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POLITY & GOVERNANCE

ANTI-DEFECTION LAW UNDER SCRUTINY

Why in News: A fresh constitutional debate has emerged after **20 Lok Sabha MPs from the Trinamool Congress (TMC)** reportedly informed the **Lok Sabha Speaker** of their decision to merge with the **Nationalist Citizens Party of India (NCPI)**. The move has reignited questions over the **interpretation of Paragraph 4 of the Tenth Schedule (Anti-Defection Law)** particularly whether **two-thirds of a legislature party can independently merge with another political party without the original political party itself merging**.

The Anti-Defection Law

The **Tenth Schedule**, popularly known as the **Anti-Defection Law**, was inserted into the Constitution through the **52nd Constitutional Amendment Act, 1985**.

Background

During the **1960s and 1970s**, frequent defections by legislators became a major source of political instability. Governments collapsed overnight as MLAs and MPs switched parties for political office or other benefits.

This phenomenon became infamous as the **"Aya Ram, Gaya Ram"** culture, symbolising rampant political opportunism.

To restore stability and uphold the people's mandate, Parliament enacted the Anti-Defection Law.

When Can a Legislator Be Disqualified?

Under the Tenth Schedule, an MP or MLA can be disqualified if he or she:

- **Voluntarily gives up membership** of the political party on whose ticket they were elected.
- **Votes or abstains from voting** against the party whip without prior permission.

The objective is to prevent:

- Political horse-trading
- Government instability
- Betrayal of the electoral mandate

Political Party vs Legislature Party

Understanding this distinction is crucial.

Political Party: The complete political organisation registered with the Election Commission (e.g., BJP, Congress, TMC).

Legislature Party: All elected MPs or MLAs belonging to that political party in a particular House.

Example:

- BJP as an organisation = Political Party
- BJP MPs in Lok Sabha = BJP Legislature Party
- BJP MLAs in Uttar Pradesh Assembly = Separate Legislature Party

This distinction lies at the heart of the present controversy.

Evolution of the Anti-Defection Law

Initially, the Tenth Schedule contained **two exceptions** where legislators would not face disqualification.

1. **Split (Paragraph 3):** If **one-third** of legislators split from their original party, they were protected from disqualification.
2. **Merger (Paragraph 4):** If the **political party merged** with another political party and **two-thirds of the legislature party approved the merger**, members would not be disqualified.

The 91st Constitutional Amendment, 2003

Paragraph 3 (Split) was **deleted** because it had become a major loophole encouraging defections.

Today, **only the merger provision under Paragraph 4 remains**.

What Does Paragraph 4 Actually Say?

Paragraph 4 provides protection only when:

- **The original political party merges with another political party, and**
- **At least two-thirds of the members of the legislature party agree to that merger.**

Thus, the law appears to require:

Political Party Merger → Legislature Party Approval and **not Legislature Party Merger → Political Party Merger** This distinction forms the core constitutional issue.

Why Is the Interpretation Controversial?

- Over the past few years, several political parties have interpreted Paragraph 4 differently.
- Instead of the **political party merging, two-thirds of legislators themselves** have merged into another party while claiming immunity from disqualification.
- This interpretation has become increasingly common.

MAJOR INSTANCES INVOLVING MERGERS AND SPLITS UNDER THE TENTH SCHEDULE (ANTI-DEFECTION LAW)

YEAR	EVENT	ISSUE	KEY HIGHLIGHT
 2019	All 6 BSP MLAs in Rajasthan joined Congress  → 	Legislature party merged without BSP merging	► Questions raised on whether merger exemption under Paragraph 4 was applicable.
 2022	8 of 11 Congress MLAs in Goa joined BJP  → 	Merger accepted by Speaker	► Speaker accepted merger, though it was challenged in court. HC upheld it; appeal pending in SC.
 2022	Shiv Sena split  → 	Rival factions claimed to be the original party	► Both factions claimed the name, symbol and legacy of the original party.
 2023	NCP split  → 	Similar constitutional dispute	► Competing claims over which faction was the "real" NCP.
 2026	7 of 10 AAP Rajya Sabha MPs joined BJP  → 	Raised fresh questions over Paragraph 4	► Large group merger in Rajya Sabha brought back debate on interpretation of Tenth Schedule.
 2026	20 TMC Lok Sabha MPs seek merger with NCPI  → 	Latest controversy	► 20 of 28 TMC MPs claim they are two-thirds of legislature party and seek merger with NCPI.

The Present TMC Case

Following the recent West Bengal Assembly elections:

- Around **60 of 80 TMC MLAs** formed a separate faction.
- **20 of 28 TMC Lok Sabha MPs** approached the Speaker seeking recognition of their merger with the **Nationalist Citizens Party of India (NCPI)**.

Their argument is simple:

Since they constitute **more than two-thirds** of the TMC Legislature Party in Lok Sabha, Paragraph 4 protects them from disqualification.

However, critics argue that:

- **The Trinamool Congress as a political party has not merged with NCPI.**
- Therefore, Paragraph 4 cannot be invoked.

This creates a constitutional grey area.

Constitutional Ambiguities

Several unresolved legal questions arise:

1. Can only legislators merge?

Does the Constitution allow only the legislature party to merge independently?

Or must the **political party itself merge first?**

2. Must the receiving party already have legislators?

Can legislators merge into a party that has **no existing representation** in the concerned House?

The Constitution is silent.

3. Who decides?

- The **Speaker or Chairman** decides disqualification petitions.
- However, Speakers often belong to political parties, raising concerns over impartiality.

Judicial Perspective

In **Keisham Meghachandra Singh v. Speaker (2020)**, the Supreme Court observed that:

- Decisions on disqualification should not remain indefinitely pending.
 - Parliament should consider establishing an **independent tribunal**, headed by retired judges, instead of leaving these decisions solely to the Speaker.
- Such a tribunal could strengthen neutrality and public confidence.

Challenges in the Existing Law

Despite its objectives, the Anti-Defection Law faces several criticisms:

- Speakers often delay decisions for political reasons.
- Parties exploit legal loopholes.
- Mass defections continue under the guise of "mergers."
- Judicial intervention usually comes after political outcomes have already changed.

Consequently, the law sometimes fails to protect the electoral mandate.

Way Forward

Experts have suggested multiple reforms:

- **Strict Interpretation of Paragraph 4:** The exemption should apply **only when the original political party officially merges**, not merely when legislators switch sides.
- **Independent Adjudicatory Tribunal:** Transfer the Speaker's powers to an independent constitutional tribunal, as recommended by the Supreme Court.

Amend the Tenth Schedule

The **Law Commission (1999)** recommended deleting **Paragraph 4** altogether.

Under this proposal:

- Any legislator leaving the party on whose ticket they were elected should automatically face disqualification.

- They must seek a **fresh electoral mandate** through re-election.

Such a reform would significantly strengthen political accountability.

Conclusion

The Anti-Defection Law was enacted to preserve political stability and uphold the sanctity of the electoral mandate. However, repeated use of the merger provision to legitimise large-scale defections has exposed significant constitutional ambiguities. The present TMC-NCPI controversy offers the Supreme Court an opportunity to clarify the true scope of **Paragraph 4 of the Tenth Schedule** and may also revive the larger debate on comprehensive reforms to India's anti-defection framework.

CHANGE IN ARRANGEMENT

Why in News: The Congress has appointed D.K. Shivakumar as Karnataka's next Chief Minister, replacing Siddaramaiah, in a carefully managed leadership transition aimed at strengthening the party before the 2028 Assembly elections.

Key Details

- D.K. Shivakumar will take over as Karnataka Chief Minister from Siddaramaiah.
- The move addresses demand from supporters who sought recognition for Shivakumar's role in the 2023 Congress victory.
- Congress aims to strengthen its position ahead of the 2028 Karnataka Assembly elections.
- Shivakumar's elevation enhances Congress outreach among the influential Vokkaliga community.
- Key challenges include maintaining party unity, reducing regional disparities, and sustaining fiscal discipline.

Leadership Transition in Karnataka

- D.K. Shivakumar is set to become Karnataka's Chief Minister on June 3, succeeding Siddaramaiah.
- The move fulfills a long-standing demand of Shivakumar's supporters, who believed he deserved the post after leading the Congress to victory in 2023.
- As Karnataka Congress president, he played a crucial role in rebuilding the party and spearheading its election campaign.
- The transition reflects the Congress leadership's effort to balance internal party interests.
- It also signals strategic planning ahead of the 2028 Assembly elections.

Congress Learns from Past Experiences

- The Congress appears to have managed Karnataka's leadership change more smoothly than earlier transitions in Rajasthan and Punjab.
- In Rajasthan, retaining Ashok Gehlot despite Sachin Pilot's rebellion created prolonged tensions.
- In Punjab, replacing Amarinder Singh with Charanjit Singh Channi failed to help the party electorally.
- Karnataka's transition has been planned well in advance to avoid internal conflict.

- The leadership aims to maintain party unity and electoral momentum.

Political and Electoral Implications

- Shivakumar belongs to the influential Vokkaliga community, a key political bloc in Karnataka.
- His elevation may strengthen Congress support in the Old Mysuru region.
- The move could challenge the influence of the Janata Dal (Secular), whose leadership is also rooted in the Vokkaliga community.
- It may encourage continued cooperation between the BJP and JD(S) alliance to counter Congress.
- The decision reflects caste and regional calculations central to Karnataka politics.

Governance and Development Challenges

- Karnataka has maintained relative fiscal discipline despite implementing major welfare schemes.
- Revenue deficit remains comparatively lower than several southern States.
- However, growth in revenue receipts has been modest, highlighting fiscal pressures.
- Significant regional disparities persist in economic development and human development indicators.
- Addressing inequalities in districts such as Yadgir, Kalaburagi, and Raichur will be a major challenge.

Road Ahead for Shivakumar

- Shivakumar must ensure unity among different factions within the Congress.
- A consultative approach to policymaking will be essential for stable governance.
- Tackling regional imbalances and improving opportunities for disadvantaged groups should be priorities.
- Effective governance could help Congress break Karnataka's pattern of frequently voting out incumbent governments.
- His political experience and crisis-management skills will be crucial in shaping Karnataka's future and the Congress's prospects in 2028.

Conclusion

D.K. Shivakumar's elevation marks a significant political transition in Karnataka and reflects Congress's attempt to balance leadership aspirations with electoral strategy. His tenure will be judged by his ability to maintain party cohesion, promote inclusive development, address regional inequalities, and deliver effective governance. Success in these areas could strengthen Congress's prospects and reshape Karnataka's political landscape.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Leadership transitions within political parties often have electoral and governance implications. Analyze the recent change of leadership in Karnataka and its potential impact on state politics and development." (250 words, 15 marks)

FCRA RULES AMENDED

Why in News: The Union Government has amended the Rules under the **Foreign Contribution (Regulation) Act (FCRA), 2010**, introducing a more detailed regulatory framework for Non-Governmental Organisations (NGOs) receiving foreign contributions.

Major Changes Introduced Through the Amendment

1. Specific Activity Lists Introduced for NGOs

Earlier, NGOs were required to register under one of five broad categories:

- Social
- Economic
- Educational
- Cultural
- Religious

However, the amended rules now provide **detailed activity-wise schedules** under each category.

This is the first time that NGOs must restrict their operations to pre-approved activities listed by the Government.

NUMBER OF ACTIVITIES ALLOWED	
CATEGORY	PERMITTED ACTIVITIES
 Social	30
 Economic	19
 Educational	22
 Cultural	18
 Religious	16
 Only activities included within these approved lists can be undertaken using foreign contributions.	

2. Mandatory Disclosure Requirements Expanded

NGOs must now furnish detailed information regarding:

- Nature of activities undertaken
- Geographical area of operation
- Website details
- Social media accounts
- Publications released during the year

The objective is to improve transparency and facilitate easier monitoring of foreign-funded activities.

3. State-wise and Purpose-wise Registration

Under the previous regime:

- A single FCRA registration fee was sufficient.

Under the amended rules:

- Separate fees will be payable for each approved purpose.
- Additional fees may be required for every State or Union Territory where activities are conducted.

This marks a shift towards a more granular regulatory structure.

4. Existing NGOs Given One-Year Compliance Window

- New applicants must immediately follow the revised framework.
- Existing FCRA-registered organisations have been granted one year to align with the new requirements.

Failure to comply may attract penalties.

5. Broader Definition of “Key Functionary”

The amendment significantly expands the scope of persons considered responsible for the organisation.

The term now includes:

- Office bearers
- Directors
- Trustees
- Partners
- Members of governing bodies
- Karta or Head of a Hindu Undivided Family (HUF)
- Any person exercising control or management over the organisation

This broadening aims to improve accountability and prevent regulatory evasion.

6. Restrictions on Foreign Nationals in Leadership Roles

Associations having foreign nationals (other than Persons of Indian Origin) as key functionaries will generally not be eligible for:

- FCRA Registration, or
- Prior Permission

unless specifically approved by the Central Government.

The move reflects increasing emphasis on national security and domestic oversight.

7. Mandatory Declaration of Publications

NGOs must now disclose whether the organisation, or any key functionary has published books, magazines, journal articles, newspaper articles, other publications during the reporting year.

Category-Specific Conditions

The amended rules introduce additional safeguards to prevent foreign-funded activities from entering the political domain.

Educational Activities

While educational NGOs can conduct awareness programmes on:

- Constitutional rights
- Fundamental Duties
- Civic responsibilities

such activities must remain **strictly non-political**.

Cultural Activities

Activities such as:

- Promotion of contemporary arts inspired by Indian traditions

are permitted.

However, cultural projects must exclude:

- Political content
- Ideological advocacy

Religious Activities

Permitted activities include:

- Religious education
- Moral instruction
- Satsangs
- Discourses
- Meditation retreats
- Maintenance of burial and cremation grounds

However, the rules explicitly prohibit **proselytisation (religious conversion activities)** through foreign-funded programmes.

New Penalty Framework for Violations

The Ministry of Home Affairs has also notified revised penalties for FCRA violations.

Violations Covered

Penalties may apply for:

- Excess administrative expenditure
- Speculative investments
- Misuse of foreign contributions
- Unauthorised receipt of foreign funds
- Unauthorised utilisation of funds
- Activities outside approved purposes
- Activities outside approved States/UTs

Quantum of Penalties

- **Misuse of Funds:** Using foreign contributions for purposes other than those approved may attract **30% of the amount misused or ₹1 lakh, whichever is higher.**
- **Operating Outside Approved Areas:** Using foreign funds in States or Union Territories not covered under approval may attract **30% of the amount involved or ₹1 lakh, whichever is higher.**
- **Excess Administrative Spending:** Spending beyond the prescribed administrative expenditure limit may attract penalties calculated as a percentage of the excess amount, subject to a minimum fine of **₹1 lakh.**

Significance of the Amendments

The Government argues that the reforms aim to:

- Increase transparency in foreign-funded activities.
- Improve accountability of NGOs.
- Create uniformity in FCRA application forms.
- Prevent duplication and ambiguity in registrations.
- Ensure foreign contributions are used only for approved purposes.
- Strengthen monitoring and regulatory oversight.

Concerns Raised

Critics argue that the amendments may:

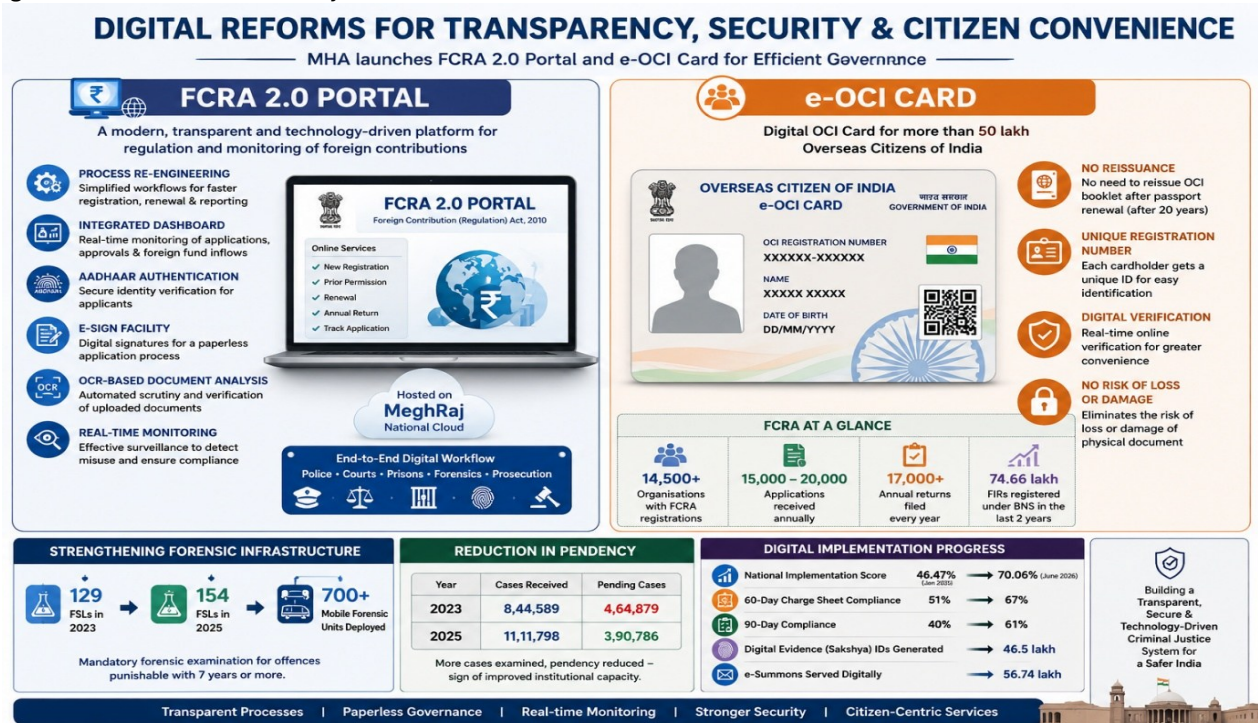
- Increase compliance burden on NGOs.
- Raise operational costs through multiple registration fees.
- Restrict organisational flexibility.
- Create administrative hurdles for smaller civil society organisations.
- Potentially affect developmental and welfare projects dependent on foreign funding.

Conclusion

The latest FCRA amendments represent one of the most comprehensive tightening of the foreign funding framework in recent years. By introducing activity-specific approvals, enhanced disclosure norms, broader accountability provisions, and a stricter penalty regime, the Government seeks to ensure greater transparency and oversight over foreign-funded activities. However, the effectiveness of these measures will depend on balancing regulatory objectives with the legitimate functioning of civil society organisations engaged in social development and public welfare.

GOVERNMENT LAUNCHES FCRA 2.0 PORTAL AND E-OCI CARD

Why in News: The Union Home Minister has launched the **FCRA 2.0 Portal** and the **e-Overseas Citizen of India (e-OCI) Card** initiative to modernise two important governance frameworks—**regulation of foreign contributions** and **services for Overseas Citizens of India (OCI)**. The new digital platforms aim to enhance **transparency, efficiency, paperless governance, and national security** through technology-enabled monitoring and citizen-centric service delivery.



What is the FCRA?

The **Foreign Contribution (Regulation) Act (FCRA), 2010** regulates the acceptance and utilisation of foreign contributions and foreign hospitality by individuals, associations, and non-governmental organisations (NGOs).

Its primary objectives are:

- Regulating the inflow of foreign funds.
- Ensuring transparency and accountability in the utilisation of foreign contributions.

- Preventing misuse of foreign funding for activities detrimental to India's sovereignty, integrity, public interest, or national security.
- Ensuring that foreign donations are utilised only for legitimate social, educational, cultural, economic, and charitable purposes.

Under the Act, **every NGO or association intending to receive foreign contributions must obtain FCRA registration or prior permission from the Ministry of Home Affairs (MHA).**

Launch of the FCRA 2.0 Portal

The newly launched **FCRA 2.0 Portal** is a comprehensive digital platform designed to simplify the registration, renewal, reporting, and monitoring processes under the FCRA.

Hosted on the **Government of India's MeghRaj National Cloud**, the portal replaces paper-based workflows with an integrated digital ecosystem that enables faster processing and real-time oversight.

The new platform is expected to significantly reduce administrative delays while strengthening regulatory compliance.

Major Features of the FCRA 2.0 Portal

The upgraded portal incorporates several advanced digital governance features.

- **Process Re-engineering:** The entire application process has been redesigned to minimise paperwork and improve efficiency.
- **Integrated Dashboard:** Officials can monitor applications, approvals, compliance status, and foreign fund inflows through a unified digital dashboard.
- **Aadhaar-based Authentication:** Applicants can securely verify their identity using Aadhaar-based authentication, reducing the scope for impersonation and fraud.
- **e-Sign Facility:** Digital signatures eliminate the need for physical submission of signed documents, making the process completely paperless.
- **OCR-based Document Analysis:** Optical Character Recognition (OCR) technology enables automated scrutiny and verification of uploaded documents, reducing processing time and human error.
- **Real-time Monitoring:** Authorities can monitor foreign contribution inflows and utilisation more effectively, enabling quicker detection of suspicious transactions and ensuring greater financial transparency.

Scale of FCRA Administration

The Foreign Contribution Regulation framework manages a large volume of applications every year.

Current Statistics

- Around **14,500 organisations** currently hold valid FCRA registrations.
- Approximately **15,000–20,000 applications** are processed annually.
- Nearly **17,000 annual returns** are filed every year by registered organisations.

The digitalisation of these processes is expected to significantly improve administrative efficiency and service delivery.

Changes in Public Disclosure

Unlike the previous portal, the **FCRA 2.0 Portal** has removed certain publicly accessible information.

These include:

- Year-wise details of fresh FCRA registrations.
- Lists of NGOs whose registrations were cancelled.
- Annual returns filed by individual NGOs.

The government has not provided detailed reasons for these changes, although the portal continues to facilitate regulatory monitoring through internal digital mechanisms.

Government's Rationale

While launching the portal, the Union Home Minister emphasised that the government's approach is based on two guiding principles:

- **Ease of governance for honest organisations**, through technology-driven simplification.
- **Stronger surveillance and monitoring** of entities attempting to misuse foreign contributions for unlawful purposes.

According to the government, prior to 2014, the FCRA administration relied heavily on manual files and fragmented procedures, making effective monitoring difficult. The new portal seeks to create a transparent, paperless, and technology-enabled regulatory ecosystem capable of handling the increasing volume of foreign contributions.

The digital platform is also expected to strengthen national security by enabling authorities to identify and monitor suspicious foreign funding in real time.

Launch of the e-OCI Card

Alongside the FCRA 2.0 Portal, the government also launched the **electronic Overseas Citizen of India (e-OCI) Card**, aimed at improving services for the global Indian diaspora.

The initiative is expected to benefit **over 50 lakh OCI cardholders** worldwide.

Key Features of the e-OCI Card

The new digital OCI system introduces several citizen-friendly reforms.

- **No Reissuance after Passport Renewal:** Previously, OCI cardholders often needed to obtain updated OCI documents after receiving a new passport. Under the new system, **there will be no need to reissue the OCI booklet after passport renewal**, significantly reducing procedural burden.
- **Unique Registration Number:** Each OCI cardholder will now receive a **permanent unique registration number**, simplifying identification and verification.
- **Digital Verification:** Cardholders will be able to verify their credentials online in real time.
- **Protection Against Loss or Damage:** The digital format eliminates problems arising from the loss, theft, or physical damage of OCI documents.
- **Paperless Citizen Services:** The initiative aligns with India's broader Digital India programme by offering faster and more convenient online services.
- **Significance of the Reforms:** The launch of the FCRA 2.0 Portal and e-OCI Card represents a major advancement in digital governance.
- **Enhancing Transparency:** Real-time monitoring of foreign contributions improves accountability and reduces opportunities for misuse.

- **Strengthening National Security:** Advanced digital surveillance enables authorities to detect suspicious funding patterns more efficiently.
- **Improving Ease of Compliance:** Paperless applications, Aadhaar authentication, and digital signatures simplify regulatory procedures for genuine organisations.
- **Efficient Service Delivery:** Automation reduces processing time and administrative burden while improving citizen experience.
- **Promoting Digital Governance:** The initiatives reinforce India's transition towards technology-driven public administration under the **Digital India Mission**.
- **Better Engagement with the Indian Diaspora:** The e-OCI Card simplifies documentation and enhances convenience for millions of Overseas Citizens of India.

Way Forward

The successful implementation of the **FCRA 2.0 Portal** and the **e-OCI Card** marks another milestone in India's journey towards **digital, transparent, and accountable governance**. Going forward, ensuring robust cybersecurity, protecting sensitive personal data, maintaining transparency in regulatory decision-making, and providing continuous technical support to users will be essential for the long-term success of these initiatives. By integrating advanced digital technologies with regulatory oversight, the government seeks to strike a balance between **facilitating legitimate international engagement** and **safeguarding national security and public interest**.

SUPREME COURT DECLARES THE RIGHT TO WALK A FUNDAMENTAL RIGHT

Why in News: In a landmark judgment, the **Supreme Court of India** has declared that the **right to walk safely on demarcated and well-maintained footpaths is a Fundamental Right** flowing from the Constitution. The Court held that **pedestrians' rights take precedence over the convenience of motorised vehicles** and called upon the Union Government to enact a comprehensive legal framework for protecting pedestrian rights and establishing an independent regulatory authority.

Background of the Case

- The case arose from the death of a five-year-old boy who was fatally run over by a truck while walking along a road with his father.
- Recognising the absence of safe pedestrian infrastructure as a contributory factor, the Supreme Court awarded the family **compensation exceeding ₹11 lakh**.
- However, the Court went beyond compensation and used the opportunity to lay down broader constitutional principles concerning pedestrian rights and urban infrastructure.

Right to Walk Declared a Fundamental Right

The Supreme Court held that the **freedom to walk safely on demarcated footpaths forms an integral part of the Fundamental Rights guaranteed under the Constitution**. According to the Court:

Wherever a road exists, there must also exist a safe, clearly demarcated, and well-maintained footpath.

The Court observed that providing footpaths is **not merely a matter of good governance but a constitutional obligation** of the State and local authorities.

Constitutional Basis of the Judgment

- The Court derived the **Right to Walk** from multiple constitutional provisions.
- **Article 19(1)(d):** The Constitution guarantees every citizen the **right to move freely throughout the territory of India**.
- The Court held that this freedom becomes meaningless if citizens cannot walk safely on public roads.
- **Article 21:** The **Right to Life** includes the right to live with dignity and personal safety. Safe pedestrian infrastructure is therefore an essential component of a dignified life.
- **Article 19(1)(a), 19(1)(b) and 19(1)(c):** The Court further observed that walking also facilitates:
 - Freedom of expression.
 - Peaceful assembly.
 - Freedom of association.
- Public streets and footpaths enable citizens to participate in social, cultural, and democratic life.

Pedestrian Rights Override Vehicular Convenience

One of the most significant observations made by the Court is that:

The fundamental right of pedestrians to walk safely overrides the privilege of motorised vehicles.

- The Court clarified that driving motor vehicles is subject to regulation, whereas the right to walk derives directly from the Constitution.
- Accordingly, urban planning should prioritise pedestrian safety rather than treating walkers as obstacles to traffic movement.

Criticism of Existing Urban Development

The Court noted that India's urban development model has largely prioritised:

- Highways,
- Expressways,
- Flyovers,
- Wider roads,

while neglecting pedestrian infrastructure.

According to the judgment, rapid urbanisation and increasing motorisation have gradually pushed pedestrians to the margins of public spaces.

The Court observed that footpaths have often disappeared or become unusable due to:

- Encroachments,
- Poor maintenance,
- Illegal parking,
- Commercial occupation,
- Lack of planning.

As a result, pedestrians are frequently forced to walk on carriageways, exposing them to serious road safety risks.

Walking (More Than a Means of Transport)

The Court described walking as one of the most fundamental human activities.

It observed that walking serves multiple purposes:

- Daily mobility.
- Exercise and health.
- Social interaction.
- Civic participation.
- Cultural engagement.
- Democratic expression.

The judgment also acknowledged the historical role of walking in India's freedom movement, where peaceful marches became powerful instruments of democratic resistance.

Duty of Governments and Local Authorities

The Supreme Court held that governments and municipal authorities have an **enforceable constitutional duty** to provide safe pedestrian infrastructure.

This duty includes:

- Construction of footpaths alongside roads.
- Proper demarcation of pedestrian spaces.
- Regular maintenance.
- Removal of encroachments.
- Ensuring accessibility for children, elderly persons, and persons with disabilities.

Failure to discharge these responsibilities may amount to violation of fundamental rights.

Need for a Dedicated Legal Framework

The Court observed that India currently lacks a comprehensive law specifically protecting pedestrian rights.

It therefore recommended the enactment of a dedicated statutory framework that would:

- Formally recognise the Right to Walk.
- Define institutional responsibilities.
- Establish standards for pedestrian infrastructure.
- Provide mechanisms for grievance redressal.
- Ensure accountability of public authorities.

Such legislation, according to the Court, would strengthen the implementation of constitutional guarantees.

Proposal for a Pedestrian Regulatory Authority

The Court also recommended establishing a **full-time regulatory body** dedicated to pedestrian infrastructure and safety.

The proposed authority would:

- Prepare pedestrian mobility plans.
- Monitor implementation.
- Enforce safety standards.
- Address violations.
- Coordinate among various government agencies.

The Court emphasised that specialised institutional expertise is necessary for effective urban mobility planning.

Observation on the Motor Vehicles Act, 1988

- The Court pointed out that the **Motor Vehicles Act, 1988** primarily regulates motorised transport and road traffic.
- However, it does **not explicitly recognise or protect the constitutional rights of pedestrians**.
- The judgment therefore calls for legislative reforms to bring pedestrian rights into the mainstream of transport policy.

Directions Issued by the Supreme Court

The Supreme Court directed its Registry to forward the judgment to the Ministries of:

- Housing and Urban Affairs.

- Rural Development.
- Road Transport and Highways.

These Ministries have been asked to consider initiating an appropriate legal and institutional framework to operationalise the Right to Walk across the country.

Significance of the Judgment

The judgment marks a transformative shift in India's approach to urban mobility.

Its significance lies in:

- Recognising pedestrians as primary stakeholders in urban planning.
- Strengthening the constitutional interpretation of Article 21.
- Promoting inclusive, people-centric infrastructure.
- Reinforcing the concept of sustainable and walkable cities.
- Encouraging safer, healthier, and environmentally friendly modes of transport.
- Aligning India's urban development with global principles of complete streets and sustainable mobility.

Challenges Ahead

Implementation of the judgment will require addressing several practical issues:

- Retrofitting existing urban roads with footpaths.
- Removing encroachments on pedestrian spaces.
- Improving coordination among municipal bodies.
- Securing financial resources for infrastructure upgrades.
- Ensuring universal accessibility for persons with disabilities.
- Integrating pedestrian planning into future urban development projects.

Conclusion

The Supreme Court's recognition of the **Right to Walk as a Fundamental Right** represents a significant milestone in India's constitutional and urban governance jurisprudence. By affirming that pedestrians deserve priority in public spaces, the Court has shifted the focus of urban planning from vehicle-centric development to **human-centric mobility**. The judgment places a constitutional obligation on governments to create safe, accessible, and inclusive walking infrastructure, reinforcing the principle that public roads must serve all citizens—not just motor vehicles.

RIGHT TO TRAUMA CARE RECOGNISED AS A FUNDAMENTAL RIGHT

Why in News: In a landmark judgment delivered, the Supreme Court of India, in **SaveLIFE Foundation & Anr. vs Union of India & Ors.**, held that the **Right to Trauma Care is an integral component of the Right to Life under Article 21 of the Constitution**.

NOTE: The Court directed the Union Government, States, and Union Territories to establish a comprehensive and integrated trauma-care framework across the country, transforming emergency medical response from a policy objective into a constitutional obligation.

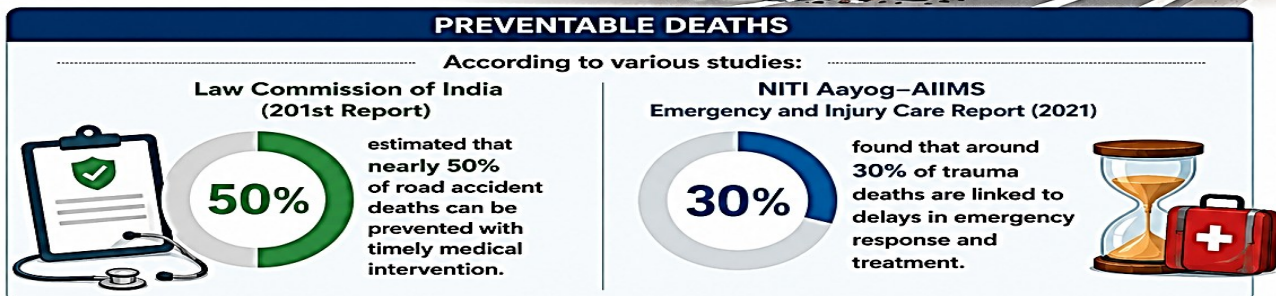
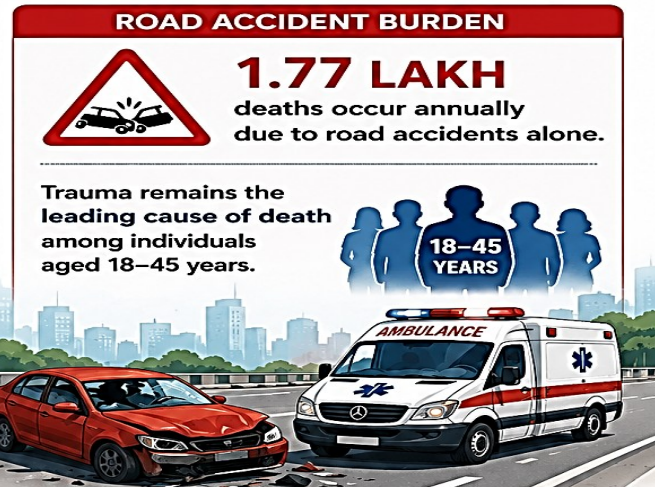
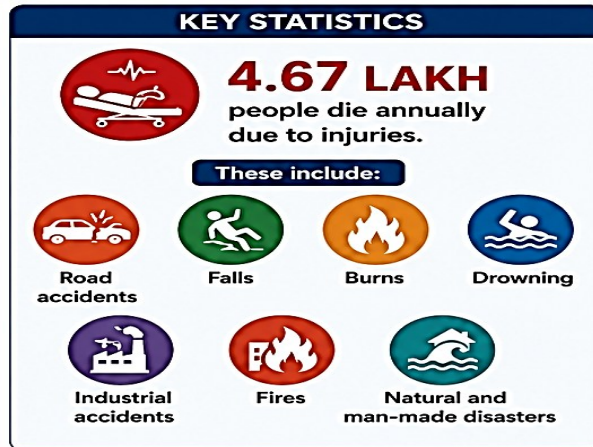
Background of the Case

- The case originated from a writ petition filed by **SaveLIFE Foundation** in October 2024 highlighting the alarming number of preventable deaths caused by delays in emergency medical treatment.

- A Bench comprising **Justice J.K. Maheshwari** and **Justice Atul S. Chandurkar** observed that despite the existence of multiple guidelines and schemes, India lacked a uniform and enforceable trauma-care system capable of providing timely assistance to accident victims and injured persons.

INDIA'S TRAUMA CARE CHALLENGE

A huge burden. A lot of lives lost. But many lives can be saved with timely care.



 **These findings underline the critical importance of a well-coordinated emergency medical system.** 

What Did the Supreme Court Hold?

- The Court expanded the scope of Article 21 by recognising that the right to life includes access to timely trauma care.
- Importantly, the Court clarified that trauma care does not begin at the hospital gate.
- Rather, it encompasses the **entire chain of survival**, including:
 - Bystanders providing initial assistance
 - Emergency helplines
 - Ambulance services
 - Emergency Medical Technicians (EMTs)
 - Paramedics
 - Receiving hospitals
 - Definitive medical treatment

The judgment places a **positive constitutional obligation on the State** to create and maintain an integrated trauma-response ecosystem.

- Judicial Evolution of the Right to Emergency Care:** The judgment builds upon earlier Supreme Court decisions.
- Parmanand Katara v. Union of India (1989):** The Court held that:
 - Every doctor, whether in a government or private hospital, has a professional obligation to provide immediate emergency medical assistance.
- Paschim Banga Khet Mazdoor Samiti v. State of West Bengal (1996):** The Court ruled that:
 - Failure to provide timely emergency treatment violates the Right to Life under Article 21.
- SaveLIFE Foundation Case (2026):** The present judgment significantly broadens the principle by extending constitutional protection to the **entire trauma-care system**, not merely hospital treatment.
- Constitutional Significance:** The judgment reinforces the idea that:

- **Article 21 is not merely a negative right:** The State must not only refrain from violating life and liberty but must also actively create conditions necessary for protecting life.

This reflects the transformation of Article 21 into a source of:

- Positive welfare obligations
- Social rights
- Public health guarantees

Cooperative Federalism at the Core

- Healthcare, hospitals, and ambulance services fall under the **State List** of the Seventh Schedule.
- Recognising this constitutional reality, the Court adopted a model of **Cooperative Federalism**.
- The Bench accepted the Attorney General's submission that:
 - The Union Government should function as an enabler.
 - States should implement and operationalise the framework.
 - Both levels of government must work in coordination.
- The judgment therefore strengthens existing policies rather than altering the constitutional distribution of powers.

Major Directions Issued by the Supreme Court

The Court issued **nine binding directions** to be implemented within three to six months.

1. Integration of Emergency Helplines

All emergency numbers such as:

- 100 (Police)
- 101 (Fire)
- 102 (Ambulance)
- 108 (Emergency Medical Services)
- 1033 (National Highway Helpline)
- 1091 (Women Helpline)

must be integrated into the **ERSS-112 emergency response system** within three months.

States have also been directed to conduct mass-awareness campaigns.

2. Strengthening Good Samaritan Protection

Every State and Union Territory must establish:

- Physical grievance-redress mechanisms
- Online complaint portals
- State-level nodal officers
- District-level monitoring authorities

to protect citizens assisting accident victims.

3. Ambulance Standardisation

All public and private ambulances must:

- Comply with the National Ambulance Code (AIS-125)
- Carry GPS tracking systems
- Integrate in real time with ERSS-112

Regular audits will evaluate:

- Response times
- Clinical outcomes
- Operational efficiency

4. Professionalisation of Emergency Response

States must adopt the curriculum notified by the:

National Commission for Allied and Healthcare Professions (NCAHP)

This aims to standardise training and certification of Emergency Medical Technicians (EMTs).

5. Grading of Trauma Centres

Hospitals and trauma facilities must be formally classified according to their treatment capabilities.

The objective is to ensure that:

- Ambulances transport patients to appropriate facilities.
- Patients receive specialised treatment without delay.

6. Operationalisation of PM-RAHAT Scheme

States have been given **eight weeks** to implement:

PM-RAHAT

- (Prime Minister – Road Accident Victims' Hospitalisation and Assured Treatment Scheme)
- The scheme provides cashless treatment to road accident victims.
- Failure to implement the scheme will be treated as a violation of the Motor Vehicles Act.

7. National Medical Rescue Protocol

The Ministry of Health and Family Welfare has been directed to formulate a comprehensive protocol governing emergency rescue operations nationwide.

8. Creation of a National Trauma Registry

The Court directed the Centre to establish:

- Standardised Trauma Registry formats.
- State-level trauma databases.
- A coordinated National Trauma Registry.

This will facilitate evidence-based policymaking and resource allocation.

Existing Frameworks Strengthened by the Judgment

The judgment reinforces several existing initiatives:

- PM-RAHAT Scheme
- Good Samaritan Guidelines
- ERSS-112 Emergency Response System
- National Ambulance Code (AIS-125)
- National Trauma Care Guidelines
- EMT Training Standards

The Court has effectively transformed these policy frameworks into enforceable constitutional obligations.

Challenges Ahead

Despite the transformative nature of the judgment, implementation remains challenging.

Key Challenges

- Uneven healthcare infrastructure across States.
- Shortage of trained emergency personnel.
- Inadequate ambulance networks in rural areas.
- Delays in helpline integration.
- Funding and administrative constraints.

The success of the judgment will ultimately depend on the capacity of States to translate legal mandates into functional emergency-care systems.

Monitoring and Compliance

The Court has established a robust compliance mechanism:

- Orders will be sent to all Chief Secretaries.
- States must submit Action Taken Reports.
- The Attorney General of India will oversee implementation.
- The matter has been listed for further review after four months.

This reflects the Court's intent to ensure sustained monitoring rather than mere issuance of directions.

Significance of the Judgment

The judgment marks a paradigm shift in India's public health jurisprudence.

It recognises that saving lives during emergencies is not merely a matter of policy discretion but a constitutional duty.

For millions of Indians, the decision promises:

- Faster emergency response.
- Better ambulance services.
- Improved trauma-care infrastructure.
- Greater accountability of governments.

Most importantly, it transforms access to trauma care from a welfare measure into a fundamental right guaranteed under the Constitution.

Conclusion

The Supreme Court's recognition of the Right to Trauma Care as part of Article 21 represents a major expansion of the constitutional right to life. By mandating an integrated emergency response framework and establishing clear accountability mechanisms, the Court has laid the foundation for a more humane, efficient, and life-saving healthcare system. The constitutional question has now been settled; the challenge before governments is to ensure that every injured person receives timely and effective care, regardless of location or circumstance.

CRIMINAL CASES AND WEALTH AMONG RAJYA SABHA MPS (ADR REPORT)

Why in News: A recent report released by the **Association for Democratic Reforms (ADR)** and **National Election Watch (NEW)** has revealed that nearly one-third of the current members of the Rajya Sabha have declared criminal cases against themselves, while a significant number possess assets worth hundreds of crores of rupees. The report sheds light on the growing concerns regarding the **criminalisation of politics** and the increasing influence of wealth in India's democratic institutions.

Key Findings of the Report

The analysis covered **226 out of 233 sitting Rajya Sabha Members of Parliament (MPs)**.

- Four Rajya Sabha seats from West Bengal are currently vacant.
- Affidavits of three MPs were unavailable and therefore excluded from the study.

Criminal Cases Among Rajya Sabha MPs

According to the report:

- **31% of Rajya Sabha MPs** have declared criminal cases against themselves.
- **16% of MPs** have disclosed serious criminal cases.

Nature of Serious Criminal Cases

Among the MPs analysed:

- **1 MP** has declared a case related to murder.
- **4 MPs** have declared cases related to attempt to murder.
- **4 MPs** have disclosed cases involving crimes against women.

The findings once again bring attention to the longstanding debate on the entry of individuals facing criminal charges into legislative bodies.

PARTY-WISE CRIMINAL BACKGROUND OF MPs			
MAJOR POLITICAL PARTIES		OTHER POLITICAL PARTIES	
POLITICAL PARTY	MPs WITH CRIMINAL CASES	POLITICAL PARTY	MPs WITH CRIMINAL CASES
 BJP	28 of 107 (26%)	 TDP	3 of 4 (75%)
 Congress	12 of 29 (41%)	 BRS	3 of 3 (100%)
 Trinamool Congress (TMC)	2 of 9 (22%)	 CPI(M)	3 of 3 (100%)
 DMK	2 of 8 (25%)	 RJD	2 of 3 (67%)
 Samajwadi Party (SP)	2 of 4 (50%)	 AIADMK	1 of 4 (25%)
		 NCP	1 of 4 (25%)
		 AAP	1 of 3 (33%)

The data indicates that the issue of criminal antecedents cuts across party lines rather than being confined to any one political formation.

Wealth Profile of Rajya Sabha MPs

The report also highlights the substantial financial assets held by many members.

Billionaire MPs

- **31 MPs (14%)** have declared assets exceeding **₹100 crore**.

This reflects the growing presence of high-net-worth individuals in India's upper house of Parliament.

Party-wise Distribution of MPs with Assets Above ₹100 Crore

MPs WITH ASSETS ABOVE ₹100 CRORE: PARTY-WISE BREAKDOWN	
POLITICAL PARTY	MPs WITH ASSETS ABOVE ₹100 CRORE
 BJP	7 of 107 (7%)
 Congress	6 of 29 (21%)
 YSRCP	2 of 4 (50%)
 TDP	2 of 4 (50%)
 BRS	2 of 3 (67%)
 NCP	2 of 4 (50%)

The figures reveal that wealth concentration among legislators remains significant across several political parties.

Significance of the Findings

The ADR report is important because it highlights two critical challenges confronting Indian democracy:

1. **Criminalisation of Politics:** The continued presence of legislators facing criminal charges raises concerns about:
 - Ethical standards in public life.
 - Quality of political representation.
 - Public trust in democratic institutions.
2. **Rising Influence of Wealth:** The growing number of extremely wealthy lawmakers has revived debates regarding:
 - Electoral financing.
 - Unequal access to political opportunities.
 - The role of money power in elections.

Way Forward

Several expert committees and judicial observations have emphasized the need for:

- Faster disposal of criminal cases involving elected representatives.

- Greater transparency in political funding.
- Electoral reforms to discourage candidates with serious criminal backgrounds.
- Enhanced voter awareness regarding candidates' criminal and financial disclosures.

Conclusion

The latest ADR analysis paints a revealing picture of the composition of the Rajya Sabha. While the Upper House remains a key pillar of India's parliamentary democracy, the prevalence of criminal cases and the concentration of wealth among its members continue to raise important questions about the quality of political representation. The findings underscore the urgent need for electoral reforms aimed at strengthening transparency, accountability, and public confidence in democratic governance.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Money and muscle power undermine India's representative democracy. Critically analyse this issue in light of the recent ADR report on sitting Rajya Sabha MPs. Suggest legislative and institutional reforms. (15 Marks, 250 Words)

GRAM SABHAS AND THE CHALLENGE OF MEANINGFUL CITIZEN PARTICIPATION

Why in News: A government-commissioned study by the National Institute of Rural Development & Panchayati Raj (NIRDPR), Hyderabad, conducted for the Ministry of Panchayati Raj, has revealed that **livelihood pressures and "participation fatigue" are the two biggest reasons behind low public participation in Gram Sabha meetings across India**. While awareness about Gram Sabhas is high, the study highlights a widening gap between citizens' participation and the actual effectiveness of these institutions, raising concerns about the quality of grassroots democracy and local self-governance.

Gram Sabhas Witness High Awareness but Limited Active Participation

- Gram Sabhas constitute the foundation of India's **Panchayati Raj system**, providing citizens with a direct platform to participate in local governance, monitor development programmes, approve village plans, and hold elected representatives accountable. However, the latest nationwide assessment suggests that although awareness about Gram Sabhas has significantly improved, **meaningful participation remains far from satisfactory**.
- The study was conducted across **400 Gram Panchayats located in 213 districts covering 26 States and Union Territories**, involving nearly **7,790 respondents**, making it one of the most comprehensive assessments of Gram Sabha functioning in recent years.

Major Findings of the Study

1. Awareness Levels Are High

The study presents an encouraging picture regarding awareness.

- **94%** of respondents knew that Gram Sabha meetings are held.
- **83%** were aware that they have a legal right to participate in these meetings.

This indicates that awareness campaigns and institutional outreach have largely succeeded in informing citizens about the existence and importance of Gram Sabhas.

2. Knowledge Does Not Always Translate into Effective Participation

Despite widespread awareness, procedural understanding remains limited.

Only **59%** of respondents understood essential aspects such as:

- Quorum requirements
- Meeting procedures
- Decision-making processes
- Voting and approval mechanisms

This demonstrates that **awareness alone is insufficient**. Citizens may know about Gram Sabhas but often lack the procedural knowledge necessary to participate effectively and influence local decision-making.

3. Participation Remains Low

The study found that **47% of respondents attended only one or two Gram Sabha meetings during the previous year**, indicating that regular citizen engagement remains weak.

Although the report does not estimate a national attendance rate, the findings clearly point towards **irregular and declining participation** in village governance.

Livelihood Pressures (The Biggest Barrier)

The study identifies **livelihood and occupational commitments** as the single largest obstacle preventing citizens from attending Gram Sabha meetings.

More than **55% of respondents** cited work-related reasons for their absence.

The most affected groups include:

- Daily wage labourers
- Agricultural workers
- Seasonal migrants
- Informal sector workers

For these individuals, attending a Gram Sabha often means sacrificing a day's income, making participation economically difficult despite recognising its importance.

Participation Fatigue

One of the most significant findings of the report is the emergence of **"participation fatigue."**

The report defines participation fatigue as a situation where **citizens gradually lose interest in attending Gram Sabha meetings because repeated discussions fail to produce visible outcomes**.

People become discouraged when:

- The same issues are discussed repeatedly.
- Decisions are not implemented.
- Development works are delayed.
- Grievances remain unresolved.
- Meetings become routine formalities rather than platforms for genuine decision-making.

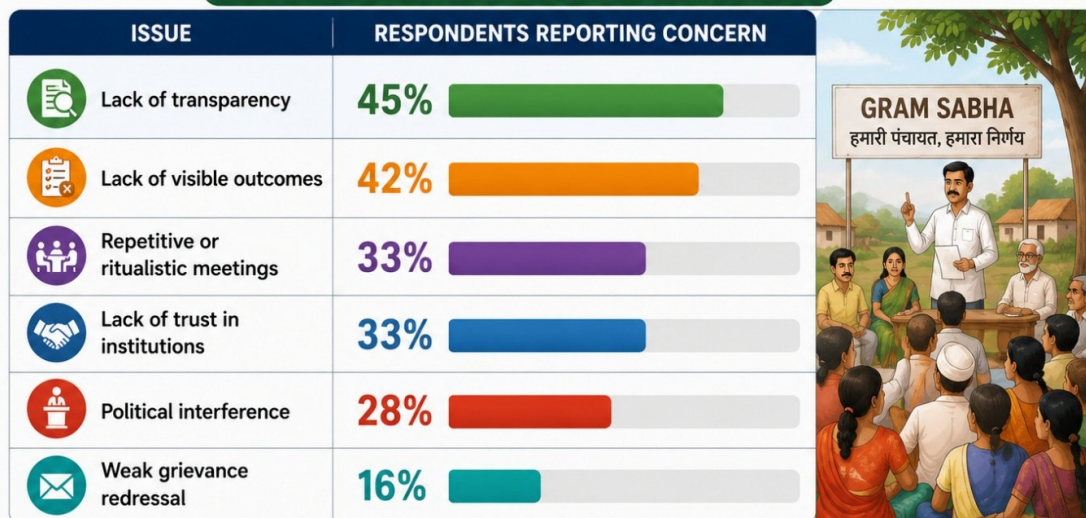
As a result, citizens begin to perceive participation as **symbolic rather than meaningful**, reducing attendance over time.

TRANSPARENCY DEFICIT WEAKENS PUBLIC TRUST



The study identifies **lack of transparency** as the most serious concern affecting the credibility of Gram Sabhas.

MAJOR CONCERNS REPORTED BY RESPONDENTS



These findings suggest that citizens are not merely dissatisfied with attendance or procedures—they are increasingly concerned about the **effectiveness**, **accountability**, and **transparency** of local governance.



The Grievance Resolution Gap

Another critical observation of the study is the growing disconnect between **hearing grievances and resolving them**. Many respondents acknowledged that Gram Sabha meetings provide opportunities to raise local issues. However, they also felt that **very few grievances are actually addressed**, leading to declining public confidence.

The report warns that this persistent gap between **consultation and implementation** gradually erodes trust in local democratic institutions and discourages future participation.

Why These Findings Matter

The findings are significant because the **Gram Sabha is the cornerstone of participatory democracy envisaged under the 73rd Constitutional Amendment**.

A vibrant Gram Sabha ensures:

- Direct citizen participation in governance.
- Greater transparency in public expenditure.
- Accountability of Panchayats.
- Inclusive development planning.
- Social audits of government schemes.
- Democratic decentralisation.

However, declining participation weakens these constitutional objectives and reduces Gram Sabhas to procedural exercises rather than genuine forums of local self-governance.

Way Forward

The study underscores that improving Gram Sabha participation requires **more than increasing awareness**. The emphasis must shift towards making participation **meaningful, responsive, and outcome-oriented**.

Key measures include:

- Scheduling meetings at convenient times to accommodate daily wage workers and migrants.
- Ensuring greater transparency in decision-making and financial disclosures.
- Strengthening grievance redressal mechanisms and tracking action taken on citizen concerns.
- Demonstrating visible implementation of Gram Sabha decisions to restore public confidence.
- Reducing political interference and promoting inclusive participation of women, marginalised communities, and vulnerable groups.
- Enhancing procedural literacy so that citizens understand not only their right to participate but also how Gram Sabha decisions are made.

Conclusion

The NIRDPR study highlights an important paradox in India's grassroots democracy: **citizens are increasingly aware of Gram Sabhas, yet many remain disengaged because they perceive limited impact from their participation**. Livelihood constraints, lack of transparency, unresolved grievances, and participation fatigue have collectively weakened the effectiveness of these institutions.

Strengthening Gram Sabhas therefore requires moving beyond formal compliance towards **creating genuinely participatory, transparent, and accountable local governance mechanisms**, ensuring that citizens experience tangible outcomes from their involvement in democratic processes.

HIGHER EDUCATION AND INDIAN FEDERALISM

Why in News: Higher education has emerged as a major arena of **Centre-State tensions** in India. Recent developments—including disputes over the implementation of the **National Education Policy (NEP), 2020**, the proposed **Viksit Bharat Shiksha Adhishthan Bill, 2025**, Vice-Chancellor appointments, language policy, digital governance, and the establishment of foreign university campuses—have reignited debates over the **federal distribution of powers in education**. These issues have transformed higher education from a purely academic concern into an important constitutional and political question.

NOTE: Although education is constitutionally placed in the **Concurrent List**, allowing both Parliament and State Legislatures to legislate, recent policy initiatives have significantly expanded the role of the Union government. Consequently, higher education is no longer viewed merely as a sectoral policy issue but as an important component of India's evolving federal architecture.

Why is Higher Education Becoming a Federal Issue?

In recent years, several reforms initiated by the Union Government have generated political and constitutional debates across States.

Major areas of disagreement include:

- Implementation of the **National Education Policy (NEP), 2020**
- Three-language formula
- Appointment of Vice-Chancellors
- Powers of Governors as Chancellors of State Universities
- Regulation of universities through central agencies
- Expansion of digital governance mechanisms
- Entry of foreign universities into India

These issues illustrate how education has become closely intertwined with questions of **State autonomy and cooperative federalism**.

Growing Influence of the Union Government

Although legislative powers over education are shared, the practical governance structure increasingly favours the Centre.

