabilisation and regional demographic tracking

FCRA ACT - RECENT CHANGES AND ITS EFFECT OF CIVIL SOCIETY.

Context: Driven by concerns over national security, public order, and unmonitored foreign influence, the Ministry of Home Affairs (MHA) has significantly tightened this regime through the FCRA Amendment Rules, 2026 and the proposed FCRA Amendment Bill, 2026.

Key Recent Changes under FCRA (2026)

The recent legislative and rule-based changes shift the regulatory focus from mere transparency to active purpose-based and geographical control.

1. Purpose-Specific and Geographical Locks

NGOs must register under 105 predefined, activity-specific categories (e.g., cultural, economic, educational, religious, or social).

They are legally restricted to operate only within the specific States or Union Territories declared during registration.

Activity or location extensions require separate applications and multiple fees, replacing the earlier single-fee system.

2. Provisional & Permanent Vesting of Assets

Under the concept of “deemed cessation”, if an NGO’s registration expires without renewal, is denied, or is cancelled, its foreign-funded assets do not remain with the NGO.

A government-notified Designated Authority takes temporary or permanent control over all foreign contributions and assets created out of foreign funds.

3. Expanded Personal Accountability

The definition of a “Key Functionary” has been widened to include directors, partners, trustees, office-bearers, and anyone controlling management.

These individuals face personal liability

for organizational violations unless they can explicitly prove a lack of personal knowledge or due diligence.

4. Explicit Restrictions and Bans

Proselytisation Ban: The rules explicitly prohibit using foreign funds for any faith-based conversions.

Political Content Restrictions: NGOs are strictly barred from participating in activities containing or promoting “political content”.

Digital Disclosures: Organizations must mandatorily disclose all official social media handles, website links, and publications.

5. Stricter Fund Disbursal Norms

Project-based foreign funding is released in tranches, and subsequent installments are blocked until at least 75% of the prior funds have been utilized.

Effect on Civil Society Organizations (CSOs):

Positive Impacts (The Government’s Rationale)

Traceability and Transparency: The mandatory digital disclosure prevents the creation of shell companies and ensures that foreign funding remains mapable.

Safeguarding Sovereignty: In *Noel Harper v. Union of India* (2022), the Supreme Court held that receiving foreign funding is not a fundamental right. The court noted that unchecked foreign funds can act as an “intoxicant” used to subtly sway domestic political ideologies.

Prevention of Cultural Disruptions: The explicit filtering out of conversion-oriented funds protects indigenous cultures and maintains religious public order under Article 25.

Negative Impacts (The Civil Society's Concerns)

Operational and Compliance Overburden: Multiple registration fees for different states and categories drain the financial resources of grassroots, small-scale NGOs.

The “Chilling Effect” and Depoliticisation: Fearing sudden cancellation or asset seizure, civil society groups are retreating from human rights advocacy, environmental litigation, and anti-corruption watchdogs. This forces NGOs to shift strictly toward passive service-delivery roles (e.g., distributing aid) rather than systemic rights-based activism.

Financial Bottlenecks: The 75% tranche utilization rule and the complete ban on sub-granting starve smaller, village-level sub-partners who rely entirely on funding from larger, metro-based mother NGOs.

Executive Discretion: The creation of an independent administrative “Designated

Authority” to seize assets without robust judicial oversight bypasses standard checks and balances.

Way Forward:

Proportionality Test: Recommend that while the state has a sovereign duty to guard against illegal foreign interference, the regulatory measures must pass the test of proportionality. It should not end up choking genuine philanthropic, educational, and healthcare-oriented development work.

Independent Adjudication: Suggest establishing an independent, semi-judicial appellate body to review FCRA suspensions and asset seizures, rather than keeping the executive (MHA) as the sole investigator, prosecutor, and judge.

Domestic Philanthropy: Encourage policies that simultaneously boost corporate social responsibility (CSR) and domestic philanthropy to decrease Indian civil society’s structural dependency on foreign capital.

VIKSHIT BHARAT YOUTH PARLIAMENT 2026:

Context: The Viksit Bharat Youth Parliament (VBYP) 2026 is a flagship national youth consultation initiative organised by the Ministry of Youth Affairs and Sports. The national grand finale of the event was hosted in June 2026, at the historic Central Hall of Samvidhan Sadan (Old Parliament House) in New Delhi.

Key Objectives & Themes:

Democratic Deepening: Providing first-generation, non-political youth with a hands-on, experiential understanding of governance, bill drafting, floor management, and policy deliberation.

Youth-Led Vision for 2047: Grounding the discussions in innovation, national leadership, socio-economic restructuring, and gender-inclusive governance.

Nari Shakti Vandan: The 2026 iteration placed a special focus on the leadership of young women in legislative procedures, directly mirroring the

spirit of the Nari Shakti Vandan Adhiniyam

Significance of VBYP 2026:

Harnessing the Demographic Dividend: With nearly 65% of India’s population below the age of 35, platforms like the Youth Parliament transform the youth from passive “beneficiaries” of governance into active “solution-providers” and policy co-creators.

Countering Political Apathy: It addresses a vital institutional gap by cultivating democratic temper and formal debating standards, steering the upcoming generation away from hyper-polarized rhetoric toward data-driven, constructive policy critique.

Strengthening Grassroots Federalism: By using regional universities and local state assemblies as filtering lenses, the platform ensures that rural and tier-2/tier-3 city narratives find expression at the national level in New Delhi.

Convergence with Other Initiatives

The VBYP 2026 does not operate in isolation; it is strategically linked with other MY Bharat platform initiatives to boost civic engagement:

Viksit Bharat Young Leaders Dialogue (VBYLD)

Vibrant Village Programme (Exposing youth to border-area infrastructure and security)

Yuva Connect and experiential learning hackathon

REFORM PUBLIC EXAMINATION ACT 2024

The Public Examinations (Prevention of Unfair Means) Act, 2024, which officially came into force on June 21, 2024, represents India's first dedicated central legislative effort to criminalize organized cheating, paper leaks, and systemic malpractices in public examinations

Scope and Jurisdiction

The Act does not govern standard school boards or university-level term examinations. Instead, it covers major central recruitment and entrance test giants listed in its schedule.

Union Public Service Commission (UPSC)

Staff Selection Commission (SSC)

National Testing Agency (NTA) (e.g., NEET, JEE, CUET, UGC-NET)

Railway Recruitment Boards (RRBs)

Institute of Banking Personnel Selection (IBPS)

Central Ministries, Departments, and their attached subordinate office.

Key Provisions of the Act

The legislation establishes an adversarial framework targeting three specific pillars: individuals, service providers, and organized syndicates.

1. Defining Unfair Means (Section 3)

The Act explicitly codifies 15 actions as criminal offenses, including:

Unauthorised access to or leakage of question papers or answer keys.

Collusion or tampering with optical mark

recognition (OMR) response sheets.

Providing direct or indirect assistance to candidates during live exam windows.

Creating fake/cloned websites to defraud aspirants or manipulate seat allocations.

2. Punitive Framework and Penalties

All offenses under this Act are strictly classified as cognizable, non-bailable, and non-compoundable.

For Individuals: Imprisonment ranging from 3 to 5 years along with a fine up to ₹10 Lakh.

For Service Providers (Tech/Exam Vendors): A penalty of up to ₹1 Crore. The company is barred from hosting public examinations for 4 years, and the proportionate cost of the disrupted exam is recovered through asset seizure.

For Organized Crime (Syndicates): Minimum jail term of 5 years (extendable to 10 years) and a mandatory minimum fine of ₹1 Crore.

3. Investigation and Administration

Rank Requirement: Cases must be investigated by officers not below the rank of Deputy Superintendent of Police (DySP) or Assistant Commissioner of Police (ACP).

National Technical Committee: Mandates the creation of a high-level technical committee to formulate national IT security protocols and digital barriers for computer-based tests.

Structural Reforms vs. Governance Challenges:

Positive Reforms

Model Framework for States: It provides a blueprint for regional states to mirror. This helps harmonize anti-cheating regulations across India's federal structure.

Protection of Candidates: The Act insulates genuine candidates from criminal liability. It shifts the legal focus away from desperate students and onto institutional suppliers, paper-leak mafias, and corrupt insiders.

Corporate Deterrence: Holding multi-billion rupee private testing vendors financially and operationally liable forces industry-wide compliance and secure logistics.

Critical Vulnerabilities & Challenges

Ex-Post Facto Nature: The Act primarily operates as a punitive mechanism after a breach has occurred. It does not solve the root administrative flaws, like weak secondary storage centers or vulnerable physical transport chains.

Executive Discretion: Broad definitions of "disruption" could potentially be misused to penalize whistleblowers, student unions, or journalists reporting on genuine structural lapses.

Digital Divide in Investigation: Most regional state police departments lack the high-tech cyber forensics facilities needed to trace end-to-end encrypted messaging channels used by modern paper-leak syndicates.

Way Forward

Transition to On-Demand Testing: Advocate for a shift away from massive, single-day centralized exams toward distributed, encrypted, computer-based On-Demand Testing models (similar to GRE/GMAT) to minimize leak windows.

Adopting Blockchain Logistics: Question papers should be routed using multi-signature blockchain authentication keys. This locks printing permissions until minutes before the exact commencement of the examination.

Autonomous Oversight: Recommend upgrading the proposed National Technical Committee into a permanent, statutory National Examination Integrity Council (NEIC). This body should be tasked with independently auditing testing centers and blacklisting insecure vendors proactively.

MODERNIZING CRIMINAL JUSTICE SYSTEM- NATIONAL AUTOMATED FINGER PRINT IDENTIFICATION SYSTEM. (NAFPIS):

The Indian criminal justice architecture has undergone a radical, technology-driven overhaul to transition from traditional policing to algorithmic, data-driven forensics. The introduction of the Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023 (which replaced the CrPC), coupled with advanced databases like NAFIS and NATGRID, forms a core pillar of modern internal security and e-governance.

Structural reforms in criminal justice:

1. Biometric & DNA Sample Collection under BNSS

The Criminal Procedure (Identification) Act, 2022 expanded the scope of biological and physical data collection, a framework that has now been fully integrated into the BNSS.

Expanded Definition of "Measurements":

Police can now legally collect fingerprints, palm-prints, footprint impressions, photographs, iris and retina scans, biological and physical samples (including DNA profiling), and behavioral attributes (like signatures and handwriting).

Widened Jurisdiction: Measurements can be taken from persons arrested for any offense, or those detained under preventive detention laws.

The DNA Exception: Forceful collection of biological samples (like blood or DNA) is restricted. It can only be compelled if the individual is accused of an offense against a woman or a child, or an offense punishable with imprisonment of 7 years or more.

Data Retention Protocol: The National Crime Records Bureau (NCRB) is mandated to store, process, and preserve this biometric data digitally for 75 years from the date of collection. Data must be destroyed only if the person is acquitted without a prior criminal record.

2. National Automated Fingerprint Identification System (NAFIS)

The Technology: Powered by French biometric tech (Morpho), NAFIS assigns a unique 10-digit National Fingerprint Number (NFN) to every arrested criminal.

The NFN Architecture: The first two digits represent the State Code, while the remaining eight digits form a permanent, unique sequential number tied to that individual for life.

Operational Utility: If a suspect commits a crime in Tamil Nadu and is later arrested in Delhi under an alias, a simple NAFIS fingerprint match instantly reveals their entire multi-state criminal history, linking all previous FIRs

3. National Intelligence Grid (NATGRID)

While NAFIS tracks localized and physical criminal records, NATGRID serves as a secure, centralized data-access provider to counter terrorism, money laundering, and threats to national security.

Nodal Agency: It operates as an attached office under the Ministry of Home Affairs (MHA).

The Core Function: NATGRID does not collect or generate data on its own. Instead, it acts as an intelligent bridge that links isolated silos of data held by various government departments.

Data Providers: It aggregates information from over 21 categories, including bank accounts, credit card transactions, tax details (PAN), immigration records, vehicle registrations, and airline/railway travel itineraries.

Authorized Consumers: This integrated data profile is accessible only to 11 core federal agencies, including the Intelligence Bureau (IB), Research and Analysis Wing (R&AW), National Investigation Agency (NIA), Enforcement Directorate (ED), and Central Bureau of Investigation (CBI). State police forces cannot access NATGRID directly; they must route requests through these central agencies.

Security vs. Privacy

Three-Pronged Proportionality Test established by the Supreme Court in the landmark K.S. Puttaswamy (Right to Privacy) judgment (2017):

Legality (Existence of Law): The collection of biometrics and metadata is backed by statutory frameworks like the BNSS and the Identification Act, satisfies this first condition.

Need / Legitimate Aim: Protecting national security, preventing terrorism, and improving low conviction rates represent a compelling state interest.

Proportionality: This is the primary point of contention for civil society. Critics argue that retaining sensitive DNA profiles and biometric markers for 75 years—even for individuals detained during peaceful protests or minor political offenses—is excessive.

DISHA 2.0 - EASE OF JUSTICE.

Context: DISHA 2.0 (Designing Innovative Solutions for Holistic Access to Justice) is a restructured Central Sector Scheme launched by the Ministry of Law and Justice for a five-year tenure running from April 1, 2026, to March 31, 2031.

Constitutional and International Anchors

The scheme is systematically designed to operationalize India's foundational legal mandates:

Constitutional Provisions: It directly fulfills the Preamble's promise of justice and Article 39A, which mandates the State to provide free legal aid to ensure that no citizen is denied justice due to

economic or other disabilities. It also upholds the rights to equality and life under Articles 14 and 21.

International Alignment: It accelerates the implementation of United Nations Sustainable Development Goal 16 (SDG-16), which focuses on Peace, Justice, and Strong Institutions.

The Target Group: Focuses on marginalized categories eligible under Section 12 of the Legal Services Authorities Act, 1987, aiming to reach a cumulative target of 3 crore beneficiaries by 2031.

The Four Core Components of DISHA 2.0

While the erstwhile DISHA 1.0 (2021–2026) focused on setting up digital legal nodes, DISHA 2.0 integrates advanced artificial intelligence (AI) and unified data systems through four pillars.

Tele-Law (Pre-Litigation Advice): Operates through 2.5 lakh Common Service Centres (CSCs). It allows rural and remote citizens to connect via video conferencing with panel lawyers to seek early-stage, free legal advice, effectively stopping trivial issues from becoming prolonged court cases.

Nyaya Bandhu (Pro Bono Legal Services): Creates a nationwide institutional framework that links practicing, registered advocates and law students with marginalized litigants who require free, end-to-end legal representation in courts.

Legal Literacy and Awareness Programme

(LLLAP): Executes targeted legal awareness campaigns in partnership with frontline ministries, academic institutions, and Civil Society Organizations (CSOs) to teach citizens their basic legal rights.

VIDHI-Sanjeevani (The New 2.0 Pillar): A newly introduced centralized digital public infrastructure platform built for data-driven administration and real-time monitoring of all legal aid delivery metrics across India.

Advanced Tech Interventions in DISHA 2.0

The 2.0 framework introduces critical upgrades to ensure technology removes barriers to justice:

Nyaya Setu AI Chatbot: An AI-powered virtual assistant that offers voice-driven, first-level interactive legal guidance to citizens.

BHASHINI Integration: By embedding the Bhashini AI translation engine, the system operates multilingually. This allows non-Hindi-speaking and rural citizens to access complex legal answers entirely in their native regional dialects.

Centralized Digital Dashboard: Aggregates legal metrics transparently, ensuring state accountability and efficient allocation of pro-bono lawyers based on regional caseload trends.

NATIONAL SPORTS BOARD– UNDER NATIONAL SPORTS GOVERNANCE ACT, 2025.

The National Sports Board (NSB) is the apex statutory regulatory body established under the landmark National Sports Governance Act, 2025. Enacted to clean up institutional mismanagement, check the monopoly of sports administrators, and prepare India for its 2036 Olympic hosting bid, the Act replaces ad-hoc guidelines by turning the National Sports Development Code into a mandatory legal obligation.

Core Powers and Functions

The National Sports Board has been granted sweeping statutory powers over National

Sports Federations (NSFs), the Indian Olympic Association (IOA), and the National Paralympic Committee:

Gatekeeper of Recognition & Funding: The NSB acts as the central authority for granting or renewing formal recognition to National Sports Bodies. Crucially, only NSB-recognised bodies are legally eligible to receive financial grants and subsidies from the Central Government.

Suspension and De-registration: The board holds the punitive power to suspend or cancel the recognition of any sports federation if they

violate financial protocols, mismanage funds, or experience catastrophic internal governance failures.

Ad-Hoc Intervention: If a national federation loses its affiliation with its international parent body (e.g., FIFA or World Athletics), the NSB can intervene and set up an ad-hoc administrative

body to run daily operations and insulate athletes.

Ethics and Welfare Auditing: It issues binding national codes of ethics, aligns domestic federations with global Olympic Charters, and executes inquiries into athlete welfare or sexual harassment complaints.

PM RASHTRIYA BAL PURASKAR 2026

Core Eligibility Criteria

Citizenship: The nominee must be an Indian citizen and a permanent resident of India.

Age Bracket: Above 5 years and not exceeding 18 years as of July 31, 2026.

Timeframe of Achievement: The raw achievement, project, or act of bravery must have occurred within 2 years of the application closing date.

Exclusion Clause: Past recipients of this award in any category are strictly ineligible to apply again.

Posthumous Clause: The honor is generally not conferred posthumously, except under highly specific, rare exceptions

Key Institutional & Operational Facts

Nodal Ministry: Administered directly by the Ministry of Women and Child Development (MWCD).

Selection Committee: Awardees are evaluated

by a National Selection Committee constituted by the Union Minister for MWCD and chaired by the Secretary of the Ministry.

Conferring Authority: Presented annually by the President of India at a special ceremony held in New Delhi.

Timeline Anchor: Nominees are announced on Veer Bal Diwas (December 26), which marks the martyrdom of Sahibzada Zorawar Singh and Sahibzada Fateh Singh.

Cap on Awards: Normally restricted to a maximum of 25 children, though the Selection Committee retains discretionary power to relax this limit.

Nomination Paths: Nominations can be submitted via self-nomination or through recommendations by central/state institutions on the official National Awards Portal.

Award Components: Winners receive a medal, a certificate/citation, and a cash bounty of ₹1 Lakh

TENTH SCHEDULE REFORMS

Core Structural Weaknesses (The “Why Reform?”)

Partisan Adjudication: The Speaker, while serving as a tribunal, often lacks structural neutrality due to continued ruling-party affiliation.

“Pocket Veto” Delays: The lack of a constitutional time limit allows Speakers to delay disqualification petitions, altering House majorities.

Stifled Legislative Conscience: The

indiscriminate use of party whips on routine bills reduces MPs/MLAs to mere voting hands, curbing dissent.

Wholesale Defections: The deletion of individual “splits” (91st Amendment) has inadvertently legalized bulk defections via engineered “mergers” majority.

Key Judicial Benchmarks

Kihoto Hollohan v. Zachillhu (1992): Declared the Speaker acts as a statutory tribunal;

decisions are open to judicial review to check mala fides.

Keisham Meghachandra Singh v. Speaker, Manipur (2020): Held that Speakers must decide disqualification petitions within a reasonable timeframe, ideally 3 months.

Padi Kaushik Reddy v. State of Telangana (2025): The Supreme Court explicitly urged Parliament to re-examine the Speaker's role to ensure fair adjudication.

Committee Recommendations & Proposed Reforms

1. Shifting the Adjudicatory Authority

2nd Administrative Reforms Commission (ARC): Transfer the power to disqualify to the President (for Parliament) or Governor (for Assemblies), acting on the binding advice of the Election Commission of India (ECI).

Supreme Court Suggestion: Create an Independent Constitutional Tribunal headed by a retired judge to entirely strip political bias from the process.

2. Narrowing the Scope of the Whip

Dinesh Goswami Committee (1990): Restrict the enforcement of party whips strictly to votes impacting the survival of the government (e.g., Confidence/No-Confidence Motions, Money Bills).

Outcome: Restores free speech to lawmakers on regular socioeconomic legislations.

3. Institutional Timelines & Mergers

Law Commission (170th Report): Delete the provisions that safeguard mass mergers entirely. If a member changes political affiliations, they must resign and seek a fresh mandate.

Pre-Poll Coalitions: Treat formal pre-poll alliances as a single political unit under the Tenth Schedule to preserve the voters' mandate.

Way Forward

“The Tenth Schedule must morph from a tool of political consolidation by party oligarchies into a framework for deliberative democracy. Implementing a 3-month statutory cap on petitions and de-politicizing the tribunal is essential to protect constitutional morality.

RIGHT TO TRAUMA CARE IS INTEGRAL PART OF AR 21 (SAVELIFE FOUNDATION VS UOI)

In a major expansion of the Right to Life, the Supreme Court of India ruled that access to timely trauma care is a fundamental right under Article 21. Recognizing that survival in a medical crisis depends on structural emergency networks rather than single hospitals, the apex court mandated a complete overhaul of the state's medical rescue systems.

Key Directives of the Ruling:

All-Encompassed Scope: The fundamental right to trauma care spans the entire rescue continuum (from the point of injury until hospital discharge). It applies universally to all severe trauma cases—such as road crashes, severe burns, industrial accidents, and natural disasters.

Mandatory Universal Helpline: All States and Union Territories must fully merge all disparate regional emergency helpline numbers (100, 101, 102, 108, 1033) into the unified Emergency Response Support System (ERSS-112) within three months.

Cashless Care Integration: States must quickly operationalize the PM RAHAT scheme to facilitate instantaneous, cashless emergency treatment for road crash and trauma victims.

Systemic Interventions & Registries: The Ministry of Health is ordered to build a National Trauma Registry and issue standard, nationwide medical rescue protocols.

Institutional Protections: To mitigate the

“reactive paralysis” of bystanders fearing police or legal harassment, states must enforce Good

Samaritan grievance redressal frameworks and Section 134A of the Motor Vehicles Act

GUIDELINES FOR NATIONAL AMBULANCE SERVICE 2026.

1. Time-Bound Response Targets

Urban & Peri-Urban Areas: Sets an immediate baseline target to reach patients within 20 minutes, with a definitive long-term goal of 10 minutes in congested city environments.

Equitable Rural Coverage: Mandates demographic and geographic fleet adjustments to secure the “golden hour” for remote, hilly, and historically underserved tribal sectors.

2. Standardization & Fleet Fleet Quality (AIS-125)

Automotive Industry Standards: Every operating public and private ambulance must strictly conform to AIS-125 standards to ensure vehicle safety, robust build quality, and standardized pre-hospital medical equipment.

Fleet Diversification: Maximizes the strategic application of multi-terrain vehicles—deploying specialized bike ambulances, boat ambulances, and air transport alongside standard Basic Life Support (BLS) and Advanced Life Support (ALS) vehicles.

3. Technology Integration (The Digital Backbone)

Integrated Command & Dispatch Centres (ICDCs): Dictates the establishment of high-tech state command hubs equipped with GPS-enabled vehicle tracking, instant call logging, and automated triage routing.

Geographic Information System (GIS) Mapping: Employs data-driven GIS networks to match real-time ambulance positions with nearby hospital bed availability, critical care readiness, and accident hotspots.

4. Personnel & Quality Control

Certified Training: Establishes strict competency guidelines and operational routines for Emergency Medical Technicians (EMTs) and first responders.

Performance Accountability: Mandates strict infection control logs, continuous response-time reviews, and a robust public grievance redress mechanism overseen at the state level.

JAN VISHWAS (AMENDMENT OF PROVISIONS) ACT, 2026

Core Pillars of the 2026 Decriminalisation Model

1. Shift from Criminal Fines to Civil Penalties

The Distinction: The Act differentiates between “Fines” (which require prolonged criminal trials in court) and “Penalties” (which are administrative and settled out of court).

Removal of Imprisonment: Technical errors

like missed paperwork deadlines, document maintenance delays, or minor compliance errors no longer risk jail terms.

2. Graded Enforcement Mechanism (“Warning-First”)

Instead of immediate prosecution, regulatory authorities must deploy a progressive compliance track: Advisory/Warning Notice → Improvement Notice → Civil Penalty.

First-time procedural errors under laws

like the Motor Vehicles Act or Legal Metrology Act trigger rectification warnings rather than instantaneous penal actions.

3. Administrative Adjudicating Officers

The Act empowers designated executive officers (such as Assistant Commissioners) to hear violations and levy penalties directly.

Appellate Route: Appellants can challenge a penalty before a departmental officer ranked one

tier above the adjudicating authority, bypassing the judiciary.

4. Inflation-Linked Automatic Revision

To prevent statutory stagnation, civil penalties and fines will automatically increase by 10% every three years.

This mimics the UK's "Standard Scale" and Australia's "Penalty Units," eliminating the need for frequent legislative amendments

NICOBAR TRIBAL COUNCIL

Context: Draft Tribal Councils (Preparation of Electoral Rolls and Conduct of Elections) Rules, 2026, to codify governance, introduce 5-year tenures, and implement gender-reserved seats. Tribal leaders have rejected this move, fearing that imposing a majoritarian system will lead to social division and weaken traditional consensus-based decision-making.

The Traditional Governance

Framework: "The Captaincy System"

The Village Council: Governed by three leaders (1st, 2nd, and 3rd Captains), this system, with roots in 16th-century trading, was formalized by the British in the 19th century.

Island Tribal Councils: Seven regional councils, comprising the first captains of constituent villages, are led by elected Chief and Vice-Chief Captains.

Operational Ethos: The system emphasizes community consultation and consensus to maintain social harmony.

Legal Status and Constitutional Nuances

Statutory Recognition: Legal status is provided by the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 (ANPATR) and the Nicobar Islands Tribal Council (Regulation), 2009.

Exclusion from Fifth/Sixth Schedule: As a UT, the islands fall outside traditional scheduled areas under Article 240, making ANPATR (1956) crucial for rights protection.

Administrative Oversight: The 2009 regulation grants the district administration (Deputy Commissioner) final authority to override council decisions in the interest of public order.

