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FOR UPSC EXAM

**COMPREHENSIVE | ANALYTICAL
EXAM-FOCUSED**

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POLITY & CONSTITUTION

1. Constitutional and Legal Provisions of Preventive Detention: A Critical Analysis

• Definition & Constitutional Basis:

- **Preventive Detention** is the detainment of a person without trial based on the suspicion that they are likely to commit a future criminal act or to prevent them from doing something prejudicial to the state/public. It is a power exercised on the basis of '**subjective satisfaction**' of the executive authority.
- **Constitutional Basis: Article 22 (Clauses 3–7)** constitutionalizes preventive detention, empowering both the Parliament and State Legislatures to enact such laws (Union List Entry 9 and Concurrent List Entry 3). It lays down minimal safeguards for the detenus.

• Fundamental Rights Conflict: The Bermuda Triangle & Golden Triangle:

- **The Bermuda Triangle:** Article 22(3)–(7) is termed the "Bermuda Triangle," as rights like **liberty (Article 21)**, **equality (Article 14)**, and **due process** allegedly "vanish without a trace" when a person is detained under preventive detention.
- **The Golden Triangle:** Historically, judicial interpretation has often isolated Article 22 from the "Golden Triangle" of Fundamental Rights: **Article 14 (Equality)**, **Article 19 (Freedoms)**, and the enriched **Article 21 (Right to Life and Liberty with due process)**, thus reducing judicial scrutiny.

• Judicial Pronouncements and Distinction:

- **Key Rulings:** Cases like *Dhanya M. vs State of Kerala (2025)*, *S.K. Nazneen vs State of Telangana (2023)*, and *Banka Sneha Sheela vs State of Telangana (2021)* emphasize that the power is **extraordinary** and must be exercised **sparingly**.



- **Crucial Distinction:** The Supreme Court has repeatedly stressed the vital distinction between:
 - **'Law and Order'** (Mere violation of law/disturbance of tranquility, manageable by ordinary police/criminal procedure).
 - **'Public Order'** (Threat to the community, affecting public life, justifying detention). Preventive detention cannot be used for 'law and order' issues or as a substitute for criminal prosecution or to circumvent bail orders.

• Constitutional Precedents and Judicial Retreat:

- **Historical Lineage:** The practice is a colonial relic (e.g., Bengal Regulations of 1818).
- *A.K. Gopalan vs State of Madras (1950)*: The SC initially upheld the detention, ruling that preventive detention could only be tested on the basis of Article 22, isolating it from Articles 19 and 21.



- ****Post-*Maneka Gandhi (1978)* Scenario:** Although *Maneka Gandhi* established that "procedure established by law" must be **fair, just, and reasonable (Due Process)**, subsequent rulings like *A.K. Roy vs Union of India (1982)* often reverted to pre-*Maneka* reasoning, refusing to subject detention laws to the enriched interpretation of Article 21 or the doctrine of proportionality.
- **Procedural Safeguards (Article 22):** The constitutional safeguards are minimal:
 - The detention cannot exceed **three months** unless an **Advisory Board** confirms sufficient cause.
 - The detaining authority must communicate the **grounds of detention** to the detenu.
 - The detenu must be afforded the **earliest opportunity to make a representation** against the order.
 - However, Parliament is empowered to bypass the Advisory Board review by merely invoking 'special circumstances' or 'classes of persons' (Article 22(7)).
- **The 'Pre-Crime' Framework and Executive Overreach:** Preventive detention is akin to a '**pre-crime**' framework, arresting individuals based on predicted (but uncommitted) actions, thus undermining principles like the **presumption of innocence** and *audi alteram partem* (right to be heard). The broad definitions in state laws (like KAAPA's 'goonda' or 'rowdy') lead to **executive overreach**, making the power a routine administrative tool rather than an exceptional measure.

Conclusion and UPSC Relevance

The legal regime of preventive detention in India represents a fundamental tension between **State security/order** and **individual liberty**. While its necessity in confronting grave threats (terrorism, transnational cartels) is acknowledged, its colonial origin and judicial history of insulating it from the 'Golden Triangle' of fundamental rights (Articles 14, 19, 21) highlight a "**constitutional abyss.**" Recent Supreme Court judgments offer a "**faint glimmer of light**" by demanding strict adherence to constitutional safeguards and distinction between 'law and order' and 'public order,' signaling an urgent need for the **reform of the regime** to prevent its misuse as a routine tool for executive convenience.

2. Can a Joint Parliamentary Committee Function Without the Opposition? – Constitutional and Political Implications

1. Background of the Issue

- The controversy surrounds the **Joint Committee of Parliament (JCP)** set up to examine three key Bills introduced in August 2025 —
 - **The Constitution (130th Amendment) Bill, 2025**
 - **The Government of Union Territories (Amendment) Bill, 2025**
 - **The Jammu and Kashmir Reorganisation (Amendment) Bill, 2025**
- These Bills propose **automatic dismissal of any minister (Union or State)**, including the Prime Minister or Chief Ministers, if detained for **30 consecutive days** on charges carrying a minimum **five-year imprisonment**.
- The **Opposition parties** have **not nominated members** to the JCP, raising a constitutional and procedural debate over whether a **Joint Committee can exist without Opposition representation**.



2. Current Developments and Government's Options

- Despite **multiple reminders** from the Lok Sabha Secretariat, the Opposition has not clarified whether they will **join or boycott** the JCP.
- The government is considering forming a **committee with members from the NDA, smaller parties, and Independents**.
- **Speaker Om Birla** has not yet nominated members, as doing so without proportional representation of Opposition parties may **breach parliamentary convention**.
- The **Opposition's division** within the INDIA bloc complicates the matter — while **Congress and Left** are open to joining, parties like the **TMC and SP** have termed the committee a “farce” and refused participation.

3. Constitutional and Legal Provisions Involved

- **Article 118(1)**: Empowers Parliament to make rules for its own procedure, including the creation of committees.
- **Rules 125–331C of the Lok Sabha Rules of Procedure**: Govern formation, composition, and functioning of **Parliamentary Committees**, including Joint Committees.
- **Composition Principle**: Representation on such committees is based on **proportional strength of political parties** in both Houses, ensuring **non-partisan scrutiny**.
- **Convention and Precedent**:
 - No **Joint Committee of Parliament** has ever functioned **without Opposition members**.
 - A committee constituted solely with ruling party MPs would not qualify as a **parliamentary committee**, but rather as a **party-led advisory body**.

4. Expert Opinions and Institutional Concerns

- Former Lok Sabha Secretary-General **P.D.T. Achary** emphasized that forming a committee without Opposition would be “**unprecedented and unconstitutional in spirit**”, undermining **legislative credibility**.
- He suggested the **Speaker convene an all-party meeting** to achieve consensus and avoid “a procedural vacuum.”
- Legal experts argue that **bypassing Opposition participation** violates the **principle of parliamentary oversight and accountability**, which are central to **Article 75's collective responsibility** framework.
- A one-sided committee would also risk **judicial scrutiny**, as it contradicts **parliamentary conventions** and the **basic structure principle of democracy**.

5. Political and Democratic Implications

- The move exposes **deepening legislative polarization** and weakening of **parliamentary deliberation norms**.
- If the JCP proceeds without Opposition, its recommendations may **lack legitimacy and bipartisan trust**.
- The issue also reflects tensions between **executive dominance and parliamentary scrutiny**, key features of **India's semi-parliamentary democracy**.



- The Bills themselves raise important debates on **ministerial accountability, criminal jurisprudence**, and the **principle of presumption of innocence**, making inclusive discussion essential.

6. Definition of Key Term

- **Joint Committee of Parliament (JCP):**

A **bicameral committee** constituted with members from both the Lok Sabha and Rajya Sabha to examine and report on a particular Bill or issue of national importance. It functions to ensure **detailed, cross-party scrutiny** of proposed legislation.

Conclusion

The ongoing impasse over the Joint Committee reflects a **constitutional dilemma between procedure and politics**. While the Speaker has the authority to constitute committees, **exclusion of the Opposition undermines democratic consultation and checks on executive power**. To uphold **parliamentary integrity and legislative legitimacy**, consensus-based representation across political lines is vital. The outcome will test the resilience of **India's parliamentary conventions and institutional neutrality**.

3. Kerala Passes 'Right to Public Service Bill' – Ensuring Time-Bound, Accountable Governance

1. Key Features of the Kerala Right to Public Service Bill, 2025

- The **Kerala Legislative Assembly** has passed the **Kerala Right to Public Service Bill**, which mandates **time-bound delivery of government services** and penalizes officials responsible for undue delays.
- Every **government office** must publicly display:
 - The **list of services** provided.
 - The **maximum number of days** for delivery.
 - The **designated officer** responsible for the service.
 - The **appellate authority** for grievance redressal.
- The law seeks to institutionalize **transparency, accountability, and citizen-centric governance**, aligning with the principles of **good governance** under the Indian Constitution.



2. Provisions for Accountability and Penalty

- The Bill empowers the state to **levy fines on officials** who fail to deliver services within the prescribed time frame without valid justification.
- A **Right to Public Service Commission** will be established with powers to:
 - Take **suo motu cognizance** of delays or lapses.
 - **Recommend disciplinary or financial action** against erring officers.
- The Commission will be chaired by a **retired bureaucrat** of at least **Additional Secretary rank**, ensuring administrative expertise and neutrality.

3. Citizen-Centric Governance Measures

- Citizens will receive **acknowledgment receipts** for all applications (including online submissions).
- If a service request is **rejected**, the **reason must be communicated in writing** to the applicant.



- The Bill directs officials to **procure required documents internally** through inter-departmental coordination, minimizing the burden on citizens.
- These provisions collectively aim to reduce **bureaucratic red tape**, encourage **digital governance**, and promote **efficient public service delivery**.

4. Constitutional and Legal Framework

- **Constitutional Backing:**
 - **Article 14:** Guarantees equality before law, implying equal access to public services.
 - **Article 21:** Protects the right to life and dignity, encompassing **timely and efficient service delivery**.
 - **Article 38 & 39 (Directive Principles):** Mandate the State to ensure **justice, transparency, and public welfare**.
- **Comparable Legislations:**
 - **Madhya Pradesh (2010)** was the first state to enact a **Public Service Guarantee Act**, followed by **Bihar, Delhi, and Karnataka**, which inspired similar legislation.
 - At the Union level, the **Right to Service Bill (2011)** was proposed but not enacted nationally.
- **Legal Significance:** The Bill enhances **administrative accountability**, operationalizing the concept of **Right to Public Services** as part of **citizens' charter mechanisms** under the **Second Administrative Reforms Commission (ARC)** recommendations.

5. Governance and Administrative Implications

- The law marks a shift from **rule-based to performance-based administration**, ensuring that **officials are answerable for delays**.
- It institutionalizes **service standards**, enabling citizens to monitor and demand delivery of essential public services.
- By empowering citizens with grievance redressal mechanisms, it strengthens **participatory and responsive governance**.
- The **Commission's quasi-judicial powers** ensure independence in investigating complaints and recommending penalties, enhancing administrative discipline.

6. Definition of Key Term

- **Right to Public Service:** A **statutory right** ensuring citizens receive public services from government offices within a **stipulated time period**, failing which responsible officials face **penalties or disciplinary action**. It operationalizes the concept of **administrative accountability** within the public sector.

Conclusion

The **Kerala Right to Public Service Bill, 2025** represents a landmark in **citizen empowerment and administrative reform**, institutionalizing **timeliness, transparency, and accountability** in governance. It strengthens the social contract between citizens and the State, aligning with the broader vision of **Good Governance, Digital India, and Minimum Government – Maximum Governance**. Successful implementation will depend on **inter-departmental coordination, grievance tracking, and capacity building** among public officials.



4. Judicial Officers with Seven Years' Bar Experience Eligible for District Judge Posts: Supreme Court Ruling

1. Background and Core Judgment

- A **Constitution Bench of the Supreme Court**, led by **Chief Justice of India B.R. Gavai**, ruled that **judicial officers with seven years of experience as advocates before joining the judicial service** are eligible for appointment as **District Judges or Additional District Judges**.
- Earlier, **only practising advocates** with at least **seven years of continuous experience at the Bar** were eligible for **direct recruitment** to these posts under **Article 233(2)** of the Constitution.
- The Court's decision seeks to **infuse young and meritorious talent** into the **district judiciary**, which serves as the foundation of India's judicial system.

2. Key Highlights of the Supreme Court's Observations

- The Bench held that **"a lawyer does not cease to be one"** upon joining judicial service, and hence, prior experience at the Bar should count toward eligibility for promotion or appointment.
- It clarified that **Article 233(2)** does not prohibit judicial officers with prior advocacy experience from being considered for the post of District Judge.
- The Court further directed that the **minimum age** for consideration and appointment as **District or Additional District Judge** (for both advocates and judicial officers) should be **35 years** as of the date of application.
- This interpretation is aimed at addressing the **vacancy crisis** and enhancing the **quality of judicial leadership** in the district courts, which are often plagued by **case pendency and shortage of experienced judges**.

3. Constitutional and Legal Provisions Involved

- **Article 233 of the Constitution of India:**
 - **Clause (1):** Empowers the Governor of a State to appoint District Judges in consultation with the State's High Court.
 - **Clause (2):** States that a person **not already in the service of the Union or the State** shall be eligible for appointment as a District Judge **if they have been an advocate or pleader for at least seven years** and are recommended by the High Court.
- **Judicial Interpretation:**
 - The Court interpreted Article 233(2) **liberally** to include judicial officers with **combined service experience** (as advocate + judicial officer) of seven years or more.
 - It ensures **parity** between **serving judicial officers** and **members of the Bar**, preventing discrimination based on career transitions.
- **Significance of District Judges:**
 - District Judges form the **highest tier in the subordinate judiciary** and are eligible for **elevation to the High Court**, making this ruling critical for judicial career progression.

4. Rationale and Broader Impact of the Judgment

- The Supreme Court observed that excluding in-service judicial officers who had prior advocacy experience was **counterproductive** and led to a **demotivated lower judiciary**.



- Allowing such officers to be considered promotes **merit-based advancement**, encourages **professional mobility**, and **strengthens institutional capacity** at the district level.
- The ruling is expected to **expedite the appointment process**, reduce **vacancies**, and improve the **efficiency of case disposal** in trial courts.
- It aligns with the **principles of equality and fairness under Article 14**, preventing arbitrary exclusion of experienced officers.

5. Definition of Key Terms

- **District Judge:** The head of the district judiciary who exercises both original and appellate jurisdiction in civil and criminal matters and also supervises the functioning of subordinate courts.
- **Judicial Service:** Refers to the subordinate judiciary including Civil Judges (Junior/ Senior Division), Magistrates, and other officers governed by State Judicial Service Rules.
- **Advocate:** A person enrolled under the **Advocates Act, 1961**, authorized to practice law before courts and tribunals in India.
- **Article 233(2):** A constitutional provision governing eligibility criteria for appointment to the position of District Judge.

6. Significance for Judicial Reforms and Governance

- This judgment reflects the Court's intent to **modernize judicial appointments** by recognizing **hybrid professional experience**.
- It addresses a long-standing anomaly and may **encourage high-performing lawyers** to enter judicial service earlier, knowing their prior experience will count.
- It also complements ongoing efforts to **reduce pendency**, enhance **judicial efficiency**, and ensure a **competent and motivated district judiciary**, which handles over **70% of India's total case load**.

Conclusion

The Supreme Court's ruling on **eligibility for District Judge appointments** represents a major step toward **judicial modernization and equitable career progression**. By recognizing prior Bar experience of judicial officers, the Court has upheld the **principles of fairness, inclusivity, and institutional competence** within the judiciary. The decision not only promotes **judicial efficiency** but also strengthens the **pipeline for High Court appointments**, thereby enhancing the overall health of the judicial ecosystem.

5. Telangana's 42% OBC Quota in Local Bodies: A Constitutional and Legal Debate

1. Background and Current Development

- The **Telangana government** has approached the **Supreme Court of India** challenging the **High Court's stay** on its decision to enhance **Other Backward Classes (OBC) reservation to 42%** in **urban and rural local bodies**. This increase was enacted through the **Telangana Backward Classes (Reservation of Seats in Rural and Urban Local Bodies) Bill, 2025**, which was **unanimously passed** by both Houses of the State Legislature. The move comes ahead of local body elections scheduled for **October 23 and 27**. The enhanced OBC quota, combined with **15% for Scheduled Castes (SCs)** and **10% for Scheduled Tribes (STs)**, raises the **total reservation to 67%**, crossing the **50% ceiling** prescribed by the Supreme Court.

2. Constitutional and Legal Framework on Reservation

- **Articles 15(4) and 16(4):** Empower the State to make special provisions for the advancement of socially and educationally backward classes or for SCs and STs in public employment and education.



- **Article 243D and 243T:** Provide for reservation of seats in **Panchayats and Municipalities** for SCs, STs, and **Backward Classes** in proportion to their population.
- **Article 46 (Directive Principle):** Directs the State to promote the educational and economic interests of weaker sections, including OBCs.
- **Supreme Court Judgments:**
 - *Indra Sawhney v. Union of India (1992)* (Mandal Commission case) — capped total reservation at **50%**, calling it a “reasonable limit” unless exceptional circumstances exist.
 - *K. Krishna Murthy v. Union of India (2010)* — upheld reservation for OBCs in **local bodies**, but required **empirical data** to justify it.
 - *Jaishri Laxmanrao Patil v. State of Maharashtra (2021)* — reaffirmed the **50% ceiling** and struck down the **Maratha reservation** law.

3. Telangana Government’s Stand

- The State argues that the **50% ceiling is not an absolute constitutional bar** but a **judicially evolved principle** intended as a general guideline.
- It contends that “**will of the people**” and **socio-economic realities** justify the increase, as OBCs form a **substantial proportion of the population** in Telangana.
- The government cites **exceptional circumstances** warranting deviation from the ceiling, as allowed under *Indra Sawhney (1992)*.
- It maintains that **local self-government representation** is constitutionally distinct from **public employment or education quotas**, and therefore, the 50% limit may not rigidly apply.



4. Judicial and Policy Controversy

- The High Court stayed the government orders, observing that the **reservation exceeded the judicially prescribed ceiling** and that **empirical data** justifying the 42% OBC reservation was insufficient.
- Critics argue that breaching the 50% cap could lead to **reverse discrimination** and **violate the equality principle under Article 14**.
- Supporters claim it ensures **proportional political representation** for marginalized communities, aligning with **grassroots democracy and inclusivity**.
- The Supreme Court’s verdict will likely redefine the **scope of reservation in local governance**, especially post the **2021 Maratha quota judgment**.

5. Broader Constitutional and Social Implications

- The issue brings into focus the **balance between equality and social justice** — two core tenets of the Constitution.
- It tests the **federal dimension of reservation policy**, as States assert their power to address local socio-political dynamics.



- The case could influence **future debates on revising the 50% cap**, given the **diversity and backwardness levels** varying across States.
- It also highlights the **complex intersection of law, politics, and social equity** in India's affirmative action framework.

6. Conclusion

The Telangana government's decision to raise OBC quota to 42% represents a significant assertion of **state autonomy and social justice objectives**. However, it simultaneously challenges the **judicially established equilibrium between affirmative action and equality**. The Supreme Court's forthcoming decision will not only determine the validity of Telangana's move but could also set a **precedent for re-evaluating the 50% ceiling** in the context of evolving **social realities and democratic representation**.

6. Supreme Court Refuses to Lift Telangana HC Stay on 42% OBC Quota in Local Body Polls

1. Background and Context

The Supreme Court of India declined to interfere with the **Telangana High Court's stay** on two Government Orders that sought to increase the **Other Backward Classes (OBC)** reservation in **municipalities and panchayats to 42%**. The Telangana government had appealed against the High Court's interim order dated **October 9**, but the Supreme Court upheld the stay, allowing local body elections to continue under the existing quota structure.

2. Constitutional and Judicial Framework on Reservation Limits

The Supreme Court's decision relied on **Constitution Bench precedents**, particularly the **Indra Sawhney v. Union of India (1992)** judgment, which established a **50% ceiling on total reservations** in public employment and education. This principle was reaffirmed in **K. Krishna Murthy v. Union of India (2010)**, where the Court held that even in **local body elections**, reservations for OBCs must not exceed the 50% limit unless backed by strong empirical data justifying the excess. The Telangana government's attempt to enhance OBC quota to 42% would have breached this ceiling when combined with SC and ST reservations.



3. Key Constitutional Provisions Involved

- **Article 243D & 243T**: Provide for reservation of seats for Scheduled Castes (SCs), Scheduled Tribes (STs), and women in Panchayats and Municipalities.
- **Article 15(4) & 16(4)**: Empower the State to make special provisions for socially and educationally backward classes.
- **Article 340**: Permits the appointment of a commission to investigate conditions of backward classes. However, these provisions are subject to **constitutional limits and judicial interpretations** ensuring equality and non-discrimination under **Article 14**.

4. Supreme Court's Observations

The **Bench of Justices Vikram Nath and Sandeep Mehta** observed that it could not pass any order inconsistent with existing Constitution Bench rulings. The Court clarified that while the **elections may proceed**, they must do so **without the proposed 42% OBC hike**, thus preserving the legal sanctity of the 50% reservation ceiling. The Court also directed that the High Court would continue to hear and decide the matter **on its merits**.

5. Broader Legal and Political Implications

This case underscores the continuing tension between **social justice** and **constitutional limitations**. States



often seek to expand quotas for political and welfare considerations, but the judiciary has consistently upheld the **50% cap** as a safeguard against excessive compartmentalization in governance. The decision also highlights the importance of **empirical data** and **backwardness studies** before increasing quotas, as mandated by the Supreme Court in **K. Krishna Murthy (2010)** and later reaffirmed in **Vikas Kishanrao Gawali v. State of Maharashtra (2021)**.

6. Definition of Key Term

Other Backward Classes (OBCs): Socially and educationally disadvantaged groups identified by the government as requiring affirmative action through reservations in education, employment, and political representation.

Conclusion

The Supreme Court's refusal to lift the stay on the 42% OBC quota in Telangana reaffirms the **constitutional balance between affirmative action and equality**. It reiterates that any deviation from the **50% ceiling** must be justified through rigorous data and legal procedure. The ruling strengthens judicial oversight over state-level reservation policies and reinforces the need for evidence-based policymaking.

ECONOMY

1. Paramparagat Krishi Vikas Yojana (PKVY) – Promoting Organic Farming in India

1. Overview and Objectives

- **PKVY (2015–25)** is part of the **National Mission on Sustainable Agriculture (NMSA)** aimed at promoting **organic and eco-friendly farming**.
- Objectives include:
 - Reduce chemical input dependence
 - Improve **soil health** and **environmental sustainability**
 - Enhance **farmer incomes** through market access
 - Promote **safe and nutritious food production**
- Emphasis on **cluster-based organic farming**, where farmers collectively manage 20-hectare plots to standardize practices and share resources.



2. Implementation Framework

- **Eligibility:** All farmers/institutions, with landholding limit up to **2 hectares**.
- **Process:**
 1. Farmers apply through **Regional Councils**
 2. Annual Action Plan compiled and approved by **Ministry of Agriculture & Farmers Welfare**
 3. Funds released via **Direct Benefit Transfer (DBT)**



- Ensures **transparency, accountability, and timely support** covering inputs, training, certification, and marketing.

3. Financial Support and Incentives

- Farmers receive **₹31,500 per hectare** for three years, distributed as:
 - On-farm/off-farm inputs: ₹15,000
 - Marketing, branding & packaging: ₹4,500
 - Certification & residue analysis: ₹3,000
 - Training & capacity building: ₹9,000
- Encourages adoption of **organic techniques, certification, and market linkages**.

4. Organic Certification Systems

- **Third-Party Certification (NPOP)**: Internationally recognized, facilitates exports.
- **Participatory Guarantee System (PGS-India)**: Community-based, affordable, mainly for domestic market.
- **Large Area Certification (LAC)**: Fast-tracks certification in chemical-free regions (tribal belts, islands), reducing conversion period and improving income.

5. Achievements and Digital Initiatives

- **Land & farmers covered**: ~15 lakh hectares, 52,289 clusters, 25.3 lakh farmers benefited.
- **Jaivik Kheti Portal**: Connects farmers directly with buyers, suppliers, and local groups for efficient market access.
- **State Highlights**:
 - **Sikkim** – 100% organic under LAC
 - **Lakshadweep, Car Nicobar, Nancowry Islands** – Entire cultivable land certified organic
- Integration with **National Mission on Natural Farming (NMNF)** promotes eco-friendly practices nationally.

6. Key Benefits and Broader Impact

- Reduces **input costs**, improves **soil fertility** and **food safety**.
- Strengthens **rural incomes** and entrepreneurship.
- Promotes **climate resilience** and **environmental conservation**.
- Provides **domestic and international market opportunities**, enhancing India's **organic farming credibility**.

Conclusion & UPSC Relevance

- **Conclusion**: PKVY demonstrates how traditional agricultural practices can be scaled using clusters, modern certification systems, and digital platforms. It supports sustainable, inclusive, and profitable agriculture while contributing to environmental sustainability.

2. UPI Transaction Intensity Across Indian States

1. Overview of UPI Usage



- **Definition: Unified Payments Interface (UPI)** is an instant real-time payment system developed by NPCI for transferring money between bank accounts via mobile platforms.
- **Key Insight:** Telangana records the **highest per capita UPI transaction intensity** among all Indian states, followed by Karnataka, Andhra Pradesh, Delhi, and Maharashtra.
- **Data Source:** RBI paper uses **PhonePe transaction data** as a proxy (PhonePe accounts for 58% of total UPI volume and 53% of total transaction value).

2. Impact on Cash Demand

- Rise in UPI usage is **reducing cash demand** in the economy.
- Evidence: **Decline in ATM withdrawals as a percentage of GDP.**
- Shift is more pronounced in **low-value, everyday transactions** (peer-to-merchant or P2M), especially below ₹500 per transaction.

3. Regional Trends and Factors

- **High UPI intensity:** Southern and western states, and Delhi, due to urban centers, economic hubs, and high employment-driven migration.
- **High cash withdrawal intensity:** Northeastern states, Kerala, Goa, and Delhi, influenced by tourism, service-sector cash usage, remittances, rural cash dependence, and limited digital infrastructure.

4. Economic Implications

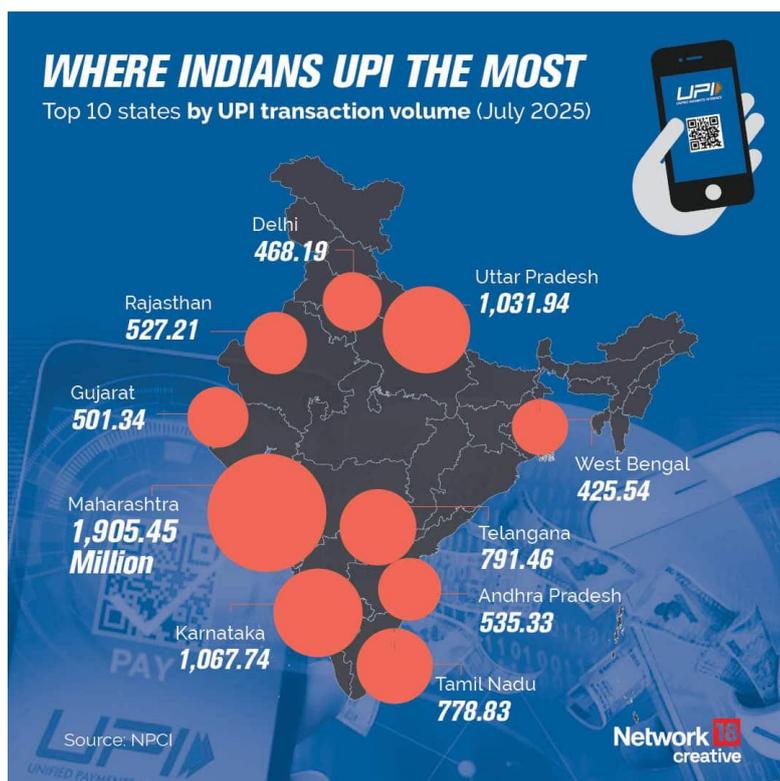
- UPI is promoting **digital payments adoption**, financial inclusion, and formalization of the economy.
- Low-value transactions through UPI support **everyday commerce** and reduce dependency on cash handling costs.
- Facilitates **real-time, safe, and traceable transactions**, strengthening digital payment ecosystems.

5. Policy and Regulatory Relevance

- **RBI and Government:** UPI is a key tool under **Digital India and cashless economy initiatives**.
- Encourages **financial literacy, inclusion, and technology-driven governance.**
- Legal Framework: Governed under **Payment and Settlement Systems Act, 2007**, which provides regulatory oversight to NPCI and digital payment systems.

6. Conclusion & UPSC Relevance

- **Conclusion:** UPI has emerged as a **catalyst for digital payments**, transforming India's payment landscape, especially in urbanized and economically active states. Cash dependence is declining, promoting transparency and financial inclusion.





3. Strengthening Alternative Dispute Resolution (ADR) in India

1. Current Challenges in India's Justice System

- **Case Backlog:** As per National Judicial Data Grid (NJDG), **total pending cases** in India = **4.57 crore**; Supreme Court: 81,768; High Courts: ~62.9 lakh.
- **Vacancy & Workload:** High Courts and district courts face **33% and 21% vacancy rates**, with some judges handling over **4,000 cases**.
- **Consequences:** Delays result in **injustice, social discontent**, and highlight the need for **efficient dispute resolution mechanisms**.

2. Definition & Constitutional Basis of ADR

- **Definition:** **Alternative Dispute Resolution (ADR)** refers to processes like **arbitration, mediation, conciliation, and Lok Adalats** aimed at resolving disputes **outside traditional court litigation**.
- **Constitutional Provision:** **Article 39A** mandates the State to provide **equal justice and free legal aid**.
- **Legal Framework:**
 - **Section 89, Civil Procedure Code (CPC) 1908** – Encourages settlement through ADR.
 - **Arbitration & Conciliation Act, 1996 (Amended 2021)** – Provides binding arbitration awards and mandates **resolution within 180 days**.
 - **Legal Services Authorities Act, 1987** – Governs Lok Adalats, Permanent, National, and e-Lok Adalats.

3. Key ADR Mechanisms in India

- **Mediation & Conciliation:** Parties negotiate solutions with guidance of mediators; pre-litigation mediation **reduces court burden**.
- **Lok Adalats:** Fast-track dispute resolution with **final decisions and no appeal**; first Lok Adalat held in Gujarat in 1999.
- **Arbitration:** Legally binding resolution, especially for commercial and compoundable civil disputes.
- **Participatory Features:** ADR mechanisms focus on **social inclusivity, consensus, and maintaining interpersonal relationships**, inspired by **Panch Parmeshwar doctrine**.



4. Benefits of ADR

- Reduces **court pendency and delays**, allowing faster justice.
- Promotes **cost-effective, socially inclusive, and culturally aligned dispute resolution**.
- Strengthens **interpersonal and community-level relationships**.
- Addresses **inter-State disparities** in justice delivery.

5. Challenges in Implementation

- Lack of **awareness** about ADR mechanisms among citizens.



- Disparities in **court infrastructure, judge availability, and adoption of ADR across states.**
- High pendency in states like **Uttar Pradesh, Andhra Pradesh, Bihar, and Kerala**, requiring urgent intervention.

6. Conclusion & UPSC Relevance

- **Conclusion:** Strengthening ADR mechanisms is crucial to **enhance access to justice, reduce delays, and modernize India's legal system.** By combining mediation, Lok Adalats, and arbitration, India can ensure **faster, fair, and socially inclusive justice**, aligned with constitutional principles.

4. Curbing Cyber Frauds in Digital India

1. Expanding Digital Landscape and Rising Cyber Threats:

- With **over 86% of Indian households connected to the internet**, India is witnessing rapid digital expansion under the **Digital India Mission**. However, this progress has also increased vulnerabilities in cyberspace.
- **Cybersecurity incidents rose from 10.29 lakh (2022) to 22.68 lakh (2024)**, indicating both increased attacks and improved reporting.
- **Cyber frauds**—defined as deceptive digital activities like phishing, data theft, and financial scams—are now a major national security and economic concern.
- The **Union Budget 2025–26** allocated **₹782 crore** for cybersecurity projects, emphasizing the government's commitment to protecting digital infrastructure.