Through institutions such as:

- **Ministry of Education**
 - **University Grants Commission (UGC)**
 - **National Assessment and Accreditation Council (NAAC)**
 - Various regulatory and accreditation bodies
- the Union government exercises considerable influence over higher education institutions across the country. Additionally, financial assistance and institutional recognition increasingly depend on adherence to centrally designed policy frameworks.

National Education Policy (NEP), 2020

The **National Education Policy (NEP), 2020** represents the most comprehensive reform of India's higher education system in decades.

Key reforms include:

- Four-year undergraduate programmes

- Academic Bank of Credits (ABC)
- Multidisciplinary universities
- Institutional restructuring
- Flexible curriculum framework
- Internationalisation of higher education
- Greater emphasis on research and innovation

While these reforms aim to improve quality, flexibility, and global competitiveness, several States perceive them as expanding the Centre's influence over areas traditionally managed by State governments.

Funding as an Instrument of Policy Influence

The Centre's growing role is also reflected in funding mechanisms.

Access to major initiatives increasingly depends upon compliance with national reform agendas.

Important examples include:

- **Institutions of Eminence (IoE) Scheme**
- **Anusandhan National Research Foundation (ANRF)**
- Performance-based accreditation and ranking systems

Such programmes encourage States and universities to align with national priorities, thereby strengthening the Centre's policy influence.

Regulatory Reforms and Emerging Concerns

The proposed **Viksit Bharat Shiksha Adhishthan Bill, 2025**, intended to replace the existing higher education regulatory framework including the **UGC**, has generated significant debate.

Several State governments fear that the proposed institutional restructuring may further centralise educational governance and reduce their policy-making space.

The debate reflects a broader constitutional concern over maintaining the federal balance in higher education.

Digital Governance (A New Dimension of Centralisation)

Technology has emerged as another important instrument shaping higher education governance.

Platforms such as the **Academic Bank of Credits (ABC)** enable:

- Standardised academic records
- National credit transfer system
- Uniform monitoring of student progress
- Greater integration across universities

While these reforms improve mobility and transparency, they also expand the Centre's capacity to standardise educational administration across States.

Centre-State Tensions in Practice

Several States have openly challenged aspects of recent reforms.

Tamil Nadu

- Opposed the **three-language formula**
- Objected to UGC's language-related directives
- Rejected implementation of several provisions of the NEP

Kerala, Karnataka and West Bengal

- Witnessed disputes over the appointment of Vice-Chancellors
- Differences emerged regarding the powers exercised by Governors as Chancellors of State universities

These disputes highlight that higher education governance increasingly involves constitutional questions regarding the distribution of powers between the Centre and the States.

Federalism Through Negotiation Rather Than Confrontation

Despite disagreements, Centre–State relations in higher education are not entirely adversarial.

Many States—including Opposition-ruled governments—have adopted a strategy of **selective implementation**.

Rather than rejecting reforms altogether, they have:

- Modified policies according to local needs
- Accepted reforms beneficial to students
- Negotiated implementation while protecting regional priorities

This reflects the emergence of **cooperative yet negotiated federalism**, where adaptation replaces outright confrontation.

Internationalisation of Higher Education

Another emerging area is the establishment of **foreign university campuses in India**.

While the regulatory framework is framed by the Union Government, successful implementation depends heavily on State governments through:

- Land allocation
- Infrastructure development
- Administrative approvals
- Investment facilitation

Several States now view international universities as an opportunity to:

- Become regional education hubs
- Attract global investments
- Improve research capacity
- Enhance international academic collaboration

This demonstrates that successful higher education reforms require effective Centre–State cooperation.

Why Does It Matter?

Higher education has become a strategic pillar of:

- Human capital development
- Innovation and research
- Economic competitiveness
- Skill development
- Global knowledge partnerships

The governance model adopted today will shape India's ability to become a global knowledge economy while preserving the constitutional balance between national coordination and State autonomy.

Way Forward

India's higher education system requires a governance framework that balances **national standards with federal flexibility**. While the Centre has a legitimate role in ensuring quality, research excellence, internationalisation, and academic mobility, States must retain adequate autonomy to address regional priorities, linguistic diversity, and local developmental needs. Strengthening institutions such as the **Inter-State Council**, promoting regular Centre–State consultations, ensuring transparent regulatory reforms, and adopting a collaborative implementation model will be

essential. Ultimately, the success of India's higher education reforms will depend not on centralisation alone, but on **cooperative federalism built on dialogue, trust, and shared responsibility**.

INDIA MOVES TOWARDS A FULLY DIGITAL CRIMINAL JUSTICE SYSTEM

Why in News: The **Ministry of Home Affairs (MHA)** has announced that **from 1 January 2027, all investigations and criminal trials under India's new criminal laws will be digitally recorded**, marking a major step towards creating a technology-driven criminal justice system.

NOTE: The move will be supported by the nationwide rollout of the **Interoperable Criminal Justice System (ICJS)**, which aims to seamlessly integrate police, courts, prisons, forensic laboratories, and prosecution agencies on a single digital platform. This initiative forms a crucial part of the implementation of the **Bharatiya Nyaya Sanhita (BNS)**, **Bharatiya Nagarik Suraksha Sanhita (BNSS)**, and **Bharatiya Sakshya Sanhita (BSS)**.

What is the Interoperable Criminal Justice System (ICJS)?

The **Interoperable Criminal Justice System (ICJS)** is an integrated digital platform that enables seamless exchange of information among all agencies involved in the criminal justice process.

It links:

- Police
- Courts
- Prisons
- Forensic Science Laboratories (FSLs)
- Prosecution Departments

The objective is to establish an **end-to-end digital workflow**, enabling every stage of a criminal case—from FIR registration to investigation, prosecution, trial, conviction, and imprisonment—to be processed electronically.

All digital records generated under the system will be securely stored on **MeghRaj**, the Government of India's cloud infrastructure.

Digital Recording to Become Mandatory from 2027

Beginning **1 January 2027**, all procedures relating to investigations and criminal trials under the new criminal laws will be digitally recorded.

The move aims to:

- Improve transparency in criminal investigations.
- Minimise procedural delays.
- Enhance judicial efficiency.
- Strengthen evidence management.
- Reduce scope for manipulation or loss of records.
- Facilitate real-time monitoring of cases.

Implementation of the New Criminal Laws

The digital reforms are closely linked with the implementation of India's three new criminal laws, which came into force on **1 July 2024**.

New Law	Replaced
Bharatiya Nyaya Sanhita (BNS), 2023	Indian Penal Code (IPC), 1860

New Law	Replaced
Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023	Code of Criminal Procedure (CrPC), 1973*
Bharatiya Sakshya Sanhita (BSS), 2023	Indian Evidence Act, 1872

*(The BNSS replaces the CrPC, which was enacted in 1973; although the original article mentions 1898, the operative predecessor was the Code of Criminal Procedure, 1973.)

During the first two years of implementation:

- **74.66 lakh FIRs** have been registered under the Bharatiya Nyaya Sanhita.
- States and Union Territories have been provided **five years** to fully implement all pillars of the new criminal justice framework.

Growing Use of Zero FIR

The **BNSS** has provided statutory recognition to the **Zero FIR** mechanism.

A **Zero FIR** allows a victim to register a complaint at **any police station**, irrespective of where the offence occurred.

Key Highlights

- **63,572 Zero FIRs** have been registered under BNSS.
- Nearly **13,000 cases** involved transfers within the same State.
- Police officers cannot refuse to register a Zero FIR on jurisdictional grounds.

- After registration, the FIR is transferred electronically to the police station having territorial jurisdiction.

This provision significantly improves access to justice, especially in cases involving women, children, and victims travelling away from their home jurisdiction.

Multilingual FIR Registration

The **Crime and Criminal Tracking Network and Systems (CCTNS)** platform, operational across approximately **16,000 police stations**, now supports FIR registration in **23 Indian languages**.

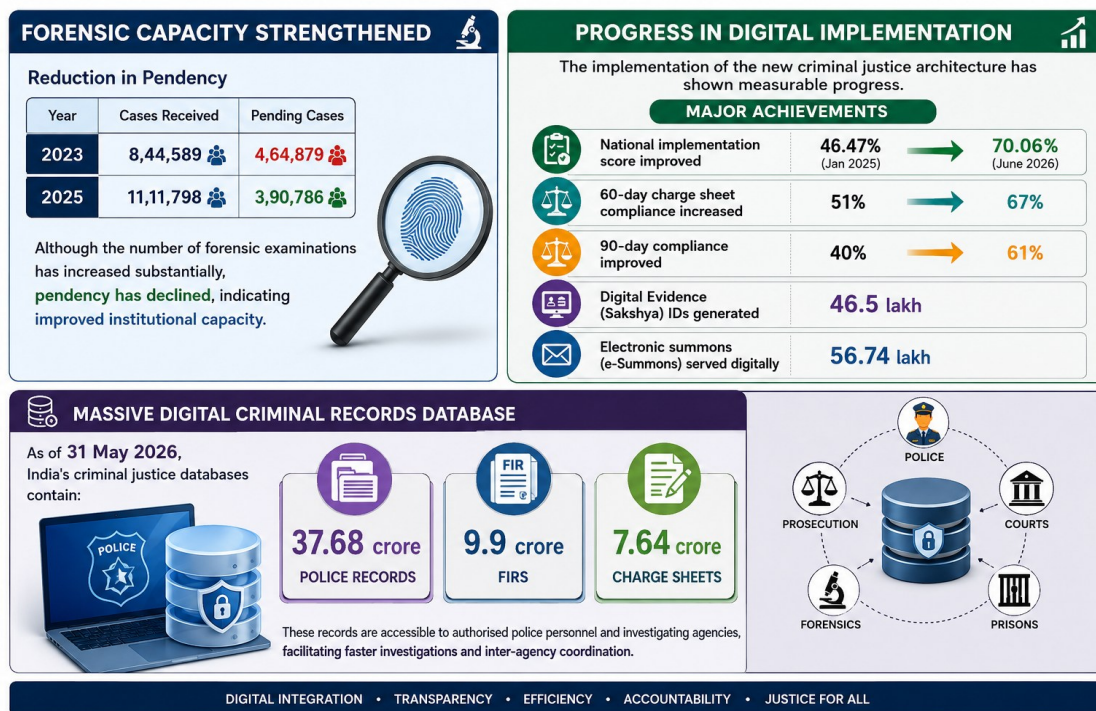
The integration of the **Bhashini AI platform** enables automatic translation of Zero FIRs into the language used by the receiving police station, making the criminal justice process more inclusive and citizen-friendly.

Expansion of Forensic Infrastructure

Recognising the central role of forensic evidence under the new criminal laws, the government has significantly strengthened forensic infrastructure.

Key Developments

- **Mandatory forensic investigation** has been introduced for offences punishable with **seven years or more**.
- **25 new Forensic Science Laboratories (FSLs)** have been established.
- Total FSLs increased from **129 (2023)** to **154 (2025)**.
- More than **700 Mobile Forensic Units** have been deployed nationwide.



State-wise Progress

Among the **36 States and Union Territories**:
Fully Implemented

- Haryana
- Goa
- Assam
- Punjab
- Chandigarh

Above National Average

- 23 States and Union Territories, including **Delhi**.

However, implementation remains relatively slow in certain **North-Eastern States**, primarily due to internet connectivity and infrastructure challenges.

Significance of the Reform

The digital transformation of India's criminal justice system is expected to generate multiple long-term benefits.

- **Faster Justice Delivery:** Digital workflows reduce paperwork, improve coordination, and minimise procedural delays.
- **Greater Transparency:** Electronic recording reduces opportunities for manipulation of evidence and enhances accountability.
- **Better Evidence Management:** Digital evidence, forensic reports, and case records become easily searchable and securely preserved.
- **Improved Inter-Agency Coordination:** Integration of police, courts, prisons, and forensic laboratories facilitates seamless information sharing.
- **Citizen-Centric Governance:** Features such as multilingual FIR registration and Zero FIR improve accessibility and strengthen public confidence in the justice system.
- **Strengthening Rule of Law:** Technology-driven investigation enhances fairness, objectivity, and the quality of criminal trials.

Challenges Ahead

Despite significant progress, several issues continue to require attention:

- Inadequate internet connectivity in remote and border regions.
- Variations in implementation across States and Union Territories.
- Need for complete interoperability among all digital platforms.
- Shortage of trained personnel in digital investigation and forensic sciences.
- Cybersecurity and protection of sensitive criminal justice data.
- Capacity building for police officers, prosecutors, forensic experts, and judicial officers.

Way Forward

The success of India's digital criminal justice reforms will depend not merely on technological deployment but also on institutional preparedness and capacity building. Ensuring reliable digital infrastructure, expanding forensic capabilities, standardising procedures across States, strengthening cybersecurity, and continuously training criminal justice personnel will be essential for achieving the vision of a **fully integrated, transparent, efficient, and citizen-centric criminal justice system**. With the nationwide rollout of the **Interoperable Criminal Justice System (ICJS)** and mandatory digital recording from **2027**, India is laying the foundation for one of the world's largest technology-enabled justice ecosystems.

IS AN INDIAN PASSPORT PROOF OF CITIZENSHIP?

Why in News: The issue of **proof of Indian citizenship** has come into focus after a senior official of the **Ministry of External Affairs (MEA)** clarified that **an Indian passport is a travel document and not a conclusive document of citizenship**. The clarification was made in response to queries regarding whether a passport can be used to challenge exclusion from electoral rolls during the ongoing **Special Intensive Revision (SIR)** of voter lists in several States. The statement has revived an important constitutional

and legal debate: **What actually constitutes proof of Indian citizenship?**

The Core Issue

- A common misconception is that possession of an Indian passport automatically establishes Indian citizenship.
- Legally, however, this is **not entirely correct**.
- While an Indian passport is **strong evidence of nationality**, it is **not conclusive proof of citizenship** in the event of a legal dispute.
- The distinction is subtle but important.
- **Nationality** reflects a person's legal relationship with a State in the international sphere.
- **Citizenship** determines the legal rights, duties, and constitutional status of an individual within the country.
- Thus, a passport certifies that its holder is entitled to travel under the protection of the Republic of India, but the question of citizenship may still be examined under the **Citizenship Act, 1955** if disputed.

Why is a Passport Not Conclusive Proof of Citizenship?

Indian passports are issued under the **Passports Act, 1967**, whereas citizenship is governed by the **Citizenship Act, 1955**.

Although authorities generally issue passports only to Indian citizens, the law itself does not treat the passport as the final legal determination of citizenship.

The Government's **Passport Manual** states that:

- A passport serves as evidence of nationality.
- However, it remains one among several forms of evidence regarding citizenship.
- Courts may examine additional documentary evidence whenever citizenship is challenged.

Therefore, a passport carries significant evidentiary value but is **not legally conclusive**.

Relevant Legal Provisions

Section 6(2)(a), Passports Act, 1967

A passport may be refused if the applicant is **not an Indian citizen**.

This provision reflects the normal rule that passports are issued only to citizens.

Exception: Section 20

The Central Government may issue a passport or travel document even to a **non-citizen** if it considers such issuance necessary in **the public interest**.

This statutory exception is one of the reasons why possession of a passport alone cannot conclusively establish citizenship.

Important Supreme Court Judgments

1. Maneka Gandhi v. Union of India (1978)

The Supreme Court observed that:

- A passport is issued after satisfaction regarding the applicant's Indian nationality.
- It enables the holder to receive diplomatic protection and consular assistance from the Government of India while abroad.

However, the judgment does not declare the passport to be conclusive proof of citizenship in every legal dispute.

2. Lal Babu Hussein v. Electoral Registration Officer (1995)

The Supreme Court held that:

- Inclusion of a person's name in the electoral roll creates a **presumption of citizenship**.

- Such presumption can be displaced only through the procedure established by law.

3. Supreme Court's SIR Judgment (2026)

While upholding the constitutional validity of the **Special Intensive Revision (SIR)** of electoral rolls, the Court clarified that:

- The Election Commission determines **electoral eligibility**, not citizenship.
- Deletion from electoral rolls does **not automatically terminate Indian citizenship**.
- Citizenship continues to be governed exclusively by the **Citizenship Act, 1955**.

Can Aadhaar Card Prove Citizenship?

No. The **Unique Identification Authority of India (UIDAI)** has consistently maintained that Aadhaar serves only as:

- Proof of identity
- Proof of address

It does not establish citizenship.

This is because Aadhaar may also be issued to legally resident **non-citizens** who fulfil the prescribed residency requirements. The Supreme Court has also reiterated that Aadhaar **cannot be relied upon as proof of citizenship**, although it may be used to establish identity.

Does a Voter ID Card Prove Citizenship?

Again, **not conclusively**.

Only Indian citizens are eligible to vote.

However:

- Possession of an **Electoral Photo Identity Card (EPIC)** or
- Inclusion in the electoral roll

creates only a **presumption** of citizenship.

The Election Commission has **no authority to adjudicate questions of citizenship**.

Its jurisdiction is limited to preparing and revising electoral rolls.

Then What Actually Proves Indian Citizenship?

India **does not prescribe a single universal document** that conclusively proves citizenship for every citizen.

Instead, citizenship is established through documentary evidence depending upon **how citizenship was acquired**.

Modes of Acquiring Citizenship under the Citizenship Act, 1955

Indian citizenship may be acquired through:

- Birth
- Descent
- Registration
- Naturalisation
- Incorporation of Territory

Each category requires different documentary evidence.

Citizenship Certificate: The Conclusive Proof

Individuals who acquire citizenship through:

- Registration, or
- Naturalisation

are issued a **Citizenship Certificate**.

This certificate serves as **conclusive legal proof of citizenship**.

However, the vast majority of Indians are citizens **by birth or descent** and therefore do not possess such certificates.

Documentary Evidence for Citizens by Birth

Born Between 26 January 1950 and 1 July 1987

Citizenship is automatic irrespective of the nationality of parents.

Typical supporting documents include:

- Birth certificate
- School records
- Educational certificates
- Other documents establishing date and place of birth

Born Between 1 July 1987 and 3 December 2004

A person must establish:

- Their own birth in India, and
- That **at least one parent was an Indian citizen**.

Born On or After 3 December 2004

The requirements became more stringent.

A person must establish that:

- One parent was an Indian citizen, and
- The other parent was **not an illegal migrant**.

This often requires documentary proof relating to both parents.

Passport in Electoral Verification

Interestingly, during the ongoing **Special Intensive Revision (SIR)** of electoral rolls, the **Election Commission** included the **passport among the indicative documents** that may be produced while verifying voter eligibility.

However, being an **indicative document**, it does not by itself settle any legal dispute relating to citizenship.

Why Doesn't India Have a Single Citizenship Document?

Unlike several countries that issue national citizenship certificates or identity cards, India follows a **document-based evidentiary system**.

The absence of a universal citizenship document reflects:

- Historical diversity in civil registration practices.
- Different legal modes of acquiring citizenship.
- Variations in birth registration across generations.

Attempts to create a nationwide citizenship database through the **National Register of Citizens (NRC)** generated significant political and social debate due to concerns over documentation gaps and possible exclusion of genuine citizens.

Significance of the Issue

- The debate highlights an important gap in India's civil registration framework.
- Experts argue that universal birth registration, stronger archival systems, and comprehensive civil records are essential to reduce future disputes over citizenship.
- As former Foreign Secretary **Nirupama Rao** observed, India's long-term solution lies in building **reliable civil registration and documentation systems**, ensuring that citizenship is determined by robust public records rather than fragmented documentary evidence.

Conclusion

The recent clarification by the Ministry of External Affairs does not introduce a new legal position; rather, it reiterates an established principle of Indian law. While an Indian passport is a powerful indicator of nationality and ordinarily reflects that the holder is an Indian citizen, it is **not a standalone or conclusive proof of citizenship**. Citizenship in India is ultimately determined under the **Citizenship Act, 1955**, through the relevant legal provisions and supporting documentary evidence. The discussion also underscores the need for stronger civil registration systems to ensure that genuine citizens are not disadvantaged by incomplete or inconsistent documentation.

MEKEDATU DAM DISPUTE

Why in News: The **Tamil Nadu Legislative Assembly** recently adopted a **unanimous resolution opposing Karnataka's proposed Mokedatu Dam Project** on the Cauvery River. The development comes after Karnataka initiated steps to submit a **revised Detailed Project Report (DPR)** following the **Supreme Court's dismissal of Tamil Nadu's review petition** against the project. The renewed confrontation has once again brought the decades-old **Cauvery water dispute** into the spotlight, raising important questions about **inter-State River governance, federalism, riparian rights, and water security**.

Background (The Mokedatu Project)

The **Mokedatu Dam Project** is a proposed **drinking water-cum-balancing reservoir** to be constructed by Karnataka across the **Cauvery River** at **Mokedatu**, located about **100 km from Bengaluru**.

The project envisages:

- Construction of a reservoir with a storage capacity of **67.16 TMC (Thousand Million Cubic Feet)**;
- An estimated investment of around **₹9,000 crore**;
- Supply of drinking water to the rapidly expanding Bengaluru metropolitan region;
- A **400 MW hydroelectric power component**; and
- **No irrigation component**, according to Karnataka.

Karnataka argues that the project is primarily intended to meet Bengaluru's increasing drinking water demand while also functioning as a balancing reservoir to regulate river flows.

Why Has the Issue Resurfaced?

The controversy has resurfaced after Karnataka decided to proceed with the preparation and submission of a **revised Detailed Project Report (DPR)** for the project.

This follows the **Supreme Court's November 2025 judgment**, in which it dismissed Tamil Nadu's review petition, observing that the challenge was "**premature**" since statutory approvals for the project had not yet been granted.

Viewing Karnataka's move as an attempt to accelerate the project, Tamil Nadu responded by passing a unanimous Assembly resolution demanding that the proposal be halted.

Tamil Nadu's Concerns

Tamil Nadu, being the **lower riparian State**, strongly opposes the project despite Karnataka's assurance that it is meant only for drinking water.

Its objections are based on several concerns.

1. Fear of Reduced Downstream Water Availability

Tamil Nadu argues that any additional storage structure upstream could potentially alter the timing and quantity of water released into the State, affecting:

- irrigation in the Cauvery delta,
- drinking water supply, and
- overall water availability during distress years.

Since the Cauvery is already a **water-deficit basin**, Tamil Nadu contends that no new upstream storage project should be permitted.

2. Trust Deficit Between the Two States

The dispute is shaped not merely by engineering considerations but by decades of political and legal conflicts over Cauvery waters.

Tamil Nadu fears that:

- the reservoir may eventually be used beyond its stated purpose,
- regulated releases could adversely affect downstream farmers, and
- operational decisions may not always conform to tribunal awards.

Thus, the opposition stems from a longstanding **trust deficit** rather than the project's stated objectives alone.

3. Violation of Existing Water-Sharing Arrangements

- Tamil Nadu argues that the **Cauvery Water Disputes Tribunal Award**, as modified by the **Supreme Court in 2018**, governs water allocation between basin States.
- Since the basin is already fully allocated, it believes that creating a new major storage structure without the consent of lower riparian States would disturb the existing legal framework.

Karnataka's Position

Karnataka maintains that the Mokedatu project is entirely consistent with the Supreme Court's directions.

Its key arguments include:

- Bengaluru's rapidly growing population requires additional drinking water infrastructure.
- The Supreme Court's **2018 Cauvery judgment** specifically allocated **4.75 TMC of additional water** to Karnataka for Bengaluru's drinking water needs.
- The proposed reservoir is intended to store floodwaters and regulate river flows rather than divert water for irrigation.
- A balancing reservoir would help regulate releases from **Krishnaraja Sagar (KRS)** and **Kabini reservoirs**, thereby ensuring smoother downstream flows to **Mettur Dam** in Tamil Nadu.
- Since there is **no irrigation component**, Karnataka argues that Tamil Nadu's concerns are misplaced.

Demand for a Separate Tribunal

A significant new development is Tamil Nadu's demand for constituting a **separate tribunal** to examine the feasibility and legality of the Mokedatu project.

The State formally communicated this request to the Union Government, arguing that an independent adjudicatory mechanism should evaluate:

- hydrological impacts,
- downstream implications,
- environmental concerns, and
- compliance with existing Cauvery water-sharing arrangements.

However, under the **Inter-State River Water Disputes Act, 1956**, the Union Government may establish a tribunal **only if it is satisfied that the dispute cannot be resolved through negotiations**.

Negotiations Have Been Minimal

- Historically, Tamil Nadu sought the **Cauvery Water Disputes Tribunal** only after participating in **23 bilateral, tripartite, and multilateral meetings** involving Karnataka, Kerala, Puducherry, and the Union Government.
- In contrast, observers note that **no formal negotiations** have taken place between Tamil Nadu and Karnataka specifically on the Mokedatu project during the past decade and a half.

- This raises questions about whether all available avenues for dialogue have been exhausted before seeking another tribunal.

Legal and Constitutional Dimensions

The dispute raises important constitutional principles relating to **inter-State rivers**.

- **Article 262:** Empowers Parliament to legislate for adjudication of disputes relating to inter-State river waters.
- **Inter-State River Water Disputes Act, 1956:** Provides the legal framework for constituting tribunals to resolve river water disputes.
- **Entry 56, Union List:** Empowers Parliament to regulate and develop inter-State rivers in the public interest.
- **Riparian Rights:** The dispute also reflects competing claims between:
 - **Upper riparian States**, which seek greater utilisation of water resources within their territory, and
 - **Lower riparian States**, which seek protection of established downstream water rights.

Challenges Before the Union Government

The Centre now faces a complex balancing exercise.

It must:

- safeguard Karnataka's legitimate drinking water needs;
- protect Tamil Nadu's downstream water interests;
- ensure compliance with Supreme Court judgments;
- uphold cooperative federalism; and
- prevent escalation of inter-State tensions.

Any decision regarding project approvals, tribunal constitution, or environmental clearance is likely to have significant political and legal consequences.

Possible Way Forward

Several experts suggest that a cooperative approach would be more sustainable than prolonged litigation.

Possible solutions include:

- Reviving structured negotiations between Karnataka and Tamil Nadu.
- Conducting an independent hydrological and environmental impact assessment.
- Ensuring transparent reservoir operation through real-time data sharing.
- Strengthening the role of the **Cauvery Water Management Authority (CWMA)** in monitoring water releases.
- Exploring alternative water infrastructure options, including the proposal to construct a reservoir at **Rasimanal in Tamil Nadu**, which some experts believe could meet regional water needs while reducing interstate concerns.
- Building institutional mechanisms to improve trust and joint river basin management.

Conclusion

The **Mekedatu Dam dispute** highlights the growing challenges of **water governance in a climate-stressed and rapidly urbanising India**. While Karnataka seeks to address Bengaluru's rising drinking water demand, Tamil Nadu fears that any additional upstream storage could jeopardise its long-established water rights and agricultural interests.

Ultimately, resolving the dispute requires more than legal adjudication. It calls for **scientific assessment, transparent**

data sharing, cooperative federalism, and integrated river basin management, ensuring that developmental needs of upstream States are balanced with the legitimate rights of downstream communities. Sustainable management of inter-State rivers like the Cauvery will remain crucial for India's water security and federal harmony in the decades ahead.

SC BACKS 28% GST AND STATE BAN ON ONLINE GAMING

Why in News: The Supreme Court upheld the constitutional validity of a **retrospective 28% GST** on the full-face value of online real-money gaming bets, while affirming the legislative competence of States to prohibit such platforms, effectively settling long-standing regulatory, tax, and federal disputes over **"games of skill vs. chance"**.

Supreme Court Redefines India's Online Gaming Landscape

- India's online gaming industry—once one of the country's fastest-growing digital sectors—has now entered a new regulatory era. In two landmark judgments, the Supreme Court clarified both **how online gaming should be taxed** and **who has the authority to regulate or prohibit it**.
- The verdict has far-reaching implications for gaming companies, investors, taxation policy, federalism and digital governance.

Background (Two Separate Legal Battles)

The Supreme Court dealt with **two distinct but interconnected issues**.

1. Constitutionality of State Laws banning Online Real-Money Gaming

- Several States, including **Tamil Nadu** and **Karnataka**, enacted laws prohibiting online betting and wagering, even when games involved elements of skill.
- These laws were challenged before the High Courts, which struck them down.

The States appealed before the Supreme Court, arguing that:

- Betting and gambling are State subjects under the Constitution.
- Online betting causes addiction, financial losses and social harm.
- States possess the constitutional authority to regulate or prohibit such activities.

2. GST on Online Gaming

- A second dispute involved the **28% GST imposed on online gaming involving money stakes**.
- Gaming companies argued that GST should apply only to:
 - Platform fees (commission or Gross Gaming Revenue), **not**
 - The entire amount deposited or staked by players.
- The Union Government maintained that once money is staked on an uncertain outcome, the entire stake becomes taxable under GST.

Why Did the Supreme Court Uphold the 28% GST?

The Court ruled in favour of the Union Government and upheld the GST framework.

1. Money Stakes Change the Nature of Gaming

- The Court observed that online gaming involving monetary stakes differs fundamentally from ordinary skill-based competitions.

- Unlike conventional tournaments where participants merely pay an entry fee, online gaming platforms:
 - revolve around monetary wagering,
 - encourage repeated betting,
 - frequently use bonuses, rewards and promotional incentives.
- Consequently, such platforms resemble organised betting ecosystems rather than simple skill competitions.
- 2. Skill vs Chance Becomes Irrelevant for GST**
- One of the industry's principal arguments was that games involving substantial skill should not be treated as gambling.
- The Court rejected this distinction for taxation purposes.
- It held that:
 - **Once money is staked on an uncertain outcome, the activity acquires the characteristics of betting or wagering, irrespective of whether skill is involved.**
- Therefore, GST applies uniformly.
- 3. Full Value of Stakes is Taxable**
- The Court ruled that GST is payable on the **entire amount staked by players**, not merely on the commission retained by gaming platforms.
- This significantly increases the tax liability of gaming companies.
- 4. Retrospective GST is Valid**
- The Court also upheld retrospective GST demands.
- According to the Bench:
 - The 2023 GST amendments did **not introduce a new tax.**
 - They merely **clarified the existing legal position** under the Central GST Act.
- Hence, retrospective tax notices remain legally valid.

Why Did the Supreme Court Uphold State Bans?

- **Constitutional Entry and Legislative Competence:**
 - **State Subject Classification:** The Constitution explicitly places "Betting and Gambling" under Entry 34 of the State List (List II).
 - **Regulatory Authority:** Due to this specific listing, state governments hold the complete legislative authority to either regulate or entirely prohibit these activities within their jurisdictions.
- **Applicability of the Res Extra Commercium Doctrine:**
 - **Exclusion from Legitimate Trade:** The Court re-established that betting and gambling are *res extra commercium* meaning they are activities that sit completely outside the scope of legitimate trade or commerce.
 - **Lack of Fundamental Rights Protection:** Because these activities do not enjoy constitutional protection under the freedom to practice any profession, trade, or business, the government has the right to enforce ultra-strict regulations or total bans.
- **Legal Impact of Monetary Stakes on Games of Skill:**
 - **Transformation into Wagering:** The Court clarified that even if a game is predominantly driven by skill, the introduction of monetary stakes instantly transforms the activity into wagering.
 - **Loss of Constitutional Immunity:** Placing money on the outcome brings the activity directly under the

regulatory ambit of the States, stripping away the constitutional protections otherwise granted to pure games of skill.

Public Order Justifies Regulation

The Bench observed that:

- Smartphones,
 - Digital payment systems,
 - Instant online transactions,
- have effectively turned mobile phones into **virtual gambling houses**.

Given concerns relating to:

- addiction,
- financial exploitation,
- cyber fraud,
- public order,

States are constitutionally empowered to regulate or prohibit such activities.

Constitutional Basis of the Judgment

The ruling relies upon several constitutional provisions.

Constitutional Provision	Significance
Entry 34, State List	Betting and Gambling are State subjects
Entry 1, State List	Public Order allows States to regulate gambling-related activities
CGST Act, 2017	Includes actionable claims relating to betting and gambling within GST framework

Impact on the Online Gaming Industry

The judgments could fundamentally alter India's online gaming ecosystem.

- **Massive GST Liability:** Several companies face tax demands worth **thousands of crores**, many exceeding their total revenues.
- **Industry Consolidation:** Smaller gaming companies may:
 - shut operations,
 - merge with larger firms,
 - shift overseas,
 - diversify into social gaming or fintech.
- **Insolvency Risk:** Legal experts believe that many firms may face insolvency proceedings because of the enormous retrospective tax liabilities.
- **Regulatory Shift:** India's online gaming sector is moving from a **lightly regulated digital industry** to one governed through:
 - stricter taxation,
 - tighter State regulation,
 - enhanced compliance requirements.

Connection with the Promotion and Regulation of Online Gaming Act, 2025

The judgments also interact with the **Promotion and Regulation of Online Gaming Act, 2025**, which:

- prohibits most forms of online real-money gaming,
- permits only limited exceptions such as:
 - e-sports,
 - educational games,
 - social gaming.

The Supreme Court's observation that **betting and gambling fall within the State List** may influence future constitutional challenges regarding Parliament's legislative competence to enact the 2025 law.

Why is this Judgment Important?

The verdict is significant because it:

- settles the long-running GST dispute over online gaming;
- clarifies that monetary stakes not merely skill—determine the legal character of online games for taxation and regulation;
- reaffirms State powers over betting and gambling under the Constitution;
- strengthens the legal basis for regulating online gambling in the interest of public order;
- has major implications for India's digital economy, taxation policy, federalism and the future of the online gaming industry.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. In the context of the constitutional division of legislative powers in India, which entry under the State List (List II) of the Seventh Schedule explicitly empowers individual states to regulate or prohibit activities categorized as *res extra commercium* like betting and gambling?

- (a) Entry 1 (Public Order)
- (b) Entry 34 (Betting and Gambling)
- (c) Entry 26 (Trade and Commerce within the State)
- (d) Entry 60 (Taxes on professions, trades, callings and employments)

Answer: b

SUPREME COURT REAFFIRMS THE RIGHT TO LEGAL REPRESENTATION

Why in News: The issue of an accused person's **right to legal representation** has once again come into focus after the **Faizabad Bar Association** reportedly passed a resolution refusing to provide legal representation to the accused in the **Ram Temple embezzlement case**.

Every Person Has the Right to a Defence

- Delivering one of the most widely cited observations on professional ethics, **Justice Markandey Katju** declared:
- **"Every person, however wicked, depraved, vile, degenerate, perverted, loathsome, execrable, vicious or repulsive he may be regarded by society has a right to be defended in a court of law, and correspondingly, it is the duty of the lawyer to defend him."**
- The Court clarified that **providing legal representation does not amount to endorsing the accused person's conduct**. Rather, it is a constitutional obligation aimed at ensuring **fair trial, due process, and the administration of justice**.

Constitutional Basis (Article 22(1))

The judgment derives its constitutional foundation from **Article 22(1)** of the Constitution, which guarantees that:

- Every arrested person has the **right to consult a legal practitioner of his or her choice**.

- No individual can be denied the opportunity to be defended by a lawyer.

This protection forms an essential component of the broader **Right to Life and Personal Liberty under Article 21**, as interpreted through judicial decisions.

The Court emphasized that **the presumption of innocence until proven guilty** remains a cornerstone of criminal jurisprudence, making legal representation indispensable.

Professional Ethics and the Duties of Advocates

Apart from constitutional guarantees, the Supreme Court also relied on the **Bar Council of India (BCI) Rules**, particularly the **Standards of Professional Conduct and Etiquette**.

The Rules provide that:

- An advocate is generally **bound to accept a brief** from any client.
- Refusal is justified only under **special circumstances**, such as conflict of interest or other legally recognised grounds.
- A lawyer cannot reject a client merely because the allegations are unpopular or socially condemned.

The Court observed:

"Professional ethics requires that a lawyer cannot refuse a brief, provided the client is willing to pay the prescribed fee and the lawyer is not otherwise engaged."

Bar Association Boycotts Declared Illegal

The Supreme Court categorically held that **Bar Associations possess no authority to direct advocates not to appear for particular accused persons**.

Whether the accused is charged with **terrorism, rape, corruption, murder, or any other serious offence**, denying legal representation:

- Violates constitutional guarantees,
- Undermines the independence of the legal profession,
- Weakens the criminal justice system, and
- Compromises the principle of a fair trial.

The Court stressed that **collective boycotts by Bar Associations are incompatible with the rule of law**.

Historical Examples Highlighted by the Court

To reinforce the ethical responsibility of lawyers, the judgment referred to notable examples from legal history and literature.

Thomas Erskine

- Justice Katju cited the celebrated British jurist **Thomas Erskine**, who courageously defended **Thomas Paine**, author of *The Rights of Man*, when Paine faced charges of treason for supporting the ideals of the French Revolution.
- Erskine undertook the defence despite knowing it could cost him his prestigious position as **Attorney-General to the Prince of Wales**, illustrating that **professional duty must prevail over public opinion or personal consequences**.

Atticus Finch

- The Court also invoked the fictional lawyer **Atticus Finch** from Harper Lee's classic novel *To Kill a Mockingbird*, quoting his timeless reflection on professional courage:
- **"Courage is not a man with a gun in his hand. It is knowing you are licked before you begin, but you begin anyway and you see it through no matter what."**

- The reference underscored that **true courage in the legal profession lies in defending justice, even when the client is unpopular or the outcome appears uncertain.**

Significance of the Judgment

The ruling remains one of the strongest judicial affirmations of the **independence of the legal profession** and the **constitutional guarantee of a fair trial**.

It reinforces several foundational principles:

- **Every accused person has the right to competent legal representation**, irrespective of public sentiment.
- **Bar Associations cannot obstruct advocates from accepting briefs** through collective resolutions.
- **Lawyers are officers of the court**, and their duty is to uphold the Constitution and the rule of law rather than judge the moral worth of their clients.
- **Legal representation safeguards justice** by ensuring that guilt or innocence is determined through judicial process rather than public opinion.

Conclusion

The Supreme Court's decision in **A.S. Mohammed Rafi v. State of Tamil Nadu (2010)** serves as a powerful reminder that **the strength of a constitutional democracy lies not in defending only the innocent, but in ensuring justice for every individual through due process of law**. By protecting the accused person's right to legal representation and prohibiting Bar Association boycotts, the Court reaffirmed that **fair trial, professional ethics, and the rule of law remain non-negotiable pillars of India's justice system**.

SUPREME COURT UPHOLDS DNA TEST IN PATERNITY DISPUTE

Why in News: In a significant judgment, the **Supreme Court of India** upheld a trial court's direction to conduct a **DNA test** in a long-pending paternity dispute. The ruling addresses an important constitutional question:

Can an individual's fundamental right to privacy override the need to scientifically determine biological parentage? While reaffirming that DNA tests cannot be ordered routinely, the Court clarified that **privacy is not an absolute right** and must sometimes be balanced against competing rights—such as a child's right to know their biological identity and obtain legal closure.

Background of the Case

The dispute involved a child seeking to establish the identity of his biological father through a **DNA test**.

The alleged father challenged the trial court's order before the Supreme Court, arguing that compelling him to undergo DNA testing violated his:

- Right to privacy
- Bodily autonomy
- Personal dignity

The case was heard by a Bench comprising **Justice Sanjay Karol** and **Justice N. Kotiswar Singh**.

The Supreme Court ultimately **upheld the trial court's order**, permitting the DNA test.

The Core Constitutional Question

The judgment required the Court to reconcile two competing rights:

Right of the Alleged Father

- Privacy
- Bodily autonomy
- Protection against compelled medical procedures

Right of the Child

- To establish biological parentage
- To seek legal certainty and emotional closure
- To protect inheritance and identity-related rights

The Court held that **neither right is absolute**, and constitutional adjudication requires balancing competing interests based on the facts of each case.

Legal Framework Governing Paternity

Section 112 of the Indian Evidence Act, 1872: (Now Section 116 of the Bharatiya Sakshya Adhiniyam, 2023)

The law creates a **presumption of legitimacy**.

It states that:

- A child born during a valid marriage is presumed to be the legitimate child of the husband.
- This presumption can be rebutted only if the alleged father proves **non-access** during the period when conception could have occurred.

The burden of proof lies on the person disputing paternity.

Why Was This Provision Introduced?

When the Evidence Act was enacted in **1872**, there was **no reliable scientific method** to determine biological parentage.

Therefore, the law relied on a legal presumption to:

- **Protect the legitimacy of children**
- **Preserve family stability**
- **Prevent social stigma**

At that time, DNA technology did not exist.

The Advent of DNA Technology

DNA profiling became commercially available in India during the **1980s**, fundamentally transforming the ability to establish biological relationships with a very high degree of scientific accuracy.

This technological advancement has gradually influenced judicial thinking.

Courts increasingly face the challenge of reconciling:

- Traditional legal presumptions, and
- Modern scientific certainty.

Evolution of Supreme Court's Approach

Earlier Judicial Position

For many years, the Supreme Court consistently held that:

- DNA tests should **not be ordered routinely**.
- Courts must avoid unnecessary intrusion into privacy.
- Children should not be illegitimised merely because scientific tools exist.

The emphasis remained on protecting the child's social status.

Puttaswamy Judgment (2017)

The landmark judgment in **Justice K.S. Puttaswamy v. Union of India (2017)** transformed constitutional jurisprudence by declaring:

The Right to Privacy is a Fundamental Right under Article 21 of the Constitution.

Following this judgment, courts recognised that compulsory DNA testing affects:

- Privacy

- Bodily integrity
- Personal autonomy

As a result, courts became even more cautious while directing DNA tests.

Nandlal Wasudeo Badwaik Case (2014)

A major shift came in **Nandlal Wasudeo Badwaik v. Lata Nandlal Badwaik (2014)**

The Supreme Court observed that when there is a conflict between legal presumptions and scientifically accurate evidence, scientific truth should prevail.

The Court held that DNA evidence possesses exceptional evidentiary value and may override statutory presumptions where justice demands.

This judgment significantly strengthened the role of forensic science in family law disputes.

The N.D. Tiwari Paternity Case

One of India's most widely discussed paternity disputes involved former Chief Minister **Narayan Dutt Tiwari**.

Background

Rohit Shekhar claimed that N.D. Tiwari was his biological father. Tiwari opposed DNA testing, arguing that:

- It violated his right to privacy.
- It damaged his reputation.

Both the **Delhi High Court** and later the **Supreme Court** ordered DNA testing.

The results conclusively established biological paternity.

The case became a landmark for recognising:

- Scientific evidence,
- Privacy rights, and
- The child's right to identity.

What Has the Supreme Court Held in the Present Case?

The Court adopted a balanced constitutional approach.

It clarified that:

The Child Does Not Have an Automatic Right to Demand DNA Testing

DNA testing cannot become a routine mechanism in every family dispute.

Courts must first examine whether such testing is genuinely necessary.

Privacy as not Absolute

Although privacy is a fundamental right, it can be limited when:

- The restriction is lawful,
- Serves a legitimate purpose,
- Is proportionate,
- Is necessary to secure competing constitutional interests.

Balancing Competing Rights

The Court emphasised that constitutional adjudication is not about choosing one right over another.

Instead, it involves balancing:

- The alleged father's privacy and dignity, against
- The child's lifelong quest for identity, certainty, and emotional closure.

Significance of the Judgment

The ruling is important because it:

- Reaffirms the constitutional status of privacy.
- Recognises the evidentiary value of DNA technology.
- Protects children's rights to know their biological parentage.
- Clarifies that DNA testing remains an exceptional remedy.

- Strengthens the principle that scientific evidence may outweigh legal presumptions in appropriate cases.

Privacy vs Scientific Truth

Right to Privacy	Scientific Truth
Protected under Article 21	DNA provides highly accurate biological evidence
Safeguards bodily autonomy	Helps determine paternity conclusively
Cannot be violated arbitrarily	Can be permitted where justice demands
Not an absolute right	Subject to judicial safeguards

The Court seeks to harmonise these two constitutional values rather than treating them as mutually exclusive.

UPSC Mains Perspective

Issues Involved

- Right to Privacy
- Bodily Autonomy
- Child's Right to Identity
- Evidentiary Value of DNA Technology
- Balancing Fundamental Rights
- Role of Scientific Evidence in Judicial Decision-Making

Way Forward

- DNA testing should remain an **exceptional judicial tool**, not a routine investigative measure.
- Courts must apply the **test of proportionality** before directing compulsory DNA testing.
- Judicial decisions should continue balancing **individual privacy, scientific certainty, and the child's best interests**.
- Clear legislative guidelines may further reduce ambiguity in future paternity disputes.

Conclusion

The Supreme Court's latest ruling represents an important milestone in India's constitutional jurisprudence. It reinforces that while **privacy is a cherished fundamental right**, it is **not absolute**. In exceptional circumstances, where scientific truth is essential for securing justice and protecting the rights of another individual, courts may permit DNA testing after carefully balancing competing constitutional values. The judgment reflects the judiciary's evolving effort to harmonise **human dignity, technological advancement, and the pursuit of justice** in a modern constitutional democracy.

TEMPORARY BAN ON TELEGRAM

Why in News: The **Delhi High Court** has upheld the **Central Government's temporary blocking of the messaging platform Telegram**, imposed under the **emergency provisions of Section 69A of the Information Technology Act, 2000**. The ban was ordered following allegations that organised cheating networks used Telegram to circulate leaked question papers and spread misinformation during the **NEET (UG) 2026** examination controversy. The judgment is significant because it clarifies the **scope of the government's powers to block entire digital platforms** during emergencies and strengthens the legal framework governing online content regulation in India.

Background

On **16 June 2026**, the Union Government issued an emergency order temporarily blocking access to Telegram after intelligence inputs indicated that the platform was being extensively used to:

- Circulate purported NEET-UG question papers.
- Coordinate organised cheating networks.
- Spread fraudulent content targeting students.
- Create multiple backup channels to evade enforcement action.

Telegram challenged the blocking order before the Delhi High Court, arguing that the government had exceeded its statutory powers.

What Did the Delhi High Court Hold?

The High Court dismissed Telegram's petition and upheld the Centre's action.

The Court ruled that:

- The government had followed the due procedure prescribed under **Section 69A of the Information Technology Act, 2000**.
- Adequate reasons were recorded before invoking emergency powers.
- The temporary restriction was **reasonable, proportionate, and legally justified** considering the extraordinary circumstances surrounding the NEET examination.

According to the Court, protecting the integrity of a national-level examination constituted a legitimate public interest warranting temporary intervention.

Can the Government Block an Entire Digital Platform?

One of the most important legal issues before the Court was whether **Section 69A** permits the government to block **an entire online platform**, rather than only specific content or webpages. Telegram argued that the provision authorises blocking only particular content and not an entire application.

The Court rejected this argument.

It observed that the Information Technology Act defines "**information**" broadly to include:

- Data
- Messages
- Software
- Computer programmes
- Electronic records

Since Telegram operates through software forming part of a **computer resource**, the Court held that the government possesses the legal authority to temporarily block access to the entire platform when circumstances so require.

This interpretation significantly broadens the operational scope of Section 69A.

Why Was a Platform-Wide Ban Considered Necessary?

The Union Government informed the Court that earlier enforcement measures had failed.

Authorities found that:

- Individual Telegram channels were removed.
- However, operators repeatedly created:
 - Mirror channels.
 - Backup groups.
 - Successor accounts.

As a result, targeted takedowns proved ineffective.

The Court accepted the government's contention that **nothing short of a temporary platform-level restriction** could effectively prevent further misuse during the critical period preceding the NEET re-examination.

Principle of Proportionality

A central issue before the Court was whether the restriction imposed on Telegram was excessive.

The Court applied the constitutional principle of **proportionality**, which requires that any restriction on rights must be:

- Based on a legitimate objective.
- Necessary.
- The least restrictive available option.
- Proportionate to the public interest sought to be protected.

After examining the facts, the Court concluded that the government's action satisfied these requirements.

It observed that the temporary blocking order represented the **least restrictive effective measure** available under the circumstances.

Telegram's Arguments

Telegram contended that:

- It had cooperated fully with investigating agencies.
- It promptly removed flagged content.
- More than **900 links** related to unlawful NEET content had already been taken down.
- Both artificial intelligence tools and human moderation were employed to detect and remove objectionable material.
- Other social media platforms continued to operate despite similar risks, making Telegram's blocking discriminatory.

Court's Response

The Court rejected these arguments.

It held that:

- The repeated reappearance of unlawful channels demonstrated that platform-level moderation alone had failed.
- The emergency nature of the examination justified immediate preventive action.
- The temporary restriction was aimed at protecting students and preserving the credibility of a national competitive examination.

Accordingly, the Court upheld the validity of the government's emergency order.

About Section 69A of the Information Technology Act, 2000

Section 69A empowers the Central Government to **direct the blocking of public access to online information** under specified circumstances.

Such directions may be issued when necessary in the interest of:

- Sovereignty and integrity of India.
- Defence of India.
- Security of the State.
- Friendly relations with foreign States.
- Public order.
- Preventing incitement to the commission of cognisable offences.

The provision also prescribes procedural safeguards, including review mechanisms and recording of reasons before blocking orders are issued.

Significance of the Judgment

The ruling has important legal and policy implications. It:

- Clarifies that Section 69A can extend to blocking an entire digital platform in exceptional circumstances.
- Strengthens the government's emergency regulatory powers over digital intermediaries.
- Reinforces the principle that temporary restrictions may be constitutionally valid when they satisfy the test of proportionality.
- Highlights the growing challenge of regulating encrypted messaging platforms during large-scale public examinations.
- Balances digital freedoms with the need to protect public interest and examination integrity.
- How can authorities balance freedom of expression with national security and public order?
- What responsibilities should digital intermediaries bear in preventing organised cyber-enabled crimes?

These issues are likely to shape India's evolving digital governance framework.

Conclusion

The Delhi High Court's decision represents a significant interpretation of **Section 69A of the Information Technology Act**. By upholding the temporary blocking of Telegram, the Court recognised that extraordinary situations may warrant platform-level restrictions where narrower enforcement measures prove ineffective. At the same time, the judgment reiterates that such powers must remain subject to procedural safeguards and the constitutional principle of proportionality, ensuring a balance between digital rights and legitimate public interests.

Challenges Ahead

The judgment also raises broader policy questions:

- How can governments effectively regulate encrypted communication platforms?
- What safeguards should exist against excessive use of emergency blocking powers?

INTERNATIONAL RELATIONS

ASSOCIATION OF SOUTHEAST ASIAN NATIONS (ASEAN)

Why in News: The Association of Southeast Asian Nations (ASEAN) remains central to regional diplomacy, economic integration, and Indo-Pacific cooperation, with India strengthening engagement through its **Act East Policy** and strategic partnerships.

Key Details

- **ASEAN** is a regional organization comprising **10 Southeast Asian countries**.
- It promotes **economic growth, political cooperation, and regional stability**.
- ASEAN is a key pillar of India's **Act East Policy** and **Indo-Pacific strategy**.
- The **ASEAN-India Trade in Goods Agreement (AITIGA)** forms the basis of economic relations.
- ASEAN plays a crucial role in maintaining peace and cooperation in the **Indo-Pacific region**.

About ASEAN

- **ASEAN** was established on **8 August 1967** through the **Bangkok Declaration**.
- It was founded by **Indonesia, Malaysia, Philippines, Singapore, and Thailand**.
- The organisation aims to promote **regional cooperation and economic integration**.
- ASEAN works on political, economic, security, social, and cultural issues.
- Its **Secretariat** is located in **Jakarta, Indonesia**.

Member Countries

- Indonesia
- Malaysia
- Singapore
- Thailand
- Philippines
- Brunei
- Vietnam
- Laos
- Myanmar
- Cambodia

Objectives of ASEAN

- Promote **economic growth, social progress, and cultural development**.
- Maintain **regional peace and political stability**.
- Strengthen cooperation in **trade, investment, and connectivity**.
- Encourage peaceful settlement of **regional disputes**.
- Enhance collaboration in **education, science, technology, and environmental protection**.

ASEAN and India

- India became a **Sectoral Dialogue Partner** in **1992**.
- India was elevated to a **Summit-Level Partner** in **2002**.
- ASEAN is a major partner under India's **Act East Policy**.

- Cooperation covers **trade, connectivity, maritime security, and digital economy**.
- India participates in ASEAN-led forums such as the **East Asia Summit (EAS)** and **ASEAN Regional Forum (ARF)**.

Major ASEAN-Led Mechanisms

- **ASEAN Regional Forum (ARF)** focuses on **security dialogue**.
- **East Asia Summit (EAS)** discusses strategic and political issues.
- **ASEAN Defence Ministers' Meeting Plus (ADMM-Plus)** promotes defence cooperation.
- **Regional Comprehensive Economic Partnership (RCEP)** is linked to ASEAN-centred economic integration.
- **ASEAN Outlook on the Indo-Pacific (AOIP)** emphasizes inclusivity and cooperation.

Challenges Faced by ASEAN

- Differences among members on **South China Sea disputes**.
- Political instability in **Myanmar**.
- Balancing relations between major powers such as **China** and the **United States**.
- Developmental gaps among member countries.
- Emerging threats from **cybersecurity, climate change, and transnational crime**.

Importance for India

- ASEAN is India's gateway to **Southeast Asia** and the **Indo-Pacific**.
- It supports India's goals of **regional connectivity and economic integration**.
- ASEAN helps strengthen **maritime security** in strategic sea lanes.
- The region offers significant opportunities for **trade and investment**.
- Close ASEAN ties enhance India's role in the evolving **Indo-Pacific architecture**.

Conclusion

ASEAN remains one of the world's most successful regional organizations, promoting cooperation, stability, and economic integration in Southeast Asia. For India, **ASEAN is a vital partner** in advancing the **Act East Policy**, **strengthening connectivity**, expanding trade, and ensuring a free, open, and inclusive Indo-Pacific. **Deepening ASEAN-India cooperation** will remain crucial for regional prosperity and strategic balance.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Which one of the following best distinguishes ASEAN from the European Union?

- (a) ASEAN has a common currency while the EU does not
- (b) ASEAN follows consensus-based decision-making and limited supranational authority
- (c) ASEAN possesses a common defence force
- (d) ASEAN Parliament can enact laws binding on member states

Answer: b

BEYOND WINNERS AND LOSERS, PROMISE OF A NEW WEST ASIA

Why in News: The signing of the **Islamabad MoU** between the US and Iran has sparked global debate, raising prospects of regional de-escalation, renewed diplomacy, and significant geopolitical implications for India.

Key Details

- **Islamabad MoU Signed:** The agreement between the **US and Iran** signals a move from military confrontation towards diplomatic engagement.
- **Potential US–Iran Rapprochement:** The deal could initiate a broader reconciliation after nearly **five decades of hostility**, provided Iran limits its nuclear ambitions.
- **Political Reactions:** The MoU has drawn criticism in the US and weakened the position of actors favouring a hard-line approach, particularly **Israel**.
- **Regional Impact:** Reduced tensions could improve relations between **Iran and Gulf Arab states**, enhancing stability in the **Strait of Hormuz** and global energy markets.
- **Implications for India:** A more stable West Asia would strengthen **energy security**, boost **trade and connectivity projects**, and support India's long-term strategic interests.