THE GLOBAL UNDER-16 SOCIAL MEDIA BANS

The global approach to minor digital safety has shifted from a parental consent model to state-enforced age prohibitions, led by unprecedented legislative actions in Australia and the United Kingdom

India: The Telegram Ban & Section 69A Expansion

In June 2026, the Ministry of Electronics and Information Technology (MeitY) issued emergency orders to temporarily block the messaging platform Telegram. This intervention highlights a major

legal shift in how India regulates digital speech and platform liability.

1. The Trigger for the Telegram Restriction

The National Testing Agency (NTA) flagged that criminal networks and paper-leak syndicates were exploiting Telegram's encrypted, large-channel architecture and message-editing tools to leak and sell question papers ahead of the NEET-UG 2026 re-examination. Prior targeted channel-takedowns (over 3,100 copyright and piracy links) failed to curb systemic compliance gaps.

2. Legal Grounding: Section 69A of the IT Act, 2000

Section 69A allows the Central Government to order an intermediary or government agency to block public access to digital information. The law can only be activated under six narrowly defined **constitutional conditions linked to Article 19(2)**:

Sovereignty and integrity of India.

Defence of India / Security of the State.

Friendly relations with foreign States.

Public Order / Preventing incitement to cognizable offences.

3. Judicial Interpretation: The “Information” Expansion

In June 2026, the Delhi High Court dismissed

Telegram’s appeal and upheld the emergency block, introducing a major precedent regarding the reach of Section 69A:

The Traditional Ladder: Historically, Section 69A was interpreted strictly as a tool to block specific content items (e.g., a specific URL or post). It later expanded to block entire user accounts (X Corp v. Union of India, 2023).

The Platform-Level Leap: The Delhi High Court ruled that because Section 2(1)(v) of the IT Act defines “information” to include codes, computer programs, and software, an entire application software framework qualifies as “information”. This provides statutory backing to block an entire application platform rather than just individual pieces of content

AR. 21 EXPANSION- RIGHT TO WALK ON DEMARCATED FOOTPATHS.

In a landmark judgment delivered on June 19, 2026, the Supreme Court of India declared the right to walk on safe, demarcated footpaths a Fundamental Right under Part III of the Constitution. The division bench, comprising Justices P.S. Narasimha and A.S. Chandurkar, ruled that pedestrian mobility is inextricably linked to Article 21 (Right to Life with Dignity) and Article 19(1)(d) (Freedom of Movement)

Constitutional & Legal Pillars

Article 21 (Right to Life): Safe pedestrian transit is essential for a dignified, secure human existence. Forcing a citizen onto a heavy-traffic carriageway due to broken or missing pavements violates their right to life.

Article 19(1)(d) (Freedom of Movement): This freedom cannot be restricted to vehicle owners; it embodies an equal, basic right to move safely on foot. It also connects with social convergence rights under Articles 19(1)(a) and 19(1)(b).

Enforceable Correlative Duty: The mere construction of a public road automatically binds local authorities—such as Municipal Corporations,

Panchayats, and Urban Development Authorities—to build, manage, and maintain unobstructed pavements.

Socio-Economic & Urban Governance Context

Surging Fatalities: The urgency of the judgment is underscored by a severe spike in road risks, with pedestrian deaths jumping by nearly 163% between 2015 and 2024, accounting for over 20.6% of all Indian road fatalities.

Failure of Standards: While the Indian Roads Congress (IRC) mandates a minimum footpath width of 1.8 metres, field data indicates only 26% of existing urban pathways meet this threshold.

Vulnerable Groups: Auto-centric cities actively exclude the elderly, children, and Persons with Disabilities (PwDs). The Court highlighted that barrier-free, unobstructed footpaths are a prerequisite for an inclusive society.

Structural Mandates Issued by the Court

1. Independent Regulatory Authority

The Supreme Court directed the Union Government to establish a full-time independent regulator to plan, oversee, and enforce pedestrian safety networks, keeping the body insulated from commercial or automotive industry lobbying.

2. New Dedicated Legislation

The Court formally requested the Ministries of Housing & Urban Affairs, Road Transport & Highways, and Rural Development to collaborate with the Law Commission of India to draft a comprehensive Pedestrian Rights Act.

3. Constitutional Restitution & Compensation

Citizens are now legally entitled to bypass standard motor accident tribunals and

file independent constitutional lawsuits for compensation against municipal bodies if injuries occur due to unmaintained or heavily encroached walkways.

Way Forward for Mains Answers

“The Maniyar Iliyaz (2026) verdict shifts urban planning from an automobile-first model to a people-centric matrix. To turn this judicial decree into a reality, cities must move past selective anti-poor eviction drives against street vendors—who are protected under the Street Vendors Act, 2014—and focus on curbing unchecked private vehicular parking and elite encroachments on public spaces.

HARGILA ARMY

In his June 28, 2026, Mann Ki Baat address, Prime Minister Narendra Modi praised the “Hargila Army” of Assam. He highlighted them as a prime model of how scientific logic and community-led public participation can dismantle deep-seated social superstitions to drive wildlife conservation.

The Species Profile: Greater Adjutant Stork (Hargila)

Taxonomy & Features: The bird belongs to the stork family (Ciconiidae). Standing at roughly

5 feet tall with a massive 2.5-metre wingspan, it features a distinct dangling, orange-to-yellow gular pouch used during courtship.

Nomenclature: The Assamese name “Hargila” literally translates to “bone-swallower” due to its dietary habit of consuming large pieces of bone.

Ecological Niche: They are apex scavengers and omnivores. They feed heavily on carrion, decaying biological matter, and pests, playing an invaluable role in keeping wetlands clean and preventing disease outbreaks.



INTERNATIONAL RELATIONS



What's Inside?

1. INDIA MYANMAR RELATIONS
2. SEC 301 OF US TRADE ACT 1974
AND ITS IMPLICATIONS ON
INDIA
3. INDIA-FRANCE SPECIAL GLOBAL
STRATEGIC PARTNERSHIP
4. BRICS INDORE DECLARATION
5. G7 SUMMIT AND INDIA
6. CANADA REQUEST FOR IORA
7. PM MODI CONFERRED
SEYCHELLES' HIGHEST
ENVIRONMENTAL HONOUR
8. INDIA-NEPAL BORDER DISPUTE

INDIA MYANMAR RELATIONS

Why in news?

Myanmar's President, U Min Aung Hlaing, undertook a five-day state visit to India, marking his first official visit since the 2021.

Highlights of Myanmar's President Visit to India:

Security Cooperation: Myanmar assured that its territory would not be used by anti-India insurgent groups such as NSCN-K (National Socialist Council of Nagaland-Khaplang) and ULFA (United Liberation Front of Asom), which have historically maintained bases in Myanmar's border regions.

Trade & Economic Integration: Both countries agreed to expand bilateral trade through the Rupee-Kyat settlement mechanism, operational from 2024, and deepen investment cooperation in agro-processing, petroleum, energy, and mining sectors.

Connectivity Projects: Renewed commitment to expedite the Kaladan Multi-Modal Transit Transport Project and India-Myanmar-Thailand (IMT) Trilateral Highway.

Strategic Significance: India reaffirmed engagement with Myanmar, emphasizing its importance for the Neighbourhood First, Act East, and MAHASAGAR policies.

People-to-People Ties: India increased Mekong Ganga ICCR scholarships for Myanmar students from 36 to 100.

Critical Minerals Cooperation: India and Myanmar agreed to strengthen coordination and cooperation in critical minerals and rare earths, recognizing their growing strategic importance.

Why Myanmar matters?

Geostrategic Anchor: Myanmar is India's only land border with ASEAN. It anchors the "Neighbourhood First" and "Act East" policies, while serving as the linchpin for BIMSTEC cooperation.

Siliguri Corridor Bypass: Provides an alternate transit route to the Northeast, reducing India's reliance on the highly vulnerable, 22km-wide "Chicken's Neck" Siliguri Corridor.

Counter-Insurgency Sanctuary: Critical for joint military operations against northeastern insurgent groups (like ULFA and NSCN-K) that use Myanmar's Sagaing Region as a safe haven.

Golden Triangle Drug Threat: Sits on the edge of the world's largest methamphetamine hub (Shan State), which fuels severe trafficking and addiction crises in Manipur and Mizoram.

China Counterweight: Counteracts Beijing's deep-sea port at Kyaukphyu and the China-Myanmar Economic Corridor, preventing the PLA Navy from securing a permanent strategic opening in the Bay of Bengal.

SEC 301 OF US TRADE ACT 1974 AND ITS IMPLICATIONS ON INDIA

Why in news?

The United States has proposed 12.5% tariff on Indian imports alleges that India has not effectively prohibited goods produced through forced labor.

About Section 301

Section 301 of the US Trade Act of 1974 is a powerful unilateral trade instrument that allows the US Trade Representative (USTR) to investigate foreign trade practices deemed "unreasonable, unjustifiable, or discriminatory" and to impose retaliatory tariffs or trade restrictions.

It is a key tool through which Washington pressures trading partners on issues ranging from intellectual property and market access to labour practices and industrial policy.

In March 2026, the USTR launched multiple Section 301 investigations against India and several other nations, targeting “structural excess capacity” in manufacturing and alleged failures to curb forced labor in supply chains.

Implications on India:

Reduced Export Competitiveness: A 12.5% additional duty could make Indian exports more expensive in the US market, particularly affecting labour-intensive sectors such as textiles, garments, carpets, leather products, and brassware, as well as automobiles, electronics, and engineering goods, due to higher tariff burdens.

Supply Chain Disruptions: Indian firms may need to reduce dependence on Chinese inputs to avoid tariffs, leading to higher sourcing and production costs in the short term

India's Stance:

India stringently prohibits forced labour domestically under Article 23 of the Constitution (Right against Exploitation) and the Bonded Labour System (Abolition) Act, 1976.

India maintains that the allegations primarily stem from global supply chain linkages rather than domestic practices.

India has formally stated that it remains engaged with the US on this matter. The proposed tariffs are not yet final.

INDIA-FRANCE SPECIAL GLOBAL STRATEGIC PARTNERSHIP

Why in news?

India and France unveiled 13 major outcomes during Prime Minister Narendra Modi's visit to France, aimed at deepening cooperation in technology, AI, defence, trade, space, education, and digital infrastructure.

About India-France Strategic Partnership:

The India-France Strategic Partnership is a comprehensive bilateral relationship established in 1998, covering defence, space, civil nuclear energy, technology, trade, climate action, education, and people-to-people ties.

Key Outcomes of the India-France Summit:

India-France Innovation Roadmap 2030:

- Adopted a long-term framework to strengthen cooperation in AI, critical technologies, startups, innovation ecosystems, and academic mobility.
- Promotes industry-academia partnerships

and joint technological solutions to global challenges.

Joint India-France AI Working Group

- Established a dedicated mechanism for AI governance.
- Will facilitate research collaboration, startup partnerships, capacity building, and policy coordination in artificial intelligence.

National Centre of Excellence for Skilling in Aeronautics

- To be established at the National Skill Training Institute, Kanpur.
- Strengthens aerospace manufacturing, aviation maintenance, and workforce development.

Expansion of UPI in France

- UPI services extended to Paris Airport and Nice.

- Enhances digital payment convenience for Indian tourists, students, businesses, and diaspora communities.

Startup Collaboration through Station F

- Ten additional Indian startups will be incubated at Station F, Europe's largest startup hub.
- Provides access to investors, mentors, markets, and technology networks.

India–France Centre of Digital Sciences

- To be established jointly by DST and France's INRIA.
- Supports digital technology research, innovation, talent mobility, and skill development.

ICCR India Chair at Université Paris-Saclay

- New academic chair on AI, Innovation and Culture.
- Strengthens educational cooperation, research exchange, and cultural diplomacy.

Health Data and AI Research Collaboration

- Partnership between ICMR and France's Health Data Hub.
- Focuses on secure health-data sharing, AI-driven medical research, and digital health governance.

Mechanism to Double Bilateral Trade

- Creation of an annual high-level mechanism.
- Targets doubling India–France bilateral trade within five years.

Economic Security Dialogue

- New platform covering critical minerals, semiconductors, energy security, cybersecurity, and strategic technologies.
- Enhances economic resilience and supply-chain security.

Railway and High-Speed Rail Cooperation

- Declaration of Intent signed for railway modernization.
- Supports technology transfer, infrastructure development, and supply-chain integration.

Agreement on Classified Information Protection

- Establishes a secure legal framework for exchanging sensitive information.
- Strengthens defence-industrial cooperation and Make in India initiatives.

Enhanced Space Cooperation

- Letter of Intent signed between Indian Space Research Organisation and Centre National d'Études Spatiales.
- Covers human spaceflight, microgravity research, the Gaganyaan mission, and the Bharatiya Antariksh Station.

BRICS INDORE DECLARATION

Why in news?

The 16th BRICS Agriculture Ministers' Meeting adopted the BRICS Indore Declaration. The meeting was held in Indore under India's Presidency with the theme "Building for Resilience, Innovation, Cooperation and Sustainability" (BRICS).

Indore Declaration

Food Security, Nutrition and Livelihoods:

- Recognition of farmers as custodians of traditional knowledge, biodiversity and seed heritage.
- Launch of the Global Forum on Farmers'

Rights in Seed Systems to protect seed rights and indigenous knowledge. The Forum will function primarily through virtual modalities coordinated by the Protection of Plant Varieties and Farmers' Rights Authority (PPV&FRA) in New Delhi.

Agriculture Trade and Cooperation

- Support for the proposed BRICS Grain Exchange.
- Launch of BRICS AGRIN (Agro-Inputs, Genetic Resources and Information Network) for cooperation in seeds, genetic resources and agricultural inputs.
- Utilization of the BRICS Basic Agricultural Information Exchange System (BAIES) as

a cooperation platform.

Regenerative Farming, Climate Resilient and Sustainable Agriculture

Establishment of a BRICS Network of Centres of Excellence on Agroecology and Regenerative Agriculture for Climate Resilience & Productivity, as a collaborative, platform initially coordinated by ICAR–Indian Institute of Farming System Research (IIFSR), Modipuram.

Future-Ready Agriculture

Expansion of Digital Public Infrastructure (DPI) in agriculture.

Establishment of a BRICS Network on Digital Agriculture coordinated initially by IIT Delhi.



G7 SUMMIT AND INDIA

Why in news:

Recently, the Prime Minister of India attended the 52nd G7 Summit Outreach Session, 2026, held at Évian-les-Bains, France, under the theme: “Forging New Partnerships and Rebuilding International Solidarity.”

About G7:

Genesis and Evolution: Formed in 1975

in response to the 1973 oil crisis, it began as an informal forum of six industrialised democracies (G6) (France, Germany, Italy, the UK, Japan, and the US)

Canada joined in 1976 to form the G7. Russia was integrated in 1998, temporarily making it the G8, but was expelled in 2014 following its annexation of Crimea.

The European Union (EU) also actively

participates as a “non-enumerated” member, represented by the Presidents of the European Council and the European Commission.

Core Objectives: The bloc convenes to coordinate policy on global economic governance, international security, trade, and energy, heavily anchored in shared democratic values and human rights.

Institutional Structure: Unlike the UN or NATO, the G7 is an informal bloc. It is not based on a treaty and has no permanent secretariat or formal administrative headquarters.

The Presidency: The presidency rotates annually among member states. The country holding the presidency is responsible for setting the agenda, organizing ministerial meetings, and hosting the annual leaders’ summit.

Economic Weight: While G7 nations represent only about 10% of the global population, they account for approximately 43% of the world’s nominal Gross Domestic Product (GDP) and a significant share of global wealth.

Outreach Sessions: To counter criticisms of being an exclusive club that ignores the developing world, the host nation routinely invites guest countries (such as India, Brazil, and South Africa) and international organizations to participate in specific “Outreach Sessions” to discuss pressing transnational issues.

India in G7:

Historical timeline: India’s partnership began in 2003 under Prime Minister Atal Bihari Vajpayee, continued via five invitations to Dr. Manmohan Singh (2005–2009), and solidified

into annual participation by Prime Minister Narendra Modi from 2019.

Shifting economic weight: As the G7’s share of global GDP declined to roughly 40% due to the rise of major emerging economies like India and China, the bloc increasingly relies on India as a stable democratic anchor and technology partner.

Voice of the Global South: Under current leadership, India has established itself as the primary interlocutor for developing nations within plurilateral forums dominated by advanced Western powers.

India’s Core Message at the G7

Outreach Session:

Addressing the Global Trust Deficit: India emphasized that mutual trust is the world’s most critical strategic asset, arguing that global challenges stem more from a shortage of trust than a shortage of resources.

Reforming the Development Paradigm: India called for moving beyond the traditional donor-recipient model towards partnerships based on equality, mutual respect, and shared responsibility.

Amplifying the Voice of the Global South: India reiterated that developing and middle-income countries seek equitable participation in global governance and development frameworks rather than mere financial assistance.

Showcasing India–Africa Cooperation: India highlighted its development partnership with Africa through targeted, high-impact initiatives based on South-South cooperation.

CANADA REQUEST FOR IORA

Why in news:

The Indian Ocean Rim Association (IORA) is examining Canada’s application to become a dialogue partner at the 28th Committee

of Senior Officials meeting in New Delhi, reflecting the organisation’s expanding maritime engagement.

Response to Canada’s Proposal:

Canada is being considered due to its extensive maritime expertise, including large coastal zones and experience in maritime safety, security, connectivity, and ocean governance, which could benefit IORA member states.

About Indian Ocean Rim Association (IORA):

The Indian Ocean Rim Association (IORA) is an intergovernmental organisation of 23 Member States and 12 Dialogue Partners, promoting regional cooperation in the Indian Ocean region.

Evolution: The concept was first articulated by South African President Nelson Mandela during his 1995 visit to India, emphasising natural historical and geographical linkages of Indian Ocean states. This idea led to the Indian Ocean Rim Initiative in 1995, which eventually resulted in the formation of IORA in 1997.

Charter: The IORA Charter serves as the

foundational document guiding cooperation based on multilateralism, consensus, and non-intrusive engagement among member states.

Priority Areas: IORA focuses on six priority areas and two cross-cutting issues to promote sustainable regional cooperation and development in the Indian Ocean region.

Institutional Mechanism: The organisation functions through institutional structures including the Council of Ministers (COM), Committee of Senior Officials (CSO), TROIKA, and the IORA Secretariat.

Member States: IORA includes key Indian Ocean littoral states such as India, Australia, Indonesia, Malaysia, South Africa, Sri Lanka, Oman, Kenya, Tanzania, Mozambique, Madagascar, Mauritius, Seychelles, Somalia, Comoros, Maldives, France, UAE, Iran, Bangladesh, Thailand, Singapore, and Yemen, among others.

PM MODI CONFERRED SEYCHELLES' HIGHEST ENVIRONMENTAL HONOUR

Why in news?

Recently, Prime Minister Narendra Modi has been conferred "The Guardian of the Blue Horizon", the highest environmental honour of Seychelles by the President of Seychelles, H.E. Dr. Patrick Herminie.

About the Award:

The 'Guardian of the Blue Horizon' is an elite Presidential Distinction and the highest honor bestowed by the Republic of Seychelles. It is specifically designed to recognize exemplary international leadership in environmental conservation, climate resilience, green growth, and the sustainable management of marine ecosystems.

Reflection:

Advancing the Blue Economy: The honor recognizes India's strategic push under the

MAHASAGAR and SAGAR (Security and Growth for All in the Region) visions, which prioritize clean ocean trade, maritime safety, and protection of ocean resources across the Indian Ocean Region.

Championing Small Island Developing States (SIDS): Acknowledges India's role as a trusted partner to SIDS like Seychelles, supporting their developmental aspirations and building capacity to manage climate challenges.

International Solar Alliance (ISA): Honors the co-founding of the ISA to rapidly scale up solar power capture across developing and tropical countries.

Mission LiFE (Lifestyle for Environment): Recognizes the global movement to turn climate action into an individual effort by promoting mindful, zero-waste lifestyle choices.

Mass Afforestation & Biodiversity Drives:

Appreciates massive environmental projects like 'Ek Ped Maa Ke Naam' (Plant for Mother) and the creation of the International Big Cat Alliance.

Other Environmental Achievements by Indian PM:

Agricola Medal (2026): Awarded by the FAO for contributions to food security and

sustainable agriculture.

Seoul Peace Prize (2018): Honoured for promoting sustainable growth and global cooperation.

Champions of the Earth Award (2018): UN's highest environmental honour for leadership in climate action.

INDIA-NEPAL BORDER DISPUTE

Context (Why in News?)

Nepal Prime Minister Balendra (Balen) Shah recently sparked a political and diplomatic controversy by stating in Parliament that "not only has India encroached on Nepal's territory, but Nepal has also encroached on Indian territory in many places." He called for both countries to jointly examine historical evidence and resolve the issue through dialogue.

Strategic Importance: Lipulekh Pass serves as an important route for the Kailash-Mansarovar Yatra and holds strategic value due to its proximity to the India-China border.

Security Significance: The region is crucial for India's border management and surveillance in the Himalayas.

Diplomatic Relevance: The dispute periodically strains bilateral ties despite the close historical, cultural, and economic relationship between the two countries.

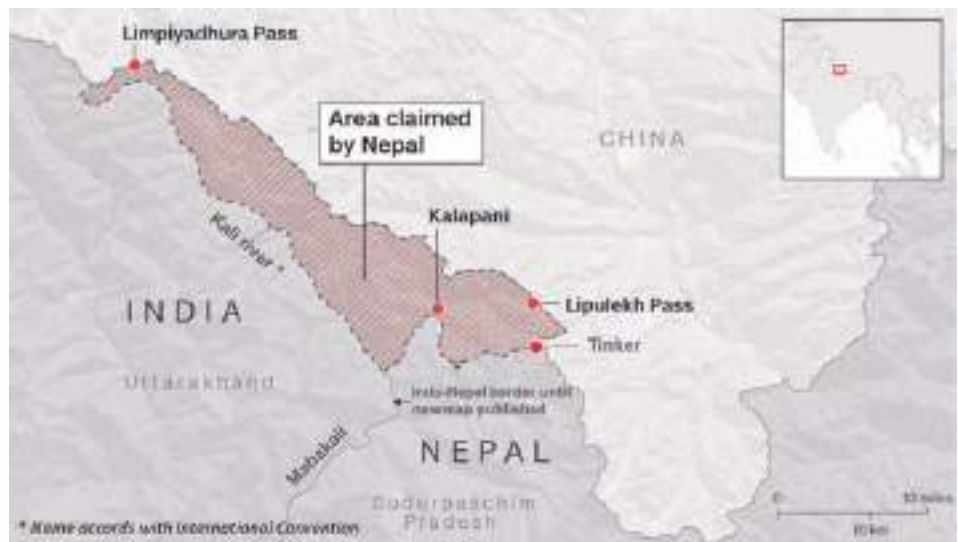
Background of the Border Dispute

India and Nepal share an open border of about 1,850 km, facilitating free movement of people under the 1950 India-Nepal Treaty of Peace and Friendship.

The dispute primarily concerns Kalapani, Lipulekh, and Limpiyadhura, located near the India-Nepal-China tri-junction.

It originates from the 1816 Treaty of Sugauli, which designated the Kali (Mahakali) River as Nepal's western boundary. However, ambiguity regarding the river's source has resulted in competing territorial claims.

Recent Developments



Shah's remarks triggered political criticism within Nepal. Subsequently, Nepal's Foreign Ministry clarified that he was referring to instances of localised cross-border occupation arising from missing boundary pillars and

Significance of the Disputed Region

land-use issues, rather than official territorial encroachment.

India reiterated that the boundary issue is a bilateral matter to be resolved through established diplomatic mechanisms.

Way Forward

Strengthen the India–Nepal Boundary Working Group and Joint Boundary Committee to expedite the settlement of unresolved boundary issues.

Undertake joint surveys using modern geospatial technology and historical records.

Resolve disputes through sustained bilateral dialogue in line with the principle of peaceful settlement of disputes under Article 2(3) of the UN Charter.

Preserve the spirit of the India–Nepal partnership based on mutual trust, respect, and cooperation.



SOCIETY & SOCIAL JUSTICE

What's Inside?

1. NFHS-6 HIGHLIGHTS
2. RISA TIMELESS TRIBAL
3. INCENTIVISING BIGGER FAMILY - ANDHRA PRADESH INITIATIVE
4. SCHEDULE K OF DRUG RULES 1945
5. PIL FOR REHABILITATION & MENTAL HEALTH CENTERS CATERING TO CHILDREN WITH DISABILITIES
6. SHATAYU & JEEVAN CAREGIVER NETWORK
7. AAROGYA SETU 2.0 - NATIONAL HEALTH APP
8. BHARAT TAXI COOPERATIVE
9. SAMAGRA SHISHU BAL SWASTHYA KARYAKRAM (SSBSK)

10. ANAEMIA MUKT BHARAT ABHIYAAN
11. CONTROL DRUG ABUSE: WHOLE-OF-SOCIETY APPROACH
12. ACADEMIC BANK OF CREDITS, APAAR, AND BHARAT PRAMAN CHAIN
13. 10 YEARS OF PRADHAN MANTRI SURAKSHIT MATRITVA ABHIYAAN (PMSMA)

NFHS-6 HIGHLIGHTS

Context: The National Family Health Survey-6 (2023-24), released in May 2026, is India's largest health and demographic survey covering 6.79 lakh households, 7.16 lakh women and over 1 lakh men. It provides 101 indicators on population, health, nutrition, family planning and women's empowerment.

Nodal institute: International Institute for Population Sciences (IIPS), Mumbai.

New Features in NFHS-6

First NFHS conducted entirely by IIPS without external technical or financial support

NFHS-6 (2023-24): INDIA FACTSHEET

KEY HIGHLIGHTS (Comparison with NFHS-5: 2019-21)



The National Family Health Survey-6 (2023-24), released in May 2025, is India's largest health and demographic survey covering

**6.79 LAKH HOUSEHOLDS,
7.16 LAKH WOMEN AND OVER 1 LAKH MEN.**

NEW FEATURES IN NFHS-6

- First NFHS conducted entirely by IIPS without external technical or financial support
- Expanded Clinical, Anthropometric and Biochemical (CAB) studies
- HIV testing added
- New modules on Direct Benefit Transfer (DBT), Self-Help Groups (SHGs), digital literacy and digital financial transactions



1 India enters an era of below-replacement fertility



Total Fertility Rate (TFR)
(children per woman)

NFHS-5 (2019-21) **2.0** → NFHS-6 (2023-24) **1.6**

- Lowest ever recorded by NFHS.
- Signals demographic transition and ageing population.