2. Emerging Patterns and Nature of Cyber Frauds:

- Cyber threats are becoming diverse, including **phishing, spoofing, AI-based deepfakes, UPI-linked frauds, and online betting scams**, generating criminal proceeds exceeding ₹400 crore.
- The **Department of Telecommunications (DoT)** introduced the **Financial Fraud Risk Indicator (FRI)** to classify high-risk mobile numbers, curbing fraud via compromised SIMs.
- The **Promotion and Regulation of Online Gaming Bill, 2025** aims to promote e-sports while **banning online money gaming**, its advertisements, and financial transactions to reduce digital exploitation.
- Globally, cybercrimes are now linked with organized crime networks and cross-border fraud operations, often based in Southeast Asia.

3. Legal and Institutional Cybersecurity Framework in India:

- **Information Technology (IT) Act, 2000:** Core legislation governing cyber offences—identity theft, impersonation, and dissemination of harmful material. Section 70A establishes the **National Critical Information Infrastructure Protection Centre (NCIIPC)** for protecting key digital infrastructure.
- **IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021:** Mandates accountability of social media and digital platforms, requiring removal of unlawful content and traceability of harmful communication.



- **Digital Personal Data Protection Act, 2023:** Enforces lawful data processing, informed user consent, and security safeguards, reducing misuse of personal data.
- **Public Safety Measures:** Over **9.42 lakh SIM cards** and **2.63 lakh IMEIs** linked to cyber frauds have been blocked to prevent recurring scams.

4. Strengthening Cyber Defence Mechanisms:

- **CERT-In (Computer Emergency Response Team):** National nodal agency for monitoring and responding to cyber threats, conducting **109 mock drills** involving 1,438 organizations to test readiness.
- **I4C (Indian Cybercrime Coordination Centre):** Coordinates law enforcement efforts; has blocked **83,668 WhatsApp accounts** and **3,962 Skype IDs** used for fraud.
- **NCIIPC:** Protects critical sectors like banking, telecom, and energy through risk assessment and sector-specific cybersecurity advisories.
- **CyTrain & CCPWC Schemes:** Over **1 lakh police officers** trained in cybercrime investigation; **₹132.93 crore CCPWC scheme** set up labs across 33 states to counter crimes targeting women and children.

5. Governance and Citizen-Centric Cyber Safety Initiatives:

- **National Cyber Crime Reporting Portal (cybercrime.gov.in):** A unified platform for citizens to report cyber offences; supported by the **helpline 1930** for immediate response and transaction freezing.
- **Citizen Financial Cyber Fraud Reporting and Management System (CFCFRMS):** Helped recover **₹5,489 crore** in over **17.82 lakh complaints**, showcasing effective grievance redressal.
- **Cyber Crisis Management Plan (CCMP)** ensures coordinated recovery from cyberattacks, while **Samanvaya Platform** and **Sahyog Portal** integrate data analytics for tracing cyber networks and removing unlawful online content.
- **National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS):** Promotes R&D in cybersecurity, AI, and data analytics for predictive threat mitigation.

6. Promoting Cyber Awareness and International Collaboration:

- **Bharat National Cybersecurity Exercise 2025** and the **India Mobile Congress 2025 (IMC)** reaffirm India's commitment to global cyber resilience and innovation.
- IMC 2025, themed "**Innovate to Transform**", focuses on **6G, AI, IoT, satellite communications, and cybersecurity**, highlighting India's leadership in secure digital ecosystems.
- Such platforms foster international cooperation, public-private partnerships, and research for resilient cyber infrastructure.

Constitutional and Legal Linkages:

- **Article 21 (Right to Privacy):** Recognized as a fundamental right in *K.S. Puttaswamy v. Union of India (2017)*—ensuring protection of digital identity and data.
- **Article 51A(h):** Enjoins citizens to develop a scientific temper and awareness of digital responsibility.
- **National Cyber Security Policy (2013)** and **Digital India Mission** together align with the constitutional vision of **secure and inclusive governance** in cyberspace.



Conclusion:

India's journey toward a **secure Digital India** hinges on technological preparedness, legal robustness, and citizen vigilance. As cyber frauds evolve, the government's integrated efforts through legislation, institutional frameworks, and public engagement are shaping a resilient and trustworthy digital ecosystem—essential for safeguarding both national and economic security.

5. Why Indian Capital Needs to Invest Domestically

1. Context and Economic Challenge:

- India faces a critical policy challenge of balancing the **long-term benefits of global trade** with the **short-term economic distress** caused by global uncertainties such as tariff barriers, supply chain disruptions, and external demand shocks.
- The current global trading environment, marked by protectionism and geopolitical tensions, poses a **risk of negative external demand shocks** for India's exports.
- Policymakers are urged to **reorient India's growth model** towards greater self-reliance and domestic demand-led growth, ensuring benefits reach larger sections of the population rather than only private capital.



2. Evolution and Role of Indian Capital:

- Historically, **Indian private capital** thrived under **pre-liberalisation protectionist policies**, benefitting from import substitution and high domestic market protection, leading to **supernormal profits**.
- Post-liberalisation, these accumulated surpluses allowed Indian firms to expand globally through acquisitions and investments abroad, creating industrial giants in key sectors.
- Now, with **global trade volatility**, Indian business houses must **reinvent themselves** to align with **national developmental goals** and collaborate with the government to sustain economic momentum.
- The evolution of capitalism shows adaptability — Indian capital too must evolve to balance **profit motives with public welfare and inclusive growth**.

3. Stimulating Domestic Demand – The Three Key Routes:

- **(a) Enhancing Private Investment:** Despite record profits, private investment remains sluggish, while **public capital expenditure** surged from ₹3.4 lakh crore in FY20 to ₹10.2 lakh crore in FY25 (CAGR 25%). This imbalance reflects **corporate risk aversion** and excessive reliance on government spending for growth. Private sector capital formation is critical to boost employment, productivity, and long-term competitiveness.
- **(b) Ensuring Moderate Wage Growth:** Economic Survey 2024–25 highlighted rising corporate profits alongside **stagnant real wages**, weakening domestic purchasing power and aggregate demand. Growing **contractualisation** and reduced collective bargaining have worsened wage inequality, demanding labour reforms and wage-linked productivity measures.
- **(c) Increasing R&D Investment:** India's **Gross Expenditure on R&D (GERD)** stands at only **0.64% of GDP**, much lower than China (2.1%) or South Korea (>4%). Private sector contributes merely **36% of total R&D funding**, compared to 70%+ in developed nations. Greater private investment in **innovation, fundamental research, and technology diversification** is essential for long-term productivity and global competitiveness.



4. Domestic Capital and Self-Reliance Imperative:

- Strengthening **domestic demand** and internal investment can help buffer external shocks, reduce dependence on volatile exports, and promote **inclusive economic resilience**.
- India's **outward FDI growth (12.6% CAGR)** surpasses global averages, showing firms' preference for foreign opportunities over domestic expansion — a trend that needs reversal.
- Domestic reinvestment in sectors like manufacturing, renewable energy, digital infrastructure, and MSMEs aligns with **Atmanirbhar Bharat**, ensuring sustained employment and equitable growth.

5. Constitutional and Policy Framework:

- **Directive Principles of State Policy (Articles 38, 39, 43)** emphasize equitable distribution of wealth, securing adequate livelihood, and ensuring a just economic order.
- Policies like **Make in India**, **Production-Linked Incentive (PLI) Scheme**, and **National Infrastructure Pipeline (NIP)** provide frameworks for incentivizing private domestic investment.
- The **Companies Act, 2013** (Section 135) mandates Corporate Social Responsibility (CSR), encouraging private entities to integrate **social objectives** with business growth.
- Aligning with **National Innovation Policy** and **Digital India Mission** can further strengthen R&D collaboration between government, academia, and industry.

6. The Road Ahead – Collaborative Economic Strategy:

- To address external vulnerabilities, a **unified public-private strategy** is required — where government creates a facilitative environment and private capital contributes actively to **domestic capacity building**.
- Indian capital must move beyond profit maximization and adopt **stakeholder capitalism**, focusing on innovation, employment, and social value creation.
- Long-term economic stability depends on **domestic demand revival, wage growth, and technological advancement**, not merely on fiscal stimulus or external trade.

Conclusion:

In an era of global trade uncertainty and protectionism, **India's sustainable growth** depends on its ability to strengthen **domestic economic foundations**. The private sector must play a proactive role by **reinvesting profits, enhancing wages, and fostering innovation**. Indian capital must evolve into a **nation-building partner**, aligning with public interest to ensure equitable, inclusive, and resilient growth. The synergy between **state policy and private enterprise** will determine India's trajectory toward long-term self-reliance and global competitiveness.

6. Eighth International Solar Alliance (ISA) Assembly

- **Global Platform for Solar Energy Scale-Up:** The **International Solar Alliance (ISA)**, an intergovernmental organization with 124 Member and Signatory Countries, is hosting its Eighth Assembly from October 27-30, 2025, in New Delhi, India. **ISA** is a major treaty-based organization primarily from the **Global South**, launched by India and France at **COP21, Paris** (2015). This Assembly, held before **COP30 in Brazil**, aims to shape priorities for scaling solar energy, unlocking transformative finance, and building skill ecosystems for a just energy transition.
- **India's Solar Leadership and Key Domestic Initiatives:** India is the **world's third-largest solar producer** and third-largest overall in renewable energy installations (125 GW solar capacity). India achieved its renewable energy targets five years ahead of schedule, with over 50% of its installed electricity capacity from non-fossil resources. Key Indian schemes for solar deployment include:



- **PM Surya Ghar - Muft Bijli Yojana (PM SGMBY):** Aims to solarise **10 million households** (20 lakh households already benefiting).
- **PM-Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM):** Targets installing 10 GW of small solar plants, supporting 1.4 million off-grid solar pumps, and solarising 3.5 million grid-connected agricultural pumps.
- **India is also the second-largest manufacturer of solar modules** and is pursuing a goal of manufacturing 5 million tonnes of green hydrogen by 2031.
- **ISA's Strategic Pillars and Initiatives:** The Eighth Assembly will focus on four strategic pillars: **Catalytic Finance Hub; Global Capability Centre & Digitisation; Regional & Country-Level Engagement; and Technology Roadmap & Policy.** Key initiatives to be advanced include:
 - **Africa Solar Facility** (for catalytic finance).
 - **Small Island Developing States (SIDS) Platform** (to accelerate solar deployment in SIDS).
 - Advancing the **One Sun, One World, One Grid (OSOWOG)** initiative and scaling innovation like floating solar and green hydrogen.
 - The Assembly will also release flagship reports: **Ease of Doing Solar 2025** and **Solar Trends 2025.**
- **ISA's Core Mission and Impact:** ISA's mission is to unlock **over \$1 trillion of investment** in solar by 2030, while reducing the cost of technology and financing. It aims to transform lives, bring reliable and affordable clean energy, and fuel sustainable growth, especially in Least Developed Countries (LDCs) and SIDS. ISA acts as a platform for aggregation, harmonizing technology standards, enabling data-driven energy planning, and mobilizing investments by reducing risks.
- **Constitutional & Legal Provisions and Key Definitions:**
 - **Renewable Energy/Environment:** Falls under the constitutional provisions related to environmental protection and promotion of scientific temper. **Article 48A (DPSP)** mandates the State to protect and improve the environment. **Article 51A (g) (Fundamental Duty)** mandates every citizen to protect and improve the natural environment.
 - **International Solar Alliance (ISA):** An **international intergovernmental organization** headquartered in Gurugram, India (the first in India), with a treaty-based framework.
 - **Global South:** A term often used to refer to countries in Asia, Africa, and Latin America, which are generally categorized as developing or newly industrialized and often face unique development challenges, including energy access.

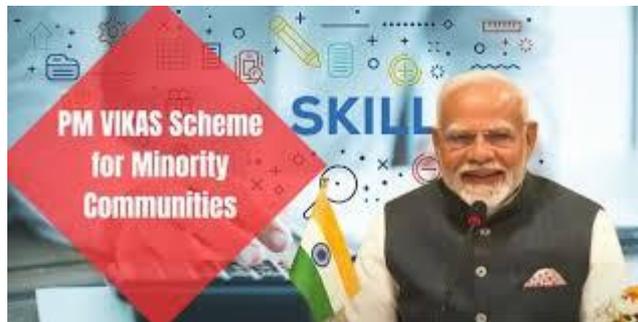
Conclusion and UPSC Relevance

The Eighth ISA Assembly is a critical global forum showcasing India's leadership in the clean energy transition through its domestic successes (PM-KUSUM, PM-SGMBY) and international commitment (ISA). Its focus on catalytic finance, technology roadmaps (like OSOWOG, Green Hydrogen), and capacity building underscores the shift from mere *ambition* to *tangible action* in solar deployment.



7. Skilling for Minority Empowerment: PM VIKAS Scheme & IIT Palakkad Collaboration

- **Pradhan Mantri Virasat Ka Samvardhan (PM VIKAS) Scheme:** PM VIKAS (Pradhan Mantri Virasat Ka Samvardhan) is a **Central Sector Scheme** under the **Ministry of Minority Affairs (MoMA)**. It's an **integrated scheme** that converges five erstwhile schemes: *Seekho aur Kamao*, *USTTAD*, *Hamari Dharohar*, *Nai Roshni*, and *Nai Manzil*. The core objective is the socio-economic **empowerment** of minority and artisan communities through skill development, entrepreneurship promotion, and leadership training.
- **Focus on Future-Ready Technical Skills:** The MoU signed between MoMA and **IIT Palakkad**, an **Institute of National Importance**, is for a skilling project specifically targeting minority communities in Kerala. The training will focus on **emerging domains** like **Junior Chip Designers** (150 trainees), **Embedded Software Engineers** (150 trainees), and **Junior Engineers (Drone R&D)** (100 trainees), totaling **400 candidates**. This shift to high-tech, **non-traditional skilling** is crucial for enhancing employability and **Innovation**.
- **Comprehensive Support and Implementation:** The entire training cost, including a **stipend** for trainees, will be borne by the Ministry of Minority Affairs. IIT Palakkad will be the implementing institution, leveraging its technical expertise. The scheme guarantees **placement support** for both employment and self-employment opportunities, ensuring a complete value chain from training to livelihood creation. The scheme aims for a placement rate of **75%** for candidates trained under NSQF-aligned job roles.
- **Key Components of PM VIKAS (Holistic Approach):** The scheme is structured around four main components:
 1. **Skilling and Training** (Traditional Arts/Crafts & Non-traditional Skilling).
 2. **Leadership and Entrepreneurship** (Focus on women empowerment, including creation of 'Biz Sakhis'/Business Mentors).
 3. **Education** (Bridge programs for school dropouts up to 8th, 10th, and 12th standards via NIOS).
 4. **Infrastructure Development** (Creation of **Vishwakarma Villages** using a 'Hub and Spoke' model to link arts with tourism and commerce).
- **Constitutional & Legal Provisions:** The scheme aligns with the state's responsibility towards weaker sections, drawing from **Directive Principles of State Policy (DPSP)** like **Article 46** (promoting educational and economic interests of weaker sections). More specifically, the rights of minorities are protected by **Fundamental Rights** like **Article 29** (right to conserve distinct language, script, or culture) and **Article 30** (right to establish and administer educational institutions). The scheme benefits the **six centrally notified minority communities** (Muslims, Christians, Sikhs, Buddhists, Jains, Zoroastrians/Parsis).



Conclusion and UPSC Relevance

The PM VIKAS-IIT Palakkad collaboration signifies the government's commitment to the **socio-economic upliftment of minorities** through targeted, high-value skill development, moving beyond traditional skilling



to meet **Industry 4.0** demands. It embodies the principle of '**Sabka Saath, Sabka Vikas, Sabka Vishwas**' by integrating marginalized groups into the mainstream economy.

8. PM to Launch Pradhan Mantri Dhan Dhaanya Krishi Yojana & Mission for Aatmanirbharta in Pulses

1. Overview of the Initiatives

- **Prime Minister Narendra Modi** will launch two major agricultural schemes — the **Pradhan Mantri Dhan Dhaanya Krishi Yojana (PMDDKY)** and the **Mission for Aatmanirbharta in Pulses** — on **October 11, 2025**, commemorating the birth anniversary of **Lok Nayak Jayaprakash Narayan**.
- Both schemes, announced in the **Union Budget 2025–26** and approved by the **Union Cabinet**, will be implemented from the **Rabi season of 2025–26** and continue till **2030–31**.
- The primary objective is to achieve **self-reliance in pulses**, enhance **agricultural productivity**, and reduce India's **import dependency** on key food crops, particularly **pulses and oilseeds**.



2. Objectives and Key Features of the Schemes

- **Pradhan Mantri Dhan Dhaanya Krishi Yojana (PMDDKY):**
 - Aims to strengthen the **agricultural value chain** by integrating **production, processing, storage, and marketing**.
 - Focus on **crop diversification**, soil health management, and the use of **climate-resilient technologies**.
 - Will support the **creation of infrastructure** for storage, irrigation, and post-harvest management to reduce wastage.
- **Mission for Aatmanirbharta in Pulses:**
 - A national program to increase **domestic pulse production**, reduce **imports**, and promote **research and innovation** in high-yielding pulse varieties.
 - Encourages **crop intensification, intercropping**, and **use of improved seed varieties** suited to diverse agro-climatic zones.
 - Will ensure **minimum support price (MSP) assurance**, efficient procurement, and support for **processing units** to add value and enhance farmers' income.

3. Associated Developmental Projects and FPO Empowerment

- During the launch event at the **Indian Agricultural Research Institute (IARI), Pusa (New Delhi)**, the PM will inaugurate **over 1,100 agricultural projects worth ₹42,000 crore** across sectors such as **animal husbandry, fisheries, food processing, and allied industries**.
- The PM will also **interact with beneficiaries** of Central schemes and **felicitate members of successful Farmers Producer Organisations (FPOs)**.
- India had set a target to form **10,000 FPOs by 2020**, which has been achieved. Over **52 lakh farmers** are now shareholders in these FPOs.



- About **1,100 FPOs** recorded a **turnover exceeding ₹1 crore annually** in FY 2024–25, contributing to a **combined turnover of ₹15,000 crore** — marking a significant step toward **collective and cooperative farming success**.

4. Broader Economic and Policy Context

- India has achieved **self-sufficiency in rice and wheat**, but continues to rely on **imports of pulses and edible oils**, affecting food security and trade balance.
- These schemes align with the **vision of Aatmanirbhar Bharat (Self-Reliant India)** and aim to:
 - Boost **domestic production** of pulses and oilseeds.
 - Strengthen **agri-infrastructure** through public and private investment.
 - Promote **agri-entrepreneurship** and **value addition** through FPOs.
- The programs are also expected to help India meet commitments under **SDG 2 (Zero Hunger)** and **SDG 12 (Sustainable Production and Consumption)**.

5. Constitutional and Legal Framework

- **Constitutional Backing:**
 - **Article 38 & 39(b):** Promote economic welfare and equitable distribution of resources.
 - **Article 48:** Directs the State to organize agriculture and animal husbandry on modern and scientific lines.
- **Relevant Legislations and Policies:**
 - **National Food Security Act, 2013** – ensures food availability through efficient agricultural systems.
 - **Essential Commodities (Amendment) Act, 2020** – regulates key agricultural produce to maintain availability and affordability.
 - **National Policy for Farmers (2007)** – emphasizes income security, diversification, and access to technology.

6. Definition of Key Terms

- **Farmer Producer Organisation (FPO):** A collective of farmers registered under the Companies Act or Co-operative Societies Act to enhance collective bargaining, improve market access, and share profits.
- **Aatmanirbharta (Self-Reliance):** A policy approach emphasizing domestic capability, resilience, and reduced dependence on imports through innovation and local production.

Conclusion

The launch of **PMDDKY and Mission for Aatmanirbharta in Pulses** marks a major step toward **agricultural transformation and food sovereignty** in India. By integrating innovation, infrastructure, and institutional reform, the schemes aim to empower farmers, strengthen agri-value chains, and ensure sustainable productivity. This initiative reinforces the **goal of doubling farmers' income** and achieving **nutritional and economic self-reliance**, aligning with the broader vision of **Aatmanirbhar Bharat**.

9. India–EFTA Trade and Economic Partnership Agreement (TEPA): A Historic Milestone in India–Europe Relations

1. Overview and Significance



- The **India–EFTA Trade and Economic Partnership Agreement (TEPA)**, signed on **10 March 2024** and implemented on **1 October 2025**, marks **India’s first Free Trade Agreement (FTA)** with four developed European nations—**Switzerland, Norway, Iceland, and Liechtenstein**.



- It is a landmark trade pact designed to attract **USD 100 billion in investments** and create **1 million direct jobs** in India over 15 years—the **first binding investment and employment commitment** in any Indian FTA.
- The agreement aligns with India’s **Atmanirbhar Bharat** vision and the **Digital India** and **Make in India** initiatives, focusing on **manufacturing, innovation, and sustainability**.
- EFTA covers **92.2% of tariff lines (99.6% of India’s exports)**, while India covers **82.7% (95.3% of EFTA’s exports)**, ensuring a **balanced approach** that safeguards sensitive domestic sectors.

2. Key Provisions and Economic Impact

- **Investment and Job Creation:** Under Article 7.1, EFTA pledges **USD 50 billion FDI in the first 10 years** and another **USD 50 billion in the next five**, aimed at sectors like **renewable energy, life sciences, digital transformation, and engineering**.
- **Balanced Market Access:** EFTA eliminated tariffs on most Indian exports (machinery, textiles, processed foods, chemicals), while India phased tariff reductions for sensitive products under **Make in India** and **PLI** schemes.
- **Sectoral Gains:**
 - **Agriculture:** Zero tariffs on Indian exports like rice, basmati, guar gum, fruits, and vegetables.
 - **Marine Products:** Duty elimination up to 13% across EFTA nations, enhancing India’s seafood competitiveness.
 - **Industrial Goods:** Boosts exports of engineering goods, electronics, gems, and chemicals.
 - **Services Sector:** Facilitates **digital delivery (Mode 1)**, **commercial presence (Mode 3)**, and **professional mobility (Mode 4)** through **Mutual Recognition Agreements (MRAs)** in fields like nursing, accountancy, and architecture.



3. Innovation, IPR, and Technology Cooperation

- TEPA's **Intellectual Property Rights (IPR)** chapter aligns with **TRIPS** while safeguarding India's **public health flexibility** and **generic medicine sector**.
- It strengthens collaboration between **India's skilled workforce** and **EFTA's high-innovation economies**, particularly **Switzerland**, a global innovation leader.
- Focus areas include **AI, fintech, smart manufacturing, climate tech, and R&D**, integrating Indian MSMEs into global supply chains.
- The establishment of an **India–EFTA Investment Facilitation Desk** enhances ease of doing business and supports **SME partnerships**.

4. Sustainability and Inclusive Development

- TEPA is among the first Indian trade agreements to embed **sustainability, social progress, and environmental protection** as core principles.
- It promotes **transparent trade procedures, green technology, and responsible investment** aligned with **UN Sustainable Development Goals (SDGs)**.
- EFTA's focus on climate technology and India's renewable energy sector creates scope for **low-carbon industrial transition** and **green jobs**.

5. Constitutional, Legal, and Institutional Framework

- **Article 253**: Empowers Parliament to make laws implementing international agreements.
- **Article 51(c)**: Promotes respect for international law and treaty obligations.
- **Foreign Trade (Development and Regulation) Act, 1992**: Provides the legal basis for trade negotiations and export–import management.
- **Special Economic Zones (SEZ) Act, 2005**: Enables India to attract FDI and facilitate exports through liberalized economic environments.
- **National IPR Policy (2016)** and **Foreign Direct Investment Policy** support innovation-led trade liberalization and technology partnerships.

6. Key Concepts and Definitions

- **Free Trade Agreement (FTA)**: A pact between two or more nations to reduce or eliminate trade barriers such as tariffs and import quotas.
- **EFTA (European Free Trade Association)**: A four-member intergovernmental body—**Switzerland, Norway, Iceland, and Liechtenstein**—founded in 1960 to promote free trade and economic integration.
- **Mutual Recognition Agreement (MRA)**: An arrangement allowing professional qualifications to be recognized across signatory countries, facilitating skilled mobility.
- **Atmanirbhar Bharat**: India's strategy for self-reliance by promoting domestic manufacturing, exports, and technological advancement.

Conclusion

The **India–EFTA TEPA** is a **transformational trade pact** that balances market access with domestic protection, secures long-term investments, and enhances India's integration into global value chains. It exemplifies a **modern, trust-based partnership** focused on innovation, sustainability, and inclusive growth. By embedding commitments on investment, job creation, and technology transfer, TEPA represents a **new generation of FTAs** that advance India's economic diplomacy and strengthen its position in global



trade architecture.

10. Surge in Microfinance Loan Defaults in 2024–25 – Trends, Causes, and Policy Implications

1. Background and Context

- The **Bharat Microfinance Report 2025** released by **Sa-Dhan**, the self-regulatory organization (SRO) for the microfinance sector, highlights a sharp **rise in loan delinquencies** across India during 2024–25.
- The **Portfolio at Risk (PAR)** — the percentage of loans overdue by more than 30 days — **rose to 6.2%** in 2024–25 from **2.1% in 2023–24**. Similarly, loans overdue by more than 90 days increased to **4.8%** from **1.6%** in the previous year.
- **Bihar** recorded the **worst performance**, both in terms of total outstanding microfinance loans (₹57,712 crore) and default rates, signaling rising credit risk in rural and semi-urban segments.



2. Understanding Key Terms and Indicators

- **Microfinance Loans:** Small loans extended to low-income individuals or groups, primarily women, to promote self-employment and financial inclusion.
- **Delinquency:** A situation when borrowers fail to make scheduled loan payments; measured in “days past due” (dpd).
- **Portfolio at Risk (PAR):** The percentage of total outstanding loans that are overdue beyond a specified number of days. PAR 30+ is a key risk indicator in the microfinance industry.
- **Non-Performing Asset (NPA):** As per RBI norms, a loan overdue for **more than 90 days** is classified as an NPA.

3. Key Findings of the Report

- **State-wise Performance:** Bihar recorded **7.2% delinquency (30+ dpd)** and **4.6% NPA levels (90+ dpd)**, above the national averages of 6.2% and 4.8%, respectively.
- **Rural Vulnerability:** Rural borrowers displayed the **highest default rate (6.4%)**, compared to 6.1% in semi-urban and 6% in urban regions.
- **Industry-wide Stress:** Rising defaults were reported across multiple States, indicating a **systemic issue rather than a local phenomenon**.
- **Outstanding Loans:** The total outstanding microfinance portfolio exceeded ₹2.3 lakh crore for rural borrowers, underlining the magnitude of rural credit exposure.

4. Causes Behind Rising Defaults

- **Post-pandemic economic distress** and **high inflation** eroded repayment capacity among low-income borrowers.
- **Over-indebtedness** due to multiple borrowings from different MFIs and NBFCs.
- **Climatic disruptions** and agricultural income volatility adversely affected rural cash flows.



- **Inadequate credit appraisal mechanisms** and aggressive loan disbursements by MFIs led to deteriorating asset quality.
- **Lack of financial literacy** and support for borrowers during repayment cycles further aggravated defaults.

5. Regulatory and Institutional Framework

- The **Reserve Bank of India (RBI)** regulates microfinance activities under the *Master Directions on Microfinance Loans (2022)*, focusing on fair lending practices and borrower protection.
- The **Microfinance Institutions (Development and Regulation) Bill, 2012** (though not enacted) aimed to provide a comprehensive legislative framework for the sector.
- **Sa-Dhan** and **MFIN (Microfinance Institutions Network)** act as **Self-Regulatory Organizations (SROs)** recognized by RBI to ensure ethical and sustainable practices.
- The principles of **financial inclusion** are rooted in the **Directive Principles of State Policy (Article 38 & 39)**, emphasizing equitable resource distribution and economic justice.

‘Bad’ debts

Delinquency levels have risen across the industry, says the annual Bharat Microfinance Report by Sa-Dhan

- The data showed that rural borrowers fared the worst in terms of loan repayment

- Of the ₹2.3 lakh crore of loans outstanding for rural customers, 6.4% were overdue by more than 30 days

- This is compared with 6.1% and 6% for semi-urban and urban borrowers, respectively



6. Implications for Financial Stability and Policy

- Rising microfinance NPAs threaten the **financial sustainability of MFIs and small NBFCs**, especially those reliant on external funding.
- The trend may hinder the progress of **women’s self-help groups (SHGs)** and rural entrepreneurship under programs like **Deendayal Antyodaya Yojana** and **National Rural Livelihood Mission (NRLM)**.
- There is an urgent need for **strengthened credit appraisal systems, data-sharing among MFIs, and borrower-centric recovery mechanisms**.
- Policymakers must ensure that **financial inclusion initiatives** do not translate into **credit distress** through better regulation, training, and diversification of income-generating opportunities.

Conclusion

The surge in microfinance loan defaults during 2024–25 signals deep-rooted structural challenges in India’s rural credit ecosystem. While microfinance remains a cornerstone of financial inclusion, unregulated lending expansion and economic vulnerabilities have exposed systemic weaknesses. Sustainable growth in the microfinance sector requires a balance between **financial access and borrower protection**, backed by transparent regulation, digital monitoring, and resilience-oriented credit models.

11. NITI Aayog Report – “India’s Blue Economy: Strategy for Harnessing Deep-Sea and Offshore Fisheries”

1. Key Highlights:

- **NITI Aayog** released a comprehensive report titled “*India’s Blue Economy: Strategy for Harnessing Deep-Sea and Offshore Fisheries*”, formally launched by **Prof. Ramesh Chand (Member, Agriculture)** and **Shri B.V.R. Subrahmanyam (CEO, NITI Aayog)**.
- India is the **second-largest fish-producing country in the world**, contributing **8% of global production**, supporting **30 million livelihoods**, and earning **₹60,523 crore in FY 2023–24** from fisheries exports.



- Despite vast potential, India's **deep-sea fisheries beyond the continental shelf remain underexploited**, with an estimated **potential yield of 7.16 million tonnes** from its **2 million sq. km Exclusive Economic Zone (EEZ)**.



2. Objectives and Significance:

- To **unlock the potential of deep-sea and offshore fisheries** while ensuring **ecological sustainability** and economic prosperity.
- To **reduce pressure on coastal fisheries**, promote **responsible utilization** of marine resources, and **enhance seafood exports**.
- To align with India's **Blue Economy vision**, integrating marine resources into national development and **sustainable livelihood generation** for coastal communities.
- To establish **India as a global leader in sustainable deep-sea fisheries** through innovation, capacity building, and governance reforms.

3. Key Features and Policy Interventions:

The report proposes **six strategic policy interventions** for developing India's deep-sea fisheries sector:

1. **Policy and Regulatory Reforms:** Overhauling outdated fisheries laws and introducing science-based governance frameworks.
2. **Institutional and Capacity Building:** Establishing specialized institutions for deep-sea research, training, and coordination.
3. **Fleet Modernization and Infrastructure Upgradation:** Introducing modern, energy-efficient vessels and developing cold-chain and port facilities.
4. **Sustainable Fisheries Management:** Promoting eco-friendly practices and biodiversity conservation.
5. **Resource Mobilization and Financing:** Ensuring credit access through public-private partnerships, subsidies, and blue bonds.
6. **Community Participation and Partnerships:** Empowering fisher cooperatives and clusters for inclusive growth and technology adoption.

4. Implementation Framework and Phased Approach:

The strategy is structured into **three phases** integrating central and state-level fisheries schemes:

- **Phase 1 (2025–28):** Foundation building and early growth through policy alignment and capacity development.
- **Phase 2 (2029–32):** Scaling up operations, achieving **global competitiveness** in deep-sea fisheries.
- **Phase 3 (2033 onwards):** Achieving **global leadership in sustainable fisheries**, with advanced technology and international collaborations.

It also proposes an **indicative costing framework** and **monitoring mechanisms** to ensure ecological and economic sustainability.

5. Constitutional and Legal Provisions:

- **Article 48A:** Directs the State to protect and improve the environment and safeguard oceans and marine life.