The Islamabad MoU: A Surprising Diplomatic Breakthrough

- The **Islamabad Memorandum of Understanding (MoU)** was signed remotely by **Donald Trump** and **Masoud Pezeshkian**.
- Marks a significant shift from earlier rhetoric of “**unconditional surrender**” towards diplomatic engagement.
- Provides immediate concessions to Iran while leaving key commitments for future implementation.
- Has generated intense debate over its effectiveness and long-term viability.
- Signals a willingness by both sides to reduce decades-long hostility.

Political Repercussions in the United States and Israel

- Critics in the US argue that the agreement grants **front-loaded benefits** to Iran.
- Faces opposition from sections of Trump's own political support base.
- Represents a setback for **Benjamin Netanyahu**, who favoured a tougher approach towards Iran.
- Raises questions regarding the future direction of US Middle East policy.
- Highlights tensions between diplomatic engagement and strategic deterrence.

Towards a Possible US–Iran Rapprochement

- Suggests the possibility of a broader **grand bargain** between Washington and Tehran.
- Reflects recognition that prolonged confrontation imposes heavy **economic, strategic, and political costs**.
- Trump has indicated support for Iran's integration into the global economy if it abandons nuclear ambitions.
- Reform-oriented voices within Iran are advocating greater focus on **economic development** over regional confrontation.
- Could pave the way for a more stable regional security architecture.

Implications for the Gulf and Regional Stability

- Reduced tensions could improve relations between Iran and its **Arab Gulf neighbours**.
- Enhances stability in a region critical to global energy markets.
- Lowers risks associated with the **Strait of Hormuz**, through which a significant share of global oil trade passes.
- May reduce geopolitical uncertainties affecting global economic growth.
- Creates opportunities for deeper regional cooperation and investment.

Significance for India

- A stable Gulf directly strengthens India's **energy security**.
- Facilitates regional **connectivity projects**, trade corridors, and investment flows.
- Improves stability in India's western neighbourhood.
- Supports India's strategic interests in West Asia through reduced conflict and greater economic integration.
- Endorsement by **Narendra Modi** reflects India's preference for diplomacy, regional stability, and cooperative development.

Conclusion

The Islamabad MoU highlights the **enduring relevance of diplomacy** in resolving geopolitical conflicts. If it evolves into a broader reconciliation between the US, Iran, and **Gulf states**, it could transform **West Asia** from a theatre of confrontation into one of cooperation. For India, such stability would strengthen energy security, **connectivity, trade, and** its broader strategic engagement with the region.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. “A possible US–Iran rapprochement could reshape the geopolitical landscape of West Asia.” Examine its implications for regional stability and India's strategic interests. (10 marks, 150 words)

GLOBAL SOUTH IS BECOMING ANOTHER INDIA-CHINA ARENA

Why in News: China's new White Paper on global governance and the meeting between NSA Ajit Doval and Chinese Foreign

Minister Wang Yi have intensified the narrative competition over leadership of the Global South and future global governance.

Key Details

- **Global South leadership** is emerging as a new arena of strategic competition between **India and China**, extending beyond traditional geopolitical rivalry.
- **China's White Paper** seeks to establish Beijing as the natural leader of the Global South by promoting "**win-win cooperation**" and asserting that the Global South is incomplete without China.
- **India's approach** focuses on practical development partnerships, initiatives like the **Voice of Global South Summits**, and strategic autonomy rather than ideological leadership.
- **China has criticised** India's independent Global South outreach and attempts to portray India and China as cooperative "anchors" rather than strategic competitors.
- **India's comparative advantage** lies in demonstrating credible development outcomes, democratic values, and inclusive diplomacy instead of competing with China's political narratives as well.

India-China Meeting at BRICS

- On **June 22**, NSA **Ajit Doval** met Chinese Foreign Minister **Wang Yi** during the **16th BRICS NSA Meeting**.
- **India** stressed the need for **stable, predictable, and constructive bilateral relations**.
- It highlighted the **gradual normalisation** of ties after the **Galwan clash**.
- **China** projected the meeting as a **Global South cooperation** initiative.
- Wang Yi called for **India and China** to jointly accelerate the **modernisation of the Global South**.

China's Global South White Paper

- China released a **White Paper on Global Governance** five days before the meeting.
- It claims that **China will always remain a member of the Global South**.
- It argues that a **Global South without China is incomplete**.
- The paper promotes **China as a leader** of developing nations.
- It opposes the dominance of a **small group of powerful countries** in global affairs.

China's Strategy for the Global South

- China promotes "**win-win cooperation**" and **harmonious development**.
- It presents itself as a **partner for inclusive growth**.

- The White Paper adopts India's idea of bridging the **Global North and Global South** but describes it as "**synergising**" **North-South cooperation**.
- China contrasts its approach with what it calls the **opportunism** of the West and India.
- It seeks to strengthen its **leadership role** among developing countries.

India-China Differences

- China criticised India's **Voice of Global South Summits**, held without Chinese participation.
- Chinese analysts argued that such summits are **incomplete without China**.
- China accused India of influencing **Sri Lanka** to restrict Chinese ship visits.
- Beijing portrays India and China as **partners**, not strategic competitors.
- India maintains that its actions are based on **national interests** and regional security.

Implications for India

- China's narrative aims to **shape global leadership** in the developing world.
- India should avoid competing with China's **rhetoric**.
- Instead, India should highlight its **practical contributions** to the Global South.
- Examples include **development partnerships, capacity building**, and the **Voice of Global South Summits**.
- A strong **empirical record** will strengthen India's credibility and leadership among developing nations.

Conclusion

The debate over the **Global South** is increasingly shaping international politics. While China seeks to institutionalise its leadership through strategic narratives and governance proposals, India's strength lies in its democratic values, development partnerships, and inclusive diplomacy. Sustained engagement, credible delivery of development initiatives, and strategic autonomy will enable India to emerge as a trusted and influential voice of the Global South.

INDIA-NEW ZEALAND FTA, A MODERN TRADE PARTNERSHIP

Why in News: India and New Zealand have concluded negotiations for a **Free Trade Agreement (FTA)** aimed at boosting bilateral trade, investment, services, and market access while strengthening economic cooperation between the two countries.

Key Details

- The proposed **India-New Zealand FTA** seeks to expand bilateral trade through **duty-free market access**,

enhanced services trade, and a proposed **\$20 billion investment** over the next 15 years.

- New Zealand has offered **zero-duty access on 100% of its tariff lines**, benefiting Indian exports such as **textiles, apparel, leather, handicrafts, and engineering goods**, while India has protected sensitive sectors like dairy.
- The agreement goes beyond tariffs by promoting **faster customs clearance, digital certification, regulatory cooperation, and trade facilitation**, reducing transaction costs for businesses.
- Strict **Rules of Origin (RoO)**, documentation, and traceability provisions have been included to ensure only eligible products receive preferential tariff benefits and to prevent transshipment.
- Greater access for **IT, healthcare, education, consulting, and engineering services**, along with easier mobility for professionals and students, is expected to strengthen India's services exports.

India–New Zealand Trade and FTA

- India and New Zealand have maintained friendly relations, but bilateral trade has remained below its potential.
- Merchandise trade reached about **\$1.3 billion in FY 2024–25**, with India's exports at around **\$711 million**.
- India's exports recorded a **32% year-on-year growth**, indicating improving trade momentum.
- The proposed **India–New Zealand Free Trade Agreement (FTA)** aims to significantly expand bilateral trade and investment.
- The agreement includes **duty-free market access**, greater services access, and a proposed **\$20 billion investment** over the next 15 years.

Modern FTAs Go Beyond Tariffs

- Modern FTAs focus not only on tariff reduction but also on **trade facilitation and regulatory cooperation**.
- Businesses benefit from **faster customs clearance**, simpler procedures, and predictable regulations.
- Mutual recognition of certifications lowers compliance costs for exporters.
- Reduced transaction costs improve supply chain efficiency and competitiveness.
- Such measures are becoming as important as tariff concessions in global trade.

Benefits for Indian Exports and Services

- New Zealand has offered **duty-free access on 100% of its tariff lines** for Indian exports.
- Labour-intensive sectors such as **textiles, apparel, leather, and handicrafts** stand to gain significantly.
- India has protected **sensitive sectors like dairy** to safeguard domestic producers.
- Greater market access will benefit Indian **IT, consulting, engineering, healthcare, and education services**.
- Easier mobility for professionals and students will strengthen services trade.

Importance of Rules of Origin and Trade Facilitation

- Preferential tariff benefits will depend on compliance with **Rules of Origin (RoO)**.
- Exporters must prove that products satisfy prescribed origin requirements.
- The agreement includes strict **documentation, traceability, and product-specific rules** to prevent misuse.
- Faster customs procedures and digital certification systems will reduce delays and costs.
- Addressing **non-tariff barriers** will particularly benefit pharmaceuticals, agriculture, chemicals, and food processing.

Preparing Businesses to Maximise FTA Benefits

- Indian businesses should align operations with the new FTA framework.
- Firms should review **HS classifications** and ensure RoO compliance.
- Strong supply chain documentation and traceability systems will be essential.
- Companies should identify sector-specific export opportunities and optimise sourcing strategies.
- A facilitation-led trade policy will improve competitiveness through **lower transaction costs, better compliance, and easier market access**.

Conclusion

The proposed India–New Zealand FTA reflects India's shift towards a modern, facilitation-based trade policy that extends beyond tariff reductions. By improving market access, **strengthening services trade**, promoting investment, and **simplifying trade procedures**, the agreement can deepen bilateral economic ties. Its success, however, will depend on effective **implementation, business preparedness**, and strict compliance with trade rules.

LIMITS OF AMERICA

Why in News: The **U.S.–Iran Memorandum of Understanding (MoU)** has paused over 100 days of conflict, reopened diplomatic channels, and revived discussions on Iran's nuclear programme and regional stability.

Key Details

- **Conflict Background:** The **U.S. and Israel** launched military operations against **Iran** aiming to curb its **nuclear programme**, missile capabilities, and support for groups like **Hamas, Hezbollah, and Houthis**.
- **MoU Signed:** On **June 15**, the U.S. and Iran reached a **Memorandum of Understanding (MoU)** to halt hostilities and initiate phased diplomatic negotiations.
- **Strait of Hormuz Issue:** The agreement seeks to restore normal navigation in the **Strait of Hormuz** and **Gulf of Oman**, crucial global energy transit routes.
- **Nuclear Negotiations:** Core issues including **Iran's nuclear programme**, sanctions relief, frozen assets, and regional security will be addressed in future talks.
- **Regional Dynamics:** The development reflects a shift from a **military approach to diplomacy**, while concerns remain over potential disruptions from regional actors and allies.

From Military Confrontation to Diplomacy

- On **February 28**, the **U.S. and Israel** launched military operations against **Iran**.
- Their objectives included **regime change**, destruction of Iran's **nuclear and missile capabilities**, and curbing support for **Hamas, Hezbollah, and Houthis**.
- After more than **100 days of conflict**, military goals remained largely unfulfilled.
- The prolonged confrontation increased regional instability and economic uncertainty.
- This eventually pushed Washington towards a **diplomatic solution** rather than continued escalation.

U.S.–Iran Memorandum of Understanding (MoU)

- On **June 15**, the U.S. and Iran signed a **Memorandum of Understanding (MoU)** to halt hostilities.
- The agreement aims to remove disruptions in the **Strait of Hormuz** and the **Gulf of Oman**.
- It establishes a framework for future negotiations on Iran's **nuclear programme**.
- Iran is expected to receive access to some **frozen assets** and possible **reparations**.
- The MoU serves as a **preliminary confidence-building measure** before a final agreement.

Changing Regional Strategic Landscape

- The decision of **President Donald Trump** to proceed despite Israeli objections highlights shifting regional dynamics.
- Israel has found itself increasingly **isolated** in its approach toward Iran.
- The U.S. recognised the limitations of achieving its objectives through military means alone.
- Washington underestimated Iran's **strategic depth, resilience, and geographical advantages**.
- The conflict demonstrated that military superiority does not always guarantee political success.

Challenges to Lasting Peace

- The MoU is only the **first step** toward long-term peace and stability.
- Preventing renewed conflict between the **U.S. and Iran** or **Israel and Iran** remains a major challenge.
- Negotiations must address contentious issues such as **Iran's nuclear programme** and **Western sanctions**.
- Iran seeks sustained **economic relief**, making diplomacy an attractive option.
- Any breakdown in talks could quickly revive tensions across the region.

The Way Forward for Regional Stability

- Both Iran and the U.S. must remain committed to **diplomatic engagement**.
- Regional actors, including **Hezbollah** and **Israel**, should avoid actions that could derail negotiations.
- Iran should undertake **confidence-building measures** to strengthen trust in the process.
- The reopening of the **Strait of Hormuz** is essential for global energy security and regional stability.

- Sustained dialogue and compromise are crucial for restoring peace and preventing future conflicts in **West Asia**.

Conclusion

The **U.S.–Iran MoU** represents an important diplomatic opening after months of confrontation. While it reduces the immediate risk of escalation, lasting peace depends on **successful negotiations** over Iran's nuclear programme, sanctions, and regional security concerns. Sustained dialogue, confidence-building measures, and restraint by all regional stakeholders will be essential to ensure stability in **West Asia** and safeguard global energy security.

LINE OF ACTUAL CONTROL (LAC)

Why in News: The Line of Actual Control (LAC) was in news following discussions on India–China border management, military deployments, and strategic concerns in Ladakh amid efforts to maintain peace and stability.

Key Details

- LAC is the de facto boundary separating Indian and Chinese-controlled territories.
- It stretches about 3,488 km and is divided into Western, Central, and Eastern Sectors.
- The Western Sector (Ladakh–Aksai Chin) remains the most disputed region.
- Differing perceptions of the boundary alignment frequently cause tensions and military standoffs.
- Maintaining peace along the LAC is crucial for India–China relations, regional stability, and security.

What is the LAC?

- The Line of Actual Control (LAC) is the de facto military boundary between India and China.
- It separates areas under the administrative control of both countries.
- The term gained prominence after the 1962 India–China War.
- It is not an internationally recognized border.
- Differing perceptions of the boundary often lead to tensions.

Length and Sectors

- The LAC is approximately 3,488 km long.
- It is divided into three sectors: Western, Central, and Eastern.
- The Western Sector includes Ladakh and Aksai Chin.
- The Central Sector covers parts of Himachal Pradesh and Uttarakhand.
- The Eastern Sector largely follows the McMahon Line near Arunachal Pradesh.

Western Sector

- The most sensitive and disputed sector of the LAC.
- China controls Aksai Chin, while India claims it as part of Ladakh.
- Key friction points include Depsang Plains, Galwan Valley, and Pangong Tso.
- Frequent military patrol confrontations occur in this region.
- It has witnessed major India–China standoffs.

Central Sector

- Covers Himachal Pradesh and Uttarakhand.
- Considered the least disputed sector.
- Experiences relatively fewer border disagreements.
- Barahoti remains an area of occasional contention.
- Generally maintains peaceful border management.

Eastern Sector

- Extends from Bhutan's eastern boundary to Myanmar.
- Closely associated with the McMahon Line (1914).
- India recognizes the McMahon Line as the boundary.
- China disputes parts of Arunachal Pradesh, referring to it as "South Tibet."
- Tawang is a major strategic and religious centre in this sector.

Reasons for Disputes

- Absence of a mutually accepted boundary alignment.
- Lack of formal demarcation on the ground.
- Conflicting historical claims and maps.
- Overlapping patrol routes and territorial claims.
- Growing strategic competition and infrastructure development.

Importance of the LAC

- Critical to India's national security.
- Influences overall India–China bilateral relations.
- Essential for maintaining regional stability.
- Impacts trade, diplomacy, and strategic planning.
- Remains a key agenda in border negotiations.

Border Management Mechanisms

- Guided by several bilateral agreements since 1993.
- Regular Corps Commander-level talks help reduce tensions.
 - Border Personnel Meetings (BPMs) improve communication.
 - Use of diplomatic and military channels for conflict resolution.
 - Adoption of Confidence-Building Measures (CBMs) to prevent escalation.

Conclusion

The **Line of Actual Control (LAC)** remains one of the most sensitive and strategically important boundaries in Asia. While various diplomatic and military mechanisms have helped manage tensions, the absence of a mutually accepted border continues to create challenges. Sustained dialogue, confidence-building measures, and peaceful dispute resolution are essential for ensuring stability and strengthening **India–China relations**.

NEW AND RAW

Why in News: Recent visits by Nepal's Foreign Minister Shisir Khanal and other leaders to India indicate renewed diplomatic engagement amid territorial disagreements, signalling efforts to strengthen India–Nepal relations.

Key Details

- **Shisir Khanal's visit** marked the first high-level engagement with India after Nepal's new government assumed power.
- India and Nepal are working to improve ties despite disputes over **Lipulekh, Limpiyadhura**, and other border issues.

- Nepal sought to ease tensions arising from statements made by Prime Minister **Balen Shah** regarding territorial claims.
- Discussions focused on **border management, water-sharing agreements, trade, infrastructure projects, and energy cooperation**.
- Both countries recognise the need to avoid mistrust and maintain strong **neighbourhood diplomacy** in South Asia.

Recent High-Level Visits

- Nepal Foreign Minister **Shisir Khanal** visited India amid increasing diplomatic exchanges.
- The visit followed that of **RSP President Rabi Lamichhane** and preceded a proposed visit by Finance Minister **Swarnim Wagle**.
- It was Khanal's first India visit since Nepal's new government came to power.
- The meetings are viewed as preparations for a future visit by Prime Minister **Balen Shah**.
- The engagements indicate a gradual effort to strengthen **India–Nepal relations**.

Background of Diplomatic Tensions

- Prime Minister **Balen Shah** recently raised concerns regarding disputed border territories.
- He accused India of occupying parts of Nepal and claimed Nepal controls some Indian territory.
- His remarks generated concern and dissatisfaction in New Delhi.
- Nepal's outreach aimed to reduce tensions and improve mutual understanding.
- Both sides recognised the importance of preventing diplomatic misunderstandings.

Border and Territorial Issues

- Disputes continue over **Lipulekh, Limpiyadhura**, and adjoining border regions.
- Nepal has repeatedly asserted claims over these territories.
- India rejects the involvement of any **third party** in resolving bilateral disputes.
- Concerns were heightened by Nepal's references to consultations with **China** and the **United Kingdom**.
- The issue may gain attention again during the **Kailash Mansarovar Yatra** season.

Areas of Bilateral Cooperation

- Both countries cooperate on **border management** and security issues.
- Discussions include revising **water-sharing agreements** and river management mechanisms.
- India remains a major partner in Nepal's **infrastructure development**.
- Expanding **trade and connectivity** remains a shared priority.
- Energy cooperation, especially in **hydropower**, offers significant opportunities.

Regional Significance

- India's diplomacy has become more complex due to political changes across South Asia.

- Youth-led movements have transformed politics in countries such as **Nepal, Bangladesh, Sri Lanka**, and the **Maldives**.
- These developments require India to adapt its **regional engagement strategy**.
- Strong ties with Nepal are essential for regional stability and connectivity.
- Constructive dialogue can help prevent recurring cycles of mistrust.

Conclusion

India and Nepal share deep **historical, cultural**, and **economic ties** that extend beyond temporary political disagreements. While territorial disputes remain sensitive, **sustained dialogue and mutual respect** can prevent tensions from escalating. Expanding cooperation in trade, connectivity, energy, and development projects will **strengthen bilateral relations** and contribute to stability, prosperity, and **regional cooperation across South Asia**.

CHINA SIGNALS READINESS TO DEEPEN TIES WITH INDIA

Why in News: China has expressed its willingness to strengthen relations with India by enhancing mutual trust, managing differences, and expanding cooperation. The statement came after **Chinese Foreign Minister Wang Yi met Prime Minister Narendra Modi** during his visit to India for the **BRICS National Security Advisers (NSAs) Meeting**, reflecting continued diplomatic efforts by both countries to stabilise bilateral ties after years of border tensions.

China Calls for Greater Mutual Trust and Cooperation



In a significant diplomatic development, **China has reiterated its commitment to improving relations with India**, emphasising the need to build mutual trust, resolve differences through dialogue, and deepen practical cooperation.

Following Chinese Foreign Minister **Wang Yi's** meeting with **Prime Minister Narendra Modi**, China's Foreign Ministry

stated that both countries should work together to implement the consensus reached by their leaders and maintain the positive momentum in bilateral relations.

According to **Lin Jian**, spokesperson of China's Ministry of Foreign Affairs, China is prepared to work "side by side" with India to:

- **Enhance mutual trust and dispel misunderstandings;**
- **Properly manage sensitive issues**, particularly those affecting bilateral relations;
- **Expand mutually beneficial cooperation** across various sectors;
- **Support each other's modernisation and development goals;** and
- **Maintain the improving trajectory of India-China relations.**

The statement reflects Beijing's intention to stabilise ties through sustained diplomatic engagement while preventing differences from overshadowing areas of cooperation.

Wang Yi's Meeting with Prime Minister Narendra Modi

The meeting between **Prime Minister Narendra Modi** and **Chinese Foreign Minister Wang Yi** took place after the conclusion of the **BRICS National Security Advisers (NSAs) Meeting** held in India on **22–23 June**.

During the interaction, Prime Minister Modi conveyed his greetings to:

- **President Xi Jinping**, and
- **Premier Li Qiang**,

while reiterating India's support for strengthening cooperation under the **BRICS framework**.

The meeting signifies continued high-level political engagement between the two Asian powers, even as complex bilateral issues remain under discussion.

Focus on Implementing Leaders' Consensus

Chinese officials emphasised that both countries should translate the understandings reached by their leadership into concrete actions.

According to Chinese Ambassador to India **Xu Feihong**, Foreign Minister Wang Yi stressed that India and China, as:

- the **world's two largest developing countries**, and
 - leading voices of the **Global South**,
- have a shared responsibility to promote:
- solidarity among developing nations,
 - strategic autonomy,
 - South-South cooperation, and
 - collective self-reliance in an increasingly uncertain global order.

China also expressed its readiness to work closely with India in implementing the important consensus reached between the leaders of the two countries.

Support for India's BRICS Chairmanship

China reaffirmed its support for India's role as the **rotating Chair of BRICS**, stating that it is willing to cooperate with New Delhi to ensure meaningful progress in the grouping's agenda. The statement highlights China's intention to strengthen collaboration within BRICS on issues such as:

- reform of global governance,
- strengthening the voice of developing countries,
- economic cooperation,
- sustainable development, and
- multilateralism.

Significance of the Development

The latest diplomatic exchanges indicate that **both India and China are attempting to sustain the gradual normalisation of bilateral relations** despite continuing challenges, particularly along the Line of Actual Control (LAC).

The emphasis on "**enhancing mutual trust and dispelling doubts**" reflects recognition by both sides that long-term stability requires confidence-building measures alongside dialogue on sensitive issues.

For India, engagement with China remains important due to:

- **border peace and stability,**
- **regional security,**
- **trade and economic interdependence,**
- **multilateral cooperation through BRICS and the Shanghai Cooperation Organisation (SCO), and**
- **coordination on issues concerning the Global South.**

For China, maintaining stable relations with India supports regional stability and strengthens cooperation among major emerging economies during a period of evolving geopolitical competition.

Conclusion

China's latest outreach signals a renewed diplomatic effort to place **cooperation above confrontation**, while acknowledging that unresolved differences must be managed responsibly. Although significant challenges remain, particularly regarding the boundary dispute, continued high-level engagement and collaboration in multilateral forums such as **BRICS** offer opportunities for both countries to gradually rebuild confidence and pursue areas of shared strategic interest.

G7 SUMMIT

Why in News: Prime Minister **Narendra Modi** participated in the **G7 Outreach Summit** held in **Evian, France**, where he addressed the session on "**Forging New Partnerships and Rebuilding International Solidarity.**" During the summit, he emphasised that **trust has become the world's most valuable strategic asset**, advocated for a **partnership-based development model** for the Global South, and held key bilateral meetings with leaders including **U.S. President Donald Trump** and **Canadian Prime Minister Mark Carney**.

India at the G7 Outreach Summit

- At the **G7 Outreach Summit**, Prime Minister Narendra Modi projected India's vision of a more **inclusive, equitable, and trust-based international order**. Addressing world leaders, he observed that while the world possesses abundant resources, it faces a severe **deficit of trust**, making confidence-building the foremost strategic challenge of the present era.
- **Trust (The Foundation of Global Cooperation):** The central message of India's intervention was that **mutual trust is the cornerstone of sustainable international partnerships**.
- PM Modi argued that global cooperation must move **beyond the traditional donor-recipient relationship**, replacing it with partnerships based on **equality, mutual respect, and shared responsibility**. According to India, developing nations no longer seek charity but meaningful collaboration that respects their aspirations and developmental priorities.

- ***This vision aligns closely with India's long-standing advocacy for the Global South, where it has positioned itself as a bridge between advanced economies and developing countries.***

India's Development Partnership with the Global South

- Highlighting India's expanding international development footprint, the Prime Minister showcased India's cooperation across several sectors, particularly in **Africa**, including:
 - Capacity building and skill development
 - Agriculture and food security
 - Water management
 - Renewable energy
 - Digital public infrastructure
 - Human resource development
- India reiterated that its development model focuses on **partnership rather than dependency**, helping countries build long-term institutional capacities.

India's Position on G7 Declarations

- While participating actively in summit discussions, India adopted a **selective and independent diplomatic approach**.
- India **did not endorse** the G7 communiqué on **restructuring the global development finance architecture**, signalling that it preferred further consultations on issues affecting developing economies.
- However, India **supported** international initiatives relating to:
 - Coordinated response to the **Bundibugyo Ebola outbreak**
 - Global roadmap for **cancer prevention and treatment**
- This reflects India's issue-based diplomacy, where support is extended based on national interests and broader developmental concerns.

India-U.S. Engagement

- On the sidelines of the summit, Prime Minister Modi held his **first meeting with U.S. President Donald Trump since February 2025**.
- The interaction reflected the continuing importance of the **India-U.S. Comprehensive Global Strategic Partnership**, particularly amid evolving geopolitical and economic challenges.
- Although no major announcements emerged, the meeting reaffirmed sustained high-level political engagement between the two democracies.

India-Canada Relations Gain Fresh Momentum

- Prime Minister Modi also held bilateral talks with **Canadian Prime Minister Mark Carney**, marking another significant step in rebuilding bilateral ties.
- Notably, this was the **fourth meeting between the two leaders within a year**, reflecting renewed political engagement following previous diplomatic tensions.
- **Major Areas of Discussion:** The leaders reviewed cooperation in:
 - Trade and investment
 - Energy security

- Critical minerals
- Technology and innovation
- People-to-people exchanges
- Both sides also expressed their commitment to:
 - Concluding the **India-Canada Free Trade Agreement (FTA)**
 - Strengthening economic cooperation
 - Expanding strategic collaboration in emerging technologies
- Prime Minister Modi expressed his intention to visit **Canada later this year** at the invitation of Prime Minister Carney.

- Canada remains one of the world's leading energy exporters and an important partner for India's long-term energy security.
- A major milestone has been the **CAD 2.6 billion uranium supply agreement (2027-2035)** signed between **Cameco** and India's **Department of Atomic Energy**, strengthening India's civilian nuclear energy programme.

Gradual Reset in India-Canada Relations

- The renewed engagement comes after a period of strained diplomatic relations following allegations made by the previous Canadian government regarding the killing of **Hardeep Singh Nijjar**.
- India had consistently rejected those allegations while expressing concerns over extremist activities targeting Indian interests in Canada.
- Recent leadership changes in Canada have opened opportunities for rebuilding bilateral relations through constructive dialogue and greater economic cooperation.

Significance

The G7 Outreach Summit highlighted India's expanding role as a **leading voice of the Global South** and an increasingly influential stakeholder in global governance.

India's diplomacy during the summit demonstrated three key priorities:

- Promoting **trust-based and equitable global partnerships**.
- Strengthening strategic ties with major economies while maintaining **strategic autonomy**.
- Expanding cooperation in **trade, technology, energy security, healthcare, and sustainable development**.

The summit reinforced India's vision of a **multipolar, inclusive, and development-oriented international order**, where emerging economies play a greater role in shaping global decision-making.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. India's participation in the G7 Outreach Summit highlights its transition from a passive participant to a leading voice of the Global South, skillfully balancing issue-based diplomacy with strategic autonomy. (150 Words, 10 Marks)

INDIA SECURES FATF VICE-PRESIDENCY FOR THE FIRST TIME

Why in News: In a significant diplomatic and financial governance achievement, **India has been elected to the Vice-Presidency of the Financial Action Task Force (FATF) for the first time.**

INDIA'S ROLE VOICE OF THE GLOBAL SOUTH

India Participated as a Special Invitee

India's Key Priorities

- Reform of Global Governance
- Amplifying Global South Concerns
- Inclusive Development
- India-Africa Cooperation
- Trust-Based International Relations

Why It Matters?

India increasingly acts as a bridge between developed economies and developing nations.



G7 SUMMIT 2026

What Was It About?

Theme:

"Forging New Partnerships and Rebuilding International Solidarity"

Formation:

- 1975 (G6) → 1976 (G7)
- Russia (1998-2014) → G8 phase

Key Features

- Informal grouping
- No permanent secretariat
- Consensus-based decisions
- Rotating presidency

Major Global Challenges Discussed

- Economic Slowdown
- AI Governance
- Climate Change
- Energy Security
- Geopolitical Conflicts
- Debt Crisis in Developing Countries
- Supply Chain Resilience

Core Message

Building cooperation in an increasingly fragmented world.



Energy Cooperation

- Energy emerged as one of the strongest pillars of the India-Canada partnership.

A Historic Achievement for India

The appointment marks **India's first-ever leadership position** in the FATF since becoming a full member in **2010**. Vivek Aggarwal will succeed **Giles Thomson (United Kingdom)** as FATF Vice-President and will assist the incoming UK Presidency in steering the organisation's work on combating:

- Money laundering,
- Terrorist financing, and
- Financing of the proliferation of Weapons of Mass Destruction (WMD).

Why is this Appointment Significant?

India's elevation to the FATF leadership is being viewed as international recognition of its sustained efforts to strengthen financial integrity and combat illicit financial flows.

The appointment is significant because it:

- Enhances India's influence in global financial governance.
- Recognises India's strong performance during its recent FATF Mutual Evaluation.
- Reflects confidence in India's Anti-Money Laundering (AML) and Counter-Terrorist Financing (CFT) framework.
- Strengthens India's role in shaping international standards on emerging financial crimes, including those involving digital payments, cryptocurrencies, and virtual assets.
- Reinforces India's policy of **zero tolerance towards terrorism and terror financing**.

What is the Financial Action Task Force (FATF)?

The **Financial Action Task Force (FATF)** is the world's premier intergovernmental body responsible for setting global standards to combat:

- Money laundering,
- Terrorist financing, and
- Financing related to the proliferation of Weapons of Mass Destruction.

Established in **1989** by the **G7 countries** in Paris, FATF initially focused only on combating money laundering.

Following the **September 11 terrorist attacks (2001)**, its mandate was expanded to include **terrorist financing**.

In **2012**, FATF further broadened its scope to address the financing of **Weapons of Mass Destruction (WMD)** proliferation.

Objectives of FATF

The organisation seeks to:

- Develop international standards against money laundering.
- Prevent terrorist financing.
- Combat financing related to WMD proliferation.
- Promote transparency in the international financial system.
- Strengthen cooperation among countries against financial crimes.

FATF Recommendations

The FATF has developed globally accepted standards known as the **FATF Recommendations**.

Originally issued in **1990** as **40 Recommendations**, these standards have evolved to address emerging financial threats. Today, they provide the international benchmark for countries to establish effective:

- Anti-Money Laundering (AML) systems,
- Counter-Terrorist Financing (CFT) measures, and
- Counter-Proliferation Financing frameworks.

More than **200 jurisdictions** have committed to implementing these standards through the FATF Global Network.

FATF Membership

The FATF currently consists of:

- **40 full members**
 - **38 individual jurisdictions**
 - **2 regional organisations:**
 - ✓ European Commission
 - ✓ Gulf Cooperation Council (GCC)

In addition, the FATF Global Network includes:

- **9 FATF-Style Regional Bodies (FSRBs)**.
- More than **20 observer organisations**, including:
 - International Monetary Fund (IMF),
 - World Bank,
 - United Nations agencies.

India and FATF

India's engagement with FATF has steadily expanded.

- **2006** – India joined FATF as an **Observer**.
- **2010** – India became a **Full Member**.
- **2026** – India secured the **Vice-Presidency** for the first time.

India has also emerged as an active contributor to FATF discussions on:

- Terror financing,
- Digital payments,
- Cryptocurrency regulation,
- Virtual Asset Service Providers (VASPs),
- Cross-border financial crimes.

FATF Secretariat

The **FATF Secretariat** is located at the **Organisation for Economic Co-operation and Development (OECD)** Headquarters in **Paris, France**.

The Secretariat:

- Supports FATF's technical and administrative work.
- Coordinates meetings and evaluations.
- Assists member countries in implementing FATF standards.

Its functioning is financed through annual contributions made by FATF members.

FATF Plenary

The **FATF Plenary** is the organisation's highest decision-making body.

It:

- Meets **three times every year**.
- Reviews implementation of FATF standards.
- Adopts reports and recommendations.
- Decides on Grey List and Black List placements.
- Elects the FATF President and Vice-President.



FATF Grey List

Jurisdictions under Increased Monitoring as of **19th June 2026**



FATF Grey List and Black List

One of FATF's most influential functions is monitoring countries' compliance with global AML/CFT standards.

Grey List (Jurisdictions Under Increased Monitoring)

Countries placed on the Grey List have strategic deficiencies in their AML/CFT systems but have committed to implementing corrective action plans.

Grey-listing often results in:

- Increased international financial scrutiny.
- Reduced investor confidence.
- Higher borrowing costs.
- Difficulties in attracting foreign investment.

Black List (High-Risk Jurisdictions)

The Black List includes countries with severe deficiencies that pose significant risks to the international financial system.

These jurisdictions may face:

- Economic sanctions.
- Restrictions on financial transactions.
- Reduced international trade.
- Difficulties accessing international financial institutions.

At present, **Iran, North Korea, and Myanmar** remain on the FATF Black List.

Challenges Before FATF

Despite its global influence, FATF faces several operational challenges:

- Uneven implementation of standards across countries.
- Capacity constraints in developing economies.
- Weak domestic regulatory institutions.
- Increasing use of cryptocurrencies and digital assets.
- Informal cross-border financial networks.

- Terrorist exploitation of crowdfunding and emerging technologies.
- Complex assessment methodologies.

Strengthening the FATF Framework

To enhance global financial integrity, experts recommend:

- Adopting risk-based AML/CFT frameworks.
- Strengthening international information sharing.
- Expanding financial intelligence cooperation.
- Leveraging Artificial Intelligence and Machine Learning for transaction monitoring.
- Enhancing regulation of virtual assets and digital payment ecosystems.
- Improving coordination among international organisations.

Significance for India

India's assumption of the FATF Vice-Presidency is expected to:

- Enhance its global diplomatic profile.
- Strengthen its leadership in international financial governance.
- Improve cooperation against cross-border terrorism.
- Support India's efforts to combat terror financing originating outside its borders.
- Enable greater influence in shaping future global AML/CFT standards.
- Reinforce India's role as a responsible stakeholder in safeguarding the international financial system.

Conclusion

India's election to the **Vice-Presidency of the Financial Action Task Force** marks a watershed moment in its engagement with global financial governance. Beyond being a diplomatic success, it reflects international recognition of India's robust anti-money laundering and counter-terror financing architecture. As financial crimes increasingly exploit digital technologies and cross-border networks, India's leadership within FATF provides an opportunity to shape global standards while advancing the broader objective of securing a

transparent, resilient, and rules-based international financial system.

INDIA TO DEVELOP 74 NEW LAND PORTS

Why in News: India has unveiled an ambitious plan to establish **74 new Integrated Land Ports** along its international borders in the coming years. The initiative aims to strengthen **cross-border trade, connectivity, border infrastructure, and people-to-people movement**, while reinforcing India's strategic presence along sensitive frontiers, particularly those with **China, Pakistan, Nepal, Bangladesh, Bhutan, and Myanmar**.

Key Highlights of the Expansion Plan

1. Strengthening the China Border

India plans to establish **three new land ports** along the border with China:

- **Namgia (Himachal Pradesh)**
- **Gunji (Uttarakhand)**
- **Nathu La (Sikkim)**

At present, **India has only one operational Integrated Land Port on the China border**, making this expansion strategically significant.

Although border trade was permitted through **Lipulekh Pass (1992), Shipki La Pass (1995), and Nathu La Pass (2006)**, commercial exchanges have remained **suspended since the COVID-19 pandemic in 2020**.

Note: Border trade points merely facilitate limited trade, whereas **Integrated Land Ports provide full-fledged customs, immigration, cargo handling, and logistics infrastructure**.

2. Expanding Connectivity along the Pakistan Border

India has proposed **six new land ports** on the Pakistan border:

- **Teetwal (Jammu & Kashmir)**
- **Adusa (Jammu & Kashmir)**
- **Chakan Da Bagh (Jammu & Kashmir)**
- **Attari Railway Station (Punjab)**
- **Hussainiwala (Punjab)**
- **Munabao Railway Station (Rajasthan)**

Currently, **Attari Integrated Check Post in Punjab** remains the only operational land port on the India-Pakistan border.

Trade through the **Salamabad (Uri)** and **Chakan Da Bagh (Poonch)** facilitation centres along the **Line of Control (LoC)** has remained suspended since the **2019 Pulwama terrorist attack**.

3. MAJOR EXPANSION ACROSS OTHER NEIGHBOURING BORDERS



The second phase of the expansion focuses on strengthening connectivity with South Asian neighbours.

NEIGHBOURING COUNTRY		PROPOSED NEW LAND PORTS
	NEPAL	 13
	BANGLADESH	 12
	BHUTAN	 4
	MYANMAR	 2

STRENGTHENING INDIA'S CONNECTIVITY AND REGIONAL PARTNERSHIPS



SUPPORTING INDIA'S BROADER VISION



Promoting regional economic integration



Enhancing border infrastructure



Supporting initiatives like **Neighbourhood First Policy** and **Act East Policy**

Why is this Expansion Important?

The proposed network of land ports is expected to generate multiple strategic and economic benefits:

- **Boost cross-border trade** through faster customs clearance and modern logistics.
- **Improve ease of movement** for passengers and commercial vehicles.

- **Strengthen border security** through integrated surveillance and regulated crossings.
- **Promote regional connectivity** under India's neighbourhood diplomacy.
- **Support border-area development** by creating employment and improving infrastructure.
- **Enhance disaster response and humanitarian assistance** by enabling better logistical access.

Strategic Significance

The proposal assumes greater importance amid evolving geopolitical dynamics in South Asia.

- Along the **China border**, new land ports will improve India's infrastructure in strategically sensitive Himalayan regions and prepare the country for the eventual resumption of border trade.
- Along the **Pakistan border**, enhanced infrastructure strengthens administrative preparedness while

facilitating any future confidence-building trade measures.

- Expanded connectivity with **Nepal, Bangladesh, Bhutan, and Myanmar** aligns with India's efforts to deepen regional integration through multimodal transport and economic corridors.

Way Forward

The proposed expansion of India's Integrated Land Port network represents far more than an infrastructure project. It is a strategic investment in **economic resilience, border management, regional connectivity, and national security**. As India seeks to emerge as a regional trade hub and strengthen ties with its neighbours, modern land ports will serve as critical gateways connecting domestic markets with South Asia and beyond. Their timely development will play a pivotal role in enhancing **trade competitiveness, facilitating people-to-people exchanges, and reinforcing India's strategic interests along its international borders**.

ECONOMY & AGRICULTURE

AMID RISING INFLATION, RBI CANNOT NEGLECT GROWTH

Why in News: The RBI Monetary Policy Committee is reviewing the repo rate amid rising inflation driven by higher crude oil prices, global geopolitical tensions, and concerns over economic growth and capital inflows.

Key Details

- **Inflationary pressures** have increased due to rising crude oil prices following tensions in West Asia and disruptions in the Strait of Hormuz.
- **Wholesale inflation** has crossed 8%, while retail inflation has risen to 3.5% and may increase further.
- Many economists expect retail inflation to reach 5%, above the RBI's 4% target but within its 2–6% tolerance band.
- The RBI faces a dilemma between **controlling inflation** and **supporting economic growth**, as higher rates may slow investment and demand.
- Markets are closely watching the RBI's stance on the **rupee exchange rate**, forex reserves, and measures to attract foreign capital.

Repo Rate Decision Under Focus

- The **Reserve Bank of India (RBI)** and its **Monetary Policy Committee (MPC)** are set to review the **repo rate**, the rate at which the RBI lends funds to commercial banks.
- Normally, the RBI raises the repo rate when inflation rises beyond desirable levels to curb excess demand.
- Rising inflationary pressures have renewed discussions about a possible repo rate hike.

Rising Inflation Concerns

- The **Iran conflict** and disruptions in the **Strait of Hormuz** have pushed up prices of crude oil and other essential imports.
- **Wholesale inflation** has already crossed 8%, indicating significant cost pressures in the economy.
- **Retail inflation** has increased to 3.5%, after falling to around 2% in the previous financial year.
- A weaker-than-expected **monsoon** could further increase food prices by affecting agricultural production.
- Several economists expect retail inflation to reach 5% and remain elevated during the year.

Arguments Supporting a Repo Rate Hike

- The RBI's inflation target remains 4%, making persistent inflationary pressures a concern.
- Higher wholesale prices may gradually pass on to consumers through increased retail prices.
- Rising inflation expectations could weaken consumer purchasing power and economic stability.
- A repo rate increase could help contain inflation and maintain price stability.

Why the RBI May Exercise Caution

- Current inflation is largely driven by **supply-side factors**, particularly constrained crude oil supplies.
- Raising interest rates cannot directly increase the availability of oil or other imported commodities.
- Higher borrowing costs may slow **economic growth** and investment at a crucial stage of recovery.
- A potential **US-Iran peace agreement** could improve oil supplies and reduce global oil prices.
- Even if inflation rises to 5%, it would remain within the RBI's acceptable **2–6% tolerance band**.

Key Issues Beyond the Repo Rate

- The RBI Governor's comments on the broader economy will be closely monitored by markets.
- One major issue is the **rupee exchange rate** and whether the RBI will allow market forces to determine its value or use forex reserves to support it.
- Another key concern is attracting **foreign capital inflows** to strengthen investment and economic growth.
- The RBI's approach towards exchange-rate management and capital attraction will provide important policy signals.
- These broader policy directions may prove more significant than the repo rate decision itself.

Conclusion

The RBI's policy decision reflects the challenge of balancing inflation control with growth objectives amid global uncertainty. **While inflation risks have increased**, much of the pressure arises from supply-side disruptions beyond monetary policy's direct control. Therefore, the RBI's **broader guidance on exchange-rate management**, capital inflows, and **economic stability** will be as important as its repo rate decision.

EXPEDUCATION QUESTION FOR UPSC CSE

Descriptive Question

Q. "Central banks often face a trade-off between controlling inflation and sustaining economic growth." Discuss in the context of the Reserve Bank of India's monetary policy challenges amid global geopolitical uncertainties. (15 Marks, 250 Words)

BASE AND FRAMEWORK

Why in News: The Ministry of Statistics and Programme Implementation released the first IIP data based on the 2022–23 base year, showing 4.9% industrial growth and introducing significant methodological revisions.

Key Details

- **IIP grew 4.9%** year-on-year in April 2026.
- **Capital goods output** increased by a strong 16%.
- New sector added: **Water Supply, Sewerage and Waste Management**.
- **Electricity and Gas Supply** weight increased to 10.87%.

- Government plans a **chain-linked IIP framework** with frequent weight updates.

Industrial Growth in April 2026

- Index of Industrial Production (IIP) recorded 4.9% year-on-year growth in April 2026.
- This is the first release based on the new 2022–23 base year series.
- The data indicates that India's industrial sector remained relatively resilient despite global economic disruptions.
- Growth came amid uncertainties in global oil and gas supply chains.
- The figures provide an updated picture of India's evolving industrial structure.

Performance of Key Industrial Segments

- Capital goods output expanded by a strong 16%, reflecting continued public investment and infrastructure spending.
- Consumer durables registered moderate growth of 4.3%.
- Consumer non-durables grew by only 2.8%.
- Slower consumer goods growth suggests pressure on household demand.
- Rising fuel and energy prices may be affecting consumer spending patterns.

Major Reforms in the IIP Series

- The revised IIP includes new products and sectors while removing obsolete items.
- The index basket, weights, and methodology have undergone significant changes.
- The reforms aim to better reflect the structure of a modern and dynamic economy.
- The revised framework captures emerging industrial activities more effectively.
- It enhances the accuracy and relevance of industrial measurement.

Changes in Sectoral Weights

- A new sector, Water Supply, Sewerage and Waste Management, has been added with a 2.02% weight.
- Electricity has been expanded to Electricity and Gas Supply, with weight increasing to 10.87%.
- Manufacturing remains dominant but its weight has slightly declined to 76.06%.
- Mining and Quarrying weight has fallen significantly to 11.05%.
- The changes reflect the growing role of utilities and value-added services in industrial activity.

Significance for India's Economy

- The revised index better captures India's transition towards value-added manufacturing.
- It reflects deeper integration into global supply chains.
- Reduced emphasis on resource extraction highlights structural economic transformation.
- The government plans to adopt a chain-linked framework with frequent weight revisions.
- This will make industrial statistics more responsive, accurate, and timely in tracking economic changes.

Conclusion

The revised IIP series reflects India's changing industrial structure and growing role in value-added manufacturing and global supply chains. While industrial growth remains resilient, uneven consumer demand highlights underlying challenges. The inclusion of new sectors and updated weights enhances the index's relevance. A future chain-linked framework will improve the accuracy, responsiveness, and policy usefulness of industrial statistics.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Discuss the significance of the revised Index of Industrial Production (IIP) series based on the 2022–23 base year. How do the changes improve the measurement of India's industrial performance? (250 words, 15 marks)

ESSENTIAL UPGRADES

Why in News: The Government has overhauled India's statistical system by updating **GDP, CPI, WPI, and IIP** series and introducing **PPI**, enhancing data accuracy, international comparability, and evidence-based policymaking.

Key Details

- **GDP Series Updated:** New **2022-23 base year** with improved methodologies, including the **Double-Deflator Approach**.
- **CPI Revised:** New **2024 base year**, broader consumption basket, and updated weightages for better inflation measurement.
- **IIP Modernised:** **2022-23 base year** and strengthened data collection to better capture industrial performance.
- **WPI Updated:** Revised series improves measurement of wholesale price movements and strengthens GDP deflator calculations.
- **PPI Introduced:** New **Producer Price Index** to gradually replace WPI, aligning India with global statistical best practices.

Updating Base Years for Greater Accuracy

- **Base years** of major economic indicators were outdated (**2011-12/2012**), reducing their relevance over time.
- Government has revised **base years** to better reflect current economic realities.
- This aligns India's **statistical framework** with evolving economic structures and consumption patterns.
- Enhances **reliability, accuracy, and comparability** of economic data.
- Brings India closer to **international statistical standards**.

Revamped GDP Estimation Methodology

- **Ministry of Statistics and Programme Implementation (MoSPI)** introduced a new **GDP series** with **2022-23 as the base year**.
- Incorporates improved **methodologies** and richer **data sources**.
- Uses the **Double-Deflator Approach**, long recommended by statisticians and the **International Monetary Fund (IMF)**.
- Provides more **granular, robust, and representative** estimates of economic activity.

- Strengthens the credibility of **National Accounts Statistics**.

Improved Inflation Measurement through New CPI

- New **Consumer Price Index (CPI)** series released with **2024 as the base year**.
- Includes a broader and more representative **consumption basket**.
- Revises **weightages** to reflect current household spending patterns.
- Enables more accurate assessment of **retail inflation**.
- Supports better **monetary policy** **formulation** and **interest-rate decisions**.

Modernisation of Industrial and Wholesale Price Indicators

- New **Index of Industrial Production (IIP)** launched with **2022-23 base year**.
- Strengthened **data collection mechanisms** improve measurement of industrial output.
- **Ministry of Commerce and Industry** updated the **Wholesale Price Index (WPI)** series.
- More accurate **IIP** and **WPI** improve estimation of the **GDP Deflator**.
- Enhances understanding of **production trends** and **price movements** across sectors.

Introduction of Producer Price Index (PPI) & Way Forward

- Government introduced a new **Producer Price Index (PPI)**.
- **PPI** is expected to replace **WPI** within the next **five years**.
- Measures **producer-level prices** for both **goods** and **services**.
- Reflects **global best practices** followed by advanced economies.
- Reforms are likely to improve India's **data-quality rating** by the **International Monetary Fund**.
- Timely completion and release of the **Census of India** remains the next critical step for strengthening India's **statistical ecosystem** and **evidence-based policymaking**.

Conclusion

The statistical reforms mark a significant step towards creating a **modern, transparent, and globally aligned data ecosystem**. Accurate measurement of growth, inflation, and production enhances policy effectiveness, investor confidence, and public trust. However, the benefits of these reforms will be fully realized only through timely data releases, especially the **Census**, and continued methodological improvements.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Reliable statistics are the foundation of sound economic policymaking." Examine the significance of recent reforms in India's statistical databases and their implications for governance and economic management. (15 Marks, 250 words)

EVIDENT DISTRESS

Why in News: India's latest economic indicators showed slowing growth, weak industrial output, declining domestic

energy production, and falling GST revenues, highlighting structural weaknesses in the economy amid the prolonged West Asia crisis.

Key Details

- **Core sector growth slowed to 0.5%** in May 2026, indicating weak industrial momentum.
- **Domestic crude oil and natural gas output continue to decline**, increasing import dependence.
- **Coal production contracted significantly**, raising energy security concerns.
- **Domestic GST revenues fell**, signalling weak consumption demand.
- **Structural reforms are needed**, as trade deals alone cannot address economic weaknesses.

Weak Growth in Core Industries

- The **Index of Eight Core Industries** grew by only **0.5% in May 2026**, the second-lowest growth in the last 21 months.
- This is not merely a result of the West Asia crisis.
- During the entire **FY 2025–26**, core industries recorded a weak growth of just **1.1%**.
- This highlights underlying structural weaknesses in the economy.

Concerns over Crude Oil and Natural Gas Production

1. Crude Oil

- Domestic crude oil production continued its **multi-year decline**.
- Oil imports increased as prices stabilized after April 2026.
- India is relying more on imports to meet domestic demand.

2. Strategic Concern

- Domestic production should be increased to build **Strategic Petroleum Reserves (SPR)**.
- Reserve oil can be used during supply disruptions and geopolitical crises.
- Dependence on imports weakens energy security.

3. Natural Gas

- Domestic natural gas production also continued to contract.
- Rising dependence on imports increases vulnerability to global price shocks.

Impact on Fertilizer Sector

- Lower natural gas availability affected fertilizer production.
- Fertilizer output contracted by **0.9% in May 2026**.
- However, the contraction was smaller than in previous months, indicating some improvement.
- The impact of the expected **super El Niño** on fertilizer demand remains uncertain.

Coal and Power Sector Challenges

1. Coal Production Decline

- Coal production recorded its **sharpest contraction in nearly a year**.
- Lower coal output raises concerns about energy availability during peak summer demand.

2. Electricity Generation Risks

- Power generation may increasingly depend on:

- Variable renewable energy sources.
- Expensive imported coal.
- This can increase electricity costs and create supply uncertainties.

Falling Domestic Demand: GST and Consumption Concerns

1. GST Revenue Trends

- GST revenue from domestic transactions declined by **2.6% in May 2026**.
- Although the government attributes this to a high base effect from last year's one-time transfer, concerns remain.
- Average domestic GST growth over the last six months was only **3.1%**, lower than previous years.

2. Demand-Side Problem

- Merchandise exports reached a record high, showing that production capacity is not the main issue.
- The major concern is **weak domestic demand** caused by:
 - Low real wage growth.
 - Rising inflation.
 - Reduced purchasing power of households.

Way Forward

- India is entering a period of **deficient monsoon risk**, adding further uncertainty.
- Trade agreements alone cannot solve these problems.
- The need of the hour is **deep structural reforms** in:
 - Energy security,
 - Domestic production,
 - Employment generation,
 - Income growth,
 - Demand stimulation.

Conclusion

The recent economic data reveal that India's challenges extend beyond the immediate impact of the West Asia crisis. Weak industrial growth, declining domestic energy production, subdued **consumption demand**, and inflationary pressures point to **deeper structural issues**. To sustain long-term growth and economic resilience, India must accelerate reforms in energy security, employment **generation**, **productivity enhancement**, and domestic demand creation.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. India's recent economic indicators point towards a demand-side slowdown despite strong export performance. Examine the causes of this slowdown and suggest measures to strengthen domestic economic growth. (15 Marks, 250 Words)

FULLER EXPRESSION

Why in News: India's retail inflation rose to 3.93% in May, driven by higher food, fuel, transport, and LPG costs, prompting concerns over persistent price pressures despite inflation remaining within RBI limits.

Key Details

- **Retail inflation** increased to **3.93%**, reflecting stronger pass-through of food and fuel costs.

- **Food inflation** rose to **4.78%**, while transport costs increased due to higher petrol and diesel prices.
- Sharp increases in **commercial and domestic LPG prices** have raised costs for restaurants and households.
- The **RBI** retained a neutral stance despite inflation remaining within its target range.
- Geopolitical uncertainties affecting **global energy markets** may keep fuel prices and inflation elevated.

Food and Fuel Costs Driving Inflation

- **Retail inflation (CPI)** rose to **3.93% in May**, the highest level in the current CPI series.
- Rising **food and fuel prices** are increasingly being reflected in consumer inflation.
- **Food inflation** accelerated to **4.78%** in May from **4.20%** in April.
- Higher prices of essential commodities are exerting upward pressure on household budgets.
- The extent to which producers continue absorbing costs will become clearer through the new **WPI** and **PPI** data.

Transport and Energy Costs Showing Strong Pass-Through

- **Transport inflation** increased by **1.75%** after a slight contraction in April.
- Inflation in **goods transport services** surged to **7.63%**, indicating higher logistics costs.
- Four rounds of **petrol and diesel price hikes** since mid-May contributed significantly to rising transport expenses.
- Increased transportation costs are gradually being passed on to consumers.
- This trend raises the risk of broader inflation across multiple sectors.