2 Child marriage continues to decline



Women (20-24 yrs) married before 18 years

NFHS-5 (2019-21) **23.3%** → NFHS-6 (2023-24) **20.1%**

Teenage pregnancy (15-19 yrs) among mothers or pregnant

NFHS-5 (2019-21) **6.8%** → NFHS-6 (2023-24) **6.7%**

- Indicates gradual social progress but pockets of vulnerability persist.

3 Maternal healthcare witnesses significant improvement



	NFHS-5 (2019-21)	NFHS-6 (2023-24)
Full 5 antenatal visits	70.5%	78.1%
ANC in 1st trimester	36.1%	45.3%
IFA for 180+ days	30.5%	38.3%
Institutional delivery	88.6%	93.6%
Skilled birth attendant	89.6%	95.5%

- Better access and utilization of maternal health services.

4 Contraceptive adoption continues to rise



Overall C-method

NFHS-5 (2019-21) **21.5%** → NFHS-6 (2023-24) **27.2%**

Private hospitals **54.7%**
Public hospitals **16.9%**

- For spacing: PPIUCD is highest contributor (up 50-54%).

5 Child nutrition improves – but remains a major concern



	NFHS-5 (2019-21)	NFHS-6 (2023-24)
Stunting (under-5 yrs)	35.5%	27.3%
Underweight (under-5 yrs)	32.1%	31.8%
Wasting (under-5 yrs)	19.3%	18.6%
Severe wasting (under-5 yrs)	7.7%	5.2%

- Stunting levels reduce, but wasting remains high.

6 Vaccination coverage improves substantially



	NFHS-5 (2019-21)	NFHS-6 (2023-24)
Fully immunized children	76.5%	85.2%
Measles vaccine	74.2%	86.6%
Sanctioned mission Indradhanush dose	54.6%	71.8%

- Reflects gains under Mission Indradhanush and UIP.

7 Double burden of malnutrition indicates challenge



Overweight / Obesity (BMI ≥25 kg/m²)

	NFHS-5 (2019-21)	NFHS-6 (2023-24)
Women	20.6%	30.2%
Men	22.9%	23.5%

- Undernutrition persists while obesity rises rapidly.

8 Non-Communicable Diseases (NCDs) emerge as a major challenge

Raised sugar (>160 mg/dl) or on medication

	NFHS-5 (2019-21)	NFHS-6 (2023-24)
Women	11.8%	17.8%
Men	15.6%	20.7%

Hypertension prevalence (≥140/90 mm Hg or on medication)

	NFHS-5 (2019-21)	NFHS-6 (2023-24)
Women	20.1%	24.8%
Men	24.0%	22.7%

- Higher burden in hypertension, but NCD risk factors are rising.

9 Women's empowerment indicators improve



	NFHS-5 (2019-21)	NFHS-6 (2023-24)
Women who have ever used the internet	33.2%	64.3%
Women with bank account	74.5%	86.0%
Women owning a mobile phone	53.9%	63.8%
Women with 10+ years of schooling	77.0%	78.7%

- Greater digital, financial and social inclusion of women.

10 Gender-based violence declines but remains serious



Ever-married women who have ever experienced spousal violence

NFHS-5 (2019-21) **22.3%** → NFHS-6 (2023-24) **22.2%**

Ever-married women who have experienced physical violence during last pregnancy

NFHS-5 (2019-21) **3.9%** → NFHS-6 (2023-24) **2.7%**

Young women (18-29 yrs) who experienced sexual violence by age 18

NFHS-5 (2019-21) **1.0%** → NFHS-6 (2023-24) **0.8%**

- Progress is visible, but nearly 1 in 5 married women still experience spousal violence.



UPSC TAKEAWAY

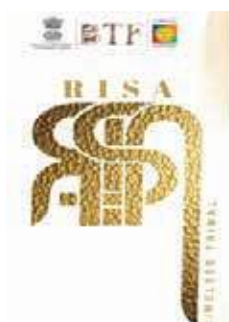
NFHS-6 indicates that India has made notable gains in maternal and child health, immunization and women's empowerment, but faces emerging challenges of low fertility, ageing population, rising obesity, lifestyle diseases and persistent child malnutrition—necessitating a shift from survival-focused interventions to comprehensive lifecycle health and nutrition policies.

Source: MoHFW (GoI)
Fact Sheet: NFHS-6, May 2025

RISA TIMELESS TRIBAL

Context: A dedicated premium brand launched by the Ministry of Tribal Affairs and implemented by TRIFED to premiumize indigenous traditional heritage.

Name Origin: Inspired by Tripura's traditional handwoven fabric 'Risa' (conventionally used as headgear/chest wrapper).



and environmentally sustainable premium packaging solutions have been incorporated, with support from the National Institute of Design (NID), Haryana.

TRIBAL WEAVES EMBROIDERY -TRIBE -STATE,			
No.	Weaves / Embroidery	Communities Involved	State / UT
1.	Eri silk	Bodo	Assam
2.	Santal cotton	Santal	Jharkhand
3.	Changpa Pashmina	Changpa	Ladakh
4.	Kotpad cotton	Mirgan	Odisha
5.	Muga silk	Miri (Mising)	Assam
6.	Dongria embroidery	Dongria Kondh	Odisha
7.	Toda embroidery	Toda	Tamil Nadu

Objectives:

Signature brand established to give equitable value distribution.

Targets direct profit-sharing to eliminate middlemen markup exploitation.

Design Support: Modern design techniques

The first phase of the RISA launch features a curated selection of some of India's most iconic weaves and crafts. The specialized Handicrafts including Longpi Pottery (Manipur), Turtuk Brass Cutlery (Ladakh), and the world-renowned Dokhra Art were shown in RISA launch.

INCENTIVISING BIGGER FAMILY - ANDHRA PRADESH INITIATIVE

Context: Andhra Pradesh government announced cash incentives (Rs 30,000 for 3rd child, Rs 40,000 for 4th child) to reverse declining birth rates.

Why are governments incentivising larger families?

Population aging: India's elderly (60+) population is projected to increase from 10.5% (2022) to 20.8% by 2050. (UNFPA India Ageing Report, 2023)

Declining fertility: India's Total Fertility Rate (TFR) has fallen to 2.0 (NFHS-5), below the replacement level of 2.1. Southern states such as Tamil Nadu (1.4), Kerala (1.8), Andhra Pradesh (1.5) have much lower fertility.

Shrinking workforce: A declining working-age population may reduce economic growth and increase labour shortages.

Federal representation debate: Southern states fear losing Parliamentary representation

after the post-2026 delimitation due to successful population control.

Social security burden: Rising old-age dependency will increase expenditure on pensions, healthcare and long-term care. (Economic Survey 2024-25)

Can incentives reverse TFR decline?

Limited global success: Countries like Japan, South Korea and Singapore spend 1–4% of GDP on fertility support, yet fertility remains below replacement.

Behavioural transition: Higher education, delayed marriage, urbanisation and changing aspirations favour smaller families. (UN Population Division)

High child-rearing costs: Education, healthcare, housing and childcare discourage larger families.

Structural barriers: Lack of affordable childcare, paid parental leave and work-life balance.

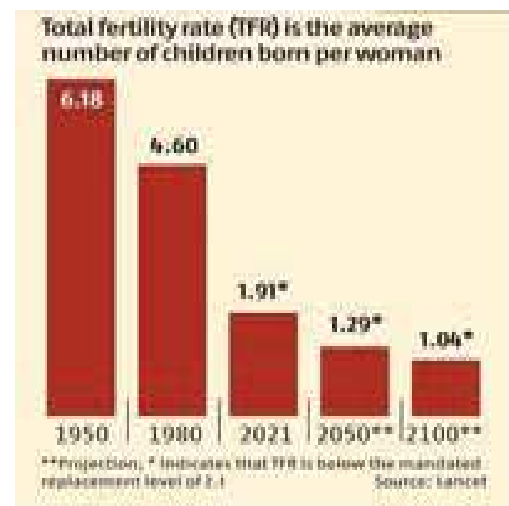
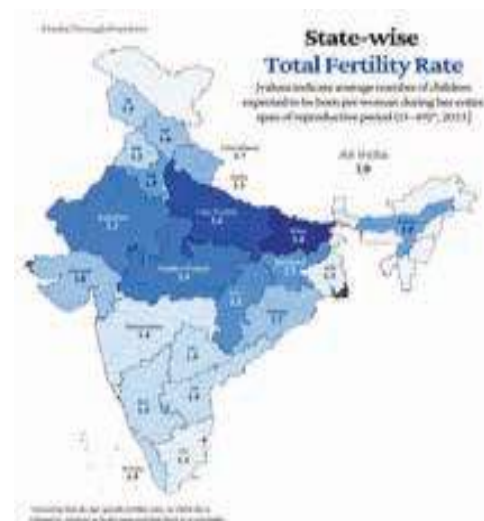
Women's workforce participation: Without supportive workplace policies, fertility incentives have limited impact. (ILO & World Bank studies)

Alternative Measures

Healthcare investment: Improve maternal, child and geriatric healthcare. (National Health Policy 2017)

Pension reforms: Strengthen old-age income security to reduce dependence on children.

Human capital development: Improve education, skilling and labour productivity



instead of focusing only on population size. (Economic Survey)

Promote the Silver Economy: Encourage healthy ageing, elderly employment and age-friendly infrastructure. (Economic Survey 2024-25)

Family-friendly policies: Affordable childcare, flexible work, paid parental leave and tax incentives.

SCHEDULE K OF DRUG RULES 1945

Context: Enactment of the Drugs (Fifth Amendment) Rules, 2026, changing exemptions under the Drugs and Cosmetics Act 1940.

What is Schedule K? Lists medicines conditionally exempt from regular sales

licensing requirements to facilitate essential remedy availability in remote/rural areas.

2026 Amendment: Deletion of the word “Syrups” from Entry 7 which previously allowed flexible over-the-counter sale of cough syrups, lozenges, pills, and tablets

Policy Impact: Cough syrups are excluded from loose rural retail distribution channels.

Tighter mandate enforced for proper

doctor prescription and standard pharmacy compliance to prevent contamination and misuse.

PIL FOR REHABILITATION & MENTAL HEALTH CENTERS CATERING TO CHILDREN WITH DISABILITIES

Context: Supreme Court issued notices on a PIL alleging regulatory paralysis and human rights violations in unregistered private care facilities.

PIL: Regarding gap between law and implementation, despite safeguards under:

- Rights of Persons with Disabilities (RPwD) Act, 2016
- Rehabilitation Council of India (RCI) Act, 1992
- Mental Healthcare Act (MHCA), 2017

Major issues identified:

- Shortage of qualified rehabilitation professionals.
- Poor monitoring and inspection of rehabilitation centres.
- Unsafe conditions and neglect of children.
- False claims of curing conditions like autism and ADHD through unscientific methods.
- Exorbitant fees charged without scientific evidence.
- Unauthorized use of children's photos/videos without parental consent.
- Lack of transparency and accountability.

Specific concern under MHCA, 2017

- The Act requires States/UTs to prescribe minimum quality standards for child mental health establishments.
- Only five States/UTs have framed such standards so far.

The PIL argues that these failures violate:

- Article 21 – Right to life with dignity.
- Article 21A – Right to education.

Reliefs Sought

- Strict enforcement of statutory safeguards under the RPwD Act, RCI Act and MHCA.
- Mandatory registration and periodic inspection of rehabilitation and mental health establishments.
- Prescription and implementation of minimum quality standards by all States/UTs.
- Time-bound registration of qualified mental health professionals.
- The petition argues that children with disabilities are entitled to individualised, evidence-based and scientifically validated therapeutic interventions.

SHATAYU & JEEVAN CAREGIVER NETWORK

Context: Launched by the Ministry of Social Justice and Empowerment (MoSJE) to systematically formalize India's digital care economy.

Functional Breakdown:

JEEVAN App: (Joint Elderly Empowerment & Virtual Assistance Network). Access interface for senior citizens to track active welfare payouts and emergency help.

Key Features:

- **Unified Welfare Gateway:** Single repository of all Central & State welfare schemes, pension benefits and healthcare entitlements.
- **SOS Emergency Assistance:** One-touch panic button connected to emergency services, hospitals and National Elder Helpline.
- **Institutional Home Locator:** Geo-tagged directory of MoSJE-supported old-age homes and day-care centres.
- **Elder-Friendly Interface:** Large fonts, voice-assisted navigation and simplified user interface for senior citizens.

SHATAYU Dashboard: (Senior Holistic Care Assistance and Training For Your Utility). Connects elderly households directly with authenticated, trained geriatric caregivers at the district level.

Key features:

- **District-level Micro-mapping:** Real-time availability of verified geriatric caregivers across districts.
- **Training Tracker:** Tracks certification, skill development and professional training of caregivers.
- **Care Economy Integration Hub:** Integrates data from NGOs, healthcare

providers and skill councils to match caregiver demand and supply.

- **Verified Service Directory:** Background-verified, legally compliant caregiver database ensuring safe and reliable services.

Significance:

- Formalizes the elderly care economy, shifting it from an informal to a regulated sector.
- Improves access to verified, trained caregivers.
- Enables district-wise identification of caregiver shortages for targeted skill development.
- Strengthens elderly welfare, healthcare access and emergency response through digital governance.

India's elderly (60+ years) population is projected to increase from 10.5% (2022) to 20.8% by 2050 (UNFPA India Ageing Report 2023). This demographic transition underscores the urgent need for a trained geriatric workforce and accessible elder-care services. Initiatives like JEEVAN and SHATAYU are crucial for building a technology-enabled and dignified elder-care ecosystem.

AAROGYA SETU 2.0 - NATIONAL HEALTH APP

Context: Launched by Union Health Minister Jagat Prakash Nadda. Repurposed from a COVID-19 contact-tracing app into a National Digital Health App under National Health Authority

Key features:**1. ABDM Integration & Core Infrastructure**

- **ABDM Services:** Seamless access to Ayushman Bharat Digital Mission (ABDM) services, including ABHA (Ayushman Bharat Health Account)

creation, health record management, and the 'Scan & Register' feature for quick hospital registrations.

- **Family Management:** Allows users to add and manage profiles of family members (parents, spouse, children) under a single account, eliminating multiple logins.
- **My Consent (Data Privacy):** Aligns with India's digital health privacy frameworks. Users retain full control over data sharing by tracking requested, approved, pending, denied, and expired consents.

2. AI-Driven Health Digitization & Monitoring

- **AI Medical Record Digitization:** Uses Artificial Intelligence and Google's open-source Medical Data Toolkit to convert unstructured documents (scanned PDFs/ images of lab reports) into standardized, machine-readable data to build a personalized health dashboard.
- **Universal Health Monitoring:** Features wearable-device syncing to track steps, calories, heart rate, and glucose levels. Includes integrated vitals tracking, personalized reminders, and goal tracking.
- **Medication Reminder:** Helps track prescription schedules. Medicines can be added manually or via prescriptions, with alerts for time, frequency, and dosage.

3. Financial & Insurance Integration

- **PM-JAY Wallet:** Provides a transparent overview of Pradhan Mantri Jan Arogya Yojana coverage, including total balance, amount used, and family-wise consumption to assist in medical planning.
- **CAPF Policy Integration:** Displays policy details, covered family members, and reimbursement amounts for Central

Armed Police Forces (CAPF) personnel.

- **Private Insurance:** Integrates private insurance details, including wallet balances and claim tracking.

4. Healthcare Access & Emergency Services

- **Scan & Share Functionality:** Enables swift profile sharing, payments, and medical record sharing via the app.
- **Nearby Health Services:** Uses GPS to locate hospitals, clinics, diagnostic centers, and doctors within a customizable 5 to 50 km radius.
- **PM-JAY Empanelled Hospital Search:** Integrates with PM-JAY to locate cashless treatment facilities. Users can filter searches by state, district, specialty, pin code, or facility name.
- **Critical Care & Logistics:** Helps discover nearby healthcare facilities, books ambulances, and provides real-time tracking of blood unit availability via e-RaktKosh.

In line with the vision of the Ayushman Bharat Digital Mission (ABDM), Aarogya Setu has now been comprehensively revamped to function as a Personal Health Record (PHR) and citizen-facing digital health application.

BHARAT TAXI COOPERATIVE

Context: The Union Home Minister officially launched the cooperative-model ride-hailing platform, Bharat Taxi, in Gujarat.

Overview:

What is it?: India's first cooperative-led, driver-owned ride-hailing platform, presenting a direct challenge to private aggregator giants like Ola and Uber.

Legal Status: Registered as a Multi-State Cooperative Society under the Multi-State Cooperative Societies Act, 2002.

Nodal Entities: Developed as a government-backed initiative under the joint framework of the Union Ministry of Cooperation and

the National e-Governance Division (NeGD).

Operating Body: Implemented and managed by Sahkar Taxi Cooperative Limited (established in June 2025). Bharat Taxi is backed by eight major cooperative institutions - NCDC, GCMMF (Amul), NDDDB, NAFED, IFFCO, KRIBHCO, NABARD, and NCEL.

Key features:

- **Zero-Commission Model:** Unlike private aggregators that cut 20–30% per ride, Bharat Taxi operates on a commission-free model. Drivers receive 100% of the fare, paying only a minor, flat daily access fee (approx. ₹30 for cabs, ₹18 for autos).

- **No Surge Pricing:** Ensures complete fare transparency and eliminates peak-hour surge pricing for passengers.
- **Welfare & Social Security Net:** Fully integrated with the government's e-Shram portal. Drivers receive a ₹5 lakh personal accident cover, ₹5 lakh family health insurance (under PM-JAY), and long-term retirement corpus options.

“Sarathi Didi” Initiative: A dedicated gender-safety feature inside the application

allowing women passengers to explicitly book two-wheeler rides operated by female drivers.

Bharat Taxi represents a policy paradigm shift. By returning ownership of digital platforms to the primary workers, it curbs the exploitative intermediaries of the traditional gig economy. It directly advances the government's core socio-economic vision of “Sahkar se Samridhhi” (Prosperity through Cooperation) by scaling cooperative principles beyond agriculture into urban, tech-driven utility sectors.

SAMAGRA SHISHU BAL SWASTHYA KARYAKRAM (SSBSK)

Context: The Ministry of Health & Family Welfare has launched the Samagra Shishu Bal Swasthya Karyakram (SSBSK) at the 16th Central Council of Health & Family Welfare (CCHFW) Meeting

Samagra Shishu Bal Swasthya Karyakram

It is a unified national programme to provide a seamless continuum of home- and community-based care for every child from birth to 36 months, strengthening newborn survival, child health and early childhood development.

Vision:

- Based on the vision of “Pehle Teen Saal Sampoorna Dekhbhal” (Comprehensive Care During the First Three Years).

- Integrates Home-Based Newborn Care (HBNC) and Home-Based Care for Young Child (HBYC) into a single framework.



- Recognises the first 28 days as critical for newborn survival and the first three years as crucial for brain development, nutrition and healthy growth.

Special Focus Areas

- Tailored strategies for urban slums, migrant settlements and underserved communities.
- Addresses risks of excessive screen

exposure during early childhood by promoting age-appropriate play, physical activity and cognitive stimulation.

Overall SSBSK aims to improve child survival, nutrition, early childhood development and developmental outcomes, while ensuring timely identification and management of vulnerable children.

ANAEMIA MUKT BHARAT ABHIYAAN

Context: The Union Ministry of Health and Family Welfare has released the Anemia Mukh Bharat Abhiyaan Operational Guidelines, commemorating eight years of the Anemia Mukh Bharat initiative and outlining a strengthened strategy to accelerate India's efforts to reduce anemia.

The revised guidelines transform India's anemia control programme from a preventive (prophylactic) approach to a therapeutic, case-management approach, emphasizing early detection, treatment, follow-up and digital monitoring.

Key reforms include:

Shift to 7×7×7 Framework: The earlier 6×6×6 strategy has been expanded by adding (7th dimension):

7th Beneficiary: Low Birth Weight (LBW) infants (0–6 months) to break the intergenerational cycle of anemia.

7th Intervention: "Eating Right" approach promoting regular consumption of diversified

7th Institutional Mechanism: A digitally integrated Monitoring & Evaluation (M&E) framework for end-to-end accountability.

T4 Strategy: Upgrades T3 (Test, Treat, Talk) to T4 (Test, Treat, Talk & Track) by ensuring systematic follow-up, referral and continuity of care.

Advanced Clinical Management: Institutionalizes Intravenous Iron Therapy using Ferric Carboxymaltose (FCM) and Iron

Sucrose for severe anemia and treatment-resistant pregnant and lactating women.

Digital Integration: Establishes a unified Anemia Mukh Bharat Portal, integrating real-time data from:

JANANI Portal for maternal screening

RBSK Portal for child health screening

U-WIN Portal for immunization tracking

Governance: Adopts a Whole-of-Government approach with inter-ministerial convergence, supported by Jan Bhagidari and Jan Chetna campaigns to enhance community participation and awareness.

Target Outcomes: Aims to reduce Maternal Mortality Ratio (MMR), Infant Mortality Rate (IMR) and improve maternal and child health outcomes across the life cycle.

About Anemia Mukh Bharat (AMB)

Launched: 2018 under the National Health Mission (NHM).

Approach: Life-cycle strategy addressing both nutritional and non-nutritional causes of anemia.

Major Interventions

Color-coded Iron-Folic Acid (IFA) supplementation for different beneficiary groups.

Biannual National Deworming Day (10 February & 10 August); deworming for

pregnant women during the second trimester through ANC services.

IFA food fortification in government nutrition programmes.

Screening and treatment of malaria,

haemoglobinopathies (e.g., Sickle Cell Disease) and fluorosis.

Digital point-of-care testing and treatment for timely diagnosis and management.

CONTROL DRUG ABUSE: WHOLE-OF-SOCIETY APPROACH

Context: The Union Home Minister chaired the 10th Apex-Level Meeting of the Narco-Coordination Centre (NCORD) and launched the Vision Document on Drug Control (2026–2029), emphasizing that combating drug abuse requires a Whole-of-Government and Whole-of-Society approach involving governments, communities, educational institutions, parents, and civil society.

Key Highlights:

1. Vision Document (2026–2029)

- Roadmap for a Nasha Mukta Bharat.
- Focus on synthetic drugs, darknet networks, cross-border trafficking, and narco-financing.

2. Four Pillars of the Strategy

- Enforcement, Intelligence & Operations
- Precursor & Synthetic Drug Control
- Demand & Harm Reduction
- Capacity Building, Coordination

3. Detect–Disrupt–Destroy Strategy

- Detect drug networks using HUMINT, technical intelligence and community policing.
- Disrupt trafficking routes, finances and

illegal labs.

- Destroy cartel networks permanently.

4. Whole-of-Society Approach

- Drug-free campuses and drug-free zones.
- Participation of parents, teachers, youth organisations, NGOs and communities.
- Expansion of de-addiction, rehabilitation and awareness campaigns.

5. Institutional Measures

- Strengthening NCORD and Anti-Narcotics Task Forces (ANTFs).
- Exclusive NDPS courts for speedy trials.
- Financial investigations, real-time data sharing, and action against narco-financing.

Significance

- Recognises drug abuse as a challenge to internal security, public health, social stability and economic development.
- Promotes coordinated action involving government agencies and society to achieve a Drug-Free India (Nasha Mukta Bharat).

ACADEMIC BANK OF CREDITS, APAAR, AND BHARAT PRAMAN CHAIN

Context: The Ministry of Education has released a PIB Backgrounder highlighting the progress of the Academic Bank of Credits

(ABC) and APAAR ID, key reforms under NEP 2020 aimed at creating a flexible, lifelong learning ecosystem through a Digital Public

Infrastructure (DPI) for education.

Academic Bank of Credits (ABC):

A UGC-regulated digital repository for storing, transferring and redeeming academic credits earned from recognised institutions.

Supports credit mobility, Multiple Entry-Multiple Exit (MEME) and lifelong learning.

Credits remain valid for 7 years (or as prescribed by the discipline).

APAAR ID:

Automated Permanent Academic Account Registry (APAAR) – a 12-digit unique student ID under the “One Nation, One Student ID” initiative.

Linked with ABC, DigiLocker and Aadhaar to create a lifelong digital academic identity.

Covers higher education, vocational education and will progressively include school records.

26.35 crore verified APAAR IDs generated (as on 2 July 2026).

Bharat Praman Chain: National sovereign blockchain database infrastructure

developed by Digital India Corporation (DIC) to verify credentials, neutralize forgery, and maintain absolute DPDP Act compliance.

Key features:

- Seamless credit transfer across institutions.
- Enables MEME: multiple entry multiple exit

Certificate – after 1 year

Diploma – after 2 years

Degree – after 3/4 years

- 700+ universities and 6,600 colleges offering MEME.
- Students can earn up to 40% credits through SWAYAM (adopted by ~450 universities).
- 196 universities have adopted the National Credit Framework (NCrF).
- Students (13–30 years) with authenticated APAAR ID receive up to 10% airfare discount and 10 kg extra baggage allowance.
- Helps reduce dropouts and promotes lifelong learning.

Data Security & DPI

- Secured through Aadhaar-linked DigiLocker, encryption and consent-based access.
- Integrated with SAMARTH ERP, CSCs and institutional APIs.
- Future integration with Blockchain for Digital Credentials on India's sovereign blockchain platform, compliant with the Digital Personal Data Protection Act.

Significance

- Implements NEP 2020 vision of flexible, learner-centric education.
- Creates a portable, lifelong digital academic record.
- Strengthens India's Digital Public Infrastructure (DPI) for education by enabling transparency, interoperability and lifelong learning.

10 YEARS OF PRADHAN MANTRI SURAKSHIT MATRITVA ABHIYAAN (PMSMA)

Context: The Government has completed 10 years of the Pradhan Mantri Surakshit Matritva Abhiyaan (PMSMA) (launched on 9 June 2016).