- **Article 51A(g):** Makes it a fundamental duty of every citizen to protect the natural environment, including marine ecosystems.
- **Maritime Zones of India Act, 1976:** Defines India's rights over the **Exclusive Economic Zone (EEZ)** and continental shelf for resource exploitation.
- **Coastal Regulation Zone (CRZ) Notification, 2019:** Regulates activities along India's coastal areas to ensure environmental balance.
- **National Marine Fisheries Policy (2020 Draft):** Promotes sustainable and responsible fishing practices.

6. Broader Implications:

- **Economic:** Boosts exports, creates employment, and enhances India's contribution to the **global seafood value chain**.
- **Technological:** Encourages R&D and use of AI, satellite mapping, and digital tracking for sustainable resource management.
- **Environmental:** Prevents overfishing, promotes biodiversity, and ensures the **sustainability of marine ecosystems**.
- **Social:** Enhances income of coastal and island communities through inclusive development and cooperative participation.

Conclusion:

The NITI Aayog's "Blue Economy" report represents a landmark roadmap for harnessing India's vast marine potential. By integrating policy reforms, sustainable technology, and inclusive participation, it aims to strengthen governance and boost India's role in global fisheries. The initiative aligns economic growth with ecological stewardship, forming a key pillar of India's journey toward a resilient and sustainable Blue Economy.

12. Estimating India's Potential Growth Rate – Analysis and Policy Implications

1. Key Highlights:

- India's **potential growth rate** is currently estimated at **6.5%**, based on long-term trends in **Gross Fixed Capital Formation Rate (GFCFR)** and **Incremental Capital Output Ratio (ICOR)**.
- Despite a strong **7.8% real GDP growth** in Q1 of 2025–26, it does not signify a structural shift since the GFCFR has remained stable around **34.5%** over the last three years.
- Historical data (2022–23 to 2024–25) show an average **annual growth rate between 6.5%–9.2%**, while India's **long-term average (2011–2024)** stands at **6.1%**, supporting the 6.5% potential estimate.
- **Manufacturing and key service sectors** (trade, transport, financial, and public administration) continue to drive growth, but their Q1 performance in 2025–26 remains below pre-pandemic highs.

2. Key Concepts and Definitions:

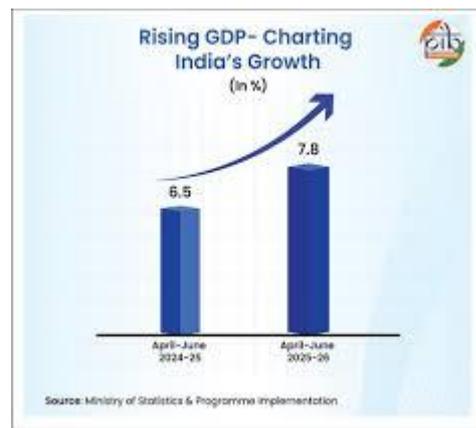
- **Potential Growth Rate:** The maximum rate of GDP growth that an economy can sustain over the long term without causing inflationary pressures.
- **Gross Fixed Capital Formation (GFCF):** Measures investment in fixed assets such as machinery, infrastructure, and equipment — an indicator of productive capacity.
- **Incremental Capital Output Ratio (ICOR):** Reflects the efficiency of capital; calculated as the ratio of investment (GFCF) to GDP growth. Lower ICOR indicates higher efficiency.



- In India's case, with $GFCFR \approx 33.6\%$ and $ICOR \approx 5.2$, the potential growth = $GFCFR \div ICOR = 6.5\%$.

3. Investment Trends and Sectoral Insights:

- **Public sector investment** in GFCF rose from **21.6% (2021–22)** to **25.1% (2023–24)**, driven mainly by **infrastructure spending**.
- However, the growth in **Central Government's capital expenditure** has slowed — from **39.4% (2021–22)** to **10.8% (2024–25)**, signaling reduced momentum.
- To raise potential growth beyond 6.5%, India must **increase the GFCFR by at least 2 percentage points** (to 36–37%) and **enhance private corporate sector investment**, whose share declined from 37% to 34.4% between 2021–24.
- Improved **technological efficiency**, better **management practices**, and **private sector participation** are critical for lowering ICOR and sustaining higher growth.



4. Structural and Global Factors Affecting Growth:

- **Positive forces:** Adoption of new technologies such as **Artificial Intelligence (AI)** and **Generative AI (GenAI)** could enhance productivity and reduce ICOR.
- **Negative forces:** Ageing capital stock and rising capital replacement costs may offset these gains.
- **Global trade challenges** (tariff barriers, supply chain disruptions) continue to limit export growth; **net exports** turned negative (-1.4 percentage points) in Q1 of 2025–26.
- Thus, **domestic investment revival** remains the main driver of long-term sustainable growth.

5. Constitutional and Policy Framework:

- **Article 39(b):** Directs the State to ensure equitable distribution of material resources to serve the common good.
- **Article 38:** Mandates the State to promote social, economic, and political justice for welfare-oriented growth.
- **Article 301:** Guarantees freedom of trade, commerce, and intercourse, supporting market-driven growth.
- **Key Policy Instruments:**
 - **National Infrastructure Pipeline (NIP)** and **PM Gati Shakti Plan** – to enhance logistics and productivity.
 - **National Monetization Pipeline (NMP)** – to mobilize private investment.
 - **Union Budget Capex Push** – to crowd-in private sector investment.
 - **Make in India and PLI Schemes** – to strengthen manufacturing competitiveness.

6. Way Forward and Policy Recommendations:

- **Boost private investment:** Address sector-specific bottlenecks, ensure policy predictability, and improve ease of doing business.
- **Enhance capital efficiency:** Promote technology-driven production and skill upgradation to reduce ICOR.



- **Balanced fiscal strategy:** Sustain public capital expenditure while creating fiscal space through disinvestment and efficient revenue generation.
- **Diversify exports and global integration:** Expand trade partnerships and strengthen India's position in global value chains.

Conclusion:

India's potential growth rate of **6.5%** represents a realistic and sustainable benchmark under current conditions. While recent high quarterly growth figures suggest cyclical recovery, the absence of a structural break in investment trends indicates stability rather than acceleration. To push potential growth beyond 7%, India must stimulate **private sector investment**, enhance **capital efficiency**, and leverage **technological advancements** for productivity gains.

13. National Household Income Survey (NHIS) 2026 — Pre-Testing Report & Draft Schedule

1. Key highlights:

- MoSPI's **National Statistics Office (NSO)** is launching the **first-ever pan-India National Household Income Survey (NHIS)** in **February 2026** to generate direct, household-level estimates of income for the entire country; a pre-testing exercise of the draft schedule was completed **4–8 Aug 2025** across 15 NSO regional offices and the Pre-Testing Report was uploaded on **13 Oct 2025**.
- NHIS aims to fill a long-standing data gap — its estimates will inform **CPI rebasing, national accounts, poverty and inequality analysis, and policy design** by providing granular income source and distribution data not captured fully by National Accounts.
- The Draft Questionnaire/Schedule (revised after pre-testing) is on MoSPI's website for **wider consultation**; stakeholders may submit feedback by **30 Oct 2025** to designated MoSPI email IDs.

2. Why NHIS matters (policy & statistical significance):

- Household survey income data allow **inter-personal income comparisons** and analysis of income sources (wages, self-employment, property income, remittances) — critical for targeted welfare, taxation policy, and social safety nets.
- Direct household income estimates complement National Accounts by revealing **distributional patterns, under-reported informal earnings, and intra-household dynamics**, improving evidence-based policymaking.
- International precedent: many countries (e.g., Canada, UK, USA, China, Bangladesh) use dedicated household income surveys — NHIS places India on par with global statistical practice.

3. Methodology & field exercise insights:

- Pre-testing covered **urban and rural**, affluent and non-affluent localities across six zones (Mumbai, Delhi, Kolkata, Chennai, Bangalore, Hyderabad), testing **clarity, comprehension, flow and respondent burden** to refine questionnaire design.
- MoSPI constituted a **Technical Expert Group (TEG)** chaired by Dr. Surjit S. Bhalla to guide methodology, indicating expert oversight and focus on international best practices and comparability.
- The survey intends to estimate **total household income** (all sources) and will use standard household survey protocols — attention to question wording, recall periods, and proxy reporting will be critical to data quality.



4. Definitions & key terms:

- **National Household Income Survey (NHIS):** A large-scale, representative household survey focused explicitly on measuring income levels, composition and distribution at household and individual levels.
- **National Statistics Office (NSO):** The statistical arm under MoSPI responsible for large-scale sample surveys (NSS tradition) and official statistics.
- **Rebasing CPI:** Updating the base year and basket/prices used for Consumer Price Index calculations — household income data help improve expenditure/income profiles for rebasing.



5. Legal, institutional & ethical considerations:

- Institutional mandate: **MoSPI/NSO** is the nodal body for official sample surveys; NHIS follows established NSS/NSO protocols and TEG recommendations to ensure methodological robustness.
- Data governance & ethics: NHIS must adhere to **confidentiality, respondent consent and data-security norms** and align with national statistical standards and international recommendations (metadata, sampling, quality assurance) to ensure trust and usability.
- Stakeholder consultation (researchers, states, sector bodies) and transparent pre-testing indicate commitment to **scientific credibility and cooperative federal implementation**.

6. Additional important points & implementation challenges:

- **Coverage & non-response:** Capturing informal, in-kind, seasonal and irregular incomes is methodologically challenging — questionnaire design and interviewer training are pivotal.
- **Timing & recall bias:** Choice of recall periods and methods to capture annual vs. periodic income flows will affect accuracy.
- **Linkages with administrative data:** Potential to improve estimates by linking survey data with tax, social-security and Aadhaar-linked administrative records, subject to legal safeguards.
- **Capacity & cost:** Nationwide implementation requires extensive field capacity, funding and a robust data processing pipeline; MoSPI's pre-testing and phased preparations mitigate risks.

Conclusion:

The NHIS 2026 is a landmark initiative to generate reliable, household-level income data for India — essential for accurate poverty measurement, CPI rebasing, fiscal and welfare policy design, and assessing inequality. The pre-testing and expert consultation process strengthen the survey's methodological foundation, but successful outcomes will depend on careful questionnaire finalization, strong field operations, data governance and stakeholder engagement.

14. Government May Raise MGNREGA Allocation Amid Flood-Induced Rural Distress

1. Background and Current Situation

- The Government of India is reassessing the **budgetary allocation for MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act)** in view of the **severe floods affecting Bihar, Uttar Pradesh, Himachal Pradesh, and Punjab**. The scheme's budget has been **₹86,000 crore for two consecutive fiscal years (FY25 and FY26)**, but rising distress and loss of agricultural work due to flooding have triggered a spike in rural job demand. Officials are evaluating



expenditure trends and ground-level data to determine whether additional funds are required to sustain rural employment and prevent economic distress.

2. Rising Demand and Expenditure Trends

- MGNREGA is India's **largest social safety net**, providing **100 days of guaranteed wage employment** to adult members of rural households willing to do unskilled manual work.
- During FY24, **actual expenditure rose to ₹1.06 trillion**, surpassing the budgeted ₹60,000 crore, prompting the government to seek a **supplementary grant of ₹14,524 crore** to meet payment obligations.
- Data from the **Ministry of Rural Development** shows consistent high demand: 20.12 million households sought work in April 2025, rising to **28.38 million in May**, and 27.56 million in June before tapering during monsoon months.
- Flood-related agricultural disruptions in FY26 are expected to **revive demand once again**, as rural labourers seek fallback employment under the scheme.

3. Economic and Fiscal Implications

- MGNREGA acts as an **automatic stabilizer** during rural crises, absorbing surplus labour when **farm operations or non-farm activities slow down**.
- However, persistent demand increases **fiscal pressure** on the government, especially amid competing welfare priorities.
- The Centre typically **reviews welfare scheme allocations mid-year (September–October)** to approve supplementary budgets if needed.
- India's **GDP growth of 7.8% in Q1 FY26** reflects macroeconomic resilience, but localized disasters such as floods could **widen rural-urban disparities** unless job schemes are adequately funded.

4. Constitutional and Legal Framework

- **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), 2005:**
 - Provides a **legal right to work** for every rural household adult willing to do unskilled manual labour.
 - Mandates **payment of wages within 15 days** and emphasizes **transparency through social audits**.
- **Article 41 (Directive Principle of State Policy):** Directs the State to ensure **right to work, education, and public assistance** in cases of unemployment and distress.
- **Article 38 & 39:** Obligate the State to **reduce inequalities** and ensure livelihood security for all citizens.
- The Act also aligns with **Sustainable Development Goal (SDG) 1 (No Poverty)** and **SDG 8 (Decent Work and Economic Growth)**.

5. Key Challenges and Policy Issues

- **Budget Underestimation:** Despite being demand-driven, annual allocations often fall short of actual expenditure, resulting in **delayed wage payments** and arrears.
- **Climate Shocks and Employment Patterns:** Frequent floods and droughts are **increasing the cyclicity of job demand**, indicating the need for **disaster-linked employment planning** under MGNREGA.



- **Administrative Delays:** States often face **fund flow bottlenecks**, impacting timely execution of projects.
- **Need for Convergence:** Greater integration of MGNREGA with **climate-resilient infrastructure projects** (like water harvesting and flood control) can provide both **employment and long-term resilience**.

6. Broader Socio-Economic Significance

- MGNREGA continues to be a **critical tool for inclusive rural development**, mitigating the effects of crop failure, migration, and climate-induced disruptions.
- In the wake of widespread flooding, the scheme serves as an **economic lifeline** by providing income security to rural families.
- Experts advocate for **indexing the MGNREGA budget to inflation and climatic factors**, ensuring that resource allocation remains responsive to evolving rural realities.

7. Conclusion

- MGNREGA remains the **bedrock of India's rural welfare architecture**, especially in times of climatic distress. With floods disrupting agricultural livelihoods in several states, increasing the scheme's budget will be crucial for sustaining **rural income, food security, and social stability**. Strengthening its funding mechanism, ensuring timely payments, and aligning projects with **climate adaptation goals** can enhance both the **economic and environmental resilience** of rural India.

15. Biofuel Industry Seeks Ethanol Roadmap Beyond E20 Blending: Towards a Green Energy Transition

1. Background and Context

- India's biofuel sector, represented by the **Indian Sugar & Bio-Energy Manufacturers Association (ISMA)** and the **Indian Federation of Green Energy (IFGE)**, has urged the government to frame a **national ethanol mobility roadmap beyond the E20 blending target**. The call follows India's achievement of **20% ethanol blending (E20)** in petrol **five years ahead of the original 2030 target**, marking a major milestone in India's clean energy and energy security agenda. The industry now seeks a clear roadmap for **higher ethanol blends (E27–E30)** and **flex-fuel vehicle (FFV)** deployment to sustain growth and enhance India's green mobility ecosystem.

2. Ethanol Blending Programme (EBP): Achievements and Progress

- The **Ethanol Blending Programme (EBP)** aims to reduce fossil fuel dependency by blending ethanol derived from **sugarcane, grains, and agricultural waste** with petrol.
- India achieved **E20 blending** in 2025, ahead of the 2030 deadline, compared to just **1.5% blending in 2014**.
- This transition has led to **foreign exchange savings of over ₹50,000 crore**, reduction in **greenhouse gas emissions**, and **better remuneration for farmers** through assured ethanol offtake.
- The next phase requires expansion in **feedstock diversification**, including **2G ethanol (from crop residue)** and **3G biofuels (from algae and waste)** to ensure sustainable production.

3. Need for a National Ethanol Mobility Roadmap

- With the E20 milestone achieved, the biofuel industry emphasizes the need for a **long-term ethanol strategy (2025–2040)** to guide investment and policy continuity.
- The roadmap should cover:



- **Higher blending targets (E27–E30)** aligned with global standards.
- **Wider adoption of Flex-Fuel Vehicles (FFVs)** capable of running on multiple ethanol blends.
- Expansion of **ethanol production capacity** and **supply chain logistics**.
- **Infrastructure for ethanol storage, distribution, and retail blending**.
- **Fiscal incentives** and **policy stability** to encourage private investment.
- The roadmap would also align India's biofuel strategy with the **National Bioenergy Policy** and **Net Zero by 2070 goals**.

4. Constitutional, Legal, and Policy Framework

- **National Policy on Biofuels (2018, amended 2022):** Promotes production and blending of biofuels, targeting E20 blending by 2030 (now achieved early).
- **Ethanol Blending Programme (EBP) under the Ministry of Petroleum & Natural Gas (MoPNG):** Regulates ethanol procurement and blending.
- **Article 48A:** Directs the State to protect and improve the environment, encouraging renewable energy use.
- **Article 51A(g):** Imposes a fundamental duty on citizens to protect and improve the natural environment.
- **Energy Conservation (Amendment) Act, 2022:** Supports low-carbon transition and introduces provisions for carbon trading, which can integrate with ethanol use.
- **Sustainable Development Goals (SDG 7 and SDG 13):** Promote affordable clean energy and climate action, both aligned with ethanol adoption.

5. Economic and Environmental Significance

- **Energy Security:** Ethanol blending reduces crude oil imports, lowering the import bill and strengthening India's energy independence.
- **Rural Prosperity:** Expanding ethanol capacity boosts the **sugar and grain industries**, creating rural jobs and stabilizing farm incomes.
- **Climate Benefits:** Replacing petrol with ethanol cuts **CO₂ emissions by up to 40%**, contributing to India's **Nationally Determined Contributions (NDCs)** under the Paris Agreement.
- **Industrial Diversification:** The ethanol sector supports **circular economy principles**, utilizing agricultural residues and industrial by-products as raw materials.
- **Global Leadership:** With sustained policy momentum, India can emerge as a **biofuel innovation hub**, exporting technology and sustainable energy models to developing economies.

6. Challenges Ahead

- **Feedstock availability** and **competition with food crops** remain concerns, requiring careful balance between food and fuel priorities.
- **Infrastructure gaps** in ethanol distribution and lack of sufficient **E20/E30-compatible vehicles** could hinder adoption.
- **Price volatility** in sugar and crude oil markets may impact production economics.



- Need for **research in 2G and 3G biofuels** to make advanced ethanol economically viable.

7. Conclusion

India's success in achieving E20 blending ahead of schedule reflects the country's commitment to sustainable energy transition and climate responsibility. However, to maintain momentum, a **comprehensive ethanol mobility roadmap beyond E20** is vital. It should integrate technology adoption, feedstock diversification, financial incentives, and vehicle policy harmonization. This will ensure that India not only achieves **energy self-reliance** but also leads the **global biofuel revolution** as a model of green growth and rural empowerment.

16. Government Extends 16th Finance Commission's Tenure till 30 November 2025

1. Background and Context

- The Government of India has extended the tenure of the **16th Finance Commission (FC)** by **one month till 30 November 2025**, allowing additional time for finalizing its report and recommendations. The Commission, chaired by **Dr. Arvind Panagariya**, former Vice-Chairman of **NITI Aayog**, was constituted on **31 December 2023** under **Article 280 of the Constitution of India**. The extension aims to facilitate comprehensive consultation with States, Union Territories, and relevant ministries on fiscal transfers, devolution formulas, and fiscal sustainability measures.

2. Mandate of the 16th Finance Commission

- The Commission is tasked with recommending the **distribution of tax revenues** between the Centre and the States for the **period 2026–2031**.
- It also recommends:
 - **Vertical devolution:** Sharing of central taxes between the Union and States.
 - **Horizontal devolution:** Allocation of shares among States based on criteria like population, income distance, area, and fiscal discipline.
 - **Grants-in-aid** to States under Article 275 to supplement resources for specific purposes.
 - Measures to **augment resources of Panchayats and Municipalities** under **Articles 280(3)(bb) and (c)**.
- Additionally, the Commission examines the **Centre-State fiscal balance, debt sustainability**, and ways to strengthen **cooperative federalism**.

3. Constitutional and Legal Provisions

- **Article 280:** Mandates the President to constitute a Finance Commission every five years or earlier, as deemed necessary.
- **Article 281:** Requires the President to lay the Finance Commission's recommendations before Parliament, along with an explanatory memorandum on the government's action taken.
- **Article 275:** Allows grants from the Union to States for meeting special developmental needs.
- The Finance Commission operates as an **independent constitutional body**, ensuring **transparency and fairness** in the distribution of financial resources between the Centre and States.
- Its recommendations, though **advisory**, carry significant **constitutional and fiscal weight**, influencing the **Union Budget and State Finances**.

4. Key Issues Before the 16th Finance Commission

- **Revenue Sharing Formula:** Revisiting the tax devolution ratio between Centre and States, currently at **41%** as per the 15th FC.



- **Impact of GST Compensation:** Assessing fiscal imbalances post-GST implementation and recommending new compensatory mechanisms.
- **Debt and Deficit Management:** Suggesting a sustainable **fiscal consolidation roadmap** for both Union and States.
- **Demographic Shifts:** Addressing States' concerns over the use of **2011 Census data** for horizontal devolution, which may disadvantage southern States with lower population growth.
- **Local Body Funding:** Strengthening urban and rural local governance by ensuring adequate, predictable, and performance-based grants.
- **Climate Finance:** Exploring ways to integrate **climate resilience and environmental sustainability** in fiscal transfers — a new emerging focus area.

5. Importance of the Tenure Extension

- The extension till **30 November 2025** ensures adequate time for **data collection, inter-ministerial consultations, and State-level discussions**.
- It allows the Commission to incorporate **macroeconomic projections, post-pandemic fiscal realities, and recent policy developments** such as new welfare spending and infrastructure outlays.
- The additional time will help refine recommendations that are **fiscally realistic and growth-supportive**, aligning with India's long-term **Vision 2047** objectives.

6. Significance for Fiscal Federalism

- The Finance Commission plays a pivotal role in maintaining **India's fiscal balance and cooperative federalism**, ensuring that States have adequate resources to perform constitutionally assigned functions.
- By recommending **objective criteria for transfers**, it minimizes political discretion and strengthens **transparency in fiscal governance**.
- The 16th FC's approach is expected to focus on **performance-based incentives**, fiscal prudence, and the integration of **SDG-linked outcomes** in fiscal allocation.

7. Conclusion

The extension of the 16th Finance Commission's tenure underlines the **complexity and evolving nature of India's fiscal landscape**. With challenges such as widening regional disparities, climate-linked fiscal pressures, and the need for sustainable public finance, the Commission's recommendations will be crucial in shaping the **Centre-State financial architecture for the next five years (2026–2031)**. Its work will reaffirm the principles of **cooperative and competitive federalism**, essential for balanced national development.

17. India–Brazil Joint Declaration: Deepening MERCOSUR–India Trade Agreement

Key Summary:

- **Commitment to Deepening PTA:** India and Brazil reaffirmed their resolve to **substantially expand** the existing India-MERCOSUR Preferential Trade Agreement (PTA), originally framed under the 2003 Framework Agreement.
- **Scope of Expansion:** The new pact is mandated to go beyond simple tariff cuts, addressing **non-tariff issues** like regulatory cooperation, standards, investment facilitation, and supply-chain integration.
- **Substantial Benefit:** The expansion must be **substantial**, ensuring a significantly **larger proportion** of bilateral trade benefits from tariff preferences and reduced trade barriers.



- **Stakeholder Participation:** The declaration explicitly promotes the **active participation of private stakeholders** and industry bodies to inform negotiations and strengthen economic complementarities.
- **Mechanism & Timeline:** A **technical dialogue** via the Joint Administration Committee (JAC) will be activated soon to define modalities. Both sides aim to **conclude negotiations within one year** of the formal launch.
- **MERCOSUR Coordination:** Brazil committed to coordinated engagement with its MERCOSUR partners (Argentina, Paraguay, Uruguay) to achieve a **swift and mutually beneficial** outcome

Additional Key Points

- **Trade Diversification:** Expected to diversify India's trade basket in the Latin American region across sectors like **agriculture, minerals, pharmaceuticals, engineering goods, and services**.
- **Global South & Resilience:** Enhanced PTA terms will strengthen **South–South cooperation** and potentially support **supply-chain resilience** amid global disruptions.
- **Strategic Alignment:** The move aligns with India's focus on **plurilateral and regional partnerships** to counter global protectionist tendencies and boost its competitiveness.
- **MERCOSUR's New Outreach:** Brazil's assurance signals MERCOSUR's growing interest in engaging with **Asian economies** beyond traditional trade partners like China.
- **Economic Goal:** India seeks to leverage tariff concessions to **boost exports**, improve market access, and ultimately reduce its existing **trade deficit** with the MERCOSUR bloc.

Key Definitions

- **Preferential Trade Agreement (PTA):** A foundational trade pact where members grant **tariff concessions** only on a selected, limited list of products. It is less comprehensive than a Free Trade Agreement (FTA).
- **MERCOSUR:** A major South American trade bloc established to promote free trade and economic integration, comprising **Argentina, Brazil, Paraguay, and Uruguay**.
- **Non-Tariff Barriers (NTBs):** Trade restrictions other than tariffs, crucial for modern trade, including **technical regulations, standards, quotas, and licensing procedures**.
- **Joint Administration Committee (JAC):** The technical body under **Article 23** of the PTA responsible for overseeing, reviewing, and facilitating the implementation and future expansion of the agreement.

Constitutional & Legal Provisions

- **Article 253 of the Constitution:** Empowers the **Parliament** to enact laws for implementing any international **agreement, treaty, or convention**.
- **Article 73 & 246 (Union List):** Provide the **Union Government** with the power to enter into and manage **international treaties** and regulate foreign trade.
- **Foreign Trade (Development and Regulation) Act, 1992:** The core legal framework governing India's foreign trade policy and implementation of international trade agreements.
- **WTO Agreement (Marrakesh Agreement):** All PTA/FTA expansions must comply with India's commitments under the WTO rules regarding tariffs, rules of origin, and transparency.

Conclusion

The India–Brazil joint declaration is a **strategic and timely move to revitalise and deepen** the MERCOSUR–India economic relationship. The ambitious one-year timeline, coupled with the focus on addressing both **tariff and regulatory barriers**, demonstrates strong political commitment to creating a more predictable, robust, and mutually beneficial trade architecture, which is vital in the current landscape of shifting global supply chains and rising protectionism.



18. India Elected to the UN Human Rights Council (UNHRC) for the Seventh Time

1. Overview of the Development

- India has been **elected to the United Nations Human Rights Council (UNHRC)** for the **2026–2028 term**, marking its **seventh term** on the Geneva-based body.
- The election reflects **global confidence in India’s democratic credentials**, constitutional commitment to human rights, and active role in multilateral diplomacy.
- India’s three-year term will officially **begin on January 1, 2026**, as confirmed by the UNHRC and **India’s Permanent Mission to the United Nations** in New York.
- **Ambassador Parvathaneni Harish**, India’s Permanent Representative to the UN, expressed gratitude to member nations for their overwhelming support.

2. About the United Nations Human Rights Council (UNHRC)

- The UNHRC is a **47-member inter-governmental body** under the **UN General Assembly**, responsible for **promoting and protecting human rights globally**.
- It was **established in 2006**, replacing the former **UN Commission on Human Rights**.
- Members are **elected by the UN General Assembly** through a **direct and secret ballot**, based on **equitable geographical representation**.
- Each member serves a **three-year term** and cannot serve more than **two consecutive terms**.
- The UNHRC meets in **Geneva, Switzerland**, and operates under the **Universal Periodic Review (UPR)** mechanism to assess human rights situations in all member countries.

3. India’s Role and Past Tenures

- India has previously served on the Council **six times** — reflecting its consistent engagement with global human rights institutions.
- India has advocated a **balanced approach to human rights**, emphasizing the principles of **universality, indivisibility, and non-selectivity**.
- It has worked to integrate **economic, social, and cultural rights** alongside **civil and political rights**, aligning with its constitutional and developmental framework.
- India has also highlighted issues like **gender equality, sustainable development, freedom of religion, and rights of developing nations** in global human rights discourse.

4. Constitutional and Legal Framework for Human Rights in India

- The **Indian Constitution** provides a robust foundation for human rights protection:
 - **Fundamental Rights (Articles 12–35)** ensure equality, liberty, and protection from exploitation.
 - **Directive Principles of State Policy (Articles 36–51)** promote social and economic justice, reflecting India’s commitment to human dignity.
 - **Article 51(c)** directs the State to **foster respect for international law and treaty obligations**, including those related to human rights.
- The **Protection of Human Rights Act, 1993** established the **National Human Rights Commission (NHRC)** and State Commissions to investigate rights violations and promote awareness.



- India is a signatory to major **UN human rights conventions**, including the **Universal Declaration of Human Rights (1948)**, **ICCPR**, and **ICESCR**.

5. Diplomatic and Strategic Significance

- India's election reinforces its **soft power** and global image as the **world's largest democracy** committed to inclusive governance.
- It provides India a platform to **shape global human rights narratives**, especially around **digital rights**, **development-linked rights**, and **climate justice**.
- The position strengthens India's voice in countering **biased or politicized narratives** against its domestic policies.
- It aligns with India's broader **multilateral engagement strategy**, including its active roles in the **UN Security Council**, **UNESCO**, and **World Health Organization**.

6. Challenges and the Way Forward

- India faces the dual responsibility of **advocating human rights internationally** while ensuring **domestic implementation** and addressing criticism on issues like **freedom of expression** or **minority rights**.
- Strengthening **human rights education**, **institutional mechanisms (NHRC, SHRCs)**, and **transparent redressal systems** will reinforce India's credibility.
- India can leverage its position to promote **Global South perspectives**, emphasizing **developmental rights**, **equitable digital access**, and **climate-linked displacement**.

Conclusion

India's election to the UNHRC for the 2026–28 term reaffirms its enduring commitment to the **protection and promotion of human rights at both national and international levels**. As a democracy guided by constitutional ideals, India's leadership at the Council offers an opportunity to advocate a **balanced, inclusive, and development-oriented human rights agenda** that upholds dignity, equality, and justice for all.

19. Restoring Fiscal Space for States – Post-GST Restructuring and Federal Fiscal Balance

1. Background and Context: End of GST Compensation and Fiscal Transition

India's **Goods and Services Tax (GST)** regime has entered a new phase with the **restructuring of tax slabs** and the **merger of the GST compensation cess with regular tax**, marking the formal **end of the compensation era**. This restructuring, estimated to pass on benefits exceeding ₹2 lakh crore to consumers, is expected to **boost local demand and revenue growth**. However, several States have raised concerns over the **absence of a clear estimation of potential revenue losses**, arguing that the removal of compensation mechanisms could erode their **fiscal autonomy and financial stability**, especially for those heavily reliant on GST transfers.

2. Constitutional Framework and Evolution of Fiscal Federalism

India's **federal fiscal structure** is constitutionally defined under:

- **Article 246**: Distribution of legislative and taxation powers between the Union and States.
- **Article 246A (101st Amendment, 2016)**: Introduced GST, allowing concurrent taxation powers on goods and services.
- **Articles 268–293**: Outline Centre-State financial relations.
- **Article 280**: Establishes the **Finance Commission** to recommend devolution of taxes. GST, introduced in 2017 through the **101st Constitutional Amendment**, replaced the origin-based



tax system with a **destination-based system**, leading to a **centralisation of revenue powers** under the GST Council—where the Centre has a dominant role. While designed to promote cooperative federalism, this transition significantly curtailed **States' independent taxation powers**.

3. Declining Fiscal Autonomy and Centralisation of Resources

Before GST, States collected about **33% of total tax revenue**. Post-GST, this ratio remains stagnant, even as **States' expenditure responsibilities** have increased to 52% of total public spending (2022–23). The **Centre's collection powers** remain robust due to rising **cesses and surcharges**, which are **non-shareable** under Article 270. In FY 2025–26, cess and surcharge revenues are projected to exceed ₹4.2 lakh crore, excluding the GST compensation cess. This practice effectively **reduces the divisible pool**, despite the **Finance Commission's recommendation of a 41% devolution** (reduced from 42% after J&K's reorganisation). As a result, States face **cash flow constraints**, reduced fiscal space, and growing dependence on Central transfers—ranging from **72% in Bihar** to **20% in Haryana**.

4. Role of the Finance Commission and Issues in Resource Devolution

The **Finance Commission (FC)**, constituted under **Article 280**, recommends tax-sharing formulas and grants. However, States have often criticised:

- **Inconsistency in criteria** and relative weights across FCs.
- **Perceived bias against progressive States**, which contribute more to the national tax pool.
- **Opaque fund flow mechanisms** through **Centrally Sponsored Schemes (CSS)** and **Central Sector Schemes**,

which bypass fiscal autonomy.