LPG Price Hikes Affecting Service Sectors

- **Commercial LPG prices** have risen by over **75% since February**.
- Higher LPG costs have increased expenses for **restaurants** and **accommodation services**.
- Inflation in this category reached **5.75%**, among the highest across sectors.
- A recent increase in **domestic LPG prices** is likely to further impact consumer inflation.
- Food preparation and service-related businesses are increasingly facing cost pressures.

RBI Remains Cautious Despite Inflation Within Target

- Inflation remains below the **RBI's 4% target** and within the **2%-6% tolerance band**.
- Nevertheless, the **Reserve Bank of India** has retained a **neutral monetary policy stance**.
- Policymakers remain concerned about potential future inflationary pressures.
- RBI interventions through **dollar sales** have helped stabilise the **rupee**.
- Currency stability has helped moderate imported inflation risks.

Global Uncertainties May Keep Inflation Elevated

- **Core inflation** (excluding food and fuel) remained relatively stable at around **3.8%-3.9%**.

- Geopolitical developments involving **Iran**, the **United States**, and the **Hormuz Strait** continue to influence energy markets.
- Any restrictions or additional costs on oil transit could raise fuel prices further.
- Even if **crude oil prices** decline, oil companies may delay reducing retail prices to recover earlier losses.
- Consequently, a rapid decline in inflation appears unlikely despite improving global conditions.

Conclusion

Although **India's inflation remains** within the RBI's tolerance band, rising food, transport, and energy costs indicate persistent price pressures. Global geopolitical uncertainties and elevated fuel prices continue to pose risks to price stability. **Sustained efforts** to manage supply-side shocks, **maintain currency stability**, and ensure efficient energy pricing will be crucial for keeping inflation under control while supporting economic growth.

EXPECTED QUESTION FOR UPSC CSE

Prelims Question

Q. Consider the following statements:

Statement I: Core inflation excludes certain categories from the inflation basket.

Statement II: Food and fuel prices are often excluded while calculating core inflation.

Statement III: These items are excluded because they tend to be highly volatile.

Which one of the following is correct in respect of the above statements?

- Both Statement II and Statement III are correct and both of them explain Statement I
- Both Statement II and Statement III are correct but only one of them explains Statement I
- Only one of the Statements II and III is correct and that explains Statement I
- Neither Statement II nor Statement III is correct

Answer: a

GCC is office success story. Now, focus on factory

Why in News: India's rising **services exports** and rapid expansion of **Global Capability Centres (GCCs)** have highlighted its emergence as the **world's office**, contrasting with China's manufacturing-led FDI growth model.

Key Details

- **FDI Pattern:** China attracted FDI mainly into **manufacturing**, while India has attracted FDI predominantly into the **services sector**.
- **Rise of GCCs:** India hosts **2,100+ Global Capability Centres (GCCs)** of over **500 Forbes Global 2000 companies**, employing around **23 lakh professionals**.
- **Shift in Role:** GCCs have evolved from **back-office operations** to **high-value innovation hubs**, undertaking **R&D, engineering, AI-driven drug discovery, and technology platform development**.
- **Services-Led Comparative Advantage:** In **2025–26**, India's **services exports (\$421.3 billion)** nearly matched **goods exports (\$446.1 billion)**, generating

a **services trade surplus** that offset a large merchandise trade deficit.

- **Economic Significance:** The GCC ecosystem strengthens **high-skilled employment, innovation, foreign exchange earnings, and global value chain integration**, reinforcing India's position as the "**world's office**."

India's FDI Pattern: Services-Led Growth

- **FDI in China** has primarily flowed into **manufacturing**, first in **labour-intensive industries** and later in **high-technology sectors**, earning it the title of the "**world's factory**."
- **FDI in India** has largely been concentrated in the **services sector**, making the country the "**world's office**" for global businesses.

Rise of Global Capability Centres (GCCs)

- India hosts **over 2,100 Global Capability Centres (GCCs)** established by **500+ Forbes Global 2000 companies**.
- These GCCs collectively **employ around 23 lakh professionals** and **generate nearly \$100 billion** in annual revenue.

Evolution of GCCs

- GCCs have moved beyond traditional **cost-saving back-office operations** such as IT support, finance, and customer service.
- They now function as **strategic innovation hubs**, undertaking:
 - Technology and enterprise platform development.
 - Core engineering research and development (R&D).
 - Clinical research and AI-driven drug discovery.

Contribution to India's External Sector

- In **2025–26**, **services exports (\$421.3 billion)** nearly matched **goods exports (\$446.1 billion)**.
- India imported **\$783.4 billion** worth of goods but only **\$204.7 billion** worth of services.
- Consequently, India recorded:
 - **Merchandise trade deficit: \$337.3 billion**
 - **Services trade surplus: \$216.6 billion**

India's Comparative Advantage

- India's strong **services exports** and expanding **GCC ecosystem** highlight its comparative advantage in **knowledge-based and office-driven activities**, rather than manufacturing.
- The rapid growth of GCCs—**with nearly one new centre being established every day** reinforces India's position as a global hub for high-value business and technology services.

Conclusion

India's services-led growth, powered by GCCs and knowledge-intensive industries, has become a major pillar of economic resilience and global integration. However, long-term sustainable development requires complementing this strength with a robust manufacturing base under initiatives such as **Make in India**, ensuring balanced employment

generation, export diversification, and greater participation in global value chains.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "India's comparative advantage increasingly lies in services rather than manufacturing." Examine this statement in the context of Foreign Direct Investment (FDI), Global Capability Centres (GCCs) and India's external trade profile. (150 Words, 10 Marks)

LONG OVERDUE

Why in News: The Union Government notified the **Coal Exchange Rules, 2026**, enabling regulated coal trading platforms to improve transparency, price discovery, and market efficiency amid record domestic coal production.

Key Details

- **Coal Exchange Rules, 2026** establish regulated market-based coal trading platforms.
- Aim to improve **price discovery, transparency, and competition** in coal markets.
- Expected to serve the **non-regulated sector** beyond long-term supply contracts.
- Draw lessons from **power exchanges**, which aid market signalling and balancing.
- Success depends on **quality standards, logistics, dispute resolution, and participation by Coal India and retail consumers**.

Coal Exchange Rules, 2026: A Major Reform

- **Coal Exchange Rules, 2026** have been introduced at a time when India is witnessing **record domestic coal production**.
- They establish a **market-based trading mechanism** through regulated coal exchanges.
- The objective is to improve **price discovery, transparency, and market efficiency** in coal trading.
- The reforms aim to provide better access for **small consumers**.
- They may also reduce dependence on **opaque bilateral contracts** that are often associated with inefficiencies and corruption concerns.

Transforming India's Coal Market

- Currently, most coal transactions occur through **long-term supply contracts**, especially for the power sector.
- Other sources include **auctions, imports, and captive mining**.
- Existing commodity exchanges in India mainly function as **financial trading platforms** rather than physical delivery markets.
- Coal exchanges are expected to operate more like **power exchanges**, facilitating actual market transactions.
- The focus will be on serving the **non-regulated sector**, which often purchases coal through premium-priced auctions.

Lessons from Power Exchanges

- Power exchanges have played a significant role in **price discovery** and **market signalling**.
- They help indicate conditions of **scarcity, surplus, and system stress** in the electricity market.
- Initially created to balance short-term shortages, they evolved into key market benchmarks.
- Importantly, they complemented rather than replaced **long-term power purchase agreements**.
- Similarly, coal exchanges could help balance **regional surpluses and shortages** by improving inventory visibility.

Key Challenges for Coal Exchanges

- Unlike electricity, **coal is not a uniform commodity**; its quality varies significantly.
- Effective functioning will require **robust quality standards** and reliable certification systems.
- Success will depend on strong **contract design, liquidity creation, and enforcement mechanisms**.
- Rules framed by the **Coal Controller Organisation of India** will be crucial.
- Attracting major producers and consumers is essential to ensure sufficient market participation.

Ensuring Long-Term Success

- Special emphasis should be placed on enabling participation of **small and retail consumers**.
- The role and cooperation of **Coal India** will significantly influence market outcomes.
- Mechanisms are needed to prevent excessive **price volatility**.
- Efficient **dispute resolution systems** must be established.
- Improved **transportation and logistics infrastructure** will be vital because coal exchanges involve **physical delivery** of coal.

Conclusion

The Coal Exchange Rules, 2026 mark a significant step towards modernising India's coal sector through **transparent and competitive market** mechanisms. If supported by robust quality standards, efficient logistics, and broad **stakeholder participation**, coal exchanges can improve resource allocation, **reduce inefficiencies**, and strengthen energy security. Their success will ultimately depend on effective regulation and sustained market confidence.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Discuss the significance of the Coal Exchange Rules, 2026 in improving transparency, price discovery, and efficiency in India's coal sector. What challenges could hinder the success of coal exchanges? (150 words, 10 marks)

MISSED CALL

Why in news: The southwest monsoon reached Kerala later than expected, while IMD forecasted **below-normal rainfall (90% of LPA)** amid El Niño conditions, raising concerns over agriculture, inflation, water security, and economic growth.

Key Details

- The **southwest monsoon** arrived in Kerala on **June 4**, three days later than its normal onset date.
- IMD forecasts seasonal rainfall at **90% of the Long Period Average (LPA)**.
- There is a **60% probability of a deficient monsoon**, the most pessimistic forecast in a decade.
- Most regions, including **northwest, central, peninsular India and the monsoon core zone**, are expected to receive below-normal rainfall.
- The **El Niño phenomenon** is likely to persist during the monsoon season, increasing drought risks.

Delayed Onset of the Southwest Monsoon

- The **southwest monsoon** reached Kerala on **June 4**, three days later than its normal date.
- It also arrived four days later than the **India Meteorological Department (IMD)** forecast.
- This is the first significant forecasting error by IMD since **2015**.
- A **delayed** onset does not necessarily indicate a weak monsoon season.
- Historical records show that both early and late monsoons can either fail or recover subsequently.

IMD Forecast Signals a Weak Monsoon

- IMD has projected seasonal rainfall at **90% of the Long Period Average (LPA)**.
- There is a **60% probability** of a deficient monsoon year.
- This is the agency's most pessimistic pre-season forecast in nearly a decade.
- Only **Northeast India** is expected to receive normal rainfall.
- Most other regions, including the monsoon core agricultural zone, are likely to experience rainfall deficits.

Risks from Uneven Rainfall Distribution

- The total amount of rainfall is less important than its **spatial and temporal distribution**.
- **Long dry spells** between rain events can damage crops after sowing.
- **Rain-fed agricultural** areas are particularly vulnerable to irregular rainfall.
- **Uneven monsoon patterns** can affect food production and rural incomes.
- **Water stress** may increase despite overall seasonal rainfall appearing adequate.

Impact of El Niño and Input Supply Crisis

- **El Niño** conditions are expected to persist through much of the monsoon season.
- Historically, nearly **60% of El Niño years** since 1951 have witnessed below-normal rainfall.
- Severe droughts in **2002 and 2009** occurred during strong El Niño events.
- The **West Asia conflict** and disruptions in the **Strait of Hormuz** have affected energy and fertilizer supplies.
- Rising input costs and shortages increase the vulnerability of the agricultural sector.

Need for Preparedness and Policy Response

- The government must prepare for adverse outcomes despite hopes for a better monsoon.
- Farmers should be encouraged to cultivate **short-duration pulses, oilseeds, and millets** instead of water-intensive crops.
- Efficient management of **groundwater and reservoirs** is essential.
- Crop insurance, disaster relief measures, and contingency plans should be activated.
- A weak monsoon could worsen food inflation, water scarcity, heat stress, and pressures on the farm economy.

Conclusion

The **2026 southwest monsoon** is crucial for India's agriculture, food security, and economic stability. While a delayed onset alone is not alarming, forecasts of deficient rainfall, persistent **El Niño conditions**, and **fertilizer supply constraints** pose significant risks. **Strengthening water management, promoting climate-resilient crops**, ensuring input availability, and enhancing disaster preparedness will be essential to mitigate the impact of a weak monsoon.

REPRIEVE TO RUPEE, BOND MARKETS IS SHORT-TERM

Why in News: India's macroeconomic indicators have recently improved due to easing tensions in **West Asia**, **lower global commodity prices**, and renewed foreign debt inflows, though concerns remain over long-term economic stability.

Key Details

- **Improved Macroeconomic Indicators:** The rupee appreciated, government bond yields declined, and inflationary pressures eased due to falling crude oil and fertiliser prices.
- **Return of Foreign Debt Flows:** Foreign Portfolio Investors (FPIs) invested significantly in Indian debt markets after months of outflows, supporting the rupee.
- **Persistent Risks:** Renewed geopolitical tensions in West Asia, disruptions in the Strait of Hormuz, and a weak monsoon continue to threaten economic stability.
- **Fiscal Concerns:** Fuel tax cuts, rising fertiliser subsidies, and costly RBI-government measures to attract foreign capital are putting pressure on public finances.
- **Need for Structural Reforms:** Long-term stability depends on stronger domestic reforms, attracting equity investments, and reducing the government debt-to-GDP ratio.

Short-term Improvement in India's Economy

- **Rupee strengthened** from its record low of **₹96.6 per US dollar (May 20)** to around **₹94.4**, indicating improved currency stability.
- **10-year Government bond yields** declined from **over 7.1% to below 6.8%**, reflecting lower borrowing costs and improved investor confidence.
- **Global commodity prices eased**, with **Brent crude oil** falling to **\$72.6 per barrel** and **urea import prices** dropping sharply, reducing import costs.

- **Foreign Portfolio Investors (FPIs)** returned to Indian debt markets, investing around **\$5.2 billion in June** after several months of net outflows.
- These developments suggest a **temporary return to pre-conflict economic conditions**, supported by easing tensions in West Asia and reduced supply-chain disruptions.

Continuing Economic Challenges

- The improvement remains **fragile**, as renewed tensions in West Asia and reduced shipping through the **Strait of Hormuz** could again disrupt global supply chains.
- Government finances remain under pressure due to **fuel excise duty cuts** and **higher-than-budgeted fertiliser subsidies**.
- **FPIs continue to withdraw from Indian equity markets**, showing that long-term investor confidence remains weak.
- The rupee has been supported mainly through **government and RBI measures**, such as incentives for foreign debt inflows and concessional swap facilities, which involve fiscal costs.
- A **deficient monsoon** and the expected impact of **El Niño** pose additional risks to inflation, agriculture, and overall economic stability.

Way Forward

- The recent stability in the **rupee and bond markets is likely to be temporary** unless supported by stronger economic fundamentals.
- India should focus on attracting **more foreign equity investment rather than debt**, as equity provides more stable long-term capital.
- This requires **greater investor confidence** through sustained economic growth and macroeconomic stability.
- Policymakers should accelerate **economic, legal, and institutional reforms** to strengthen the investment climate.
- The government should continue **fiscal consolidation** to reduce the **general government debt-to-GDP ratio** from about **80%** toward the target of **60%**, irrespective of external shocks like the Iran conflict or El Niño.

Conclusion

The recent improvement in India's macroeconomic indicators offers temporary relief but does not eliminate underlying vulnerabilities. Geopolitical uncertainty, fiscal pressures, climate-related risks, and weak equity inflows continue to pose challenges. Sustained economic resilience will require structural reforms, prudent fiscal management, stronger investor confidence, and greater emphasis on productive long-term investments rather than reliance on short-term debt inflows.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Recent improvements in India's macroeconomic indicators provide only temporary relief in the face of persistent external and domestic vulnerabilities. Discuss. Suggest measures to strengthen India's long-term macroeconomic stability. (15 Marks, 250 Words)

TESTING TIMES

Why in News: India's latest GDP data for 2025-26 showed 7.7% growth, reflecting economic resilience amid global uncertainties, while highlighting concerns over slowing agriculture, stagnant manufacturing, and expected growth moderation ahead.

Key Details

- **GDP growth** for 2025-26 is estimated at **7.7%**, slightly above earlier projections.
- **Manufacturing and services sectors** recorded strong double-digit growth, supporting overall economic expansion.
- **Household consumption and investment** accelerated, indicating improved domestic demand.
- **Agricultural growth** slowed to **3%**, despite a better-than-normal monsoon in the previous year.
- **Services sector dominance** increased, while manufacturing's share remained stagnant and agriculture's contribution to GVA declined.

Strong Economic Growth in 2025-26

- India's **GDP growth** for **2025-26** is estimated at **7.7%**, slightly higher than the earlier projection of **7.6%**.
- The economy remained resilient despite the initial impact of the **West Asia crisis**.
- March, the first full month after the crisis began, did not significantly affect annual growth.
- This reflects the economy's ability to withstand external shocks in the short term.
- However, future growth may face pressure from global geopolitical developments.

Robust Performance of Key Economic Sectors

- Major sectors such as **manufacturing** and several **services industries** recorded **double-digit growth**.
- Growth was achieved despite a relatively high base from previous years.
- The performance indicates strong domestic economic momentum.
- Manufacturing and services continue to be important drivers of overall growth.
- These gains provide a buffer against upcoming supply-side disruptions.

Rising Consumption and Investment Activity

- **Private Final Consumption Expenditure (PFCE)** grew faster than in the previous year.

- Household spending recovered after remaining subdued at around **5.8% growth** for two years.
- Gross Fixed Capital Formation (GFCF)**, a measure of investment, also accelerated.
- Increased investment reflects stronger economic activity and infrastructure creation.
- Even government-led investment generates positive multiplier effects across the economy.

Concerns over Agriculture and Structural Imbalances

- Agricultural growth slowed from **4.2% in 2024-25** to **3% in 2025-26**.
- This slowdown occurred despite a monsoon that was **108% of the Long Period Average (LPA)**.
- The outlook is worrying as the current year's monsoon is expected to be only **90% of LPA**.
- Potential fertilizer shortages may further affect agricultural productivity.
- Agriculture's share in **Gross Value Added (GVA)** has declined below **20%**, despite employing the largest workforce.

Growth Slowdown and Future Challenges

- The **services sector's share** in GVA increased from **51.9% to 54.3%**, highlighting its growing dominance.
- The **manufacturing sector's share** has remained largely stagnant, indicating limited progress in value-added manufacturing.
- The **RBI projects GDP growth** to slow to **6.6% in 2026-27**.
- Energy supply disruptions arising from the **Iran conflict** pose significant risks to the economy.
- Sustaining growth will depend on export resilience, energy security, and effective policy responses by the government.

Conclusion

India's economy **demonstrated strong resilience** in **2025-26**, supported by robust manufacturing, services, consumption, and investment growth. However, weakening **agricultural performance**, stagnant manufacturing share, and looming **energy-related disruptions** indicate that maintaining high growth rates will require structural reforms, policy agility, and stronger support for productive **sectors of the economy**.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. India's recent GDP growth figures reflect both economic resilience and structural vulnerabilities." Examine the factors driving growth and discuss the challenges that may constrain India's medium-term economic prospects. (15 Marks, 250 Words)

TURN POTENTIAL DOUBLE-WHAMMY OF RAIN AND FERTILISER SHORTFALL INTO AN OPPORTUNITY

Why in News: Concerns have emerged over the possible return of **El Niño** and a below-normal **monsoon in 2026**, raising risks for rabi crop production, fertiliser availability, food security, and **agricultural growth**.

Key Details

- Agriculture grew strongly** due to two consecutive years of above-normal monsoon rainfall.
- IMD forecasts** a below-normal monsoon at 90% of the Long Period Average (LPA).
- El Niño** may intensify during winter, posing greater risks to **rabi crops** than kharif crops.
- Fertiliser supplies** remain adequate for kharif but may face disruptions during rabi due to West Asia tensions.
- India should promote **millets, pulses, and oilseeds** to reduce import dependence and improve resource efficiency.

Strong Agricultural Growth Driven by Good Monsoons

- India's **agriculture sector** recorded robust growth of **4.2% in 2024-25** and **3.2% in 2025-26**.
- Growth was supported by **two consecutive years of favourable monsoon rainfall**.
- Total rainfall reached **104% of the Long Period Average (LPA) in 2024** and **110% in 2025**.
- The **southwest monsoon (June–September)** delivered nearly **8% surplus rainfall** in both years.
- Adequate rainfall boosted crop production and rural economic activity.

El Niño Raises Concerns for 2026 Monsoon

- Weather forecasts indicate the return of **El Niño conditions** during the current monsoon season.
- Global climate models suggest a **weak-to-moderate El Niño** may develop.
- The **India Meteorological Department (IMD)** has projected a **below-normal monsoon**, with rainfall likely at **90% of LPA**.
- El Niño is generally associated with **reduced rainfall and higher temperatures** in India.
- This raises concerns about agricultural performance in the coming year.

Rabi Crops Face Greater Risk Than Kharif Crops

- The immediate impact on **kharif crops** may be limited as sowing has just begun.
- Stronger El Niño conditions are expected to emerge during **November–January**.
- El Niño often causes **warmer and shorter winters**, affecting winter crop growth.
- Consequently, **rabi crops** such as wheat, mustard, and pulses may face greater stress.
- Agricultural losses may become more visible during the winter-spring season rather than during kharif.

Fertiliser Supply and Food Inflation Challenges

- Fertiliser stocks are currently sufficient to meet **kharif season requirements**.
- However, disruptions caused by the **West Asia conflict** and the **Strait of Hormuz blockade** may affect supplies later.
- Any fertiliser shortage is likely to impact the **rabi season** more significantly.
- Food inflation has remained under control due to **record crop production** in India and globally during 2025-26.
- Future supply disruptions could increase risks to food prices.

Opportunity to Promote Millets, Pulses and Oilseeds

- India imported a record **16.9 million tonnes of vegetable oils** in 2025-26 and **7.3 million tonnes of pulses** in the previous year.
- The government should promote **millets, pulses, and oilseeds** to reduce import dependence.
- These crops require **less water and fewer fertilisers**, especially urea, compared to rice, wheat, and sugarcane.
- Farmers are likely to shift cultivation if provided with **assured Minimum Support Prices (MSP)**.
- MSP support should be linked to **market-based pricing of water and fertilisers** to encourage efficient resource use and sustainable agriculture.

Conclusion

The possibility of a **weak monsoon and stronger El Niño conditions** highlights the need for climate-resilient agriculture. India must use this challenge to diversify cropping patterns towards millets, pulses, and oilseeds, **while ensuring effective MSP** support and efficient resource use. Such measures can strengthen food security, reduce import dependence, and enhance the long-term **sustainability of Indian agriculture**.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

"Climate variability and external supply shocks pose increasing challenges to Indian agriculture. Discuss the likely impact of El Niño on crop production and examine policy measures needed to build a resilient agricultural sector." (15 Marks, 250 Words)

INDIA'S REMITTANCES REMAIN RESILIENT AMID WEST ASIA CONFLICT

Why in News: Despite escalating geopolitical tensions and conflict in **West Asia**, India's remittance inflows from the Gulf

region have remained remarkably resilient. According to the **Monthly Economic Review** released by the **Department of Economic Affairs (DEA), Ministry of Finance**, **net remittances from West Asia surged to nearly \$16 billion in April 2026**, registering an impressive **70% year-on-year increase**. The report highlights that remittances continue to be one of the most stable sources of India's external financing, even during periods of global uncertainty.

West Asia Crisis Fails to Dent India's Remittance Inflows

Contrary to widespread concerns that the ongoing conflict in West Asia would disrupt the flow of money sent home by Indian expatriates, remittances have remained robust. The latest assessment by the **Union Finance Ministry** indicates that remittance inflows from the Gulf economies have not only remained stable but have increased significantly despite heightened geopolitical tensions.

The report notes that this resilience mirrors India's experience during previous global disruptions, including the **COVID-19 pandemic**, when remittances remained remarkably steady despite widespread economic uncertainty.

Key Highlights

- Net remittances from West Asia reached nearly \$16 billion in April 2026**, the second month of the regional conflict.
- This represents a **70% increase** compared to April 2025.
- The inflows remained strong despite fears that geopolitical instability could adversely affect overseas earnings and transfers.
- The Ministry described remittances as one of the **most resilient components of India's external sector**.



Why Are Remittances Considered a STABLE SOURCE OF EXTERNAL FINANCING?

The Ministry emphasises that remittances differ fundamentally from other forms of capital inflows.

CAPITAL FLOW	BEHAVIOUR DURING CRISIS
 FOREIGN PORTFOLIO INVESTMENT (FPI)	 Highly volatile; investors may withdraw funds rapidly .
 FOREIGN DIRECT INVESTMENT (FDI)	 Sensitive to business confidence and long-term economic prospects.
 EXTERNAL DEBT FLOWS	 Influenced by interest rates and financial conditions.
 REMITTANCES	 Relatively stable as they are linked to migrant employment and household support .



Because remittances are motivated by **family obligations** rather than investment returns, they tend to remain resilient even during periods of market volatility.



Why Have Remittances Remained Strong?

The Finance Ministry attributes this resilience to the unique nature of remittance flows.

Unlike **Foreign Direct Investment (FDI)**, **Foreign Portfolio Investment (FPI)** or external commercial borrowings, remittances are **not driven by investor confidence or financial market movements**. Instead, they depend primarily on:

- Employment opportunities available to migrant workers.
- Wage levels in host countries.
- Long-term family commitments of overseas workers.

As long as migrant workers continue to remain employed, remittances generally remain stable irrespective of fluctuations in financial markets or geopolitical uncertainty.

The report therefore observes that remittance flows are largely **acyclical**, meaning they do not necessarily move in tandem with economic or financial cycles.

Precautionary Transfers During Uncertainty

The report also highlights an important behavioural trend observed during previous crises.

Research shows that migrant workers often **increase remittances during uncertain times** by sending money home earlier than usual as a precautionary measure.

Such "front-loading" of transfers helps families prepare for possible economic disruptions or emergencies.

Although the Ministry has not conclusively stated that this phenomenon explains the recent rise in remittances to India, it acknowledges that international evidence points in this direction.

Medium-Term Risks Remain

While the short-term outlook remains positive, the Finance Ministry cautions against complacency.

The biggest risk to remittance inflows would arise if prolonged geopolitical instability begins to affect the **labour markets of Gulf countries**.

Potential concerns include:

- Declining economic activity.
- Job losses among migrant workers.
- Wage reductions.
- Lower demand for foreign labour.
- Delayed infrastructure and construction projects.

Any sustained deterioration in employment opportunities could eventually reduce the capacity of overseas Indians to send money home.

Importance of West Asia for India's Remittances

West Asia remains India's most important remittance corridor. Millions of Indian workers are employed across Gulf Cooperation Council (GCC) countries, particularly in sectors such as:

- Construction
- Oil and gas
- Healthcare
- Hospitality
- Transport
- Domestic services
- Retail

Countries such as the **United Arab Emirates, Saudi Arabia, Kuwait, Qatar, Oman, and Bahrain** account for a significant share of India's annual remittance receipts.

Significance for the Indian Economy

Robust remittance inflows generate multiple macroeconomic benefits.

- **Strengthens India's External Sector:** Higher remittances improve the balance of payments by increasing invisible receipts.
- **Supports the Current Account:** Remittances help finance India's trade deficit and reduce pressure on the current account.
- **Enhances Foreign Exchange Stability:** Steady inflows strengthen foreign exchange reserves and contribute to exchange-rate stability.
- **Boosts Household Consumption:** Remittances support millions of Indian households by financing education, healthcare, housing, and consumption expenditure.
- **Promotes Financial Inclusion:** Regular inflows increase savings, banking penetration, and investment in rural and semi-urban areas.

Challenges Ahead

Despite their resilience, remittance flows remain vulnerable to structural changes in host economies.

Key challenges include:

- Prolonged conflict in West Asia.
- Slowing economic growth in Gulf countries.
- Increasing localisation policies (such as labour nationalisation programmes).
- Automation reducing demand for migrant labour.
- Global energy transition affecting oil-dependent economies.

Way Forward

India must continue to strengthen its engagement with major labour-receiving countries while enhancing the welfare of its overseas workforce.

Key priorities include:

- Expanding bilateral labour and social security agreements.
- Diversifying overseas employment destinations beyond the Gulf.
- Enhancing skill development to improve employability in high-value sectors.
- Strengthening consular support and worker protection mechanisms.
- Closely monitoring labour market conditions in host countries to anticipate potential risks.

The latest Finance Ministry assessment reinforces an important lesson: **remittances remain one of the most dependable pillars of India's external sector**, cushioning the economy during periods of global uncertainty. However, sustaining this strength over the long term will depend on the continued stability of overseas labour markets, particularly in the Gulf region, where millions of Indian workers continue to contribute to both host economies and India's economic resilience.

RBI'S RECORD SURPLUS TRANSFER

Why in News: The Reserve Bank of India (RBI) recently approved a **record surplus transfer of ₹2.87 lakh crore** to the Union Government for **FY 2025-26** under its **Economic Capital Framework (ECF)**.

NOTE: While the transfer is legally consistent with RBI's financial framework, its unprecedented size has triggered a wider debate on the evolving relationship between the **central bank and the government**, the scope of **central bank independence**, and its implications for **fiscal federalism**.

Why is the Record Transfer Significant?

The ₹2.87 lakh crore transfer is the **largest ever surplus** transferred by the RBI to the Centre.

Earlier, annual transfers generally ranged between **₹30,000 crore and ₹65,000 crore**. The trend changed after the adoption of the **Economic Capital Framework (2019)**, which provides a transparent methodology for determining the amount of surplus that can safely be transferred while maintaining adequate financial buffers.

The latest transfer comes alongside a sharp expansion in the RBI's financial strength:

- RBI's balance sheet expanded by **20.6%** in one year to nearly **₹92 lakh crore**.
- Gross income increased by over **26%** during the same period.

This reflects the growing scale of RBI's financial operations and reserve management.

Why Does This Matter?

Governments generally finance expenditure through three traditional channels:

- Tax revenue
- Market borrowings
- Economic growth

Each of these carries natural constraints:

- Taxes require political acceptance.
- Borrowing increases future repayment obligations.
- Growth depends on real economic productivity.

A central bank surplus transfer is fundamentally different.

It creates **additional fiscal space without imposing new taxes, increasing debt, or depending on immediate economic growth**. Consequently, large transfers can significantly improve the government's fiscal position.

How Does RBI Generate Such Surpluses?

The RBI earns income from several sources, including:

- **Interest on government securities**
- **Returns on foreign currency assets**
- **Foreign exchange transactions**
- **Investment income**
- **Reserve management operations**

Recent reports also indicate that the RBI adjusted its reserve composition by:

- Selling part of its gold reserves.
- Increasing holdings of foreign currency assets.

Such actions are normal components of reserve management aimed at ensuring liquidity and exchange-rate stability. However, these operations also generate substantial financial gains, thereby increasing the surplus available for transfer.

The Larger Debate: Is the RBI Becoming More Fiscal?

The issue is not whether surplus transfers are legal—they clearly are.

Rather, economists are asking whether the central bank is gradually evolving from being primarily a **monetary authority** into a **significant source of fiscal resources** for the government.

As RBI's balance sheet continues to grow, its financial decisions increasingly influence:

- Government finances,
- Fiscal deficit management,
- Budgetary flexibility.

This reflects a subtle but important shift in the relationship between monetary policy and fiscal policy.

Concerns Regarding Central Bank Independence

Central bank independence is considered essential because it protects monetary policy from short-term political considerations.

A central bank perceived as excessively supporting government finances may face questions regarding:

- institutional autonomy,
- policy credibility,
- inflation management,
- market confidence.

Although the RBI continues to function within a well-defined legal framework, repeated large transfers could gradually narrow the institutional distance between the government and the central bank.

Fiscal Federalism

An important concern relates to **Centre-State financial relations**.

The RBI surplus is classified as **non-tax revenue** of the Union Government.

Unlike:

- Income Tax,
- GST collections,

the RBI dividend **does not form part of the divisible pool** shared with States under Finance Commission recommendations.

As a result:

- The entire benefit accrues to the Union Government.
- States receive no automatic share despite having significant expenditure responsibilities.

Many economists argue that this strengthens fiscal centralisation, especially when combined with:

- cesses and surcharges,
- borrowing restrictions on States,
- increasing reliance on non-divisible revenues.

Global Perspective

Unlike many advanced economies where central banks supported governments through **Quantitative Easing (QE)** and large-scale government bond purchases, India's situation is different.

Here, the growing fiscal significance arises primarily from:

- expanding foreign exchange reserves,
- investment income,
- reserve management profits,

rather than direct monetary financing.

Way Forward

Going forward, India must carefully balance:

- maintaining RBI's operational independence,
- ensuring adequate financial buffers,
- supporting fiscal stability,

- preserving transparency and institutional credibility.

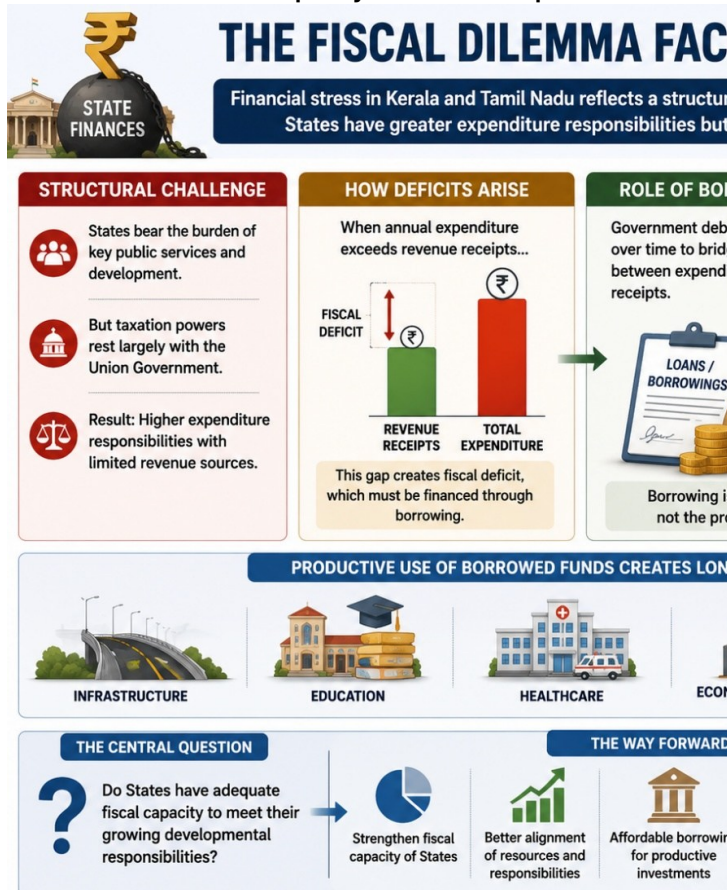
As fiscal demands continue to rise, maintaining a clear distinction between **monetary policy objectives** and **government financing needs** will remain crucial for macroeconomic stability.

Conclusion

The RBI's record surplus transfer marks an important milestone in India's evolving fiscal architecture. While it strengthens government finances without increasing taxes or borrowings, it also raises deeper questions about **central bank independence, fiscal federalism, and the changing role of monetary institutions**. The challenge ahead lies not in whether such transfers should occur, but in ensuring that they remain transparent, rules-based, and consistent with the RBI's primary mandate of maintaining monetary and financial stability.

STATE FINANCES UNDER STRESS

Why in News: The governments of **Kerala and Tamil Nadu** have recently released **White Papers on State Finances**, highlighting the rapid growth of public debt and warning that their fiscal position has become increasingly challenging. While rising State debt is often portrayed as evidence of fiscal mismanagement, the debate has reignited a broader question: **Are India's States financially overburdened because of poor governance, or because the existing fiscal federal framework limits their capacity to fund development?**



Why States Face Greater Fiscal Pressure

India's constitutional framework assigns substantial taxation powers to the **Union Government**, whereas States are primarily responsible for delivering essential public services.

State governments finance:

- Public healthcare
- School education
- Agriculture and irrigation
- Rural development
- Water supply
- Public transport
- Local infrastructure
- Welfare programmes

These sectors directly determine the quality of life of citizens and require continuous public investment.

Consequently, **State governments account for a larger share of total public expenditure**, even though they receive a comparatively smaller share of overall tax revenues.

Kerala and Tamil Nadu (High Development, High Fiscal Pressure)

Kerala and Tamil Nadu consistently rank among India's best-performing States in human development indicators.

Their progress has been supported by decades of sustained public investment in:

- Education
- Healthcare
- Social welfare
- Human capital development

According to Reserve Bank of India (RBI) data (2020–23):

- Kerala's **per capita social sector expenditure** was approximately **30% higher** than the all-State average.
- Tamil Nadu spent nearly **20% above** the national average.

By comparison:

- Bihar spent about **35% below** the average.
- Uttar Pradesh spent nearly **40% below** the average.

These figures illustrate that higher public expenditure has played a crucial role in improving social outcomes.

The Revenue Constraint

States finance their expenditure through:

- State Goods and Services Tax (SGST)
- Sales tax and other State taxes
- Grants from the Union Government
- Tax devolution recommended by the Finance Commission
- Market borrowings

Kerala performs relatively well in mobilising its own tax revenues.

Its per capita tax collection is approximately **1.5 times the national average**.

However, its share in central tax devolution remains comparatively modest.

- Kerala accounts for **around 2.6% of India's population**.
- Yet it received only **1.92% of Union tax devolution** during 2023–24.

This imbalance limits the fiscal space available to the State.

Revenue Expenditure Leaves Little Room for Investment

A major concern highlighted in the White Papers is the composition of State expenditure.

In Kerala:

- Only about **10% of total expenditure** is devoted to **capital expenditure**, which creates long-term productive assets.

The remaining budget is largely spent on revenue expenditure, including:

- Salaries of teachers, doctors, nurses and police personnel (about one-fifth of total expenditure)
- Pension payments (15.3%)
- Interest payments on public debt (16.5%)

As interest obligations continue rising, governments have progressively less fiscal room for new investments.

Kerala's Development Challenge

Kerala today faces a paradox.

On one hand, it possesses:

- High literacy
- Strong human capital
- Good health indicators
- High household savings
- Rising private prosperity

On the other hand, the government lacks sufficient fiscal capacity to invest in:

- Modern infrastructure
- Universities
- Research institutions
- Innovation ecosystems
- Knowledge industries
- Urban transport

This investment gap contributes to the growing migration of educated youth seeking better educational and employment opportunities outside the State and abroad.

Private Wealth but Limited Public Investment

An interesting feature of Kerala's economy is the coexistence of **private affluence and public fiscal constraints**.

Visible indicators include:

- High-value residential housing
- Luxury vehicles
- Extensive jewellery markets
- Strong household savings

Yet much of these savings remain outside productive State investment.

The **Credit-Deposit Ratio (CD Ratio)** illustrates this phenomenon.

- Kerala's CD Ratio is around **66%**.
- National average: **76%**.
- Maharashtra and Tamil Nadu: **Above 100%**.

A lower CD ratio indicates that banks mobilise large deposits but lend comparatively less within the State.

As a result, substantial household savings remain underutilised for local development.

Learning from China's Model

China's remarkable infrastructure expansion has been driven largely by:

- Provincial governments
- Municipal governments
- Local government financing institutions

Chinese local governments mobilise resources through:

- Local Government Bonds (LGBs)
- Land sales
- Local Government Financing Vehicles (LGFVs)
- Central government transfers

Most importantly, they borrow at **significantly lower interest rates**, enabling long-term investment.

High Cost of Borrowing for Indian States

Indian States borrow by issuing **State Development Loans (SDLs)**.

However, these borrowings are relatively expensive.

States generally pay interest between:

- **6.5%–7.5%**

This is:

- Higher than Union Government borrowing costs.
- Far above the borrowing cost of Chinese local governments, which is around **2%**.

Higher interest payments increase debt servicing costs and reduce the fiscal capacity available for development expenditure.

Why Public Debt Is Not Always a Problem

The article argues that public debt should not automatically be viewed as fiscal irresponsibility.

Government borrowing differs fundamentally from household borrowing.

Most State government securities are purchased by:

- Commercial banks
- Insurance companies
- Domestic financial institutions

These institutions invest the savings mobilised from Indian citizens.

Thus, government debt largely represents **borrowing from domestic savings**, not dependence on external creditors.

If these borrowings finance:

- Roads
- Universities
- Hospitals
- Public transport
- Irrigation
- Research infrastructure

they create long-term productive assets capable of generating future economic growth and improving public welfare.

Need for Fiscal Reforms

The article argues that India's fiscal architecture requires reforms that strengthen the financial autonomy of States.

Key reforms may include:

- Expanding States' access to domestic savings for productive investments.
- Reducing the borrowing cost of State Development Loans.
- Ensuring greater fiscal flexibility for well-performing States.
- Improving the balance between Union taxation powers and State expenditure responsibilities.
- Encouraging long-term infrastructure financing rather than restricting productive public investment.

Conclusion

The growing debt burden of Kerala and Tamil Nadu reflects a deeper structural challenge within India's system of **fiscal federalism** rather than merely poor financial management. States remain the primary providers of essential public services, yet their revenue-raising powers are relatively constrained. As development aspirations grow, this imbalance has widened the gap between expenditure needs and fiscal capacity.

The challenge, therefore, is not simply to reduce public debt but to **create a fiscal framework that enables States to borrow affordably, mobilise domestic savings effectively, and invest in productive assets that generate long-term economic growth, social welfare, and employment**. A stronger and more balanced fiscal federal system will be essential for achieving inclusive and sustainable development across India.

ENVIRONMENT & GEOGRAPHY

AN OVERHEATED EUROPE, AN UNDERPREPARED WORLD

Why in News: Europe is experiencing an unprecedented heatwave, with temperatures exceeding 40°C, causing deaths, health emergencies, transport disruptions, and renewed global attention on climate change, adaptation, and emission reduction efforts.

Key Details

- Europe is witnessing an **unprecedented heatwave**, with temperatures crossing **40°C**, causing **red alerts**, **school closures**, **transport disruptions**, and severe pressure on **healthcare systems** across several countries.
- **Climate change** has made extreme heat events more **frequent** and **intense**. Europe, now the **fastest-warming continent**, is increasingly experiencing record-breaking summers and prolonged heatwaves.
- European countries are strengthening **adaptation measures**, including **cooling centres**, **urban green spaces**, **climate-resilient buildings**, **Heat Action Plans**, and improved **emergency response systems**.
- Scientists stress that **adaptation alone is insufficient**. Rapid **greenhouse gas (GHG) emission reductions** and stronger **climate mitigation** efforts are essential to reduce future climate risks.
- The crisis highlights the need for **global climate cooperation**, with developed countries, including Europe, expected to fulfil their **financial** and **technological commitments** to developing nations while accelerating implementation of their **net-zero targets**.

Escalating Heatwave Across Europe

- Europe is experiencing an **unprecedented heatwave**, with temperatures exceeding **40°C** in several countries.
- **France** has issued **red alerts**, while **schools**, **transport systems**, and **health services** have been severely affected.
- The **UK** recorded its **hottest June day** on record, with **Spain**, **Portugal**, **Germany**, **Belgium**, and the **Netherlands** also witnessing extreme temperatures.
- **Record-breaking summers** in **2019**, **2022**, and **2023** indicate a growing trend of extreme weather.
- Heat-related deaths, including people drowning while trying to escape the heat, highlight the **human cost** of climate change.

Climate Change Driving Extreme Weather

- Extreme weather was once seen as a distant threat by many **developed countries**, but its impacts are now increasingly evident.
- **Climate change** has intensified the **frequency** and **severity** of heatwaves across Europe.

- A **blocked high-pressure system** combined with **hot air from the Sahara** has amplified temperatures.
- Although such weather patterns are natural, **global warming** has made them more frequent and intense.
- **Europe**, the **fastest-warming continent**, is becoming increasingly vulnerable to climate extremes.

Strengthening Climate Adaptation

- European cities are planning **cooling centres** to protect vulnerable populations.
- Authorities are expanding **urban green spaces** to reduce the **urban heat island effect**.
- **Buildings** are being redesigned to improve cooling, as many were originally built to retain heat.
- Governments are developing **Heat Action Plans** and strengthening **emergency response systems**.
- While essential, **adaptation measures** alone cannot fully address the climate crisis.

Urgent Need for Climate Mitigation

- Delays in reducing **greenhouse gas (GHG) emissions** will increase the intensity of future heatwaves.
- Most European countries have adopted **net-zero emission** targets.
- Several climate plans have been criticised for lacking **clear short-term accountability**.
- **Ambitious emission reductions** are essential to limit future global warming.
- **Mitigation** remains the most effective long-term solution to the climate crisis.

Global Climate Responsibility

- **Climate change** is a **global and interconnected challenge** requiring collective action.
- Europe must fulfil its **financial** and **technological commitments** to **developing countries**.
- Delayed implementation of **climate commitments** increases risks for all nations.
- Stronger **international cooperation** is essential for effective **adaptation** and **mitigation**.
- The European heatwave serves as a warning that **every delayed climate promise** makes future extreme weather events more dangerous.

Conclusion

The **European heatwave** highlights that **climate change** is no longer a distant threat but a present **global emergency**. While **adaptation measures** can reduce immediate impacts, long-term resilience depends on rapid **GHG emission reductions**, stronger **climate governance**, and fulfilment of **international financial and technological commitments**. The crisis reinforces the need for **coordinated global action** to protect lives, ecosystems, and **sustainable development**.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Extreme weather events demonstrate that climate change is both an environmental and developmental challenge." Discuss with reference to the recent European heatwave. Suggest measures for strengthening climate resilience and global climate governance. (250 words, 15 marks)

NEW COLLECTIVE QUANTIFIED GOAL (NCQG)

Why in News: Recently on world environment day debates highlighted the New Collective Quantified Goal (NCQG) on climate finance focus on whether developed countries are providing adequate financial support to developing nation

Key Details

- **NCQG** is the new global target for **climate finance** under the **UNFCCC**.
- It is intended to replace the earlier **USD 100 billion annual climate finance goal**.
- The goal supports **mitigation, adaptation**, and broader climate resilience efforts.
- Developing countries seek **higher, predictable, and accessible funding** under the framework.
- The NCQG remains a central issue in international **climate negotiations**.

What is the NCQG?

- NCQG (New Collective Quantified Goal) is the new global target for climate finance under the United Nations Framework Convention on Climate Change (UNFCCC). United Nations Framework Convention on Climate Change
- It aims to mobilize financial resources for developing countries to tackle climate change.
- The goal succeeds the earlier USD 100 billion per year climate finance commitment.
- It supports both climate mitigation and climate adaptation efforts.
- It is a key component of global climate justice and equity discussions.

Objectives of the NCQG

- Enhance financial support for developing and vulnerable nations.
- Accelerate the transition towards low-carbon development pathways.
- Strengthen resilience against climate-induced disasters.
- Support implementation of countries' Nationally Determined Contributions (NDCs).
- Promote sustainable and inclusive climate action worldwide.

Key Features of the NCQG

- The goal is expected to be significantly higher than USD 100 billion annually.
- It includes funding for both adaptation and mitigation measures.

- Focuses on improving the quality, accessibility, and predictability of climate finance.
- Encourages contributions from public, private, bilateral, and multilateral sources.
- Seeks greater transparency in reporting and tracking climate finance flows.

Challenges Associated with the NCQG

- Persistent disagreements between developed and developing countries over funding responsibilities.
- Lack of clarity regarding what qualifies as climate finance.
- Concerns over excessive dependence on loans instead of grants.
- Difficulties in ensuring adequate finance reaches the most vulnerable countries.
- Weak accountability mechanisms for monitoring commitments and delivery.

Significance for India and Developing Countries

- Provides resources for renewable energy, green infrastructure, and climate-resilient agriculture.
- Supports adaptation to rising climate risks such as heatwaves, floods, and droughts.
- Reinforces the principle of Common But Differentiated Responsibilities and Respective Capabilities (CBDR-RC).
- Helps bridge the gap between climate ambitions and available financial resources.
- Strengthens the ability of developing countries to pursue sustainable development while addressing climate change.

Conclusion

The NCQG represents a crucial opportunity to strengthen global climate cooperation and address the financing needs of developing countries. Its success will depend on adequate funding, transparency, accountability, and equitable burden-sharing. A robust climate finance framework is essential for enabling vulnerable nations to pursue sustainable development, enhance resilience, and contribute effectively to achieving global climate goals.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following with reference to New Collective Quantified Goal (NCQG):

1. The New Collective Quantified Goal (NCQG) is related to climate finance for developing countries.
2. The NCQG is intended to replace the earlier goal of mobilizing USD 100 billion annually.
3. The NCQG seeks to support developing countries in climate mitigation and adaptation efforts.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: c

SHARING WATERS

Why in News: The **Tungabhadra Dam** is in the news after the inauguration of **33 new spillway gates**, renewed inter-State cooperation, concerns over the **Upper Bhadra Project**, and efforts to improve dam safety.

Key Details

- **Inter-State Cooperation:** Karnataka, Andhra Pradesh, and Telangana pledged stronger coordination on water management.
- **Strategic Importance:** The dam irrigates **16.4 lakh acres** across the three States, making it a vital water source.
- **Modernisation:** High-grade steel spillway gates replaced damaged ones after the **2024 crest gate failure**.
- **Major Challenges:** The **Upper Bhadra Project** and severe **siltation** continue to raise concerns over water sharing and storage.

Significance of the Meeting

- Chief Ministers of **Karnataka, Telangana, and Andhra Pradesh**, along with the **Union Jal Shakti Minister**, jointly inaugurated **33 new spillway gates** of the Tungabhadra Dam.
- The meeting reflected a commitment to **greater inter-State cooperation**.
- The Tungabhadra Dam has largely remained **free from major water disputes** due to:
 - An established **water-sharing formula**.
 - Effective regulation by the **Tungabhadra Board**.

Importance of the Tungabhadra Dam

- Located in **Koppal district, Karnataka**.
- Acts as the **lifeline of three southern States**.
- Provides irrigation to about **16.4 lakh acres**:
 - Karnataka – **9.26 lakh acres**
 - Andhra Pradesh – **6.25 lakh acres**
 - Telangana – **87,000 acres**
- In **August 2024**, a crest gate was washed away during heavy inflows when the reservoir was full (**105 tmc ft**).
- The damaged gate has now been replaced with **high-grade steel gates** costing **₹51 crore**, with an expected lifespan of **60 years**.

Challenges and Inter-State Differences

- Despite cooperation, disputes continue over the **Upper Bhadra Project**.
- The project is a **major lift irrigation scheme** in upstream Karnataka.
- **Andhra Pradesh and Telangana** fear it may reduce downstream water availability.
- Although the Centre had allocated **₹5,300 crore** in the **2023-24 Budget**, the project is now being implemented by a **Karnataka government undertaking**.

Dam Safety and Environmental Concerns

- The dam is facing **excessive siltation**.

- Storage capacity has declined from **133 tmc ft** to around **106 tmc ft**.
- The Union government has assured **desiltation** of the Tungabhadra and other reservoirs.
- There is also a need to **speed up dam rehabilitation and improvement projects** across **19 States**.

Way Forward

- Strengthen **cooperative federalism** through dialogue and consensus on water-sharing issues.
- Resolve disputes over the **Upper Bhadra Project** through scientific assessment and negotiations.
- Prioritise **desiltation, dam rehabilitation, and regular safety audits**.
- Ensure the Centre closely monitors dam safety projects to prevent future disasters.
- Focus on **prevention rather than post-disaster repairs** to ensure long-term water security.

Conclusion

The Tungabhadra Dam demonstrates how **cooperative federalism**, scientific water management, and robust dam safety can ensure water security and regional development. While inter-State disputes and siltation remain challenges, sustained dialogue, timely infrastructure upgrades, and effective rehabilitation measures can strengthen trust among States. As India faces increasing climate variability, **prevention, cooperation, and sustainable river basin management** must remain the guiding principles.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Despite institutional mechanisms for water sharing, inter-State river disputes continue to challenge cooperative federalism in India. Discuss with reference to the Tungabhadra Dam and the Upper Bhadra Project." (15 Marks, 250 words)

STRATEGIC AFTERTHOUGHT

Why in News: The Great Nicobar Island Development Project is in news due to rising costs, questions over its strategic justification, environmental concerns, funding disputes, and objections from indigenous communities.

Key Details

- Project cost has increased to about **₹91,000 crore**.
- **Galathea Bay transshipment port** faces questions regarding strategic and commercial viability.
- Large-scale diversion of **primary tropical forests** is proposed.
- Threatens habitats of the **Leatherback Sea Turtle** and **Nicobar Megapode**.
- Tribal groups seek greater transparency, informed consent, and protection of ancestral lands.

Questioning the Strategic Rationale

- The **Great Nicobar development project** is now estimated to cost around **₹91,000 crore**.
- The Centre has frequently justified the project, particularly the **Galathea Bay transshipment port**, on grounds of **national security and strategic importance**.

- However, the **Public Investment Board (PIB)** observed in August 2024 that the proposed port **lacked clear strategic objectives**.
- The project's strategic tag was reportedly added later by the **Ministry of Defence**, raising concerns that security arguments were introduced after the project's conception.
- Critics argue that if the port is primarily military in purpose, its justification as a **commercial transshipment hub** becomes questionable.

Financial Viability Under Scrutiny

- Both the **PIB** and the **Public-Private Partnership Appraisal Committee (PPPAC)** approved the project proposal.
- However, the PPPAC rejected the request for **₹12,230 crore in Viability Gap Funding (VGF)**.
- The committee directed the **Ports Ministry** to arrange funds from its own budget.
- Such a refusal is unusual for a project portrayed as being of critical national importance.
- This has intensified doubts regarding the project's long-term **commercial sustainability and economic viability**.

Serious Environmental Implications

- Great Nicobar is covered by **dense tropical rainforests** and surrounded by **ecologically sensitive coral reefs**.
- The project includes a **transshipment port, international airport, power plant and township**, requiring large-scale forest clearance.
- Much of the forest proposed for diversion is **primary forest**, which cannot be easily regenerated.
- The project threatens important wildlife habitats, including nesting sites of the **Leatherback Sea Turtle**.
- Scientists warn that compensatory afforestation elsewhere cannot replace the island's unique biodiversity and ecosystem.

Concerns of Indigenous Communities

- Indigenous tribal communities have expressed concerns regarding the project's implementation.
- Tribal councils allege that consent procedures lacked **full disclosure and informed participation**.
- Communities fear impacts on **ancestral lands and traditional livelihoods**.
- They have also highlighted commitments made after the **2004 Indian Ocean Tsunami** regarding rehabilitation and resettlement.
- Their opposition is directed not against development itself but against the project's **scale, secrecy and planning process**.

Need for Transparency and Public Accountability

- Critics demand the full release of the **High-Powered Committee report** related to the project.
- Greater transparency is needed regarding the project's actual financial burden on the public exchequer.
- Policymakers should openly assess whether projected economic and strategic benefits justify the costs.