About PMSMA

- **Launched:** 9 June 2016
- **Nodal Ministry:** Ministry of Health & Family Welfare

- Provides free, quality antenatal care (ANC) to pregnant women, mainly during the 2nd and 3rd trimesters.
- Services are provided on the 9th of every month at designated government health facilities.

Objective:

- Early identification of High-Risk Pregnancies (HRPs)
- Timely treatment and referral
- Safe motherhood and reduction in maternal mortality.

Key Features

- Comprehensive ANC by specialists (OB-GYN/CEmONC-trained doctors).
- Blood & urine investigations, ultrasonography, medicines and counselling.
- Screening for 25 High-Risk Pregnancy conditions (e.g., severe anaemia, gestational diabetes, hypertension, twins, teenage pregnancy, previous C-section etc.).
- HRPs linked to First Referral Units (FRUs).
- Private doctors can volunteer through the "I Pledge for 9" initiative.

Extended PMSMA (2022)

- Introduced to strengthen follow-up care for high-risk pregnancies:

- Individual tracking of every HRP till safe delivery.
- Up to 3 additional ANC visits with financial incentives for the pregnant woman and ASHA worker.
- SMS reminders for follow-up visits.

Achievements (10 Years)

- 7.5 crore+ pregnant women received ANC services.
- Maternal Mortality Ratio (MMR) declined from 130 (2014–16) to 87 (2022–24) per 1 lakh live births.
- Supports India's commitment to achieve the SDG target of MMR below 70 by 2030.

10-Year Commemoration

- ANC services at 1.8 lakh Ayushman Aarogya Mandirs.
- Community awareness through VHSNDs, Jan Arogya Samitis and SHGs.
- Special PMSMA sessions at District Hospitals, Sub-District Hospitals and FRUs

Significance for UPSC

- Strengthens SDG-3 (Good Health & Well-being).
- Promotes equitable maternal healthcare, early risk detection and institutional care.
- Contributes to lower maternal and neonatal mortality and supports Viksit Bharat@2047.

Economic Development & Agriculture



What's Inside?

1. LAND PORT MANAGEMENT SYSTEM
2. ROLE OF REMITTANCE IN EXTERNAL FINANCE STABILITY OF INDIA
3. FIRST BLUE BOND OF INDIA
4. PM - UJJWALA SCHEME
5. MISSION "SENEHJORI"
6. ELIMINATION OF LONG-TERM CAPITAL GAINS TAX (LTCG) AND WITHHOLDING TAX ON INTEREST FOR FPIS
7. E85 FUEL IN INDIA
8. INSOLVENCY AND BANKRUPTCY CODE
9. LAND PORTS
10. ONE STATION ONE PRODUCT
11. LABOUR CODES
12. NATIONAL CRITICAL MINERALS MISSION
13. TREDs PLATFORM
14. NEED FOR INDEX OF SERVICE PRODUCTION
15. BHIM UPI TO OFFER FINANCIAL PRODUCTS
16. INDIA AI MISSION LAUNCHES 'VARYA' – INDIA'S INDIGENOUS AI VIDEO GENERATION MODEL

17. NFSA DRAFT AMENDMENT
18. SINTERED RARE EARTH PERMANENT MAGNET SCHEME (REPM)
19. KISAN SARATHI PLATFORM - REAL TIME ADVISORY PLATFORM
20. NEW SERIES OF IIP
21. INTRODUCTION ON PPI AND BASE YEAR CHANGE OF WPI

LAND PORT MANAGEMENT SYSTEM

Why in news?

Recently, Union Home Minister of India will officially launched the Land Port Management System (LPMS) in New Delhi.

About Land Port Management system:

Land Port Management System (LPMS), Vinimay, is a unified digital platform that integrates operations across India's land ports.

It has been developed by the Land Ports Authority of India under the vision of Smart Borders.

It aimed at modernising operations across India's land ports and improving coordination between border agencies.

It has been designed to streamline cargo and passenger movement and strengthen border security and trade management.

Features:

Secure and Real-Time Information Sharing: It allows secure and real-time sharing of

logistics and regulatory information.

End-to-End Digital Workflows: It introduces end-to-end digital workflows for cargo and passenger processing, including slot booking, online payments, shipment tracking and single-window clearances.

It will enhance coordination among various agencies and make the exchange of information seamless.

Integration with National Digital Platforms: It has also been integrated with key national platforms such as ICEGATE, ULIP and the motor vehicle ecosystem to improve interoperability and reduce delays.

Benefits: It will significantly reduce paperwork and enhance ease of doing business and ensure seamless movement of goods and passengers across India's international land borders.

Also, the Single Electronic Window and Automatic Number Plate Recognition-based gate operations will significantly reduce processing time.

ROLE OF REMITTANCE IN EXTERNAL FINANCE STABILITY OF INDIA

Context: India continued to be the world's largest recipient of remittances, receiving USD 135.4 billion in FY25, according to the Economic Survey 2025–26.

Remittance:

Cross-border money transfers sent by migrant workers and NRIs to their families in India.

They are private, non-debt creating transfers, unlike FDI or external borrowings.

Governed by the Foreign Exchange Management Act (FEMA), 1999.

Under the Liberalised Remittance Scheme (LRS), resident Indians can remit up to USD

250,000 per financial year for permitted purposes

Key Trends:

India remains the world's largest remittance recipient since 2008.

Inflows reached USD 135.4 billion in FY25, exceeding gross FDI inflows.

Source of remittances is shifting:

The US is now the largest source (27.7%), overtaking the UAE.

Advanced economies now contribute over 50% of total remittances.

Gulf countries' share has declined to 38%

Reflects the growing contribution of high-skilled Indian professionals abroad.

External Sector Snapshot:

Current Account Deficit (CAD) moderated to USD 15 billion (0.8% of GDP) in H1 FY26, from USD 25.3 billion (1.3% of GDP) in H1 FY25.

Strong inflows from services exports and remittances helped offset the merchandise trade deficit.

Consequently, India's external position is

stronger than several high-CAD economies such as New Zealand, Brazil, Australia, the UK and Canada

India's forex reserves stood at USD 701.4 billion (16 January 2026)—enough to cover 11 months of imports and 94% of external debt. Remittances contribute to this external stability.

These trends showcase that remittances have emerged as a key pillar of India's external sector by cushioning the Current Account Deficit (CAD), supporting the rupee, and strengthening forex reserves.

FIRST BLUE BOND OF INDIA

Context: India's first blue bond is proposed to be issued by the Sagarmala Finance Corporation (SMFCL), a state-owned maritime lender under the Ministry of Ports, Shipping and Waterways

Blue bond:

- A debt instrument that raises funds exclusively for ocean, coastal, river and other water-based ecosystem projects.
- Targets ESG/sustainable finance investors.

Key Uses of Funds

- Ports & port connectivity
- Shipbuilding
- Inland waterways
- Coastal road infrastructure



Importance of blue bond:

Supports the Blue Economy and sustainable coastal development.

Attracts global sustainable finance.

Reduces pressure on government finances.

Promotes marine conservation while expanding maritime infrastructure.

Benefits coastal communities and livelihoods.



PM - UJJWALA SCHEME

Context: The Ministry of Petroleum & Natural Gas has clarified that despite a sharp rise in global LPG prices due to the Strait of Hormuz disruption, India continues to provide one of the lowest household LPG prices globally through support under the Pradhan Mantri Ujjwala Yojana (PMUY).

Key Highlights

PMUY beneficiary price: ₹642 per 14.2 kg cylinder (effective).

General consumer price: ₹942 per cylinder.

Actual supply cost: Over ₹1,600 per cylinder.

PMUY subsidy: ₹300 per cylinder for the first 4 refills/year (₹1,200 annually).

Beneficiaries covered: 10.58 crore LPG connections.

Why in the News?

Saudi LPG Contract Price increased by ~46% (Feb–June 2026) following disruptions around the Strait of Hormuz.

India maintained uninterrupted LPG supplies despite the crisis through diversified sourcing and enhanced domestic production.

MISSION "SENEHJORI"

Context: The Union Ministry of Development of North Eastern Region (MDoNER), in collaboration with the Government of Assam, launched Mission "Senehjori" on 2 June 2026 to transform Assam's Muga Silk into a globally competitive luxury textile brand through a cluster-based value chain approach.

Aim:

Aims to realise the vision of Atmanirbhar North East by creating a premium, export-oriented Muga silk ecosystem.

Key Features:

Cluster-based Mission covering major **Muga-producing** districts of Assam.

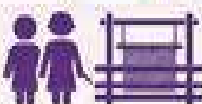
Convergence of MDoNER, Government of Assam, Central Silk Board, Ministry of Textiles and other agencies.

Strengthens the entire value chain: Host-plant cultivation, silkworm seed production, reeling & weaving, branding, export promotion, digital traceability and silk tourism.

Promotes:

- Farmer Producer Organisations (FPOs)
- Common Facility Centres (CFCs)
- GI authentication
- Unified "Senehjori" brand

MISSION "SENEHJORI" – KEY FACTS FOR UPSC

	Muga silk is the world's only naturally golden silk.
	It is India's first GI-tagged silk.
	Assam produces about 90% of the world's Muga silk.
	Supports nearly 2.6 lakh rearer and weaver families.
	Mission investment: ₹396–411 crore over 3 years, including ₹136–151 crore from MDoNER.

Targets (By 2028)

- 5 modern Muga reeling units.
- 1 Muga Spun Mill.
- 30 FPOs and 1,180+ Farmer Interest Groups.
- Regeneration of 5,000 ha of Som & Soalu host plants.
- 80% of traded Muga silk authenticated through GI-linked systems.
- Digital traceability for 8,000+ households.
- Muga silk exports expanded to 2,000 kg annually.
- Development of Muga Silk Trail, Silk Tourism Park and annual Muga Utsav

ELIMINATION OF LONG-TERM CAPITAL GAINS TAX (LTCG) AND WITHHOLDING TAX ON INTEREST FOR FPIs

Context: The Union Government has announced major reforms to deepen India's Government Securities (G-Sec) market by increasing Foreign Portfolio Investor (FPI) participation through tax exemptions, expansion of the Fully Accessible Route (FAR), and relaxation of investment restrictions.

Government Securities:

- Tradable debt instruments issued by the Central/State Governments
- Used to finance fiscal deficit, public expenditure and infrastructure projects.
- Considered one of the safest investment instruments.

Key Reforms Announced:**1. Tax Exemptions for FPIs**

From 1 April 2026, FPIs/FIIs investing in G-Secs are exempt from:

Interest Income Tax.

Long-Term Capital Gains (LTCG) Tax.

Short-Term Capital Gains (STCG) Tax.

2. Expansion of Fully Accessible Route (FAR)

FAR now includes:

- New 15-year G-Secs
- New 30-year G-Secs
- New 40-year G-Secs

- Sovereign Green Bonds (SGrBs) in eligible tenors.

3. Relaxation under General Route**Removed:**

- Short-term investment limit.
- Security-wise investment limit.
- Concentration limit.

Retained:

- Overall investment cap of 6% in Central Government Securities.
- 2% in State Government Securities (SGSs)

Significance of these reforms:**Deepens India's bond market.**

- Attracts stable long-term foreign capital.

Broadens investor base.

- Improves market liquidity and price discovery.
- Reduces government borrowing costs.
- Strengthens monetary policy transmission.
- Supports funding for infrastructure, manufacturing, urban development and climate initiatives.

Facilitates inclusion of Indian bonds in the international market.

- The reforms aim to create a deeper, more

liquid and globally integrated debt market, attracting long-term foreign investors while improving financial stability and

supporting India's long-term growth aspirations.

FPI vs FII			General Route vs FAR		
FPI (Foreign Portfolio Investor)		FII (Foreign Institutional Investor)	General Route (Standard Route)		FAR (Fully Accessible Route)
	Meaning	Broad category of foreign individuals, institutions or funds investing in financial assets in India.		Meaning	The standard channel for foreign investors to invest in Indian G-Secs.
	Who invests?	Foreign individuals, companies, HNIs, trusts, NGOs, funds, FIs, etc.		Access	Access with certain restrictions.
	Nature of Investment	Generally passive investment without taking part in the management or decision-making.		Restrictions	• Short-term investment limit • Security-wise investment limit • Concentration limit • Overall investment limit
	Regulation	Registered with SEBI as FPIs.		Eligible Securities	All G-Secs as per extant regulations.
	Examples	Overseas individuals, foreign companies, NRIs, FIs, trusts, endowments, etc.		Investor Base	All eligible FPIs / FIs who comply with the prescribed limits.
All FIIs are FPIs, but all FPIs are not FIIs.				Objective	To regulate flows and maintain market stability.
					FAR offers more freedom and ease, while General Route ensures prudent regulation.

E85 FUEL IN INDIA

Context: On June 5, 2026 (World Environment Day) the Ministry of Petroleum and Natural Gas officially launched E85 fuel across 48 IndianOil and other PSU retail outlets in India.

E85:

- E85 is a fuel containing 80–85% ethanol and 14–19% petrol.
- It is designed only for Flex-Fuel Vehicles (FFVs), which can run on fuel blends ranging from E20 to E100.

Key Highlights:

- Launched at 48 OMC retail outlets initially.
 - Expansion target:
 - 500 outlets by December 2026
 - 5,000 outlets by December 2027
- Expected to raise India's aggregate ethanol blending level to ~26% by 2030–31.

Significance

1. Energy Security

- Reduces dependence on imported crude oil.
- Promotes Atmanirbhar Bharat through domestically produced ethanol.

2. Economic Benefits

- E85 costs around ₹20/litre less than conventional petrol.
- Saves foreign exchange by reducing crude imports.
- Generates additional income for sugarcane and grain farmers.

3. Environmental Benefits

- Around 61% reduction in lifecycle greenhouse gas emissions.
- Near-zero particulate matter emissions.
- Improves urban air quality.

4. Agricultural Benefits

- Farmers become both Annadata and Urjadata.
- Encourages diversification towards biofuel feedstock production.

Potential Impact

- If 50% of new two-wheelers and four-wheelers become flex-fuel vehicles:
- Demand for 312 crore litres of ethanol.
- ₹12,403 crore additional income to farmers.

- ₹15,151 crore annual foreign exchange savings.
- Reduction of 66.4 lakh metric tonnes of CO₂ emissions annually

Government Clarifications

- E85 is only for Flex-Fuel Vehicles, not ordinary petrol vehicles.
- reported engine failures due to E20 adoption.
- E20 does not affect vehicle insurance validity.
- Flex-fuel vehicles remain competitive due to lower costs and existing No fuel infrastructure



INSOLVENCY AND BANKRUPTCY CODE REFORMS

Context: The Indian Institute of Corporate Affairs, under the Ministry of Corporate Affairs, organised a National Conference titled “Redefining India’s Restructuring Ecosystem: A Decade of Learning – Directions for the Future” to commemorate 10 years of the

Insolvency and Bankruptcy Code (IBC).

Key Highlights

1. IBC has entered the “Era of Refinement”

- 2016–2021 described as the Era of Establishment.

- The present phase is the Era of Refinement, reflecting a mature insolvency regime backed by judicial precedents.
- IBC (Amendment) Act, 2026 aims to further strengthen insolvency resolution.

2. Major Achievements of IBC

- ₹4 lakh crore recovered through resolution processes.
- Creditors realised around 170% of liquidation value.
- 32,000+ cases settled before admission, preserving nearly ₹14 lakh crore worth of assets.
- IBC described as a “behavioural revolution” in India’s corporate ecosystem

3. Cross-Border Insolvency

- Strong emphasis on adopting the United Nations Commission on International Trade Law Model Law on Cross-Border Insolvency.
- Would improve: International cooperation, recognition of foreign insolvency proceedings, investor confidence and ease of doing business.

4. Future Reforms Proposed

- Creditor-Initiated Insolvency Resolution Process (CIIRP).

- Strengthening Pre-Pack Insolvency.
- Greater use of ADR mechanisms (Mediation & Arbitration).
- Early warning systems for stressed firms.
- AI-driven insolvency monitoring.
- Digital platforms for faster case resolution.

5. Distressed Asset Market

Greater role for:

- Asset Reconstruction Companies (ARCs)
- Alternative Investment Funds (AIFs)
- Institutional investors

Focus on rescue financing and enterprise revival.

6. Capacity Building

PGIP enables graduates to become Insolvency Professionals without the conventional 10-year experience requirement.

Across 7 batches, 239 professionals have been trained.

PM Vidya Lakshmi Scholarship announced for PGIP students.

One Nation One Subscription (ONOS) extended to IICA to improve access to global academic journals and legal databases.

LAND PORTS

Context: The Union Home Minister launched the Land Port Management System (LPMS – “VINIMAY”) a digital platform developed by the Land Ports Authority of India (LPAI) to modernise India’s land border infrastructure, improve trade facilitation, strengthen border security, and enable Smart Border Management.

LPMS (VINIMAY)

A state-of-the-art unified digital platform integrating all land port operations and stakeholders for paperless, transparent and

real-time border management implemented by LPAI.

Key Features

- Single Electronic Window for all approvals and clearances.
- End-to-end digital workflow for cargo, passengers and vehicles.
- Digital slot booking, payments, tracking & single-window clearance.
- 90% reduction in paperwork.

- Automatic Number Plate Recognition (ANPR) for automated gate operations.
- 40–60% reduction in truck waiting time.
- 22–35% reduction in gate processing time.
- Secure real-time information sharing among agencies.

Significance

- Security - Supports Smart Border initiative, better surveillance and inter-agency coordination, helps curb illegal migration, smuggling and cross-border crimes.
- Trade & Logistics - Faster customs clearance, reduced logistics cost and delays.
- Economic Development - Land port trade increased from ₹5,000 crore (2014) to ₹83,000 crore (2026) (~16-fold growth).
- Border Area Development - Boosts the

local economy, reduces migration from border districts, promotes employment and infrastructure.

- Regional Connectivity - Facilitates tourism, strengthens people-to-people and cultural ties with neighbouring countries.

Land Ports in India

- 15 operational land ports.
- 11 new land ports planned over the next 2–3 years.
- Borders covered:
- Pakistan, Bangladesh, Nepal, Bhutan and Myanmar.

LPMS represents a major step towards technology-driven Smart Borders, integrating security, trade facilitation and digital governance to strengthen India's border infrastructure and support the vision of Viksit Bharat 2047.

ONE STATION ONE PRODUCT

Context: Recently, the Ministry of MSME expanded OSOP under the PM Vishwakarma Scheme to promote products made by Divyangjan Vishwakarma artisans, strengthening inclusive entrepreneurship.

One Station One Product (OSOP)

OSOP is an initiative of Indian Railways that provides dedicated stalls at railway stations for the sale of locally manufactured, GI-tagged, traditional and handicraft products unique to that region. It connects millions of railway passengers with India's local artisans while promoting the 'Vocal for Local' vision.

Key Features

- Launched on 25 March 2022.
- Began with a 15-day pilot at 19 stations before nationwide expansion.
- Implemented by Railway Divisions in coordination with: State Governments, Self-Help Groups (SHGs), MSMEs, Local artisan groups

- Stalls allotted on a rotational basis at nominal fees to ensure wider participation.

Coverage & Progress (Latest Data)

Over 2,000 railway stations covered.

Around 2,326 OSOP outlets are operational.

Over 1.32 lakh beneficiaries (as on 19 January 2026)

OSOP under PM Vishwakarma (Recent PIB Update)

The Ministry of MSME has integrated OSOP with the PM Vishwakarma Scheme to market products made by Divyangjan Vishwakarma artisans.

Objectives - Increase product visibility, Expand market access, Improve livelihoods, promote financial independence and ensure inclusive economic growth.

Significance

Economic - generates sustainable rural livelihoods, enhances income of artisans,

expands MSME market access, boosts local entrepreneurship.

Social - Empowers women-led SHGs, promotes inclusion of Divyangjan, encourages financial independence.

Cultural - Preserves traditional crafts, promotes GI-tagged and regional products, strengthens India's cultural identity.

Tourism - Railway stations become cultural marketplaces, tourists purchase authentic regional souvenirs.

Governance - efficient utilisation of existing public infrastructure, convergence between Railways, MSME and State Governments.

Challenges

Uneven passenger footfall across stations.

Limited digital payment and branding support.

Competition from mass-produced products.

Need for better quality certification and packaging.

Supply chain and inventory management issues.

Limited awareness among passengers.

Way Forward

Integrate OSOP with Geographical Indication (GI) products.

Expand digital marketing and e-commerce support.

Link with ODOP (One District One Product).

Strengthen branding and quality certification.

Improve packaging and logistics.

Increase participation of women, SHGs and Divyang entrepreneurs.

Use QR codes and digital storytelling to promote artisans and products.

LABOUR CODES

Context: The Ministry of Labour & Employment organised a workshop (3 June 2026, Kolkata) on the implementation of the Four Labour Codes. The workshop focused on compliance facilitation, ease of doing business, single registration, single licence, simplified return filing and Shram Suvidha Portal 2.0, while ensuring protection of workers' rights and social security.

Background

Consolidates 29 Central Labour Laws into 4 Labour Codes.

Objectives: Simplify labour laws, Improve ease of doing business, Promote transparency and digital compliance, Strengthen worker welfare and social security.



NATIONAL CRITICAL MINERALS MISSION

Context: National Critical Mineral Mission (NCMM) gained momentum with the successful auction of 56 Critical & Strategic Mineral Blocks achieving a 63% success rate.

National Critical Mineral Mission (NCMM)

- The Government launched the National Critical Mineral Mission (NCMM) in January 2025 for 2024–25 to 2030–31.
- It aims to secure India's supply of critical minerals essential for clean energy, advanced manufacturing, defence and strategic industries.
- Outlay: ₹16,300 crore with an additional ₹18,000 crore investment from PSUs and other stakeholders.

Critical minerals are minerals that are:

- Essential for economic development.
- Vital for national security.
- Indispensable for clean energy technologies.
- Used in electronics, EVs, telecom and defence.
- Vulnerable to global supply disruptions.
- India has identified 30 Critical Minerals (2023).

Key Features

1. Exploration

- More than 1,000 exploration projects planned.
- Acquisition of overseas mineral assets by PSUs & private sector

2. Recycling

- ₹1,500 crore incentive scheme.
- Recycling from: E-waste, Lithium-ion battery scrap, end-of-life vehicles
- Target: 270 kilo tonnes/year recycling capacity, 40 kilo minerals production, ₹8000 crore investment, 70,000 jobs.

3. Innovation

- Target 1,000 patents by 2030–31.
- 7 Centres of Excellence (CoEs) established

4. Circular Economy

- Recovery of minerals from: Mine tailings, Fly ash, red mud.

Policy Support

- Backed by amendments to the Mines and Minerals (Development and Regulation) Act, 1957
- The Central Government empowered to auction 24 of the 30 critical minerals.

Challenges

- High import dependence.
- Processing technology gaps.
- Environmental concerns.
- Geopolitical concentration of mineral reserves.
- Long gestation period for exploration

A resilient critical mineral ecosystem built on exploration, processing, recycling, innovation, strategic partnerships, and sustainable mining is essential for achieving energy security, Atmanirbhar Bharat, and India's net-zero goals.

TREDS PLATFORM

Context: 30 June 2026, the Ministry of Micro, Small and Medium Enterprises mandated that all operational Central Public Sector Enterprises (CPSEs) must route the settlement of invoices raised by MSMEs through the Trade Receivables Discounting System (TReDS) platforms authorized by the Reserve Bank of India.

TReDS

- Trade Receivables Discounting System (TReDS) is an electronic invoice financing platform introduced by the RBI in 2014.
- It enables MSMEs to convert unpaid invoices into immediate cash by selling them to financiers (banks/NBFCs) through competitive bidding.
- It is governed under the Payment and Settlement Systems Act, 2007 and regulated by the RBI.

Key Provisions of the 2026

Notification

- Mandatory routing of all MSME invoices by operational CPSEs through RBI-authorized TReDS platforms.
- Issued under Sections 9 & 10 of the Micro, Small and Medium Enterprises Development Act, 2006.
- Invoice routing is mandatory; invoice discounting is optional.

- MSMEs can seek financing against invoices, or simply use the platform for settlement.
- CPSEs and notified entities must disclose TReDS transaction details in the RBI-prescribed format.
- Annual statutory audits must certify: Registration on at least one TReDS platform, compliance with the notification.

Existing RBI-authorized TReDS Platforms

- RXIL
- M1xchange
- Invoicemart

Significance

- Ensure timely payments to MSMEs.
- Reduce working capital shortages.
- Increase transparency in government procurement.
- Improve formal credit access.
- Strengthen ease of doing business.

The 2026 TReDS mandate shifts the focus from merely prescribing payment timelines to creating a transparent digital payment ecosystem, improving liquidity for MSMEs without making financing compulsory.

NEED FOR INDEX OF SERVICE PRODUCTION

Context: Ministry of Statistics and Programme Implementation (MoSPI) will launch the Index of Services Production (ISP) in July 2026 as India's first monthly high-frequency indicator to measure the real output of the services sector. It will serve as the services-sector counterpart to the Index of Industrial Production (IIP) and will initially be released on a trial basis.

Need for ISP:

Services contribute over 50% of India's Gross Value Added (GVA) since 2013-14.

India lacked a monthly indicator to measure real growth in the services sector.

Existing GDP estimates are quarterly and do not provide high-frequency tracking.

Helps bridge a major data gap in macroeconomic monitoring.

Index of Services Production (ISP)

Monthly high-frequency macroeconomic indicator.

Measures real (inflation-adjusted) output of India's formal services sector.

Developed by MoSPI.

Functions as the services equivalent of the IIP.

Base Year: 2024-25.

Methodology: Fixed-weight Laspeyres Volume Index with GVA-based weights.

Provides timely information on the performance of service industries.

Strengthens monitoring of overall economic activity.

Supports evidence-based policymaking.

Acts as a high-frequency indicator of service sector growth.

Provides time-series data for economic forecasting and business cycle analysis.

The Index of Services Production (ISP) helps India monitor the performance of its services sector through timely and high-frequency data. It improves economic monitoring, forecasting, and evidence-based policymaking.