Following the **abolition of the Planning Commission (2014)**, Article 282 allows discretionary Central grants, but States allege **non-transparent allocation** and **political bias**, especially toward Opposition-ruled States.



5. Towards Fiscal Autonomy: Proposed Reforms and Comparative Models

To rebalance fiscal federalism, experts propose:

- **Sharing of personal income tax (IT) base** between the Centre and States, similar to GST. For instance, if IT revenues of ₹13.5 lakh crore (BE 2025–26) are split 50:50, it could strengthen States' liquidity and reduce dependency.
- **Allowing States to "top up" personal IT rates**, providing flexibility and rewarding progressive States for their higher economic activity.
- **Revisiting cess and surcharge policies**, merging them into the divisible pool to ensure equitable sharing.
- Learning from **Canada's federal model**, where the Centre collects 46% of taxes and spends 40%, while provinces collect 54% and spend 60%, ensuring greater **fiscal decentralisation** and **policy flexibility**.

Definition of Key Term

GST Compensation Cess: A temporary levy imposed under the **GST (Compensation to States) Act, 2017** to compensate States for revenue losses incurred due to the transition to GST. It was to be paid for five years (2017–2022) and has now been **merged with the regular GST tax structure**.

6. Implications for Cooperative Federalism and Economic Governance

The GST era has transformed India's **fiscal architecture**, centralising tax powers but decentralising expenditure responsibilities. The mismatch between revenue-raising authority and expenditure commitments has deepened **vertical fiscal imbalance**. To sustain **cooperative federalism**, fiscal reforms must empower



States with greater control over resources, transparent transfers, and flexibility to innovate locally. Without these, fiscal centralisation may undermine democratic accountability and policy responsiveness at the subnational level.

Conclusion

The end of GST compensation and the rising dominance of cesses and surcharges have reignited debates over **Centre-State fiscal balance**. As States shoulder growing responsibilities in health, education, agriculture, and local governance, restoring their **fiscal autonomy** is crucial for equitable development and democratic stability. Strengthening **federal fiscal architecture**, rationalising **revenue sharing**, and enabling **States' participation in direct taxation** will reinforce India's model of **cooperative and competitive federalism**.

GEOGRAPHY & ENVIRONMENT

1. CAQM's New Directive on Stubble Burning – Strengthening Action Against Officials

Key Highlights

- The **Commission for Air Quality Management (CAQM)** in the National Capital Region and adjoining areas has issued a new directive (October 1) to curb **stubble burning**, a major contributor to Delhi's winter air pollution.
- **District Collectors, District Magistrates, and Deputy Commissioners** in Punjab, Haryana, Rajasthan, Uttar Pradesh, and Delhi have been empowered to directly file complaints before **judicial magistrates** against officials found negligent in enforcing anti-pollution measures.
- Nodal officers, supervisory officers, and even **Station House Officers (SHOs)** can be held **personally accountable** for failure to implement preventive actions.
- The directive builds on a **similar order issued last year** and follows the **Supreme Court's recent urging** for a tougher stance on stubble burning.
- According to **Indian Agricultural Research Institute (IARI)** data, Punjab has reported **95 incidents of stubble burning so far this harvest season** compared to 179 during the same period last year — the lowest in six years.
- Stubble burning peaks in **October–November**, coinciding with **low wind speeds and falling temperatures** that worsen air quality in Delhi-NCR.

Definitions / Concepts

- **Stubble Burning**: The deliberate setting of fire to leftover crop residue after harvesting, mainly paddy. It is a cost-effective but environmentally damaging practice.
- **CAQM**: A statutory body under the **Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021**, empowered to coordinate, monitor and enforce measures to improve air quality in the NCR and adjoining States.
- **Judicial Magistrate**: A judicial officer of the lower judiciary empowered under the **Code of Criminal Procedure (CrPC), 1973** to take cognizance of offences and complaints.

Constitutional & Legal Provisions

- **Article 48-A (Directive Principles of State Policy)**: The State shall protect and improve the environment.
- **Article 51-A(g) (Fundamental Duties)**: It is the duty of every citizen to protect and improve the natural environment.



- **Environment Protection Act, 1986:** Provides the central legal framework for addressing environmental issues, under which the CAQM derives its enforcement powers.
- **Supreme Court's Role:** The Court has repeatedly directed State governments to take stronger measures against stubble burning under its **powers to enforce Fundamental Rights (Article 32)**.

Additional Key Points

- Stubble burning contributes to **PM2.5 and PM10** levels, which aggravate respiratory and cardiovascular diseases.
- The directive reflects a **shift from merely targeting farmers** to holding **administrative machinery accountable** for enforcement.
- **IARI satellite monitoring** is key to tracking real-time incidents of stubble burning.
- The policy aims to **balance agricultural practices and environmental protection** through stricter administrative action.

Conclusion

The CAQM's new directive represents a significant step in strengthening accountability of State and district-level officials in curbing stubble burning. By empowering senior district heads to directly approach courts, the measure complements judicial pressure and scientific monitoring to address Delhi-NCR's recurring winter pollution crisis.

2. Clean Energy Rise and the Need for Expanded Climate Finance

Key Highlights

- Global clean energy investments have risen sharply, driven by the **energy transition** and commitments under the **Paris Agreement (2015)**, but developing countries face financing gaps to achieve Net Zero targets.
- **Climate finance** refers to funds provided by developed countries to support mitigation and adaptation in developing countries, as mandated under **UNFCCC Articles 4 & 9**.
- Renewable energy deployment, including **solar, wind, and green hydrogen**, is growing, yet financial flows are insufficient for scaling projects in **low-income countries**.
- International mechanisms like the **Green Climate Fund (GCF)**, **Global Environment Facility (GEF)**, and **Multilateral Development Banks (MDBs)** play a pivotal role in mobilising climate finance.
- Challenges include **high upfront costs**, currency risks, and lack of local technical capacity, which hinder adoption of clean energy technologies in vulnerable regions.
- Developed nations have pledged **\$100 billion per year by 2020**, but commitments remain only partially fulfilled, highlighting a trust and compliance gap in the global climate regime.

Definitions / Concepts

- **Clean Energy:** Energy derived from renewable sources that produce low or zero greenhouse gas emissions.
- **Climate Finance:** Financial resources mobilized to support climate mitigation (reducing emissions) and adaptation (building resilience to climate impacts).





- **Energy Transition:** Shift from fossil fuel-based energy systems to sustainable, low-carbon energy systems.
- **Net Zero:** Achieving a balance between greenhouse gas emissions produced and removed from the atmosphere.

Constitutional & Legal Provisions / International Frameworks

- **Article 21 of the Indian Constitution:** Right to life includes a clean and healthy environment.
- **UNFCCC (1992):** Framework convention for global climate action; provides the basis for climate finance obligations.
- **Paris Agreement (2015):** Global pact to limit global warming below 2°C, with emphasis on finance, technology transfer, and capacity building.
- **National Action Plan on Climate Change (NAPCC), India:** Implements renewable energy, energy efficiency, and adaptation projects domestically, leveraging both domestic and international finance.

Additional Key Points

- Public finance alone is insufficient; mobilization of **private sector investments** is critical for scaling renewable energy.
- Innovations like **green bonds, carbon markets, and blended finance** can unlock new funds for clean energy projects.
- Climate finance also underpins **energy access, poverty reduction, and economic development** in climate-vulnerable regions.
- Effective governance, **transparent fund allocation**, and monitoring mechanisms are necessary to ensure equitable distribution of climate finance.

Conclusion

The clean energy surge worldwide requires **substantial expansion of climate finance**, particularly to support developing countries in their energy transition and climate adaptation efforts. Bridging the finance gap is essential not only for environmental sustainability but also for global economic stability and climate justice.

3. Centre Urges States to Clear Forest Rights Act (FRA) Backlog

1. Background & Current Status

- **FRA 2006:** Recognises **forest rights** of forest-dwelling Scheduled Tribes (STs) and traditional forest dwellers, including **individual rights** (residence, cultivation) and **community rights** (grazing, minor forest produce, forest conservation).
- As of June 2025, **51.23 lakh claims received, 25.11 lakh titles distributed (49%), 7.49 lakh pending (15%), 18.62 lakh rejected (36%).**
- Highest pending claims: **Telangana (3.29 lakh), Odisha (1.20 lakh), Assam (96,000), Gujarat (84,000), Maharashtra (28,000).** Proportionally highest: Goa (87%), Himachal Pradesh (84.5%).

2. Issues Identified

- Delays due to fragmented implementation at **state/UT level.**
- Incomplete or delayed recognition of **Community Forest Resource Rights (CFRR)** limits local stewardship over forests.



- Some regions (e.g., Assam's Dima Hasao & Karbi Anglong) have **not initiated FRA processes** despite autonomous councils.
- Modifications, partial rejections, and non-initiation of claims remain bigger challenges than outright approval.

3. Government Interventions

- **Ministry of Tribal Affairs (MoTA)** urges states/UTs to **clear backlog** and review FRA implementation.
- **Dharti Aaba Janjatiya Gram Utkarsh Abhiyan (DA-JGUA)**: Launched 2024, a flagship tribal welfare scheme to strengthen FRA implementation with:
 - FRA cells for claims facilitation and mapping of potential forest areas.
 - FRA portals for monitoring progress.
 - Funding for Gram Sabhas for **Community Forest Resource Management Plans (CFRMPs)** – Rs 15,000/hectare; 1,000 plans over 2 years.
- Some states (Madhya Pradesh, Tamil Nadu, Chhattisgarh) completed potential area mapping & published FRA Atlas.



4. Constitutional & Legal Provisions

- **Article 244 & Fifth Schedule**: Administration & control of Scheduled Areas and Tribes.
- **Article 21**: Right to livelihood for forest-dependent communities.
- **Forest Rights Act, 2006**: Balances **tribal rights, forest conservation, and ecological protection**; implementation is **state responsibility**, MoTA as **nodal authority**.
- Supports **Gram Sabha** as local authority to determine rights and manage CFRs.

5. Key Definitions

- **Individual Forest Rights (IFR)**: Right to live in, cultivate, and use forest land.
- **Community Forest Resource Rights (CFRR)**: Rights of communities to manage, conserve, and sustainably use forest resources.
- **Gram Sabha**: Village assembly of adult members empowered to protect and manage local forests under FRA.
- **DA-JGUA**: Umbrella scheme for tribal welfare integrating 17 line ministries for saturation delivery of schemes.

6. Conclusion & UPSC Relevance

- **Conclusion**: Clearing FRA backlog is critical to **empower forest-dwelling communities**, ensure **sustainable forest management**, and strengthen **livelihood security**. Focus on CFRR, legal reforms, and effective state-level implementation is essential.

4. Disaster Risk Reduction (DRR) in India – Key Highlights

1. Multi-Hazard Context & Governance

- India is a **multi-hazard country**, prone to cyclones, floods, landslides, forest fires, and heatwaves.



- **Disaster Risk Reduction (DRR)** involves measures to **prevent, mitigate, prepare, respond, and reconstruct** from disasters.
- **Key institutions:**
 - **Ministry of Home Affairs (MHA)** – overall coordination
 - **National Disaster Management Authority (NDMA)** – policy formulation & implementation
 - **National Institute of Disaster Management (NIDM)** – training, research, documentation
- **Guiding framework:** Prime Minister's **Ten Point Agenda on Disaster Risk Reduction (2016)**.

2. Financial Planning & Public Finance Integration

- **15th Finance Commission (2021)** allocated **₹2.28 lakh crore** for DRR over 5 years.
- Allocation breakdown:
 - **Preparedness & capacity building** – 10%
 - **Mitigation** – 20%
 - **Response** – 40%
 - **Reconstruction** – 30%
- Focus on integrating **scientific mitigation methods** into public finance, avoiding duplication, and enhancing **Centre-State coordination**.

3. Pre-Disaster Measures & Capacity Building

- **Modernisation of fire safety** – ₹5,000 crore allocated.
- Creation of **Apda Mitra and Yuva Apda Mitra volunteer groups** (2.5 lakh each).
- Expansion of **geo-spatial labs and action-based research** at NIDM.
- Standardised disaster management curriculum across **36 streams**, targeting **mainstreaming DRR at Panchayat level**.

4. Mitigation Strategies & Nature-Based Solutions

- **Mitigation allocation (20%)** supports innovative, nature-based projects worth ₹10,000 crore.
- Focus on:
 - **Cyclone shelters, early warning systems, embankments** (coastal areas)
 - **Urban flood mitigation** – revitalising water bodies & green spaces
 - **Landslide prevention** – bio-engineering & slope stabilisation
 - **Forest fire prevention** – fuel evacuation & water body rejuvenation
- Past success: **National Cyclone Mitigation Programme (2011-22)** reduced vulnerability in eight coastal states.

5. Early Warning Systems & Community Preparedness

- **Advanced early warning systems** integrated with **Common Alerting Protocol**, providing alerts in local languages.
- Community capacity building via:



- Mock exercises
- School safety programmes
- NDRF Academy and National Fire Service College trainings
- Strengthening **institutional networks** with 327 universities and institutes supporting DRR research & training.

6. International Coordination & Strategic Initiatives

- India leads in global DRR initiatives via:
 - **Coalition for Disaster Resilient Infrastructure (CDRI)**
 - Platforms: G20, SCO, BIMSTEC, IORA
- Focus on **learning from global best practices** and implementing **sustainable, climate-resilient solutions**.

Conclusion & UPSC Relevance

- **Conclusion:** India is adopting a **proactive, multi-dimensional approach** to DRR, combining financial planning, scientific mitigation, capacity building, nature-based solutions, and international cooperation to enhance resilience.

5. Cooperative Compressed Biogas (CBG) Plant – Kopergaon, Maharashtra

1. Overview and Significance

- **Event:** Inauguration of India's first **cooperative multi-feed Compressed Biogas (CBG) plant** at Maharshi Shankarrao Kolhe Sahakari Sakhar Karkhana, Kopergaon, Maharashtra.
- **Significance:** First-of-its-kind initiative in India's **cooperative sugar mills**, producing **12 tons of CBG daily** and **75 tons of potash from jaggery/molasses**, reducing imports and enhancing self-reliance.
- Promotes the **circular economy** in sugar factories, integrating waste-to-energy and value addition.

2. Government Support and Expansion Plans

- **NCDC (National Cooperative Development Corporation)** will assist **15 selected sugar mills** to establish similar CBG and potash units.
- Encourages diversification: sugar mills are also urged to undertake **fruit processing** to enhance profitability and promote cultivation.
- Supports India's broader **energy transition** and **sustainable agriculture** initiatives.

3. Policy Initiatives Benefiting Farmers

- **Mission for Aatmanirbharta in Pulses:** ₹11,440 crore investment for 1,000 pulse processing units and distribution of 88 lakh high-quality seed kits.
- **Minimum Support Price (MSP)** increase for pulses and cereals:
 - Masoor ₹300/quintal, Mustard ₹250, Gram ₹225, Barley ₹175, Wheat ₹160
 - Historical increases under PM Modi: e.g., Tur/arhar doubled, Moong doubled, Soybean & Cotton doubled.
- **GST Reduction to 5%** on agricultural machinery, organic pesticides, and inputs, promoting affordability and productivity.



4. Economic and Environmental Impact

- **CBG and potash production** reduces India's dependency on imports.
- Demonstrates **circular economy principles** by converting by-products of sugar production into energy and fertilizer.
- Encourages **green energy**, rural employment, women empowerment, and sustainable industrial practices.
- Example of multidimensional ethanol and renewable energy initiatives.

5. Role of Cooperatives and Rural Economy

- Cooperative sugar factories, originating in Maharashtra, are **revitalized as pillars of rural economy**.
- Ministry of Cooperation's creation strengthens **rural entrepreneurship, self-help groups, and Primary Agricultural Credit Societies (PACS)**.
- Integration of cooperatives, agro-processing, energy, and education contributes to **inclusive rural development**.

6. Broader Vision and Strategic Importance

- PM Modi's push for **self-reliance (Atmanirbhar Bharat)** and adoption of **indigenous products** aligns with this initiative.
- Strengthens India's position in renewable energy, agricultural sustainability, and cooperative sector development.
- Contributes to India's goal of becoming a **top global economy** through local production, rural empowerment, and import substitution.

Conclusion & UPSC Relevance

- **Conclusion:** The cooperative CBG plant at Kopergaon exemplifies the **integration of renewable energy, circular economy, and cooperative models** to achieve self-reliance, rural development, and sustainable industrial practices.

6. Proposed Environmental Clearance Exemption for Waste Management Units

- **Key Proposal & Scope of Exemption:** The Union Environment Ministry has proposed to exempt **Common Municipal Solid Waste Management Facilities (MSWM) and Common Effluent Treatment Plants (CETPs)** from the mandatory requirement of **prior Environmental Clearance (EC)** under the **Environmental Impact Assessment (EIA) Notification, 2006**.
 - **Definition: Prior Environmental Clearance (EC)** is a mandatory procedural safeguard under the EIA Notification, 2006, where specific developmental activities must first assess their potential environmental impacts (EIA) and receive approval from the central or state authority before commencing work.
- **Rationale for Exemption:** The proposal is based on the recommendation of the sectoral **Expert Appraisal Committee (EAC)** on infrastructure projects. The EAC's rationale is that MSWM facilities and CETPs are already governed by **stringent and comprehensive regulatory regimes** under existing environmental statutes.
- **Existing Legal Frameworks (The Basis for Regulation):** The two primary Central Acts invoked to justify the exemption are:



- **The Water (Prevention and Control of Pollution) Act, 1974:** Regulates water pollution and controls the discharge of effluents, which applies directly to CETPs.
- **The Air (Prevention and Control of Pollution) Act, 1981:** Regulates air pollution, which is relevant for various processes in MSWM facilities (e.g., incineration, landfill gases).
- **Mechanism of Exemption (EIA Notification, 2006):** The exemption is to be executed by officially **omitting the relevant entries** related to MSWM facilities and CETPs from the list of activities requiring prior EC under the schedule of the EIA Notification, 2006. This signifies a shift towards relying on **sector-specific pollution control laws** instead of the broader, upfront EC process.
- **Broader Implications for Governance:** The proposal reflects a trend towards **easing regulatory burden** and potentially **fast-tracking infrastructure projects** related to waste management. However, this shift raises concerns about the potential dilution of the **Environmental Impact Assessment (EIA)** process, which is primarily a tool for *proactive planning* and *public consultation* before a project is approved.
- **Legal Provisions for Waste Management:** Beyond the Air and Water Acts, MSWM facilities are specifically governed by the **Solid Waste Management Rules, 2016** (under the Environment (Protection) Act, 1986), which mandate various procedural and technical requirements, including site selection, closure, and environmental standards.

Conclusion and UPSC Relevance

The proposed exemption of Common MSWM facilities and CETPs from the prior Environmental Clearance requirement, while justified by the existence of specific Acts like the Water Act, 1974, and Air Act, 1981, marks a significant shift in environmental governance. It represents a policy focus on expediting vital urban and industrial infrastructure by moving away from the overarching EIA framework. While streamlining clearances is desirable, it necessitates enhanced and effective enforcement of the existing sectoral pollution control rules to ensure environmental standards are not compromised.

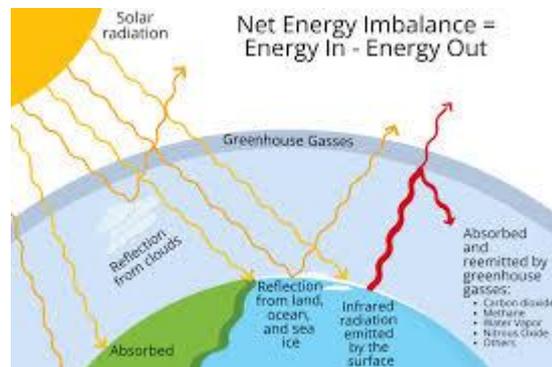
7. Fundamentals of Climate Models and Their Accuracy

- **What are Climate Models?** Climate models are **sophisticated computer programs** based on **mathematical equations** representing the physics, chemistry, and biology that govern the **Earth's climate system** (atmosphere, oceans, land surface, and ice). They help scientists understand past climate change, current trends, and project future scenarios.
 - **Key Components:** Models incorporate vast amounts of data, including greenhouse gas concentrations, solar radiation, aerosols, and land-use changes.
 - **Definition: Climate System** refers to the complex interactive system consisting of the atmosphere, hydrosphere (water bodies), cryosphere (ice), land surface, and biosphere (living things).
- **Working Mechanism and Scenario Projections:** Climate models are essentially **numerical simulations**. They divide the Earth and its atmosphere into a **3-dimensional grid**, calculate the interactions between different grid cells (e.g., heat transfer, moisture movement) over short time steps, and iterate this process forward to project climate variables (temperature, precipitation, sea level).
 - **Projections vs. Predictions:** Models produce **projections**, which are estimates of future climate based on specific scenarios (e.g., high-emission vs. low-emission pathways) known
 -



as **Representative Concentration Pathways (RCPs)** or **Shared Socio-economic Pathways (SSPs)**, rather than deterministic short-term weather *predictions*.

- **Accuracy and Limitations of Climate Models:** Climate models have proven **remarkably accurate** in predicting global mean temperature increases and other large-scale changes over decades, with many early model projections matching observed reality closely.
 - **Limitations:** They are complex and rely on assumptions about future human behavior (emission levels). Their **accuracy decreases** when predicting **regional or local impacts** and specific extreme weather events, which is often where skeptics focus their criticism. Uncertainty also arises from representing complex, small-scale processes (like cloud formation).
- **Scientific Consensus and Model Robustness:** The robust nature of climate science is supported by the fact that **multiple independent models**, developed by different international groups, all show consistent results regarding the direction and magnitude of human-caused warming. This consistency across diverse models reinforces the **scientific consensus** on climate change.
- **International Framework and Conventions:** The need for and reliability of climate models underpin international climate action.
 - **UNFCCC, 1992 (United Nations Framework Convention on Climate Change):** Acknowledges that changes in the concentration of greenhouse gases due to human activity could lead to global warming.
 - **Paris Agreement (2015):** Relies on model projections to set long-term temperature goals (keeping warming well below 2°C) and to guide Nationally Determined Contributions (NDCs).
 - **IPCC (Intergovernmental Panel on Climate Change):** Provides the most authoritative assessments, which are entirely based on the synthesis and validation of thousands of climate model simulations and observations.



Conclusion and UPSC Relevance

Climate models are indispensable tools that translate fundamental scientific laws into quantitative projections of Earth's future climate. Despite political rhetoric to the contrary, the models have demonstrated high skill in predicting long-term, large-scale warming trends driven by anthropogenic emissions. Any critique must distinguish between the accurate, long-term **climate projections** based on well-established physics and less certain short-term **weather predictions**. The global response to climate change, including the Paris Agreement, is strategically dependent on the scientific foundation provided by these models.

8. Supreme Court Halts Aravalli Jungle Safari Project – Ecological and Legal Implications

1. Background and Supreme Court's Intervention

- The **Supreme Court (Bench: CJI B.R. Gavai and Justice K. Vinod Chandran)** has ordered the **Haryana government** to halt all work on the **Aravalli Jungle Safari Project** until the next hearing on **October 15, 2025**.



- The petition was filed by **five retired IFS officers** and the environmental collective ‘**People for Aravallis**’ as part of the ongoing forest conservation case – *T.N. Godavarman Thirumulpad vs Union of India & Others (1995)*.
- Petitioners argue that the **10,000-acre project** prioritizes **commercial and tourism interests** over **ecological restoration**, in violation of **environmental protection principles** and **forest conservation laws**.

2. Project Overview and Scope

- **Project Objective:** Announced in **2022**, the Aravalli Jungle Safari aims to be the “**world’s largest zoo-safari park**” in **Gurugram and Nuh districts**, inspired by models like **Sharjah Safari (UAE)** and **Gir Sanctuary (Gujarat)**.
- **Planned Features:**
 - Four wildlife zones for **big cats**, herbivores, and exotic species.
 - **Aviary, herpetarium, botanical gardens, nature trails, underwater exhibits**, and theme-based zones (equatorial, desert, tropical, coastal).
 - Development under ‘**Aravalli Foundation**’ with international consultants.
- **Phase 1:** To cover **2,500 acres**, including “international-level” enclosures and a ‘**Matri Van**’ initiative planting **20,000 native trees**.
- **Estimated Cost:** Between **₹500 crore – ₹1,000 crore**, possibly through **Public-Private Partnerships (PPPs)** for sustainable financing.



3. Environmental and Ecological Concerns

- Petitioners describe the **Aravallis** as the “**ecological lungs of Delhi-NCR**”, serving as:
 - **Barrier against desertification** advancing from the Thar Desert.
 - **Groundwater recharge zone** vital for Delhi, Gurugram, and Faridabad.
 - **Air pollution sink** and **climate regulator** moderating NCR’s microclimate.
 - **Critical wildlife corridor** connecting Sariska, Ranthambore, and Delhi Ridge ecosystems.
- Critics argue that large-scale **construction of roads, hotels, animal enclosures, cable cars, and entertainment zones** will lead to **massive deforestation, habitat fragmentation, and ecological degradation**.
- Environmentalists stress the contradiction between “**eco-tourism**” and “**commercial exploitation**” in an **eco-sensitive zone (ESZ)** already suffering from **urbanization, mining, and encroachment**.

4. Legal and Constitutional Framework

- **Forest Conservation Act, 1980:** Restricts diversion of forest land for non-forest purposes without prior central approval.
- **Environment (Protection) Act, 1986:** Mandates environmental impact assessments (EIA) before large-scale projects.



- **Wildlife (Protection) Act, 1972:** Protects wildlife habitats and prohibits destruction of ecological corridors.
- **Supreme Court Precedents:**
 - *T.N. Godavarman Thirumulpad Case (1995)* – expanded the definition of “forest” and mandated judicial oversight of forest diversion.
 - *M.C. Mehta vs Union of India* – emphasized protection of the **Aravalli ecosystem** as an environmental priority.
- **Constitutional Provisions:**
 - **Article 48A (DPSP):** Obliges the State to protect and improve the environment and safeguard forests and wildlife.
 - **Article 51A(g):** Fundamental duty of citizens to protect the natural environment.

5. Policy and Governance Dimensions

- The safari park was a **2024 election manifesto promise** of the Haryana government, projecting it as a “**green tourism**” initiative to generate revenue and employment.
- **Administrative Framework:** Creation of an **Aravalli Foundation** for planning and technical guidance, but the **lack of transparency in EIA clearance and funding** has raised concerns.
- **Critics’ Standpoint:** The project undermines India’s commitment to **Sustainable Development Goals (SDGs 13 & 15)** and violates **precautionary and intergenerational equity principles** under environmental jurisprudence.
- **Alternative Vision:** Petitioners advocate for **restoration and reforestation-based eco-restoration**, not **infrastructure-heavy eco-tourism**, to revive Aravalli’s natural ecosystem.

6. Definition of Key Term

- **Eco-Tourism:** Environmentally responsible travel to natural areas that **conserves the environment**, **sustains local communities**, and **educates visitors**, ensuring **minimal ecological footprint**.

Conclusion

The Supreme Court’s intervention underscores the **judicial commitment to environmental sustainability** and the need to reconcile **development with ecological preservation**. The Aravalli Safari case highlights the broader conflict between **economic ambitions and environmental prudence**. A balanced approach must prioritize **eco-restoration, legal compliance, and intergenerational environmental justice** to safeguard one of India’s most fragile ecosystems.

9. India to Prepare National ‘Red List’ to Assess Extinction Risk of 11,000 Species (2025–2030)

1. Background and Objective of the Initiative

- The **Union Ministry of Environment, Forest and Climate Change (MoEFCC)** has launched a **five-year National Red List Assessment (2025–2030)** to evaluate the **extinction risk of about 11,000 species** — including **7,000 flora** and **4,000 fauna** — across India.
- This is **India’s first-ever comprehensive national assessment** of species’ conservation status, aligned with **IUCN global standards**.
- The initiative was unveiled by **Union Minister of State Kirti Vardhan Singh** at the **World Congress of the International Union for Conservation of Nature (IUCN)** in Abu Dhabi.



- The aim is to establish a **nationally coordinated, participatory, and upgradable “Red Listing” system** that will reflect the **true conservation status of India’s biodiversity** and guide policy action.

2. Global Context and International Commitments

- The project fulfills India’s obligations under the **Convention on Biological Diversity (CBD)** and the **Kunming–Montreal Global Biodiversity Framework (KM-GBF)** adopted in **December 2022 at COP15**.
- It also aligns with the **United Nations Sustainable Development Goals (SDGs)** — particularly **SDG 14 (Life Below Water)** and **SDG 15 (Life on Land)**.
- The **IUCN Red List** serves as the **global benchmark** for species conservation, categorizing species into groups such as *Extinct*, *Critically Endangered*, *Endangered*, *Vulnerable*, *Near Threatened*, *Least Concern*, *Data Deficient*, and *Not Evaluated*.
- India’s National Red List will contribute data to IUCN’s global database, thereby strengthening **biodiversity monitoring and conservation accountability** at international forums.

3. Current Status of India’s Biodiversity Assessments

- India hosts **55,726 plant species** (including algae, fungi, and microbes), of which only **3,501 plants (6.33%)** and **27 fungi species** have been globally assessed by IUCN.
- Out of **1,04,561 faunal species**, only **7,516 (7.2%)** have been assessed so far.
- Alarmingly, **1,012 species (13.4%)** fall under the “**threatened**” category, and **289** are **near threatened**.
- Additionally, **13.8% of assessed species are data deficient**, indicating significant research gaps.
- Of the **8,658 Indian species assessed globally**, **1,582 are endemic**, with high endemism seen in **amphibians (79%)** and **reptiles (54.9%)** — reflecting India’s ecological uniqueness and vulnerability.

4. Institutional Framework and Implementation Strategy

- The project will be **jointly implemented** by:
 - **Botanical Survey of India (BSI)** – assessing plant diversity.
 - **Zoological Survey of India (ZSI)** – assessing faunal species.
 - **Wildlife Institute of India (WII)** – providing technical, field, and data support.
- It will adopt a **participatory and multi-stakeholder approach**, engaging **taxonomists, conservation biologists, NGOs, and academic experts**.
- The initiative will create a **centralized biodiversity database**, improving decision-making for conservation, habitat protection, and species recovery programs.
- The National Red List will be **updated periodically**, ensuring it remains dynamic and scientifically validated.

5. Constitutional, Legal, and Policy Framework

- **Constitutional Provisions:**
 - **Article 48A (Directive Principles of State Policy):** The State shall protect and improve the environment and safeguard forests and wildlife.



- **Article 51A(g) (Fundamental Duties):** Every citizen must protect and improve the natural environment, including forests, lakes, rivers, and wildlife.
- **Legal Framework:**
 - **Wildlife (Protection) Act, 1972** – provides legal protection to threatened species.
 - **Biological Diversity Act, 2002** – ensures conservation, sustainable use, and equitable sharing of benefits from biological resources.
 - **Forest (Conservation) Act, 1980** – restricts diversion of forest land for non-forest use.
- **Policy Linkages:**
 - Supports **National Biodiversity Action Plan (NBAP)** and India's commitment to the **30x30 global biodiversity conservation target** (protecting 30% of land and marine areas by 2030).

6. Definition of Key Term

- **Red List (IUCN Red List):** A scientifically validated inventory that evaluates the **extinction risk of species** globally, categorizing them based on population trends, habitat quality, and threats. It serves as an essential tool for **biodiversity conservation and policy prioritization**.

Conclusion

India's National Red List Assessment (2025–2030) represents a **milestone in scientific biodiversity management**, integrating global conservation norms with local ecological realities. It will help identify **vulnerable species, data gaps, and conservation priorities**, enabling evidence-based policymaking. As biodiversity loss intensifies globally, this initiative reflects **India's leadership in fulfilling its international biodiversity commitments** and promoting **ecological stewardship for sustainable development**.

10. Andhra Pradesh CRDA Office Achieves Net Zero Energy Certification: A Milestone in Sustainable Urban Governance

1. Overview of the Achievement

- The **Andhra Pradesh Capital Region Development Authority (AP CRDA) Project Office in Amaravati** has been awarded the '**Net Zero Energy (Design)**' Certification by the **Indian Green Building Council (IGBC)** under the **Confederation of Indian Industry (CII)**.
- This recognition marks a significant milestone in promoting **sustainable infrastructure and energy-efficient urban development** in India.
- The building has been designed to meet **100% of its annual energy demand from renewable energy sources**, positioning it as a model for **green governance and environmental responsibility**.