- Environmental losses in Great Nicobar may be **irreversible and impossible to compensate financially**.
- Given its enormous ecological, social and fiscal implications, the project requires broader public scrutiny and informed debate.

Conclusion

The Great Nicobar Project represents a crucial test of India's ability to pursue strategic and **economic objectives** while safeguarding fragile ecosystems and indigenous communities. **Transparent decision-making**, rigorous environmental assessment, and meaningful stakeholder consultation are essential to ensure that **development remains sustainable, inclusive, and consistent** with long-term national interests rather than producing irreversible ecological and social costs.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "The Great Nicobar Development Project highlights the challenge of balancing strategic infrastructure needs with environmental sustainability and indigenous rights." Discuss. (15 marks, 250 words)

TO PROTECT WESTERN GHATS, SOUTHERN STATES MUST BREAK IMPASSE

Why in News: After Gujarat, Maharashtra, and Goa agreed to the Kasturirangan Committee recommendations, implementation of the long-pending Ecologically Sensitive Area (ESA) proposal for the Western Ghats has gained renewed momentum.

Key Details

- **ESA Proposal:** Recommends declaring **60,000 sq km (37%)** of the Western Ghats as an **Ecologically Sensitive Area** with restrictions on mining, polluting industries, thermal plants, and large construction.
- **Recent Progress:** **Gujarat, Maharashtra, and Goa** have accepted the proposal, enabling protection of nearly **19,000 sq km**, while **Karnataka, Kerala, and Tamil Nadu** are yet to agree.
- **Ecological Significance:** The Western Ghats are a **global biodiversity hotspot**, influence the **Indian monsoon**, and are the source of major rivers including the **Godavari, Krishna, Cauvery, and Periyar**.
- **Conservation Need:** The **2018 Kerala floods** and **2024 Wayanad landslide** highlighted the ecological fragility of the region and the consequences of unregulated development.

Delay in ESA Implementation

- Implementation of the **K. Kasturirangan Committee** recommendations has been delayed for **over 12 years**.
- The Committee proposed declaring **60,000 sq km (about 37%)** of the Western Ghats as an **Ecologically Sensitive Area (ESA)**.
- Proposed restrictions included a **ban on mining, polluting industries, thermal power plants, and large construction projects**.

- **Maharashtra, Gujarat, Goa, Kerala, Tamil Nadu, and Karnataka** initially opposed the proposal, citing development concerns.
- **Gujarat, Maharashtra, and Goa** have now agreed, enabling ESA protection in around **19,000 sq km**.

Ecological Importance of the Western Ghats

- One of the world's **eight hottest biodiversity hotspots**, rich in endemic flora and fauna.
- Acts as a **barrier to monsoon winds**, ensuring heavy rainfall along the western coast.
- Origin of major rivers such as the **Godavari, Krishna, Cauvery, and Periyar**.
- Plays a crucial role in **water security, climate regulation, carbon sequestration, and biodiversity conservation**.
- Supports millions of people through essential **ecosystem services**.

Challenges to Conservation

- The region has a **high population density**, creating pressure for infrastructure and economic development.
- State governments fear ESA restrictions may affect **industrial growth and employment**.
- Environmental protection is often viewed as conflicting with **development objectives**.
- Ecologists argue that ESA norms **do not restrict agriculture** or farmers' livelihoods.
- Climate change has increased concerns over balancing **ecological conservation and economic growth**.

Lessons from Recent Disasters

- The **2018 Kerala floods** highlighted the consequences of ecological degradation.
- The **2024 Wayanad landslide** exposed the vulnerability of fragile mountain ecosystems.
- Unregulated development increases the risk of **landslides, floods, and soil erosion**.
- Protecting the Western Ghats strengthens **climate resilience** and disaster mitigation.
- Sustainable land-use planning is essential for long-term environmental security.

Way Forward

- Bring **Karnataka, Kerala, and Tamil Nadu**, which contain about **two-thirds of the proposed ESA**, into the consensus.
- Introduce **Payments for Ecosystem Services (PES)** to compensate local communities for conservation efforts.
- Balance **economic aspirations** with **ecological sustainability** through participatory policymaking.
- Promote awareness that environmental conservation also protects **agriculture and livelihoods**.
- Build a cooperative framework to implement the **Kasturirangan Committee** recommendations while ensuring sustainable development.

Conclusion

Protecting the Western Ghats is essential for India's **water security, biodiversity, climate resilience, and disaster risk reduction**. Effective implementation of the ESA framework requires cooperation between the Centre, states, and local

communities. Sustainable development, supported by compensation for ecosystem services and scientific planning, can reconcile environmental conservation with economic aspirations, ensuring long-term ecological and developmental benefits.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "The Western Ghats are vital for India's ecological security but face increasing developmental pressures." Discuss the significance of the Ecologically Sensitive Area (ESA) framework and the challenges in its implementation. (250 words, 15 marks)

CAPTIVE-BRED WHITE-RUMPED VULTURE DIES

Why in News: A **captive-bred, radio-tagged White-rumped Vulture (*Gyps bengalensis*)**, released earlier this year in the **Mudumalai Tiger Reserve (Tamil Nadu)** as part of a pioneering conservation initiative, died after being electrocuted by a power line in the Nilgiris district.

The incident marks the **first failed attempt to reintroduce a captive-bred White-rumped Vulture into the wild in southern India** and has triggered fresh concerns regarding habitat safety, power infrastructure, and the long-term success of species reintroduction programmes.

Why Was Mudumalai Chosen?

Mudumalai Tiger Reserve was selected because it supports **the last significant breeding population of White-rumped Vultures in South India**.

Conservationists hoped that the released bird would:

- Integrate with existing wild vulture populations.
- Adapt to the local habitat.
- Contribute to strengthening the declining population.

The project represented an important milestone in India's efforts to restore threatened vulture species through scientific reintroduction.

What Happened?

Despite repeated attempts by forest officials to help the bird settle into its new habitat, it failed to acclimatise.

Instead of remaining within the core vulture habitat, the bird undertook repeated exploratory flights across the Nilgiris landscape, including:

- Sigur Plateau
- Gudalur
- Kalhatty
- Ebbanad

During one such movement near **Ebbanad village**, the vulture came into contact with an overhead power line and was electrocuted.

Forest officials confirmed that the bird died instantly.

Why Did the Reintroduction Fail?

While a detailed scientific assessment is still underway, preliminary observations suggest several possible factors:

Failure to Acclimatise

The captive-bred bird struggled to adapt to the wild environment and repeatedly moved outside its intended release area.

Human-Made Threats

The immediate cause of death was electrocution from overhead power lines.

Power transmission infrastructure has emerged as one of the major threats to large soaring birds across India.

Behavioural Challenges

Captive-bred animals often lack certain survival behaviours that wild individuals acquire naturally, making successful reintroduction more complex.

Conservation Concerns

The incident highlights that species recovery requires much more than breeding endangered animals in captivity.

Successful reintroduction depends upon:

- Safe habitats.
- Availability of food resources.
- Behavioural adaptation.
- Continuous scientific monitoring.
- Reduction of human-induced threats.

Without addressing these factors, captive breeding alone may not achieve long-term conservation success.

Threat of Power Lines to Vultures

Conservationists have repeatedly identified power infrastructure as a major cause of mortality among large birds. Large soaring species such as vultures possess broad wingspans, making them particularly vulnerable to:

- Electrocution.
- Collision with transmission wires.

Several vulture deaths have already been reported from the Nilgiris landscape in recent years due to similar incidents.

Suggested Mitigation Measures

Experts have recommended multiple interventions to make power infrastructure safer for birds.

These include:

- **Insulated Power Lines:** Covering exposed conductors can significantly reduce electrocution risk.
- **Bunch Cabling:** Replacing conventional wires with bundled insulated cables reduces accidental contact.
- **Bird Diverters:** Installing reflective bird diverters on transmission lines improves wire visibility and reduces collisions.
- **Wildlife-Friendly Infrastructure:** Designing electricity networks while considering biodiversity conservation can minimise future wildlife mortality.

Way Forward

Following the incident, the Forest Department, BNHS, and conservation organisations have proposed to:

- Conduct a detailed scientific assessment of the failed reintroduction.
- Study behavioural patterns of captive-bred vultures.
- Evaluate the performance of other released vultures across India.
- Strengthen habitat management before future releases.
- Identify and eliminate major anthropogenic threats.
- Modify power infrastructure within important vulture habitats.

The findings will help refine future reintroduction strategies.

Why Did India's Vulture Population Collapse?

India witnessed one of the world's fastest wildlife declines during the 1990s.

The primary reason was the veterinary use of **Diclofenac**; a non-steroidal anti-inflammatory drug (NSAID) administered to cattle.

When vultures fed on carcasses of treated livestock, the drug caused acute kidney failure, leading to catastrophic mortality. The subsequent ban on veterinary Diclofenac and the establishment of captive breeding programmes has been central to India's vulture recovery efforts.

Significance of the Incident

The death of the radio-tagged vulture provides valuable scientific lessons.

It demonstrates that:

- Reintroduction success depends on habitat preparedness as much as captive breeding.
- Infrastructure planning must incorporate wildlife conservation.
- Continuous monitoring is essential after release.
- Adaptive conservation strategies are necessary for endangered species recovery.

The incident is likely to influence future national guidelines on vulture reintroduction and landscape-level conservation planning.

Conclusion

The tragic death of the captive-bred White-rumped Vulture highlights both the promise and the challenges of species reintroduction programmes. While captive breeding remains an important conservation tool, its success ultimately depends on creating landscapes that are safe, connected, and capable of supporting wildlife. Strengthening habitat protection, mitigating threats such as unsafe power lines, and adopting science-based adaptive management will be crucial for securing the future of India's endangered vultures.

CLEAN TRANSPORT TRANSITION SCHEME

Why in News: The Union Cabinet has approved a **₹9,585-crore two-year vehicle replacement scheme** to tackle worsening air pollution in the **Delhi-National Capital Region (NCR)**.

The programme aims to accelerate the shift towards **cleaner, low-emission transport** by incentivising the replacement of **BS-IV and older trucks and buses** with **BS-VI-compliant or electric vehicles (EVs)**. The initiative is expected to benefit **over 2 lakh commercial vehicle owners** while significantly reducing vehicular emissions and improving the region's Air Quality Index (AQI).

Clean Transport Transition Scheme (A Major Push for Cleaner Mobility)

In one of the largest clean transport initiatives undertaken in India, the Union Cabinet has approved a **₹9,585-crore scheme** to modernise the commercial vehicle fleet across the **Delhi-NCR**. The programme seeks to phase out highly polluting vehicles and promote the adoption of cleaner technologies, thereby addressing one of the biggest contributors to air pollution in the region.

Why is the Scheme Necessary?

- Vehicular emissions remain a major source of air pollution in Delhi-NCR, particularly from **aging trucks and buses** operating on older Bharat Stage (BS) emission standards.
- Although BS-VI emission norms have been in force since 2020, a substantial number of commercial vehicles continue to operate under **BS-IV, BS-III and earlier standards**, emitting significantly higher levels of particulate matter (PM), nitrogen oxides (NOx) and other harmful pollutants.
- The new scheme is designed to accelerate fleet modernisation while easing the financial burden on vehicle owners.

Key Features of the Scheme

1. Financial Outlay

- **Total Scheme Cost: ₹9,585 crore**
- **Central Government Contribution: ₹5,041 crore**
- **Estimated State Tax Concessions: ₹1,601 crore**
- **Scheme Duration: Two years**

2. Coverage

The scheme targets commercial vehicles operating across the Delhi-NCR region, including:

- Delhi
- Haryana
- Uttar Pradesh
- Rajasthan

It is expected to benefit approximately:

- **1.91 lakh trucks**
- **16,329 buses**

Total Beneficiaries: About 2.07 lakh vehicle owners

3. Vehicle Replacement Rules

For BS-III and Older Vehicles

- Mandatory scrapping at **Registered Vehicle Scrapping Facilities (RVSFs)**.
- Owners must purchase a new **BS-VI-compliant** or **electric vehicle** registered within NCR.

For BS-IV Vehicles

Owners have two options:

- Scrap the vehicle, **or**
- Sell it outside the NCR (excluding cities covered under the National Clean Air Programme).

Replacement must again be with a **BS-VI vehicle or EV**.

4. Special Rules for Delhi

Given Delhi's severe pollution levels, stricter conditions apply:

- **Light Goods Vehicles:** Only Electric Vehicles (EVs) permitted.
- **Buses:** Must be either
 - Electric,
 - CNG-powered, or
 - BS-VI compliant.

Government-owned vehicles are **not covered** under the scheme.

Financial Incentives for Vehicle Owners

To encourage participation, the scheme provides multiple financial benefits.

Central Government Support

- **5% interest subvention** on vehicle loans for **five years**.
- **Monthly fuel vouchers** worth up to **₹4,800**, depending on vehicle category.
- **Lump-sum incentives** for purchasing electric vehicles.
- Benefits through **Certificate of Deposit (CoD) trading** under the vehicle scrappage framework.

State Government Incentives

Participating States will provide:

- Waiver of registration fees.
- Up to **100% exemption in motor vehicle tax** for new vehicles (valid for 10 years).
- **50% tax concession** for eligible used vehicles.
- Waiver of pending liabilities on old vehicles being replaced.

Expected Benefits

The scheme aims to deliver multiple long-term benefits:

Cleaner Air

Replacing old diesel vehicles with BS-VI or electric alternatives will substantially reduce emissions of:

- Particulate Matter (PM2.5 & PM10)
- Nitrogen Oxides (NOx)
- Carbon Monoxide (CO)
- Hydrocarbons

This is expected to improve Delhi-NCR's **Air Quality Index (AQI)**.

Health Benefits

Lower pollution levels can reduce:

- Respiratory diseases
- Cardiovascular illnesses
- Asthma and chronic lung disorders

particularly among vulnerable populations such as children and the elderly.

Cleaner Transport Ecosystem

The scheme complements India's broader transition toward:

- Electric mobility
- Cleaner fuels
- Sustainable urban transport
- National Vehicle Scrappage Policy

Economic Benefits

The initiative is also expected to:

- Boost demand for new commercial vehicles.
- Strengthen the automobile manufacturing sector.
- Generate employment in vehicle manufacturing, scrappage, and recycling industries.
- Expand India's EV ecosystem.

Significance

The Delhi-NCR clean transport transition scheme represents a major policy intervention to address one of India's most pressing environmental challenges. By combining **vehicle scrappage, financial incentives, cleaner technologies, and cooperative action between the Centre and States**, the initiative seeks to modernise the commercial transport sector while delivering long-term gains in **air quality, public health, and sustainable mobility**. If implemented effectively, it could become a model for other highly polluted urban regions across the country.

COMPRESSED BIOGAS (CBG) BLENDING GAINS MOMENTUM

Why in News: India is making rapid progress towards its **target of blending 3% Compressed Biogas (CBG) with Compressed Natural Gas (CNG) and Piped Natural Gas (PNG) by FY2026–27.**

Key Details

- According to government officials, the blending level has already reached **nearly 2%**, almost doubling over the past year.
- The achievement has been driven by increasing CBG production, with hundreds of new bio-CNG plants under construction across the country.
- The initiative forms a key pillar of India's strategy to **strengthen energy security, reduce dependence on imported fossil fuels, promote a circular economy, and accelerate the transition to cleaner fuels.**

India Nears 3% CBG Blending Target

- India's clean energy transition is receiving a significant boost through the rapid expansion of **Compressed Biogas (CBG)** production. The Centre has indicated that the country is well on course to achieve its **mandatory 3% blending target** for CBG in CNG and domestic PNG supplies by FY2026–27.
- Currently, India's combined consumption of **CNG for transport and PNG for households** stands at around **34–35 million Metric Standard Cubic Metres per Day (MMSCMD)**.
- Government data show that CBG sales have increased steadily:
 - **April:** ~0.66 MMSCMD
 - **May:** ~0.63 MMSCMD
- At current consumption levels, this translates to **approximately 2% blending**, indicating substantial progress toward the national target.

Massive Expansion of CBG Infrastructure

- The growth in blending has been supported by the rapid expansion of biogas production facilities across the country.
- According to the **GOBARdhan Portal** of the Ministry of Petroleum and Natural Gas:
 - **324 CBG/Bio-CNG plants** are currently under construction.
 - **1,261 additional plants** have received approval, with construction yet to begin.
- As these projects become operational, India's domestic production of renewable biogas is expected to increase significantly, enabling higher blending levels in the coming years.

Why CBG Matters?

- Compressed Biogas is emerging as an important component of India's clean energy strategy because it:
 - **Reduces dependence on imported natural gas.**
 - **Converts agricultural residues, cattle dung, municipal waste, and organic biomass into clean fuel.**
 - **Helps tackle crop residue burning and waste management issues.**
 - **Generates additional income for farmers.**

- **Lowers greenhouse gas emissions.**
- **Supports India's net-zero emissions commitment.**

Strategic Significance

- Experts note that recent geopolitical uncertainties and volatility in global energy markets have reinforced the need for **greater domestic energy security.**
- Expanding CBG production can:
 - Diversify India's energy basket.
 - Reduce vulnerability to fluctuations in global gas prices.
 - Promote rural employment and bio-economy development.
 - Strengthen India's transition towards sustainable and indigenous energy resources.

Way Forward

- The successful implementation of the CBG blending programme will depend upon:
 - Faster commissioning of approved biogas plants.
 - Expansion of feedstock supply chains.
 - Improved gas collection and distribution infrastructure.
 - Attractive pricing mechanisms for producers.
 - Continued policy support under initiatives such as **SATAT (Sustainable Alternative Towards Affordable Transportation)** and **GOBARdhan.**
- If current trends continue, India is well positioned to meet—and potentially exceed—its **3% CBG blending target**, making renewable biogas an increasingly important pillar of the country's clean energy ecosystem.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. With reference to the Compressed Biogas (CBG) initiative in India, consider the following statements:

- India has set a mandatory target of achieving 3% CBG blending with Compressed Natural Gas (CNG) and Piped Natural Gas (PNG) by FY2026–27.
- The GOBARdhan portal, which tracks the approval and construction of CBG/Bio-CNG plants across the country, functions under the Ministry of Environment, Forest and Climate Change.
- Expanded production of CBG utilizes agricultural residues, organic municipal waste, and cattle dung to help reduce India's reliance on imported natural gas.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 1 and 3 only
(c) 3 only
(d) 1, 2, and 3

Answer: (b)

FLOATING SOLAR IN INDIA

Why in News: The **National Institute of Solar Energy (NISE)**, under the Ministry of New and Renewable Energy (MNRE), has released **India's first comprehensive national assessment of Floating Solar Photovoltaic (FPV) potential.** The report estimates that India's reservoirs can support **over 102 GW of floating solar capacity**, highlighting floating solar as a

promising solution to one of the biggest challenges facing India's renewable energy transition—**scarcity of suitable land for large-scale solar projects.**

What is Floating Solar?

- Floating Solar Photovoltaic (FPV) refers to **solar panels mounted on floating structures installed over water bodies such as reservoirs, lakes, dams, irrigation tanks, and mining pits** instead of being installed on land.
- These floating platforms are anchored securely and connected to the electricity grid through underwater or floating transmission infrastructure.
- Unlike conventional ground-mounted solar parks, FPV systems **generate electricity while preserving valuable land resources**, making them particularly attractive for densely populated countries like India.

As India accelerates its transition towards achieving **500 GW of non-fossil fuel electricity capacity by 2030**, the availability of land has emerged as one of the most significant bottlenecks for expanding solar energy. In this

context, **Floating Solar Photovoltaic (FPV)** systems are gaining prominence as an innovative solution that enables clean energy generation without occupying valuable agricultural or residential land.

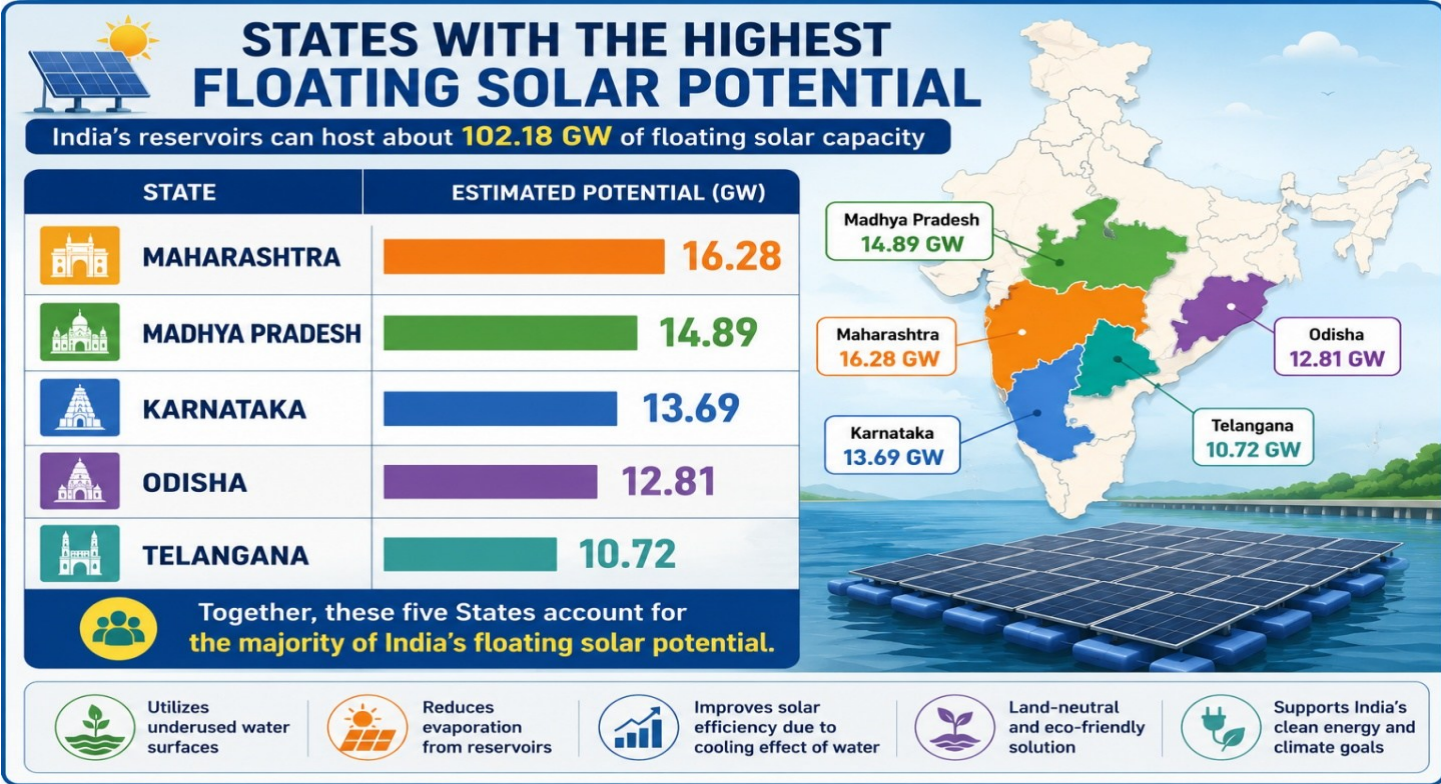
Why Does India Need Floating Solar?

India has already crossed **100 GW of installed solar capacity**, most of which consists of ground-mounted solar plants. However, conventional solar projects face several challenges:

- Large-scale land acquisition
- High land costs
- Conflicts with agriculture
- Environmental clearance issues
- Rehabilitation and resettlement concerns
- Delays due to litigation and local opposition

Typically, **ground-mounted solar plants require nearly 3–4 times more land per MW** than the actual area occupied by solar panels.

Floating solar addresses these constraints by utilizing **existing water surfaces**, making it a **land-neutral renewable energy technology**.



Key Findings of the NISE Report

The NISE assessment estimates that India's reservoirs can accommodate approximately:

102.18 GW of Floating Solar Capacity

To arrive at this estimate, researchers conducted India's first nationwide geospatial assessment using multiple scientific parameters.

Six Scientific Filters Used

Only reservoirs satisfying the following conditions were considered suitable:

- Water body larger than **10 hectares**
- Water availability for at least **11 months annually**
- Water depth between **3–30 metres**
- Solar irradiance exceeding **4.5 kWh/m²/day**
- Located within **10 km of roads**

- Located within **10 km of power substations**

Methodology

The methodology was first demonstrated using **Hirakud Reservoir (Odisha)**.

- Total water surface analysed: **499 sq. km**
- Technically suitable area after filtering: **99.5 sq. km**

The same methodology was then applied across the country. To minimize ecological impacts, the report adopted a **self-imposed limit of covering only 20% of any reservoir's surface**, ensuring that aquatic ecosystems and reservoir operations remain largely unaffected.

Economic Considerations

The report does not estimate the total investment required to harness this potential.

However, it cites a **2021 study by the U.S. National Renewable Energy Laboratory (NREL)**, which estimates that floating solar installations cost **around 25% more than conventional ground-mounted solar plants**.

The additional cost arises due to:

- Floating platforms
- Anchoring systems
- Waterproof electrical infrastructure
- Corrosion-resistant materials
- Specialized maintenance requirements

Despite higher upfront costs, floating solar can generate long-term economic benefits through improved efficiency and savings on land acquisition.

Government Initiatives

The Ministry of New and Renewable Energy (MNRE) has indicated that discussions are underway with the Ministry of Finance to promote:

- Floating Solar Projects
- Agri-Photovoltaics (Agri-PV)

What is Agri-Photovoltaics?

Agri-photovoltaics involve installing solar panels on elevated structures above agricultural fields, allowing **simultaneous crop cultivation and electricity generation** from the same land.

This dual-use approach enhances farmers' income while improving land-use efficiency.

India's Largest Floating Solar Project

- India's flagship floating solar installation is:
 - **Omkareshwar Floating Solar Park**
 - ✓ **Location:** Narmada River, Khandwa district, Madhya Pradesh
 - ✓ **Current Capacity:** 278 MW
 - ✓ **Planned Expansion:** 600 MW

Once fully completed, it will become one of the world's largest floating solar projects.

Operational Challenges

Field observations at Omkareshwar have highlighted several engineering challenges:

- Loosening of floating joints
- Uneven buoyancy
- Platform misalignment
- Breakage of electrical cables
- Difficult maintenance under varying water levels

These findings underscore the need for improved design standards, durable materials, and robust operation and maintenance practices.

Global Scenario

Floating solar has witnessed rapid growth worldwide.

By **2024**, global installed floating solar capacity reached approximately **9.6 GW**, with **nearly 90% located in Asia**.

Some notable examples include:

- **China:** 120 MW floating solar plant on Poyang Lake fish farms.
- **Singapore:** Tengoh Reservoir floating solar project, which has become a global benchmark for performance evaluation.
- **Netherlands:** Europe's leading floating solar market, primarily utilizing flooded quarry lakes.

Advantages of Floating Solar

- Eliminates the need for large land acquisition.
- Reduces evaporation losses from reservoirs.

- Improves solar panel efficiency through the cooling effect of water.
- Minimizes land-use conflicts with agriculture.
- Utilizes underused water surfaces.
- Can be integrated with existing hydropower infrastructure.
- Supports India's renewable energy and climate commitments.

Challenges

- Higher installation and maintenance costs.
- Complex anchoring and mooring systems.
- Corrosion due to prolonged exposure to water.
- Environmental concerns relating to aquatic ecosystems.
- Difficult maintenance during fluctuating reservoir levels.
- Limited operational experience at very large scales.

Way Forward

Floating solar represents a significant opportunity to expand India's renewable energy capacity while overcoming land constraints. However, realizing the estimated **102 GW potential** will require supportive financing, technological innovation, robust engineering standards, and careful environmental planning. Coupled with initiatives such as **Agri-Photovoltaics**, floating solar can play a transformative role in helping India achieve its clean energy targets while ensuring sustainable land and water resource management.

HEATWAVES WORSEN SURFACE OZONE POLLUTION (STUDY)

Why in News: A recent peer-reviewed study published in the **Nature Portfolio journal *npj Clean Air*** has revealed that **heatwaves significantly increase surface ozone concentrations across India**, aggravating air pollution and causing additional deaths from cardiovascular and respiratory diseases.

The study identifies **2024 as one of the worst years**, linking elevated ozone levels during heatwaves to hundreds of additional fatalities, while highlighting the growing interaction between **climate change and air pollution**.

How Heatwaves Increase Surface Ozone

Unlike pollutants that are directly emitted into the atmosphere, **surface (ground-level) ozone is a secondary pollutant**.

It is formed when **sunlight triggers chemical reactions between nitrogen oxides (NO_x), volatile organic compounds (VOCs), and other pollutants** released from:

- Motor vehicles
- Industries
- Thermal power plants
- Biomass burning

Heatwaves accelerate these photochemical reactions, leading to rapid ozone formation.

The study also identifies **Nitrogen Dioxide (NO₂) and Formaldehyde (HCHO)** as important precursor gases that not only contribute to ozone formation but also directly damage the respiratory system.

Health Impacts: A Silent Public Health Crisis

Ground-level ozone is a powerful oxidant that can penetrate deep into the lungs and bloodstream, causing severe health complications.

The study links ozone exposure during the **2024 heatwave period** to:

- **Around 26,500 deaths** associated with:
 - Ischaemic Heart Disease (IHD)
 - Chronic Obstructive Pulmonary Disease (COPD)

Importantly, most of these deaths are attributed to the **overall seasonal ozone burden**, rather than heatwaves alone.

Additional Deaths Due to Heatwave-Induced Ozone Increase

The study estimates that the extra rise in ozone caused specifically by heatwaves resulted in approximately:

- **490 additional deaths** from Ischaemic Heart Disease
- **342 additional deaths** from COPD

Total Additional Deaths: ~830

How Were These Estimates Calculated?

The mortality figures are **statistical estimates**, not direct death counts.

Researchers applied established epidemiological risk models that estimate how increased ozone exposure raises the probability of death from major diseases.

Since these diseases are already common across India's large population, even a **small increase in individual risk translates into thousands of deaths at the national level.**

Challenges in the Study

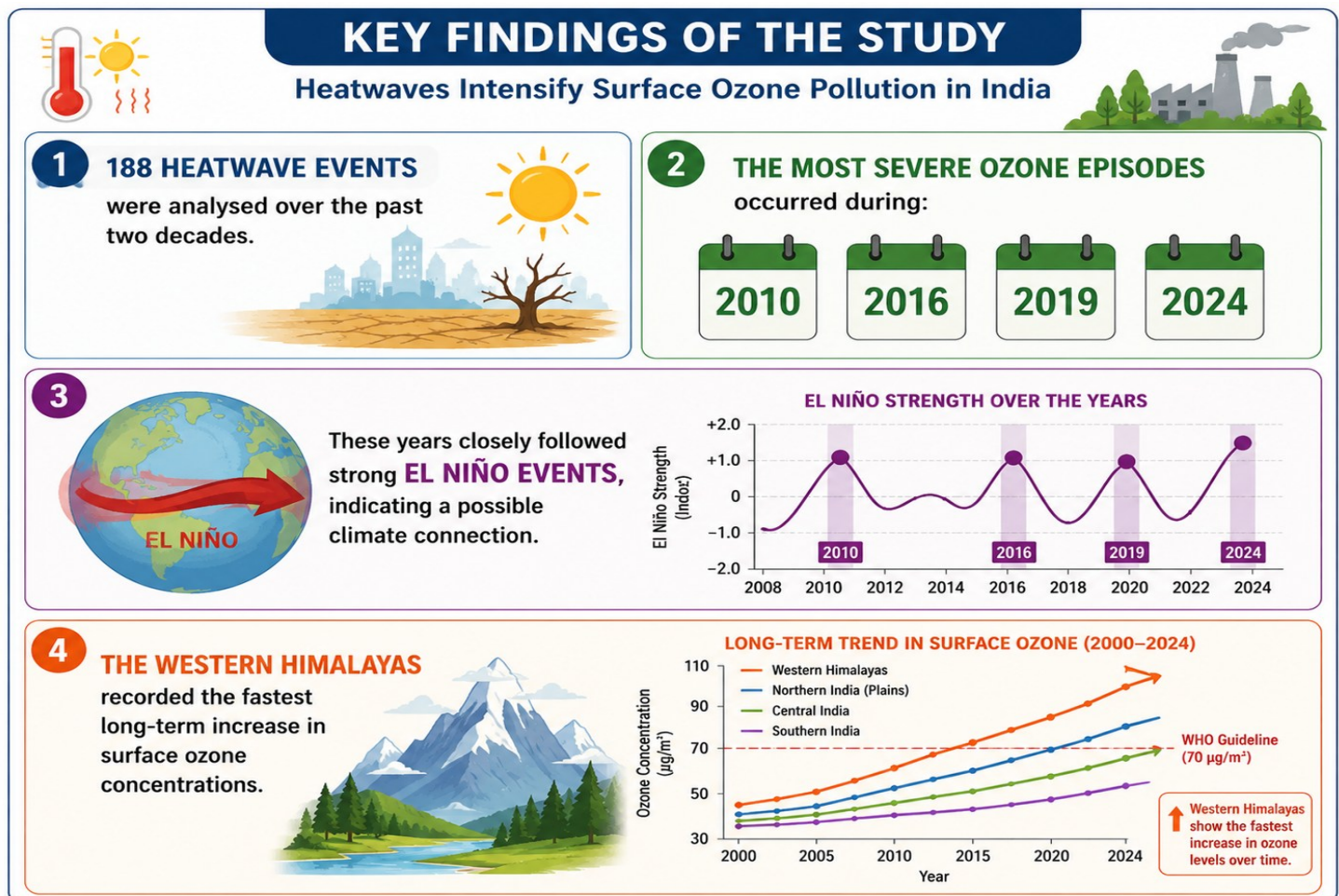
The researchers acknowledge an important limitation.

Continuous **ground-level ozone monitoring data were unavailable for several cities during specific heatwave periods.**

Therefore, the mortality estimates were generated using:

- Atmospheric modelling
- Satellite observations
- Established exposure-response relationships between ozone and disease

While robust, the figures should therefore be interpreted as **scientific estimates rather than directly observed fatalities.**



Why This Matters?

The findings highlight the growing interaction between **climate change and air pollution**, often referred to as a "**compound environmental risk**."

As global temperatures continue to rise:

- Heatwaves become more frequent and intense.
- Surface ozone formation accelerates.
- Air quality deteriorates.
- Cardiovascular and respiratory illnesses increase.

- Healthcare systems face greater pressure.

This creates a vicious cycle where **climate change amplifies air pollution**, and **air pollution further increases the public health burden.**

Way Forward

To reduce the health impacts of rising surface ozone levels, India needs a multi-pronged strategy:

- Expand continuous **ground-level ozone monitoring networks** across the country.

- Strengthen control of **NO_x and VOC emissions** from transport, industries, and thermal power plants.
- Integrate **heatwave action plans** with air quality management strategies.
- Improve urban planning by increasing green cover and reducing the urban heat island effect.
- Strengthen public health advisories during heatwaves, especially for vulnerable groups such as children, the elderly, and individuals with heart and lung diseases.
- Accelerate clean energy adoption and sustainable transportation to reduce precursor emissions.

Conclusion

The study underscores that **heatwaves are not only a climate hazard but also an air pollution multiplier**. By accelerating the formation of harmful surface ozone, rising temperatures significantly increase the burden of cardiovascular and respiratory diseases. As climate extremes become more frequent, integrating **climate adaptation, clean air policies, and public health planning** will be essential to safeguard millions of lives and build a more resilient future.

INDIA DISCOVERS OVER 1,000 NEW SPECIES IN 2025

Why in News: India has significantly expanded its documented biodiversity in **2025**, with the addition of **709 faunal species** and **353 floral taxa**, according to the latest reports released by the **Zoological Survey of India (ZSI)** and the **Botanical Survey of India (BSI)**.

Key Details

- The findings, unveiled by the **Union Ministry of Environment, Forest and Climate Change**, underscore India's status as one of the world's **17 megadiverse countries** and highlight the immense richness of its ecosystems. The discoveries include **483 animal species** and **221 plant taxa that are completely new to science**, reflecting the country's vast yet still unexplored biological wealth.
- **India Records Landmark Biodiversity Discoveries in 2025**
- India has achieved another major milestone in biodiversity research by documenting **1,062 new additions** to its biological wealth during **2025**. The latest reports of the **Zoological Survey of India (ZSI)** and the **Botanical Survey of India (BSI)** reveal that scientists discovered **709 faunal species** and **353 floral taxa**, substantially enriching India's biodiversity inventory.
- These discoveries reaffirm India's position as one of the world's most biologically diverse nations and demonstrate that large parts of the country's ecosystems continue to remain scientifically unexplored.

Major Faunal Discoveries

The **709 additions to India's faunal database** comprise:

- **483 species new to science**, discovered and described for the first time anywhere in the world.
- **226 species recorded for the first time in India**, expanding their known geographical distribution.

With these additions, **India's total documented faunal diversity has reached 1,05,953 species**, further

strengthening its position among the world's biodiversity hotspots.

States Leading Animal Discoveries

Kerala emerged as the leading contributor to new faunal discoveries, followed by West Bengal, Karnataka, and Arunachal Pradesh.

State	New Animal Species Recorded
Kerala	98
West Bengal	76
Karnataka	67
Arunachal Pradesh	65

This reflects the exceptional biodiversity of the **Western Ghats, Eastern Himalayas**, and the **Indo-Burma Biodiversity Hotspot**, all of which continue to yield remarkable scientific discoveries.

Animal Groups with the Highest Discoveries

Among various taxonomic groups, insects and other invertebrates dominated the discoveries.

Animal Group	New Additions
Hymenoptera (Bees, Wasps, Ants)	106
Lepidoptera (Butterflies & Moths)	65
Diptera (Flies)	64
Arachnida (Spiders & Scorpions)	64
Coleoptera (Beetles)	55
Pisces (Fishes)	50

The findings indicate that India's **invertebrate diversity remains vastly underexplored**, with insects accounting for the largest share of new discoveries.

Notable Animal Species Discovered

Some of the most significant discoveries include:

- **Myotis himalaicus** – A newly identified Himalayan bat species.
- **Ptyctolaemus mamdaphaensis** – A new Green Fan-throated Lizard discovered in Arunachal Pradesh.
- **Ptyctolaemus siangensis** – Another newly identified Green Fan-throated Lizard.
- **Lycodon irwini** – A newly discovered species of **Irwin's Wolf Snake**.

These discoveries improve scientific understanding of India's unique endemic wildlife and strengthen conservation planning.

Major Floral Discoveries

India also recorded **353 additions to its floral database**, comprising:

- **221 taxa new to science**
- **132 new distributional records** for India
- **14 infraspecific taxa** (subspecies or varieties)

These discoveries significantly expand India's documented plant diversity and improve understanding of species distribution across different ecosystems.

States Leading Plant Discoveries

Arunachal Pradesh emerged as India's richest State for newly discovered plant species.

State	Plant Discoveries
Arunachal Pradesh	49
Uttarakhand	39
Kerala	37

The findings once again highlight the exceptional biodiversity of the **Eastern Himalayas** and the **Western Ghats**, two globally recognised biodiversity hotspots.

Composition of Plant Discoveries

The newly documented floral taxa include a wide variety of plant groups.

Category	Number of Discoveries
Angiosperms (Flowering Plants)	154
Pteridophytes (Ferns)	3
Bryophytes	13
Lichens	62
Fungi	93
Algae	22
Microbes	6

Nearly **43% of the newly discovered taxa belong to vascular plants**, while the remaining discoveries comprise fungi, lichens, algae, bryophytes, and other ecologically significant organisms.

Important Plant Discoveries

Some notable discoveries include:

- **Polystichum siangense** – A new fern species discovered in Arunachal Pradesh.
- **Miliuma beddomei** – A new member of the custard apple family identified in the Western Ghats.
- **Hericium indicum** – A newly described wild edible tooth fungus with ecological and potential nutritional significance.

Scientists also discovered several **wild relatives of economically important plants**, including:

- Begonia
- Orchids
- Balsams (*Impatiens*)
- Leguminous plants

These species represent valuable **genetic resources** for future crop improvement and climate resilience.

Significance of the Discoveries

The discoveries hold immense ecological, scientific, and economic significance.

- **Strengthening India's Biodiversity Status:** The findings reinforce India's standing as one of the world's **17 megadiverse countries**, possessing nearly **8% of global biodiversity** despite occupying only about **2.4% of Earth's land area**.
- **Conservation Planning:** Identification of new species helps authorities prioritise habitats for protection and strengthens ecosystem-based conservation strategies.
- **Climate Change Resilience**
- Wild relatives of crop species possess genetic traits such as drought tolerance, disease resistance, and climate adaptability, making them valuable for future agricultural research.
- **Scientific Advancement:** New species improve understanding of evolution, biogeography, ecosystem functioning, and species interactions.
- **Bioeconomy Potential:** Several newly discovered organisms may possess medicinal, agricultural, industrial, or biotechnological applications.

Challenges

Despite these achievements, several concerns remain:

- Large areas of India remain biologically unexplored.
- Habitat destruction threatens many undiscovered species.
- Climate change is altering ecosystems and species distributions.
- Taxonomic expertise and biodiversity documentation require greater investment.
- Newly discovered species often require immediate conservation attention due to their restricted habitats.

Way Forward

India's biodiversity documentation demonstrates that scientific exploration remains one of the strongest tools for conservation. Future priorities should include:

- Strengthening taxonomic research and species identification.
- Expanding biodiversity surveys in unexplored regions.
- Integrating modern technologies such as **DNA barcoding, GIS mapping, remote sensing, and AI-based species identification**.
- Protecting biodiversity hotspots through ecosystem-based conservation.
- Enhancing collaboration among research institutions, local communities, and conservation agencies.
- Promoting sustainable use of biological resources under the principles of the **Convention on Biological Diversity (CBD)**.

As India advances towards sustainable development, continued investment in biodiversity exploration and conservation will be critical for safeguarding its unparalleled natural heritage while supporting ecological security, scientific innovation, and long-term economic resilience.

INDIA PUSHES FOR GREATER CLIMATE FINANCE AT BONN CLIMATE TALKS

Why in News: At the **United Nations climate negotiations (SB64)** in **Bonn, Germany**, India strongly urged developed nations to fulfil their long-standing commitment to provide **adequate climate finance** to developing countries.

India Demands Fair Climate Finance

- As global climate negotiations enter a crucial implementation phase, **India has reaffirmed the principle of climate justice**, stressing that ambitious climate action must be supported by **adequate financial resources, technology transfer, and capacity building** from developed nations.
- Delivering India's statement during the **64th Session of the Subsidiary Bodies (SB64)** under the **United Nations Framework Convention on Climate Change (UNFCCC)**, India's representative highlighted that the current pace of climate finance mobilisation remains insufficient to meet the needs of developing countries.
- India argued that **Article 9 of the Paris Agreement**, which obligates developed countries to provide financial assistance for climate mitigation and adaptation, deserves **dedicated agenda space** to facilitate meaningful negotiations and tangible outcomes.

India Highlights Growing Adaptation Finance Gap

India expressed concern that while climate impacts are intensifying across the developing world, **financial support for adaptation remains critically inadequate**.

The country urged negotiators to address:

- Declining availability of climate finance.
- Widening adaptation funding gap.
- Delays in fulfilling financial commitments made by developed countries.
- Greater predictability and accessibility of climate funds.

India maintained that without sufficient financial support, developing countries cannot effectively pursue climate-resilient development while meeting their economic growth objectives.

Concern Over Carbon Border Taxes

India also raised objections to **unilateral trade measures**, particularly the **European Union's Carbon Border Adjustment Mechanism (CBAM)**.

According to India:

- Carbon border taxes may increase the cost of exports from developing countries.
- Such measures could become disguised trade barriers.
- They risk reducing the competitiveness of developing economies.
- Climate policies should not undermine the principles of **equity and Common but Differentiated Responsibilities (CBDR-RC)** under the UNFCCC.

India called for discussions on these measures to remain anchored in **Article 3.5 of the UNFCCC**, which discourages climate actions that become arbitrary or unjustifiable restrictions on international trade.

India's Position on Key Negotiation Issues

India reiterated that:

- The **Mitigation Work Programme** should remain **facilitative, voluntary, and non-prescriptive**, without imposing additional obligations on developing countries.
- The **Global Goal on Adaptation (GGA)** must remain **Party-driven, balanced, and responsive to national circumstances**.
- No new commitments should be introduced beyond those already agreed under existing climate agreements.

India also aligned itself with the collective positions of major developing-country groupings, including:

- **Group of 77 (G-77) and China**
- **Like-Minded Developing Countries (LMDC)**
- **BASIC (Brazil, South Africa, India, China)**

Why SB64 Matters

The **64th Session of the UNFCCC Subsidiary Bodies (SB64)** serves as the principal mid-year negotiating forum before the annual Conference of the Parties (COP).

Its primary role is to:

- Convert political decisions from previous COPs into draft negotiating texts.
- Build consensus on unresolved issues.
- Prepare the agenda and negotiating documents for **COP31**, scheduled to be held in **Antalya, Türkiye**, in **November 2026**.

This year's discussions are particularly significant as global negotiations shift from **pledge-making to implementation**, with major focus areas including:

- Climate finance
- Global Goal on Adaptation (GGA)
- Global Stocktake (GST)
- Just Transition Work Programme (JTWP)
- Future of the **Sharm el-Sheikh Mitigation Work Programme**

Conclusion

India's intervention reinforces its long-standing position that **effective climate action must be based on equity, historical responsibility, and adequate means of implementation**.

As one of the leading voices of the Global South, India continues to advocate that:

- **Developed countries honour their financial commitments.**
- **Climate policies do not become tools for protectionism.**
- **Adaptation receives equal priority alongside mitigation.**
- **The global climate regime remains fair, inclusive, and development-oriented.**

India's stance reflects the broader demand of developing nations for a **balanced, equitable, and finance-backed transition to a low-carbon future**.

INDIA'S NEXT RENEWABLE ENERGY CHALLENGE

Why in News: India has emerged as one of the world's fastest-growing renewable energy markets, with solar and wind power now becoming the **cheapest sources of electricity**. However, despite rapid capacity additions, **over 50 GW of renewable energy projects remain stranded** because the country's transmission network is unable to evacuate power quickly enough.

NOTE: Energy experts argue that by modernising the existing grid, deploying battery storage, and adopting advanced transmission technologies, India can unlock **over 1,000 GW of additional clean energy** without acquiring new land for transmission corridors. This has brought the focus from merely generating renewable energy to building a **smart, flexible, and future-ready power grid**.

The Real Challenge: Transmission, Not Generation

While renewable energy projects can be commissioned within **12–18 months**, building transmission infrastructure generally takes **3–5 years** due to:

- Land acquisition challenges,
- Environmental clearances,
- Multiple regulatory approvals,
- Forest permissions,
- Right-of-way disputes.

As a result, electricity generated by many renewable projects cannot be transmitted to demand centres.

Consequently,

More than 50 GW of renewable energy capacity remains stranded despite being ready to generate electricity.

Today, the bottleneck is no longer electricity generation—it is **power evacuation**.

India's Long-Term Requirement

India's electricity demand is expected to increase sharply due to:

- Rapid urbanisation,
- Industrial expansion,
- Electric vehicles,
- Green hydrogen production,
- Electrification of manufacturing,
- Rising household electricity consumption.

To achieve **Net Zero by 2070**, experts estimate India will require nearly:

2,000 GW of renewable energy capacity by 2050.

Such expansion will require one of the world's largest transmission network upgrades.

Why Building New Transmission Lines Alone is Not Enough

Constructing new transmission corridors is:

- Expensive,
- Time-consuming,
- Environmentally challenging,
- Increasingly difficult because of land scarcity.

Therefore, India must simultaneously:

- Expand transmission capacity, and
- Optimise the utilisation of the existing grid.

The emphasis is shifting from **"building more wires"** to **"making existing wires smarter."**

Four Major Opportunities to Unlock Over 1,000 GW of Clean Energy

1. Battery Storage: Increasing Utilisation of Existing Transmission Lines

Most solar plants utilise transmission infrastructure only during daylight hours.

Similarly, wind generation remains variable.

As a result, transmission lines remain underutilised for large parts of the day.

Solution

Installing **Battery Energy Storage Systems (BESS)** allows excess daytime electricity to be stored and supplied during:

- Evening peak demand,
- Night hours,
- Cloudy periods.

This increases utilisation of existing transmission infrastructure by **2–3 times**.

Potential

- Around **400 GW** of additional renewable energy can be integrated without constructing new transmission corridors.

2. Reusing Coal Power Transmission Corridors

India possesses nearly **100 GW** of ageing or low-utilisation coal power plants.

These plants already have:

- High-capacity transmission lines,
- Grid connectivity,
- Supporting infrastructure.

Solution

Instead of allowing these transmission assets to remain underutilised,

Solar and wind plants can be developed near coal stations and share the same transmission infrastructure whenever coal plants operate below capacity.

Benefits

- Better utilisation of existing assets.

- Additional income for coal plant owners.
- Lower transmission investment.
- Faster renewable integration.

Potential

Approximately **100 GW** of additional renewable energy.

3. Better Utilisation of Existing Substations

India already has thousands of transmission substations across the country.

Many possess spare connection capacity.

Solution

New renewable projects can directly connect to these substations instead of waiting for entirely new transmission infrastructure.

When combined with battery storage, substations can also help manage peak demand and stabilise electricity flows.

Potential

Nearly **100 GW** of additional renewable capacity.

4. Upgrading Existing Transmission Lines

A significant portion of India's transmission network still uses conventional conductors.

These older wires:

- Heat up easily,
- Sag under high temperatures,
- Limit electricity transfer.

Solution

Replace them with:

High-Temperature Low-Sag (HTLS) conductors.

These advanced conductors:

- Carry almost double the electricity,
- Require no additional towers,
- Need no extra land,
- Can be installed on existing transmission structures.

Potential

Combined with storage and shared infrastructure, this could increase the total renewable integration potential to **over 1,000 GW**.

Why Grid Modernisation is Faster

Unlike constructing entirely new transmission corridors, these measures:

- Require minimal land acquisition.
- Need fewer regulatory approvals.
- Can be implemented within months rather than years.
- Immediately reduce transmission bottlenecks.
- Improve grid efficiency.
- Lower the overall cost of electricity transmission.

Future-Proofing India's Grid

India plans to expand its transmission network by nearly **40% over the next decade**, involving investments exceeding **100 billion US dollars**.

Experts argue that every new transmission project should incorporate:

- Advanced conductors,
- Battery storage integration,
- Digital monitoring,
- Smart grid technologies.

A smart transmission corridor can transmit **4–5 times more renewable electricity** than conventional designs at only a modest increase in cost.

Policy Reforms Needed

Experts recommend three major policy shifts.

1. Expand Storage-Linked Renewable Projects

The Central Electricity Regulatory Commission (CERC) has already introduced regulations encouraging solar projects to integrate battery storage.

States now need to:

- Adopt similar regulations.
- Include storage in procurement policies.
- Promote firm renewable power.

2. Incentivise Advanced Transmission Technologies

Transmission planning should encourage:

- High-Temperature Low-Sag (HTLS) conductors,
- Dynamic line rating,
- Smart monitoring systems,
- Digital substations.

Although these technologies involve slightly higher initial investment, they significantly improve long-term efficiency.

3. Develop Renewable Energy Zones

India should coordinate:

- Renewable energy parks,

- Transmission corridors,
- Battery storage facilities,
- Industrial demand centres.

Integrated planning would reduce delays, minimise land conflicts, and improve investment certainty.

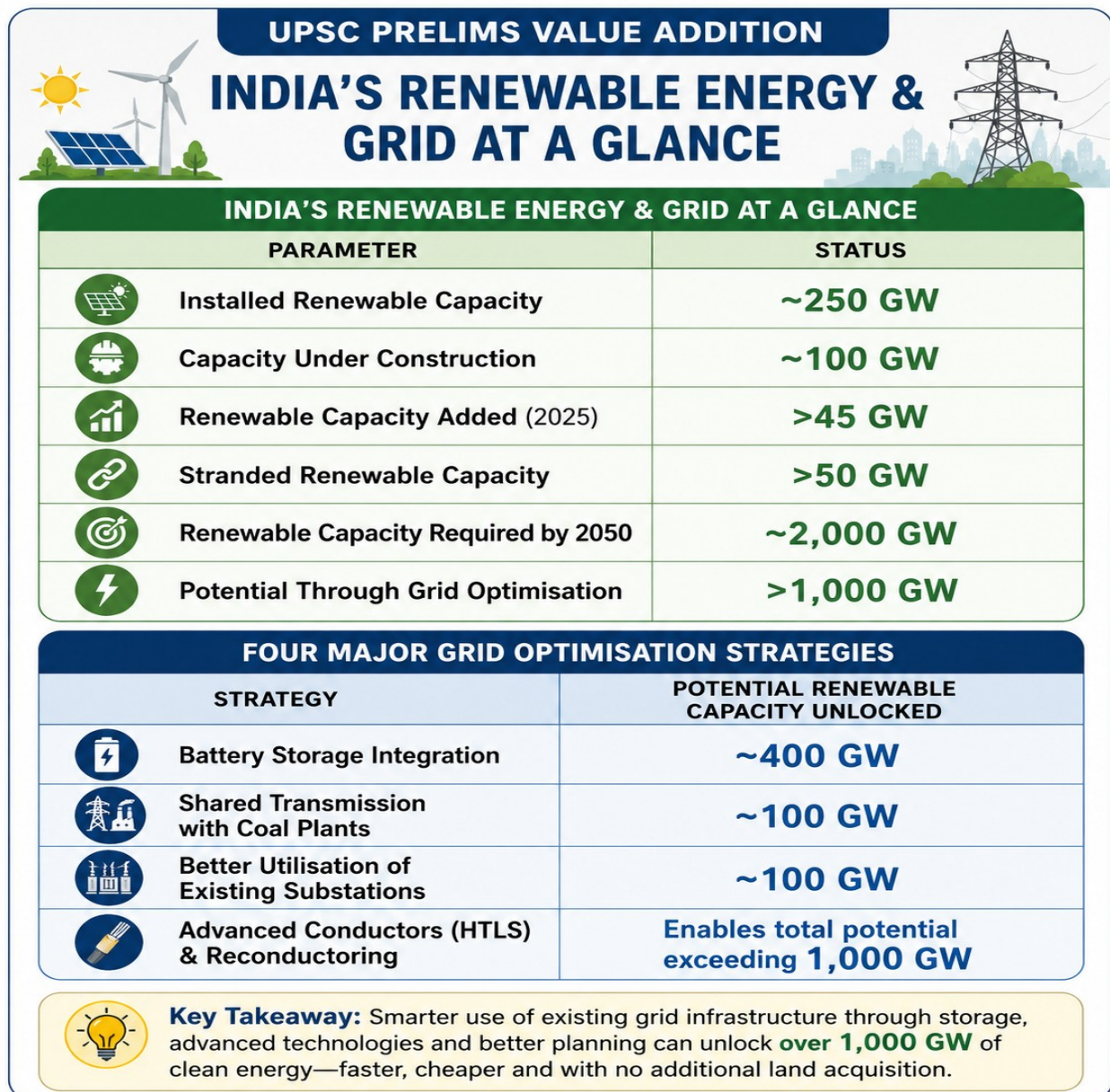
Why This Matters for India's Economy

Reliable, affordable clean electricity is becoming a competitive advantage for industries such as:

- Steel,
- Aluminium,
- Cement,
- Chemicals,
- Data centres,
- Green hydrogen,
- Electric mobility.