Benefits of ISP

BHIM UPI TO OFFER FINANCIAL PRODUCTS

Context: NPCI BHIM Services Ltd. (NBSL) has announced that the BHIM UPI app will evolve into a financial services platform, offering products such as credit cards, loans, investments, insurance, and pension schemes, transforming BHIM from a payment app into a comprehensive digital financial marketplace.

BHIM

- BHIM (Bharat Interface for Money) is India's indigenous digital payment application.
- Developed by the National Payments Corporation of India (NPCI).
- Based on the Unified Payments Interface (UPI).
- Launched in December 2016 after demonetisation.
- Operated by NPCI BHIM Services Ltd (NBSL).

BHIM will gradually offer:

- Credit cards
- Personal loans (through partner banks and NBFCs)
- Investment products

- Insurance products
- National Pension System (NPS) services

Implementation Strategy

- Partnership with multiple banks for issuing credit cards.
- Collaboration with NBFCs for loan products.
- Working with banks for National Pension System (NPS) integration.
- Insurance and investment products will be introduced in later phases.

Recent Developments

- BHIM 3.0 was rolled out in 2025.
- Continuous upgrades have improved user experience and functionality.
- Integration of BHIM services into banks' mobile applications has begun.

Significance

- Economic - Deepens financial inclusion, expands access to formal credit, promotes digital financial services in rural and semi-urban India, supports the Digital India initiative.

- Banking - enables banks to cross-sell financial products, lowers customer acquisition costs, strengthens the digital lending ecosystem.
- Governance - Promotes a cashless economy, enhances transparency and formalisation of the economy, supports Jan Dhan-Aadhaar-Mobile (JAM) architecture.

Challenges

- Data privacy and cybersecurity risks.
- Consumer protection against mis-selling.
- Digital literacy gaps.

- Credit risk management.
- Regulatory coordination among RBI, NPCI, SEBI, IRDAI and PFRDA.

Way Forward

- Strengthen cybersecurity and data protection.
- Improve grievance redressal mechanisms.
- Enhance financial literacy.
- Ensure responsible digital lending practices.
- Expand services to underserved regions.

INDIA AI MISSION LAUNCHES 'VARYA' – INDIA'S INDIGENOUS AI VIDEO GENERATION MODEL

Context: The Ministry of Electronics and Information Technology (MeitY), under the IndiaAI Mission, launched Varya, India's first indigenous distilled AI video generation model.

Varya

- Varya is an AI-powered text-to-video generation model.
- It converts text prompts or images into high-quality videos.
- It is India's first distilled video generation model designed specifically for Indian users and contexts.
- It supports generation of culturally relevant videos reflecting India's festivals, languages, clothing, food, public spaces and everyday life.
- Enables users to create videos from a simple prompt or image and continue the story through multiple clips.

Distilled Video Generation

- Distillation is a machine learning model compression technique in which:

- A smaller "student" AI model learns from a larger "teacher" model.
- It removes unnecessary computations while maintaining similar output quality.
- As a result, video generation becomes : Faster, cheaper, less computationally intensive, suitable for large-scale public use.

Significance

1. Promotes Indigenous AI

- Strengthens India's capability to develop home-grown foundation AI models.
- Reduces dependence on foreign AI technologies.

2. Affordable AI

- Makes advanced AI accessible to startups, MSMEs, teachers and creators.
- Supports inclusive digital transformation.

3. Supports Digital Public Infrastructure

- Demonstrates the effectiveness of subsidised national AI computing infrastructure under the IndiaAI Mission.

4. Boosts Economic Growth

Can be used in education, e-commerce, advertising, entertainment, governance and public service delivery.

5. AI for Bharat

Designed for India's linguistic and cultural diversity, enabling region-specific AI content.

NFSA DRAFT AMENDMENT

Context: NFSA Amendment Bill, 2026 - Proposal to Revise Foodgrain Entitlements under Antyodaya Anna Yojana (AAY)

National Food Security Act (NFSA), 2013 provides legal entitlement to subsidised foodgrains through the Targeted Public Distribution System (TPDS).

Under NFSA:

Priority Households (PHH): 5 kg of foodgrains per person per month.

Antyodaya Anna Yojana (AAY): 35 kg of foodgrains per household per month, irrespective of family size.

The proposed amendment affects only AAY households, which comprise the poorest and most vulnerable families.

Key Provisions of the Draft Amendment

Every individual in an AAY household will receive 7 kg of foodgrains per month.

The total allocation will be capped at 35 kg per household.

Foodgrains will continue to be supplied free of cost under the existing scheme.

Public comments on the draft were invited

before finalising the Bill

Government reasons for the amendment

Removes intra-category inequity: Small families currently receive more foodgrain per person than larger families.

Ensures equitable per-capita allocation among AAY beneficiaries.

Aligns foodgrain entitlements with nutritional requirements.

Rationalises foodgrain distribution under the Public Distribution System (PDS).

Concerns and Criticisms

Large families (>5 members) will continue to receive only 35 kg, resulting in lower per-capita allocation.

Southern States such as Kerala argue that the amendment may reduce their overall foodgrain allocation because they generally have smaller household sizes.

Activists have pointed out that NFSA beneficiary lists have not been updated despite population growth and the delayed Census, leading to exclusion of eligible families.

Food rights groups argue that improving nutrition requires inclusion of pulses and edible oil, not only cereals.

SINTERED RARE EARTH PERMANENT MAGNET SCHEME (REPM)

Context: Ministry of Heavy Industries extended the bid submission timeline for the global tender under the Scheme to Promote Manufacturing of Sintered Rare Earth Permanent Magnets (REPM).

REPM are high-performance permanent magnets made using rare-earth elements such as Neodymium (Nd) and Samarium (Sm). They provide very high magnetic strength in a compact size

- **Applications:** Electric Vehicles (EVs), wind turbines, consumer electronics, aerospace, defence
- Sintered Rare Earth Permanent Magnet Scheme (REPM)

Objective

- Establish a 6,000 MTPA integrated domestic REPM manufacturing ecosystem.
- Build the entire value chain from NdPr (Neodymium-Praseodymium) oxide to finished magnets.
- Reduce import dependence and strengthen Atmanirbhar Bharat

Key Features

Total financial outlay: ₹7,280 crore.

Implementation period: 7 years (2-year

gestation + 5-year incentive period).

Supports up to five manufacturers, each with a capacity of 1,200 MTPA.

Incentives include ₹6,450 crore as sales-linked incentives and ₹750 crore as capital subsidy.

Related Initiatives for rare earth materials

National Critical Minerals Mission (NCMM), 2025

MMDR (Amendment) Act, 2023 – Private participation & critical mineral exploration.

KABIL (Khanij Bidesh India Limited) – Overseas mineral acquisition.

India's participation in Minerals Security Partnership (MSP), IPEF, and iCET

KISAN SARATHI PLATFORM - REAL TIME ADVISORY PLATFORM

Context: The Government has highlighted the achievements and expanding outreach of Kisan Sarathi, India's integrated digital agro-advisory platform, as part of its efforts to promote technology-driven agricultural extension

About

Launched in July 2021.

Joint initiative of:

Ministry of Electronics & IT (MeitY)

Ministry of Agriculture & Farmers' Welfare

Implemented by: Indian Agricultural Statistics Research Institute (IASRI), digital India Corporation.

India's largest integrated digital agro-advisory platform providing real-time, multilingual farm advisories.

Objectives

Deliver authentic, localized agricultural advisories.

Bridge farmers with agricultural experts.

Improve access to government schemes, weather information and market intelligence.

Promote Lab-to-Land technology transfer.

Technology Backbone – IIDS

Interactive Information Dissemination System (IIDS)

Enables two-way communication between farmers and experts.

Supports voice, video, text, images and chat.

Uses Know Your Farmer (KYF) approach for personalized advisories.

Stores farmer history for better query resolution.

Integrated Digital Platforms

Kisan Call Centre

Common Service Centres (CSCs)

India Meteorological Department (IMD)

MyScheme

BHASHINI

Services Offered

Region-specific weather advisories.
Crop and livestock advisories.
Market (mandi) prices and trends.
Information on Central & State schemes.
PM-KISAN status tracking.
Live expert consultation in 13 regional languages.
Video consultations and farmer training.
Personalized push alerts.

Access Channels

Mobile App

WhatsApp

Web Portal

Kisan Call Centres

Common Service Centres (CSCs)

Significance

Strengthens digital agricultural extension.
Improves evidence-based policymaking through real-time field data.
Enhances farmer access to scientific, localized and multilingual advisories.
Promotes inclusive digital agriculture and informed farm-level decision-making.

NEW SERIES OF IIP

Context: MoSPI revised the IIP base year from 2011–12 to 2022–23 to better reflect the current industrial structure

First IIP (new series): 1 June 2026.

Latest update (29 June 2026): MoSPI adopted Output Producer Price Index (Output PPI) instead of WPI as the deflator for value-based items.

Index of industrial production IIP

A monthly indicator measuring changes in the volume of industrial production relative to a base year.

Compiled by National Statistics Office (NSO), MoSPI.

Released with a 28-day lag after the reference month.

Major Changes in New IIP Series

Base year revised: 2011–12 → 2022–23

Expanded coverage: Added Gas Supply, Water Supply, Sewerage & Waste Management, Minor Minerals and Rare Earth Minerals.

Greater granularity: Separate indices for Renewable vs Non-renewable electricity, Fuel, Metallic & Non-metallic minerals.

Revamped basket: 463 item groups (earlier 407); 120 new and 64 obsolete item groups replaced.

Updated weights: Based on GVA (2022–23) and ASI 2022–23, reflecting the current industrial structure.

NIC 2025 adopted for classification.

Output PPI replaces WPI as a deflator for value-based items (improves real output measurement).

Factory substitution introduced for permanently closed/non-operational units.

Separate inclusion of emerging products (e.g., CCTV cameras, stents, aircraft parts, vaccines).

Significance

Better reflects the modern economy.

Captures green energy transition and new industrial sectors.

Improves GDP estimation and policy-making through more accurate industrial data.

Aligns with international statistical best practices

INTRODUCTION ON PPI AND BASE YEAR CHANGE OF WPI

Context: The Government has introduced a new WPI series (Base Year: 2022–23) along with Producer Price Indices (Output, Input and Service PPI) to modernise India's producer inflation measurement and gradually replace WPI with the internationally accepted PPI framework.

Need for revision

Reflects the current structure of the Indian economy and production patterns.

Incorporates new products, technologies and renewable energy sources.

Improves the accuracy of inflation measurement.

Aligns with IMF recommendations and international statistical standards.

Key Changes in the New WPI Series

Base Year: Revised from 2011–12 → 2022–23.

Coverage expanded: Items increased from 697 to 957.

Renewable energy (Solar, Wind & Nuclear) included under Electricity.

Crude Petroleum & Natural Gas shifted from Primary Articles to Fuel & Power.

Weights based on Gross Value of Output (GVO) instead of Net Traded Value.

Chain-based short-term methodology adopted for index compilation.

Targeted Mean Imputation replaces the Carry-Forward method for missing prices.

Linking factor introduced to enable comparison between old and new series.

Producer Price Indices (PPI)

1. **Output PPI (OPPI):** Measures prices received by producers for goods produced.

2. **Input PPI (IPPI):** Measures prices paid by producers for raw materials and other inputs.

Currently released on an experimental basis for manufacturing.

3. **Service PPI (SPPI):** Measures price changes in the service sector.

Methodology

WPI, OPPI & SPPI: Based on Basic Prices (excluding taxes and trade/transport margins).

IPPI: Based on Purchaser's Prices, reflecting the actual prices paid by industries.

Release Schedule

WPI, OPPI & IPPI: Monthly (14th of the following month).

SPPI: Quarterly (55 days after the reference quarter).

Significance

Brings India's producer inflation statistics in line with global standards.

Provides a more accurate measure of cost pressures faced by producers.

Improves economic policymaking, inflation analysis and contract price escalation.

Supports evidence-based decisions by RBI, Government and industry.

WPI will continue for five years before a gradual transition to the PPI framework.

GEOGRAPHY,

ENVIRONMENT,

BIODIVERSITY AND

DISASTER MANAGEMENT

What's Inside?

1. LITANI RIVER AND BEAUFORT CASTLE
2. PADMA BARRAGE PROJECT OF BAN
3. GREAT NICOBAR PROJECT
4. ZOJILA TUNNEL
5. BLUE MICROMOON
6. INDIA'S 100TH RAMSAR SITE
7. SHRINKING SAMBHAR LAKE
8. DELAYED ARRIVAL OF THE SOUTHWEST MONSOON IN INDIA
9. SUPER EL NIÑO AND INDIA'S NATIONAL MONSOON MISSION
10. INDUSTRIAL ACCIDENTS IN INDIA: A PERSISTENT SAFETY CHALLENGE
11. SOLAR POTENTIAL OF INDIA'S RESERVOIRS
12. BAN ON PARAQUAT
13. QR CODE-BASED DRUG TRACEABILITY FRAMEWORK: STRENGTHENING THE FIGHT AGAINST ANTIMICROBIAL RESISTANCE (AMR)
14. PRIME MINISTER'S NATIONAL RELIEF FUND (PMNRF)
15. GLACIAL LAKE OUTBURST FLOOD (GLOF)

LITANI RIVER AND BEAUFORT CASTLE

Context (Why in News?)

The Litani River and Beaufort Castle gained attention following the escalation of the Israel–Hezbollah conflict, with Israeli forces advancing beyond the Litani River and capturing the strategically significant Beaufort Castle in southern Lebanon.

Litani River: Geographic and Strategic Significance

About

The Litani River is the longest river flowing entirely within Lebanon, extending about 174 km.

It originates in the Beqaa Valley, flows south before turning west, and drains into the Mediterranean Sea north of Tyre.

Covering nearly 20% of Lebanon's area, it is the country's most important freshwater resource.

Importance

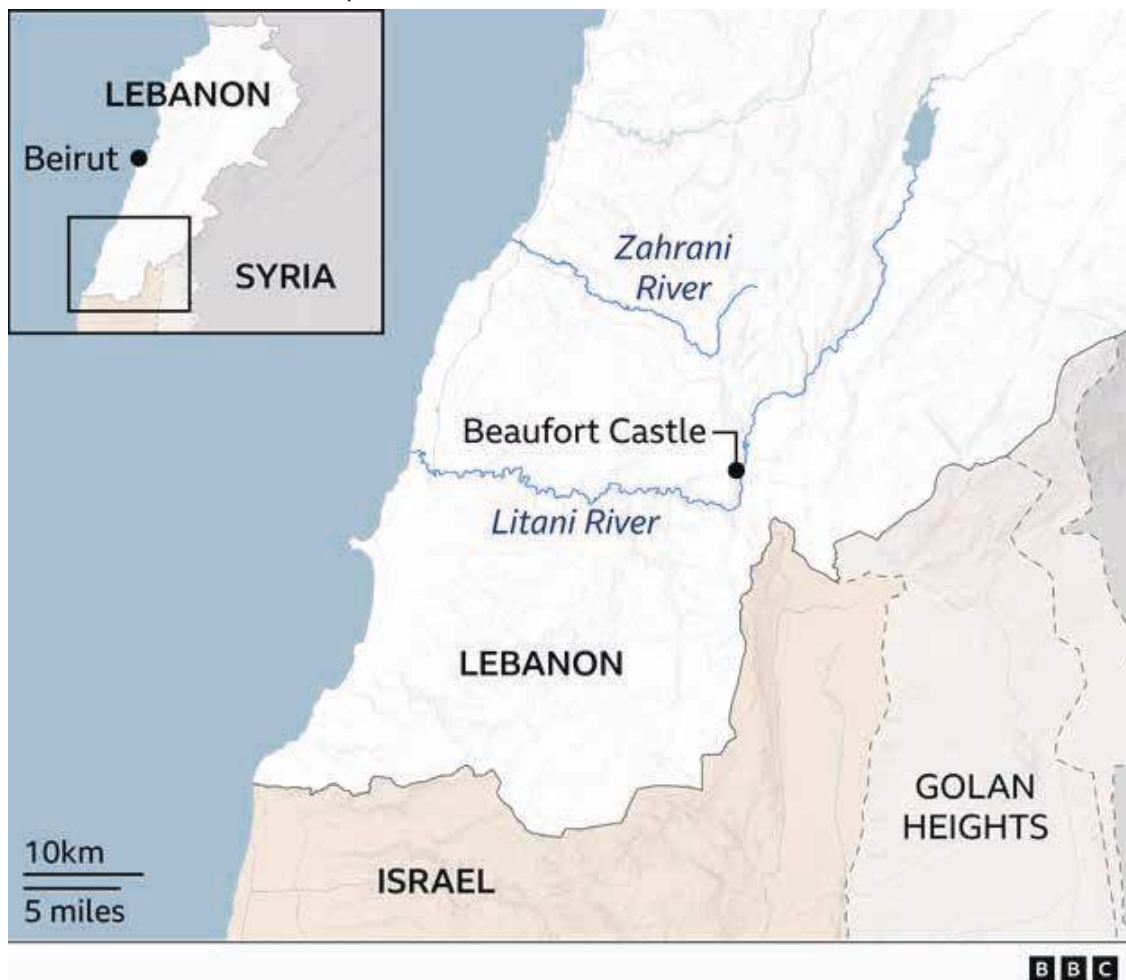
Supports irrigation, drinking water supply, and hydroelectric power through the Litani River Authority (LRA).

It lies close to the Blue Line (UN-recognized Israel–Lebanon boundary) and has served as a strategic buffer since Operation Litani (1978), featuring prominently in regional security arrangements.

Beaufort Castle: Strategic Importance

About

Beaufort Castle is a 12th-century Crusader



fortress perched on a 300-metre-high cliff overlooking the Litani River.

Over the centuries, it has been controlled by the Crusaders, Saladin, Mamluks, Ottomans, PLO, Israel, and Hezbollah.

Significance

Its elevated location offers surveillance over southern Lebanon, northern Israel, and surrounding valleys, making it a valuable

military observation post.

The castle symbolizes centuries of conflict in the Levant and became a symbol of resistance after Israel's withdrawal from southern Lebanon in 2000. Its recent capture carries significant military, political, and psychological implications in the ongoing Israel-Hezbollah conflict.

PADMA BARRAGE PROJECT OF BANGLADESH

Context (Why in News?)

The Bangladesh Government recently approved the Padma Barrage Project, a major water infrastructure initiative aimed at addressing dry-season water scarcity, reducing salinity intrusion, and improving water security in southwestern Bangladesh.

About the Padma Barrage Project

The project involves the construction of a 2.1 km-long barrage across the Padma River (the Bangladesh stretch of the Ganga) at Pangsha in Rajbari District.

It will be implemented by the Bangladesh Water

Development Board (BWDB).

The barrage aims to store monsoon water for use during the lean season to support irrigation, domestic water supply, navigation, and ecological restoration.

Significance

Water Security: Enhances year-round water availability for agriculture and domestic use.

Agricultural Development: Expands irrigation potential and improves agricultural productivity.

Environmental Benefits: Helps reduce salinity



intrusion, restore river flows, and improve the ecological health of the Sundarbans.

Climate Resilience: Strengthens drought management and supports adaptation to climate variability.

Implications for India

The project depends on upstream flows regulated by India's Farakka Barrage, making

bilateral cooperation essential.

It assumes significance ahead of negotiations on the renewal of the 1996 Ganga Water Sharing Treaty.

It highlights the need for integrated management of India–Bangladesh transboundary rivers.

GREAT NICOBAR PROJECT

Context (Why in News?)

The Great Nicobar Project was recently highlighted by the Government, which reiterated its strategic, economic and national security significance while emphasizing that the project complies with environmental safeguards and tribal welfare measures.

About the Project

The ₹72,000 crore Great Nicobar Project is being implemented by the Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO) under the Island Development Programme. It aims to transform Great Nicobar Island into a strategic maritime and economic hub in the Indian Ocean Region (IOR).

Major Components

International Container Transshipment Terminal (ICTT) at Galathea Bay with a capacity of 14.2 million TEUs.

Greenfield International Airport (4,000 Peak Hour Passengers).

450 MVA gas-solar hybrid power plant.

Integrated township spread over 16,610 hectares.

Strategic and Economic Significance

Strategic Location: Situated about 40 nautical miles from the East–West international shipping route and close to the Malacca Strait,

strengthening India's Indo-Pacific presence.

Maritime Security: Enhances India's naval logistics, surveillance capability and disaster response in the Indian Ocean.

Trade Competitiveness: Reduces dependence on foreign transshipment ports such as Colombo, Singapore and Port Klang, thereby lowering logistics costs.

Regional Development: Promotes connectivity, tourism, employment and economic growth in the Andaman & Nicobar Islands.

Environmental and Social Safeguards

The project has received environmental clearance under the EIA Notification, 2006 and ICRZ Notification, 2019, subject to 42 compliance conditions.

It will divert only 1.82% of the total forest cover of the Andaman & Nicobar Islands, with phased tree felling and 97.3 sq. km of compensatory afforestation.

Independent committees have been constituted to monitor:

Environmental pollution.

Biodiversity conservation.

Welfare of the Shompen (PVTG) and Nicobarese communities.

The Government has stated that no displacement of indigenous communities is proposed, and the project will result in a

net increase in the notified Tribal Reserve area through re-notification.

Challenges

Potential loss of biodiversity, including habitats of the Leatherback Sea Turtle.

Concerns regarding ecological fragmentation of pristine tropical rainforests.

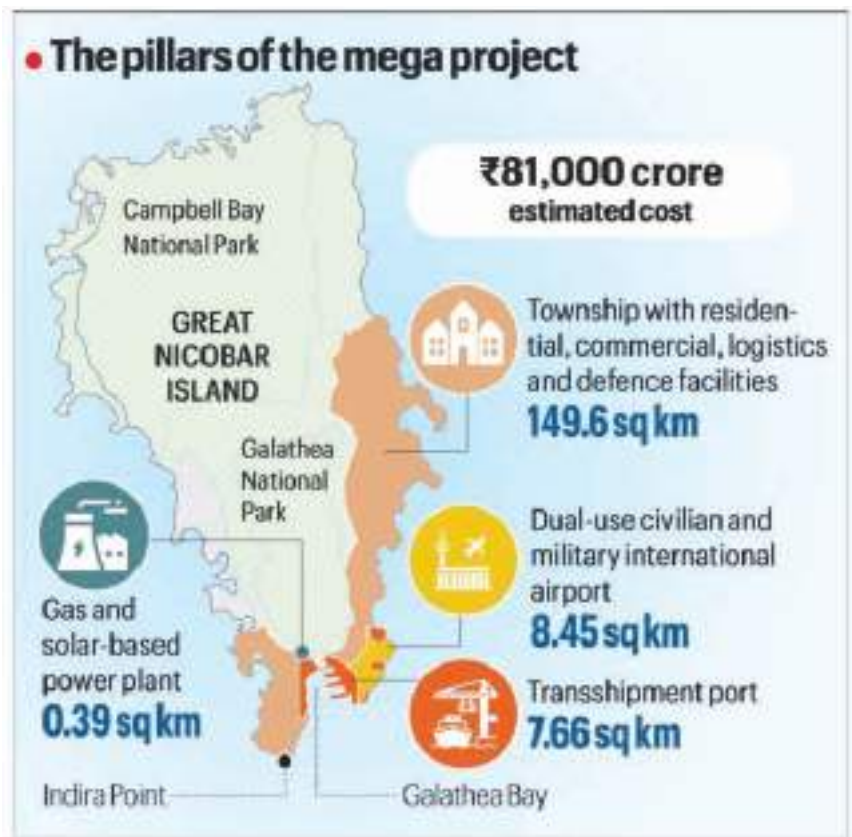
Disaster vulnerability, as Great Nicobar lies in a high seismic and tsunami-prone zone.

Balancing strategic infrastructure development with long-term environmental sustainability.

Way Forward

Ensure strict implementation of the Environment Management Plan (EMP) and compliance with all statutory conditions.

Adopt science-based monitoring through institutions such as the Wildlife Institute of India (WII) and Zoological Survey of India (ZSI).



Strengthen consultation with indigenous communities in accordance with the Shompen Policy, 2015 and Article 338A of the Constitution.

Pursue infrastructure development based on the principles of sustainable development, balancing national security, ecological conservation and tribal welfare.

ZOJILA TUNNEL

Context (Why in News?)

The Zojila Tunnel was recently in the news as the Government reviewed its construction progress, highlighting its role in providing all-weather connectivity between Srinagar and Leh. Once completed, it will be India's longest bi-directional road tunnel, significantly enhancing connectivity, regional development, and national security.

About the Tunnel

The 13.15 km tunnel is being constructed beneath the Zojila Pass on NH-1, connecting Baltal (Sonamarg) in Jammu & Kashmir with

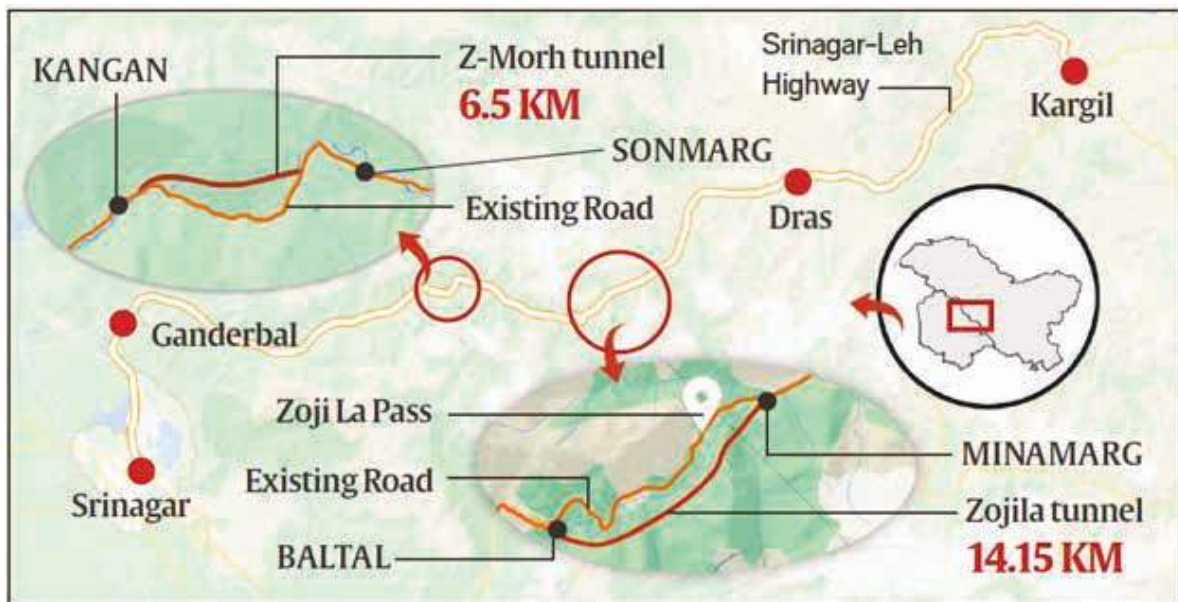
Minamarg (Drass) in Ladakh.