2. Key Features of the Net Zero Energy Design

- The building achieves **net zero energy status** by generating renewable energy equivalent to its total energy consumption annually.
- A **540 kWp rooftop solar photovoltaic (PV) system** is installed to cater to the building's energy needs.
- Any residual or additional energy requirements are met through **green power procurement**, ensuring complete reliance on clean energy sources.
- The design emphasizes **passive cooling techniques, efficient lighting, and energy conservation technologies**, minimizing overall energy consumption.



- The project demonstrates **integration of sustainability principles in government infrastructure**, reflecting Amaravati's vision as a **smart and green capital city**.

3. Significance and Broader Implications

- This certification aligns with India's national commitments toward **Net Zero Emissions by 2070** under the **Paris Climate Agreement (COP26)**.
- It showcases how **urban governance bodies** can lead by example in **energy-efficient practices**, inspiring replication across public buildings in India.
- Promotes **renewable energy adoption**, **reduction of carbon footprint**, and **energy security** in the public sector.
- Encourages integration of **green building standards** in infrastructure projects under **Smart Cities Mission** and **Amrit 2.0**.
- Strengthens India's pursuit of **Sustainable Development Goal 7 (Affordable and Clean Energy)** and **Goal 13 (Climate Action)**.

4. Constitutional and Legal Framework

- **Article 48A:** Directs the State to protect and improve the environment and safeguard natural resources.
- **Article 51A(g):** Makes it a fundamental duty of every citizen to protect and improve the natural environment.
- **Energy Conservation Act, 2001:** Empowers the Bureau of Energy Efficiency (BEE) to promote efficient energy use in buildings through Energy Conservation Building Codes (ECBC).
- **National Action Plan on Climate Change (NAPCC, 2008):** Includes the **National Solar Mission** and **National Mission on Sustainable Habitat**, encouraging green infrastructure.
- **Buildings (Energy Efficiency) Regulations, 2018:** Mandate adoption of energy-efficient designs and renewable energy systems in government and commercial buildings.

5. Key Concepts and Definitions

- **Net Zero Energy Building (NZEB):** A structure that generates as much renewable energy on-site as it consumes annually, achieving a balance between energy use and production.
- **Green Building:** A building designed to minimize environmental impact through efficient resource use, energy conservation, and sustainable materials.
- **Rooftop Solar System:** Solar panels installed on rooftops to capture sunlight and convert it into electricity for on-site consumption.
- **IGBC Certification:** A green building rating system developed by the **Indian Green Building Council** to evaluate sustainable design and energy performance.

6. Broader Impact and Way Forward

- The CRDA office sets a **benchmark for sustainable governance infrastructure** in India, demonstrating economic and environmental benefits of renewable integration.
- Encourages other public institutions and state agencies to adopt **net zero and green building models**.
- Strengthening **policy frameworks** for **green public procurement**, **energy audits**, and **solar mandates** in government complexes can accelerate India's net zero transition.



- Public awareness and capacity-building initiatives for architects, engineers, and planners are essential to scale similar projects nationwide.

Conclusion

The **Net Zero Energy Certification** of the AP CRDA office in Amaravati symbolizes a **progressive shift toward environmentally responsible governance**. It reflects India's growing commitment to integrating **sustainability, innovation, and energy efficiency** into public infrastructure. As the country advances toward its **Net Zero 2070 vision**, such initiatives will play a pivotal role in shaping a **resilient, green, and future-ready India**.

INTERNATIONAL RELATIONS

1. Pakistan Offers US Arabian Sea Port at Pasni – Key Points

1. Background of the Offer

- According to the *Financial Times*, Pakistan has informally offered the **Pasni port** (Balochistan, ~70 miles from Gwadar & 100 miles from Iran border) to the US as a **terminal to ship Pakistan's critical minerals** (like copper, antimony, neodymium).
- The proposal is linked to a **new railway line** to transport minerals from the country's interior, especially from **Reko Diq copper & gold mines** in Balochistan.

2. Strategic & Economic Context

- Pasni is a **natural deep-water port** near the **Chinese-developed Gwadar port**, making it a potential counterweight to Chinese influence in the Arabian Sea.
- A blueprint anticipates the project cost at **\$1.2 billion** with mixed Pakistani federal and US-backed development finance.
- In September 2025, Missouri-based **US Strategic Metals (USSM)** signed an MoU with Pakistan's military engineering arm for mineral exploration and has already received the first shipment of rare earth minerals.

3. Official Denials & Clarifications

- Pakistan's security officials told state-run TV that the FT report does **not represent official government or military policy**; conversations with private companies were exploratory.
- They asserted there is **no plan to hand over Pasni's security to any foreign power**, and linking the idea directly to the Army Chief is "misleading."
- The US State Department, White House, Pakistan Army, and Foreign Ministry have **not commented** on the FT report so far.

4. Geopolitical & Legal Considerations

- The proposal reflects **Pakistan's attempt to diversify partnerships** amid China's dominance in Balochistan through CPEC and Gwadar.
- For India, this development has implications under the **UNCLOS** (United Nations Convention on the Law of the Sea) for strategic access and maritime security in the Arabian Sea.





- It also aligns with the US's need for **critical minerals** due to China's export restrictions on antimony and rare earths (vital for batteries, missiles, and fire-retardants).

5. Key Definitions

- **Critical Minerals:** Minerals essential for high-tech industries, renewable energy, defence, and electronics, but with high supply risk.
- **Strategic Port:** A port whose location allows control of crucial shipping lanes or resources, impacting regional security and trade.
- **Reko Diq:** One of the world's largest undeveloped copper and gold deposits in Pakistan's Balochistan province.

6. Conclusion & UPSC Relevance

- **Conclusion:** While still at an "idea" stage, the Pasni port proposal underscores Pakistan's efforts to court the US for strategic and economic leverage, potentially counterbalancing China's CPEC-driven presence at Gwadar. If realised, it could shift regional maritime dynamics and critical mineral supply chains.

2. Trump's 20-Point Gaza Ceasefire Plan – Key Highlights

1. Background & Context

- Unveiled by US President Donald Trump ahead of the **second anniversary of Hamas's October 7, 2023 attack on Israel**.
- Aimed at achieving a **ceasefire in Gaza**, release of Israeli hostages, and restoring **normalcy for Palestinians**.
- Hamas responded **positively but sought renegotiation** on certain points; Israel has reservations, creating tension in implementation.
- Previous ceasefire attempts, e.g., January 2025, failed due to unilateral Israeli actions.



2. Key Provisions of the Plan

- **Hostage Release:** Israeli hostages to be freed within **72 hours** of ceasefire.
- **Hamas:** Disarmament and potential withdrawal from Gaza.
- **Palestinian Authority (PA):** Reform under pressure; eventual governance role undefined.
- **Gaza Governance:** Technocratic committee under **International Board of Peace** headed by Trump; focus on **deradicalisation, demilitarisation**, and municipal administration.
- **International Involvement:** Deployment of an **international stabilisation force**; oversight on security and governance.
- **Israeli Obligations:** Limited clarity on ceasefire timelines, withdrawal of IDF, and territorial control; West Bank excluded.

3. Strategic & Political Implications

- The plan shifts **responsibility to Palestinians/Hamas** for stopping the conflict, reducing international pressure on Israel.



- Focuses on **hostage release** rather than long-term Palestinian statehood.
- Palestinians' self-determination and governance rights are largely curtailed; control rests with **US and Israel**.
- Raises skepticism due to **lack of clear timelines, sequencing, and monitoring mechanisms**.

4. Controversies & Criticism

- Viewed as **instrument of surrender** rather than a balanced ceasefire.
- Plan largely ignores **West Bank situation, Israeli settlements, and displacement of Palestinians**.
- Hamas demands **broader Palestinian consensus** for governance; plan currently favours **international/US oversight**.
- Economic components (e.g., “Riviera plan”) seen as **piecemeal development** without addressing political grievances.

5. Key Definitions

- **Ceasefire**: Temporary suspension of hostilities between conflicting parties.
- **Technocratic Committee**: Governance body composed of experts, not elected representatives.
- **Demilitarisation & Deradicalisation**: Removal of armed groups and extremist ideologies to restore peace.
- **International Stabilisation Force**: Multinational forces tasked with maintaining security and overseeing peace implementation.

6. Conclusion & UPSC Relevance

- **Conclusion**: Trump's plan emphasizes **hostage recovery and Gaza stabilisation**, but lacks mechanisms for **long-term Palestinian governance or statehood**, leaving major issues unresolved.

3. India Moves Closer to Recognising the Taliban Regime in Afghanistan

1. Context and Recent Development:

- Ahead of the visit of **Amir Khan Muttaqi**, Acting Foreign Minister of the Taliban regime, India has taken a **significant diplomatic step** by allowing Taliban participation as a “member” in the **Moscow Format Consultations**, marking a shift in India's policy approach toward Afghanistan.
- **Muttaqi**, currently on the **UN Security Council's list of sanctioned terrorists**, was granted **special travel permission** to visit India for a **five-day official visit** beginning **October 10, 2025**, and will be accorded full diplomatic protocol including formal talks with **External Affairs Minister Dr. S. Jaishankar** at Hyderabad House.

2. India's Diplomatic Position and Strategic Calculus:

- While **India has not officially recognised** the Taliban regime since its takeover in **August 2021**, participation in regional dialogues involving the Taliban signals a **pragmatic engagement policy** rather than formal recognition.
- The **Moscow Format Consultations**, attended by 10 regional powers including **Russia, China, Iran, Pakistan, and Central Asian nations**, provide India a multilateral platform to safeguard its **strategic and security interests** in Afghanistan amid growing Chinese and Pakistani influence.
- India's engagement aims to ensure **counterterrorism cooperation, humanitarian assistance, and protection of minority rights**, while maintaining dialogue without legitimising Taliban rule.



3. Regional and International Implications:

- The Taliban's inclusion in the Moscow Format as a full member, with its **black-and-white flag** replacing the tricolour of the former Afghan Republic, highlights the **growing regional acceptance** of the Taliban's de facto authority.
- However, **no country**, except Russia to a limited extent, has **formally recognised** the Taliban government.
- This situation underscores the **global diplomatic dilemma**—balancing humanitarian engagement and political legitimacy of a regime under UN sanctions.
- Analysts caution that premature recognition by any major power could **undermine UN mechanisms** and **weaken the collective stance** on human rights and counterterrorism obligations.

4. Constitutional, Legal, and Diplomatic Dimensions (Indian Context):

- **Article 51(c) of the Indian Constitution** directs the State to “foster respect for international law and treaty obligations.” Hence, India's engagement must align with **UN resolutions** and **international law** concerning sanctioned entities.
- **UN Security Council Resolution 1267 (1999)** lists Taliban leaders, including Muttaqi, under the **Al-Qaeda Sanctions Regime**, restricting their travel, asset access, and arms procurement.
- India's decision to permit Muttaqi's visit under UN-approved exemption reflects **compliance with international obligations** while exercising **strategic diplomacy**.
- From a foreign policy perspective, this engagement aligns with **India's “Neighbourhood First” and “Security and Growth for All in the Region (SAGAR)” doctrines**, ensuring regional stability without legitimising extremist governance.

5. India's Strategic Concerns in Afghanistan:

- India seeks to prevent Afghanistan from becoming a **safe haven for cross-border terrorism** that threatens Indian interests, especially in **Jammu & Kashmir**.
- Protecting developmental investments worth over **\$3 billion** in Afghan infrastructure projects (Parliament building, Salma Dam, Zaranj-Delaram highway) remains a top priority.
- Maintaining diplomatic communication also allows India to **monitor security threats, humanitarian situations, and geopolitical moves** by China and Pakistan in the region.

6. International Law and Recognition Principles:

- Under **Customary International Law**, recognition of a government is based on **effective control, stability, and adherence to international norms**, including **human rights** and **non-support for terrorism**.
- As the Taliban regime lacks these qualifications, global powers have maintained **“engagement without recognition”**, ensuring humanitarian aid continues while political legitimacy remains withheld.

Conclusion:

India's calibrated engagement with the Taliban marks a strategic balancing act between **realpolitik and principles of international law**. By allowing participation in regional mechanisms and holding official talks, India aims to secure its geopolitical interests without extending formal recognition. The move reflects **India's pragmatic diplomacy**, ensuring regional stability, counterterrorism cooperation, and humanitarian support while upholding global norms.



4. Israel's War and the Reshaping of West Asia Post–October 7, 2023

1. Pre–October 7 Geopolitical Landscape:

- Before **October 7, 2023**, the **Palestinian issue** had largely receded from West Asia's strategic focus, with most Arab states prioritizing **economic modernization and security cooperation with Israel**.
- The **Abraham Accords (2020)** normalized Israel's ties with several Arab countries, while **Saudi Arabia** was nearing a similar deal by 2023, signaling a regional realignment under **U.S.-led initiatives** such as **I2U2 (India, Israel, U.S., UAE)** and **India–Middle East–Europe Economic Corridor (IMEEC)**.
- Meanwhile, **Iran**, despite sanctions, maintained regional influence through its **“Axis of Resistance”** (Hezbollah, Hamas, Houthis, and Shia militias), which remained a persistent concern for Israel and Gulf monarchies.

2. The October 7 Hamas Attack and Its Fallout:

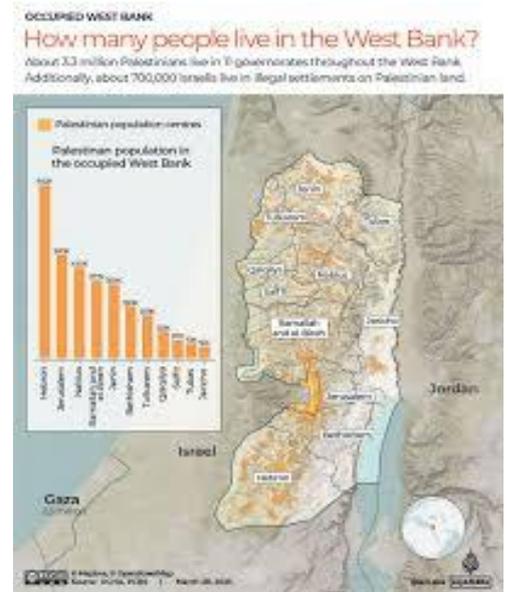
- On **October 7, 2023**, **Hamas launched a large-scale attack on Israel**, killing around 1,200 people — a major breach of Israel's perceived security.
- The attack re-centered the **Palestine question** in global geopolitics, exposing the fragility of the “new Middle East” vision.
- Israel's retaliatory war aimed at **destroying Hamas** and freeing hostages but evolved into a broader campaign against **Iran-backed groups** across the region.
- The war expanded beyond Gaza into **Lebanon, Syria, Yemen, Iran, and even Qatar**, destabilizing the region and alienating potential allies.

3. Israel's Strategic Objectives and Military Campaign:

- Israel sought to: (a) **eliminate Hamas**, (b) **curb Iran's influence**, (c) **weaken Hezbollah**, and (d) establish a **unipolar regional order** with Israel as the primary security actor under U.S. backing.
- While Israel made **tactical gains** — dismantling Hamas infrastructure and reducing Hezbollah's military activity — it failed to achieve long-term security.
- Israel's **June 2025 airstrikes on Iran** aimed at its nuclear program intensified tensions, while its **bombing of Qatar** in September 2025 backfired, straining ties with the U.S. and Arab partners.

4. Strategic Missteps and Regional Realignments:

- Despite heavy bombardment, **Hamas adapted as an insurgency**, rooted in Palestinian nationalism, similar to Afghan resistance against the U.S.
- Israel's actions — killing over **67,000 Palestinians** and expanding its military campaign — led to **global condemnation** and renewed **international recognition of Palestinian statehood**.
- **Arab states reversed course**: Saudi Arabia froze normalization efforts, the UAE set “red lines” over Israeli annexations, and Qatar received **U.S.-style NATO security guarantees**.
- The **IMEEC and I2U2 frameworks** were effectively paralyzed, derailing India's strategic connectivity and economic initiatives in the region.





5. Broader Geopolitical and Legal Dimensions:

- Israel's campaign exposed contradictions in its pursuit of **military dominance without political reconciliation**. The **absence of an endgame** left Israel isolated, dependent on U.S. political and military support.
- Under **international law**, Israel's actions face scrutiny under **Geneva Conventions** for alleged war crimes and disproportionate civilian targeting.
- **UN Charter Article 51** permits self-defense, but Israel's continued offensive breaches proportionality norms, while **Article 1 of the Fourth Geneva Convention (1949)** mandates protection of civilians under occupation.
- The **International Criminal Court (ICC)** and **UN General Assembly** have reopened deliberations on Palestinian statehood and accountability for war crimes, reviving global discussions on the **two-state solution**.

6. India's Diplomatic Position and Strategic Balancing:

- India has maintained a **delicate balance**, condemning terrorism while urging restraint and adherence to humanitarian law.
- As part of **I2U2 and IMEEC**, India has strategic stakes in West Asia's stability, energy security, and trade corridors.
- The conflict complicates India's regional outreach and its **non-aligned approach**, requiring deft diplomacy to engage Israel, Arab partners, and Iran without jeopardizing strategic autonomy.

Conclusion:

The **October 7 Hamas attack** and subsequent Israeli war have shattered the illusion of a “new Middle East.” While Israel gained short-term tactical victories, it faces long-term strategic isolation. The **Palestine issue** has re-emerged as the central axis of West Asian politics, compelling global powers — including India — to revisit the principles of justice, sovereignty, and diplomacy in regional policy. Peace and stability in West Asia remain impossible without addressing the **root cause: the Palestinian question**.

5. Pakistan–Afghanistan Clashes along the Durand Line– Causes, Context, and Implications

1. Key Highlights of the Incident:

- On **October 11–12, 2025**, intense armed clashes erupted along the **Durand Line** between **Pakistan and Afghanistan**, resulting in heavy casualties on both sides. Pakistan claimed to have killed **over 200 fighters**, while the **Taliban** claimed the death of **58 Pakistani soldiers**.
- Pakistan's military conducted “**precision fires and physical raids**” on Taliban camps allegedly linked to **ISKP (Islamic State Khorasan Province)** and other militant groups. The Taliban termed it an “**aggression**”, warning of strong retaliation against any future violations.
- The clashes followed earlier **Pakistani airstrikes inside Afghanistan (Kabul and Paktika provinces)** on **October 9**, which coincided with the Afghan Foreign Minister's visit to India—viewed as a trigger for escalating tensions.
- Following the conflict, **Pakistan closed key border crossings** such as **Torkham and Chaman**, disrupting trade and movement between the two countries.

2. Geographical and Strategic Context:

- The **Durand Line** (2,670 km) demarcates the Pakistan–Afghanistan border, cutting through **Pashtun tribal regions** including **Waziristan and Chitral**.



- The **Paktika province** in Afghanistan shares its border with **North and South Waziristan** in Pakistan's **Khyber Pakhtunkhwa (KP)** — strongholds of the **Mehsud and Wazir tribes**.
- Control over this region is strategic for both countries due to cross-border tribal linkages, smuggling routes, and militant sanctuaries.
- The region has historically seen recurring skirmishes, but the **October 2025 clashes** mark the **most serious confrontation since the Taliban's return to power in 2021**.

3. Underlying Causes of Tension:

- **(a) Diverging Perceptions:** Pakistan's **military establishment** views the Taliban as its **client or vassal regime**, owing to decades of support since the 1990s. The Taliban, however, seeks **strategic autonomy** and an **independent foreign policy**.
- **(b) Taliban's Foreign Engagements:** The Taliban's diplomatic outreach to **India, China, and Russia** — including visits by its foreign minister to **New Delhi** and recognition by **Moscow** — has alarmed Pakistan, which wants Kabul to remain within its influence.
- **(c) Support to Tehrik-e-Taliban Pakistan (TTP):** Pakistan accuses the Afghan Taliban of providing **safe havens to TTP militants**, who continue cross-border attacks. The Taliban, in turn, blames Pakistan's policies for fostering extremism.
- **(d) Refugee Deportations:** Pakistan's **deportation of Afghan refugees** since 2023, including registered ones, has strained relations further. The **UNHRC** and other bodies criticized Islamabad's actions.
- **(e) Border Closures as Pressure Tactic:** Pakistan frequently closes the **Torkham and Chaman crossings**, vital for Afghanistan's trade and connectivity, using them as **strategic leverage** against Kabul.

4. Broader Regional and Political Dynamics:

- Both nations are recalibrating their **regional alignments**: Pakistan has renewed ties with **Iran, Saudi Arabia, and the U.S.**, while the Taliban has strengthened relations with **China, Russia, Iran, and India**.
- The Taliban aims to diversify its **economic and diplomatic dependencies** to rebuild Afghanistan's economy and legitimacy, while **Pakistan fears encirclement** and loss of control over Kabul's policies.
- Internal instability in **Pakistan's Khyber Pakhtunkhwa and Balochistan** — with frequent militant attacks — has deepened Islamabad's security anxieties.
- The **Pakistan Army's dominance** over foreign policy, marginalizing the civilian government and Parliament, continues to distort Islamabad's Afghanistan strategy.

5. Constitutional and Legal Context (International & Regional):

- **Durand Line Dispute:** Afghanistan has never formally recognized the Durand Line (drawn in 1893 between British India and Afghanistan), making it a perpetual source of tension and territorial ambiguity.
- **UN Charter (Article 2):** Prohibits member states from violating the territorial integrity or political independence of another state — relevant to Pakistan's airstrikes inside Afghanistan.
- **1949 Geneva Conventions:** Regulate conduct during cross-border military operations and protect civilians — potential concern in case of civilian casualties.



- **International Refugee Law (1951 Refugee Convention):** Pakistan's deportations of Afghan refugees may violate the **principle of non-refoulement** (not returning refugees to danger).

6. Implications for India and the Region:

- The clashes may lead to a **reorientation of Afghan foreign policy**, potentially **strengthening India–Afghanistan ties** and **reducing Pakistan's strategic depth**.
- Increased instability could spill over into **South and Central Asia**, affecting trade, connectivity, and security — particularly along **CPEC (China-Pakistan Economic Corridor)** routes.
- The situation may embolden **TTP and ISKP** elements, further destabilizing **Pakistan's western frontier**.
- For India, maintaining diplomatic engagement with Kabul while balancing humanitarian aid and strategic concerns becomes crucial.

Conclusion:

The October 2025 Pakistan–Afghanistan clashes reflect the **deep structural rift** between Islamabad's establishment and the Taliban regime. Rooted in conflicting visions of dominance and independence, the confrontation underscores shifting power dynamics in South Asia. Unless both nations prioritize dialogue, the ongoing cycle of mistrust, border militarization, and proxy accusations may further destabilize the region. The Taliban's growing outreach to global powers, including India, signals a **potential geopolitical realignment**, reducing Pakistan's traditional influence in Kabul.

SOCIAL

1. Completion of Adi Sewa Parv – Adoption of Tribal Village Vision 2030

Key Highlights

- **Historic Adoption (2nd October 2025):** Special Gram Sabhas in tribal-dominated villages and tolas across India formally passed the **Tribal Village Vision 2030 Declaration**, empowering local communities to chart their development priorities for the next decade aligned with **Viksit Bharat@2047**.
- **World's Largest Tribal Grassroots Leadership Mission:** Under the **Adi Karmayogi Abhiyan** launched by the Ministry of Tribal Affairs, 11.5 crore tribal citizens across 1 lakh villages and tolas in 30 States/UTs are being empowered to actively participate in governance and service delivery.
- **Establishment of Adi Sewa Kendras:** One lakh **Adi Sewa Kendras** (single-window citizen service centres) are being set up; villagers will contribute one hour per week as **Adi Sewa Samay** for voluntary service.
- **Participatory Development Model:** Villagers identified their needs and priorities through **Transect Walks, Focused Group Discussions (FGDs), and Gap Analysis**, focusing on education, health, livelihoods, social/financial inclusion, and infrastructure.
- **Technology-Enabled Governance:** The **AI-powered Adi Vaani App** connects government officers with tribal communities in native languages to ensure last-mile delivery, real-time communication, and grievance redressal.
- **Capacity Building:** Since July 2025, 20 lakh senior officers, SHG women, and tribal youth trained as **Adi Karmayogis** through Governance Process Labs to ensure scheme convergence and participatory governance.



Definitions / Key Terms

- **Tribal Village Vision 2030:** A community-driven declaration enabling tribal villages to design and implement development goals for 2025–2035, aligning with India’s national vision.
- **Adi Sewa Kendra:** Single-window centre for citizens in tribal villages providing integrated government services and grievance redressal.
- **Adi Vaani App:** AI-enabled application facilitating communication between government and tribal communities in local languages.
- **Adi Karmayogi Abhiyan:** The world’s largest tribal grassroots leadership mission aimed at empowering citizens and training change-makers for governance at the local level.



Constitutional & Legal Context

- **Article 40:** Directive Principle to organise village panchayats and enable self-governance.
- **Article 243–243O (73rd Amendment):** Constitutional provisions for Panchayati Raj institutions empowering local governance.
- **Fifth Schedule (Article 244):** Administration and control of Scheduled Areas and Scheduled Tribes.
- **PESA Act 1996:** Provides self-governance for people in Scheduled Areas through Gram Sabhas; participatory decision-making is a key element.
- **Forest Rights Act 2006:** Strengthens rights of tribal communities over land and forest resources.

Conclusion

The **Tribal Village Vision 2030** represents a transformative milestone in India’s tribal governance. By blending traditional community-led decision-making with modern technology and capacity building, it ensures that development is by the people and for the people. This model enhances transparency, accountability, and inclusiveness, creating a replicable framework for grassroots governance nationwide.

2. Ministry of Minority Affairs launches Special Campaign 5.0 following ‘Swachhata Hi Seva 2025’

Key Highlights

- **Launch of Special Campaign 5.0 (3rd October 2025):** Ministry of Minority Affairs launched **Special Campaign 5.0** after the successful conclusion of the nationwide **Swachhata Hi Seva 2025 (SHS 2025)** drive held from 17th September to 2nd October 2025. The campaign was inaugurated by Dr. Chandra Shekhar Kumar, Secretary, Ministry of Minority Affairs.
- **Campaign Objectives:** Focus on cleanliness, reducing pendency of files, institutionalising Swachhata, strengthening internal monitoring, training officers in record management, digitising records, and promoting sustainability through tree plantation drives.
- **Two-Phase Approach:** A preparatory phase (16th–30th September 2025) identified pending references, space management, and campaign sites, followed by an implementation phase (2nd–31st October 2025) to execute activities.
- **Nodal Officer & Central Monitoring:** A dedicated Nodal Officer was appointed to oversee campaign implementation, collect daily data, and feed information into the **SCDPM 5.0 Portal** designed by DARPG for central monitoring.



- **Focus on E-Waste Management:** Special emphasis on disposal of e-waste generated in Government offices in line with **E-Waste Management Rules 2022** issued by the Ministry of Environment, Forest and Climate Change.
- **Key Activities under SHS 2025:** Cleanliness drives in Ministry premises, distribution of safai kits, Safai Mitra Suraksha Shivar, health check-ups, yoga and nutrition sessions, inspections by senior officers, and felicitation of Safai Mitras to promote the dignity of labour and continuous Swachhata practices.



Definitions / Key Terms

- **Special Campaign 5.0:** A government-wide campaign focusing on cleanliness, record management, reducing pendency, and institutionalising Swachhata in Ministries/Departments.
- **Swachhata Hi Seva (SHS):** A nationwide cleanliness drive aligned with **Swachh Bharat Mission** to mobilise citizens and government bodies for sustained hygiene and sanitation practices.
- **E-Waste Management Rules 2022:** Legal framework for safe collection, recycling, and disposal of electronic waste, ensuring environmental sustainability.
- **Safai Mitras:** Frontline sanitation workers ensuring cleanliness and hygiene in public spaces.

Constitutional & Legal Context

- **Article 47 (Directive Principles):** State's duty to improve public health and sanitation.
- **Article 51A(g) (Fundamental Duties):** Citizens' duty to protect and improve the natural environment.
- **Swachh Bharat Mission (2014):** Flagship programme for nationwide cleanliness and sanitation.
- **Right to a Clean Environment:** Recognised under Article 21 (Right to Life) by Supreme Court judgments, linking cleanliness to fundamental rights.

Conclusion

Special Campaign 5.0 institutionalises cleanliness and record management in government offices, making it a sustained administrative practice rather than a one-time event. By integrating e-waste disposal, tree plantation, and citizen participation, the Ministry of Minority Affairs strengthens the culture of Swachhata, efficiency, and accountability within governance.

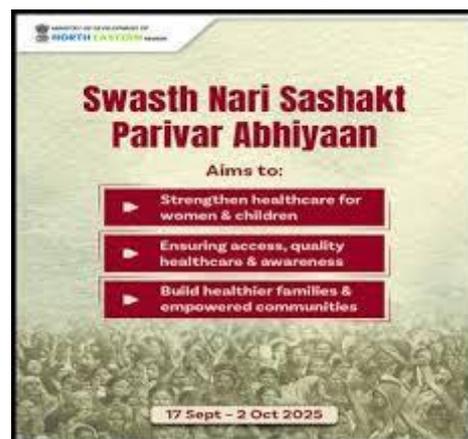
3. "Swasth Nari Sashakt Parivar" Abhiyaan – Largest Health Outreach for Women & Families

Key Highlights

- **Massive Health Outreach (17th Sept–2nd Oct 2025):** The "Swasth Nari Sashakt Parivar" Abhiyaan, jointly led by the **Ministry of Health & Family Welfare (MoHFW)** and **Ministry of Women & Child Development (MoWCD)**, concluded with over **18 lakh health camps**, reaching nearly **10 crore citizens** nationwide and benefitting more than **6.5 crore women**.
- **Screening Achievements:** 1.78 crore citizens screened for **hypertension**, 1.72 crore for **diabetes**, over 37 lakh women for **breast cancer**, 19 lakh for **cervical cancer**, and over 96 lakh for **oral cancer**.
- **Maternal & Child Health:** 62.60 lakh antenatal check-ups conducted; 1.43 crore children received **life-saving vaccines**; 1.51 crore screened for **anaemia**; nutrition counselling reached 1.16 crore citizens.



- **Communicable Diseases & Blood Donation:** 85 lakh citizens screened for **tuberculosis**, 10.23 lakh for **sickle cell disease**, 2.68 lakh **Ni-kshay Mitras** registered, over 4.30 lakh blood donors enlisted, and 10.69 lakh **Ayushman/PM-JAY cards** issued.
- **Multi-Institutional Support:** NHM health camps, **AIIMS**, Institutes of National Importance (INIs), tertiary hospitals, Ayushman Arogya Mandirs, and private institutions organised thousands of speciality camps, complementing state government and community-level health workers.
- **Women-Centric Preventive Care:** Focus on screening, early detection, and treatment linkages for **non-communicable diseases**, anaemia, TB, and sickle cell disease while promoting maternal, child, and adolescent health, nutrition, menstrual hygiene, lifestyle, and mental health awareness.



Definitions / Key Terms

- **Ni-kshay Mitra:** Individuals/organisations supporting TB patients by providing nutritional or diagnostic support under the **Pradhan Mantri TB Mukh Bharat Abhiyaan**.
- **Ayushman/PM-JAY Card:** Health insurance card under **Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana**, providing free secondary and tertiary care to eligible beneficiaries.
- **Ayushman Arogya Mandirs:** Health and wellness centres under Ayushman Bharat delivering comprehensive primary healthcare services.
- **Sickle Cell Disease Screening:** Part of the **National Sickle Cell Elimination Mission** launched to eradicate the disease by 2047.

Constitutional & Legal Context

- **Article 47 (Directive Principles):** State's duty to improve public health, nutrition, and living standards.
- **Article 21 (Right to Life):** Judicial interpretation includes the **right to health** and access to medical care as a fundamental right.
- **National Health Mission (NHM):** Flagship programme for universal access to equitable, affordable, and quality healthcare.
- **Poshan Abhiyaan:** For improving nutrition and reducing anaemia in women and children.