A modern transmission system will enable:

- Lower electricity costs,
- Greater industrial competitiveness,
- Energy security,
- Reduced fossil fuel dependence,
- Faster achievement of climate commitments.



Significance

Modernising the electricity grid is emerging as the next major phase of India's energy transition.

Instead of focusing solely on renewable energy generation, India must now prioritise:

- Smart transmission infrastructure,
- Grid flexibility,
- Battery storage,
- Digital technologies,
- Efficient utilisation of existing assets.

A stronger grid will ensure that renewable electricity generated anywhere in the country can reliably reach consumers, accelerating India's transition toward a clean, secure, and low-carbon energy future.

Conclusion

India's renewable energy transition has entered a new phase where the principal challenge is no longer producing clean electricity but delivering it efficiently. By combining **grid modernisation, battery storage, advanced transmission technologies, and integrated planning**, India can unlock more than **1,000 GW of additional renewable energy** within its existing transmission footprint. A smarter electricity grid will not only support India's climate goals but also become the backbone of industrial growth, energy security, and sustainable economic development.

INDUSTRIAL DECARBONISATION

Why in News: India's industrial decarbonisation strategy has come under renewed focus following the submission of its **First Biennial Transparency Report (BTR-1)** to the **United Nations Framework Convention on Climate Change (UNFCCC)**.

Industrial Sector (A Major Source of India's Emissions)

India's long-term development vision—**Make in India, Viksit Bharat @2047, and Net Zero by 2070**—depends upon rapid industrial growth. However, as manufacturing expands, so does energy consumption and carbon emissions.

According to **BTR-1 (2022)**:

- **More than 20% of India's total greenhouse gas emissions originate directly from industries.**
- Around **13%** of national emissions come from **fuel consumption in manufacturing and construction.**
- Another **9%** arise from **industrial processes and product use (IPPU).**

These figures underline that **industrial decarbonisation is no longer optional it is central to India's climate commitments.**

India's Current Industrial Decarbonisation Framework

India presently relies primarily on **market-based mechanisms** to reduce industrial emissions.

1. Perform, Achieve and Trade (PAT) Scheme

- Focuses on improving **energy efficiency.**
- Targets **13 energy-intensive sectors.**
- Allows industries exceeding efficiency targets to earn tradable energy-saving certificates.

2. Carbon Credit Trading Scheme (CCTS)

PAT is gradually transitioning into the **Carbon Credit Trading Scheme (CCTS).**

The CCTS focuses on reducing **emission intensity** across nine major industrial sectors:

- **Aluminium**
- **Cement**
- **Fertilisers**
- **Iron & Steel**
- **Petrochemicals**
- **Petroleum Refineries**
- **Pulp & Paper**
- **Textiles**
- **Chlor-Alkali**

Meanwhile, sectors such as:

- Thermal Power Plants
- Railways
- DISCOMs
- Commercial Buildings

continue under the PAT framework.

These mechanisms encourage industries to adopt cleaner technologies while creating a market for carbon credits.

The Hidden Challenge: 'Non-Specific Industries'

The most important revelation from India's emission inventory is that a **large share of industrial emissions remains outside the existing policy framework.**

Analysis of manufacturing emissions (2020) shows:

- Around **55%** of industrial emissions originate from clearly identified sectors like cement, steel, chemicals and textiles.
- However, **more than 40%** of emissions fall under a broad category labelled **"Non-Specific Industries."**

This trend has remained consistent across multiple years (2014, 2016, 2019 and 2020).

Why is this a Concern?

India's major climate policies—including PAT and CCTS—are designed around **well-defined industrial sectors.**

Because the "Non-Specific Industries" category lacks proper classification:

- These industries largely remain outside mandatory efficiency standards.
- They are not covered under emission reduction targets.
- They receive limited policy attention despite contributing substantially to national emissions.

This creates a significant **policy blind spot**, weakening India's overall decarbonisation strategy.

Why Better Emission Data Matters

Experts argue that India's next phase of climate action must begin with **better emission accounting.**

The government needs to:

- **Identify the industries hidden within the "Non-Specific Industries" category.**
- **Map their energy consumption patterns.**
- **Determine where emissions occur across manufacturing processes.**
- **Develop sector-specific mitigation strategies.**

Without accurate sectoral data, policymakers cannot effectively design incentives, regulations or carbon markets.

Importance of the Biennial Transparency Report (BTR-1)

Beyond fulfilling international reporting obligations under the **Paris Agreement**, BTR-1 serves an equally important domestic purpose.

It enables policymakers to:

- Identify major emission sources.
- Assess the effectiveness of existing climate policies.
- Detect sectors requiring additional intervention.
- Improve evidence-based climate governance.

Greater transparency ultimately leads to **better climate planning and more efficient policy implementation**.

Way Forward

Achieving **Net Zero by 2070** requires India's industrial transition to move beyond traditional heavy industries.

Key priorities include:

- **Disaggregating** the "Non-Specific Industries" category into identifiable sectors.
- Expanding **Carbon Credit Trading Scheme (CCTS)** coverage.
- Improving industrial energy efficiency through advanced technologies.
- Encouraging low-carbon manufacturing and cleaner fuels.
- Strengthening industrial emission monitoring using digital reporting systems.
- Promoting innovation and green financing for emerging manufacturing sectors.

Conclusion

India has already laid the foundation for industrial decarbonisation through initiatives such as **PAT** and the **Carbon Credit Trading Scheme**. However, the findings of **BTR-1** reveal that a substantial portion of industrial emissions still lies beyond the reach of existing policies. As India pursues rapid economic growth alongside its climate commitments, **better emission data, broader policy coverage, and targeted interventions will be essential to ensure that no major source of emissions remains outside the country's green transition.**

KAZIRANGA EMERGES AS A STRONGHOLD FOR RAPTORS AND STORKS

Why in News: To mark **World Environment Day (June 5)**, the **Kaziranga National Park and Tiger Reserve (Assam)** released the findings of a **rapid survey on raptors and storks**, conducted jointly with researchers from **Gauhati University**. The survey documented **30 species of raptors** and **6 species of storks**, reaffirming Kaziranga's status as one of India's most important landscapes for bird conservation. Significantly, the reserve also continues to be recognised as the **world's largest breeding stronghold of the endangered Pallas's Fish Eagle**.

Kaziranga's Remarkable Bird Diversity

- The rapid assessment was carried out by a **10-member team** between the **last week of February and March 2** across the three administrative divisions of the **Kaziranga Tiger Reserve**.
- The survey recorded:
 - **217 individual raptors** belonging to **30 species**
 - **266 individual storks** belonging to **6 species**

- The findings further strengthen Kaziranga's reputation as a globally significant habitat for birds of prey and wetland birds.

Why is Kaziranga an Ideal Habitat?

- Kaziranga lies within the **Brahmaputra floodplains**, where an exceptional combination of:
 - **Extensive wetlands**
 - **Grasslands**
 - **Marshes**
 - **Riverine forests**
 - **Woodland patches**
 - **Proximity to the Himalayan foothills**
- creates one of India's richest ecosystems for avian diversity.
- These habitats provide abundant prey, nesting sites, and seasonal breeding grounds for several threatened bird species.

Survey Coverage

The study covered all three administrative divisions of the Tiger Reserve.

Administrative Division	Raptor Species	Stork Species
Eastern Assam Wildlife Division	21	5
Biswanath Wildlife Division	20	6
Nagaon Wildlife Division	14	5

The **Biswanath Wildlife Division** emerged as the most diverse for storks, while the **Eastern Assam Wildlife Division** recorded the highest diversity of raptors.

Major Findings

Among Storks

- **Most Abundant Species**
 - **Asian Openbill (*Anastomus oscitans*)**
 - **92 individuals recorded**
 - The Asian Openbill thrives in wetlands and is commonly associated with marshes and floodplains.
- **Rarest Species**
 - **Greater Adjutant Stork (*Leptoptilos dubius*)**
 - **Only 3 individuals recorded**

The Greater Adjutant is one of the world's rarest storks and is classified as **Endangered** by the IUCN.

Among Raptors

- **Most Abundant**
- **Himalayan Griffon Vulture (*Gyps himalayensis*)**
- **69 individual sightings**

Its frequent sightings underline Kaziranga's importance as a wintering and feeding habitat for large scavenging birds.

Rarest Species

- Only **one individual each** of the following species was recorded:
 - **Booted Eagle**
 - **White-tailed Eagle**

Their low numbers indicate their rarity within the landscape.

A Global Stronghold for the Pallas's Fish Eagle

One of the most significant highlights of the survey concerns the **Pallas's Fish Eagle (*Haliaeetus leucoryphus*)**.

According to an earlier **Wildlife Institute of India (WII) survey (January 2020)**:

- **10 active nests** of the species were recorded in Kaziranga.
- This represents the **highest known concentration of breeding sites anywhere in the world.**

The species is globally threatened and has disappeared from large parts of its historical range, making Kaziranga a critical refuge for its survival.

India's Raptors and Storks

Raptors

- India is home to **112 species** of raptors (both diurnal and nocturnal).
- Around **50 species** occur in **Kaziranga and its surrounding landscape.**

This means nearly **45% of India's raptor diversity** is represented in this single ecosystem.

Storks

Globally, there are around **20 species** of storks found in tropical and subtropical regions.

- **India hosts 8 species.**
- **Assam is home to all 8 species.**
- **Kaziranga has recorded 6 of these species.**

This underscores Assam's exceptional importance for wetland bird conservation.

Why Does This Survey Matter?

The survey provides valuable baseline data for conservation planning by:

- Monitoring population trends of threatened birds.
- Identifying priority habitats for protection.
- Supporting long-term biodiversity management.
- Assessing ecosystem health through indicator species.
- Strengthening conservation strategies within the Kaziranga Tiger Reserve.

Birds such as vultures, eagles, and storks are considered **ecological indicators**, reflecting the health of wetlands, forests, and food chains.

Conservation Significance

- Kaziranga is globally celebrated for its **one-horned rhinoceros**, but the survey highlights that the reserve is equally significant for avian biodiversity.
- The presence of numerous raptors, endangered storks, and globally important breeding populations demonstrates that Kaziranga is not merely a tiger or rhino landscape—it is one of **South Asia's most valuable biodiversity hotspots**, supporting a complex and resilient ecosystem.

UPSC Mains Perspective

Importance of Bird Diversity Surveys

- Strengthen evidence-based wildlife management.
- Monitor threatened and migratory bird populations.
- Improve wetland and grassland conservation planning.
- Support ecosystem restoration and climate resilience.
- Enhance India's commitments under the Convention on Biological Diversity (CBD) and the Ramsar Convention.

Conclusion

The latest survey reinforces **Kaziranga National Park and Tiger Reserve** as far more than a sanctuary for rhinoceroses and tigers. Its rich assemblage of raptors and storks—including globally threatened species such as the **Greater Adjutant** and **Pallas's Fish Eagle**—highlights the park's pivotal role in conserving India's avian biodiversity. Sustained ecological monitoring and habitat protection will be crucial to preserving this globally significant natural heritage.

SCIENCE & TECHNOLOGY

ANTHROPIC BLACKOUT EPISODE SHOWS THAT FRONTIER AI NEEDS GLOBAL GOVERNANCE

Why in News: The **US government's** directive restricting foreign access to **Anthropic's** frontier AI models has reignited debates on **AI governance**, **technological sovereignty**, **transparency**, and **global regulation** of advanced artificial intelligence.

Key Details

- The **US government** directed Anthropic to suspend foreign access to **Fable 5** and **Mythos 5** AI models.
- The move has intensified concerns regarding **technological sovereignty** and unequal access to advanced AI systems.
- Questions have emerged over who should control **frontier AI models**—governments or private technology companies.
- **Anthropic CEO Dario Amodei** has advocated **binding regulations**, **independent audits**, and **third-party testing** of advanced AI systems.
- Experts emphasize the need for an **inclusive global AI governance framework** with active participation from countries such as **India**.

US Restrictions on Access to Frontier AI Models

- The **US government** directed **Anthropic** to suspend access to its advanced AI models, **Fable 5** and **Mythos 5**, for foreign nationals.
- The move has triggered global concerns about **control over frontier AI technologies**.
- It has intensified debates on **technological sovereignty** and equitable access to AI capabilities.

Concerns Over Concentrated Control of AI

- Countries are worried that a **single government** can restrict access to critical AI systems without **consultation or transparency**.
- The decision highlights the growing influence of governments over **strategic AI infrastructure**.
- It raises questions about fairness, accountability, and global access to transformative technologies.

Need for Stronger AI Regulation and Oversight

- There is increasing demand for a **credible and robust AI regulatory framework**.
- Even industry leaders are calling for stricter oversight of **frontier AI models**.
- **Anthropic CEO Dario Amodei** has advocated for:
 - **Binding AI regulations**
 - **Independent technical testing and audits**
 - Restrictions on deployment of unsafe AI systems
- He emphasized the role of **qualified third-party evaluators** in AI safety assessments.

Governance Challenges in Frontier AI

- The key question remains: **Who should control access to advanced AI models?**
- Options include:
 - **Governments**, which already use measures such as **chip export controls**.
 - **Private companies**, whose decisions may be influenced by **commercial and strategic interests**.
- A transparent framework based on **clear principles, procedures, and accountability mechanisms** is essential.

Need for Global and Inclusive AI Governance

- Given AI's **borderless and transformative nature**, no single country can govern it effectively alone.
- AI regulation requires a **global governance architecture** based on:
 - **International consensus**
 - **Inclusive participation**
 - **Multi-stakeholder engagement**
- **India**, with a large AI user base and significant data resources, must play a proactive role in shaping the future **global AI governance framework**.

Conclusion

Artificial Intelligence is rapidly becoming a **strategic global resource** with far-reaching economic, social, and security implications. Unilateral restrictions on access to frontier AI models highlight the **limitations of fragmented governance**. A transparent, inclusive, and rules-based international framework is essential to **balance innovation, safety, equity, and accountability**. India must actively contribute to shaping this emerging global AI governance architecture.

EXPECTED QUESTION UPSC CSE

Descriptive Question

Q. "The borderless nature of Artificial Intelligence necessitates a global governance framework beyond national regulations." Discuss the challenges and prospects of international AI governance. (150 words, 10 marks)

PANDEMIC PREPAREDNESS IS DEEPER, MUST BECOME BROADER

Why in News: Five years after **Covid-19**, the outbreaks of **Ebola** in Central Africa and **Hantavirus** on the MV **Hondius** have reignited debate on global pandemic preparedness, surveillance systems, healthcare readiness, and funding.

Key Details

- **Ebola** benefited from **established surveillance** and response mechanisms.
- **Hantavirus** exposed gaps in detecting rare zoonotic diseases.

- Strong healthcare infrastructure **remains critical for outbreak management.**
- Public trust and effective risk **communication are essential** during crises.
- Global health funding and **preparedness efforts have** weakened since Covid.

Covid Memories and New Disease Outbreaks

- Spring in England and summer in India evoke memories of the devastating **Covid-19 pandemic** of 2021.
- Millions experienced loss and suffering during the crisis.
- Five years later, the world is facing new infectious disease threats.
- **Hantavirus** emerged aboard the MV Hondius cruise ship, causing suspected infections and deaths.
- **Ebola** has reappeared in Central Africa and continues to spread.

Early Detection and Surveillance Systems

- **Ebola preparedness** benefited from decades of global monitoring and response planning.
- Authorities were able to identify and track Ebola cases relatively quickly.
- The Hantavirus outbreak **exposed weaknesses** in detecting rare zoonotic diseases.
- Cruise ships and international **travel settings created additional surveillance challenges.**
- Initial symptoms **resembling common illnesses** delayed recognition of the threat.

Healthcare and Clinical Response Capacity

- **Effective outbreak management requires** hospitals, PPE, trained personnel, and critical-care facilities.
- **Ebola responses reflected years** of investments in specialised healthcare systems.
- **Health authorities demonstrated stronger readiness** in treating Ebola patients.
- Hantavirus cases revealed adequate hospital treatment capabilities.
- **However, preparedness for identifying and responding** to unexpected pathogens remained limited.

Public Trust, Research and Global Coordination

- **Public-health agencies** have developed established communication strategies for Ebola.
- **Hantavirus highlighted** how uncertainty can fuel confusion and misinformation.
- **Scientific infrastructure** built through previous Ebola outbreaks aided research efforts.
- **Research on Hantavirus** faced difficulties due to limited funding and experience.
- **International coordination** becomes more complex when dealing with unfamiliar diseases and settings.

Declining Preparedness and Future Risks

- **Preparedness remains** strongest for familiar threats such as Ebola.
- The world **remains less prepared for rare and unexpected** diseases like Hantavirus.
- Pandemic preparedness requires integration of surveillance, healthcare, science, governance, **and communication.**

- **Global health funding** has declined since 2024–25 due to aid cuts and weakening international institutions.
- **Without sustained investment,** future outbreaks could become far more difficult to contain than recent ones.

Conclusion

The experiences of Ebola and Hantavirus demonstrate that effective disease containment requires **coordinated surveillance**, healthcare systems, scientific research, governance, and public communication. While the world has strengthened its capacity to tackle familiar outbreaks, **preparedness for novel pathogens remains inadequate.** Sustained funding, international cooperation, and **institutional resilience** are necessary to ensure future epidemics do not escalate into global health emergencies.

Descriptive question:

"Despite lessons from Covid-19, global preparedness against emerging infectious diseases remains uneven." Discuss with reference to recent Ebola and Hantavirus outbreaks. (150 words, 10 marks)

PRIMED TO TREAT

Why in News: A **Nipah virus case** in Kerala has renewed concerns over recurring zoonotic outbreaks. Effective containment through rapid surveillance and contact tracing highlights Kerala's strong public health preparedness and response capacity.

Key Details

- **Current Situation:** Kerala has reported **one active Nipah case** in Kozhikode, with no secondary infections detected so far.
- **High-Risk Pathogen:** WHO classifies Nipah as a **Priority Pathogen** due to its high mortality rate and outbreak potential.
- **Source of Infection:** **Fruit bats (*Pteropus*)** are the natural reservoir; transmission occurs through contaminated fruits, water, or human contact.
- **Recurring Outbreaks:** Kerala has experienced Nipah outbreaks in **2018, 2019, 2021, 2023, 2024, and 2025**, strengthening institutional preparedness.
- **One Health Relevance:** Rising **human encroachment into forest ecosystems** increases zoonotic spillover risks, underscoring the need for a **One Health Approach.**

Kerala Remains Vulnerable to Nipah Outbreaks

- Kerala's **ecological conditions** and **human activities near forest areas** increase the risk of **Nipah virus transmission.**
- **Fruit bats (*Pteropus*)** are the **natural reservoir hosts** of the virus.
- Every **monsoon season**, environmental conditions create favourable circumstances for potential outbreaks.
- The **World Health Organization (WHO)** has classified Nipah virus as a **Priority Pathogen** due to its **high fatality rate** and **pandemic potential.**
- Kerala is also vulnerable to other **zoonotic diseases** such as **Avian Influenza** and **Kyasanur Forest Disease (KFD).**

Strong Public Health Response Has Limited the Current Outbreak

- Kerala has reported only **one active Nipah case**, involving a **43-year-old man from Kozhikode**.
- Intensive **contact tracing, surveillance, and screening** have prevented further transmission.
- No additional cases have been detected after identification of the **index patient**.
- Authorities activated **rapid response mechanisms** immediately after confirmation of infection.
- The limited spread highlights the strength of Kerala's **public health infrastructure and disease surveillance system**.

Lessons from Previous Nipah Outbreaks

- The **2018 Kerala outbreak** caused **17 deaths** and affected **23 people**, including **health-care workers**.
- The virus spread primarily through **person-to-person transmission** during the outbreak.
- Kerala subsequently reported cases/outbreaks in **2019, 2021, 2023, 2024, and 2025**.
- Earlier Indian outbreaks occurred in **West Bengal (2001 and 2007)**.
- In **January 2026**, two **health-care workers** in West Bengal tested positive, but the outbreak was successfully **contained**.

Human Encroachment Is a Major Cause of Transmission

- **Human encroachment** into **forest-fringe areas** increases interaction between humans and fruit bats.
- Consumption of **bat-contaminated fruits** is a major route of transmission.
- Contact with **water sources contaminated by bat excreta** can also spread the virus.
- Nipah originated as a **zoonotic disease** before spilling over into human populations.
- **Habitat destruction, land-use change, and environmental degradation** heighten the risk of future outbreaks.

Importance of the One Health Approach

- Effective Nipah control requires a **One Health Approach**, integrating **human, animal, and environmental health**.
- A purely **health-care-centric approach** is insufficient to tackle recurrent outbreaks.
- Kerala's experience has strengthened preparedness at **primary and secondary health-care facilities**.
- Health authorities maintain a high **index of suspicion** for **acute encephalitis cases** and unusual disease clusters.
- **Early detection, standard operating protocols (SOPs), and coordinated emergency response systems** are essential for **pandemic preparedness** and outbreak containment.

Conclusion

The recurring emergence of Nipah in Kerala demonstrates the growing challenge of zoonotic diseases in an era of ecological disruption. Kerala's success in containing outbreaks through

early detection, surveillance, and coordinated response offers valuable lessons for India. Strengthening the **One Health framework**, conserving ecosystems, and enhancing public health preparedness are essential to preventing future outbreaks and ensuring pandemic resilience.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements:

Statement 1: Nipah virus is a zoonotic virus that can be transmitted from animals to humans and also through human-to-human contact.

Statement 2: Fruit bats of the genus Pteropus are the natural reservoir hosts of the Nipah virus.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does **not** explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Answer: a

INDIA'S INNOVATION ECOSYSTEM

Why in News: The issue of India's innovation ecosystem has gained renewed attention following two significant developments. First, the '**Bharat Innovates 2026**' event in **Nice, France**, showcased India's growing capabilities in deep-tech innovation and startup incubation. Second, **Anthropic's decision to restrict access to its latest AI models, Claude Mythos and Claude Fable, for non-U.S. users** highlighted the strategic risks of relying on foreign frontier technologies. Together, these developments have reignited the debate on whether India should remain primarily a consumer of advanced technologies or emerge as a global innovation leader.

Background

- Over the past two decades, India has established itself as a global hub for **software services, digital public infrastructure, and technology talent**. Indian professionals today occupy leadership positions in some of the world's largest technology companies, demonstrating exceptional managerial and engineering capabilities.
- However, despite this immense talent pool, India continues to depend heavily on foreign countries for many **frontier technologies**, including advanced artificial intelligence (AI), semiconductor manufacturing, and cutting-edge scientific research.
- **NOTE: Recent restrictions on access to advanced AI models have underscored an important strategic lesson:**
 - *Technological dependence can quickly become strategic dependence.*

India's Emerging Innovation Potential

The **Bharat Innovates 2026** event highlighted that Indian startups are increasingly capable of developing globally competitive technologies when provided with:

- Long-term incubation support,

- Research funding,
- Industry-academia collaboration, and
- Access to global markets.

French President **Emmanuel Macron** also emphasised the importance of **middle-power collaboration**, encouraging countries such as India and France to cooperate in developing next-generation technologies.

The event demonstrated that India possesses the necessary scientific talent to become an important centre of global innovation.

The Challenge (Innovation vs Technology Adoption)

A major policy debate today is whether India should:

- focus primarily on **deploying technologies developed elsewhere**, or
- invest aggressively in creating **frontier technologies of its own**.

Many experts argue that competing directly with technology giants in fields such as **foundation AI models** or **advanced semiconductor fabrication** requires investments running into **tens of billions of dollars**, making immediate competition difficult.

However, this does not mean India cannot become a global innovation leader.

Where India Can Lead?

Rather than attempting to dominate every frontier simultaneously, India can build global leadership in several high-impact sectors.

These include:

- **Artificial Intelligence applications**
- **Space technology**
- **Defence technologies**
- **Advanced materials and manufacturing**
- **Quantum technologies**
- **Biotechnology**
- **Clean energy innovations**

These sectors remain relatively open and offer significant opportunities for emerging innovation ecosystems.

Building a Strong Innovation Ecosystem

The article argues that two essential conditions are necessary for India to innovate successfully.

1. India Must Become an Attractive Destination for Capital

Innovation requires patient, risk-taking investment.

For this, India needs:

- Stable and predictable taxation policies.
- Transparent regulatory frameworks.
- Reduced policy uncertainty.
- Greater availability of venture capital for deep-tech startups.
- Encouragement for high-risk, high-reward research rather than only commercially proven ideas.

Investors must feel confident that successful innovators will not face unpredictable regulatory or tax burdens.

2. India Must Retain and Attract Talent

Innovation depends ultimately on human capital.

India produces world-class engineers, scientists, and entrepreneurs, yet many continue to seek opportunities abroad.

Retaining this talent requires improving overall quality of life through:

- Cleaner cities and improved air quality.
- Better public transportation.
- Well-planned urban infrastructure.
- Green public spaces.
- High-quality research institutions.
- Attractive career opportunities within India.

Creating an environment where talented individuals envision their future in India is as important as providing research funding.

Why Frontier Innovation Matters

Developing indigenous frontier technologies offers multiple strategic advantages.

It can:

- Reduce dependence on foreign technologies.
- Enhance technological sovereignty.
- Improve national security.
- Generate high-value employment.
- Increase global competitiveness.
- Strengthen India's role in shaping future technological standards.

Innovation is increasingly becoming a key determinant of geopolitical influence alongside military and economic power.

Key Challenges

Despite significant progress, India continues to face several structural obstacles.

These include:

- Limited investment in research and development.
- Regulatory uncertainty.
- Inadequate venture funding for deep-tech startups.
- Brain-drain of highly skilled professionals.
- Gaps between academia and industry.
- Urban infrastructure and quality-of-life concerns.

Addressing these issues requires sustained policy reforms rather than isolated initiatives.

Way Forward

India's innovation journey should move beyond merely adopting global technologies towards creating globally competitive technologies of its own.

Key priorities include:

- Increasing public and private investment in R&D.
- Expanding deep-tech startup incubation.
- Strengthening university-industry collaboration.
- Improving ease of doing business for innovation-driven enterprises.
- Building world-class research infrastructure.
- Creating predictable tax and regulatory policies.
- Investing in high-quality urban public goods to retain global talent.

As emerging technologies increasingly shape economic growth and national security, India's long-term competitiveness will depend not only on its ability to use innovation—but also on its ability to create it.

Conclusion

India possesses world-class talent but must now transition from being a **global technology consumer** to a **global technology creator**. Building an innovation-driven economy will require sustained investment in research, predictable

policies, patient capital, and an ecosystem capable of attracting and retaining the country's best minds.

SHOULD INDIA MAKE AI TOKENS FREE?

Why in News: Artificial Intelligence (AI) has emerged as a central pillar of India's technological and economic strategy. In this context, a policy proposal advocating **free AI tokens for research institutions, universities, and schools** has reignited discussions on whether India should replicate the success of its Digital Public Infrastructure (DPI)—such as **Aadhaar, UPI, and affordable internet**—to build an inclusive AI ecosystem.

The proposal argues that AI should be treated as a strategic national capability and that **universal access to AI computing resources** could become the next major driver of India's economic transformation.

From the "Hindu Rate of Growth" to the "Bharat Rate of Growth"

For several decades after Independence, India's economy grew at an average annual rate of around **3%**, often referred to as the **"Hindu Rate of Growth."**

Following the economic reforms of **1991**, growth accelerated significantly as India embraced liberalisation, privatisation, and globalisation.

The proposal suggests that AI could become a similar inflection point, enabling India to sustain **8% or higher GDP growth** over the coming decade through productivity gains, innovation, and digital transformation.

Learning from India's Digital Public Infrastructure (DPI)

India has previously demonstrated its ability to leapfrog traditional development models through large-scale digital initiatives.

- Aadhaar**
- World's largest biometric identity system.
 - Covers over **1.3 billion residents**.
- Unified Payments Interface (UPI)**
- Processes billions of real-time digital transactions annually.
 - Has positioned India as a global leader in digital payments.

Affordable Internet Revolution

The launch of affordable mobile data dramatically expanded internet access, making digital services accessible to millions. The proposal argues that **AI infrastructure should become the next layer of India's Digital Public Infrastructure.**

KEY DIFFERENCES: MGNREGA vs VB-G RAM G

Feature	MGNREGA	VB-G RAM G
 Nature of Scheme	 Demand-driven	 Supply-driven
 Guaranteed Employment	100 days	125 days
 Funding Pattern	Approx. 90:10 (Centre : State)	60:40 (Centre : State)
 Coverage	 Universal across notified rural areas	 Selected rural areas notified by Centre
 Seasonal Employment	 No blackout period	 Blackout permitted during peak agricultural season
 Fund Allocation	 Based on demand	 Fixed budget using objective parameters

- What Are AI Tokens?**
- AI tokens are the fundamental computational units consumed whenever a user interacts with a Large Language Model (LLM).
 - Every prompt submitted to an AI system and every word generated consumes tokens.
 - Since AI service providers charge according to token usage, tokens effectively represent the **cost of accessing AI computing power**.
 - Making AI tokens free would therefore reduce the cost of using advanced AI systems for education, research, innovation, and public services.

- Why Does the Proposal Advocate Free AI Tokens?**
- The proposal argues that AI should be viewed as a **public knowledge infrastructure**, similar to electricity, broadband, or digital identity.
- Initially, free AI access could be provided to:
- National research institutions.
 - Universities.
 - Schools.
 - Scientists.
 - Students.
 - Start-ups.

The objective is to democratise access to advanced AI tools and accelerate innovation across sectors.

AI as an Investment Rather Than an Expense

The proposal highlights that India currently spends substantial public resources on various subsidies.

It argues that a comparatively modest investment in AI infrastructure could generate significantly higher long-term economic returns by improving:

- Productivity.
- Research.
- Innovation.
- Human capital.
- Global competitiveness.

The underlying argument is that investing in **knowledge creation** may yield greater long-term benefits than expanding consumption subsidies.

Proposed Funding Strategy

Rather than creating an entirely new expenditure programme, the proposal recommends:

Reprioritisation of Existing Expenditure

- Slow the growth of certain subsidies.
- Redirect a small portion towards AI infrastructure.

Public-Private Partnerships

Collaborate with global cloud providers such as:

- Amazon Web Services (AWS)
- Google Cloud
- Microsoft Azure

The government could facilitate:

- Data centre infrastructure.
- Land availability.
- Power support.
- Regulatory certainty.

In return, technology companies could provide subsidised AI computing capacity.

Cross-Subsidisation

Commercial enterprise users could pay market prices, enabling schools, universities, and public research institutions to receive AI services at little or no cost.

Building India's Sovereign AI Infrastructure

The proposal emphasises that India should not remain merely a consumer of foreign AI services.

Instead, it should develop the capability to:

- Train AI models.
- Host AI models.
- Operate AI infrastructure.
- Manage AI data securely.

This would strengthen India's technological sovereignty and reduce dependence on external providers.

Importance of Open-Source AI Models

The proposal recommends adopting a **hybrid AI strategy** combining domestic and open-source models.

Examples include:

- Llama
- Qwen
- DeepSeek
- Kimi
- Sarvam

Potential Advantages

- Reduced dependence on proprietary foreign APIs.
- Lower operating costs.
- Better adaptation to Indian languages.

- Greater transparency.
- Improved data sovereignty.
- Enhanced national security.

Why AI Infrastructure Matters

Running AI models at national scale requires far more than software.

Critical infrastructure includes:

High Availability

Reliable AI services with minimal downtime.

Low Latency

Fast response times across urban and rural India.

Energy Efficiency

Optimising computing power while reducing electricity consumption.

Cybersecurity

Protection against:

- Data breaches.
- Prompt injection attacks.
- Unauthorised access.

Data Residency

Ensuring sensitive government and citizen data remain within India's jurisdiction.

Diversifying AI Hardware

The proposal cautions against dependence on a single hardware supplier.

Instead, it recommends a diversified AI computing ecosystem using multiple technologies.

A suggested hardware mix includes:

- AWS Trainium and AMD accelerators.
- Google Tensor Processing Units (TPUs).
- NVIDIA GPUs for specialised workloads.

Diversification could reduce costs while improving supply chain resilience.

Suggested Roadmap for Implementation

The proposal outlines a phased rollout over **24 months**.

Phase I

- Announce a National AI Token Policy.
- Establish public-private partnerships.
- Launch pilot projects in IITs and IISc.

Phase II

- Expand AI access to universities.
- Launch AI literacy programmes in schools.
- Provide AI APIs for start-ups.

Phase III

- Develop sovereign Indic AI benchmarks.
- Deploy AI solutions in:
 - Healthcare.
 - Agriculture.
 - Judiciary.
 - Education.

Phase IV

- Expand AI access across all major Indian languages.
- Build a nationwide AI innovation ecosystem.

Potential Benefits

If implemented effectively, the proposal argues that widespread AI access could:

- Increase research productivity.
- Improve education quality.
- Accelerate scientific discovery.
- Promote start-up innovation.
- Enhance public service delivery.
- Improve governance.

- Strengthen India's digital sovereignty.
- Boost long-term economic growth.

Challenges and Considerations

While ambitious, the proposal raises several policy questions:

- Fiscal sustainability of AI subsidies.
 - Energy requirements for large-scale AI infrastructure.
 - Data privacy and cybersecurity.
 - Regulatory oversight of AI systems.
 - Dependence on foreign technology providers.
 - Digital divide in AI adoption.
 - Environmental impact of high-performance computing.
- Balancing innovation with responsible governance will be critical.

Conclusion

The proposal to make AI tokens freely available for educational and research purposes reflects a broader vision of treating Artificial Intelligence as a form of national digital infrastructure. Drawing inspiration from India's success with Aadhaar, UPI, and affordable internet, it argues that

democratising access to AI could accelerate innovation, strengthen technological sovereignty, and enhance economic competitiveness. Whether or not the proposal is adopted in its present form, it underscores a crucial policy question for India: **Should AI be regarded merely as a commercial technology, or as a strategic public good capable of driving the country's next phase of inclusive growth.**

UNIVERSE STILL EXPANDING AT AN ACCELERATING PACE (NEW STUDY)

Why in News: A new international study, published in the *Monthly Notices of the Royal Astronomical Society*, has reaffirmed that the **Universe continues to expand at an accelerating rate**, strengthening the long-standing **Dark Energy Theory**. The findings directly challenge a 2025 study that suggested the cosmic expansion had slowed or even stopped accelerating, thereby reopening one of the most fundamental debates in modern cosmology.

WHAT IS DARK ENERGY?

The mysterious force driving the accelerated expansion of our Universe



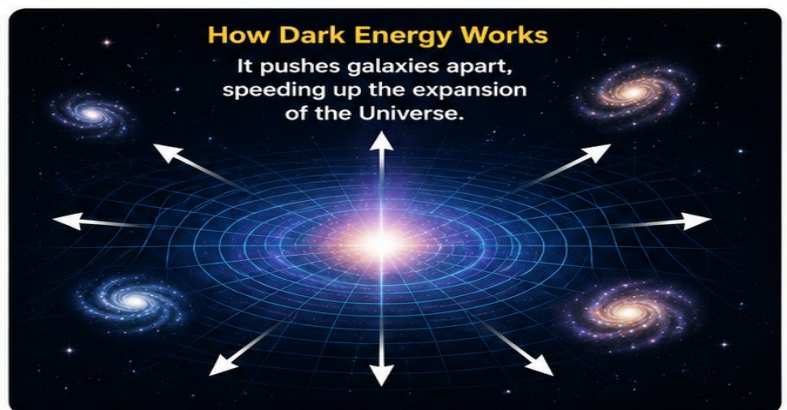
Dark Energy is a **hypothetical** form of energy believed to **permeate all of space**.



Its defining characteristic is that it exerts a **repulsive effect**, pushing galaxies away from one another and causing the expansion of the Universe to **accelerate**.



Although its exact nature remains unknown, it is considered the **dominant component** of the Universe.



ESTIMATED COMPOSITION OF THE UNIVERSE



THE BIG PICTURE:

Thus, nearly **95%** of the Universe consists of invisible components that scientists are still trying to understand.

What Does the New Study Say?

Researchers from multiple international institutions re-examined observational data from **Type Ia Supernovae**—stellar explosions regarded as the most reliable "standard candles" for measuring enormous cosmic distances.

After analysing two of the world's largest supernova datasets, the team concluded that:

- The **Universe is still expanding at an accelerating rate**.
- There is **no convincing evidence** that Dark Energy has weakened.

- Earlier claims challenging accelerated expansion are **not supported** by the latest analysis.

The study included renowned cosmologists, including **two Nobel Prize-winning scientists**, adding significant credibility to the findings.

Why are Type Ia Supernovae Important?

Type Ia Supernovae occur when a **white dwarf star** undergoes a catastrophic explosion after reaching a critical mass.

These explosions are exceptionally valuable because they possess **nearly identical intrinsic brightness (luminosity)**.

This allows astronomers to:

- Compare their observed brightness with their actual brightness.
- Calculate their distance from Earth with remarkable accuracy.
- Measure how rapidly the Universe has expanded over billions of years.

For this reason, Type Ia Supernovae are often called "**standard candles**" of cosmology.

The Scientific Debate

The controversy began after researchers from **Yonsei University (South Korea)** argued that previous calculations overlooked an "**age effect**" in supernova observations.

According to them:

- The age of stars before exploding into supernovae influences their brightness.
- Correcting for this effect suggested that **Dark Energy is weakening**.
- Consequently, the Universe's expansion may no longer be accelerating.
-

The latest study carefully tested this hypothesis using much larger datasets.

Researchers found **no statistical evidence** supporting the proposed age effect and concluded that the earlier interpretation was not robust.

However, the Yonsei research team continues to defend its methodology, indicating that scientific debate on the subject remains active.

Why is this Discovery Important?

The findings strengthen one of the **foundations of modern cosmology**.

They reinforce confidence in:

- The **Dark Energy model**.
- The **Λ CDM (Lambda Cold Dark Matter) Model**, currently regarded as the standard model of cosmology.
- The reliability of **Type Ia Supernovae** as distance indicators.

Understanding whether Dark Energy is constant, changing, or entirely different from current theories has profound implications for predicting the **ultimate fate of the Universe**.

Way Forward

Future astronomical missions, including advanced space telescopes and next-generation observatories, will collect far more precise observations of distant galaxies and supernovae.

These datasets are expected to:

- Improve measurements of cosmic expansion.
- Reveal the true nature of Dark Energy.
- Test whether Einstein's theory of gravity requires modification on cosmological scales.
- Enhance our understanding of the origin, evolution, and eventual destiny of the Universe.

DEFENCE & SECURITY

CAUGHT IN THE MIDDLE

Why in News: India is strengthening its anti-drug strategy amid rising cross-border trafficking from **Myanmar**, increasing use of **drones** and **darknet**, and growing concerns over addiction, rehabilitation, and organised crime.

Key Details

- India is located between the **Golden Crescent** and **Golden Triangle**, making it highly vulnerable to **drug trafficking**.
- Myanmar** has emerged as the world's largest source of **illicit opium**, while **methamphetamine** production remains concentrated in East and Southeast Asia.
- Drug traffickers increasingly use **drones**, **darknet platforms**, **cryptocurrencies**, and **maritime routes** to smuggle narcotics into India.
- India faces major gaps in **de-addiction infrastructure**, especially in **rural**, **border**, and **women-specific** treatment facilities.
- Experts recommend shifting focus from **drug seizures** to **rehabilitation**, **social reintegration**, **stronger regulation**, and **public health-based interventions**.

India's Growing Drug Security Challenge

- India lies between the **Golden Crescent** (Afghanistan, Pakistan, Iran) and the **Golden Triangle** (Myanmar, Thailand, Laos), making it vulnerable to **drug trafficking**.
- Myanmar** has emerged as the world's largest source of **illicit opium**, while **East and Southeast Asia** remain major producers of **methamphetamine**.
- Drugs enter India through **maritime routes**, particularly via **Gujarat**, **Kerala**, and **Tamil Nadu**.
- The expansion of **ethnic armed organisations** in Myanmar has intensified cross-border trafficking risks.
- India's strategic location has increased its exposure to both **transnational organised crime** and the **illegal narcotics trade**.

Evolving Drug Trafficking Methods

- Drug traffickers increasingly use **drones**, especially along the **Punjab border**, to smuggle narcotics.
- Criminal networks operate through the **darknet** and use **cryptocurrencies** for anonymous transactions.
- Some drugs are manufactured domestically using **illegally diverted pharmaceutical ingredients**.
- Weak regulation allows pharmaceutical manufacturers to escape with relatively **lenient penalties** despite large-scale diversion.
- Law enforcement must continuously innovate to counter **technology-driven trafficking networks**.

Gaps in De-addiction and Rehabilitation

- States are adopting a **'Whole-of-Society' approach**, recognising addiction as a **public health** and **social issue**.
- Punjab** has relatively strong **de-addiction centres** and **opioid substitution therapy**, while many large States lack adequate treatment facilities.
- Most **Integrated Rehabilitation Centres for Addicts (IRCAs)** are concentrated in **urban areas**, despite higher addiction levels in **border villages** and **rural regions**.
- Reports of **physical abuse** and **forced detoxification** in some private rehabilitation centres undermine treatment quality.
- Limited access to affordable and quality rehabilitation increases the risk of **relapse**.

Social and Institutional Challenges

- Social stigma** discourages many individuals from seeking treatment, particularly in **rural North India**.
- Relapse** is often viewed as a **moral failure** rather than a medical condition requiring continued support.
- Criminal records for **small-scale drug possession** reduce employment opportunities, trapping youth in the **drug-crime cycle**.
- Despite the **Nasha Mukta Bharat Abhiyaan**, **women-specific treatment facilities** remain scarce.
- Gender stigma**, caregiving responsibilities, and lack of **gender-responsive care** prevent many women from accessing rehabilitation.

Way Forward

- Shift policy focus from **drug seizures and arrests** to **successful rehabilitation and recovery outcomes**.
- Strengthen **drug regulation**, improve monitoring of **pharmaceutical supply chains**, and impose stricter penalties for diversion.
- Expand **de-addiction centres**, especially in **border**, **rural**, and **high-burden regions**.
- Integrate **mental health services**, **vocational training**, and **community-based rehabilitation** into addiction treatment.
- Combine **strong enforcement** with **accessible treatment**, **public awareness**, and **social reintegration** to break the cycle of addiction.

Conclusion

India's fight against drugs requires a **balanced approach** that combines strong law enforcement with **accessible rehabilitation** and social support. Strengthening border security, regulating pharmaceutical supply chains, expanding de-addiction services, and **reducing stigma** will improve long-term outcomes. Success should be measured not only by seizures and arrests but by restoring lives and breaking the **cycle of addiction** and crime.

SOCIAL ISSUES

BUYER BEWARE

Why in News: The **Health Ministry** has expanded **Schedule H2** to cover entire therapeutic classes, strengthening QR-code based medicine tracking to curb counterfeit drugs, improve quality control, and enhance pharmaceutical supply chain transparency.

Key Details

- **Risk-Based Regulation:** Schedule H2 now covers **entire therapeutic classes** instead of selected drug brands.
- **Enhanced Traceability:** QR codes include product ID, licence number, batch number, and manufacturing details for tracking medicines.
- **Public Health Benefits:** Helps combat **counterfeit medicines**, antimicrobial resistance (AMR), and diversion of controlled drugs.
- **Regulatory Reforms:** Complements the **Jan Vishwas Act, 2026** by distinguishing procedural lapses from serious non-compliance.
- **Implementation Needs:** Requires a real-time national database, interoperable digital infrastructure, consumer awareness, and MSME support.

Expansion of Schedule H2

- The **Health Ministry** has expanded **Schedule H2** from a selected list of drug brands to **entire therapeutic classes**.
- The move shifts regulation from a **revenue-based** approach to a **risk-based** approach.
- Introduced in **2022-23**, Schedule H2 required **QR codes/barcodes** on medicine packs to verify authenticity.
- The new system also includes:
 - Product identifier
 - Manufacturing licence number
 - Batch number
 - Other traceability details

Objectives and Significance

- Enables authorities to **trace defective or counterfeit drug batches** more effectively.
- Strengthens pharmaceutical **quality control** and **supply chain transparency**.
- Helps curb the circulation of:
 - Fake medicines
 - Counterfeit vaccines
 - Cancer drugs
 - Antimicrobials
- Supports safer pharmaceutical exports and regulatory compliance.

Key Concerns Addressed

- Tackles the growing problem of **counterfeit medicines** in India.

- Helps combat **antimicrobial resistance (AMR)** caused by substandard medicines and under-dosing.
- Reduces the diversion of **medicinal opioids** and **psychotropic drugs** into illegal markets.
- Addresses repeated quality concerns raised by:
 - **U.S. FDA**
 - **European Medicines Agency (EMA)**
 - **U.S. Trade Representative (USTR)**

Implementation Challenges

- QR code tracking requires a **real-time, government-managed digital database**.
- States need **interoperable software and scanning infrastructure**.
- Pharmacists and consumers must regularly **verify medicines before sale or purchase**.
- MSME pharmaceutical manufacturers may face higher **packaging and IT compliance costs**.
- Prescription data on controlled medicines requires **strong digital privacy and governance safeguards**.

Way Forward

- Ensure effective nationwide implementation of the **Schedule H2 tracking system**.
- Reduce unnecessary compliance while enforcing strict action against serious violations.
- Provide financial and technical support to **MSME drug manufacturers**.
- Build secure digital infrastructure with robust **data protection measures**.
- Strengthen public awareness and pharmacist participation to improve medicine verification and restore India's reputation as the **"Pharmacy of the World."**

Conclusion

The expansion of Schedule H2 marks an important step towards a safer, more transparent pharmaceutical ecosystem. However, technology alone cannot eliminate counterfeit medicines. Effective implementation through digital infrastructure, strong regulatory oversight, industry support, and public participation is essential. A robust traceability system will strengthen patient safety, enhance global confidence, and reinforce India's position as the **"Pharmacy of the World."**

DEADLY FUMES

Why in News: Tamil Nadu's deadliest industrial ammonia gas leak at a seafood processing unit in Tiruvallur killed eight workers and injured dozens, raising concerns over industrial safety, regulatory enforcement, and hazardous industries.

Key Details

- **Eight migrant women workers died** and 68 others were hospitalised after an ammonia gas leak at a seafood processing factory in Tiruvallur district.

- The leak reportedly occurred from the **ammonia pipeline connected to ice-flake machinery** while workers were resting in factory accommodation.
- Earlier inspections had identified deficiencies such as the **absence of an alarm system, fire hydrants, and revised approval** for installed machinery.
- Previous incidents in **Ennore (2023)** and **Thoothukudi (2024)** highlighted recurring ammonia-related industrial safety concerns in Tamil Nadu.
- The State government has ordered inspections of **6,669 hazardous industries** and emphasized stricter enforcement of safety regulations.

Scale of the Tragedy

- **Deadliest ammonia gas leak** in Tamil Nadu in recent years
- **8 migrant women workers** lost their lives
- **68 workers hospitalised**, several in ICU
- Possible accumulation of **fatal concentrations of ammonia gas**

Recurring Industrial Safety Concerns

- **Ammonia leaks** reported periodically since the **1980s**
- Incidents concentrated around **Chennai industrial areas**
- Earlier accidents mainly caused **eye irritation and breathing difficulties**
- Highlights persistent **industrial safety challenges**

Factors Increasing Casualties

- Leak occurred in **worker accommodation** during rest hours
- Suspected leak from **ammonia pipeline** linked to **ice-flake machinery**
- Lack of a proper **alarm system** delayed evacuation
- Casualties could have been higher on a regular **working day**

Regulatory and Compliance Failures

- Factory failed to address **DISH inspection deficiencies**
- Absence of **alarm systems and fire hydrants**
- No **revised plan approval** for machinery installation
- Indicates poor **compliance with safety regulations**

Way Forward

- Ensure strict enforcement of **Industrial Major Accident Hazard Rules, 1994**
- Install **ammonia sensors, water-curtain systems, and fire-water nozzles**
- Conduct regular **safety audits** of hazardous industries
- Impose stronger **penalties** and ensure **political accountability** for violations

Conclusion

- **Eight migrant women workers died** and 68 others were hospitalised after an ammonia gas leak at a seafood processing factory in Tiruvallur district.
- The leak reportedly occurred from the **ammonia pipeline connected to ice-flake machinery** while workers were resting in factory accommodation.
- Earlier inspections had identified deficiencies such as the **absence of an alarm system, fire hydrants, and revised approval** for installed machinery.

- Previous incidents in **Ennore (2023)** and **Thoothukudi (2024)** highlighted recurring ammonia-related industrial safety concerns in Tamil Nadu.
- The State government has ordered inspections of **6,669 hazardous industries** and emphasized stricter enforcement of safety regulations.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Industrial disasters in India often stem from weak enforcement rather than the absence of regulations." Examine in the context of recent ammonia gas leak incidents and suggest measures for improving industrial safety governance. (10 marks, 150 words)

FIRE AND FURORE

Why in News: Recent deadly fires in a Delhi B&B and a Muzaffarpur hospital have highlighted persistent urban fire safety failures, including regulatory violations, weak enforcement, overcrowding, and inadequate emergency preparedness.

Key Details

- **Recurring Pattern:** Fires such as the **Uphaar Cinema (1997)**, **Arpora nightclub (2025)**, Delhi B&B fire (2026), and Muzaffarpur hospital fire reveal similar safety lapses.
- **Common Vulnerabilities:** Overcrowding, blocked exits, unauthorized structural modifications, poor compliance with safety norms, and weak enforcement.
- **Regulatory Failures:** The Delhi B&B reportedly lacked fire clearance, violated safety norms, and exceeded permissible room limits.
- **Accountability Issues:** Enforcement agencies and local authorities face questions regarding ineffective inspections and monitoring.
- **Need for Systemic Reforms:** Regular audits, stricter penalties, transparent inspections, improved emergency preparedness, and a strong culture of fire safety are required.

Recurring Urban Fire Safety Failures

- Many businesses in Indian cities operate beyond approved limits, while regulatory enforcement remains inconsistent.
- **Urban fire** incidents continue to occur despite existing safety regulations.
- Major tragedies repeatedly expose similar systemic weaknesses.
- Previous investigations, court directives, and reform promises have failed to prevent recurrence.
- The persistence of such incidents points to deeper governance and enforcement failures.

Common Vulnerabilities Behind Fire Disasters

- **Fires from the Uphaar Cinema Fire (1997)** to the Arpora Nightclub Fire (2025) reveal recurring safety lapses. Uphaar Cinema fire Arpora nightclub fire
- Overcrowding increases the risk of casualties during emergencies.
- Blocked escape routes hinder safe and timely evacuation.

- Unauthorized structural modifications compromise building safety.
- Poor compliance and weak regulatory oversight magnify fire risks.

Concerns Raised by the Delhi B&B Fire

- Many victims were medical tourists staying near major hospitals in South Delhi.
- Elderly and infirm occupants were particularly vulnerable to heat, smoke, and suffocation.
- The establishment reportedly lacked mandatory fire department clearance.
- It allegedly violated fire safety norms and exceeded permissible room capacity by more than three times.
- Questions arise regarding how such violations continued despite official oversight mechanisms.

Regulatory and Institutional Accountability

- The Delhi Fire Services and Municipal Corporation must explain how the facility continued operating despite violations.
- The Delhi High Court had earlier directed authorities to audit hospitality establishments across the city. Delhi High Court
- Reports suggest that land-use exemptions were used to bypass municipal safety requirements.
- Authorities often attribute violations to owners' unauthorized modifications.
- However, ineffective monitoring, inspections, and enforcement are equally responsible for such tragedies.

Need for Comprehensive Fire Safety Reforms

- Governments and businesses must recognize that preventive safety measures save lives even when no fire occurs.
- Fire safety should be promoted through regular inspections, incentives, and strict penalties.
- Accountability should extend beyond owners to include agencies responsible for enforcement.
- The Tourism Department should investigate the misuse of provisions governing B&B establishments.
- Sustainable solutions require addressing both the immediate causes and the systemic factors that allow hazardous conditions to persist.

Conclusion

Recurring urban fire tragedies reveal systemic governance failures rather than isolated accidents. Safety regulations, inspections, and enforcement mechanisms must be strengthened to prevent hazardous conditions from persisting. Accountability should extend beyond owners to regulatory authorities responsible for oversight. Building a culture of fire safety through strict compliance, regular audits, deterrent penalties, and public awareness is essential to safeguarding lives.

FORESEEABLE ACCIDENTS

Why in News: Recent industrial accidents in **Surat** and **Visakhapatnam** claimed multiple lives, drawing attention to persistent workplace safety failures, inadequate

enforcement of safety norms, and risks faced by contract workers.

Key Details

- **Surat accident:** Four workers died after inhaling toxic gases inside a septic tank.
- **Visakhapatnam explosion:** Nine workers were killed in a blast at a steel plant.
- **Preventable incidents:** Safety measures for such hazards are well known but often ignored.
- **Contract labour risks:** Contract workers frequently receive less training and face weaker safety protections.
- **Systemic failures:** Ageing equipment, inadequate maintenance, manpower shortages, and a cost-over-safety mindset contribute to accidents.

Recent Industrial Tragedies

- **Four workers** died in a **septic tank** incident in **Surat** after inhaling **toxic gases**.
- **Nine workers** were killed in an **explosion** at a **steel plant** in **Visakhapatnam**.
- Though different in nature, both incidents reflect serious **workplace safety lapses**.
- Such accidents are often viewed as **isolated events** despite recurring patterns.

Preventable Hazards and Safety Measures

- Risks associated with **confined spaces** and **steel plants** are well known to industry.
- Septic tank work requires **mechanical ventilation, protective equipment, rescue teams, and communication systems**.
- **Unprotected entry** into confined spaces should be strictly prohibited.
- Steel plants require rigorous monitoring due to **extreme temperatures, pressurised gases, and heavy machinery**.

Recurring Failures in Safety Management

- **Septic tank deaths** and **manual scavenging deaths** are usually **preventable** rather than accidental.
- Similar incidents have occurred repeatedly in **Surat's industrial sector**.
- Failure to implement basic **safety protocols** remains a major concern.