Executed by the National Highways & Infrastructure Development Corporation Limited (NHIDCL).

It will reduce travel time across the pass from over 3 hours to about 15–20 minutes and ensure year-round access.

Significance

Strategic Importance: Strengthens military logistics and rapid troop mobilisation along the Line of Control (LoC) and Line of Actual



Control (LAC) by providing uninterrupted connectivity to Ladakh.

Economic Benefits: Boosts tourism, facilitates seamless movement of goods, lowers transportation costs, and promotes trade and

employment in Ladakh.

Social Impact: Improves access to healthcare, education, emergency services, and disaster response for remote Himalayan communities.

BLUE MICROMOON

Context (Why in News?)

The Blue Micromoon was observed recently, attracting global attention among astronomers and skywatchers. It is a rare celestial event in which a Blue Moon coincides with a Micromoon, making the Moon appear slightly smaller and dimmer than usual.

What is a Blue Micromoon?

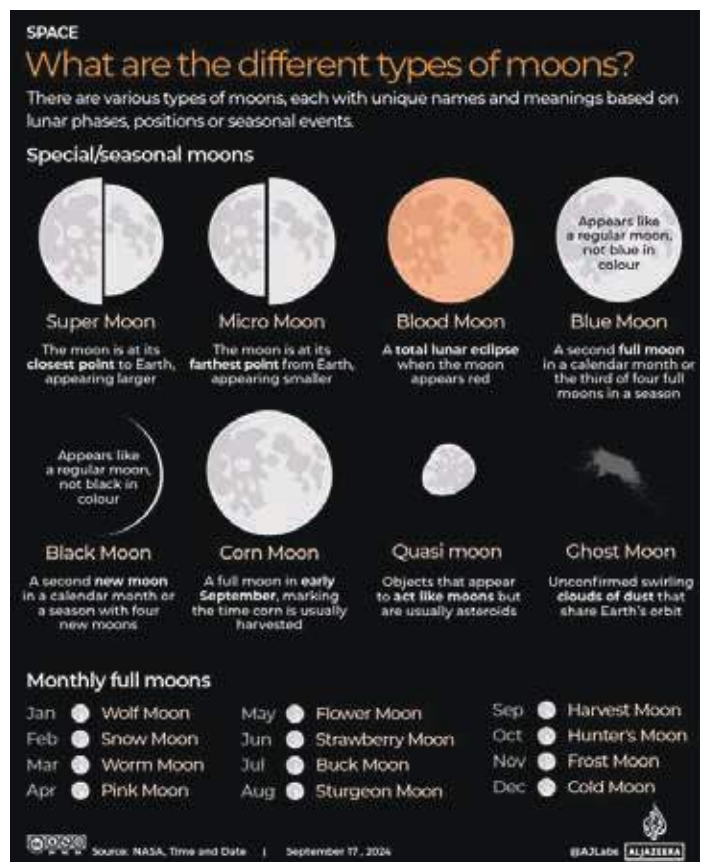
A Blue Micromoon occurs when:

A Blue Moon (the third Full Moon in a season with four Full Moons, or the second Full Moon in a calendar month) coincides with a Micromoon.

A Micromoon occurs when the Full Moon is near its apogee—the farthest point from Earth in its elliptical orbit.

Key Features

The Moon appears about 5–7% smaller and 10–15% dimmer than a typical Full Moon.



Despite its name, the Moon does not appear blue. The term “Blue Moon” refers only to its occurrence in the calendar.

The event occurs due to the Moon’s elliptical orbit around the Earth.

INDIA’S 100TH RAMSAR SITE

Context (Why in News?)

On World Environment Day (5 June 2026), Jai Prakash Narayan Bird Sanctuary (Surha Tal) in Ballia district, Uttar Pradesh, was designated as India’s 100th Ramsar Site under the Ramsar Convention on Wetlands. With this recognition, India now has 100 Ramsar Sites, the highest in Asia and the third-highest globally, after the United Kingdom and Mexico.

and the Ghaghara can flow back into the lake through this channel.

Declared a Wildlife Sanctuary in 1991.

Provides habitat for numerous resident and migratory birds and supports diverse aquatic flora and fauna.

Contributes to groundwater recharge, flood moderation, carbon sequestration, and livelihood support.



About Jai Prakash Narayan Bird Sanctuary (Surha Tal)

Located in Ballia district, Uttar Pradesh.

Surha Tal is a freshwater oxbow lake formed by the shifting course of the Ganga River.

The sanctuary is located near the confluence of the Ganga and Ghaghara (Sarayu) rivers in Ballia district, Uttar Pradesh.

The lake is connected to the Ganga through Kathar Nala, which serves as its outflow channel. During floods, water from the Ganga

Significance

Biodiversity Conservation: Supports migratory birds along the Central Asian Flyway.

Climate Regulation: Wetlands act as natural carbon sinks, regulate floods, and improve water quality.

International Recognition: Reinforces India’s commitment to the Ramsar Convention and SDG 15 (Life on Land).

Livelihood & Eco-tourism: Supports fisheries, agriculture, and sustainable tourism.

About Ramsar Convention

An international treaty adopted in 1971 at Ramsar, Iran, for the conservation and wise use of wetlands.

India became a Party: 1982.

First Ramsar Sites in India: Chilika Lake (Odisha) and Keoladeo National Park (Rajasthan).

Montreux Record (India): Keoladeo National Park and Loktak Lake.

Constitutional Provisions: Article 48A (Protection and improvement of the environment) and Article 51A(g) (Fundamental Duty to protect the environment).

SHRINKING SAMBHAR LAKE

Context (Why in News?)

Sambhar Lake, India's largest inland saline lake, was recently in the news due to reports highlighting its rapid shrinkage, declining water levels, and increasing ecological degradation. Experts have raised concerns over its impact on biodiversity, salt production, and the livelihoods of local communities.

About Sambhar Lake

Located in Rajasthan, spanning the districts of Jaipur, Nagaur, and Ajmer.

It is India's largest inland saline wetland and a Ramsar Site (designated in 1990).

The lake is fed by the Mendha, Rupangarh, Khari, Khandela, and Medtha rivers.

It is one of the country's most important habitats for migratory birds, including Greater and Lesser Flamingos, and lies along the Central Asian Flyway.

The lake is a major centre for salt production, contributing nearly 9–10% of India's salt output.

Reasons for Shrinkage

Illegal groundwater extraction and unauthorized salt pans.

Reduced inflow due to dams and diversion of feeder rivers.

Encroachment and unregulated land-use

changes.

Climate change leading to erratic rainfall and higher evaporation.

Pollution from industrial and domestic sources.

Impacts

Decline in migratory bird populations and wetland biodiversity.

Loss of wetland ecosystem services such as groundwater recharge and climate regulation.

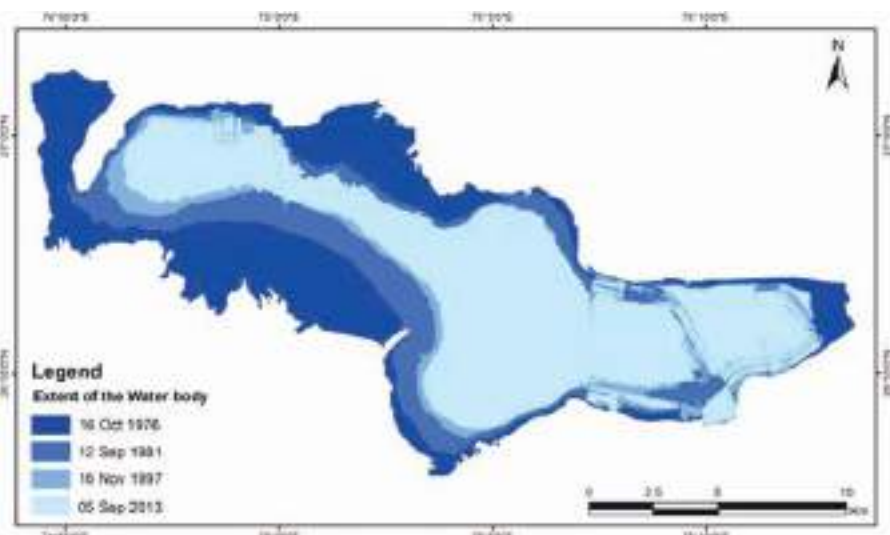
Reduced salt production affecting local livelihoods.

Increased risk of desertification and dust storms.

Way Forward

Strict enforcement against illegal borewells and encroachments.

Restore natural inflow by protecting feeder



rivers and catchment areas.

Implement the Wetlands (Conservation and Management) Rules, 2017 and integrated wetland management.

Promote community participation, scientific

monitoring, and sustainable salt extraction.

Change in the extent of water body in the Sambhar Lake over the years

DELAYED ARRIVAL OF THE SOUTHWEST MONSOON IN INDIA

Context (Why in News?)

The Southwest Monsoon reached Kerala on 4 June 2026, about three days later than its normal onset date (1 June). Its subsequent slow advancement across the country raised concerns over Kharif sowing, water availability, food inflation, and power generation.

Reasons for the Delay

Emerging El Niño: Warming of the central and eastern Pacific Ocean weakened the monsoon circulation, reducing rainfall over India.

Weak Cross-Equatorial (Somali) Jet: Reduced moisture transport from the Arabian Sea delayed the monsoon's advance.

Weak Madden-Julian Oscillation (MJO): The MJO remained in its suppressed phase,

limiting cloud formation and widespread rainfall.

Unfavourable Sea Surface Temperatures: Marine heatwaves and abnormal warming over the Arabian Sea and Indian Ocean altered moisture availability and monsoon circulation.

Persistent Western Disturbances: Unseasonal western disturbances over north India disrupted the normal progression of the southwest monsoon.

Climate Change: Rising global temperatures have increased the frequency of erratic monsoon behaviour and extreme weather events.

Impacts

Agriculture: Delayed sowing of Kharif crops



such as paddy, cotton, soybean, and maize.

Water Resources: Declining reservoir storage and groundwater recharge, affecting drinking water and irrigation.

Economy: Lower agricultural output, food inflation, and reduced rural incomes.

Energy: Reduced hydropower generation and increased dependence on thermal power due to lower reservoir levels.

El Niño is a climate phenomenon characterized by the abnormal warming of sea surface temperatures in the central and eastern equatorial Pacific Ocean. It weakens the trade winds and alters global atmospheric circulation, often leading to below-normal southwest monsoon rainfall in India, increasing the risk of droughts and heatwaves.

SUPER EL NIÑO AND INDIA'S NATIONAL MONSOON MISSION

Context (Why in News?)

The possibility of a Super El Niño developing has renewed concerns over its impact on the Southwest Monsoon, agriculture, water security, and food inflation in India

What is a Super El Niño?

A Super El Niño is an unusually strong El Niño, where ocean temperatures are much higher than normal, making its impact on global weather more severe.

Such events can alter rainfall patterns, increase temperatures, and trigger droughts or floods in different parts of the world.

Impact on India

Weak Southwest Monsoon: Reduced rainfall due to weaker moisture-laden winds.

Agriculture: Delayed Kharif sowing and lower crop yields.

Food Inflation: Lower agricultural production can increase food prices.

Water Stress: Reduced reservoir storage and groundwater recharge.

Extreme Weather: Higher chances of heatwaves, droughts, and erratic rainfall.

Economic Impact: Reduced rural incomes and lower hydropower generation.

National Monsoon Mission (NMM)

Launched: 2012

Ministry: Ministry of Earth Sciences (MoES)

Implemented by: India Meteorological Department (IMD), Indian Institute of Tropical Meteorology (IITM), Pune, and National Centre for Medium Range Weather Forecasting (NCMRWF).

Objective: To improve the accuracy of short-,

EL NIÑO CLASSIFICATION		
 El Niño is a climate pattern characterised by warmer than normal sea surface temperatures (SST) in the central and eastern equatorial Pacific Ocean.		
TYPE	SEA SURFACE TEMPERATURE ANOMALY (NIÑO 3.4 REGION)	DESCRIPTION
 WEAK EL NIÑO	+0.5°C to +0.9°C	▪ Slight warming of sea surface temperatures. Impact on global weather is usually weak and may be offset by other climate factors.
 MODERATE EL NIÑO	+1.0°C to +1.4°C	▪ Clear warming of sea surface temperatures. Can influence weather patterns and may reduce monsoon rainfall in India.
 STRONG EL NIÑO	+1.5°C to +1.9°C	▪ Significant warming of sea surface temperatures. Greater impact on global climate; higher chances of poor monsoon in India.
 SUPER EL NIÑO	≥ +2.0°C	▪ Extreme warming of sea surface temperatures. Very strong impact on global climate; high probability of severe drought/poor monsoon in India.
 UPSC Tip: A weak El Niño does not always result in a poor Indian monsoon. The monsoon is influenced by multiple factors, including the Indian Ocean Dipole (IOD), MJO, Eurasian snow cover and local sea surface temperatures.		

medium-, extended-, and seasonal-range monsoon forecasts using advanced weather and climate models.

INDUSTRIAL ACCIDENTS IN INDIA: A PERSISTENT SAFETY CHALLENGE

Context (Why in News?)

A series of industrial accidents in Surat, Visakhapatnam and Tiruvallur(ammonia gas leak) recently brought industrial safety back into focus. Four sanitation workers died due to toxic gas inhalation while cleaning a septic tank in Surat, while nine workers were killed in an explosion at the Visakhapatnam Steel Plant. These incidents underscore persistent gaps in workplace safety, regulatory enforcement, and industrial risk management.

Major Causes

Weak Safety Culture: Safety is often subordinated to production targets and cost reduction.

Poor Regulatory Enforcement: Inadequate inspections and weak compliance despite existing safety laws.

Ageing Infrastructure: Outdated machinery and deferred maintenance increase accident risks.

Violation of Safety Protocols: Failure to follow standard operating procedures, particularly in hazardous operations such as confined-space entry.

Contract Labour: Contract workers often receive inadequate training, safety equipment, and social protection.

Lack of Emergency Preparedness: Absence of rescue mechanisms, safety audits, and disaster response plans aggravates casualties.

Impact

Human Cost: Loss of lives, occupational diseases, and long-term physical and psychological trauma.

Economic Loss: Damage to infrastructure, production losses, compensation liabilities, and supply chain disruptions.

Environmental Damage: Chemical leaks,

explosions, and fires contaminate air, water, and soil.

Social Impact: Disproportionate impact on migrant workers, sanitation workers, and economically vulnerable communities.

Governance Concerns: Repeated accidents erode public confidence and undermine India's ambition of becoming a global manufacturing hub.

Regulatory Framework

Occupational Safety, Health and Working Conditions (OSH) Code, 2020

Factories Act, 1948 (until fully subsumed under the OSH Code)

Environment (Protection) Act, 1986

Disaster Management Act, 2005

Public Liability Insurance Act, 1991

NDMA Guidelines on Chemical Disaster Management.

Challenges

Delay in implementation of the OSH Code, 2020.

Shortage of factory inspectors and occupational safety professionals.

Fragmented regulatory oversight among multiple agencies.

Persistent "cost over safety" mindset in financially stressed industries.

Way Forward

Expedite implementation of the OSH Code, 2020 across all States.

Strengthen inspections, third-party safety audits, and real-time monitoring using IoT-based sensors in high-risk industries.

Ensure mandatory safety training, personal protective equipment (PPE), and equal safety

standards for contract workers.

Strengthen corporate accountability through stringent penalties for negligence and periodic safety audits.

Develop a preventive safety culture aligned with International Labour Organization (ILO) standards and NDMA guidelines.

Related facts

Oleum Gas Leak Case (M.C. Mehta v. Union of India, 1987): The Supreme Court evolved the principle of Absolute Liability, making hazardous industries absolutely liable for harm caused by industrial accidents.

SOLAR POTENTIAL OF INDIA'S RESERVOIRS

Context (Why in News?)

The National Institute of Solar Energy (NISE), under the Ministry of New and Renewable Energy (MNRE), released the first national assessment of India's floating solar potential. The report estimates that India's reservoirs can support 102.18 GW of floating solar capacity, highlighting its potential to address land constraints in achieving India's target of 500 GW of non-fossil fuel capacity by 2030.

Key Findings

India's reservoirs have the potential to generate 102.18 GW of electricity through Floating Solar Photovoltaic (FSPV) systems.

The assessment identified 1,946 sq. km of feasible water surface by limiting solar panels to 20% of a reservoir's surface area.

States with the highest potential are:

Maharashtra – 16.28 GW

Madhya Pradesh – 14.89 GW

Karnataka – 13.69 GW

Odisha – 12.81 GW

Telangana – 10.72 GW

Significance of Floating Solar

Land Neutral: Eliminates the need for large tracts of land, reducing conflicts with agriculture and habitation.

Higher Efficiency: Water bodies help cool solar panels, improving their efficiency compared to ground-mounted systems.

Water Conservation: Floating panels reduce evaporation from reservoirs.

Clean Energy Transition: Contributes to India's renewable energy targets and supports energy security.

Dual Use of Reservoirs: Enables simultaneous use for power generation, irrigation, and drinking water storage.

Related facts

India's Largest Floating Solar Project: Omkareshwar Floating Solar Park (Madhya Pradesh), with a current capacity of 278 MW, planned to be expanded to 600 MW.

Global Scenario: Floating solar capacity reached 9.6 GW by 2024, with Asia accounting for nearly 90% of the installed capacity.

BAN ON PARAQUAT

Context (Why in News?)

The Telangana Government banned the sale, manufacture, distribution, and use of paraquat in March 2026, becoming the third State after Kerala and Odisha to prohibit the highly toxic herbicide. Subsequently, Andhra

Pradesh also imposed a ban.

About Paraquat

Paraquat is a non-selective contact herbicide widely used for weed control.

It is highly toxic to humans and animals, with no known antidote.

Even small quantities can cause irreversible damage to the kidneys, liver, and lungs, often leading to death.

It is inexpensive and widely used due to increasing labour shortages in agriculture.

Why is it a Concern?

Frequently used in suicides because of its easy availability and high fatality rate.

Accidental poisoning occurs due to unsafe storage in beverage bottles and lack of awareness.

According to an autopsy-based study at Gandhi Hospital, Hyderabad, 94% of paraquat poisoning cases were suicides, while 5% were accidental.

54% of the victims were farmers, highlighting the occupational risks.

Related facts

Rotterdam Convention: India opposed the inclusion of paraquat under Annex III in 2013, which would have subjected its international trade to the Prior Informed Consent (PIC) procedure.

QR CODE-BASED DRUG TRACEABILITY FRAMEWORK: STRENGTHENING THE FIGHT AGAINST ANTIMICROBIAL RESISTANCE (AMR)

Context (Why in News?)

The Ministry of Health and Family Welfare has amended the Drugs Rules, 1945 to expand the QR Code-based Drug Traceability Framework by bringing vaccines, antimicrobials, anti-cancer drugs, and narcotic & psychotropic drugs under Schedule H2. The initiative aims to curb counterfeit medicines, strengthen drug authentication, and support India's fight against Antimicrobial Resistance (AMR).

What is the QR Code-Based Drug Traceability Framework?

It enables end-to-end digital authentication and traceability of medicines across the supply chain.

Manufacturers must affix a Bar Code/QR Code on the primary packaging (or secondary packaging where space is inadequate).

The QR Code will contain nine key details, including:

Unique Product Identification Code

Generic and Brand Name

Manufacturer's Name & Address

Batch Number

Manufacturing & Expiry Dates

Manufacturing Licence Number

Details of Excipients

Initially applicable to the top 300 pharmaceutical brands, the framework has now been significantly expanded.

Significance

Combating Anti Microbial Resistance (AMR): Prevents circulation of counterfeit and substandard antimicrobial drugs, reducing inappropriate antibiotic use.

Supply Chain Transparency: Enables seamless verification and tracking of medicines from manufacturer to consumer.

Improved Regulatory Oversight: Facilitates rapid product recalls and strengthens pharmacovigilance.

Patient Safety: Ensures access to genuine medicines, especially vaccines, cancer drugs, and controlled substances.

Supports 'Nasha Mukta Bharat': Improves monitoring of narcotic and psychotropic

medicines covered under the NDPS Act, 1985.

Way Forward

Promote phased implementation with technical and financial support to MSMEs.

Integrate the framework with the Ayushman Bharat Digital Mission (ABDM) and national pharmacovigilance systems.

Strengthen coordination between CDSCO, State Drug Controllers, manufacturers, and healthcare institutions.

Conduct nationwide awareness campaigns to encourage QR-based medicine verification.

Related facts

Antimicrobial Resistance (AMR): Occurs when microorganisms (bacteria, viruses, fungi, and parasites) develop resistance to medicines, making infections difficult to treat.

WHO: Recognises AMR as one of the top global public health threats.

Schedule H2 (Drugs Rules, 1945): Mandates QR Code/Barcode-based authentication for specified medicines.

National Action Plan on AMR: Promotes surveillance, rational antibiotic use, infection prevention, and antimicrobial stewardship.

PRIME MINISTER'S NATIONAL RELIEF FUND (PMNRF)

Context (Why in News?)

The Prime Minister's National Relief Fund (PMNRF) was recently in the news following appeals for donations to support victims of natural disasters and other emergencies. The Fund continues to play a key role in providing immediate financial assistance during calamities.

About PMNRF

Established: 1948

Founded by: Pandit Jawaharlal Nehru as a public charitable trust.

Objective: To provide financial assistance to individuals affected by major disasters and medical emergencies.

The Fund is managed by the Prime Minister and receives voluntary public contributions.

It is distinct from the Prime Minister's Citizen Assistance and Relief in Emergency Situations (PM CARES) Fund, established in 2020 to address emergencies such as the COVID-19 pandemic

Sources of Donations

Voluntary contributions from:

Individuals

Corporates and Public Sector Undertakings (PSUs)

Trusts and Institutions

Non-Resident Indians (NRIs)

No budgetary support is provided by the Government.

Donations are 100% exempt under Section 80G of the Income Tax Act, 1961.

Donations qualify as Corporate Social Responsibility (CSR) expenditure under the Companies Act, 2013.

Eligible Disasters and Assistance

Financial assistance is provided to victims of:

Natural Disasters

- Floods
- Cyclones
- Earthquakes
- Landslides
- Cloudbursts
- Tsunamis
- Droughts and other severe natural calamities

Major Accidents

- Industrial accidents
- Railway accidents
- Air accidents
- Other serious accidents requiring humanitarian assistance

Medical Assistance

- Treatment of major life-threatening diseases such as:
- Heart surgeries
- Kidney transplantation
- Cancer treatment

- Other specified medical conditions for economically weaker patients.

Significance

Provides immediate financial relief during disasters.

Supports vulnerable families facing catastrophic medical expenses.

Complements government disaster response mechanisms.

Encourages public participation in humanitarian assistance.

GLACIAL LAKE OUTBURST FLOOD (GLOF)

Context (Why in News?)

A recent international study estimated that nearly 15 million people worldwide are exposed to Glacial Lake Outburst Flood (GLOF) hazards, with High Mountain Asia, including the Himalayan region, being the most vulnerable. The findings have renewed concerns over the growing threat posed by climate change-induced glacier retreat.

What is a GLOF?

A Glacial Lake Outburst Flood (GLOF) is a sudden release of large volumes of water from a glacial lake due to the failure of its natural dam made of ice or moraine (rocks and sediments). The resulting flash flood can cause widespread destruction downstream.

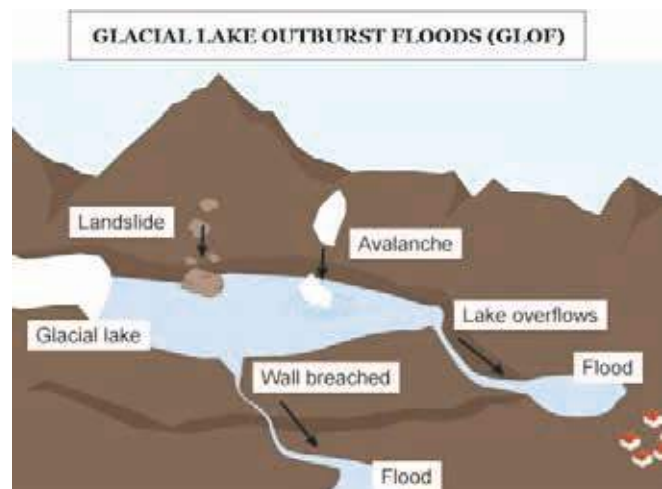
Causes of GLOFs

Climate Change: Rising temperatures accelerate glacier melting, increasing the size and number of glacial lakes.

Heavy Rainfall and Cloudbursts: Increase water levels and weaken moraine dams.

Avalanches and Landslides: Sudden entry of ice or rock into lakes generates waves that can breach the dam.

Earthquakes: Destabilise moraine dams in the seismically active Himalayan region.



Human Activities: Hydropower projects, road construction, and unplanned development increase ecological vulnerability.

Impacts

Loss of lives and displacement of downstream communities.

Destruction of roads, bridges, hydropower projects, and communication networks.

Damage to agriculture, forests, and river ecosystems.

Increased sedimentation, deterioration of water quality, and disruption of livelihoods.

Government Initiatives

National GLOF Risk Mitigation Programme for monitoring and mitigation of vulnerable glacial lakes.

Installation of Automated Weather Stations (AWS) and Early Warning Systems (EWS).

Monitoring by ISRO, GSI, IMD, CWC, DRDO, and other scientific agencies.