Conclusion

The “Swasth Nari Sashakt Parivar” Abhiyaan marks a landmark in India's public health outreach, integrating **preventive, promotive, and curative health services** at the community level. By focusing on women and children and leveraging multi-institutional participation, it strengthens India's path toward **universal health coverage**, early disease detection, and improved health indicators.

4. Pan-India E-Waste Recycling Drive under Special Campaign 5.0

- **Overview of the Initiative**
 - Launched under the guidance of **Prime Minister Narendra Modi** and leadership of **Union Minister of Coal & Mines Shri G. Kishan Reddy**.
 - Part of **Special Campaign 5.0** (2nd–31st October 2025), focusing on **Swachhata in government offices and scientific disposal of e-waste**.



- **Secretary (Mines) Shri Piyush Goyal** inaugurated the drive at Shastri Bhawan, New Delhi.
- **Objectives of the Drive**
 - **Systematic disposal** of obsolete electronic devices: computers, laptops, printers, LED displays, mobile phones, etc.
 - Facilitation for **government employees** to deposit devices or pre-book home pick-up.
 - Promotion of **resource recovery** and **sustainable management** of e-waste.
- **Implementation & Partners**
 - Coordinated by **JNARDDC** (Jawaharlal Nehru Aluminium Research Development & Design Centre), an autonomous body under the Ministry of Mines.
 - Collaboration with **Attero**, a leading e-waste recycling company in India, establishing 20 collection stalls nationwide.
 - Use of **globally patented advanced recycling technologies** to recover critical materials from e-waste and lithium-ion batteries.
- **Environmental and Strategic Significance**
 - Recovery of **valuable minerals**: lithium, cobalt, nickel, manganese, graphite, and rare earth elements (neodymium, praseodymium, dysprosium).
 - Supports **defence, clean energy systems, and battery production**.
 - Reintegration of recovered materials into **domestic manufacturing**, aligning with the **National Critical Minerals Mission**.
- **Key Legal & Policy Context**
 - Supports principles of **Sustainable Development Goals (SDG 12: Responsible Consumption and Production)**.
 - Aligns with **E-Waste (Management) Rules, 2016** under the **Environment Protection Act, 1986** for safe disposal and recycling of electronic waste.
 - Promotes **self-reliance (Aatmanirbhar Bharat)** by reducing import dependency for strategic minerals.
- **Conclusion & UPSC Relevance**
 - The campaign combines **Swachhata with sustainability**, turning e-waste into a **strategic national resource**.
 - UPSC Relevance: Important for questions related to **environmental governance, sustainable development, resource management, e-waste regulations, and national strategic initiatives**.



5. India Conferred ISSA Award 2025 for Outstanding Achievement in Social Security

- **Overview of the Recognition**



- India received the **International Social Security Association (ISSA) Award 2025** for **‘Outstanding Achievement in Social Security’** at the **World Social Security Forum (WSSF) 2025**, Kuala Lumpur, Malaysia.
- Award acknowledges India’s **exceptional progress in expanding social protection coverage** from **19% in 2015 to 64.3% in 2025**, benefiting over **940 million citizens**.
- **Government Initiatives and Digital Infrastructure**
 - The **e-Shram portal**, a **national digital database**, connects over **310 million unorganised sector workers** with social welfare schemes via a **multilingual, seamless interface**.
 - **National Career Service (NCS) portal** integrates with e-Shram, enabling **skilled youth to access global employment opportunities** while retaining social security benefits.
 - India leverages **technology, digital innovation, financial inclusion, and skilling** to strengthen social protection systems.
- **Key Social Security Organisations**
 - **Employees’ Provident Fund Organisation (EPFO)** and **Employees’ State Insurance Corporation (ESIC)** play a pivotal role in delivering **healthcare, pension, and insurance schemes**.
 - Focus is on **inclusive and universal social protection**, aligning with **PM Modi’s vision of Antyodaya**, which emphasizes **empowering the last person in the social line**.
- **Global Significance and Voting Power**
 - India became the **fifth recipient of this triennial ISSA award**, joining leading nations in social security excellence.
 - India now holds **30 seats in the ISSA General Assembly**, the **highest vote share globally**, reflecting its **increased influence in international social security policymaking**.
- **Policy and Legal Context**
 - The expansion of social security aligns with **International Labour Organisation (ILO) guidelines** on **social protection floors**.
 - Constitutional basis: **Article 41** (Right to work, education, and public assistance) under **Directive Principles of State Policy (DPSP)**; **Article 21** (Right to life) as interpreted to include **social security and welfare**.
 - Legal frameworks: **Employees’ Provident Funds & Miscellaneous Provisions Act, 1952**; **Employees’ State Insurance Act, 1948**; and **Social Security Code, 2020**.
- **Conclusion & UPSC Relevance**
 - India’s ISSA recognition underscores **successful integration of technology, policy reform, and inclusive governance** to achieve **universal social security**.

6. ULLAS Programme – Transforming Adult Education in India

1. Introduction

- ULLAS stands for **Understanding of Lifelong Learning for All in Society**.
- Launched in **2022** under the **National Education Policy (NEP) 2020**.



- Aims to provide **educational opportunities for adult learners**, especially in **rural areas** and among **women**.

2. Key Features of ULLAS

- **Focus on Lifelong Learning** – Promotes continuous learning beyond formal schooling.
- **Alignment with NEP 2020** – Implements the NEP’s vision of inclusive and equitable education.
- **Use of Technology** – Leveraging digital tools and community-based approaches for outreach.
- **Target Groups** – Rural population, marginalized communities, and women are primary beneficiaries.

3. Achievements and Impact

- **Rural Literacy Surge** – Significant rise in adult literacy rates in rural areas.
- **Women Empowerment** – Enhanced access to education for women, improving social indicators.
- **SDG Alignment** – Positions India to achieve the **UN Sustainable Development Goal (SDG) 4** (Quality Education) literacy targets by **2030**.



4. Constitutional & Legal Provisions

- **Article 21A** – Right to Free and Compulsory Education for children (though adult literacy is not directly covered, it flows from the principle of universal education).
- **Article 41 (Directive Principles)** – State to make effective provision for securing the right to education and public assistance.
- **Article 45** (after 86th Amendment) – Provision for early childhood care and education, but also influences lifelong learning policy.
- **National Education Policy 2020** – Provides the framework for adult education initiatives like ULLAS.
- **International Commitments** – India is a signatory to the **UN SDGs** and Education for All goals.

5. Definitions of Key Terms

- **Lifelong Learning** – Continuous, self-motivated pursuit of knowledge for personal or professional reasons throughout life.
- **Adult Education** – Systematic learning opportunities for adults to acquire new skills, literacy, or knowledge.

6. Conclusion & UPSC Relevance

- **Conclusion:** ULLAS is a **transformative step** in adult education, directly contributing to literacy, skill development, and empowerment of marginalized communities. It reflects India’s commitment to **inclusive education** and achieving **global literacy goals**.

7. Rajasthan’s Stand on ‘No Horizontal Quota’ Policy for Transgender Persons

1. Background of the Case

- The **Rajasthan High Court (Jodhpur Bench)** is hearing a petition filed by **Ganga Kumari**, challenging the **2023 State circular** that classified **transgender persons under the OBC category** for reservation purposes.



- The petitioner contends that this move ignores the **distinct social and educational backwardness** of transgender persons and fails to ensure **true representational justice**.
- The demand is for a **separate horizontal reservation**, akin to the quotas for **women, PwDs, and ex-servicemen**, which cut across all vertical categories.

2. Government's Argument

- The **Rajasthan government** defended its stance, stating that **formulating or restructuring reservation policy** lies within **executive and legislative competence**, not judicial domain.
- The **Additional Advocate General (AAG) Praveen Khandelwal** argued that the petitioner failed to provide **empirical or statistical evidence** showing that horizontal reservation would enhance proportional representation.
- The government maintained that transgender inclusion within the **OBC list** already provides access to reservation benefits under the **existing vertical framework**.



3. Legal and Constitutional Framework

- **Constitutional Provisions:**
 - **Article 14:** Equality before law and equal protection of laws.
 - **Article 15(1) & (2):** Prohibits discrimination on the basis of sex, which includes **gender identity** as per judicial interpretation.
 - **Article 15(4) & 16(4):** Allow the State to make **special provisions for socially and educationally backward classes (SEBCs)**.
 - **Article 16(1):** Guarantees equality of opportunity in public employment.
- **Judicial Reference:**
 - **NALSA v. Union of India (2014):** Recognized transgender persons as the **“third gender”** and directed the government to treat them as **socially and educationally backward classes (SEBCs)** to provide reservation in education and employment.
 - However, **NALSA did not specify** whether such reservation should be **horizontal or vertical**, leading to interpretational ambiguity among States.

4. Conceptual Clarification: Vertical vs. Horizontal Reservation

- **Vertical Reservation:** Applies to specific caste-based categories like SC, ST, and OBC.
- **Horizontal Reservation:** Cuts across vertical categories, applicable to special groups like women, PwDs, ex-servicemen, etc.
- **Issue in Rajasthan:** The government included transgender persons **vertically under OBC**, but activists demand **horizontal reservation across all castes**, recognizing them as a distinct socio-legal category beyond caste.

5. Wider Implications and Policy Concerns

- **Judicial vs. Executive Domain:** The case raises the question of **judicial overreach** versus **policy discretion** in defining reservation structures.
- **Representation and Inclusion:** Without horizontal quota, **transgender individuals from upper castes** or non-OBC backgrounds may remain **excluded** from reservation benefits.



- **National Precedents:**
 - **Tamil Nadu (2021)** and **Karnataka (2022)** have implemented **horizontal reservations for transgender persons**, setting important precedents for inclusive governance.

6. Definition of Key Term

- **Horizontal Reservation:** A system where certain categories (e.g., women, PwDs, transgender persons) receive reservation **across all social groups (SC/ST/OBC/General)** to ensure inclusivity irrespective of caste or class.

Conclusion

The Rajasthan government's defence highlights the **constitutional tension between equality and affirmative action design**. While inclusion under OBC ensures some access, the absence of horizontal reservation may limit **effective representation** of transgender persons. The outcome of this case could significantly influence **India's evolving jurisprudence on gender justice and reservation policy**.

8. Supreme Court Upholds Reproductive Autonomy in Surrogacy: Age Bar Not Retrospective

1. Background of the Case

- The **Supreme Court** clarified that the **age restrictions under the Surrogacy (Regulation) Act, 2021** would **not apply retrospectively** to couples who had **initiated the surrogacy process before the Act came into force on January 25, 2022**.
- The judgment was delivered by a **Bench of Justices B.V. Nagarathna and K.V. Viswanathan** while hearing petitions from **three couples** who had begun surrogacy procedures prior to the enforcement of the Act but were later disqualified due to **new age limits** introduced under the law.
- The Court emphasized that **the law cannot operate retrospectively** to take away vested rights or frustrate ongoing legitimate reproductive procedures.

2. Key Provisions and Judicial Interpretation

- **Section 4(iii)(c)(I)** of the Surrogacy (Regulation) Act, 2021 mandates that intending couples must obtain an eligibility certificate confirming:
 - They are **legally married**;
 - The woman is **23–50 years old**, and the man is **26–55 years old**.
- The Court held that these conditions apply **only prospectively** from January 25, 2022.
- Couples who had already **commenced surrogacy procedures**, such as **creation and freezing of embryos or extraction of gametes**, would **not be disqualified** by the subsequent enforcement of the Act.
- The ruling reaffirmed the **principle against retrospective application of statutes**, protecting ongoing lawful activities from being invalidated by new legislation.

3. Constitutional and Legal Foundations

- **Article 21 of the Constitution:** The Court reaffirmed that the **right to reproductive autonomy** — including the right to make decisions regarding procreation and parenthood — is a **fundamental right** under the ambit of **right to life and personal liberty**.
- **Law Commission's 228th Report (2009):** Recognized surrogacy as a legitimate means for infertile couples to exercise their reproductive rights, deserving of **constitutional protection**.



- **Doctrine of Non-Retroactivity:** The Court invoked this interpretive rule to preserve **vested rights and legitimate expectations** of couples who had started lawful medical procedures prior to the enactment of the law.
- **Purpose of the Act:** The Court noted that the **Surrogacy (Regulation) Act, 2021** aims to **regulate surrogacy and prevent commercial exploitation**, not to **invalidate or obstruct legitimate and ethical surrogacy arrangements**.

4. Broader Implications on Reproductive Rights and Autonomy

- The judgment expands the **jurisprudence on reproductive autonomy**, aligning it with prior rulings recognizing **decisional privacy and bodily integrity** as integral to **Article 21** (e.g., *Justice K.S. Puttaswamy v. Union of India*, 2017).
- The Court underscored that **reproductive choice** — whether to conceive naturally, adopt, or pursue surrogacy — forms part of **individual liberty and family life** protected under the Constitution.
- It recognized that **regulatory mechanisms** must not **disproportionately infringe** upon these fundamental rights under the guise of moral or procedural constraints.
- The decision balances **state regulation** with **individual autonomy**, ensuring that protective legislation does not become **restrictive in effect**.

5. Definition of Key Terms

- **Surrogacy:** A legal and medical arrangement where a woman (the surrogate) agrees to carry and give birth to a child on behalf of an intending couple.
- **Reproductive Autonomy:** The right of individuals or couples to make informed decisions regarding reproduction, including access to fertility treatments, contraception, and surrogacy, without coercion or discrimination.
- **Non-Retroactivity Principle:** A legal doctrine stating that laws apply prospectively unless explicitly stated otherwise, thereby protecting pre-existing rights and actions from retroactive penalization.

6. Significance of the Judgment

- Reinforces the **constitutional status of reproductive rights** as part of the **right to life and personal liberty**.
- Protects the **legitimate expectations** of couples who began surrogacy before the Act's commencement.
- Ensures **interpretive consistency** in applying laws in harmony with **fundamental rights jurisprudence**.
- Highlights the Supreme Court's proactive role in **safeguarding human dignity and personal choices** against overbroad statutory restrictions.

Conclusion

The Supreme Court's ruling on the Surrogacy (Regulation) Act, 2021, reaffirms India's commitment to

Easing the path

On March 14, 2023, government notified amendments to the law to ban the use of donor gametes, saying 'intending couples' must use their own gametes for surrogacy

■ Supreme Court says the amendment cannot contradict Rule 14(a), which specifically recognises the absence of a uterus or any allied condition as a medical indication necessitating gestational surrogacy





protecting reproductive autonomy and personal liberty under Article 21. By ensuring that the Act does not operate retrospectively, the Court preserved the **rights and dignity of intending couples** who pursued surrogacy in good faith. This judgment strikes a crucial balance between **ethical regulation and individual freedom**, setting a precedent for interpreting social legislation in line with **constitutional morality** and **human rights principles**.

9. Revamped Sugamya Bharat App: Advancing Digital Accessibility and Inclusion in India

1. Overview of the Initiative

- The **Department of Empowerment of Persons with Disabilities (DEPwD)** under the **Ministry of Social Justice and Empowerment** launched the revamped Sugamya Bharat App at the **Purple Fest, Goa (October 2025)**.
- The app represents a key milestone under the **Accessible India Campaign (Sugamya Bharat Abhiyan)**, aligning with the government's goal of creating a **digitally inclusive and barrier-free India**.
- Developed with the support of the **SBI Foundation**, and in collaboration with **NAB Delhi, ISTEM, and Mission Accessibility**, the app embodies the principle of **universal design**, ensuring accessibility for persons with disabilities (PwDs) across platforms.
- It provides a **one-stop digital solution** offering accessibility mapping, grievance redressal, and information on schemes, education, and employment opportunities for PwDs.

2. Key Features and Functionalities

- **Accessibility Mapping:** Users can **locate, rate, and review public spaces** on accessibility parameters such as ramps, signage, and restrooms, promoting **community-led accountability**.
- **Information and Schemes Directory:** The app integrates a **comprehensive database of government schemes, scholarships, benefits, and employment listings**, streamlining access to welfare resources.
- **Grievance Redressal System:** Enables users to **report inaccessible infrastructure or services directly**, ensuring better **institutional response and monitoring**.
- **Inclusive Design:** The app supports **multi-language access, screen readers, voice navigation, and assistive technologies**, ensuring usability across different disability types.
- **Employment and Education Hub:** Features curated listings from both **government and private sectors**, facilitating **economic inclusion and career empowerment**.



3. Constitutional and Legal Framework

- **Article 14 & 15:** Guarantee equality and prohibit discrimination on the grounds of disability, ensuring equal access to opportunities.
- **Article 41:** Directs the State to make provisions for securing the **right to work, education, and public assistance** for citizens in case of disablement.
- **Rights of Persons with Disabilities (RPwD) Act, 2016:**



- Mandates accessibility in **public buildings, transport, ICT systems, and services** (Sections 40–46).
- Establishes **equal opportunity policies** and **non-discrimination obligations** for employers and public authorities.
- **Accessible India Campaign (2015)**: Launched to make public infrastructure, transport, and digital services universally accessible.
- **Digital India Initiative**: Promotes **inclusive digital infrastructure** and e-governance for all citizens, including marginalized groups.

4. Key Concepts and Definitions

- **Accessibility**: The design of products, devices, services, and environments so that they can be used by persons with disabilities on an equal basis with others.
- **Universal Design**: An approach ensuring usability of systems and infrastructure by people of all abilities without adaptation or specialized design.
- **Digital Inclusion**: Ensuring equitable access to information and communication technologies (ICT) for marginalized or differently-abled groups.
- **Sugama Bharat Abhiyan**: A flagship national program launched in 2015 to make **India barrier-free** by improving accessibility in the built environment, transportation, and ICT ecosystem.

5. Broader Significance and Impact

- The revamped app represents a **citizen-driven model of accessibility governance**, empowering PwDs to become active participants in **policy monitoring and feedback mechanisms**.
- Promotes **digital empowerment** through equitable access to government schemes, job opportunities, and education resources.
- Enhances **accountability in public spaces**, reinforcing inclusivity in both urban and digital planning.
- Supports India's commitments under the **UN Convention on the Rights of Persons with Disabilities (UNCRPD)** and aligns with **Sustainable Development Goals (SDGs 4, 8, 10, and 11)** on inclusive education, employment, and sustainable cities.
- Fosters **public-private partnership (PPP)** in social inclusion through collaboration with SBI Foundation and civil society organizations.

6. Way Forward

- Continuous **integration of real-time feedback and AI-based accessibility audits** can strengthen responsiveness.
- Expansion of the app's coverage to **rural areas, educational institutions, and transport systems** will ensure broader inclusion.
- Linking the app with **Digital India portals, urban local bodies, and state accessibility cells** can enable seamless cross-platform functionality.
- Encouraging **citizen participation and awareness campaigns** will be key to sustaining the momentum of accessible governance.

Conclusion

The **revamped Sugama Bharat App** represents a transformative leap in India's journey toward **digital inclusion and accessibility for all**. By integrating accessibility mapping, information dissemination, and



grievance redressal, it empowers persons with disabilities to assert their rights and actively shape the nation's accessibility ecosystem. The initiative reflects India's **commitment to inclusive governance**, ensuring that technology serves as a **tool for empowerment, equity, and dignity** for every citizen.

SECURITY & RELATED EVENTS

1. National Conference on Opportunities in Defence Manufacturing

1. Event Overview

- **Organiser & Date:** Ministry of Defence (MoD) – Department of Defence Production; to be inaugurated by Raksha Mantri Shri Rajnath Singh at Vigyan Bhawan, New Delhi on **7 October 2025**.
- **Purpose:** A national-level platform to coordinate between MoD and State/UT Governments to align regional industrial policies & infrastructure with **self-reliance in defence manufacturing (Atmanirbhar Bharat in Defence)**.

2. Key Initiatives to be Launched

- **Defence Exim Portal:** A digital platform to streamline export and import authorisations for defence products – reducing procedural delays and enhancing transparency.
- **Srijan DEEP (Defence Establishments and Entrepreneurs Platform):** A digital repository mapping Indian defence industries' products and capabilities – improving industry visibility & linkages with Defence PSUs and Armed Forces.
- **Publications to be Released:**
 - *Aerospace & Defence Sector Policy Compendium of States/UTs* – showcasing regional policy frameworks.
 - *iDEX Coffee Table Book – “Shared Horizons of Innovation”* – highlighting defence innovation success stories under **Innovations for Defence Excellence (iDEX)**.



3. Constitutional & Legal Framework

- **Union List Entry 7 (Defence of India)** under Seventh Schedule – gives Parliament exclusive power to legislate on defence-related matters.
- **Article 73** – Union's executive power extends to matters on which Parliament can legislate (including Defence).
- **Defence Production Policy (DPP) 2020** – aims at a turnover of USD 25 billion in defence manufacturing by 2025, including USD 5 billion in exports.
- **Make in India / Atmanirbhar Bharat** – policy push to indigenise defence manufacturing, reduce import dependency, and boost exports.

4. Significance for Defence Manufacturing Ecosystem

- **Coordination:** Brings States/UTs into the defence industrial ecosystem, encouraging cluster development and MSME participation.
- **Indigenisation & Exports:** Aims to enhance domestic capabilities and promote India as a global hub for defence production.



- **Investment Promotion:** Aligns central and state incentives to attract private investment in high-technology defence sectors.

5. Key Definitions

- **Indigenisation:** Process of developing and producing defence equipment domestically to reduce import dependence.
- **Defence Export Authorisation:** Government approval required to export sensitive defence products; now being digitised through the Defence Exim Portal.
- **iDEX (Innovations for Defence Excellence):** MoD initiative to engage start-ups, MSMEs, and academia in defence innovation challenges.

6. Conclusion & UPSC Relevance

- **Conclusion:** The conference represents a strategic move to integrate state-level policies with national goals of self-reliance, innovation, and defence exports. By launching digital platforms like Defence Exim Portal and Srijan DEEP, the government is institutionalising transparency, ease of doing business, and collaboration in the defence sector.

2. INS Sahyadri's Port Call at Malaysia's Kemaman Port

1. Event Overview

- **Ship & Visit:** Indian Naval Ship (INS) Sahyadri arrived at **Kemaman Port, Malaysia** on 2 October 2025 as part of routine operational deployment.
- **Purpose:** To enhance **bilateral naval engagement**, including cross visits, **Subject Matter Expert (SME) exchanges**, and strengthening India-Malaysia maritime ties.
- **Significance:** This is **INS Sahyadri's third visit** to Malaysia; previous visits include Port Klang (2016) and participation in **Exercise Samudra Laksamana** at Kota Kinabalu (2019).

2. Bilateral Engagements & Diplomacy

- Officers of INS Sahyadri met **First Admiral Abd Halim bin Kamarudin**, Deputy Commander Naval Region 1, Malaysian Navy.
- Demonstrates India's **naval diplomacy** and efforts to maintain strong regional maritime relationships in the **Indo-Pacific region**.
- Follows other engagements like the visit of **INS Sandhayak** in July 2025 for **hydrographic cooperation** at Port Klang.



3. Strategic & Operational Significance

- Highlights India's growing role in **regional maritime security and hydrography** under the **Indian Naval Hydrographic Department (INHD)** and **National Hydrographic Office** framework.
- Enhances **maritime situational awareness**, regional interoperability, and capacity building with friendly navies in Southeast Asia.
- Reinforces India's **Act East Policy** and its commitment to a **free, open, and inclusive Indo-Pacific**.

4. Key Events in Context

- India actively participated in **LIMA 2025 (Langkawi International Maritime and Aerospace Exhibition)**; MoS Defence Sanjay Seth met Malaysian PM Anwar Ibrahim.



- India is recognized as a **key neighbour** and partner in regional security and defence cooperation.
- These engagements strengthen **strategic ties** and encourage **defence trade, maritime collaboration, and capacity building**.

5. Key Definitions

- **Port Call:** Scheduled stop of a naval ship at a foreign port for diplomatic, operational, or logistical purposes.
- **Hydrographic Cooperation:** Sharing expertise, data, and practices related to mapping of sea areas for safe navigation, defence, and maritime resource management.
- **Act East Policy:** India's foreign policy aimed at strengthening economic, strategic, and cultural relations with Southeast Asia and the Asia-Pacific region.

6. Conclusion & UPSC Relevance

- **Conclusion:** INS Sahyadri's visit strengthens India-Malaysia naval cooperation, demonstrates India's proactive maritime diplomacy, and enhances hydrographic and operational collaboration in Southeast Asia.

3. DRDO Releases Indian Radio Software Architecture (IRSA) Standard 1.0 for Military Communication Interoperability

1. Introduction and Context:

- The **Defence Research and Development Organisation (DRDO)**, in collaboration with the **Integrated Defence Staff (IDS)** and **Tri-Services**, has launched the **Indian Radio Software Architecture (IRSA) Standard 1.0** on **October 6, 2025**, at DRDO Bhawan, New Delhi.
- **IRSA** is a **comprehensive software specification for Software Defined Radios (SDRs)** — aimed at achieving **interoperability, standardization, and self-reliance** in India's defence communication network.
- The release of IRSA 1.0 is a key step towards the **Atmanirbhar Bharat** initiative in defence technology, representing India's progress in developing **indigenous, secure, and globally competitive communication standards** for military use.

2. Understanding IRSA and Its Key Features:

- **Definition:** *Indian Radio Software Architecture (IRSA)* is a standardized framework that defines **interfaces, APIs (Application Programming Interfaces), execution environments, and waveform portability mechanisms** for **Software Defined Radios (SDRs)**.
- It ensures **waveform portability** (ability to transfer communication waveforms across devices) and **SDR interoperability** (communication compatibility across armed forces and systems).
- The architecture includes mechanisms for **certification and conformance**, ensuring secure, reliable, and efficient communication within and across military platforms.
- Designed to evolve with **operational requirements**, IRSA lays the foundation for integrating **emerging technologies** such as Artificial Intelligence (AI), Quantum Communication, and 6G-based tactical networking.





3. Strategic Importance for Defence and Security:

- **Software Defined Radios (SDRs)** are crucial for **real-time, adaptive, and encrypted communication** across air, land, and naval platforms.
- IRSA eliminates communication silos between the **Army, Navy, and Air Force**, promoting **network-centric warfare** and **jointness** among the services — key objectives under **Theatre Command reforms**.
- The standard enhances **interoperability with allied forces**, enabling India to participate more effectively in **multinational joint operations** and **peacekeeping missions**.
- It also reduces dependency on **foreign OEMs (Original Equipment Manufacturers)**, saving costs and minimizing cybersecurity risks.

4. Institutional Framework and Collaborative Ecosystem:

- The **IRSA initiative** was conceptualized in **2021**, when the critical role of SDRs in modern warfare was recognized.
- A **core technical team under DRDO** began development in **2022**, in close coordination with **IDS** and **Tri-Services**, ensuring operational alignment.
- Approved by the **High-Level Advisory Committee (HLAC)** in 2025, IRSA 1.0 now serves as **India's first national software architecture specification** for defence communications.
- The initiative promotes **collaboration among DRDO, defence PSUs, private industry, academia (IITs), and start-ups**, fostering a **national defence tech ecosystem**.

5. Legal, Policy, and Constitutional Framework:

- Aligned with **Article 51A(h)** of the Constitution, which encourages the development of scientific temper and innovation.
- Supports **Defence Production and Export Promotion Policy (DPEPP) 2020**, aiming for greater indigenization in defence systems.
- Reinforces India's **National Cyber Security Policy (2013)** and **Defence Communication Network Policy**, ensuring secure digital infrastructure for command and control.
- Complies with **Defence Acquisition Procedure (DAP) 2020**, emphasizing indigenous design, development, and manufacturing (IDDM) category procurement.

6. Global Relevance and Future Prospects:

- With IRSA 1.0, India aspires to establish a **global benchmark** for SDR technology, offering **IRSA-compliant systems** to friendly nations under **defence diplomacy and export frameworks**.
- Future upgrades (IRSA 2.0 onwards) will integrate **edge computing, AI-driven spectrum management, and quantum encryption** for next-generation military communication.
- It positions India among few nations — such as the **U.S. (Software Communications Architecture - SCA)** and **NATO countries** — to possess an indigenous SDR communication standard.

Conclusion:

The launch of **IRSA 1.0** marks a transformative milestone in India's defence modernization, ensuring **interoperability, cybersecurity, and technological sovereignty** in military communications. By standardizing software architectures for SDRs, India not only strengthens its **strategic autonomy** but also moves closer to becoming a **global leader in defence communication technologies**, aligned with the vision of **Atmanirbhar Bharat** and **Make in India**.



4. Russia Offers Support for India's AMCA & Local Production of Su-57 – Key Highlights

- **Russia's Strategic Offer to India's AMCA Programme:**
 - Russia has expressed readiness to support India's **Advanced Medium Combat Aircraft (AMCA)** programme, a fifth-generation fighter aircraft project being developed by **DRDO** and **HAL**.
 - Russian Ambassador Denis Alipov offered **local production of the Su-57**, Russia's fifth-generation stealth fighter jet, as part of a broader collaboration, reinforcing the **India-Russia defence partnership**.
 - This proposal is significant as AMCA is India's first **indigenously designed stealth aircraft**, aligning with the vision of **Atmanirbhar Bharat in defence**.
- 
- **Evolution of India-Russia Defence Ties:**
 - The offer highlights a shift from a **buyer-seller model** to **joint development, co-production, and technology sharing**, marking deepening strategic ties.
 - Historical collaborations include **BrahMos missile**, **INS Vikramaditya**, and **Sukhoi Su-30MKI** co-production.
 - Russia remains one of India's largest defence partners, despite India's growing diversification in sourcing arms.
 - **Su-57 and AMCA – Strategic Context:**
 - **Su-57:** Russia's fifth-generation stealth multirole fighter known for **supercruise capability, stealth, advanced avionics, and high maneuverability**.
 - **AMCA:** India's indigenous 5th-generation fighter program, aimed at replacing ageing fleets and enhancing **air superiority** with stealth and indigenous weapon systems.
 - Collaboration may accelerate AMCA development through **technology transfer, R&D synergy, and industrial ecosystem building**.
 - **Geopolitical and Energy Context:**
 - The announcement comes amid Western speculation (including from former U.S. President Donald Trump) about India's potential halt in **Russian oil imports** due to geopolitical pressures.
 - Russia reaffirmed its importance as a **cost-effective energy supplier**, underlining the strategic balancing India exercises in its **foreign policy and energy security**.
 - **Key Definitions and Concepts:**
 - **Fifth-Generation Fighter Aircraft:** Aircraft with stealth capabilities, advanced avionics, integrated sensors, and multirole combat functionality.



- **Atmanirbhar Bharat in Defence:** Government initiative promoting indigenous design, development, and manufacturing of defence equipment to reduce import dependency.
- **Constitutional and Legal Provisions:**
 - **Article 51(d):** Encourages development of **just and honorable relations** between nations—relevant in the context of strategic defence cooperation.
 - **Defence Procurement Procedure (DPP) and Defence Acquisition Procedure (DAP 2020):** Emphasize indigenization and promote **Make in India** in defence.

Conclusion:

The Russian proposal to support AMCA and manufacture Su-57 in India reflects a **strategic convergence in defence**, with implications for India's technological advancement, air power, and self-reliance. It also reaffirms the strength of the **India-Russia strategic partnership** amid changing global power equations and evolving security dynamics.

SCIENCE & TECHNOLOGY

1. Satellite Internet in India – The Future of Internet Above Us

Key Highlights

- India has over **1,002.85 million internet subscribers** (Apr–Jun 2025), but rural penetration is still low at **46 per 100 persons**, indicating the need for satellite internet to bridge the **digital divide**.
- Space Sector Reforms (2020) and **Indian Space Policy 2023** have opened the space ecosystem to private players and allowed up to **100% FDI** in satellite services.
- India is transitioning from **Geostationary (GEO)** satellites to **Low Earth Orbit (LEO)** and **Medium Earth Orbit (MEO)** satellite systems for faster and low-latency internet.
- More than **10 operators**, including **Starlink, Jio Satellite Communications and OneWeb**, have received/ applied for licences to provide satellite broadband.
- Government initiatives like **Digital Bharat Nidhi, NBM 2.0, BharatNet, PM-WANI, and CTD for Islands & North-East** are leveraging satellite bandwidth to extend connectivity to remote and border areas.



Definition and Importance

- **Satellite Internet:** Internet service delivered via satellites in **Geostationary Orbits (GSO)** or **Non-Geostationary Orbits (NGSO)**.
- **Digital Divide:** The gap between populations having access to modern information and communications technology (ICT) and those without it.
- **Importance:** Enables broadband access to hilly terrains, border areas, islands, disaster zones, and economically unviable regions for terrestrial networks.