Repeated accidents indicate systemic weaknesses in safety management and workplace culture.

Organisational and Labour-Related Issues

- Trade unions highlighted **understaffing, ageing equipment, and deferred maintenance** in Visakhapatnam.
- Increased **workload** and dependence on **contract labour** may heighten risks.
- **Contract workers** often receive inadequate **training** and face weaker **accountability mechanisms**.
- Industrial disasters frequently result from accumulated **organisational weaknesses**.

Need for Stronger Occupational Safety Framework

- The incidents expose ongoing challenges in implementing India's **occupational safety framework**.

- **Labour shortages and hazardous working conditions** continue to affect vulnerable workers.
- **Caste- and class-based exposure** to dangerous jobs remains a concern.
- A **"cost-over-safety" mindset** in financially stressed industries undermines **worker protection and industrial safety**.

Conclusion

Industrial accidents highlight deep-rooted weaknesses in occupational safety governance. Effective enforcement of **safety regulations, regular audits**, investment in maintenance, stronger protection for contract workers, and a culture that prioritises worker welfare are essential. Sustainable industrial growth requires **balancing productivity** with safety to ensure that preventable workplace tragedies do not continue to claim lives.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Industrial accidents in India are often manifestations of systemic safety and governance failures rather than isolated events." Discuss. (150 words, 10 marks)

FRAGMENTED ACCOUNTABILITY

Why in News: The **Taratata warehouse collapse** in Kolkata killed 11 people, exposing corruption in construction approvals, poor-quality materials, fragmented accountability, and the urgent need for stronger building safety and regulatory reforms.

Key Details

- **Incident:** Warehouse collapse at Taratata, Kolkata, claimed **11 lives** and injured several others.
- **Probable Cause:** Use of **corrugated tin sheets** instead of adequate support for a heavy concrete roof.
- **Governance Failure:** Alleged **Syndicate Raj**, informal subcontracting, and corruption in building approvals.
- **Accountability Gap:** Poor record-keeping, unclear responsibility, and fragmented oversight among contractors, engineers, and authorities.
- **Need for Reform:** Strengthen licensing, improve construction monitoring, fix liability across the construction chain, and protect migrant workers.

Taratata Warehouse Collapse

- A warehouse in **Taratata, Kolkata**, collapsed on **June 24**, killing **11 people** and leaving several critically injured.
- Initial reports indicate the structure was built using a **flawed construction plan** and poor-quality materials.
- The incident has revived concerns over **West Bengal's alleged "Syndicate Raj"** and corruption in the construction sector.

Corruption in Construction Approvals

- Building plans require approval from an **empanelled architect and structural engineer** under the Kolkata Municipal Corporation.
- Local cartels allegedly force developers to purchase **substandard materials at inflated prices**.

- Licensed surveyors are accused of allowing **unlicensed individuals** to prepare and certify building designs.
- Such practices compromise construction quality and public safety.

Causes and Impact of the Collapse

- The contractor allegedly used **corrugated tin sheets** to support a heavy concrete roof to reduce costs.
- Eyewitnesses reported **shaking, loud noises, and rapid collapse** of the structure, with heavy rainfall possibly worsening the situation.
- **Migrant labourers** suffered the greatest losses, highlighting the vulnerability of workers in unsafe construction projects.
- The suspension of certain projects alone will not solve systemic governance failures.

Governance and Accountability Challenges

- Recent building collapses across India reveal **fragmented accountability** rather than isolated engineering failures.
- Existing governance systems have failed to keep pace with **rapid urbanisation and complex private-sector construction**.
- Centre-State jurisdictional issues, unclear land ownership, and outdated legal frameworks weaken enforcement.
- Weak licensing procedures allow developers, engineers, and financiers to evade responsibility.

Need for Structural Reforms

- Establish **clear accountability** across developers, contractors, engineers, and regulatory authorities.
- Digitise project approvals, inspections, and maintain **real-time records** of construction activities and personnel.
- Strengthen licensing norms and eliminate informal subcontracting and cartel influence.
- Ensure strict enforcement of building codes, independent audits, and better protection for migrant workers to prevent future tragedies.

Conclusion

Safe urbanisation requires more than engineering standards; it demands **transparent governance, strict accountability, and effective enforcement**. Eliminating corruption, regulating subcontracting chains, adopting digital construction monitoring, and fixing responsibility across all stakeholders are essential to prevent avoidable tragedies. A robust regulatory framework will protect lives, strengthen public trust, and support sustainable urban development.

FREE MEDIA CANNOT BE FREE

Why in News: Amid controversies over **NEET, CBSE evaluation**, and restrictions on platforms like **Telegram**, concerns have intensified regarding misinformation, declining media credibility, and the future of trustworthy journalism.

Key Details

- **Rise of Social Media (SM):** Horizontal peer-to-peer information flow has become more influential than

traditional top-down communication through **Mainstream Media (MSM)**.

- **Double-Edged Impact:** While SM enhances **democratisation of information** and **public accountability**, it also fuels **misinformation**, panic, and information anarchy.
- **Crisis of MSM:** Many media houses increasingly rely on **clickbait**, **polarisation**, **personality-driven content**, and **algorithm-based advertising**, undermining journalistic credibility.
- **Governance Challenges:** Weak communication between governments and citizens creates information vacuums, worsening crises such as **exam controversies** and public policy disputes.
- **Need for Sustainable Journalism:** A **user-funded news model** is advocated to restore media independence, professionalism, public trust, and democratic accountability.

Rise of Social Media as the Dominant Information Source

- **Social Media (SM)** has transformed information flow from a **vertical model** (authority to masses) to a **horizontal model** (peer-to-peer communication).
- Has enhanced **democratisation of information** and citizen participation.
- Enables rapid dissemination of information and public scrutiny of institutions.
- Played a key role in highlighting issues such as the **NEET paper leak** and **CBSE evaluation controversies**.
- However, the absence of gatekeeping has also accelerated the spread of **misinformation** and public panic.

Growing Information Disorder and Misinformation

- Social media has created an environment of **information overload** and **information anarchy**.
- False narratives often spread faster than verified facts.
- Public tends to trust **social media forwards** despite questionable credibility.
- State interventions, such as restrictions on platforms like **Telegram**, reflect concerns over unchecked information flows.
- Misinformation can trigger significant **social, political, and institutional disruptions**.

Crisis of Mainstream Media (MSM)

- Many MSM organisations are increasingly imitating social media strategies.
- Growing reliance on **clickbait**, **sensationalism**, **reels**, and **polarising content**.
- Shift from public-interest journalism towards **attention-driven business models**.
- Dependence on **algorithm-based advertising** and **Big Tech platforms** has weakened editorial independence.
- Erosion of professionalism has contributed to declining public trust in MSM.

Importance of Credible Media for Governance

- Effective governance requires **trusted channels of communication** between the state and citizens.
- Weakening of traditional **beat reporting** has reduced transparency and policy awareness.

- Poor communication during public controversies can intensify governance challenges.
- Incidents such as coverage during **Operation Sindoor** highlighted the risks of irresponsible media behaviour.
- A credible MSM acts as a bridge between government, institutions, and the public.

Reimagining MSM through Sustainable Business Models

- MSM needs to rebuild trust through **professionalism**, **independence**, and **fact-based journalism**.
- Transition from advertisement dependence to a **user-funded subscription model**.
- Paying for news can strengthen accountability and editorial autonomy.
- Consumers must recognise that "free" information often carries hidden social and political costs.
- A financially sustainable and credible MSM is essential for **democratic discourse**, **social stability**, and **informed citizenship**.

Conclusion

A healthy democracy requires both **free information** and **credible institutions of verification**. While social media empowers citizens, unchecked misinformation can erode trust, social cohesion, and governance. The future lies not in replacing mainstream media but in rebuilding it through professional ethics, editorial independence, and sustainable user-supported models that prioritise truth over virality.

HEALTH SURVEY CALLS FOR A NUTRITION RETHINK

Why in News: The **National Family Health Survey (NFHS-VI)** has highlighted rising rates of **diabetes**, **obesity**, and **persistent malnutrition**, underscoring India's growing challenge of managing a simultaneous burden of communicable and non-communicable diseases.

Key Details

- **Diabetes Concern:** Around **one in six Indians** reported high blood sugar levels, indicating a significant rise in diabetes prevalence.
- **Obesity Growth:** Nearly **30% of the population** is obese, increasing risks of metabolic and cardiovascular disorders.
- **Double Disease Burden:** India faces both **undernutrition** and **lifestyle-related diseases** simultaneously.
- **Child Nutrition Challenges:** Over **31% of children** are **underweight**, while more than **80% of infants** do not receive an adequate diet.
- **Policy Imperative:** NFHS-VI data can help the government refine nutrition and health policies through targeted interventions and behavioural change strategies.

Rising Burden of Lifestyle Diseases

- **Diabetes** has reached alarming levels, with **one in six Indians** reporting high blood sugar levels.

- Around **30% of Indians are obese**, indicating a major public health concern.
- Increasing obesity and diabetes together create a **metabolic cycle** that worsens health outcomes.
- These conditions raise the risk of **hypertension, cardiovascular diseases, kidney disorders, and certain cancers**.
- Lifestyle-related illnesses are now affecting the **quality of life of a large section of the population**.

Incomplete Fight Against Malnutrition

- India continues to face the older challenge of **undernutrition alongside modern lifestyle diseases**.
- Government initiatives have improved **child nutrition indicators** over the years.
- Despite progress, over **31% of children remain underweight**.
- More than **80% of infants (6–23 months)** do not receive an adequate diet.
- The coexistence of undernutrition and overnutrition reflects a **double disease burden**.

Changing Diet and Lifestyle Patterns

- Rapid **urbanisation, rising incomes, and lifestyle changes** have altered dietary habits.
- Diets have increasingly shifted towards **refined carbohydrates and processed foods**.
- Nutritional diversity has often been sacrificed in favour of **higher calorie intake**.
- Sedentary lifestyles have further contributed to obesity and metabolic disorders.
- Childhood obesity is emerging as a **growing public health challenge**.

Nutritional Inequality and Health Risks

- Children from **marginalised communities** often lack access to balanced and diverse diets.
- The **Comprehensive Nutritional Survey** found that **35% of children** have adult-level triglycerides.
- High triglycerides increase susceptibility to **metabolic and cardiovascular diseases** later in life.
- Nutritional deficiencies and unhealthy eating patterns coexist within the same population.
- This highlights significant **inequalities in food access and nutrition awareness**.

Need for Better Policy and Behavioural Interventions

- Government nutrition programmes have largely focused on **supply-side measures**.
- Greater emphasis is needed on **behavioural change and nutrition education**.
- Families, particularly **mothers**, play a crucial role in shaping children's dietary habits.
- More granular NFHS data can help policymakers design **targeted interventions**.
- Future policies should aim to simultaneously tackle **malnutrition, obesity, and lifestyle diseases**.

Conclusion

India is witnessing a complex health transition where undernutrition and lifestyle diseases coexist. Addressing this dual burden requires a balanced strategy that combines

nutrition security, dietary diversity, health awareness, and targeted public health interventions to reduce the country's overall disease burden.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "India is experiencing a double burden of disease characterized by persistent malnutrition and rising lifestyle-related disorders." Discuss the causes, challenges, and policy measures required to address this public health transition. (250 words, 15 marks)

IMPUNITY FOR EXAM LEAKS UNDERMINES TRUST

Why in News: An investigation revealed extremely low **conviction rates** in **paper leak cases** despite widespread examination scandals, reigniting concerns over the integrity of **competitive examinations** and accountability mechanisms in India.

Key Details

- **Paper leaks**, cheating rackets, and administrative failures have repeatedly disrupted **school, admission, and recruitment examinations** across India.
- Between **2002 and 2025**, only **2 convictions** were secured in **45 paper-leak cases**, indicating weak enforcement.
- Of **1,658 arrested persons**, only **925 were charge-sheeted**, highlighting poor investigative follow-through.
- More than **3.86 crore candidates** were affected by examinations cancelled due to malpractice over the last 23 years.
- Investigations have exposed vulnerabilities arising from **outsourcing, private testing agencies**, and organized **paper mafia networks**.

Persistent Examination Irregularities

- India's **examination system** has repeatedly faced **paper leaks**, cheating networks, and administrative failures over the last two decades.
- School board examinations, entrance tests, and recruitment examinations have frequently been affected.
- **Several examinations** have been cancelled or postponed due to malpractice.
- **Such disruptions** create uncertainty for candidates.
- The credibility of **examination processes** has suffered significantly.

Weak Accountability and Enforcement

- Investigations reveal poor accountability in dealing with examination fraud.
- Between **2002 and 2025**, only **2 convictions** were secured in **45 paper-leak cases**.
- Out of **1,658 arrests**, only **925 individuals** were charge-sheeted.
- Many accused persons escape punishment due to weak prosecution.
- This reflects serious gaps in the **criminal justice system**.

Impact on Aspirants

- **Competitive examinations** are crucial pathways to education and employment.
- They provide opportunities for **social mobility** and economic advancement.
- More than **3.86 crore candidates** were registered for examinations later cancelled over the past 23 years.
- Examination cancellations **waste time, effort, and resources**.
- **Aspirants** often face mental stress and career uncertainty.

Emerging Vulnerabilities in the System

- The rise of **private testing agencies** has introduced new security challenges.
- Outsourcing of logistical functions has increased risks of information leaks.
- Sophisticated **coaching networks** may exploit weaknesses in examination processes.
- Investigations into recent **NEET-related irregularities** suggest involvement of individuals linked to translation and paper-setting functions.
- These vulnerabilities require stronger monitoring and safeguards.

Need for Structural Reforms

- Thorough investigations are necessary to uncover **paper mafia networks**.
- Strong deterrent mechanisms must be established against examination fraud.
- Authorities should identify and rectify **systemic weaknesses**.
- Transparent and secure **examination procedures** are essential.
- Restoring faith in **merit-based selection** is critical for maintaining public trust in institutions.

Conclusion

The credibility of **competitive examinations** is central to **meritocracy, social mobility**, and equal opportunity. Persistent **paper leaks** and negligible conviction rates erode public confidence in **educational and recruitment systems**. Strengthening investigations, ensuring accountability, leveraging secure technology, and dismantling organized cheating networks are essential to restore trust and uphold the integrity of examinations that shape **millions of futures**.

JOY AND PAIN

Why in News: The release of NFHS-6 (2023–24) data highlighted significant improvements in child health and fertility indicators while raising concerns about rising obesity, lifestyle diseases, and declining breastfeeding rates.

Key Details

- **Stunting** declined by **17%** and **severe wasting** by **32%**.
- **Institutional deliveries** exceeded **90%** and immunisation crossed **87%**.
- **TFR** stabilised at **2.0**, below replacement level.
- **Obesity** increased sharply among both men and women.

- **Exclusive breastfeeding** rates declined, raising nutrition concerns.

Major Improvements in Child Health

- Child stunting declined by 17%, indicating better nutrition and growth outcomes.
- Severe wasting fell by 32%, reflecting progress in tackling acute malnutrition.
- Institutional deliveries crossed 90%, improving maternal and newborn healthcare.
- Full immunisation coverage for children aged 12–23 months increased to over 87%.
- These achievements highlight the success of long-term public health interventions and service delivery efforts.

Population Stabilisation and Demographic Progress

- India's Total Fertility Rate (TFR) stabilised at 2.0, below the replacement level of 2.1.
- The decline indicates a gradual transition towards a stable population structure.
- Decades of investments in reproductive and maternal health are yielding results.
- Improved access to healthcare and family planning has contributed significantly.
- Sustaining these gains requires continued focus on quality public health services.

Emerging Dual Burden of Malnutrition

- NFHS-6 reveals a growing dual public health burden of malnutrition and obesity.
- Obesity among men increased from 22.9% to 27.3% within three years.
- Obesity among women rose from 24% to 30.7% during the same period.
- Lifestyle-related diseases are increasing alongside persistent undernutrition.
- This trend poses a major challenge for India's future healthcare system.

Concerns Over Infant Nutrition

- Exclusive breastfeeding among infants below six months declined from 63.7% to 55.8%.
- Breastfeeding is critical for preventing infant malnutrition and infections.
- The decline raises concerns about child nutrition outcomes.
- Awareness and support programmes for mothers need strengthening.
- Protecting infant feeding practices remains a key public health priority.

Strengthening Response to Non-Communicable Diseases (NCDs)

- NFHS data highlight inadequate attention to lifestyle diseases and metabolic disorders.
- India's ageing population may intensify the burden of NCDs in the future.
- Comprehensive screening programmes for NCDs should be expanded nationwide.
- Behaviour-change campaigns promoting healthy diets and physical activity are essential.

- Stronger health systems and higher taxes on sugary drinks and ultra-processed foods can help reduce disease burden.

Conclusion

NFHS-6 reflects India's remarkable progress in improving child health, maternal care, and population stabilisation. However, rising obesity, lifestyle diseases, and declining breastfeeding indicate emerging public health challenges. Policymakers must preserve existing gains while strengthening preventive healthcare, nutrition programmes, and NCD management. A balanced approach will be crucial to ensuring healthier outcomes as India undergoes demographic and epidemiological transitions.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. NFHS-6 highlights both achievements and emerging challenges in India's public health landscape. Discuss the significance of the survey findings and suggest measures to address the growing burden of non-communicable diseases. (10 marks, 150 words)

ON COUGH SYRUPS, A LONG OVERDUE PRESCRIPTION

Why in News: The Centre has removed **cough syrups** from **Schedule K of the Drugs Rules, 1945**, ending over-the-counter sales following multiple deaths linked to contaminated syrups and concerns over drug safety.

Key Details

- **Cough syrups removed** from **Schedule K of the Drugs Rules, 1945**.
- Ends **over-the-counter sale**; prescription now mandatory.
- Triggered by deaths of children in **MP, Rajasthan, and Jammu**.
- India-made syrups linked to **140+ child deaths abroad** since 2022.
- **Diethylene Glycol (DEG)** contamination found in **Coldrif syrup**.
- Exemptions encouraged **self-medication** and weak accountability.
- Need for stronger **quality control**, inspections, and **rural healthcare access**.

Regulatory Failure and Delayed Reform

- The **Central Government** has removed **cough syrups** from **Schedule K of the Drugs Rules, 1945**.
- This decision addresses a long-standing weakness in **drug regulation**.
- The move comes after several tragic incidents linked to **contaminated cough syrups**.
- It reflects a delayed but necessary response to repeated **safety concerns**.

Repeated Tragedies and Loss of Lives

- In **October 2025**, more than **20 children** died in **Madhya Pradesh** and **Rajasthan** after consuming locally purchased cough syrups.
- Similar deaths were reported in **Jammu** between **December 2019 and January 2020**.

- **India-manufactured cough syrups** have also been linked to the deaths of over **140 children** in **Africa** and **Central Asia** since **2022**.
- These incidents exposed serious gaps in **quality control** and **regulatory oversight**.

Regulatory Loopholes in Cough Syrup Sales

- Certain cough syrups were exempted under **Entry 13 of Schedule K**.
- These exemptions allowed sales through channels with **weaker monitoring** than **licensed pharmacies**.
- The system encouraged **self-medication** and reduced **prescription compliance**.
- **Accountability gaps** persisted across **manufacturers, distributors, and retail sellers**.

Impact on Rural and Vulnerable Communities

- The exemptions particularly affected **villages with populations below 1,000**, where sales were permitted.
- **Vulnerable communities** faced greater risks due to **limited healthcare access**.
- In **Madhya Pradesh**, the cough syrup **Coldrif** was found to contain excessive levels of **diethylene glycol (DEG)**, a toxic substance.
- Weak **regulatory monitoring** increased **public health risks** in rural areas.

Significance of the New Prescription Requirement

- All **syrup-based medicines**, including **opioid-containing cough syrups** such as those with **codeine**, now require a **medical prescription**.
- **Over-the-counter (OTC) sales** of these medicines have been restricted.
- The reform aims to improve **patient safety** and reduce **misuse and abuse**.
- It also strengthens control over the **distribution** and **consumption** of cough syrups.

Challenges and the Way Forward

- A **prescription mandate** alone will not solve all problems.
- Weak **Centre-State coordination** continues to affect **drug regulation**.
- Stronger **quality inspections, enforcement mechanisms, and adverse-event reporting systems** are needed.
- Greater investment in **rural healthcare infrastructure** is essential to reduce dependence on **unlicensed vendors**.
- India must foster a **patient-centric regulatory culture** that prioritises **preventive safety measures** over **crisis-driven responses**.

Conclusion

The decision marks an important step toward strengthening **drug safety** and **patient protection**. However, regulatory reform must extend beyond prescription requirements to include stronger quality checks, better Centre-State coordination, transparent reporting systems, and improved rural healthcare access. A robust and preventive regulatory framework is essential to restore public trust and prevent future tragedies caused by unsafe pharmaceutical products.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Recent incidents involving contaminated cough syrups have exposed critical weaknesses in India's pharmaceutical regulatory framework. Examine the challenges in drug regulation and suggest measures to strengthen patient safety." (15 Marks, 250 Words)

PERFECT STORM

Why in News: The Pune-Pimpri-Chinchwad hooch tragedy, which caused multiple deaths, has renewed concerns about illicit liquor networks, methanol diversion, weak enforcement, and the need for stronger public health and regulatory reforms.

Key Details

- Illicit liquor deaths continue across several Indian states despite repeated tragedies.
- Methanol adulteration is the primary cause of most hooch-related fatalities.
- High taxes on legal alcohol push poorer consumers toward illegal alternatives.
- Weak enforcement often targets small vendors while major operators escape punishment.
- Regulatory reforms and better methanol monitoring are crucial to prevent future incidents.

Repeated Hooch Deaths Across States

- India has witnessed several mass deaths from illicit liquor in states such as Tamil Nadu, Gujarat, Punjab, Uttar Pradesh, Bihar, Assam, and Maharashtra.
- The Malwani tragedy (2015) killed over 100 people and led to promises of reforms.
- However, many of the proposed systemic changes were never fully implemented.
- Similar incidents continue to occur despite previous warnings.
- The recent Pune-Pimpri-Chinchwad tragedy claimed more than a dozen lives.

Organised Supply Chain Behind Illicit Liquor

- Investigations revealed a structured supply network rather than isolated illegal activity.
- Industrial-grade methanol, a highly toxic substance, was brought from outside Maharashtra.
- Methanol was mixed with ethanol to manufacture potent country liquor.
- Such adulteration significantly increases production volume at minimal cost.
- The practice generates high profits for illegal liquor operators.

Economic Factors Driving Demand

- Legal alcohol is heavily taxed by State governments, making it expensive.
- Low-income consumers often seek cheaper alternatives.
- Daily-wage labourers form a large share of illicit liquor consumers.
- Physical exhaustion, economic hardship, and addiction increase demand for inexpensive alcohol.

- Public health experts estimate that illicit liquor accounts for nearly 40% of alcohol consumption in India.

Regulatory and Enforcement Failures

- Methanol diversion and pilferage remain major regulatory loopholes.
- Illegal liquor networks often operate openly with local tolerance.
- Allegations of police and local authority complicity require thorough investigation.
- Enforcement usually targets retail sellers rather than major suppliers and kingpins.
- Convictions remain rare even when arrests are made.

Need for Comprehensive Reforms

- Better monitoring and accounting of industrial methanol are essential.
- Affordable and safer alcohol alternatives could reduce illicit consumption.
- Complete prohibition, as seen in Bihar and Gujarat, may strengthen criminal syndicates.
- Stronger investigations must focus on the entire supply chain.
- Without effective reforms, illicit liquor will continue to pose a serious public health threat.

Conclusion

Recurring **hooch tragedies** highlight deep flaws in **alcohol regulation, law enforcement, and social welfare systems**. Effective **methanol tracking**, stronger action against **suppliers**, affordable **legal alcohol alternatives**, and greater **accountability** of local authorities are essential. Protecting **vulnerable communities** from unsafe liquor requires sustained **political commitment**, comprehensive reforms, and a **public health-oriented approach** rather than reactive measures after each tragedy.

SERIES OF GAPS

Why in News: The recent Sular child sexual abuse case in Coimbatore has renewed concerns about under-reporting, judicial delays, low conviction rates, and persistent systemic failures in protecting children from sexual abuse.

Key Details

- Over **90% of child sexual abuse cases** involve offenders known to the child or family.
- Migrant and working-class communities are particularly vulnerable due to weaker local support networks.
- Abandoned industrial areas and poorly maintained public spaces often become crime locations.
- Despite legal mandates, **POCSO courts face about 89% pendency**, delaying justice.
- In **2024, NCRB recorded 69,191 POCSO cases** involving over 70,000 child victims.
- Repeated emphasis on harsher punishments has not significantly improved reporting or deterrence.
- Survivors often face **secondary victimisation** through insensitive administration, policing, and media coverage.

Abuse Often Comes from Trusted Individuals

- **Child sexual abuse** remains significantly **under-reported** across India.
- In more than **90% of cases**, the **perpetrator** is someone known to the child or family.
- Public attention often focuses on **strangers**, while risks within **trusted circles** remain overlooked.
- This **misconception** delays the **identification** and **reporting** of abuse.
- **Migrant and working-class families** are particularly vulnerable due to weaker **community support networks**.

Unsafe Urban Spaces Increase Risks

- **Abandoned factories**, neglected **public lands**, and isolated spaces frequently become **crime locations**.
- **Urban planning initiatives** often prioritise major metropolitan centres over vulnerable local areas.
- **Child safety considerations** remain inadequately integrated into **urban development projects**.
- The **social safety dimensions** of **environmental restoration projects** are frequently ignored.
- Poorly maintained public spaces create opportunities for **crimes against children**.

Weak Criminal Justice Response

- The **POCSO Act** mandates **speedy trials**, ideally within **one year**.
- However, **POCSO courts** face an **89% pendency rate**, resulting in significant delays.
- **Conviction rates** have historically remained low, ranging between **3% and 30%**.
- Delayed justice weakens **public trust** in the **police** and **judiciary**.
- Despite promises of swift action in individual cases, broader **systemic reforms** remain limited.

Punitive Approach Has Limited Impact

- Fear of **police apathy** discourages many families from reporting abuse.
- Excessive emphasis on **harsher punishments** may reduce reporting when offenders are **family members** or **acquaintances**.
- The **2018 and 2019 POCSO Amendments** largely focused on increasing penalties.
- Evidence regarding the **deterrent effect** of stricter punishments remains insufficient.
- Policy decisions often respond to **public outrage** rather than **evidence-based research**.

Need for Victim-Centred and Evidence-Based Reforms

- Survivors frequently face **secondary victimisation** through insensitive **administrative procedures** and **media coverage**.
- **Trauma-informed policing** and **support services** remain inadequate.
- Lessons from **acquittals** and failed prosecutions are rarely incorporated into **policy reforms**.
- Strengthening **community awareness**, **victim support**, and **institutional accountability** is essential.
- A comprehensive approach is needed to break the cycle of **unreported** and **unpunished violence against children**.

Conclusion

Protecting children requires more than stricter laws and harsher punishments. India needs a **comprehensive child protection framework** built on community vigilance, **safer urban spaces**, trauma-informed policing, speedy trials, victim-sensitive support systems, and **evidence-based policymaking**. Strengthening public trust in institutions and addressing systemic weaknesses are essential to **ensuring justice, prevention, and long-term safety** for vulnerable children.

STAY WITH THE EVIDENCE

Why in News: The Union Health Ministry has banned 16 Fixed Dose Combination (FDC) drugs after scientific review found them irrational, unsafe, and lacking therapeutic justification, raising concerns about patient safety and antimicrobial resistance.

Key Details

- **Fixed Dose Combinations (FDCs)** contain two or more active pharmaceutical ingredients in a fixed ratio within a single dosage form.
- The banned drugs include **antibiotics, analgesics, antispasmodics, and dermatological formulations** considered irrational or unsafe.
- FDCs can improve treatment compliance, especially in diseases such as **Tuberculosis**, by reducing pill burden.
- Irrational FDCs may cause **unnecessary side effects, dosing inflexibility, allergic reactions, and reduced therapeutic effectiveness**.
- Excessive use of antibiotic-based FDCs contributes to **Antimicrobial Resistance (AMR)**, a major public health challenge in India.

Ban on Irrational FDC Drugs

- **Health Ministry** banned **16 Fixed Dose Combination (FDC) drugs**
- Drugs found to be **irrational, unsafe, or lacking therapeutic justification**
- Includes **analgesics, antispasmodics, dermatological drugs, and antibiotic formulations**
- Aims to protect **patient safety** and promote **evidence-based medicine**

Understanding Fixed Dose Combinations

- **FDCs** combine two or more **active pharmaceutical ingredients** in a fixed ratio
- Designed to improve **treatment compliance** and reduce **pill burden**
- Useful in chronic diseases such as **Tuberculosis**
- Can enhance **therapeutic effectiveness** when scientifically justified

Risks Associated with Irrational FDCs

- May be **ineffective** or even **harmful**
- Difficult to adjust **individual drug dosages**
- Allergic reactions become harder to trace to a specific **ingredient**
- Patients may be exposed to **unnecessary side effects**

Threat to Antimicrobial Resistance

- Irrational **antibiotic FDCs** contribute to **Antimicrobial Resistance (AMR)**
- Overuse and misuse of antibiotics reduce their effectiveness
- Earlier bans included many **antibiotic-based combinations**
- AMR poses a major **public health challenge** in India

Need for Effective Enforcement

- Ensure strict compliance by **manufacturers, distributors, and pharmacies**
- Prevent continued sale of **banned drug stocks**
- Strengthen **monitoring and supervision mechanisms**
- Ensure benefits of the ban reach the **last mile** and improve **public health outcomes**

Conclusion

The ban on irrational FDC drugs reflects India's commitment to evidence-based healthcare and patient safety. However, effective implementation requires strong regulatory oversight, strict **monitoring of pharmacies** and manufacturers, and public awareness. Ensuring rational drug use is essential not only for reducing **adverse health outcomes** but also for combating antimicrobial resistance and strengthening the healthcare system.

THE NATIONAL TESTING AGENCY (NTA)

Why in News: The **National Testing Agency (NTA)** was in the news due to controversies surrounding **NEET-UG**, allegations of **paper leaks**, concerns over examination integrity, and subsequent reforms to strengthen examination security.

Key Details

- **Established:** 2017 under the **Ministry of Education**.
- **Nature:** Autonomous body for conducting national-level entrance examinations.
- **Major Exams:** NEET, JEE Main, CUET, UGC-NET, CSIR-NET.
- **Objective:** Ensure **transparent, efficient, and merit-based** admissions.
- **Significance:** Standardizes entrance testing across the country.

What is NTA?

- **Autonomous examination body** under the **Ministry of Education**.
- Established in **2017** to conduct **national-level entrance examinations**.
- Functions as a **specialized assessment and testing agency**.
- Promotes **uniformity, transparency, and professionalism** in examinations.

Why was it Created?

- To ensure **fair and merit-based** selection of candidates.
- To reduce the **administrative burden** on universities.
- To introduce **scientific and standardized testing**.
- To improve the **credibility and efficiency** of entrance examinations.

Major Functions

1. Conducting Entrance Examinations

- Organizes **national-level admission tests**.
- Manages **registration, examination, evaluation, and result declaration**.

2. Assessment Reforms

- Develops **modern testing methodologies**.
- Promotes **evidence-based and objective assessment systems**.

3. Technology Integration

- Expands **computer-based testing (CBT)**.
- Uses **digital platforms** for exam administration and monitoring.

Major Examinations Conducted

- **JEE (Main)** – Engineering admissions.
- **NEET (UG)** – Medical admissions.
- **CUET (UG & PG)** – University admissions.
- **UGC-NET** – Eligibility for Assistant Professor and JRF.
- **CSIR-NET** – Science research eligibility.
- **CMAT, GPAT, NCET, NIMCET**.

Significance

1. For Students

- Provides a **common and standardized platform**.
- Ensures **greater transparency** in admissions.
- Expands access to **higher education opportunities**.

2. For Educational Institutions

- Reduces **exam-conducting responsibilities**.
- Ensures **uniform evaluation standards**.
- Improves **admission credibility**.

3. For the Education System

- Strengthens **meritocracy**.
- Enhances **quality and reliability** of assessments.
- Supports **education sector reforms**.

Key Challenges

1. Examination Security

- **Paper leak allegations**.
- Risks of **malpractice and cheating**.
- Need for stronger **cybersecurity mechanisms**.

2. Operational Challenges

- Managing **millions of candidates**.
- **Technical glitches** during examinations.
- Coordination across **multiple states and centres**.

3. Administrative Concerns

- Delays in **results and communication**.
- Weaknesses in **grievance redressal systems**.
- Concerns regarding **accountability and transparency**.

Recent Improvements

- Enhanced **security protocols**.
- Increased **surveillance and monitoring** at centres.
- Better **coordination with state authorities**.
- Greater use of **technology-driven safeguards**.

Way Forward

- Strengthen **anti-paper leak mechanisms**.
- Improve **cybersecurity infrastructure**.
- Establish robust **grievance redressal systems**.
- Conduct regular **independent audits**.
- Build **public trust** through greater transparency.

Conclusion

The **National Testing Agency** plays a critical role in ensuring fair access to higher education through standardized testing. However, recurring concerns over exam security and transparency have highlighted the need for stronger institutional safeguards. By enhancing cybersecurity, accountability, grievance redressal, and examination integrity, NTA can restore public confidence and strengthen India's education ecosystem.

ANAEMIA MUKT BHARAT ABHIYAAN (AMB)

Why in News: The **Union Ministry of Health and Family Welfare** has launched **revised Operational Guidelines for the Anaemia Mukta Bharat Abhiyaan (AMB)**, introducing a more comprehensive strategy to combat anaemia in India.

What is Anaemia Mukta Bharat Abhiyaan?

- Anaemia Mukta Bharat Abhiyaan (AMB)** is the Government of India's flagship initiative aimed at reducing the prevalence of anaemia across different population groups through preventive, promotive, and curative interventions.

- The programme functions under the **National Health Mission (NHM)** and aligns with the **POSHAN Abhiyaan** to improve nutritional outcomes and maternal-child health.
- The revised guidelines mark the transition from **"Anaemia Mukta Bharat"** to **"Anaemia Mukta Bharat Abhiyaan"**, signalling a more mission-oriented and community-driven approach.

Why is Anaemia a Major Public Health Concern?

Anaemia is a condition in which the body has an insufficient number of healthy red blood cells or inadequate haemoglobin, reducing the blood's oxygen-carrying capacity.

It contributes to:

- Maternal mortality
- Poor pregnancy outcomes
- Low birth weight
- Stunting and impaired cognitive development
- Reduced immunity
- Lower productivity and work capacity
- Poor educational performance among children and adolescents

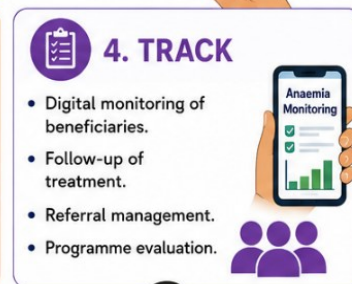
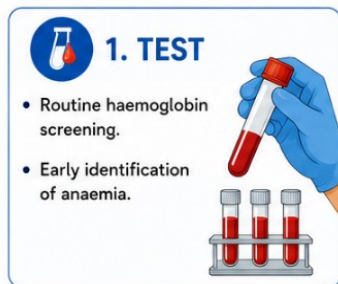
Reducing anaemia is therefore essential for achieving better health, nutrition, and human capital outcomes.

SHIFT FROM T3 TO T4 STRATEGY

The existing T3 Strategy has been expanded into a more comprehensive T4 Strategy.



COMPONENTS OF THE T4 STRATEGY



The addition of **"Track"** aims to minimise treatment dropouts and ensure continuity of care.



Major Reforms Introduced in the Revised AMB Guidelines

1. Addition of a New Beneficiary Group

The programme now includes:

Low Birth Weight (LBW) Infants (0–6 Months)

This becomes the **seventh beneficiary group** under the programme.

The inclusion recognises the importance of **early-life interventions** in preventing childhood anaemia and improving long-term health outcomes.

2. Greater Focus on Nutrition: "Eating Right" Initiative

A new **seventh intervention**, titled **"Eating Right"**, has been introduced.

The initiative aims to promote:

- Regular consumption of iron-rich foods.
- Diversified and balanced diets.
- Improved dietary behaviour at the household level.
- Community awareness regarding nutrition.

The emphasis reflects a shift from relying solely on iron supplementation to addressing the underlying nutritional causes of anaemia.

3. Digital Monitoring and Tracking

The revised programme introduces a robust digital monitoring ecosystem.

It seeks to:

- Digitally register beneficiaries.
- Track screening and treatment.

- Monitor follow-up visits.
- Improve referral services.
- Generate real-time programme data.

This will strengthen accountability and enable evidence-based policy decisions.

Institutional Strengthening

The revised framework introduces a **seventh institutional mechanism** focused on:

- Monitoring and evaluation.
- Digital data management.
- Performance tracking.
- Improved programme governance.

This represents a move towards data-driven public health management.

BURDEN OF ANAEMIA IN INDIA (NFHS-5)



According to the **National Family Health Survey (NFHS-5)**, anaemia continues to affect a large proportion of India's population.



POPULATION GROUP	ANAEMIA PREVALENCE
 Children (6–59 months)	67.1%
 Women (15–49 years)	57.0%
 Pregnant Women	52.2%
 Adolescent Girls (15–19 years)	59.1%

ANAEMIA CAN LEAD TO



Fatigue and weakness



Poor pregnancy outcomes



Low birth weight



Impaired cognitive development



Reduced immunity



Lower productivity and performance



These figures highlight that anaemia remains one of India's **most significant nutritional and public health challenges**.



Significance of the Revised Guidelines

The revised AMB framework represents a shift from a supplementation-based programme to a **comprehensive lifecycle approach**.

The reforms are expected to:

- Enable early detection of anaemia.
- Improve treatment compliance.
- Strengthen nutrition-based prevention.
- Enhance community participation.
- Improve monitoring through digital technology.
- Reduce maternal and child health risks.
- Support India's nutrition and Sustainable Development Goals (SDGs).

Challenges Ahead

Despite the revised strategy, several challenges remain:

- High prevalence of nutritional deficiencies.

- Poor dietary diversity in many regions.
- Limited awareness regarding iron-rich foods.
- Inadequate follow-up of beneficiaries.
- Digital infrastructure gaps in remote areas.
- Regional disparities in healthcare delivery.

Addressing these structural issues will be critical for achieving meaningful reductions in anaemia prevalence.

Conclusion

The revised **Anaemia Mukht Bharat Abhiyaan** marks a significant evolution in India's fight against anaemia. By expanding beneficiary coverage, integrating nutrition education, strengthening digital monitoring, and adopting the **T4 (Test–Treat–Talk–Track)** strategy, the programme seeks to build a more effective and accountable public health response. If implemented effectively, the new framework can significantly improve maternal and child health, enhance nutritional outcomes, and contribute to building a healthier and more productive population.

DRUGS (FIFTH AMENDMENT) RULES, 2026

Why in News: The Union Ministry of Health and Family Welfare has amended the Drugs Rules, 1945, making all medicinal syrups, including cough syrups, prescription-only medicines. With this amendment, consumers can no longer purchase these syrups over the counter (OTC) without a valid prescription from a registered medical practitioner. The move aims to strengthen drug regulation and prevent misuse following several tragic incidents involving contaminated cough syrups in India and abroad.

NO MORE OVER-THE-COUNTER SALE OF MEDICINAL SYRUPS

Centre makes prescription mandatory for all medicinal syrups, including cough syrups

Centre Ends Over-the-Counter Sale of Medicinal Syrups

- In a major public health reform, the **Government of India** has tightened the regulation of syrup-based medicines by **prohibiting their over-the-counter sale**. Under the amended rules, **all medicinal syrups including cough syrups can now be sold only against a doctor's prescription**, marking a significant shift in India's pharmaceutical regulatory framework.
- The decision reflects the government's growing emphasis on **patient safety, responsible drug use, and stronger quality control** in the pharmaceutical sector.



WHAT HAS CHANGED?	WHY THIS DECISION?	KEY HIGHLIGHTS OF THE AMENDMENT
- The Ministry of Health and Family Welfare has amended the Drugs Rules, 1945. - The word 'Syrups' has been removed from the list of items exempted under the Drugs and Cosmetics Act, 1940. - All medicinal syrups, including cough syrups, can now be sold only with a doctor's prescription.	Tragic Incidents in India In September 2025, contaminated cough syrups allegedly laced with industrial solvents caused the deaths of 24 children in Madhya Pradesh. International Concern Since 2022, Indian-made cough syrups linked to toxic solvents (DEG, EG) have been associated with the deaths of more than 140 children in Africa and Central Asia.	- Ensures rational use of medicines and prevents self-medication. - Medicines will be taken only under medical supervision. - Strengthens quality control and regulatory oversight. - Protects public health, especially children, from harmful and contaminated medicines. - Restores confidence in India's pharmaceutical standards globally.
WHAT REMAINS UNCHANGED? The following can still be purchased over the counter: - Cough lozenges - Cough tablets - Cough pills Only medicinal syrups require a prescription.	CONSULTATIVE PROCESS - Draft notification was issued in Dec 2025. - Comments & suggestions were invited from stakeholders and the public. - All comments were examined in consultation with the Drugs Technical Advisory Board (DTAB). - Final notification issued on June 2026.	
A STEP TOWARDS SAFER, SMARTER HEALTHCARE!	Always remember: Medicines are meant to heal—not harm. Take only what is prescribed. Take only what is safe.	THE BIG PICTURE This amendment is a proactive step by the Government of India to safeguard lives, ensure responsible medicine use and build a healthier, safer nation.

What Has Changed?

- The Ministry of Health and Family Welfare has notified the **Drugs (Fifth Amendment) Rules, 2026**, amending the **Drugs Rules, 1945**.
- The amendment removes the word "**Syrups**" from **Schedule K**, which previously exempted certain syrup formulations from specific licensing and sale requirements under the **Drugs and Cosmetics Act, 1940**. As a result, medicinal syrups are no longer eligible for these exemptions and must now be dispensed only through licensed pharmacies against a valid prescription.

What Remains Unchanged?

- The amendment applies **only to syrup formulations**.
- The following medicines **continue to remain available over the counter**, subject to existing regulations:
 - Cough lozenges
 - Cough tablets
 - Cough pills

- Only **liquid medicinal syrups** now require a prescription.

Why Was the Decision Taken?

The amendment follows a series of serious public health incidents involving **contaminated cough syrups**.

Domestic Concern

- In **September 2025**, contaminated cough syrups allegedly adulterated with industrial solvents resulted in the deaths of **24 children in Madhya Pradesh**, triggering nationwide concern over drug quality and regulatory oversight.

International Concern

- Since **2022**, Indian-manufactured cough syrups linked to toxic industrial solvents such as **diethylene glycol (DEG)** and **ethylene glycol (EG)** have been associated with the deaths of **more than 140 children** across several countries in **Africa and Central Asia**, severely impacting India's pharmaceutical reputation.

These incidents exposed weaknesses in manufacturing practices, raw material quality control, and the distribution of syrup formulations, prompting the government to adopt stricter regulatory measures.

Consultative Rule-Making Process

The amendment was not introduced abruptly.

- A **draft notification** proposing the changes was issued in **December 2025**.
- The government invited **comments and objections** from stakeholders, industry representatives, and the general public.
- After examining the feedback and consulting the **Drugs Technical Advisory Board (DTAB)**, the final notification was issued.

Expected Impact

The new rules are expected to:

- **Strengthen regulatory oversight** of syrup-based medicines.
- Prevent **indiscriminate self-medication**.
- Reduce misuse and irrational consumption of cough syrups.
- Improve accountability in pharmaceutical distribution.
- Ensure medicines are dispensed under **medical supervision**.
- Restore public confidence in India's pharmaceutical quality standards, both domestically and internationally.

Conclusion

The amendment represents an important shift from **easy accessibility** to **responsible access**. While syrup medicines remain widely available, their purchase will now require **medical evaluation and prescription**, helping ensure that they are used only when clinically necessary. This policy is expected to reduce medication errors, improve patient safety, and strengthen India's drug regulatory ecosystem at a time when pharmaceutical quality has become a major global public health concern.

FIRE SAFETY AND URBAN GOVERNANCE

Why in News: A devastating fire at a coaching centre building in **Lucknow** claimed **15 lives, mostly students, and injured several others**, exposing serious lapses in urban planning, fire safety compliance, and enforcement of building regulations. The tragedy has reignited the debate on India's fire safety standards, especially in rapidly expanding educational and commercial establishments, highlighting the urgent need to make "**Viksit Bharat**" (**Developed India**) synonymous with "**Surakshit Bharat**" (**Safe India**).

A Tragedy that Reflects India's Aspirations and Its Vulnerabilities

The Lucknow fire is more than an isolated accident it is a stark reminder of the challenges accompanying India's rapid urbanisation and expanding education economy. India's large young population, aspiring for better employment opportunities, has fuelled an unprecedented growth of **coaching centres, skill-development institutes, and private educational establishments**. While these

institutions play a vital role in human capital formation, many operate from **unauthorised or poorly regulated buildings**, often overlooking basic safety standards in pursuit of commercial gains.

The building where the fire occurred reportedly:

- Was **not authorised for commercial use**;
- Continued operations despite repeated municipal notices;
- Lacked adequate **fire prevention and firefighting infrastructure**; and
- Failed to comply with mandatory safety regulations prescribed for public buildings.

The incident highlights the dangerous gap between **urban expansion and regulatory enforcement**.

A Growing Pattern of Fire Disasters

- The Lucknow tragedy is not an isolated event but part of a worrying national trend.
- Over recent months, India has witnessed **multiple fatal fires** in hospitals, factories, coaching centres, commercial complexes, and residential buildings. In many cases, official investigations attribute the cause to an **"electrical fire"** without examining the deeper systemic failures that allowed such disasters to occur.
- Merely identifying electricity as the source of ignition often masks the underlying technical and administrative deficiencies responsible for the tragedy.

Understanding the Real Causes of Electrical Fires

Electrical fires are rarely random events. They usually result from preventable engineering and maintenance failures such as:

- **Overloaded electrical circuits** caused by increasing use of high-power appliances;
- **Poor-quality wiring and substandard electrical installations**;
- **Harmonic currents** generated by sophisticated electronic equipment, creating excessive heat;
- **Absence of Arc Fault Detection Devices (AFDDs)** that can detect dangerous electrical faults before they trigger fires;
- Lack of regular inspection and preventive maintenance of electrical systems.

Most of these hazards are well understood globally and can be effectively managed through proper engineering standards and regulatory compliance.

Regulatory Failure: The Bigger Concern

The tragedy underscores a broader governance challenge.

Although municipal authorities reportedly issued repeated notices regarding building violations, enforcement remained weak. Illegal commercial activities continued unchecked despite clear evidence of non-compliance.

This reflects a persistent problem across many Indian cities where:

- commercial establishments operate in residential buildings,
- occupancy norms are violated,
- emergency exits remain blocked,
- fire safety certificates are either absent or outdated, and
- inspections are often reduced to procedural formalities.

The failure, therefore, lies not merely in infrastructure but also in the **implementation of existing laws**.

Need for Scientific Fire Investigation

One of India's major institutional weaknesses is the limited capacity to conduct professional **fire-forensic investigations**.

Advanced economies routinely investigate fire accidents through specialised experts who identify:

- the precise cause of ignition,
- sequence of fire spread,
- engineering failures,
- human errors, and
- institutional lapses.

The objective is not merely to assign blame but to generate evidence-based recommendations that prevent future accidents.

India continues to face:

- shortage of trained fire investigators,
- inadequate forensic infrastructure,
- weak accident documentation, and
- limited institutional learning from previous disasters.

As a result, similar accidents continue to recur.

Fire Safety (A Critical Component of Viksit Bharat)

India's aspiration to become a **developed nation (Viksit Bharat)** cannot be achieved without ensuring that its cities, institutions, and public spaces are safe.

Developed countries mandate comprehensive fire protection measures, including:

- automatic fire detection systems,
- smoke alarms,
- sprinkler systems,
- emergency evacuation plans,
- fire-resistant building materials,
- periodic safety audits, and
- strict enforcement of building codes.

Many Indian buildings continue to lack even these basic safeguards.

Economic growth without public safety creates vulnerable cities where development remains unsustainable.

Way Forward

The Lucknow tragedy calls for systemic reforms rather than temporary responses.

Key measures include:

- Conducting a **nationwide fire safety audit** of educational institutions, hospitals, commercial establishments, and public buildings.
- Strict enforcement of the **National Building Code (NBC)** and fire safety regulations.
- Mandatory periodic renewal of fire safety certificates through independent inspections.
- Strengthening the capacity of fire departments with modern equipment and trained personnel.
- Establishing specialised **fire-forensic investigation units** in every State.
- Integrating fire safety standards into urban planning and municipal governance.
- Promoting public awareness and regular emergency evacuation drills.

Conclusion

The Lucknow coaching centre fire serves as a powerful reminder that **development without safety is incomplete**. India's demographic dividend, expanding education sector, and rapid urbanisation must be supported by robust regulatory institutions and a culture of safety compliance. The true measure of a **Viksit Bharat** will not merely be economic growth or modern infrastructure, but the ability to ensure that every citizen studies, works, and lives in a **safe and secure environment**. As the tragedy demonstrates, **the cost of enforcing safety regulations is far lower than the human and economic cost of neglecting them**.

INDIA ENTERS THE ERA OF LOW FERTILITY

Why in News: India has crossed the replacement threshold as **declining fertility rates** mark a transition from population expansion to demographic aging. This shift necessitates structural realignments across healthcare, social security, and labor market policies to support a contracting young workforce and a growing elderly population.

India's Demographic Transition

- For decades, India's development discourse revolved around **population explosion** and the need for family planning. Today, that narrative has fundamentally changed.
- The latest **Sample Registration System (SRS)** data shows that India's **Total Fertility Rate (TFR)** has fallen to **1.9 children per woman**, below both the **global average of 2.2** and the **replacement fertility level of 2.1**, which is necessary for maintaining a stable population over generations.
- This marks India's entry into the category of **low-fertility countries**, signalling the beginning of a profound demographic transformation that will shape the country's economy, labour market, healthcare system, and public finances for decades to come.

A Demographic Transition with Sharp Regional Differences

While India has entered the low-fertility phase nationally, the transition is **far from uniform**.

States with Very Low Fertility

Several economically advanced and urbanised States now record fertility rates comparable to or even lower than many developed countries.

- **Delhi:** 1.2
- **Kerala:** 1.3
- **Tamil Nadu:** 1.3
- **West Bengal:** 1.3

These levels are **lower than:**

- United States (1.6)
- Finland (1.4)
- Japan (1.3)

States with Relatively High Fertility

In contrast, several northern and central States continue to have fertility levels above replacement rate.

- **Bihar:** 2.9
- **Uttar Pradesh:** 2.6
- **Madhya Pradesh:** 2.4
- **Rajasthan:** 2.3

This divergence means that **India is no longer a single demographic economy**, but rather a country experiencing different stages of demographic transition simultaneously.

Demographic Dividend and Demographic Ageing (Two Indias Emerging)

The varying fertility levels are creating two distinct demographic realities.

Younger States

States such as Bihar and Uttar Pradesh will continue to add millions of young workers over the next two decades, offering the potential for a **demographic dividend**—provided sufficient employment opportunities, education, and skill development are available.

Ageing States

Meanwhile, States such as Kerala, Tamil Nadu, and Delhi are rapidly moving towards an ageing population with:

- shrinking working-age populations,
- increasing dependency ratios,
- rising healthcare needs, and
- greater demand for old-age income security.

India's policy challenge is therefore not merely managing population size but balancing **youthful and ageing regions within the same federation**.

India Faces Ageing Before Becoming Rich

Historically, most developed countries experienced population ageing **after achieving high levels of industrialisation and income**.

Countries such as:

- Japan,
- Germany,
- France, and
- Western European nations

had already developed:

- broad tax bases,
- universal social security,
- formal labour markets,
- comprehensive healthcare systems, and
- pension mechanisms before facing demographic ageing.

Even then, ageing placed enormous pressure on public finances. Japan, for instance, now has **public debt exceeding 200% of GDP**, largely due to rising pension and healthcare expenditures.

India's situation is considerably more challenging.

The country enters this demographic transition with:

- **per capita income of around \$2,800**,
- a narrow direct tax base,
- high levels of labour informality,
- limited pension coverage, and
- fiscally constrained State governments.

This makes managing population ageing substantially more difficult than in advanced economies.

The Pension Challenge

One of India's biggest vulnerabilities is **old-age income security**.

Most Indian workers are employed in the **informal or semi-formal sector**, where regular retirement savings and employer-sponsored pensions are largely absent.

Existing social protection mechanisms remain inadequate.

Atal Pension Yojana (APY)

Although APY provides a contributory pension framework, it assumes:

- regular employment,
- stable incomes, and
- uninterrupted long-term contributions.

These assumptions do not hold for a large proportion of India's informal workforce.

National Social Assistance Programme (NSAP)

The central old-age pension under NSAP remains extremely modest:

- **₹200 per month** (60–79 years)
- **₹500 per month** (80 years and above)

Such assistance offers only minimal support and is insufficient to ensure financial independence in old age.

According to **NITI Aayog**:

- nearly **70% of elderly persons depend financially on others**, and
- **78% lack any pension coverage**.

These figures underline the urgent need for an **inflation-indexed universal minimum pension floor** that complements contributory pension systems and provides basic income security.

Changing Family Structures

Traditionally, India's elderly relied heavily on the **joint family system**.

Co-resident children and unpaid family caregiving, particularly by women, acted as informal welfare mechanisms.

However, rapid social change is weakening this traditional support system.

Key drivers include:

- urbanisation,
- migration,
- nuclear families,
- increasing female education,
- greater women's workforce participation, and
- changing social aspirations.

Research indicates that while migration of children may improve the financial condition of elderly parents through remittances, it often increases:

- loneliness,
- mental health challenges,
- social isolation, and
- healthcare vulnerability.

As household-based support declines, public institutions must increasingly shoulder responsibilities previously performed by families.

Healthcare Must Shift Towards Geriatric Care

Population ageing fundamentally changes healthcare needs. Instead of focusing primarily on maternal and child health, India must increasingly prepare for:

- hypertension,
- diabetes,
- cardiovascular diseases,
- dementia,
- disabilities,
- long-term rehabilitation, and
- palliative care.

India's success in improving institutional deliveries, reducing infant mortality, and lowering fertility demonstrates that sustained public investment can produce remarkable demographic outcomes.

A similar **mission-mode approach** is now required to integrate:

- geriatric medicine,
- elderly-friendly primary healthcare,
- long-term care services,
- community-based support, and
- specialised nursing capacity into the health system.