Research under the National Mission for Sustaining the Himalayan Ecosystem (NMSHE).

Way Forward

Identify and continuously monitor high-risk glacial lakes using remote sensing, Synthetic Aperture Radar (SAR), and drones.

Install GLOF Early Warning Systems in vulnerable river basins.

Adopt scientific land-use planning and climate-resilient infrastructure in Himalayan regions.

Strengthen cross-border cooperation among India, Nepal, Bhutan, and China for data sharing and disaster preparedness.



SCIENCE & TECHNOLOGY

What's Inside?

1. FUTURE OF INDIA'S SEMICONDUCTOR INDUSTRY
2. QUARK-GLUON PLASMA (QGP)
3. SKYCAST SYSTEM
4. MAVEN (MARS ATMOSPHERE AND
5. VOLATILE EVOLUTION) MISSION
6. COAL GASIFICATION TECHNOLOGY
7. BRAIN-EATING AMOEBA (NAEGLERIA FOWLERI)
8. GRAPES-3 MISSION
9. COMPRESSED BIOGAS (CBG) BLENDING
10. SMART SEED COATING TECHNOLOGY
11. ENVIRONMENTAL IMPLICATIONS OF AI DATA CENTRES
12. INDIAN PHARMACOPOEIA COMMISSION (IPC)
13. AQUEOUS ZINC-ION BATTERY (AZIB)
14. ICAR-FUSICONT TECHNOLOGY
15. FAST X-RAY TRANSIENTS (FXTS)

FUTURE OF INDIA'S SEMICONDUCTOR INDUSTRY

Context (Why in News?)

NITI Aayog's Frontier Tech Hub has released the report titled "Future of India's Semiconductor Industry", India's first comprehensive 10-year roadmap to transform the country from a major semiconductor importer into an indispensable player in the global semiconductor value chain by 2035. The roadmap complements the India Semiconductor Mission (ISM) 2.0 announced in the Union Budget 2026.

Key Highlights of the Roadmap

Envisions building a USD 120–150 billion semiconductor value chain by 2035.

Aims to shift India from ecosystem creation to ecosystem deepening, covering the entire semiconductor ecosystem—from design and R&D to manufacturing and packaging.

Seeks to reduce import dependence and strengthen technological sovereignty.

Five Strategic Pillars

Frontier R&D and Design: Develop indigenous semiconductor design capabilities and create 100+ advanced semiconductor design Intellectual Properties (IPs).

Policy & Investment: Mobilise long-term investments through a stable policy ecosystem.

Production: Focus on Advanced Packaging (OSAT), Compound Semiconductors, and Wide-Bandgap Semiconductors.

People: Develop skilled manpower across the semiconductor value chain.

Partnerships: Strengthen collaboration with trusted countries, industry, and academia to build resilient supply chains.

Significance

Technological Sovereignty: Reduces dependence on imported chips for critical sectors such as defence, AI, telecommunications, healthcare, and automobiles.

Economic Growth: Boosts high-value manufacturing, exports, and employment.

Strategic Security: Enhances resilience against global supply chain disruptions.

Innovation Ecosystem: Promotes indigenous chip design, research, and startup growth.

Challenges

High capital investment and long gestation periods.

Dependence on imported semiconductor equipment and raw materials.

Intense global competition from established semiconductor hubs.

Need for a highly skilled workforce and advanced R&D ecosystem.

Way Forward

Accelerate implementation of the India Semiconductor Mission (ISM) 2.0.

Increase public and private investment in semiconductor R&D and fabrication.

Strengthen academia-industry collaboration for talent development.

QUARK-GLUON PLASMA (QGP)

Context (Why in News?)

Quark-Gluon Plasma (QGP) was recently in the news following new findings from experiments at the Large Hadron Collider (LHC), which have provided deeper insights

into the behaviour of matter under extreme temperatures and densities, helping scientists understand the conditions that existed immediately after the Big Bang.

What is Quark-Gluon Plasma?

Quark-Gluon Plasma (QGP) is an extremely hot and dense state of matter in which quarks and gluons exist freely instead of being bound together inside protons and neutrons.

It is believed to have existed for a fraction of a second after the Big Bang, before cooling down to form the matter that makes up the Universe today.

Quarks: Fundamental particles that combine to form protons and neutrons.

Gluons: Force-carrying particles that bind quarks together through the Strong Nuclear Force.

Fundamental Physics: Improves understanding of the Strong Nuclear Force, one of the four fundamental forces of nature.

Particle Physics Research: Tests predictions of Quantum Chromodynamics (QCD), the theory describing interactions between quarks and gluons.

Scientific Innovation: Advances accelerator technology, detector systems, and high-performance computing.

A visualisation of one of the first full energy collisions between gold ions Brookhaven's lab relativistic Heavy Ion collider as captured by the Solenoidal Tracker at RHIC (STAR) detector.

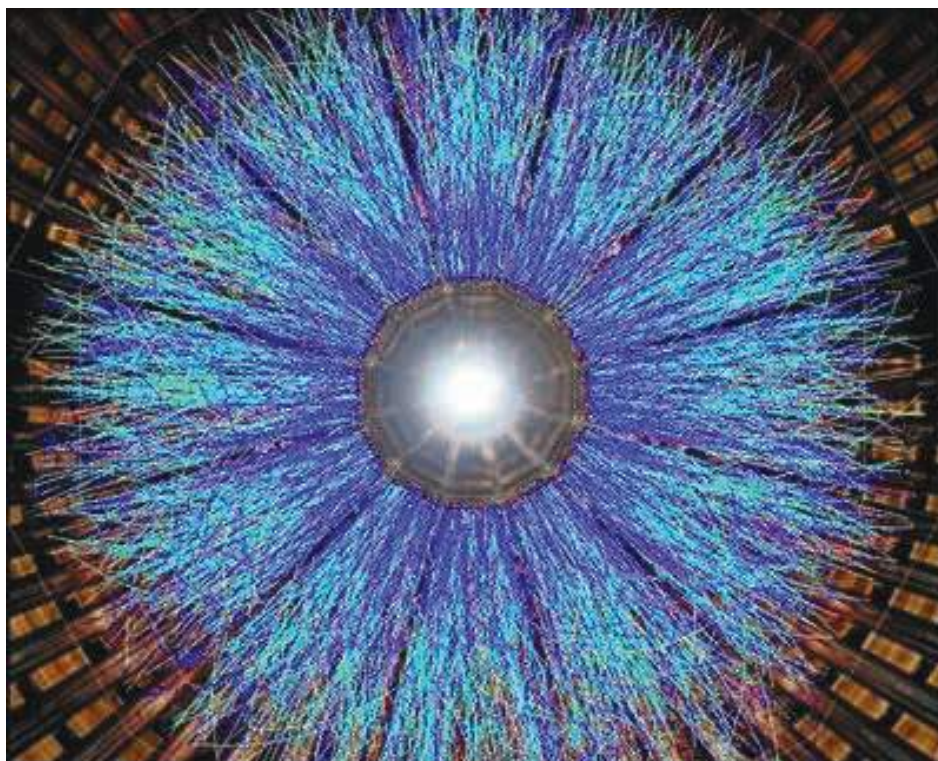
How is it Created?

QGP is recreated by colliding heavy ions (such as lead or gold nuclei) at near the speed of light.

Such experiments are conducted at:

Large Hadron Collider (LHC), CERN

Relativistic Heavy Ion Collider (RHIC), USA



Significance

Understanding the Early Universe: Helps scientists study the conditions prevailing immediately after the Big Bang.

SKYCAST SYSTEM

Context (Why in News?)

The Ministry of Earth Sciences (MoES) has inaugurated India's first SkyCast System at Indira Gandhi International (IGI) Airport, New Delhi, under Mission Mausam. With

this, India has become the 19th country to deploy an integrated aviation weather monitoring system. The next SkyCast facility will be established at Noida International Airport (Jewar), followed by expansion to other airports.

What is the SkyCast System?

SkyCast is an integrated aviation weather monitoring and nowcasting system that provides real-time atmospheric information to pilots, airlines, airport operators, and air traffic controllers.

It helps improve the safety of take-offs and landings by providing advance warnings of adverse weather conditions, particularly fog and turbulence.

The system monitors atmospheric conditions up to 3 km above the airport.

Key Components

SkyCast integrates multiple advanced atmospheric observation technologies, including:

Radar Wind Profiler (RWP) – Measures wind speed, wind direction, turbulence, and vertical air movement.

Ground-based Fog Aerosol Spectrometer (GFAS) – Analyses fog droplets and aerosol-fog interactions.

CL61 Lidar-based Ceilometer – Monitors cloud base, fog height, and vertical visibility.

SODAR (Sonic Detection and Ranging) – Measures low-level wind and atmospheric turbulence.

Microwave Radiometer – Observes atmospheric temperature and humidity profiles.

Significance

Enhances Aviation Safety: Provides real-time weather intelligence for safer aircraft operations.

Reduces Flight Disruptions: Minimises delays, diversions, and cancellations caused by fog and turbulence.

Improves Weather Forecasting: Generates high-quality atmospheric data for better nowcasting and forecasting.

Supports Disaster Preparedness: Assists urban weather forecasting, pollution monitoring, and transport advisories.

Strengthens Mission Mausam: Contributes to building weather-smart infrastructure in India.

Related facts

Mission Mausam: A flagship initiative of the Ministry of Earth Sciences to modernise India's weather forecasting and observation infrastructure.

Scientific Foundation: SkyCast is based on findings from the Winter Fog Experiment (WiFEX), jointly undertaken by IITM Pune and IMD since 2015.

Nowcasting: Refers to very short-range weather forecasting (up to about 6 hours) using real-time observational data.

MAVEN (MARS ATMOSPHERE AND VOLATILE EVOLUTION) MISSION

Context (Why in News?)

NASA recently lost communication with its Mars Atmosphere and Volatile Evolution (MAVEN) spacecraft, which has been studying the Martian atmosphere for over a decade. The development has renewed interest in the mission's significant contributions to understanding the evolution of Mars.

About the MAVEN Mission

MAVEN is the first spacecraft dedicated to studying the upper atmosphere of Mars.

It is part of NASA's Mars Exploration Program, aimed at understanding Mars' evolution and its potential to have supported life.

Launched: November 2013

Entered Mars Orbit: September 2014

Orbits Mars every 3.5 hours, approaching as close as 150 km above the planet's surface.

Mission Objectives

Study the upper atmosphere and ionosphere of Mars.

Understand how atmospheric gases escaped into space over billions of years.

Examine the interaction between solar wind and the Martian atmosphere.

Assess how atmospheric loss transformed Mars from a potentially habitable planet into a cold, dry world.

Scientific Instruments

MAVEN carries three instrument packages:

Particles and Fields Package: Studies solar wind, magnetic fields, and their interaction with the Martian ionosphere.

Remote Sensing Package: Uses an ultraviolet spectrometer to study the composition and structure of the upper atmosphere.

Neutral Gas and Ion Mass Spectrometer (NGIMS): Measures the chemical composition of the upper atmosphere and escaping gases.

Major Findings

Mars has lost nearly two-thirds of its original atmosphere to space.

The absence of a global magnetic field has allowed the solar wind to gradually strip away the atmosphere.

Atmospheric loss contributed to the

disappearance of liquid water, making Mars cold and arid.

Significance

Improves understanding of planetary evolution and climate change.

Provides insights into the habitability of Mars.

Supports future robotic and human exploration missions.

Related Facts

Solar Wind: A stream of charged particles continuously emitted by the Sun that can erode planetary atmospheres lacking a strong magnetic field.



Unlike Earth, Mars has no global magnetic field, making its atmosphere more vulnerable to erosion by solar wind.

MAVEN continues to operate as one of NASA's

key Mars orbiters, supporting scientific research and communication with surface missions.

Mars Exploration Program: NASA's long-term

initiative to explore Mars through orbiters, landers, and rovers, including Curiosity, Perseverance, and MAVEN.

COAL GASIFICATION TECHNOLOGY

Context (Why in News?)

The Union Government has intensified its push for coal gasification by approving a ₹37,500-crore incentive package to promote the technology. The initiative aims to reduce India's dependence on imported industrial chemicals, strengthen energy security, and achieve the target of gasifying 100 million tonnes of coal by 2030.

What is Coal Gasification?

Coal gasification is the process of converting coal into synthesis gas (syngas) by reacting it with oxygen, steam, and controlled amounts of air at high temperatures.

Syngas, primarily composed of hydrogen (H₂) and carbon monoxide (CO), serves as a feedstock for producing chemicals, fuels, and fertilizers.

Products of Syngas

Urea – Fertilizers

Ammonia – Fertilizers and chemicals

Methanol – Fuel and chemical industry

Synthetic Natural Gas (SNG) – Substitute for natural gas

Hydrogen – Clean energy fuel

Ammonium nitrate and Dimethyl Ether (DME) – Industrial applications

Significance

Reduces Import Dependence: India imports around 20% of urea, 80–90% of methanol, and almost its entire requirement of ammonia.

Energy Security: Utilises India's vast coal reserves (~401 billion tonnes) to produce value-added products domestically.

Supports Atmanirbhar Bharat: Promotes indigenous manufacturing of chemicals and fuels.

Economic Benefits: Reduces import bills, creates employment, and strengthens downstream industries.

Better Coal Utilisation: Converts coal into cleaner-value products instead of direct combustion.

BRAIN-EATING AMOEBA (NAEGLERIA FOWLERI)

Context (Why in News?)

Recent cases of Primary Amoebic Meningoencephalitis (PAM) caused by the brain-eating amoeba (*Naegleria fowleri*) have raised public health concerns in India. The infections, though rare, have a very high fatality rate, highlighting the need for awareness and preventive measures.

What is Brain-Eating Amoeba?

Naegleria fowleri is a free-living, single-celled

amoeba commonly found in warm freshwater bodies such as lakes, ponds, rivers, hot springs, and poorly chlorinated swimming pools.

It causes Primary Amoebic Meningoencephalitis (PAM), a rare but rapidly progressing infection of the brain.

How Does Infection Occur?

Infection occurs when contaminated water enters the nose during activities such as swimming or diving.

The amoeba travels through the olfactory nerve to the brain, where it destroys brain tissue.

It does not spread by drinking contaminated water or through person-to-person transmission.

Significance / Concerns

Fatality rate exceeds 95%, making PAM one of the deadliest infectious diseases.

Early symptoms resemble bacterial meningitis, delaying diagnosis.

Rising temperatures and warming freshwater bodies may increase the risk of infections.

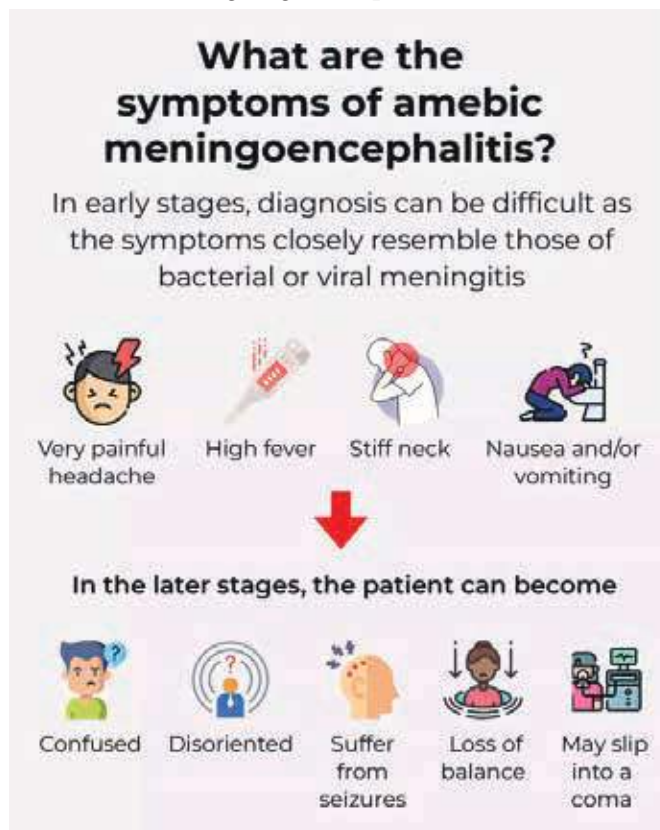
Prevention

Avoid swimming or diving in warm freshwater during hot weather.

Use nose clips or keep the head above water while swimming.

Ensure proper chlorination of swimming pools.

Use only sterile or boiled water for nasal rinsing (e.g., neti pots).



GRAPES-3 MISSION

Context (Why in News?)

The GRAPES-3 (Gamma Ray Astronomy PeV EnergieS–Phase 3) experiment was recently in the news after scientists used its observations to study high-energy cosmic rays and space weather phenomena, providing valuable insights into solar storms and their impact on Earth.

What is GRAPES-3?

GRAPES-3 is one of the world's largest cosmic ray observatories.

It is located at Ooty, Tamil Nadu, at an altitude of about 2,200 m.

It is operated by the Tata Institute of Fundamental Research (TIFR), Mumbai.

The experiment has been operational since 2000.

Objectives

Study high-energy cosmic rays reaching Earth.

Investigate gamma rays and their astrophysical sources.

Monitor space weather, including solar storms and geomagnetic disturbances.

Improve understanding of the origin and propagation of cosmic rays.

Key Features

Consists of an extensive air shower array spread over a large area.

Equipped with a 16-module muon detector, one of the largest in the world.

Detects secondary particles (especially muons) produced when cosmic rays interact with Earth's atmosphere.

Significance

Enhances understanding of cosmic rays, one of the most energetic particles in the Universe.

Helps study the impact of solar eruptions and geomagnetic storms on Earth.

Contributes to research in astrophysics, particle physics, and space weather forecasting.

Supports protection of satellites, communication systems, navigation networks, and power grids from space weather events.

Related facts

Cosmic Rays: High-energy charged particles, mainly protons and atomic nuclei, originating from the Sun and distant astrophysical sources such as supernovae and active galaxies.

Muon: A heavy elementary particle produced when cosmic rays collide with atmospheric molecules; widely used to study cosmic rays.

Space Weather: Variations in the space environment caused by solar activity, including solar flares and coronal mass ejections (CMEs).



A view of the GRAPES-3 experiment in Ooty, India depicted with a simulated cosmic ray shower

COMPRESSED BIOGAS (CBG) BLENDING

Context (Why in News?)

India is on track to achieve its mandatory target of 3% blending of Compressed Biogas (CBG) with Compressed Natural Gas (CNG) and Piped Natural Gas (PNG) by FY 2026–27. The progress has been driven by the expansion of CBG plants under the GOBARdhan Scheme.

What is Compressed Biogas (CBG)?

Compressed Biogas (CBG) is a clean fuel produced by the anaerobic digestion of biodegradable waste such as cattle dung, agricultural residue, municipal solid waste, and sewage.

After purification, it contains over 90% methane, making it chemically similar to Natural Gas and suitable for use as a substitute for CNG.

Significance of CBG Blending

Energy Security: Reduces dependence on imported Liquefied Natural Gas (LNG).

Waste-to-Wealth: Converts organic waste into clean energy, promoting a circular economy.

Climate Action: Reduces greenhouse gas emissions and supports India's Net Zero 2070 target.

Rural Development: Generates additional income and employment through biomass

collection and CBG production.

Cleaner Transport: Promotes low-carbon fuel in the transport sector.

Government Initiatives

GOBARDhan (Galvanising Organic Bio-Agro Resources Dhan): Promotes conversion of biodegradable waste into biogas and organic manure.

SATAT (Sustainable Alternative Towards Affordable Transportation): Encourages establishment of CBG plants and integration with City Gas Distribution (CGD) networks.

Compulsory Blending Obligation (CBO):

FY26: 1%

FY27: 3%

FY28: 4%

FY29 onwards: 5%

Challenges

High capital cost of establishing CBG plants.

Inadequate biomass collection and supply chain infrastructure.

Limited awareness and market penetration.

Need for expansion of gas distribution infrastructure.

Way Forward

Accelerate commissioning of CBG plants under the GOBARDhan Scheme.

Strengthen biomass aggregation and logistics.

Provide financial incentives and assured market access to producers.

Promote CBG adoption in transport, industries, and city gas networks.

SMART SEED COATING TECHNOLOGY

Context (Why in News?)

The Indian Institute of Oilseeds Research (IIOR), Hyderabad, under the Indian Council of Agricultural Research (ICAR), has developed a biopolymer-based Smart Seed Coating Technology that can increase crop yields by 12–37%. The technology has been patented in India and is being promoted for large-scale adoption.

What is Smart Seed Coating Technology?

It is a biodegradable biopolymer coating applied to seeds before sowing.

The coating delivers beneficial microorganisms, nutrients, and crop protection agents directly at the seed-soil interface.

It enhances germination, early plant growth, and resistance to biotic and abiotic stresses.

Key Features

Improves seed quality and crop establishment.

Suitable for cereals, millets, pulses, oilseeds,

vegetables, and horticultural crops.

Particularly beneficial for rainfed agriculture, where crop establishment is often affected by erratic rainfall.

Environment-friendly due to the use of biodegradable materials.

Significance

Higher Productivity: Field trials recorded 12–37% yield improvement over untreated seeds.

Climate Resilience: Enhances tolerance to drought and other abiotic stresses.

Reduced Input Use: Efficient delivery of nutrients and bio-agents lowers dependence on excessive agrochemicals.

Supports Sustainable Agriculture: Improves resource-use efficiency and reduces environmental impact.

Benefits Small Farmers: Improves productivity, especially in rainfed and resource-constrained regions.

ENVIRONMENTAL IMPLICATIONS OF AI DATA CENTRES

Context (Why in News?)

The rapid expansion of Artificial Intelligence (AI) has led to a surge in the construction of AI data centres worldwide. As governments and technology companies invest in AI infrastructure, concerns have grown over the high energy consumption, water usage, and carbon emissions associated with these facilities.

What are AI Data Centres?

AI data centres are specialised computing facilities that house high-performance processors (GPUs/AI chips) used to train and deploy Artificial Intelligence models.

They require massive computing power, uninterrupted electricity, and advanced cooling systems.

Environmental Implications

High Energy Consumption: AI workloads consume significantly more electricity than conventional data centres, increasing dependence on power grids.

Carbon Emissions: If powered by fossil fuels, AI data centres contribute substantially to greenhouse gas emissions.

Water Consumption: Large quantities of water are required for cooling servers, increasing pressure on freshwater resources.

Electronic Waste (E-waste): Rapid obsolescence of servers and AI hardware generates significant quantities of hazardous e-waste.

Land Use and Biodiversity: Large-scale data centre construction can alter land use patterns and affect local ecosystems.

INDIAN PHARMACOPOEIA COMMISSION (IPC)

Context (Why in News?)

The Indian Pharmacopoeia Commission (IPC) represented India at the 16th International Meeting of World Pharmacopoeias held in Brazil, highlighting India's growing role in promoting harmonised global pharmaceutical quality standards.

What is the Indian Pharmacopoeia Commission (IPC)?

An autonomous institution under the Ministry of Health & Family Welfare.

Established: 2009.

Headquarters: Ghaziabad, Uttar Pradesh.

It is the National Pharmacopoeia Authority of India.

Functions

Publishes the Indian Pharmacopoeia (IP)—the official book of drug quality standards in India.

Prescribes standards for the identity, purity, strength, and quality of medicines.

Develops Indian Pharmacopoeia Reference Substances (IPRS) used for quality testing.

Supports the Central Drugs Standard Control Organisation (CDSCO) in drug regulation.

Acts as the National Coordination Centre (NCC) for the Pharmacovigilance Programme of India (PvPI), monitoring adverse drug reactions (ADRs).

Provides training, laboratory services, and quality assurance support to pharmaceutical stakeholders.

Significance

Ensures the quality, safety, and efficacy of medicines sold in India.

Strengthens public health by preventing the circulation of substandard and counterfeit drugs.

Enhances India's credibility as the "Pharmacy of the World."

Facilitates harmonisation of Indian drug standards with international pharmacopoeias, boosting pharmaceutical exports.

AQUEOUS ZINC-ION BATTERY (AZIB)

Context (Why in News?)

Aqueous Zinc-Ion Batteries (AZIBs) have gained attention due to recent advances by Indian researchers in developing safer, low-cost, and sustainable battery technologies for large-scale energy storage, supporting India's clean energy transition.

What is an Aqueous Zinc-Ion Battery?

An Aqueous Zinc-Ion Battery (AZIB) is a rechargeable battery that uses:

Zinc metal as the anode.

A suitable cathode material (e.g., manganese oxide or vanadium oxide).

A water-based (aqueous) electrolyte instead of flammable organic electrolytes used in lithium-ion batteries.

During charging and discharging, zinc ions (Zn^{2+}) move between the anode and cathode through the electrolyte.

Advantages

High Safety: Water-based electrolyte is non-flammable, reducing fire and explosion risks.

Low Cost: Zinc is abundant and cheaper than

lithium and cobalt.

Environment Friendly: Uses non-toxic materials with lower environmental impact.

Long Cycle Life: Can withstand repeated charging and discharging.

Suitable for Grid Storage: Ideal for renewable energy storage due to high safety and affordability.

Applications

Renewable energy storage (solar and wind).

Grid-scale energy storage systems.

Backup power systems.

Electric mobility for low-speed vehicles and stationary applications.

Significance for India

Supports India's target of 500 GW non-fossil fuel capacity by 2030.

Reduces dependence on imported lithium and critical minerals.

Promotes Atmanirbhar Bharat through indigenous battery technology.

Strengthens energy security and supports the transition to clean energy.

ICAR-FUSICONT TECHNOLOGY

Context (Why in News?)

ICAR-FUSICONT, an innovative biofungicide technology developed by ICAR, has emerged as an effective solution for managing Banana Fusarium Wilt (Panama Wilt) caused by *Fusarium oxysporum* f. sp. *cubense* Tropical

Race 4 (TR4), one of the most destructive diseases affecting banana cultivation.

What is ICAR-FUSICONT?