Regulatory & Institutional Framework

- **Department of Telecommunications (DoT):** Grants authorisations for satellite-based services under the **Unified Licence Regime**; empowered by the **Telecommunications Act, 2023** to assign spectrum and regulate satellite services.



- **TRAI (Telecom Regulatory Authority of India):** In May 2025 issued recommendations on satellite spectrum allocation – five-year assignment with an extension of two years.
- **IN-SPACe (Indian National Space Promotion & Authorisation Centre):** Authorises and supervises non-governmental entities' space activities and acts as an interface between ISRO and private players.
- **NSIL (New Space India Ltd.):** Commercial arm of ISRO operating 15 communication satellites; runs **demand-driven missions** like GSAT-24 (DTH), GSAT-20 (broadband) and proposed GSAT-N3 for S-Band services.

Technological & Policy Shifts

- **LEO Satellites (400–2,000 km):** Provide low-latency, high-speed services.
- **MEO Satellites (8,000–20,000 km):** Cover larger regions with moderate latency.
- **High Throughput Satellites (HTS)** such as GSAT-19, GSAT-29, GSAT-11, GSAT-N2 use spot-beam technology for higher capacity.
- Government has liberalised FDI norms and encouraged private participation to achieve **Viksit Bharat 2047** vision.

Government Initiatives

- **Digital Bharat Nidhi (DBN):** Former USOF; funds broadband expansion including 4G saturation project.
- **Comprehensive Telecom Development Plan (CTDP):** Augments satellite bandwidth for islands and NE regions (e.g., A&N capacity raised from 2 Gbps to 4 Gbps).
- **National Broadband Mission 2.0 (NBM 2.0):** Extending broadband to remaining 1.7 lakh villages, funded by DBN, aligned with BharatNet and PM-WANI.
- **PM-WANI:** Over 3.73 lakh public Wi-Fi hotspots established by Sept 2025.
- **GIS-based DSS** by MoES: Uses internet connectivity and satellite data to deliver early warnings for extreme weather events.

Constitutional & Legal Provisions

- **Telecommunications Act, 2023:** Legal basis for spectrum assignment, security conditions and regulation of satellite-based services.
- **Space Policy 2023:** Provides a level playing field for non-government entities; aligns with Article 19(1)(g) (freedom to practice trade/profession) and promotes public-private collaboration for national development.
- Satellite communication supports **Article 21 (Right to Life)** by enabling disaster response and access to essential services like education and healthcare.

Conclusion

Satellite Internet is emerging as a **critical enabler of Digital India**, bridging the urban-rural connectivity gap and ensuring strategic autonomy in space-based communication. By combining government initiatives, private participation and next-gen technology (LEO/MEO), India is steadily advancing towards **Viksit Bharat 2047**, delivering affordable, high-speed, and resilient internet access nationwide.



2. ANRF Launches SARAL to Simplify Scientific Research

- **Overview of ANRF and SARAL**
 - The **Anusandhan National Research Foundation (ANRF)**, India's newest science funding agency, has developed **SARAL (Simplified and Automated Research Amplification and Learning)**.
 - **SARAL uses Artificial Intelligence (AI)** to generate **layperson-friendly summaries** of complex scientific research, including **videos, podcasts, posters, and presentations**.
 - Objective: **Enhance accessibility and outreach of scientific knowledge** to the public and facilitate innovation.
- **Focus Areas and Applications**
 - ANRF aims to leverage **deep science and engineering** to create **deep tech products and start-ups**.
 - SARAL and ANRF's initiatives target key sectors like **drug and chemical discovery, aerospace design, climate and weather studies, and advanced materials**.
 - Plans to develop an **AI Science and Engineering Open India Stack**, promoting integration of AI in research and innovation ecosystems.
- **Funding and Policy Support**
 - Union Cabinet approved a **₹1 lakh crore Research, Development and Innovation Scheme (July 2025)** to provide **low-interest, long-tenure loans** for private companies investing in core R&D.
 - ANRF will act as a **single-window clearance mechanism** for funding universities, academic institutions, and private sector research.
 - Expected to receive **~70% of its budget from private sources**, promoting **public-private partnership in R&D**.
- **Institutional Significance**
 - ANRF absorbs the role previously played by the **Science and Engineering Research Board (SERB)** in funding scientific research.
 - The Foundation's **Governing Council** evaluates sectors for fund allocation, ensuring **strategic and impact-oriented research investments**.
- **Legal and Policy Context**
 - AI-based research tools like SARAL align with **National Science and Technology Policy (2020)**, emphasizing **innovation, commercialization, and knowledge accessibility**.
 - Promotes **scientific temper** under **Article 51A(h) of the Constitution**, which directs citizens to develop a **scientific outlook**.
 - Supports **Make in India** and **Digital India** initiatives by fostering **indigenous research and technological self-reliance**.
- **Conclusion & UPSC Relevance**



- SARAL and ANRF mark a **significant step in democratizing science and promoting R&D-led innovation** in India.

3. Indian-Made H125 Helicopters to Roll Out from Kolar in 2027

- **Overview of the Project**
 - **Tata Advanced Systems Ltd. (TASL)** will establish **India's first private-sector helicopter final assembly line** at **Vemagal, Kolar district, Karnataka**.
 - The assembly line will produce **Airbus H125 helicopters** under the **"Made in India" initiative**, marking a significant step in domestic aerospace manufacturing.
- **Purpose and Applications**
 - The **H125 helicopter** is a **light multi-role helicopter** suitable for **civil, para-public, and defense operations**.
 - It will support the **Indian armed forces**, particularly in **high-altitude operations along the Himalayan frontiers**, and also cater to **civilian aviation markets**.
- **Timeline and Deliverables**
 - The **first "Made in India" H125 helicopter** is expected to be delivered in **early 2027**.
 - The project aims to integrate **advanced aerospace technologies** while fostering **local manufacturing capabilities**.
- **Strategic and Industrial Significance**
 - Enhances **India's indigenous defense and aerospace capabilities**, aligning with the **Atmanirbhar Bharat initiative** for **self-reliance in critical sectors**.
 - Promotes **private sector participation in high-technology defense manufacturing**, complementing **Make in India** policies.
- **Legal and Policy Context**
 - Supported under **Defence Procurement Policy (DPP 2020)** encouraging **private sector and domestic production** for defense equipment.
 - Contributes to **Article 51A(h)** (promotion of scientific temper) and **national security interests**, by reducing reliance on imports for defense aviation.
- **Conclusion & UPSC Relevance**
 - TASL's H125 assembly line represents a **fusion of technology, defense preparedness, and industrial growth**, boosting India's **strategic autonomy**.

4. Trio Wins Physics Nobel for Building Device Showing 'Quantum Tunnelling'

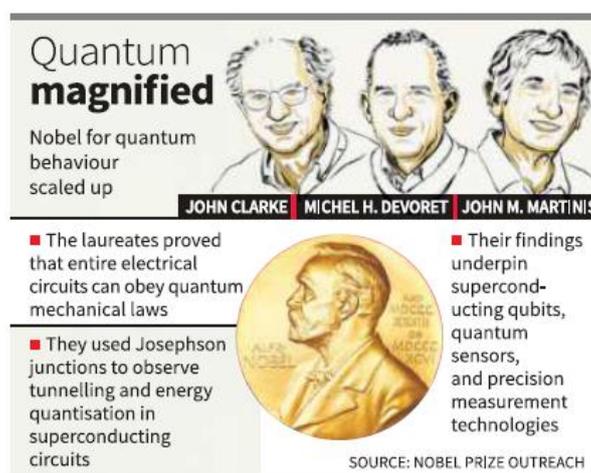
1. Nobel Prize Announcement & Laureates:

- The **2025 Nobel Prize in Physics** has been awarded to **John Clarke, Michel Devoret, and John Martinis**.
- They collaborated to conduct experiments that deepened understanding of **quantum mechanics**, particularly phenomena at the **subatomic (quantum) level**.



2. Key Concept – Quantum Tunnelling:

- **Definition:** *Quantum tunnelling* refers to the phenomenon where particles can pass through barriers that would be insurmountable according to classical physics.
- Example Analogy: Like a cricket ball hitting the ground — instead of bouncing back, it sometimes “burrows” through it.
- This effect is a direct result of the **wave-particle duality** of matter and is central to **quantum physics**.



3. The Breakthrough – Controlled Quantum Behaviour:

- The scientists successfully demonstrated that it’s possible to **organize and manipulate multiple particles** to exhibit tunnelling in a controlled, measurable way.
- This experimental setup bridges the gap between **quantum-level theory** and **macroscopic technological application**.

4. The Josephson Junction and Superconducting Circuit:

- They built an **electrical circuit** using **two superconductors** separated by a **non-conductive thin layer** known as the **Josephson Junction**.
- **Superconductors** are materials that allow the flow of electric current **without resistance** at very low temperatures.
- The **Josephson Junction** is vital in **quantum computing**, as it allows the flow of “tunnelling” current and forms the basis for **superconducting qubits (quantum bits)**.

5. Significance and Applications:

- This discovery strengthens the **foundation of quantum computing**, which relies on **superposition and tunnelling** to process information far faster than classical computers.
- It also aids in developing **quantum sensors, quantum encryption, and ultra-sensitive measurement devices**.
- The principles of tunnelling already find use in devices like **tunnel diodes, MRI machines, and scanning tunnelling microscopes**.

6. Constitutional, Legal & Ethical Dimensions (UPSC Perspective):

- India’s **National Quantum Mission (NQM)** (2023–2031) aims to develop **quantum communication, computing, and sensing technologies**—aligned with such discoveries.
- **Article 51A(h)** of the Indian Constitution enjoins citizens “to develop the scientific temper, humanism and the spirit of inquiry and reform.”
- Legal frameworks in technology governance must adapt to regulate **quantum data security and AI integration** within constitutional values of privacy (Article 21).

Conclusion:

The Nobel-winning work demonstrates humankind’s growing ability to **harness quantum phenomena** for real-world technologies. From understanding the fabric of the universe to enabling next-generation computing, this breakthrough reaffirms the **transformative power of basic scientific research**.

5. Curbing Cyber Frauds in Digital India

1. Expanding Digital Landscape and Rising Cyber Threats:

- With **over 86% of Indian households connected to the internet**, India is witnessing rapid digital expansion under the **Digital India Mission**. However, this progress has also increased vulnerabilities in cyberspace.
- **Cybersecurity incidents rose from 10.29 lakh (2022) to 22.68 lakh (2024)**, indicating both increased attacks and improved reporting.
- **Cyber frauds**—defined as deceptive digital activities like phishing, data theft, and financial scams—are now a major national security and economic concern.
- The **Union Budget 2025–26** allocated **₹782 crore** for cybersecurity projects, emphasizing the government's commitment to protecting digital infrastructure.



2. Emerging Patterns and Nature of Cyber Frauds:

- Cyber threats are becoming diverse, including **phishing, spoofing, AI-based deepfakes, UPI-linked frauds, and online betting scams**, generating criminal proceeds exceeding ₹400 crore.
- The **Department of Telecommunications (DoT)** introduced the **Financial Fraud Risk Indicator (FRI)** to classify high-risk mobile numbers, curbing fraud via compromised SIMs.
- The **Promotion and Regulation of Online Gaming Bill, 2025** aims to promote e-sports while **banning online money gaming**, its advertisements, and financial transactions to reduce digital exploitation.
- Globally, cybercrimes are now linked with organized crime networks and cross-border fraud operations, often based in Southeast Asia.

3. Legal and Institutional Cybersecurity Framework in India:

- **Information Technology (IT) Act, 2000:** Core legislation governing cyber offences—identity theft, impersonation, and dissemination of harmful material. Section 70A establishes the **National Critical Information Infrastructure Protection Centre (NCIIPC)** for protecting key digital infrastructure.
- **IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021:** Mandates accountability of social media and digital platforms, requiring removal of unlawful content and traceability of harmful communication.
- **Digital Personal Data Protection Act, 2023:** Enforces lawful data processing, informed user consent, and security safeguards, reducing misuse of personal data.
- **Public Safety Measures:** Over **9.42 lakh SIM cards** and **2.63 lakh IMEIs** linked to cyber frauds have been blocked to prevent recurring scams.

4. Strengthening Cyber Defence Mechanisms:

- **CERT-In (Computer Emergency Response Team):** National nodal agency for monitoring and responding to cyber threats, conducting **109 mock drills** involving 1,438 organizations to test readiness.
- **I4C (Indian Cybercrime Coordination Centre):** Coordinates law enforcement efforts; has blocked **83,668 WhatsApp accounts** and **3,962 Skype IDs** used for fraud.



- **NCIIPC:** Protects critical sectors like banking, telecom, and energy through risk assessment and sector-specific cybersecurity advisories.
- **CyTrain & CCPWC Schemes:** Over **1 lakh police officers** trained in cybercrime investigation; **₹132.93 crore CCPWC scheme** set up labs across 33 states to counter crimes targeting women and children.

5. Governance and Citizen-Centric Cyber Safety Initiatives:

- **National Cyber Crime Reporting Portal (cybercrime.gov.in):** A unified platform for citizens to report cyber offences; supported by the **helpline 1930** for immediate response and transaction freezing.
- **Citizen Financial Cyber Fraud Reporting and Management System (CFCFRMS):** Helped recover **₹5,489 crore** in over **17.82 lakh complaints**, showcasing effective grievance redressal.
- **Cyber Crisis Management Plan (CCMP)** ensures coordinated recovery from cyberattacks, while **Samanvaya Platform** and **Sahyog Portal** integrate data analytics for tracing cyber networks and removing unlawful online content.
- **National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS):** Promotes R&D in cybersecurity, AI, and data analytics for predictive threat mitigation.

6. Promoting Cyber Awareness and International Collaboration:

- **Bharat National Cybersecurity Exercise 2025** and the **India Mobile Congress 2025 (IMC)** reaffirm India's commitment to global cyber resilience and innovation.
- IMC 2025, themed "**Innovate to Transform**", focuses on **6G, AI, IoT, satellite communications, and cybersecurity**, highlighting India's leadership in secure digital ecosystems.
- Such platforms foster international cooperation, public-private partnerships, and research for resilient cyber infrastructure.

Constitutional and Legal Linkages:

- **Article 21 (Right to Privacy):** Recognized as a fundamental right in *K.S. Puttaswamy v. Union of India (2017)*—ensuring protection of digital identity and data.
- **Article 51A(h):** Enjoins citizens to develop a scientific temper and awareness of digital responsibility.
- **National Cyber Security Policy (2013)** and **Digital India Mission** together align with the constitutional vision of **secure and inclusive governance** in cyberspace.

Conclusion:

India's journey toward a **secure Digital India** hinges on technological preparedness, legal robustness, and citizen vigilance. As cyber frauds evolve, the government's integrated efforts through legislation, institutional frameworks, and public engagement are shaping a resilient and trustworthy digital ecosystem—essential for safeguarding both national and economic security.

6. India-AI Global Impact Challenges 2025-26: Empowering Inclusive AI Innovation

1. Overview of the Initiative

- The **Government of India**, under the Ministry of Electronics and Information Technology (MeitY), has launched **three Global Impact Challenges**—**AI for All**, **AI by HER**, and **YUVAi**—as part of the **India-AI Impact Summit 2026**.
- **Total prize pool: ₹5.85 crore.**



- Objective: To **promote inclusive, responsible, and scalable AI innovation** with high **social and economic impact** globally.
- The selected innovations will be **showcased at the India-AI Impact Summit 2026 (Feb 19–20, New Delhi)**.



2. Key Flagship Challenges

- **(a) AI for All: Global Impact Challenge**
 - Aimed at developing **AI-based deployable solutions** addressing **national and global challenges** in areas like **agriculture, climate, healthcare, financial inclusion, education, mobility**, etc.
 - **Awards:** ₹2.5 crore (top 10 winners).
 - **Eligibility:** Open to students, researchers, professionals, companies, and startups with pilot-stage or scalable AI models.
 - **Support:** Mentorship, investor access, cloud credits, and accelerator programs.
- **(b) AI by HER: Global Impact Challenge**
 - Dedicated to **women-led AI innovation** under the **Women Entrepreneurship Platform (WEP), NITI Aayog**.
 - Focus areas: **Agriculture, Cybersecurity, Digital Wellbeing, Energy, Climate, and Education**.
 - **Awards:** ₹2.5 crore (top 10 winners).
 - **Eligibility:** Women-led teams, student groups, or startups with working AI prototypes.
 - **Support:** Virtual bootcamps, investor engagements, and travel sponsorships for 30 finalists.
- **(c) YUVAi: Global Youth Challenge**
 - Designed for **young innovators (13–21 years)** to create AI solutions for **public good**.
 - **Themes:** Empowerment, sustainability, smart infrastructure, community well-being.
 - **Awards:** ₹85 lakh total; ₹15 lakh for top 3 winners, ₹10 lakh for next 3, special prizes for innovation.
 - **Support:** Bootcamps, mentorship, investor showcases, and global visibility.

3. Implementation Timeline

- **Applications Open:** October 10, 2025
- **Deadline:** October 31, 2025
- **Bootcamps:** November 2025
- **Finalists Announced:** December 31, 2025
- **Showcase Event:** India-AI Impact Summit, February 19–20, 2026

4. Constitutional, Legal, and Policy Framework

- **Article 51A(h):** Fundamental duty to develop scientific temper and spirit of inquiry.



- **Article 38 & 39:** Directive Principles promoting equitable development and use of technology for social welfare.
- **Digital India Mission & National AI Strategy (NITI Aayog, 2018):** Advocates for “AI for All” to foster inclusive growth.
- **STIP 2020 (Science, Technology and Innovation Policy):** Encourages responsible AI aligned with ethics and public good.
- **Data Protection & AI Ethics:** Initiatives complement **Digital Personal Data Protection Act, 2023** and India’s evolving **Responsible AI Framework**.

5. Key Concepts and Definitions

- **Artificial Intelligence (AI):** The simulation of human intelligence by machines for tasks like reasoning, learning, and perception.
- **Responsible AI:** Ensures AI systems are **ethical, transparent, accountable, and non-discriminatory**.
- **Inclusive Innovation:** Technological development ensuring **participation and benefit of all sections** of society, including women and youth.

6. Significance and Strategic Relevance

- Strengthens India’s position as a **global hub for ethical AI innovation**.
- Encourages **public-private-academic collaboration** for socio-economic transformation.
- Promotes **gender equality and youth empowerment** in technology.
- Aligns with UN SDGs (4, 5, 9, 10, 13) and India’s **Digital Economy Vision 2030**.

Conclusion

The **India-AI Global Impact Challenges 2025–26** represent a major stride toward **leveraging AI for public welfare**, fostering **inclusive growth**, and nurturing a **globally competitive innovation ecosystem**. By empowering innovators across demographics, the initiative positions India as a leader in **Responsible and Human-Centric AI Development**.

HISTORY & CULTURE

1. Mysuru Dasara Festival 2025 – Grand Finale of Nada Habba

- **Overview of the Festival**
 - **Nada Habba**, Karnataka’s **state festival**, celebrated annually in **Mysuru**, is a 10-day cultural extravaganza culminating in the **jumbo savari** (grand elephant procession) on **Vijayadashami**.
 - Mysuru is historically known as the “**City of Palaces**”, and the festival showcases the **rich cultural heritage, traditional rituals, and folk arts** of the region.
 - Festival attracts **thousands of visitors**, boosting **tourism and local economy**.
- **Security and Crowd Management**
 - District administration and city police implemented **tight security**: restricted seating at palace premises and Chamaraja Circle, “**no pass, no entry**” rule, and prevention of people climbing old buildings.



- Special measures included **commando security for lead elephants**, reflecting **risk mitigation during mass gatherings**.
- Police managed a **5-km procession route** from Palace to Bannimantap.
- **Cultural and Ceremonial Highlights**
 - Procession included **59 tableaux** and nearly **90 cultural and folk troupes**, representing **districts and departments**.
 - Led by **caparisoned elephants**; the lead elephant **Abhimanyu (59 years old)** carried the **750-kg golden howdah** with the **idol of Goddess Chamundeshwari**.
 - Rituals included **Nandi Dwaja Puja**, showering of **flower petals by dignitaries**, and a **21-gun salute** at palace forecourt.
- **Key Dignitaries and Participants**
 - Chief Minister **Siddaramaiah**, Deputy Chief Minister **D.K. Shivakumar**, Justice **Vibhu Bakhru**, Mysuru MP **Yaduveer Krishnadatta Chamaraja Wadiyar**, and other ministers participated.
 - Highlights the **integration of political, cultural, and traditional leadership** in state ceremonies.
- **Significance of Elephants and Rituals**
 - Elephants symbolize **royalty, tradition, and ceremonial grandeur** in Mysuru Dasara.
 - The festival reinforces **cultural identity, preservation of folk arts, and continuity of royal heritage**.
- **Conclusion & UPSC Relevance**
 - Mysuru Dasara exemplifies **India's rich cultural diversity, heritage tourism, and traditional governance-linked ceremonies**.
 - UPSC Relevance: Important for **Culture (GS-1), Indian Festivals, State Traditions, Tourism & Economic Impacts, and Heritage Management**.

2. National Archives of India to Organize Exhibition on “सुशासन और अभिलेख 2025”

1. Overview and Objective of the Exhibition:

- The **National Archives of India (NAI)**, under the **Ministry of Culture**, is organizing the exhibition “सुशासन और अभिलेख 2025” on **10th October 2025** at **Dr. Ambedkar International Centre, New Delhi**, inaugurated by **Union Minister Gajendra Singh Shekhawat**.
- Organized as part of **Good Governance Month**, the exhibition highlights the connection between **clean governance, record-keeping, and public accountability** in India's administrative evolution.



2. Core Theme – Good Governance and Record Preservation:

- The exhibition underscores that **सुशासन (Good Governance)** is built on pillars of **transparency, accountability, and efficient record management**.



- It recognizes the role of initiatives like **Swachh Bharat Abhiyan**, which not only improved public health but also aided in **archival preservation** and **institutional hygiene**.
- Between **2021–2025**, over **75,500 historically significant records** were transferred to the NAI by ministries and PSUs as part of a nationwide record management exercise.

3. Highlights and Key Exhibits:

- **President's Secretariat:** Documents on **Field Marshal Sam Manekshaw's elevation** and state ceremonial records.
- **Election Commission of India:** Records on the **introduction of Electronic Voting Machines (EVMs)** and **electoral reforms**, reflecting democratic deepening.
- **Ministry of Home Affairs:** Files related to **Vijay Diwas** and **Panchayati Raj reforms**, emphasizing decentralization and people's participation.
- **Ministry of Power:** Documentation on **Tehri Dam** and **Sardar Sarovar Dam**, showcasing post-independence infrastructure milestones.
- Other ministries highlight themes of **legislative reform, diplomacy, trade policy, water management, and railway modernization**.

4. Historical and Institutional Context of NAI:

- **Established:** 11 March 1891 in Kolkata as the **Imperial Record Department**; relocated to **New Delhi in 1937**.
- **Architectural Note:** Building designed by **Sir Edwin Lutyens**, completed in 1926.
- **Legal Framework:** Operates under the **Public Records Act, 1993** and **Public Records Rules, 1997**, making it the **nodal agency for record management in India**.
- **Holdings:** Over **34 crore pages of public records**—including maps, treaties, manuscripts, debates, censuses, gazettes, and private papers in multiple languages (Sanskrit, Persian, Odia, etc.).

5. Constitutional and Administrative Relevance:

- **Article 51A(h):** Enjoins every citizen to develop a scientific temper and the spirit of inquiry—reflected in preserving historical records systematically.
- **Right to Information Act, 2005:** Reinforces the constitutional value of **transparency and accountability**, complementing archival access.
- **Digital India Mission & e-Governance Initiatives:** Promote **digitization of records**, ensuring efficiency and data integrity in governance.
- **Good Governance Index (GGI)** and **Mission Karmayogi** further emphasize evidence-based, transparent decision-making.

6. Significance and Broader Impact:

- The exhibition illustrates how **documentation is not merely administrative**, but a foundation of **democratic legitimacy and historical continuity**.
- It links governance with **cultural memory**, showcasing how effective record preservation contributes to **institutional accountability** and **policy evaluation**.
- Tributes to leaders like **Atal Bihari Vajpayee** and **Dr. A.P.J. Abdul Kalam** highlight the ethical and visionary dimension of governance in India's developmental journey.



Conclusion:

The exhibition “सुशासन और अभिलेख 2025” celebrates India’s journey toward transparent, efficient, and people-centric governance. By emphasizing the role of archives as instruments of accountability, it strengthens the democratic ethos and institutional integrity of the nation.

3. Discovery of Iron Age Culture at Thirumalapuram, Tenkasi (Tamil Nadu): Expanding Insights into Ancient South Indian Civilization

1. Overview of the Discovery

- The **Tamil Nadu State Department of Archaeology (TNSDA)** has unearthed evidence of **Iron Age culture** during the first excavation season at **Thirumalapuram** in **Tenkasi district**, near the **Western Ghats**.
- Preliminary findings suggest that the site may date back to the **early to mid-third millennium BCE**, contemporaneous with other major archaeological sites like **Adichanallur** and **Sivagalai**.
- The excavation, covering nearly **35 acres**, lies between two **seasonal streams** emerging from the Western Ghats, near the **Kulasegarapereri tank**, indicating the importance of water sources in early settlements.
- The discovery adds to the growing evidence of **early Iron Age habitation and cultural continuity in southern India**, particularly in the **Tamil region**.

2. Major Archaeological Findings

- **Burial Site Features:** A unique **rectangular stone slab chamber** with **urn burials** was discovered — the first of its kind in Tamil Nadu — constructed using **35 stone slabs** filled with **cobblestones up to 1.5 metres deep**.
- **Artefacts and Pottery:** Excavations revealed various types of ceramics, including **white-painted black-and-red ware, red ware, red-slipped ware, black-polished ware, and coarse red ware**.
- The **white-painted designs** on black-and-red ware pottery are a distinctive trait previously noted in sites like **Adichanallur, T. Kallupatti, Sivagalai, Thulukkarpatti, and Korkai**, suggesting **cultural interlinkages across the Tamil region**.
- **Symbolic Markings:** The urns featured **symbols and markings**, providing potential clues to **proto-script or ritual practices**, indicating an advanced social and symbolic system among early Iron Age communities.



3. Cultural and Historical Significance

- The site provides further confirmation that **South India had a flourishing Iron Age culture**, parallel to the northern Indian developments in the same period.
- Evidence of **urn burials and advanced pottery** indicates **settled communities, social stratification**, and possibly **ritualistic burial traditions**.
- The findings also suggest early **trade, technology, and metallurgical activities**, given the Iron Age context and the strategic location near the **Western Ghats**, which were rich in mineral resources.
- The similarity of artefacts with other Tamil Nadu sites demonstrates **regional cultural uniformity and inter-site communication** during prehistoric times.



4. Constitutional, Legal, and Institutional Framework

- **Article 49:** Directs the State to protect monuments and sites of historic and artistic interest.
- **Article 51A(f):** Fundamental duty of citizens to value and preserve the rich heritage of India's composite culture.
- **Ancient Monuments and Archaeological Sites and Remains Act, 1958:** Provides for the preservation of ancient monuments and regulation of archaeological excavations.
- **Tamil Nadu Ancient and Historical Monuments and Archaeological Sites and Remains Act, 1966:** Governs protection and excavation of heritage sites within the state.
- **UNESCO Convention (1972):** India is a signatory, emphasizing the conservation of cultural heritage and archaeological integrity.

5. Key Concepts and Definitions

- **Iron Age (c. 1500–500 BCE in India):** Period characterized by the widespread use of iron tools and weapons, leading to advancements in agriculture, warfare, and settlement structures.
- **Urn Burial:** A funerary practice where cremated remains or bodies were placed in ceramic urns, symbolizing beliefs in an afterlife.
- **Black-and-Red Ware:** A distinctive pottery type associated with Iron Age South India, marked by dual-coloring achieved through specific firing techniques.
- **Archaeology:** The scientific study of material remains (artefacts, structures, and biofacts) to understand human history and prehistory.

6. Broader Impact and Way Forward

- The Thirumalapuram findings **reinforce Tamil Nadu's position as a cradle of ancient civilization**, with deep cultural continuity from prehistoric to historic periods.
- They provide fresh opportunities for **scientific dating (Carbon-14, thermoluminescence) and DNA studies** to establish cultural links across South Asia.
- The discovery may reshape historical narratives about **urbanization, trade networks, and socio-religious practices** in ancient South India.
- The state's proactive archaeological initiatives signify the growing focus on **cultural heritage preservation and academic research** in regional archaeology.

Conclusion

The excavation at **Thirumalapuram, Tenkasi**, stands as a major milestone in understanding **Tamil Nadu's prehistoric past**, revealing a sophisticated Iron Age culture marked by distinctive burial practices, pottery styles, and symbolic communication. It highlights the **continuity of civilization, technological advancement, and ritual sophistication** in South India, parallel to other early global civilizations. The findings underscore the importance of **scientific archaeology and heritage protection** in reconstructing India's deep cultural roots.



EDITORIALS & OPINION

1. Nations Must Prepare to Deal with Stablecoins

Key Highlights

- Union Finance Minister Nirmala Sitharaman at the **Kautilya Economic Conclave** stressed that nations must “**prepare to engage**” with stablecoins, even if they are reluctant, due to the systemic change they bring to monetary and capital flows.
- Innovations like **stablecoins** are transforming the global financial architecture and may force countries to **adapt to new monetary systems or risk exclusion**.
- India has **not legalised private cryptocurrencies** (Virtual Digital Assets), though it imposes **taxes on transactions** involving them.
- The **Reserve Bank of India (RBI)** continues to lobby for a ban on private cryptocurrencies while piloting its own **Central Bank Digital Currency (CBDC)**.
- The Finance Minister underlined India’s **resilience to external shocks** and highlighted evolving **economic leverage** amid global strategic rivalries.

What is a stablecoin?

A stablecoin is a crypto asset that aims to maintain a stable value relative to a specified asset, or a pool of assets

- These assets could be a monetary unit of account such as the dollar or euro, a currency basket, a commodity such as gold, or unbacked crypto assets

- This stability can also be achieved only if a centralised institution is in charge of issuing (minting) and redeeming (burning) these crypto assets



SOURCE: IMF

Definitions

- **Stablecoins**: A category of cryptocurrency designed to maintain a stable value by being pegged to an underlying asset such as fiat currencies, a basket of currencies, or commodities like gold. They aim to reduce the volatility typical of other cryptocurrencies like Bitcoin.
- **Cryptocurrency**: A digital or virtual currency secured by cryptography, usually operating on decentralised networks using blockchain technology.
- **CBDC (Central Bank Digital Currency)**: A digital form of a sovereign currency issued and backed by a country’s central bank with the same legal status as physical currency.
- **Virtual Digital Assets (VDA)**: A term used in Indian law for crypto assets or NFTs on which transactions are taxed under the **Finance Act, 2022**.

Constitutional & Legal Provisions in India

- **Legal Status**: India does not grant legal tender status to private cryptocurrencies but taxes their transactions (30% tax on gains, 1% TDS on transactions).
- **RBI Act, 1934 & Payment and Settlement Systems Act, 2007** empower the RBI to regulate monetary policy and payments systems.
- **Finance Act, 2022**: Introduced taxation of Virtual Digital Assets.
- **CBDC Legal Backing**: CBDCs, issued by the RBI, have the same legal backing as the official currency (rupee) under the **Reserve Bank of India Act, 1934**.
- **International Context**: India’s stance aligns with global calls for coordinated regulation of stablecoins under forums like the **G20** and **Financial Stability Board (FSB)**.

Implications for India’s Financial System



- Stablecoins, if widely adopted, may impact **monetary sovereignty**, **capital controls**, and **financial stability** by enabling cross-border flows outside the traditional banking system.
- Need for a **balanced regulatory approach** to harness innovation while preventing risks such as money laundering, terror financing, and market volatility.
- CBDC initiatives can act as a **state-backed alternative** to private stablecoins to maintain control over monetary policy and ensure trust in the financial system.