ICAR-FUSICONT is a biofungicide developed jointly by:

ICAR-Central Institute of Subtropical Horticulture (CISH), Lucknow
ICAR-Central Soil Salinity Research Institute (CSSRI), Karnal

The name FUSICONT is derived from “Fusarium Control.”
It uses a novel strain of the beneficial fungus *Trichoderma reesei* (CSR-T-3) cultured on a patented bio-medium to suppress the *Fusarium* pathogen.

Key Agricultural Applications

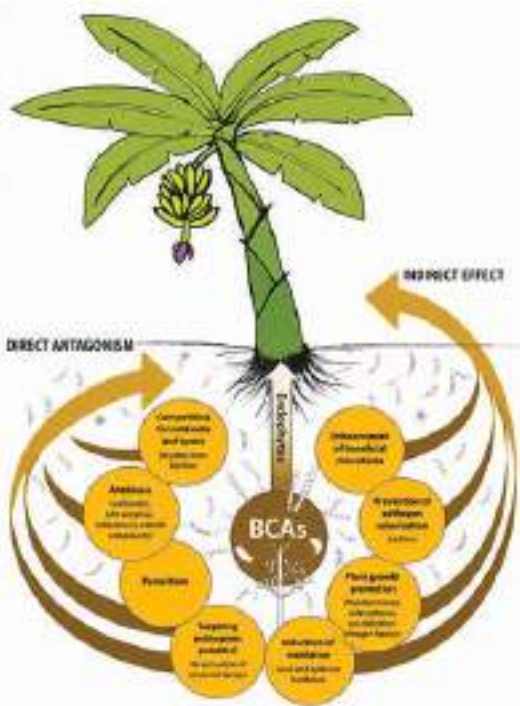
Banana Fusarium Wilt (TR4): FUSICONT is highly effective against the devastating Panama Wilt disease (Tropical Race 4), reducing production losses by up to 90% and helping restore yields in affected hotspot regions.
Cumin Wilt: It is proven to be a highly effective biocontrol tool against *Fusarium* wilt affecting cumin crops.

Mango Shelf Life: ICAR researchers utilize FUSICONT alongside residue-free

management to control disease incidence in orchards, allowing mangoes to withstand long-distance sea shipments for up to 30 days.

Key Features

- Eco-friendly biological alternative to chemical fungicides.
- Improves soil microbial health and promotes sustainable farming.
- Successfully commercialised through Agrinnovate India Ltd.



Left side: Banana wilt . Right side: Mechanisms by which FUSICONT fights the disease. (BCA- Biological Control Agents.)

FAST X-RAY TRANSIENTS (FXTS)

What is it?

Fast X-ray Transients (FXTs) are a newly discovered class of energetic, non-repeating X-ray flashes associated with some of the most violent events in the universe. They appear as sudden bursts of low-energy X-rays, lasting from a few minutes to several hours, before fading rapidly.

Why are FXTs important?

- They provide insights into extreme astrophysical phenomena such as stellar explosions and neutron star mergers.
- Their short duration has made them difficult to study, leaving their origin uncertain until recent observations.
- Understanding FXTs helps improve our

knowledge of gamma-ray bursts (GRBs) and the life cycle of massive stars.

Possible Origins

Astronomers have proposed several mechanisms for FXTs:

Core-collapse supernovae (shock breakout during the explosion of a massive star).

Merger of two neutron stars, producing a highly magnetized rapidly spinning neutron star (magnetar).

Tidal disruption events, where a white dwarf is torn apart by an intermediate-mass black hole.

Some FXTs are linked to long-duration gamma-ray bursts (GRBs), while others may be “orphan afterglows”—GRB afterglows observed without detecting the initial gamma rays.

It produced a relativistic jet with enormous kinetic energy comparable to the total energy emitted by all the stars in the Milky Way over several months (if emitted equally in all directions).

Researchers concluded it is an “orphan afterglow”, meaning a gamma-ray-burst-like explosion without a directly detected gamma-ray signal.

India's Contribution

Indian facilities played a major role in the observations:

Indian Astronomical Observatory

Himalayan Chandra Telescope

GROWTH India Telescope

Upgraded Giant Metrewave Radio Telescope

Recent Discovery (EP241107a)

A Fast X-ray Transient named EP241107a, detected by China's Einstein Probe mission in November 2024, was studied by researchers led by the Indian Institute of Astrophysics.

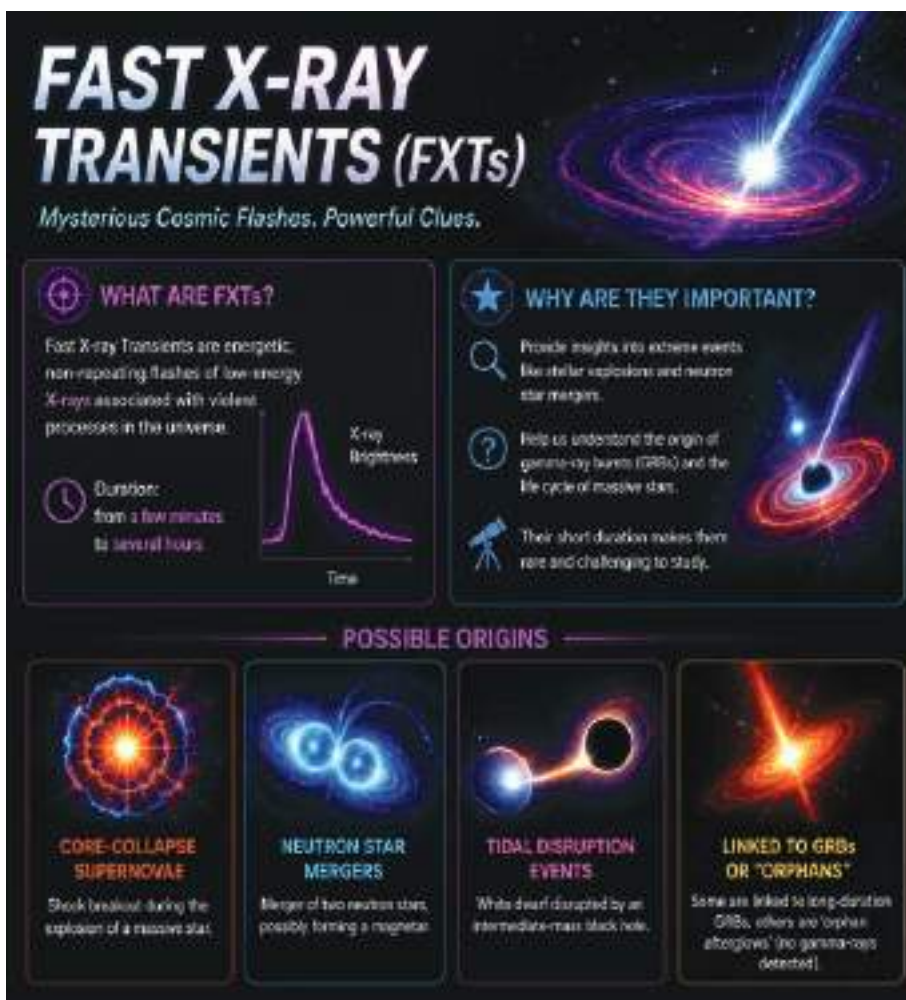
Using multi-wavelength observations (X-ray, optical, and radio), the team discovered its radio counterpart and traced its origin.

Key Findings

EP241107a most likely originated from:

the collapse of a massive star, or

the merger of two neutron stars.





SECURITY

What's Inside?

1. RUDRAM II MISSILE
2. BRAHMOS MISSILE DEAL WITH VIETNAM
3. SIPRI YEARBOOK REPORT ON INDIA
4. FIRST MADE-IN-INDIA C-295 CARRIES OUT MAIDEN TEST FLIGHT
5. NETRA: INDIA AIRBORNE SURVEILLANCE PLATFORM TO IAF
6. PROJECT BRAHMANK
7. NAXAL FREE INDIA

RUDRAM II MISSILE

Why in news?

Recently, DRDO and the Indian Air Force successfully conducted flight-tests of the indigenous RudraM-II air-to-surface missile from an IAF's Su-30MKI fighter aircraft.

About RudraM missile:

- It is a series of indigenous air-to-surface anti-radiation missiles developed to meet the Indian Air Force's requirement for enhancing its Suppression of Enemy Air Defence (SEAD) capability.
- Anti-radiation missiles are designed to target enemy radar, communication systems and other radio-frequency sources that form part of hostile air-defence networks.
- Three variants of the RudraM missile, RudraM-I, RudraM-II and RudraM-III, have been developed, with comprehensive testing of the first and second variants carried out earlier.

- Purpose:** In SEAD operations, such missiles are used especially during the initial phase of an air conflict to strike enemy air-defence assets from stand-off ranges, improving the survivability of friendly aircraft in follow-on missions.

Development: RudraM-II has been indigenously developed by DRDO, with Research Centre Imarat (RCI), Hyderabad as the nodal laboratory, in collaboration with several other DRDO establishments.



BRAHMOS MISSILE DEAL WITH VIETNAM

Why in news?

Recently, the Defence Secretary said at the Shangri-La Dialogue in Singapore that India has signed a BrahMos missile deal with Vietnam.

About BrahMos missile:

It is a supersonic cruise missile jointly developed by India and Russia, integrating Indian guidance and control systems with Russian propulsion technology for high performance and reliability. Its name is derived from the Brahmaputra and Moskva rivers.

Type & Versatility: It is land, air, sea, and submarine-launched, with multiple versions featuring extended ranges and evolving onboard sensing capabilities, making it versatile across operational domains.

Speed: The missile travels at supersonic speeds of around Mach 2.8–3, enabling rapid engagement of targets.

Historical Milestones: BrahMos was inducted into the Navy in 2005, the Indian Army in 2007, and first successfully launched from an IAF Sukhoi-30 MKI fighter in 2017.

SIPRI YEARBOOK REPORT ON INDIA

Why in news?

The SIPRI Yearbook 2026, highlights that India

has expanded its nuclear arsenal and, in a significant strategic shift, has placed a portion

of its nuclear warheads in an operationally “deployed” state for the first time.

Key Highlights of the SIPRI Yearbook 2026:

- **Fifth-Largest Military Spender:** India was the world’s 5-largest military spender in 2025, after the US, China, Russia, and Germany. Its defence expenditure increased by 8.9% from 2024, reaching USD 92.1 billion.
- **Major Arms Importer:** India was the second-largest importer of major arms globally during 2021–25, after Ukraine, accounting for 8.2% of global arms

imports.

- **Nuclear Arsenal:** As of January 2026, India’s nuclear arsenal was estimated at 190 warheads (12 deployed and 178 in reserve/storage), compared to China’s 620 warheads and Pakistan’s 170 warheads.
- **Cyber Warfare Integration:** The report noted the May 2025 India-Pakistan military confrontation (“Operation Sindoor”), highlighting that both nations integrated cyber operations into active military conflict for the first time, underscoring the evolving nature of deterrence in South Asia.

FIRST MADE-IN-INDIA C-295 CARRIES OUT MAIDEN TEST FLIGHT

Why in news?

Recently, The first ‘Made in India’ Airbus C-295 military transport aircraft successfully completes its maiden test flight, in Vadodara, Gujarat.

About C-295:

- The C-295 is a twin-engine turboprop tactical transport aircraft designed for medium-range operations, enhancing

the Indian Air Force’s (IAF) capabilities.

- It is a new-generation medium tactical military transport aircraft.
- A reliable and highly versatile tactical transport that is tailored for missions that range from carrying troops and cargo, maritime patrol, airborne warning, surveillance and reconnaissance to signals intelligence, armed close air support, medical evacuation, Air-to-Air refueling.

NETRA: INDIA AIRBORNE SURVEILLANCE PLATFORM TO IAF

Why in news?

India’s indigenous Netra Airborne Early Warning and Control (AEW&C) system has received Final Operational Clearance (FOC), marking its readiness for full operational use by the Indian Air Force (IAF).

About Netra:

Netra is India’s 1st indigenously developed airborne surveillance and battle-management system, developed by the Centre for Airborne Systems (CABS) under the Defence Research

and Development Organisation (DRDO).

Netra is equipped with an Active Electronically Scanned Array (AESA) radar, Identification Friend or Foe (IFF) system, mission computer, secure communication networks, Electronic Support Measures (ESM), Communication Support Measures (CSM) and self-protection systems.

India is the 5th country, after the United States, Russia, Israel and China, to develop an indigenous AEW&C capability, strengthening its defence technology base and self-reliance.

Operational Importance: AEW&C systems act as force multipliers in modern warfare by providing early warning, real-time battlefield

awareness and airborne command-and-control support for fighter aircraft and air-defence assets.

PROJECT BRAHMANK

Why in news?

Project BRAHMANK of the Border Roads Organisation celebrated its 16th Raising Day on 29th June 2026 at Ranaghat, Arunachal Pradesh. Its area of responsibility was carved out from Project Arunank and Project Udayak.

About Project BRAHMANK:

It is responsible for developing and maintaining strategic road infrastructure across Siang, East Siang, West Siang, Upper Siang and Shi-Yomi districts of Arunachal Pradesh, along with parts of Dhemaji district in Assam.

Project BRAHMANK is responsible for 811 km of roads and around 86 bridges, ranging from culverts to major steel and arch bridges.

Its key engineering achievements include the 100-metre steel arch bridge over Siyom Nallah and the 165-metre PSC bridge over Simang Nallah on the Along-Yingkiong Road.

The project has not only enhanced operational connectivity for the Armed Forces but has also integrated remote and inaccessible villages with the national mainstream, improving civilian connectivity and socio-economic development.

About Border Roads Organisation (BRO):

- The BRO is widely recognised as India's

leading infrastructure agency in high-altitude, snow-bound and extremely difficult terrains, where conventional engineering agencies cannot operate.

- Established on 7th May 1960 with Project Vartak in the East and Project Beacon in the North, BRO today operates 18 field projects across 11 States and 3 Union Territories.
- It develops and maintains strategic border infrastructure for all-weather connectivity and defence preparedness, while also acting as a first responder in disasters.
- It functions as an executive force under the Ministry of Defence and operates under the Border Roads Development Board (BRDB).
- BRO has created key assets such as Atal, Sela and Shinkun La tunnels, Siyom, Sisseri and Devak bridges, roads under Projects Vijayak and Swastik and upgraded Bagdogra and Barrackpore airfields, ensuring all-weather strategic connectivity.
- Overseas projects including Project DANTAK (Bhutan), the India–Myanmar Friendship Road, the Delaram–Zaranj Highway (Afghanistan) and infrastructure works in Tajikistan reinforce India's regional connectivity and strategic partnerships.

NAXAL FREE INDIA

Why in news?

Recent PIB article highlighted that after nearly six decades of violence, the country became effectively free from Left-Wing Extremism. This achievement marks the culmination of twelve years of sustained efforts by the

Government. The transformation was guided by the pillars of Vishwaas, Nirman, and Jan Kalyan.

New Era of Peace and Security

For nearly six decades, India grappled with

Left-Wing Extremism (LWE). It was not a distant or abstract challenge, but a lived reality for millions of tribal families, villages cut off from roads, schools, and the broader promise of inclusive development. Violence was persistent, and uncertainty defined everyday life.

On 31 March 2026, this changed, marking a historic milestone in India's internal security journey as the country became effectively free from Naxalism. When the current government assumed office in May 2014, the Red Corridor remained one of the most serious internal security challenges. Earlier approaches were largely fragmented and incident-driven, managing symptoms rather than addressing the structural roots of the problem. A more comprehensive and integrated strategy



was subsequently pursued to resolve it.



HISTORY



ART & CULTURE

What's Inside?

1. GALLANTARY AWARDS
2. BIRSA MUNDA ANNIVERSARY
3. DISCOVERY OF PETROGLYPHS IN THE BHONDSI STRETCH OF THE
4. ARAVALLI FORESTS
5. THEME OF 12TH INTERNATIONAL YOGA DAY
6. RAKHIGARHI HUMAN SKELETAL
7. REMAINS
8. REPARTRATION OF ANTIQUITIES:

GALLANTARY AWARDS

Why in news?

Recognizing outstanding courage and sacrifice, the President of India honored 51 personnel from the Armed Forces, Central Armed Police Forces (CAPFs), and Police forces at Rashtrapati Bhavan during Phase-I of the Defence Investiture Ceremony 2026. The prestigious awards conferred included 7 Kirti Chakras, 15 Vir Chakras, and 29 Shaurya Chakras.

About Gallantry Awards:

Gallantry Awards are among India's highest honours, conferred on military personnel and civilians for displaying exceptional bravery, courage, and self-sacrifice in the service of the nation.

Wartime Gallantry Awards:

Recognize acts of valour performed in the presence of the enemy.

The Param Vir Chakra is India's highest military decoration, followed by the Maha Vir Chakra and the Vir Chakra, awarded for varying degrees of conspicuous gallantry during military operations.

The Param Vir Chakra, Maha Vir Chakra, and Vir Chakra were the first Gallantry Awards instituted by independent India.

Peacetime Gallantry Awards:

Conferred for acts of bravery, valour, or self-sacrifice other than in the face of the enemy, including counter-insurgency operations,

rescue missions, disaster response, and internal security duties.

The Ashoka Chakra is the highest peacetime gallantry award, followed by the Kirti Chakra and the Shaurya Chakra.

Originally instituted in 1952, with retroactive effect from 15th August 1947, India's peacetime gallantry awards were initially designated as the Ashoka Chakra Class-I, Class-II, and Class-III.

In 1967, these decorations were officially renamed the Ashoka Chakra, Kirti Chakra, and Shaurya Chakra, respectively.

Eligibility:

Param Vir Chakra, the Maha Vir Chakra and the Vir Chakra: All ranks of the Naval, Military, Air, Reserve, and Territorial Forces, including medical and nursing staff, and civilians serving under their direction.

Ashoka Chakra, Kirti Chakra & Shaurya Chakra: All ranks of the Armed Forces, Reserve and Territorial Forces, Nursing Services, Police, Central Para-Military Forces, Railway Protection Force, and civilian citizens.

Order of Precedence:

The order of precedence among Gallantry Awards is: Param Vir Chakra, Ashoka Chakra, Maha Vir Chakra, Kirti Chakra, Vir Chakra, and Shaurya Chakra, reflecting their relative rank and prestige.



BIRSA MUNDA ANNIVERSARY

Why in news?

Recently, the Prime Minister paid tribute to Bhagwan Birsa Munda to commemorate his Martyr's Day.

Birsa Munda was a tribal freedom fighter, socio-religious reformer and folk hero from the Munda tribe of the Chotanagpur region, born on 15th November 1875 in present-day Jharkhand.

Anti-Colonial Mobilisation: He mobilised tribal communities against British colonial rule, landlord exploitation, moneylenders, missionary influence, forced labour and land alienation.

Historical Background: His movement was influenced by the earlier Sardari Larai or Sardar Movement, which had shaped the political climate against land alienation in Chotanagpur.

Land Rights Assertion: Birsa Munda opposed the destruction of the traditional Khuntkatti system, under which tribal communities enjoyed collective customary rights over land.

Political Slogan: He gave the famous slogan "Abua Raj Ete Jana, Maharani Raj Tundu Jana",

meaning "Let our rule be established and the Queen's rule end."

Religious Reform: His teachings led to the rise of a distinct faith community known as the Birsait community, which emphasised social reform, moral discipline and tribal identity.

Ulgulan Movement: He led the Ulgulan Movement, or the "Great Tumult," at the turn of the twentieth century to end British rule, restore tribal self-rule, protect tribal land rights and resist exploitation by outsiders known as dikus.

Death: Birsa Munda was arrested by the British and died in Ranchi Jail on 9th June 1900, with the official cause of death recorded as cholera.

Legal Impact: His struggle later influenced tribal land protection measures, especially the Chotanagpur Tenancy Act, 1908, which restricted the transfer of tribal land to non-tribals.

Recognition: His birth anniversary is observed as Janjatiya Gaurav Divas to honour the contribution of tribal communities in India's history.

DISCOVERY OF PETROGLYPHS IN THE BHONDSI STRETCH OF THE ARAVALLI FORESTS

Why in news?

Ancient petroglyphs have recently been discovered along the Aravalli Mountain range.

Significance of the Discovery

- The petroglyphs suggest continuity in human activity and cultural development from the Lower Palaeolithic to the Mesolithic periods.
- The presence of handaxes and cleavers points to early stone-tool traditions, while other tools suggest later Middle Palaeolithic activity.
- Cup-shaped depressions and rock-art-like markings are likely from later symbolic

or ritual phases, particularly during the Mesolithic period.

Research and Documentation

- The site has been documented by the Archaeological Survey of India (ASI) and the Haryana Archaeology Department.
- Further research is needed to explore the full potential of the site, as indicated by ASI officials.

Community Involvement and Preservation Efforts

Local villagers have collaborated in documenting the petroglyphs and stone tools found in the area.

There is a strong emphasis on protecting the site from land encroachment and environmental damage.

LiDAR scanning techniques are being used to create detailed digital records of the petroglyphs to preserve them.

Future Plans and Accessibility

- The documented materials are expected to be made available via the Vanyaravali Foundation, a heritage NGO, to ensure public accessibility.

- Broader surveys have recorded similar petroglyphic markers across the Aravalli landscape, highlighting the region's rich prehistoric heritage.

This discovery highlights the Aravalli range's significance in understanding prehistoric human life and the continuity of cultural practices in the region. The ongoing research and preservation efforts are crucial for maintaining this valuable historical and cultural resource.

THEME OF 12TH INTERNATIONAL YOGA DAY

Why in news?

Over 6 lakh organizations have signed up on the Ministry of Ayush's Yoga Sangam Portal, to practice yoga simultaneously with the Prime Minister of India on June 21, 2026.

Key Highlights of IDY 2026

Focus: Promotes lifelong physical vitality, mental resilience, and holistic wellness.

Global Alignment: Supports the WHO Decade of Healthy Ageing (2021–2030).

Key Goals: Enhances quality of life, reduces fall risks, protects independence for older adults, and drives person-centered health approaches.

Yoga Sangam Initiative: This is a flagship initiative aiming to connect institutions and communities nationwide through synchronized yoga sessions based on the Common Yoga Protocol (CYP). Instead of a single-location celebration, organizations can conduct sessions at their own venues while remaining part of a collective national movement.

International Day of Yoga

UNGA Declaration: In 2014, the UN General Assembly adopted an India-led resolution under the "Global Health and Foreign Policy" agenda to declare 21st June as the International Day of Yoga.

Significance of 21st June: Chosen because it is the Summer Solstice, the longest day in the Northern Hemisphere, which marks an event

considered to be the start of Yogic science in Indian mythology.

Holistic Health Benefits: The UN recognized Yoga for its ability to build resilience against non-communicable diseases and help people find relief from stress, particularly in modern lifestyles.

Logo Symbolism: The IDY logo features folded hands representing the union of consciousness, alongside elements symbolizing Earth (brown leaves), Nature (green leaves), Water (blue), Fire (brightness), and the Sun (source of energy), reflecting perfect harmony between man and nature.

Nodal Ministry: The Ministry of Ayush is the nodal agency for coordinating IDY celebrations and related initiatives in India.



RAKHIGARHI HUMAN SKELETAL REMAINS

Why in news?

Human skeletal remains from Rakhigarhi, have been formally handed over by the Archaeological Survey of India to the Anthropological Survey of India for detailed scientific study.

About Rakhigarhi Site:

Rakhigarhi, spread across about 550 hectares, is considered one of the largest known settlements of the Harappan Civilisation, also referred to as the Indus Valley Civilisation or Indus-Saraswati Civilisation.

A seal with an alligator symbol was discovered, with five Harappan letters on one side and a symbol on the other.

The site also yielded various antiquities, such as blades, shell bracelets, stone beads, animal figurines, and copper artefacts.

The redware ceramics collection included dishes-on-stands, vases, jars, bowls, beakers,

perforated jars, goblets, and handles.

Mound Number 7 at Rakhigarhi has been identified as a major burial area, from where 56 human skeletons were recovered, including the remains of a woman dated to around 4,600 years ago.

Significance:

Deoxyribonucleic Acid analysis of the Rakhigarhi woman indicated the absence of the Steppe Pastoralist genetic component, contributing to debates on Aryan or Indo-Aryan migration into India.

The study is expected to provide insights into ancestry, migration patterns, diet, disease, health, social status, adaptation strategies, and human-environment relations during the Harappan period, especially as the Harappan script remains undeciphered.

REPARTRATION OF ANTIQUITIES:

Why in news?

Union Minister of Culture and Tourism Shri Gajendra Singh Shekhawat informed that since 2014, India has successfully repatriated 666 antiquities from various countries, including 653 since 2014 alone, through sustained diplomatic, legal and institutional efforts led by the Ministry of Culture, ASI, Indian Missions abroad and enforcement agencies.

Repatriation of Sacred Relics and Antiquities:

India has intensified efforts in the last 12 years to recover stolen and trafficked sacred relics and antiquities taken abroad during colonial rule and through illegal trafficking networks.

The Piprahwa relics of Lord Buddha were returned in 2025 after 127 years, and the Goddess Annapurna idol was repatriated from

Canada in 2021 after 108 years, marking major cultural recoveries.

Sacred idols of Rama, Sita, and Lakshmana were returned from the UK in 2020, along with artefacts from countries such as the USA, UK, Australia, Germany, Singapore, and Canada.

Global Exposition of Sacred Relics: India has expanded the global exposition of Buddha relics to strengthen cultural diplomacy and civilisational ties.

In Vietnam (2025), the exposition attracted over 15 million devotees, while in Kalmykia (Russia) it drew over 90,000 visitors.

Expositions were also held in Bhutan (2025) during the Global Peace Prayer Festival and in Sri Lanka (2026) at Gangaramaya Temple, alongside domestic displays in Delhi and Ladakh (2026).

Recovered artefacts are being handed over, loaned or allotted to institutions such as the Indira Gandhi National Centre for the Arts (IGNCA), National Museum and Indian Institute of Heritage for preservation, research and public display.

National Mission on Monuments and Antiquities (NMMA):

The NMMA implemented under ASI, supports heritage conservation by creating a reliable national database and inventory of India's monuments, built heritage, sites and antiquities.

As of March 2026, NMMA has documented 1.84 lakh monuments, including built heritage sites, and 17.20 lakh antiquities across India.