Conclusion

Stablecoins represent a **paradigm shift** in the global monetary system, blurring lines between traditional finance and digital assets. India, while cautious, recognises the inevitability of these changes and is preparing by **taxing VDAs**, **piloting CBDCs**, and **participating in global regulatory discussions**. A calibrated approach will be crucial to protect monetary stability while fostering innovation.

2. Employment Generation and India's Demographic Dividend – Key Highlights

1. Demographic Context & Importance

- India is the **most populous and one of the youngest countries** globally.
- Over the next 25 years, India is expected to add **~133 million to its working-age population (15–64 years)**, nearly **18% of global workforce growth**.
- The **demographic dividend** offers a short window until **worker population peaks around 2043**, making timely employment generation critical for inclusive growth.
- **Constitutional Context**: Article 41 (Right to Work as part of Directive Principles), Article 38 (promotion of social and economic welfare).

2. Challenges in Employment Generation

- Lack of a **unified national employment framework**; current policies are fragmented.
- **Mismatch between skills and jobs**, especially employability of graduates.
- Labour market frictions: regional disparities, gender barriers, limited mobility.
- Underutilisation of **micro, small, and medium enterprises (MSMEs)** and gig economy potential.



3. Proposed Solutions & Policy Measures

- **Integrated National Employment Policy (INEP)**: Consolidates existing schemes, aligns central and state initiatives, overseen by **Empowered Group of Secretaries**.
- Time-bound goals with focus on **high-employment-potential sectors** (textiles, tourism, agro-processing, healthcare, real estate).
- Encourage **labour mobility**, urban employment guarantee pilots, and support for migration policies.
- **Skills development** aligned with industry needs and emerging technologies (AI, robotics).
- **Gig economy policy**: Social security, worker protection, centralised registry, formalisation of jobs.

4. Focus on Job Quality & Inclusion

- Improve wages, workplace safety, and social security.



- Promote **female labour force participation** via incentives, childcare, eldercare, and societal awareness.
- Regional balance: interventions in underdeveloped districts, rural internships, remote work hubs.
- Affordable housing near industrial hubs to improve mobility and quality of life.

5. Employment Data & Governance

- Need for **high-quality, real-time employment data** covering informal and rural sectors.
- Dedicated task forces for **data collection, methodology improvements, and timely publication**.
- Effective implementation requires coordination between **central ministries, states, and industry stakeholders**.

6. Conclusion & UPSC Relevance

- **Conclusion:** Employment generation is central to leveraging India's **demographic dividend**, reducing poverty, ensuring social equity, and fostering **resilient economic growth**.

3. Is the U.S. Shooting Itself in the Foot by Pushing Out STEM Talent?

1. Context and Background:

- The **U.S. government's decision to impose a \$100,000 visa fee on new H-1B workers** has sparked global concern, especially for **Indian professionals**, who constitute the largest share of H-1B visa holders.
- The **H-1B visa** allows U.S. employers to temporarily employ **foreign professionals in specialty occupations**, mainly in the **STEM (Science, Technology, Engineering, and Mathematics)** fields.
- This policy move, part of a broader effort to tighten immigration norms under the Trump administration, risks **undermining the U.S.'s long-standing reliance on foreign STEM talent**, which has driven innovation and tech leadership for decades.

2. U.S. Dependence on Foreign STEM Workforce:

- Between **2016 and 2024**, jobs in the **U.S. IT sector** (classified as "computer and mathematical occupations") grew by **about 40%**, making it one of the fastest-growing sectors alongside **healthcare and life sciences**.
- Roughly **25% of the IT workforce in 2024** consisted of **foreign-born workers**, a figure that has **remained stagnant** since 2016 despite rising demand — indicating a supply gap constrained by policy barriers.
- Major U.S. tech companies like **Apple, Microsoft, Google, and Meta** have become top recruiters of H-1B professionals, demonstrating that foreign talent has become **structural, not supplementary**, to the U.S. innovation economy.



3. The STEM Education and Talent Deficit:

- According to the **U.S. Bureau of Labor Statistics**, **STEM occupations are projected to grow by 8%** in the next decade, compared to **2.7% for non-STEM jobs**.
- However, the **domestic STEM talent pipeline** is insufficient. From **2011–12 to 2020–21**, **non-residents earning STEM bachelor's degrees increased by 148%**, while **U.S. residents increased only by 47%**.



- At the master's level, **45% of STEM graduates** in 2020–21 were **non-residents**, highlighting how heavily the U.S. depends on **international students** for its future innovation ecosystem.
- Restrictive visa and immigration policies therefore risk **hollowing out the STEM education-to-employment pipeline**, which has long sustained U.S. technological dominance.

4. Global Response and Geopolitical Competition for Talent:

- The U.S. policy shift has opened opportunities for **other countries** to attract high-skilled STEM professionals.
- **China** launched a “**K Visa**” program to attract skilled workers, while **the U.K.** is considering **visa fee reductions** for STEM workers.
- **Germany's ambassador to India** publicly invited Indian professionals, and **South Korea and Canada** are also strengthening policies to attract displaced talent.
- This signals a **global competition for knowledge capital**, where countries are positioning themselves as **innovation hubs** by easing mobility barriers and offering research incentives.

5. Economic, Strategic, and Legal Dimensions:

- The policy contradicts the U.S.'s own **Innovation and Competition Act**, which aims to maintain leadership in emerging technologies like AI, quantum computing, and semiconductors — all dependent on global talent.
- It may also undermine U.S. commitments under **international trade and service agreements (WTO Mode 4: Movement of Natural Persons)**, which facilitate cross-border professional engagement.
- From a broader geopolitical perspective, pushing out foreign STEM workers — especially Indians — could **accelerate “brain circulation”** rather than “brain drain,” benefiting **India's domestic innovation ecosystem** and **strategic partners like the U.K. and EU**.
- Constitutionally, while immigration policy is under federal control in the U.S., it raises ethical and governance questions related to **non-discrimination, equal opportunity, and the right to pursue livelihood**, which are internationally protected under **UDHR (Article 23)** and **ICCPR (Article 6)**.

6. Implications for India and Global Knowledge Order:

- India, as the **largest source of H-1B applicants**, stands to gain if it can **retain and reintegrate returning talent** through initiatives like **Startup India, Make in India, and Semicon India Mission**.
- Indian engineers and researchers returning from the U.S. could help strengthen domestic **AI, semiconductor, and quantum computing capabilities**, aligning with **Atmanirbhar Bharat** goals.
- The trend also emphasizes the importance of **bilateral talent mobility agreements**, such as the **India–U.K. Migration and Mobility Partnership**, to facilitate lawful, beneficial exchanges of skilled professionals.

Conclusion:

The imposition of exorbitant visa fees and restrictive immigration policies risks the U.S. **undermining its own innovation ecosystem** by deterring global STEM talent that has long fueled its technological supremacy. As other nations — including China, the U.K., and Germany — step in to attract this talent, the global STEM power balance may gradually shift. For India, this presents both a **challenge and an opportunity**: to create conditions conducive for innovation-led growth, harnessing its skilled diaspora and returning professionals to strengthen national capabilities.



ETHICS

1. Karnataka Approves Menstrual Leave Policy – 2025

1. Key Highlights of the Policy

- The Karnataka Cabinet has approved the **Karnataka Menstrual Leave Policy – 2025**, providing **one day of paid leave per month** for women employees.

- **Coverage:**

- Applies to **both government and private sectors**, making Karnataka the **first State in India** to ensure universal coverage.
- In comparison, **Odisha and Bihar** provide menstrual leave only for government employees, while **Kerala** has implemented it in **universities**.



- The policy represents a **landmark step toward workplace inclusivity** and recognition of **women's health rights**.

2. Objectives and Rationale

- **Primary Aim:** To recognize **menstrual health as a legitimate workplace concern** and promote gender-sensitive employment practices.
- **Specific Objectives:**
 - Reduce **stigma and absenteeism** associated with menstruation.
 - Encourage **women's workforce participation** by improving comfort and health conditions.
 - Promote **awareness of menstrual hygiene** as part of employee welfare.
- **Global Context:**
 - Similar policies exist in **Japan, Spain, South Korea, and Indonesia**, reflecting a global trend of integrating reproductive health into labor rights.

3. Legal and Constitutional Framework

- **Relevant Constitutional Provisions:**
 - **Article 14:** Guarantees equality before law and equal protection of laws.
 - **Article 15(3):** Allows the State to make **special provisions for women and children**, legitimizing gender-based welfare measures.
 - **Article 42 (Directive Principles):** Directs the State to ensure **humane work conditions and maternity relief**, extending its spirit to menstrual health.
 - **Article 21:** Protects the **right to dignity and health**, interpreted to include **reproductive and menstrual health**.
- **Supporting Legal Frameworks:**
 - **Factories Act, 1948** and **Maternity Benefit Act, 1961** ensure women's welfare but do not cover menstrual leave, making this policy a **progressive administrative expansion**.



- Aligns with India's obligations under the **Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)**.

4. Policy Significance and Administrative Impact

- **Progressive Governance:**
 - Positions Karnataka as a **pioneer State** in gender-inclusive labor welfare.
 - Encourages **corporate participation** in gender-sensitive human resource reforms.
- **Implementation Mechanism:**
 - To be jointly monitored by **Labour, Health, and Women & Child Development Departments**.
 - Requires employers to **record and report compliance** within their HR policies.
- **Expected Outcomes:**
 - Improved **employee well-being and productivity**.
 - Enhanced **public awareness and normalization** of menstrual health discussions.

5. Socio-Economic and Gender Implications

- **Gender Justice Perspective:**
 - Recognizes **biological differences** without compromising the principle of equality.
 - Advances the idea of **substantive equality**, moving beyond formal equality under Article 14.
- **Workplace and Economic Impact:**
 - Reduces **health-related absenteeism** and supports **employee retention**.
 - Encourages **inclusive work environments**, particularly in labor-intensive and service sectors.
- **Social Empowerment:**
 - Validates **reproductive health rights** as integral to **human dignity and social justice**.
 - Helps dismantle **social taboos** and promotes menstrual literacy among working populations.

6. Definition of Key Term

- **Menstrual Leave:**
 - A **workplace entitlement** allowing menstruating employees to take leave during their menstrual cycle without loss of pay.
 - Aimed at ensuring **health, comfort, and gender-sensitive employment practices**.

Conclusion

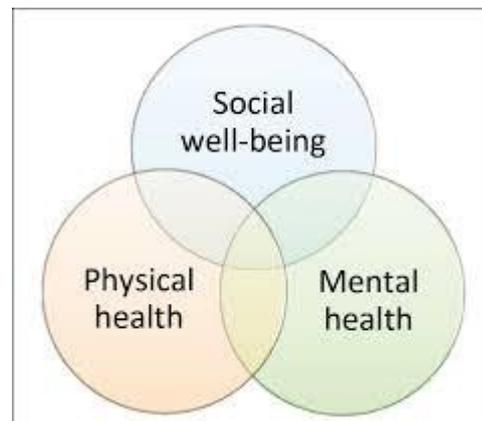
- Karnataka's Menstrual Leave Policy – 2025 marks a **transformative step toward inclusive labor rights** in India.
- It bridges the gap between **public health, gender equity, and workplace welfare**, integrating **empathy with administrative policy**.
- The initiative may serve as a **model framework** for other States and private sectors to replicate under the broader goal of **gender-just governance**.



2. India's Worsening Mental Health Crisis – A Public Health and Governance Challenge

1. Scale and Nature of India's Mental Health Crisis

- India is facing an **alarming mental health emergency**, cutting across **rural and urban populations, students, farmers, homemakers, and professionals**.
- According to the **National Crime Records Bureau (ADSI 2023)**, India recorded **1,71,418 suicides**, marking a **0.3% increase** from 2022. Despite this, the **suicide rate per lakh fell slightly** due to population growth.
- **Men accounted for 72.8%** of all suicides, with **family issues (31.9%), illness (19%), and relationship/marriage-related distress (10%)** as major causes.
- **Farmer suicides** stood at **10,786 (6.3%)**, mainly in **Maharashtra and Karnataka**, while **urban youth suicides** linked to educational stress (e.g., Kota) are rising sharply.
- **Nearly 230 million Indians** live with mental disorders such as **depression, anxiety, and substance-use conditions**, with **treatment gaps between 70%–92%** due to stigma, lack of access, and cost.



2. Institutional and Systemic Gaps

- India has only **0.75 psychiatrists per 1,00,000 population**, far below the **WHO minimum of 1.7** and ideal of 3 per lakh. There is also a severe shortage of **psychologists, nurses, and social workers**.
- Despite progressive laws like the **Mental Healthcare Act, 2017** (which decriminalized suicide and recognized mental healthcare as a right), **implementation remains weak**.
- The **National Suicide Prevention Strategy (2022)** aimed to reduce suicides by 10%, but suicide numbers have continued to rise.
- **Manodarpan**, the school-based psychosocial support scheme, remains largely inactive, and **mental health budgets (₹270 crore)** remain underutilized.
- In many institutions, “counselling” is **tokenistic**, handled by part-time teachers without professional training.

3. Technological Dependence and Emerging Ethical Challenges

- Due to social stigma and lack of access to professional care, **millions of Indians are turning to AI platforms (like ChatGPT)** for emotional support.
- This growing dependence highlights the **collapse of institutional mental health systems** and a **trust deficit in human social support structures**.
- The absence of **data privacy laws and ethical frameworks** in mental health-related AI tools poses serious **confidentiality and safety risks**.
- The government must urgently **regulate digital mental health platforms**, ensuring **mandatory disclaimers, crisis redirection features, and integration with licensed professionals**.



4. Policy, Legal, and Constitutional Framework

- **Mental Healthcare Act, 2017:**
 - Decriminalizes suicide (Section 115) and guarantees **right to affordable, accessible mental health care**.
 - Mandates establishment of **Mental Health Review Boards** and **community-based care infrastructure**.
- **National Suicide Prevention Strategy, 2022:**
 - Seeks to reduce suicide mortality by 10% by 2030.
 - Emphasizes inter-sectoral coordination between health, education, and agriculture ministries.
- **Constitutional Provisions:**
 - **Article 21:** Protects the **Right to Life and Personal Liberty**, interpreted to include **mental well-being and dignity** (as per SC judgments in *Puttaswamy (2017)* and *Common Cause v. Union of India (2018)*).
 - **Directive Principles (Article 38, 47):** Direct the State to promote health, social welfare, and human dignity.

5. Way Forward and Structural Reforms Needed

- Treat **mental health as a national emergency**, establishing a **cross-ministerial task force** integrating Health, Education, Agriculture, and Women & Child Welfare ministries.
- Increase mental health funding and target **3–5 professionals per 1,00,000 people** within five years through training, scholarships, and rural incentives.
- Institutionalize **counselling as public infrastructure**—mandate full-time counsellors in every school, college, and district hospital.
- Launch **nationwide awareness campaigns** to reduce stigma and promote help-seeking behavior, focusing on **farmers, homemakers, students, and survivors of abuse**.
- Integrate **debt relief, livelihood support, and counselling** for farmers; create **community therapy networks** for women and **preventive care** in coaching hubs.

6. Definition of Key Terms

- **Mental Health:** A state of well-being in which individuals realize their potential, can cope with life stresses, work productively, and contribute to society (as per WHO).
- **Reproductive Autonomy (contextually linked):** The right of individuals to make personal decisions about reproduction and bodily autonomy without coercion.
- **Treatment Gap:** The percentage of individuals with mental disorders who do not receive adequate professional care.

Conclusion

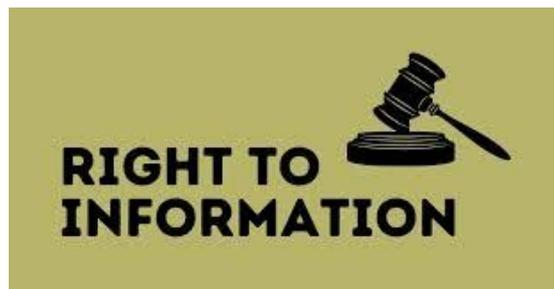
India's mental health crisis reflects a **deep social and institutional failure** that cannot be solved by technology alone. Despite legal frameworks and progressive policies, implementation gaps, stigma, and underfunding persist. Mental health must be recognized as a **core component of public health, human rights, and social justice**, not as a peripheral concern. Building a compassionate, accessible, and accountable care system is essential to safeguard India's **youth, workforce, and national productivity**—and, above all, its **human dignity**.



3. 20 Years of the Right to Information Act (RTI), 2005 – Declining Transparency and Institutional Paralysis in Information Commissions

1. Background and Context

- As India approaches the **20th anniversary of the Right to Information (RTI) Act, 2005**, a recent report by **Satark Nagrik Sangathan (SNS)** highlights a serious institutional crisis in the functioning of **State Information Commissions (SICs)** and the **Central Information Commission (CIC)**.
- The report reveals that **six State-level Commissions** — *Jharkhand, Himachal Pradesh, Telangana, Goa, Tripura, and Madhya Pradesh* — were **defunct** between *July 2024 and October 2025* due to the **non-appointment of Commissioners**.
- The RTI Act was enacted to ensure **transparency and accountability in governance**, empowering citizens to seek information from public authorities. However, the absence of functioning Commissions undermines this core democratic right.



2. Alarming Institutional Gaps and Backlogs

- The SNS report notes that **over 2.4 lakh RTI appeals** were pending across India in 2024, while **Commissions disposed of only 1.8 lakh cases annually**, indicating a growing backlog.
- The **CIC currently operates with only two Information Commissioners**, with **nine vacancies**, including that of the **Chief Information Commissioner**.
- In several States, hearings take **years to be scheduled** — the **Telangana SIC** is projected to take **29 years and 2 months** to clear its backlog at the current disposal rate.
- States like **Maharashtra (95,340)**, **Karnataka (47,825)**, and **Tamil Nadu (41,059)** have the **highest number of pending cases**, severely delaying access to justice and transparency.

3. Constitutional and Legal Framework

- The **Right to Information Act, 2005** operationalizes the **citizens' fundamental right to know**, derived from **Article 19(1)(a)** of the Constitution (Freedom of Speech and Expression).
- Under **Sections 12 and 15** of the RTI Act, the **CIC and SICs** must be constituted with a **Chief Information Commissioner** and up to **ten Information Commissioners**, ensuring adequate capacity.
- Failure to appoint Commissioners violates the **spirit of the RTI Act** and amounts to **dereliction of constitutional duty** under **Article 256**, which mandates compliance with parliamentary laws by State governments.
- The **Supreme Court**, in *Anjali Bhardwaj vs. Union of India (2019)*, directed the Centre and States to ensure timely appointments to prevent information denial and safeguard transparency.

4. Impact on Governance and Citizen Empowerment

- Non-functional Commissions undermine **citizens' right to accountability**, leaving RTI applicants with no mechanism to appeal against denial or delay of information.
- The growing backlog disincentivizes citizens from filing RTIs, eroding **public trust** and weakening the **culture of participatory democracy**.
- In some States, **vacant posts and resource shortages** have turned Commissions into symbolic institutions rather than operational watchdogs.



- The inefficiency also compromises **governance reforms**, as departments face less scrutiny and less pressure to maintain transparency in decision-making.

5. Challenges and the Way Forward

- The major challenges include **vacancies in Commissions, inadequate budgetary allocations, lack of digitization, and political interference** in appointments.
- The government should ensure **timely appointments** through an **independent and transparent selection process**, as mandated by the RTI Act.
- **Digitization of RTI processes**, proactive disclosure of data under **Section 4 of the RTI Act**, and **strengthening e-governance platforms** can reduce dependency on appeals.
- Parliamentary and judicial oversight must ensure that the RTI framework remains functional, accessible, and citizen-oriented.

6. Importance of RTI in Democratic Governance

- The RTI Act has been instrumental in **exposing corruption, promoting good governance, and empowering citizens** over the past two decades.
- It is closely linked with the **Directive Principles of State Policy (Article 38 and 39A)**, which call for transparent and equitable governance.
- A strong RTI framework complements other accountability mechanisms like the **Lokpal and Lokayuktas Act (2013)** and **Whistle Blowers Protection Act (2014)**.

Conclusion

The defunct and underperforming Information Commissions represent a serious threat to the transparency regime envisioned by the RTI Act. As India marks 20 years of this landmark legislation, the need for **institutional revitalization, proactive transparency, and accountability in governance** is paramount. Ensuring fully staffed and efficient Commissions is not merely administrative—it is essential for safeguarding **citizens' democratic right to information** and restoring trust in public institutions.

YOJANA & KURUKSHETRA

1. E-Waste Management and Public Health Crisis in India

- **Definition and Context**
 - **E-waste:** Discarded electrical and electronic devices, including smartphones, computers, and appliances.
 - India generated **2.2 million tonnes of e-waste in 2025**, becoming the **third-largest global generator** after China and the U.S.
 - Rapid **digital transformation** has increased convenience but created an environmental and health crisis, especially in **urban areas and marginalized communities**.
- **Current Scenario and Challenges**
 - More than **60% of e-waste originates from 65 cities**, with hotspots like **Seelampur (Delhi), Moradabad (UP), and Bhiwandi (MH)**.





- Only **322 formal recycling units** exist, capable of treating 2.2 million MT annually; **over half of e-waste is processed informally**, causing release of **over 1,000 toxic substances**, including **lead, mercury, cadmium, POPs, and particulate matter (PM2.5 & PM10)**.
- Informal recycling involves **manual dismantling, open-air burning, acid leaching**, leading to **air, water, and soil contamination**.
- **Impact on Human Health**
 - **Respiratory illnesses:** Chronic bronchitis, asthma, and lung damage from PM2.5 and toxic gases.
 - **Neurological damage and developmental delays:** Exposure to lead, mercury, cadmium affects brain development, especially in children.
 - **Skin and ocular disorders:** Rashes, chemical burns, dermatitis from handling e-waste without PPE.
 - **Genetic and systemic effects:** DNA damage, epigenetic changes, oxidative stress, miscarriages, preterm births, and immunological disorders.
 - **Syndemic environment:** E-waste health impacts exacerbate poverty, malnutrition, and lack of healthcare.
- **Policy and Legal Framework**
 - **E-Waste (Management) Rules, 2022:** Strengthened **Extended Producer Responsibility (EPR)**, mandatory registration for recyclers, incentives for formalisation.
 - **Challenges:** Weak enforcement; informal sector still handles majority of e-waste; legal disputes over EPR credit prices.
 - Constitutional relevance: **Article 21** (Right to Life including healthy environment) and **Directive Principles (Article 48A)** on environmental protection.
- **Way Forward / Recommendations**
 - **Formalisation of informal sector:** Skill certification, PPE, safe infrastructure, healthcare access, social security.
 - **Strengthening enforcement:** Empower Pollution Control Boards, digital tracking, mandatory environmental audits.
 - **Health surveillance:** Long-term studies and medical camps, especially for children.
 - **Innovation and decentralisation:** Affordable local recycling technologies, treatment hubs.
 - **Awareness and education:** Mass campaigns, school curriculum integration to build public responsibility.
- **Conclusion and UPSC Relevance**
 - India's **digital growth** must be balanced with **sustainable e-waste management** to prevent environmental degradation and public health crises.



2. National Camel Sustainability Initiative (NCSI) – Key Highlights

1. Background & Need for the Mission

- India has witnessed a **75% decline in camel population** since 1977, dropping from **~11 lakh (1977)** → **4 lakh (2013)** → **2.52 lakh (2019)** (20th Livestock Census).
- **Major camel-rearing states:** Rajasthan and Gujarat (~90% of total population).
- Decline poses threats to **pastoral communities' livelihoods, ecological sustainability of arid regions, and cultural heritage.**

2. Objectives of NCSI

- Reverse the decline in camel population.
- Restore **economic, ecological, and cultural significance** of camels.
- Promote sustainable pastoral practices and integrate camels into **livelihood strategies** in desert areas.
- Multi-dimensional approach: conservation, breeding, awareness, legal reforms, and market support.

3. Implementation & Institutional Framework

- **Lead Ministry:** Ministry of Fisheries, Animal Husbandry & Dairying.
- **Collaborating Agencies:** Ministries of Environment, Rural Development, Tourism, and State Governments.
- **Consultation:** Draft prepared in consultation with **FAO** and circulated for public comments (Sept 2025).
- Coordination ensures **holistic planning** rather than fragmented efforts under the **National Livestock Mission.**

4. Key Policy Measures Proposed

- **Legal & Trade Reforms:**
 - Review of **Rajasthan Camel Act** to balance conservation and livelihoods.
 - Enable **regulated inter-state trade**, supported by transport infrastructure and **e-market platforms.**
- **Awareness & Education:**
 - National campaigns, integration into school textbooks and rural fairs.
 - Celebrate **World Camel Day (June 22)** to promote culture, conservation, and innovation.
- **Conservation & Breeding:** Scientific breeding, habitat protection, and incentivising camel-based livelihoods.

5. Key Definitions

- **Camel:** Domesticated desert animal, vital for transport, milk, meat, and socio-economic sustenance in arid/semi-arid regions.
- **National Livestock Mission (NLM):** Central government scheme for sustainable livestock development, includes breeding, nutrition, and entrepreneurship support.
- **Pastoral Communities:** Communities dependent on livestock herding for livelihood, especially in arid and semi-arid regions.



6. Conclusion & UPSC Relevance

- **Conclusion:** The NCSI is India's first dedicated national effort to revive camels as a desert icon, integrating conservation with economic, cultural, and ecological objectives. It emphasizes **livelihood security, biodiversity conservation, and sustainable development.**

3. National Archives of India to Organize Exhibition on “सुशासन और अभिलेख 2025”

1. Overview and Objective of the Exhibition:

- The **National Archives of India (NAI)**, under the **Ministry of Culture**, is organizing the exhibition “सुशासन और अभिलेख 2025” on **10th October 2025** at **Dr. Ambedkar International Centre, New Delhi**, inaugurated by **Union Minister Gajendra Singh Shekhawat**.
- Organized as part of **Good Governance Month**, the exhibition highlights the connection between **clean governance, record-keeping, and public accountability** in India's administrative evolution.



2. Core Theme – Good Governance and Record Preservation:

- The exhibition underscores that **सुशासन (Good Governance)** is built on pillars of **transparency, accountability, and efficient record management.**
- It recognizes the role of initiatives like **Swachh Bharat Abhiyan**, which not only improved public health but also aided in **archival preservation and institutional hygiene.**
- Between **2021–2025**, over **75,500 historically significant records** were transferred to the NAI by ministries and PSUs as part of a nationwide record management exercise.

3. Highlights and Key Exhibits:

- **President's Secretariat:** Documents on **Field Marshal Sam Manekshaw's** elevation and state ceremonial records.
- **Election Commission of India:** Records on the **introduction of Electronic Voting Machines (EVMs)** and **electoral reforms**, reflecting democratic deepening.
- **Ministry of Home Affairs:** Files related to **Vijay Diwas** and **Panchayati Raj reforms**, emphasizing decentralization and people's participation.
- **Ministry of Power:** Documentation on **Tehri Dam** and **Sardar Sarovar Dam**, showcasing post-independence infrastructure milestones.
- Other ministries highlight themes of **legislative reform, diplomacy, trade policy, water management, and railway modernization.**

4. Historical and Institutional Context of NAI:

- **Established:** 11 March 1891 in Kolkata as the **Imperial Record Department**; relocated to **New Delhi in 1937.**
- **Architectural Note:** Building designed by **Sir Edwin Lutyens**, completed in 1926.
- **Legal Framework:** Operates under the **Public Records Act, 1993** and **Public Records Rules, 1997**, making it the **nodal agency for record management in India.**



- **Holdings:** Over **34 crore pages of public records**—including maps, treaties, manuscripts, debates, censuses, gazettes, and private papers in multiple languages (Sanskrit, Persian, Odia, etc.).

5. Constitutional and Administrative Relevance:

- **Article 51A(h):** Enjoins every citizen to develop a scientific temper and the spirit of inquiry—reflected in preserving historical records systematically.
- **Right to Information Act, 2005:** Reinforces the constitutional value of **transparency and accountability**, complementing archival access.
- **Digital India Mission & e-Governance Initiatives:** Promote **digitization of records**, ensuring efficiency and data integrity in governance.
- **Good Governance Index (GGI) and Mission Karmayogi** further emphasize evidence-based, transparent decision-making.

6. Significance and Broader Impact:

- The exhibition illustrates how **documentation is not merely administrative**, but a foundation of **democratic legitimacy and historical continuity**.
- It links governance with **cultural memory**, showcasing how effective record preservation contributes to **institutional accountability and policy evaluation**.
- Tributes to leaders like **Atal Bihari Vajpayee** and **Dr. A.P.J. Abdul Kalam** highlight the ethical and visionary dimension of governance in India's developmental journey.

Conclusion:

The exhibition “सुशासन और अभिलेख 2025” celebrates India's journey toward transparent, efficient, and people-centric governance. By emphasizing the role of archives as instruments of accountability, it strengthens the democratic ethos and institutional integrity of the nation.

PIB & PARLIAMENTARY RESEARCH STUDIES (PRS)

1. Migration of Central Government Email System to Zoho Platform: Strengthening Digital Sovereignty and Data Security

1. Overview of the Initiative

- The **Government of India** has migrated **12 lakh official email accounts**, including those of the **Prime Minister's Office (PMO)**, from the **National Informatics Centre (NIC)**-based system to a **Zoho-developed platform**, a Tamil Nadu-based multinational technology company.
- The transition reflects the government's emphasis on **data security, digital sovereignty, and indigenous technological solutions**.
- The **Zoho Office Suite**, integrated with the NIC mail system, is now the **default platform for official email, document creation, and collaboration** for all Union government employees.

2. Objectives and Rationale

- The shift aims to **eliminate the use of open-source and third-party applications** by government officials that may compromise security.
- Ensures **confidentiality and integrity of official data** by consolidating communication and document tools within a secure, government-approved ecosystem.
- Promotes the “**Digital India**” and “**Atmanirbhar Bharat**” (**Self-Reliant India**) vision by leveraging **homegrown technological solutions**.



- Aligns with India's aspiration to transform from a **service-based economy to a product-driven innovation ecosystem**.

3. Key Features and Implementation

- The **Zoho suite** includes email, text document creation, spreadsheets, presentations, and collaboration tools – all within the government's secure digital infrastructure.
- Mandatory adoption:** Ministries and departments have been directed to use the Zoho platform exclusively for official purposes.
- Security enhancement:** The platform prevents the use of unverified external software, reducing risks of data leakage and cyberattacks.
- The **Union Education Ministry's directive (October 3, 2025)** highlighted that this move strengthens **India's digital sovereignty** and **supports the Swadeshi movement** in software development.



4. Constitutional, Legal, and Policy Framework

- Article 19(1)(a):** Protects the right to information and communication in a secure environment.
- Article 51A(h):** Fundamental duty to develop scientific temper and a spirit of innovation among citizens.
- Information Technology Act, 2000:** Provides a legal framework for data security, cyber law enforcement, and protection of digital assets.
- Digital Personal Data Protection Act, 2023:** Reinforces accountability and responsible data handling by public and private entities.
- National Cyber Security Policy (2013)** and **National Data Governance Policy (2023):** Promote indigenous infrastructure and safe handling of government data.

5. Key Concepts and Definitions

- Digital Sovereignty:** The state's ability to control and protect its digital infrastructure, data, and communication systems from foreign influence or dependency.
- Swadeshi Movement (in Digital Context):** A modern revival emphasizing **use of indigenous software and hardware solutions** to reduce technological dependence on foreign entities.
- Data Localization:** The practice of storing data within the national borders to ensure legal and security oversight by domestic authorities.

6. Significance and Broader Impact

- Enhances **cybersecurity resilience** and ensures **data protection** for sensitive government communications.
- Promotes **indigenous innovation and R&D** in India's tech ecosystem.
- Reduces reliance on foreign software providers like Google or Microsoft, aligning with India's **strategic autonomy goals**.
- Strengthens **trust, transparency, and efficiency** in e-governance operations.



- Encourages **public-private collaboration** in developing homegrown technology solutions with global competitiveness.

Conclusion

The migration of government email systems to Zoho's indigenous platform marks a **significant leap toward digital self-reliance and national data security**. It not only safeguards sensitive government communications but also symbolizes India's **technological empowerment** and **commitment to indigenous innovation** in the digital domain. This move reflects a decisive shift from dependency to **digital sovereignty**, aligning with India's long-term vision of becoming a **global leader in secure and homegrown technology solutions**.