Migration Will Become Central to India's Demographic Balance

Demographic transition also has significant implications for **Indian federalism**.

As southern and western States age more rapidly, they will increasingly depend on workers migrating from younger States such as Bihar, Uttar Pradesh, Madhya Pradesh, and Rajasthan. This presents an opportunity for balancing regional labour shortages.

However, it also requires:

- better education and skill development in younger States,
- greater labour mobility,
- improved urban integration of migrants,
- protection against informal employment, and
- **portable social security benefits** across State boundaries.

A truly integrated national labour market cannot function if welfare entitlements remain tied exclusively to domicile.

Portability of pensions, healthcare benefits, insurance, and welfare schemes will become essential for sustaining economic growth in an ageing India.

The Road Ahead

India's demographic transition demands a comprehensive policy response.

Key priorities include:

- strengthening pension and social security systems,
- expanding formal employment,
- investing in geriatric healthcare,
- creating quality employment opportunities for young workers,
- improving education and skills in high-fertility States,
- ensuring portability of welfare benefits,
- strengthening fiscal capacity of States, and
- promoting active and healthy ageing.

Conclusion

India's declining fertility marks the beginning of a **new demographic era**. The country is transitioning from concerns of population growth to the complex challenges of **population ageing, regional demographic imbalances, and changing family structures**.

Unlike many developed nations, India is **growing old before becoming fully affluent**, making institutional preparedness even more critical. The success of this transition will depend not merely on demographic trends but on the country's ability to build **robust pension systems, inclusive healthcare, portable social protection, productive labour markets, and cooperative federal institutions**.

Managing this transition effectively will determine whether India's demographic transformation becomes a long-term economic opportunity or a significant developmental challenge.

INDUSTRIAL ACCIDENTS IN INDIA

Why in News: Recent fatal industrial accidents in India—including **septic tank cleaning deaths** and **steel plant explosions**—highlight critical gaps in occupational safety. Most disasters stem from **systemic failures in safety management, weak enforcement, and organisational negligence** rather than unavoidable mishaps.

Industrial Accidents Are Rarely 'Accidental'

Modern industrial safety science recognises that catastrophic accidents seldom occur because of a single mistake.

Instead, they result from the gradual accumulation of multiple organisational failures, including:

- Poor maintenance practices
- Inadequate safety inspections
- Weak supervision
- Insufficient worker training
- Delayed replacement of ageing equipment
- Poor emergency preparedness
- Weak enforcement of safety regulations

Each lapse may appear minor in isolation, but together they create conditions for catastrophic failures.

Recurring Safety Failures in Confined Spaces

Deaths inside septic tanks and sewers continue to occur despite decades of awareness.

Standard international safety procedures require:

- Mechanical ventilation before entry
- Testing oxygen and toxic gas levels
- Use of breathing apparatus
- Safety harnesses and retrieval systems
- Rescue personnel stationed outside
- Continuous communication
- Strict prohibition of unprotected entry

When these basic protocols are ignored, fatalities become almost inevitable.

This is why deaths linked to **manual scavenging and septic tank cleaning are increasingly viewed not as accidents, but as failures of governance and workplace safety management**.

The Contract Labour Challenge

A significant concern highlighted by both incidents is the growing dependence on **contractual labour** across industries.

Global occupational safety research consistently shows that contract workers often face greater workplace risks because they typically experience:

- Limited safety training
- Poor familiarity with industrial processes
- Reduced access to protective equipment
- Fragmented responsibility between contractors and principal employers
- Lower bargaining power to refuse unsafe work

As accountability becomes divided among multiple agencies, safety oversight often weakens.

Structural Issues Behind Industrial Mishaps

Following the Visakhapatnam accident, employee unions and former officials pointed to several systemic concerns, including:

- Reduced workforce strength
- Increased workload on remaining employees
- Ageing industrial infrastructure
- Deferred maintenance
- Financial constraints affecting safety investments
- Growing reliance on contractual workers

While investigations will determine the exact causes, these factors are internationally recognised as indicators of declining industrial safety culture.

Occupational Safety in India (Persistent Challenges)

The accidents also expose deeper structural issues within India's industrial ecosystem.

Major Concerns

- Shortage of skilled manpower
- Weak implementation of occupational safety standards
- Inadequate enforcement by regulatory authorities
- Hazardous occupations disproportionately performed by socially and economically vulnerable communities
- Continued prioritisation of production targets and cost reduction over worker safety

These longstanding issues continue to undermine workplace safety despite legislative reforms.

Occupational Safety Reforms

India has introduced a new legal framework through the **Occupational Safety, Health and Working Conditions (OSH) Code, 2020**, which seeks to consolidate multiple labour laws and strengthen workplace safety standards.

However, implementation remains uneven, with significant gaps in:

- Safety audits
- Worker training
- Compliance monitoring
- Emergency preparedness
- Enforcement mechanisms

Without effective implementation, legislative reforms alone cannot prevent industrial disasters.

Way Forward

The recent tragedies serve as a stark reminder that **industrial accidents are seldom unpredictable—they are usually preventable**. Strengthening India's industrial safety ecosystem requires a shift from reactive responses to proactive risk management. This includes strict enforcement of occupational safety regulations, periodic third-party safety audits, mandatory training for all workers (especially contractual employees), modernisation of ageing industrial infrastructure, adoption of advanced safety technologies, and fostering a workplace culture where **human life takes precedence over production targets**. Building a safe industrial economy is not merely a legal obligation but an essential prerequisite for sustainable and inclusive economic growth.

RISING CAESAREAN DELIVERIES IN INDIA

Why in News: Recent **National Family Health Survey (NFHS-5/6) data (2023–24)** reveal a significant rise in **caesarean section (C-section) deliveries** across India.

Caesarean Deliveries on the Rise

A **Caesarean Section (C-section)** is a surgical procedure used to deliver a baby through incisions made in the mother's abdomen and uterus. It is a life-saving intervention when complications make vaginal delivery unsafe for the mother or child.

However, the rapid increase in C-section rates has raised important public health concerns. While the procedure has contributed significantly to reducing maternal and neonatal mortality when medically indicated, experts caution that **unnecessary C-sections expose mothers and infants to avoidable health risks** without improving birth outcomes.

Public-Private Divide

One of the most striking findings is the sharp difference between public and private healthcare facilities.

- **Private Hospitals: 50.9%** of deliveries are performed through C-sections.
- **Public Hospitals: 19.6%** of deliveries involve C-sections.

The disproportionately high rate in private hospitals has raised concerns regarding the **possible overuse of surgical deliveries**, prompting calls for greater transparency and clinical audits.

Why Are Caesarean Deliveries Increasing?

Experts attribute the rising trend to a combination of **medical, demographic, social, and systemic factors**.

1. Delayed Motherhood

Women are increasingly choosing to have children in their **late twenties and thirties**, often due to higher educational attainment, career aspirations, and changing family patterns. Advanced maternal age is associated with increased risks such as:

- Gestational diabetes
- Pregnancy-induced hypertension
- Obesity
- Placental complications
- Reduced labour progression

These conditions often necessitate surgical delivery.

2. Lifestyle-Related Health Conditions

The growing prevalence of **obesity, diabetes, hypertension, and metabolic disorders** among women of reproductive age has increased the incidence of high-risk pregnancies, making C-sections medically necessary in many cases.

3. Patient Preference

Medical experts note a growing preference among expectant mothers for planned Caesarean deliveries due to:

- Fear of labour pain
- Convenience of scheduling delivery
- Perception of greater safety
- Anxiety regarding prolonged labour

Improved access to painless childbirth options remains limited in many hospitals, encouraging some women to opt for surgery instead.

4. Defensive Medical Practice

Doctors also acknowledge that concerns regarding:

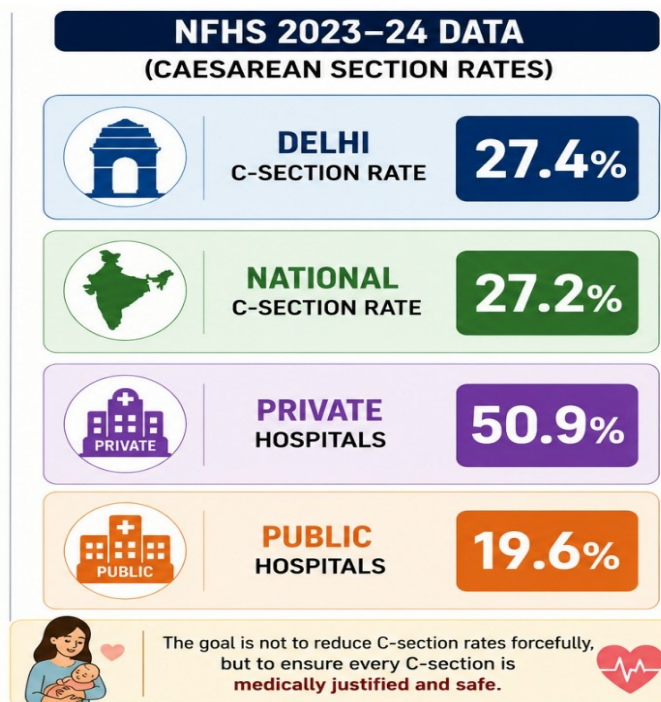
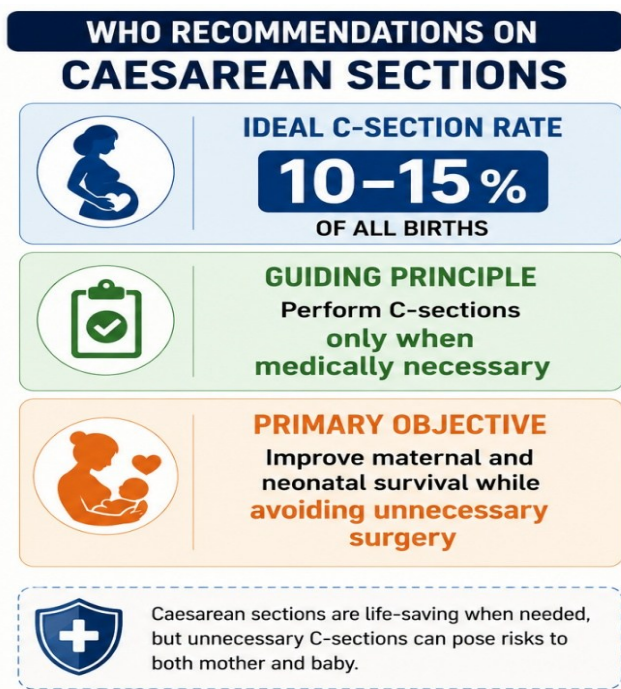
- legal liability,

- litigation,
 - obstetric emergencies,
- may encourage clinicians to recommend Caesarean delivery in borderline cases where vaginal birth may still be possible.

5. Environmental Factors

Although no direct causal relationship has been established, studies indicate that **air pollution** may contribute to:

- preterm births,
 - foetal growth restriction,
 - hypertensive disorders during pregnancy,
- thereby increasing the likelihood of medically indicated Caesarean deliveries.



Why Is the Rising Trend a Concern?

The **World Health Organization (WHO)** emphasises that Caesarean sections are highly beneficial **only when medically justified**.

Unnecessary surgical deliveries can expose mothers and newborns to several risks.

Risks for the mother

- Surgical complications
- Excessive bleeding
- Infection
- Anaesthesia-related complications
- Longer recovery period
- Increased complications in future pregnancies
- Placenta previa and placenta accreta in subsequent pregnancies

Risks for the Baby

- Breathing difficulties
- Delayed initiation of breastfeeding
- Altered early immune development
- Greater likelihood of neonatal intensive care admission in certain cases

WHO Recommendation

The **World Health Organization** recommends that **population-level Caesarean section rates should ideally remain around 10–15%**, as rates beyond this threshold have not consistently shown additional reductions in maternal or neonatal mortality.

The WHO stresses that **every woman who genuinely requires a Caesarean section should have access to one**, while unnecessary procedures should be avoided.

Are All C-sections Unnecessary?

No. Experts caution against interpreting the rising numbers as evidence that all Caesarean deliveries are inappropriate.

Many pregnancies require surgical intervention due to:

- Foetal distress
- Breech presentation
- Placental abnormalities
- Multiple pregnancies
- Obstructed labour
- Previous complicated Caesarean deliveries
- Maternal medical conditions

The real concern lies in ensuring that **every Caesarean is based on sound medical indications rather than non-clinical factors**.

Why Do Researchers Seek Greater Investigation?

The NFHS data reveal **how many** Caesarean deliveries occur but **do not explain why** each surgery was performed.

Researchers therefore recommend:

- Detailed clinical audits
- Comparison between public and private hospitals
- Examination of patient preferences
- Assessment of provider practices
- Better documentation of medical indications

Such evidence would help distinguish medically necessary procedures from potentially avoidable ones.

Way Forward

Experts advocate a balanced approach that protects both maternal health and patient autonomy.

Key recommendations include:

- Strengthening documentation of clinical indications for C-sections.
- Conducting regular medical audits, particularly in private healthcare institutions.
- Improving access to labour pain management and epidural services.
- Promoting informed decision-making through antenatal counselling.
- Encouraging second medical opinions before elective, non-emergency Caesarean deliveries.
- Enhancing transparency in hospital reporting and maternal health outcomes.
- Strengthening public awareness regarding the benefits and risks of different modes of childbirth.

Conclusion

The objective of maternal healthcare should not be to achieve a predetermined Caesarean rate, but to ensure that **every surgical delivery is clinically justified, evidence-based, and centred on the health and safety of both mother and child**. Strengthening clinical governance, improving maternal counselling, and enhancing accountability across healthcare institutions will be critical to promoting safe and equitable childbirth practices in India.

SLIPPING FOOD SAFETY STANDARDS IN INDIA

Why in News: Recent **suspected food poisoning incidents** at a **private school in Indore (Madhya Pradesh)** and a **popular eatery in Bhiwandi (Maharashtra)**, which together affected **over 200 people**, have once again brought India's food safety system under scrutiny. The incidents have reignited concerns over the **effective implementation of the Food Safety and Standards (FSS) Act, 2006**, at a time when official data reveals persistent shortcomings in food inspections, surveillance, and enforcement.

India's Growing Food Safety Challenge

Foodborne illnesses continue to pose a major public health challenge in India.

According to the **Accidental Deaths and Suicides in India (ADSI) Report, 2024**, a total of **1,122 people lost their lives due to food poisoning** during the year. These deaths are largely preventable and underscore the need for stronger food safety regulation and timely enforcement.

The recent outbreaks demonstrate that despite an existing legal framework, implementation gaps continue to expose millions of consumers to unsafe food.

Link Between Food Poisoning and Food Safety Performance

Although a direct causal relationship cannot be conclusively established, official data reveals an important trend.

States reporting **higher food poisoning cases generally recorded lower or moderate scores** in the State Food Safety Index.

For example:

- **Jharkhand**, which reported over **130 food poisoning deaths**, scored only **26.5** on the Food Safety Index.

- **Uttar Pradesh**, where more than **200 deaths** were reported, secured a score of only **44.25**.

Furthermore, **nearly three-fourths of all States and Union Territories scored below 50 out of 100**, indicating substantial weaknesses in food safety governance across much of the country.

Gap Between Registered Food Businesses and Inspections

The Food Safety and Standards Act requires periodic inspection of **Food Business Operators (FBOs)** and laboratory testing of food samples.

However, official data for **2024–25** indicates that the scale of inspections remains significantly lower than the number of registered food establishments.

For instance:

- **Maharashtra** has over **1.8 lakh registered or active Food Business Operators**.
- Yet, only **20,877 food samples** were collected for testing during the year.

This wide gap suggests that only a small fraction of food establishments undergo regular surveillance, increasing the possibility of unsafe food reaching consumers.

New Risk-Based Inspection Framework

To strengthen food safety oversight, the Government has recently amended the Food Safety and Standards Rules.

The revised framework introduces **dynamic risk-based inspections**, replacing uniform inspection schedules.

Under the new approach, the frequency of inspections will depend upon factors such as:

- Nature of the food establishment
- Risk profile of products
- Previous compliance history
- Record of violations
- Other operational risk indicators

The objective is to focus regulatory resources on establishments posing greater public health risks.

Human Resource Constraints

Effective enforcement depends heavily on adequate regulatory manpower.

However, both central and State food safety institutions continue to face significant vacancies.

At the Central Level

- FSSAI has a sanctioned strength of **822 officers**.
- Nearly **40% of these posts remain vacant**, with vacancies increasing over the past five years.

At the State Level

Across States and Union Territories:

- **4,208 Food Safety Officer (FSO)** posts have been sanctioned.
- Only **2,997 positions** are currently filled.

The shortage of trained personnel directly affects inspections, surveillance, food sample collection, and enforcement.

Global Perspective (WHO Estimates)

According to the **World Health Organization (WHO) Foodborne Disease Estimates (2026)**:

- Unsafe food causes approximately **866 million illnesses annually** worldwide.

- Around **1.5 million people die each year** due to foodborne diseases.
- Foodborne diseases resulted in the loss of **57.1 million Disability-Adjusted Life Years (DALYs)** in 2021.
- Nearly **30% of this disease burden falls on children below five years of age**, making food safety a critical child health issue.

India's Position

Although the overall burden of foodborne diseases has declined since 2000, India continues to perform poorly on several global indicators.

WHO estimates place **India at 15th globally** in terms of **Years of Life Lost (YLL) due to foodborne diseases**, alongside several low-income countries.

This highlights that food safety remains not merely a regulatory issue but also a major public health and developmental challenge.

Key Challenges

India's food safety ecosystem continues to face several structural issues:

- Inadequate inspection coverage.
- Shortage of Food Safety Officers.
- Limited laboratory testing capacity.
- Uneven enforcement across States.
- Delays in surveillance and compliance monitoring.
- Weak consumer awareness regarding food safety practices.

Way Forward

Strengthening India's food safety architecture requires a multi-pronged approach:

- **Filling vacancies in FSSAI and State Food Safety Authorities.**
- **Expanding laboratory infrastructure and food testing capacity.**
- **Ensuring effective implementation of the new risk-based inspection framework.**
- **Increasing the frequency of inspections for high-risk food establishments.**
- **Leveraging digital technologies for real-time monitoring and compliance.**
- **Enhancing consumer awareness regarding safe food practices.**
- **Strengthening coordination between the Centre and States for uniform enforcement.**

Conclusion

The recent food poisoning incidents serve as a reminder that **food safety is an essential component of public health security**. While India has established a comprehensive legal framework through the Food Safety and Standards Act, its effectiveness ultimately depends on robust implementation, adequate institutional capacity, and continuous surveillance. Strengthening inspections, improving regulatory manpower, and adopting risk-based monitoring will be crucial to ensuring that every citizen has access to safe and hygienic food.

HISTORY & CULTURE

DANCING GIRL, MEET MODEST IMAGINATION

Why in News: NCERT covered the **Dancing Girl's torso** to make it **age-appropriate**, reflecting a broader approach of **sanitizing educational content** and shielding students from subjects considered sensitive or controversial.

Key Details

- **Historical distortion:** Alters the original form of a significant **Harappan artefact**.
- **Weakens critical thinking:** Reduces opportunities for **context-based learning**.
- **Contradicts NEP goals:** Limits exposure to **complexity** and **independent reasoning**.
- **Problematic gender message:** Suggests **female bodies** require concealment.
- **Cultural censorship:** Encourages **sanitized history** rather than informed understanding of heritage.

The Dancing Girl Controversy: NCERT's Alteration

- The **4,500-year-old Dancing Girl of Mohenjo-daro**, a **bronze artefact**, symbolizes the **artistic excellence, cultural refinement, and metallurgical sophistication** of the **Harappan Civilization**.
- In a new **Class IX NCERT Art Education textbook**, the figurine's **bare torso** has been covered with a sheath, reportedly to make it more **age-appropriate**.
- The original image had appeared in **NCERT textbooks** for over **25 years** without controversy.
- Critics view the change as an act of **prudishness, censorship, and historical sanitization**.
- The move has sparked debate about how students are introduced to their own **cultural heritage** and **archaeological legacy**.

A Shift in Educational Philosophy

- The alteration reflects a broader trend of **simplifying, streamlining, and sanitizing educational content**.
- Recent **NCERT revisions** have reduced emphasis on several **contentious historical topics**.
- NCERT has justified such changes as necessary for creating "**positive citizens**" rather than exposing students to disturbing or divisive events.
- The Dancing Girl modification follows the same approach of **avoiding potentially uncomfortable or controversial subjects**.
- Critics argue that education should foster **intellectual curiosity, critical engagement, and historical awareness**, not shield students from complexity.

Impact on Critical Thinking

- Understanding historical artefacts requires **contextual learning, historical interpretation, and critical analysis**.

- **Artistic nudity** in ancient sculptures and artefacts is a common feature of many **civilizations** and **cultural traditions**.
- By concealing such elements, students lose opportunities to develop **historical understanding** and **analytical skills**.
- The decision appears inconsistent with the **National Education Policy (NEP)** goal of promoting **critical thinking** and **independent reasoning**.
- Meaningful education should expose students to **ambiguities, contradictions, and multiple perspectives** rather than eliminating them.

Message About Women and Representation

- The alteration carries broader implications regarding **women's visibility, agency, and representation** in public life.
- At a time when more women are entering **universities, workplaces, politics, and other public institutions**, the decision appears regressive.
- The Dancing Girl is admired for her **confidence, poise, self-assurance, and individuality**.
- Covering the figure risks reducing the symbolic significance of one of South Asia's most iconic representations of **female identity**.
- Critics argue that the move sends an unfortunate message about **women's autonomy, self-expression, and freedom of representation**.

Conclusion

- The controversy highlights tensions between **education and censorship, understanding and concealment, and critical inquiry and sanitization**.
- Opponents argue that students should be trusted to engage with **historical realities** through **context** rather than alteration.
- The **Dancing Girl** represents not only **ancient artistic achievement** but also **confidence, cultural richness, and human expression**.
- Education is most effective when it promotes **informed interpretation, historical literacy, and independent thought**.
- The debate ultimately raises important questions about the teaching of **history, culture, gender, and heritage** in modern classrooms.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Education must provide context, not concealment." Critically examine this statement with reference to the portrayal of historical and cultural artefacts in school textbooks. (150 words, 10 marks)

GOVERNMENT SCHEMES

ABHIGYAN APP (NCRB) LAUNCHES MOBILE FINGERPRINT IDENTIFICATION

Why in News: The **Ministry of Home Affairs (MHA)** has launched "**Abhigyan**", a mobile application developed by the **National Crime Records Bureau (NCRB)** that enables police personnel to **instantly identify criminal suspects through fingerprint authentication**. Integrated with the **National Automated Fingerprint Identification System (NAFIS)**, the app allows field officers to verify fingerprints using portable scanners and retrieve criminal records within seconds, marking a significant step towards **technology-driven policing and criminal investigation**.

Key Features of the App

The Abhigyan application offers several advanced capabilities:

- **Real-time fingerprint authentication** through portable biometric scanners.
- Integration with the **NAFIS national database**.
- Instant retrieval of criminal history on smartphones.
- Secure access through **two-factor authentication**.
- Portable and field-friendly operation without requiring police station infrastructure.
- Matching of fingerprints within **approximately 35 seconds**.

These features significantly reduce the time required to verify the identity and criminal antecedents of suspects.

How Does It Work?

Using a portable fingerprint scanner connected to a smartphone, a police officer can capture an individual's thumb impression.

The fingerprint is then matched against the **NAFIS database**, which currently stores records of approximately **1.3 crore accused persons, convicts, and prison inmates**.

If a match is found, the officer can immediately access the individual's criminal history, enabling quicker operational decisions during investigations and field operations.

Role in Modern Policing

The application is expected to strengthen field policing in several ways.

During:

- Vehicle checking drives,
- Routine patrols,
- Crime investigations,
- Search operations,

police personnel can verify the identity of suspicious individuals without transporting them to a police station.

Authorities believe this capability will:

- Improve the detection of wanted criminals.
- Enhance officer safety by alerting police about habitual offenders.
- Reduce delays in criminal identification.

- Strengthen evidence-based investigations.

Legal Basis

The deployment of the application is based on the **Criminal Procedure (Identification) Act, 2022**, which authorises the collection and preservation of measurements such as:

- Fingerprints,
- Palm prints,
- Footprints,
- Iris and retina scans,
- Photographs,
- Biological samples,
- Behavioural attributes.

These measurements are maintained for purposes of criminal investigation and identification.

Legal and Privacy Concerns

While the application represents a major technological advancement, it has also raised important legal questions.

Section 3 of the **Criminal Procedure (Identification) Act, 2022** primarily permits the collection of biometric measurements from:

- Convicted persons.
- Arrested individuals.
- Persons ordered by a court to furnish security for maintaining peace or good behaviour.

The Act does **not explicitly authorise random biometric collection from individuals who have neither been arrested nor linked to any criminal offence**.

Consequently, legal experts have highlighted concerns regarding:

- Individual privacy.
- Procedural safeguards.
- Scope of police powers.
- Potential misuse during routine checks.

These issues may require judicial interpretation or further policy clarification.

From Fixed Workstations to Mobile Identification

Prior to the launch of Abhigyan, fingerprint verification could only be carried out through **1,556 NAFIS workstations** installed at police stations and district headquarters.

The earlier process required:

- Bringing a suspect to the workstation.
- Capturing fingerprints.
- Matching them against the database.

Abhigyan eliminates this limitation by enabling **on-the-spot biometric verification**, making criminal identification significantly faster and more efficient.

About the National Automated Fingerprint Identification System (NAFIS)

NAFIS is India's **centralised biometric fingerprint database**, developed and maintained by the **National Crime Records Bureau (NCRB)**.

It digitally stores fingerprint records of:

- Arrested persons.
- Convicted offenders.
- Prison inmates.
- Individuals involved in criminal investigations.

The system enables fingerprint matching across States and Union Territories, improving coordination among law enforcement agencies.

Scale of the Database

According to the Ministry of Home Affairs, the NAFIS database presently contains records relating to:

- Approximately **1.3 crore individuals**.
- Around **9.91 lakh narcotics offenders**.
- Nearly **3.65 lakh human trafficking cases**.
- Extensive prison records collected from across India.

The continuously expanding database is expected to improve the accuracy and speed of criminal identification.

Importance of Crime Scene Fingerprints

The Union Home Minister emphasised that the true strength of NAFIS lies not merely in identifying known offenders but in **systematically collecting fingerprints from every crime scene**.

A richer biometric database would:

- Improve forensic investigations.
- Link repeat offenders across multiple cases.
- Strengthen evidence-based policing.
- Increase conviction rates.

The Centre has also encouraged States to preserve DNA evidence wherever appropriate, complementing fingerprint-based investigations.

Significance

The launch of Abhigyan represents a major milestone in India's ongoing police modernisation programme.

The initiative is expected to:

- Promote technology-enabled policing.
- Strengthen interstate criminal investigations.
- Improve identification of habitual offenders.
- Reduce investigation time.
- Enhance officer safety.
- Improve coordination among law enforcement agencies.
- Support the broader goal of delivering **speedy and evidence-based criminal justice**.

Challenges

Despite its potential, effective implementation will require addressing several concerns:

- Ensuring compliance with constitutional privacy protections.
- Preventing arbitrary or excessive biometric collection.
- Establishing strong data security and cybersecurity safeguards.
- Protecting sensitive biometric information from misuse.
- Providing adequate training to field personnel.
- Maintaining transparency and accountability in the use of biometric technologies.

Balancing technological innovation with individual rights will be essential for the long-term success of the initiative.

Conclusion

The **Abhigyan** application marks a significant advancement in India's transition towards **digital, biometric, and**

intelligence-driven policing. By integrating portable fingerprint scanners with the nationwide **NAFIS** database, the system enables rapid criminal identification and strengthens investigative capabilities. However, as biometric surveillance expands, ensuring robust legal safeguards, privacy protection, and responsible use of technology will remain equally important for maintaining public trust and upholding constitutional rights.

VB-G RAM G TO REPLACE MGNREGA

Why in News: The **Viksit Bharat–Guarantee for Rozgar and Ajeevika Mission (Gramin) [VB-G RAM G]** is set to come into force from **July 1, 2026**, replacing the **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)**. Ahead of its rollout, the **Ministry of Rural Development** notified the draft operational rules and invited feedback from stakeholders. The new law introduces significant structural changes in the design, financing, and implementation of India's flagship rural employment programme.

What is VB-G RAM G?

The **Viksit Bharat–Guarantee for Rozgar and Ajeevika Mission (Gramin)** is the new statutory framework governing rural wage employment in India.

While retaining the objective of providing employment opportunities to rural households, the scheme seeks to align employment generation with **rural infrastructure creation, livelihood enhancement, climate resilience, and the broader vision of Viksit Bharat 2047**.

Major Changes Introduced Under VB-G RAM G

1. Shift from Demand-Driven to Supply-Driven Framework

The most significant change is the transition from a **demand-driven** model to a **supply-driven** system.

Under MGNREGA

- Employment was provided whenever eligible households demanded work.
- Funding largely depended on actual demand generated from the grassroots.

Under VB-G RAM G

- Annual allocations will be made within a **fixed budget** determined by the Union Government.
- Funds will be distributed using **objective parameters** linked to normative allocation.

This marks a move towards planned expenditure rather than open-ended financial commitments.

2. Increase in Guaranteed Employment

The annual employment guarantee has been enhanced.

Scheme	Guaranteed Employment
MGNREGA	100 days
VB-G RAM G	125 days

The increase aims to provide greater livelihood security to rural households.0020

3. Higher Financial Responsibility for States

One of the most debated reforms relates to the financing pattern.

Under MGNREGA

- Centre bore 100% of wage costs.
- Centre bore 75% of material costs.

- Effective sharing was approximately **90:10** (Centre: State).

Under VB-G RAM G

States will now bear **40% of the total expenditure**, substantially increasing their fiscal responsibility.

Several States have expressed concern that this may strain already limited State finances.

4. Selective Geographic Coverage

Unlike MGNREGA, which was available across all notified rural areas, the new law empowers the **Union Government** to notify the rural areas where the scheme will operate.

This introduces a more targeted approach to programme implementation.

5. Provision for Seasonal Blackout

The Act permits temporary suspension of employment during **peak agricultural seasons**.

The objective is to prevent labour shortages for agricultural operations and ensure adequate workforce availability for farming activities.

However, several States have expressed reservations regarding this provision.

Concerns Raised by States

During consultations on the draft rules, several State Governments sought modifications.

Financial Concerns

States including:

- Madhya Pradesh
- Bihar
- Jharkhand

questioned the increased State contribution from around 10% to 40%, arguing that it would impose a significant fiscal burden.

Demand for Higher Wage Rates

Several States argued that existing wage rates remain below prevailing market wages.

Suggestions Made

State	Suggested Wage Revision
Bihar	₹255 → ₹413
Jammu & Kashmir	₹272 → ₹311

Punjab and Jharkhand recommended that wages should be periodically revised to remain competitive with local labour markets.

Uttarakhand sought higher wages in view of the difficult mountainous terrain where manual work is more demanding.

Prelims Facts

- **Implemented From: 1 July 2026**
- **Employment Guarantee: 125 days per rural household per financial year**
- **Replaces: MGNREGA**
- **Objective:** Rural employment linked with infrastructure, livelihood creation, and sustainable village development.

Objections to Seasonal Work Suspension

Four States opposed the proposal to keep the programme inactive for **60 non-working days** during peak agricultural seasons.

They argued that:

- Rural workers depend on continuous wage employment.
- Seasonal suspension may adversely affect household incomes.

Delayed Payments

Nearly all States highlighted recurring delays in:

- Wage payments.
- Reimbursement of material costs.

States requested a more efficient and predictable fund release mechanism from the Union Government.

Greater Powers to the Union Government

Another major issue raised by experts relates to the concentration of decision-making authority.

Under the draft rules:

- Allocation of funds among States will be based on **objective parameters** broadly aligned with the recommendations of the **16th Finance Commission**.
- However, the methodology for applying these parameters will be determined by the **Union Government**.

Critics argue that this provides considerable discretion to the Centre in distributing financial resources.

KEY DIFFERENCES: MGNREGA vs VB-G RAM G

Feature	MGNREGA	VB-G RAM G
 Nature of Scheme	 Demand-driven	 Supply-driven
 Guaranteed Employment	100 days	125 days
 Funding Pattern	Approx. 90:10 (Centre : State)	60:40 (Centre : State)
 Coverage	 Universal across notified rural areas	 Selected rural areas notified by Centre
 Seasonal Employment	 No blackout period	 Blackout permitted during peak agricultural season
 Fund Allocation	 Based on demand	 Fixed budget using objective parameters

Significance of the New Framework

The new law represents a major shift in India's rural employment policy.

According to the Government, the framework aims to:

- Improve fiscal discipline.
- Enhance planning and accountability.
- Link employment with durable rural asset creation.
- Promote climate-resilient and livelihood-supporting infrastructure.
- Align rural development with the vision of **Viksit Bharat 2047**.

Key Concerns

Experts and State Governments have identified several potential challenges:

- Reduced flexibility under a supply-driven approach.
- Increased financial burden on States.

- Possibility of unequal regional allocation of funds.
- Greater centralisation in decision-making.
- Concerns over seasonal suspension of employment.
- Need for timely wage payments and adequate budgetary support.

Conclusion

The rollout of **VB-G RAM G** marks one of the most significant reforms in India's rural employment architecture since the enactment of MGNREGA in 2005. While the new framework promises higher guaranteed employment, improved planning, and stronger focus on productive rural assets, it also alters the fiscal and administrative balance between the Union and the States. Its long-term success will depend on effective Centre–State coordination, timely funding, fair wage revisions, and the ability to balance fiscal discipline with the livelihood needs of rural households.

IMPORTANT REPORTS

STATE OF WORLD FISHERIES AND AQUACULTURE (SOFIA) REPORT 2026

Why in News: The Food and Agriculture Organization (FAO) of the United Nations released its flagship biennial report, **The State of World Fisheries and Aquaculture (SOFIA) 2026**, framed around the theme: *"Blue Transformation: Turning Vision into Impact"*.

Core Framework: FAO Blue Transformation (2021–2030)

Launched to align aquatic food systems with the UN Sustainable Development Goals (SDGs), particularly **SDG 14 (Life Below Water)** and **SDG 2 (Zero Hunger)**, the strategy focuses on three core pillars:

- **Sustainable Aquaculture Expansion:** Meeting the growing global demand for aquatic foods while ensuring ecological integrity.
- **Effective Fisheries Management:** Restoring wild marine and inland fish stocks through science-based catch regulations.
- **Upgraded Value Chains:** Minimizing post-harvest loss, eliminating waste, and securing fair, inclusive market access for small-scale and artisanal fishers.

Key Global Highlights

- **All-Time Peak Production:** Global fisheries and aquaculture output reached a record **235 million tonnes**.
- **Aquaculture Dominance:** Aquaculture remained the main engine of growth, contributing **53% of all aquatic animal production**, cementing its lead over wild capture fisheries for direct human consumption.
- **Stock Depletion Concerns:** The fraction of biologically sustainable marine fish stocks fell to **62.4%**, down from 64.5% in previous assessments, driven by illegal, unreported, and unregulated (IUU) fishing, fleet overcapacity, and ocean warming.

India's Position in the Global Fisheries Landscape

- **Overall Global Ranking:** India produced **9% of total global aquatic animal output**, solidifying its rank as the **2nd largest producer in the world**, behind China.
- **Inland Capture Leadership:** India ranked **1st globally in inland capture fisheries**, supported by extensive river basins, wetlands, and reservoir networks.
- **Marine Capture Footprint:** Accounted for roughly **5% of global marine capture fisheries**.
- **Aquaculture Powerhouse:** Stood as the **2nd largest aquaculture producer globally**, generating **12% of worldwide aquaculture output**.
- **Global Geographic Concentration:** India features among the top five producer nations—alongside **China**,

Indonesia, Vietnam, and Bangladesh—that collectively account for roughly **82% of global aquaculture production**.

Major Indian Policy Initiatives & Interventions

- **Pradhan Mantri Matsya Sampada Yojana (PMMSY):** Flagship umbrella scheme launched with an investment of ₹20,050 crore to address infrastructure gaps across marine, inland, and brackish-water fisheries.
- **Fisheries and Aquaculture Infrastructure Development Fund (FIDF):** Provides concessional credit finance for modern fishing harbours, fish landing centers, cold chains, and mechanized ice plants.
- **Deep-Sea Fishing & Modernization:** Promoting fuel-efficient, selective gear to reduce coastal overfishing and encourage sustainable exploration within India's Exclusive Economic Zone (EEZ).
- **Technological Adoption:** Scaling advanced, land- and water-efficient systems like **Bio-floc technology** and **Recirculatory Aquaculture Systems (RAS)** alongside real-time monitoring via the Fish Market Price Information System.
- **Safety Nets & Institutional Credit:** Inclusion of fishers and fish farmers under the **Kisan Credit Card (KCC)** framework to provide formal working capital support.

Global Startup Ecosystem Report (GSER) 2026

Why in News: Startup Genome released the **Global Startup Ecosystem Report (GSER) 2026**, evaluating innovation hubs worldwide across the *Global Top 40* mature ecosystems and the *Emerging Top 100* startup destinations.

Global Highlights & Macro Trends

- **Top Global Hubs:** **Silicon Valley** maintained its lead as the world's premier startup ecosystem, followed by **New York City** and **London** tied at the second position.
- **Decline in Chinese Hubs:** Major Chinese innovation clusters recorded a downward shift in the Global Top 40: Beijing (down to #6), Shanghai (#11), Shenzhen (#19), Hangzhou (#28), and Guangzhou (#38).
- **AI-Led Capital Allocation:** Artificial Intelligence and AI-native ventures captured the largest share of global venture capital, driven by demand for computing infrastructure, foundational models, and applied enterprise automation.
- **Deep-Tech & Frontier Technologies:** Heightened investor momentum was recorded in research-intensive verticals, including **DefenceTech**, **ClimateTech**, **advanced robotics**, and **advanced manufacturing**.



ABOUT GLOBAL STARTUP ECOSYSTEM REPORT (GSER)



The Global Startup Ecosystem Report (GSER) is an annual benchmarking study by Startup Genome in collaboration with the Global Entrepreneurship Network (GEN). It provides the most comprehensive assessment of startup ecosystems worldwide.

GSER AT A GLANCE



350+
STARTUP
ECOSYSTEMS
COVERED



5.5 MILLION+
COMPANIES
ANALYZED



150+
COUNTRIES
REPRESENTED

HOW ECOSYSTEMS ARE ASSESSED

GSER evaluates ecosystems across six interconnected success factors.



India's Standing: Transition to a Multi-Hub Ecosystem

• Bengaluru (Global Rank 15):

- Retained its status as **India's top startup hub** and secured the **15th position globally** in the Top 40 ranking.
- Ranked as **Asia's 2nd best AI-native cluster**, behind Beijing.

- Entered the **Global Top 10** in *Performance* and *Knowledge (R&D)* indicators.
- Valuation reached approximately **\$153 billion**, reflecting a **190% increase in ecosystem value** compared to GSER 2021 baseline levels.

- **Delhi (Global Rank 31):** Consolidated its position within the Global Top 40, demonstrating strength in consumer tech, fintech, and logistics.

- **Mumbai (Rank 1 in Emerging Ecosystems):** Ranked **1st globally in the Emerging Top 100 Ecosystems**, reflecting scale in fintech, commerce, and enterprise software.
- **Decentralization Trend:** Validated India's transition from a single-city hub into a geographically distributed, multi-metro startup architecture.

Key Drivers & Strategic Takeaways for India

- **Digital Public Infrastructure (DPI):** Open networks (UPI, ONDC, Account Aggregator) continue to lower customer acquisition costs (CAC) and accelerate product-market fit for early-stage ventures.
- **Supportive Policy Architecture:** Government interventions through the **Startup India** initiative, Fund of Funds for Startups (FFS), and Credit Guarantee Schemes have reduced early-stage capital friction.
- **Capital Realignment toward Deep-Tech:** Sustained ecosystem expansion requires bridging the late-stage domestic risk-capital gap and strengthening industry-academia patent commercialization.

INDIA'S EMERGENCE AS A GLOBAL STARTUP HUB

Why in News: The **Startup India initiative**, launched in 2016, completed a transformative decade (2016–2025), evolving India into the world's third-largest entrepreneurial ecosystem through institutional financing, regulatory easing, and widespread geographical dispersion.

Current Status of India's Startup Landscape

- **Global Standing:** Ranks as the **3rd-largest startup ecosystem** globally (behind the United States and China).
- **Scale & Unicorn Base:** Over **157,000 recognized startups** and more than **120 unicorns** (valuation >\$1 billion).

- **Exponential Expansion:** Total operational startups expanded from ~10,000 in 2016 to nearly **2.5 lakh by 2025**, registering a compound annual growth rate of 12–15% (peaking at ~30% in high-investment cycles).
- **Employment Multiplier:** Generated over **21 lakh direct jobs**, transitioning the youthful demographic from job seekers to employment creators.
- **Risk Capital Deployment:** Startups secured approximately **\$10–11 billion** in venture and growth capital in 2025 alone.
- **Core Hubs & Verticals:** Traditionally anchored around Bengaluru, Delhi-NCR, Mumbai, and Hyderabad; prominent sectors include **Fintech, E-commerce, Logistics/Supply Chain, and Health-tech**.

Statutory & Regulatory Definition (Eligibility Norms)

Under the Department for Promotion of Industry and Internal Trade (DPIIT) framework:

Criterion	Standard Startups	Deep-Tech Startups
Operational Age	Up to 10 years from incorporation date	Extended up to 20 years
Turnover Threshold	Not exceeding ₹100 crore in any financial year	Extended up to ₹300 crore
Legal Constitution	Private Limited, LLP, or Registered Partnership	Private Limited, LLP, or Registered Partnership
Originality	Must not be formed by splitting up or reconstructing an existing business entity	Must not be formed by splitting up or reconstructing an existing business entity

Scheme	Ministry	Objective
Atal Innovation Mission (AIM) (2016)	NITI Aayog	Foster nationwide innovation culture
GENESIS (Gen-Next Support for Innovative Startups) (2022)	Ministry of Electronics & IT (MeitY)	Deep-tech startups in Tier II/III cities
Technology Incubation and Development of Entrepreneurs (TIDE) 2.0 (2019)	Ministry of Electronics & IT (MeitY)	ICT startup incubation & scale-up
MeitY Startup Hub (MSH) (2016)	Ministry of Electronics & IT (MeitY)	Integrate tech startup ecosystem
NIDHI (National Initiative for Developing and Harnessing Innovations) (2016)	Department of Science & Technology (DST)	Support S&T startups from idea to market
Startup Village Entrepreneurship Programme (SVEP) (2015)	Ministry of Rural Development (DAY - NRLM)	Promote rural entrepreneurship
ASPIRE (Scheme for Promotion of Innovation, Rural Industries and Entrepreneurship) (2015)	Ministry of MSME	Strengthen rural enterprise incubators
Prime Minister's Employment Generation Programme (PMEGP) (2008)	Ministry of MSME (KVIC)	Subsidised credit for self-employment

decentralized rural logistics, domestic tourism, and regional language services.

Transformative Trends Shaping the Sector

- **Geographic Democratization (The Bharat Shift):**
 - In 2016, Tier-1 metropolitan hubs accounted for **65%** of all new incorporations, while Tier-3 centers constituted merely 15%.
 - By 2025, this paradigm inverted completely: **Tier-3 regions accounted for 71%** of newly established ventures, with Tier-1 hubs moderating to 18%.
- **Demographic Dividend & Inclusive Leadership:**
 - The majority of startup founders are below 40 years of age (66% of male and 59% of female founders).
 - Female representation is notable at the generational extremes: **21%** among founders under 30, rising to **33%** among founders aged 50 and above.

Key Structural Catalysts

- **Targeted Policy Architecture:**
 - **Institutional Funding: Fund of Funds for Startups (FFS - ₹10,000 crore)** managed through SIDBI, **Startup India Seed Fund Scheme (SISFS)** for early-stage proof-of-concept, and the **Credit Guarantee Scheme for Startups (CGSS)** to facilitate collateral-free debt.
 - **Decentralization Schemes:** Specialized interventions like **GENESIS** (*Generating Entrepreneurship and Startup Ecosystem in Small Towns*) to incubate non-metro innovators.
- **Digital Public Infrastructure (DPI) Rails:** Open identity, payments, and data exchange systems (including UPI, DigiLocker, and ONDC) lowered customer acquisition costs (CAC) and shortened go-to-market cycles.
- **Problem-Solving Shift:** Regional startups directly solve localized structural issues in precision agritech,

Structural Bottlenecks & Critical Challenges

- **The Valley of Death (Seed & Early-Stage Capital Crunch):** While growth-stage capital remains active, early-stage enterprises face high failure rates due to dry powder shortages for early runway and talent acquisition.
- **Premature Scaling vs. Market Fit:** Approximately **42% of venture failures** stem from misreading real market demand and building solutions without verifiable product-market fit.
- **Sectoral Capital Asymmetry:** Venture capital has disproportionately favored consumer internet and fintech, leaving capital-intensive segments like **semiconductors, advanced materials, and biopharmaceuticals** underfunded.
- **Talent Attrition:** Startups face persistent competition from established multinationals for high-tier technical and AI engineering talent.

Strategic Roadmap

- **Pivot to Value-Led Architecture:** Transition from vanity valuation metrics ("growth at all costs") toward unit-level profitability, positive cash flows, and sustainable corporate governance.
- **Prioritizing Frontier & Deep-Tech:** Treat foundational technological areas (AI infrastructure, quantum computing, synthetic biology, space technologies) as strategic economic assets via long-term patient capital.
- **Cluster-Based Industrial Linkages:**
 - **Agritech Hubs:** Integrated with rural processing clusters and Farmer Producer Organizations (FPOs).
 - **Advanced Manufacturing:** Colocated along dedicated National Industrial Corridors.

University-Anchored Innovation: Creating science-to-market pipelines around premier academic and R&D centers (IITs, IISc, CSIR labs).

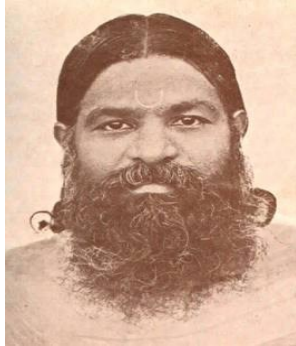
PERSONALITIES IN NEWS

V. V. S. AIYAR (1881–1925)

Why in News: The Vice President of India paid tribute to revolutionary freedom fighter, thinker, and Tamil litterateur **Varahaneri Venkatesa Subramaniam Aiyar (V. V. S. Aiyar)** on his death anniversary (June 3).

Revolutionary Roots & London Phase

- **Early Life:** Born on April 2, 1881, in Tiruchirappalli, Madras Presidency. He traveled to London in 1907 to qualify as a Barrister-at-Law at Lincoln's Inn.
- **Nationalist Conviction:** After completing his legal examinations, he famously refused to be called to the Bar because it required an oath of allegiance to the British Sovereign.
- **India House & Abhinav Bharat:** Became the right-hand associate of **Vinayak Damodar Savarkar** and a vital figure at **India House** (founded by Shyamji Krishna Varma). He supervised arms smuggling, trained youths in revolver shooting, and coordinated operations under the clandestine revolutionary network **Abhinav Bharat**.



The Pondicherry Phase & Revolutionary Mentorship

- **The Pondicherry Triumvirate:** Escaping British surveillance after Savarkar's arrest, Aiyar reached the French enclave of Pondicherry in 1910. Alongside poet **Subramania Bharati** and **Sri Aurobindo**, he formed the intellectual and revolutionary nucleus of Southern India.
- **The Ashe Assassination (1911):** Aiyar mentored young nationalist **Vanchinathan**, providing him with firearms and marksmanship training. Vanchinathan subsequently shot dead **Robert Ashe**, the District Collector of Tirunelveli, at Maniyachi railway junction to avenge the suppression of the Swadeshi Steam Navigation Company and V. O. Chidambaram Pillai's imprisonment.

Mainstream Politics & Ideological Shift

- **Shift to Ahimsa:** Though once characterized by Mahatma Gandhi in 1907 as a "fierce anarchist," Aiyar gradually moved away from political violence after World War I, embracing Gandhian non-violent civil resistance.
- **Nationalist Journalism:** He took over the editorship of the Tamil nationalist daily **Desabhaktan** (originally established by Thiru. Vi. Ka.). His critical writings against British imperialist rule led to his arrest and imprisonment for sedition in 1921.

Literary & Intellectual Legacy

- **Father of the Modern Tamil Short Story:** Pioneered modern realistic short-story writing in Tamil through his

anthology **Mangayarkkarasiyin Kaadhal** (1920). Its standout piece, **Kulathangarai Arasamaram** (*The Peepal Tree on the Tank Bank*), is celebrated as the earliest mature modern short story in Tamil literature.

Classical Translations:

- Translated the **Thirukkural** (complete English rendering of the *Maxims of Tiruvalluvar*).
- Critiqued and translated portions of the **Kamba Ramayanam** (*Kamban and His Art*), placing Kamban above classical world epics.
- Supervised the English translation of Savarkar's historic treatise, *The Indian War of Independence*, 1857.

- **Inspirational Biographies:** Penned Tamil biographies of international figures to awaken nationalist zeal, including **Giuseppe Garibaldi**, **Napoleon Bonaparte**, and **Guru Gobind Singh**.

National Education: Bharadwaja Ashrama

- **Cheranmahadevi Gurukulam (1922):** In response to Gandhi's Non-Cooperation call for national education, Aiyar established the **Bharadwaja Ashrama** (Tamil Gurukulam) in Cheranmahadevi (Tirunelveli district) to provide vocational, physical, and indigenous cultural instruction.
- **Historical Significance:** The Gurukulam later sparked a major political debate within the Tamil Nadu Congress Committee regarding separate dining practices (*Pankthi Bhojanam*), a flashpoint that influenced **Periyar E. V. Ramasamy's** eventual break from the Congress and the launch of the Self-Respect Movement.
- **Death:** He died on **June 3, 1925**, in an attempt to rescue his drowning daughter Subhadra at Kalyanatirtham falls in Papanasam.

LOKMATA AHILYABAI HOLKAR (1725–1795)

Why in News: The Prime Minister paid tribute to the legendary Maratha queen and administrator **Lokmata Ahilyabai Holkar** on her birth anniversary (May 31), highlighting her exemplary governance, philanthropy, and pan-Indian temple restoration.

Early Life & Ascension to Power

- **Birth & Lineage:** Born on May 31, 1725, at Chondi village in the present-day Ahmednagar district of Maharashtra, into the Dhangar/Pal (shepherd) community.
- **Marriage into the Holkar Dynasty:** Married in 1733 to Khanderao Holkar, the son of Subhedar Malhar Rao Holkar—founder of the Holkar dynasty and premier commander under the Maratha Empire.
- **Overcoming Personal Tragedies:** After Khanderao was killed during the **Siege of Kumher Fort (1754)**, Malhar Rao Holkar dissuaded Ahilyabai from practicing *sati*,

personally mentoring her in statecraft, diplomatic affairs, and military administration.

- **Coronation & Separation of Powers (1767):**

Following the demise of Malhar Rao (1766) and her young son Male Rao (1767), Ahilyabai formally petitioned the Peshwa to assume executive rule over the Malwa region. She instituted an effective division of authority:



- **Civil Administration & Finance:** Retained entirely under her personal direct governance.
- **Military Command:** Entrusted to trusted general Tukoji Rao Holkar.

- **Capital Relocation:** Shifted the administrative seat of the Holkar state from Indore to **Maheshwar** on the northern banks of the Narmada River.

Administrative Model & Socio-Economic Reforms

- **Ethical Governance & Dharma:** Practiced an accessible, people-centric administrative model. She held daily open public audiences (*darbars*) to redress grievances swiftly without intermediaries.
- **Indigenous Industry & GI Recognition:** Promoted the handloom weaving ecosystem at Maheshwar by inviting master weavers from Surat, Hyderabad, and Mandu. This

established the renowned **Maheshwari Sarees** (now recognized with a **Geographical Indication (GI) Tag**).

- **Tribal Integration:** Integrated the forest-dwelling **Bhil and Gond communities** into regional security networks. She sanctioned their customary right to collect transit tax (*Bhildom*) in return for protecting commercial trade convoys through the Vindhya passes.
- **Social Reforms:** Opposed orthodox gender practices, discouraged coerced *sati*, supported widow property rights, and actively patronized women's education.

Cultural Renaissance & Pan-Indian Restorations

Ahilyabai utilized her personal Privy Purse (*Khasgi*) rather than public state treasury funds to build and restore Hindu shrines, ghats, wells, and *dharamshalas* across India—from the Himalayas to the southern tip:

- **Key Jyotirlinga Reconstructions:**
 - **Kashi Vishwanath Temple (Varanasi, 1777–1780):** Reconstructed the present sanctum of Lord Shiva after its earlier desecration under Mughal rule.
 - **Somnath Temple (Prabhas Patan, Gujarat, 1783):** Erected the alternate shrine adjacent to the ruins of the original site.
 - Rebuilt temples and sacred ghats at **Kedarnath, Badrinath, Trimbakeshwar, Grishneshwar, Mahakaleshwar (Ujjain), and Rameswaram.**
- **Vishnupad Temple (Gaya):** Constructed the iconic 100-foot-tall black basalt shrine over the sacred footprint of Lord Vishnu on the banks of the Falgu River.
- **Literary Patronage:** Supported classical and vernacular scholars, including Marathi poets **Moropant** and **Shahir Anantaphandi**, as well as Sanskrit epigraphist **Khushali Ram**.

MISCELLANEOUS

SPORT DURING A WAR

Why in News: The **2026 FIFA World Cup** is in the news as it begins with a record **48 teams**, three host nations, global football stars, and debates over visas, logistics, and inclusivity.

Key Details

- **2026 FIFA World Cup** will feature a record **48 teams** and **104 matches**.
- Hosted jointly by the **United States, Canada, and Mexico** — the first three-country World Cup.
- Football stars **Lionel Messi, Cristiano Ronaldo, and Neymar** are participating.
- Major contenders include **Argentina, France, Spain, Germany, England, and Brazil**.
- **Italy** has failed to qualify for a third consecutive World Cup.
- Tournament aims to promote **global inclusion and cultural exchange**.
- Concerns have emerged over **visa restrictions, travel logistics, and high costs**.
- Extensive travel across host nations has raised **sustainability and accessibility concerns**.

FIFA World Cup 2026: Biggest and Most Inclusive Edition

- The **2026 FIFA World Cup** is set to be the **largest tournament in history**, featuring **48 teams** and **104 matches**.
- Nearly **one-fourth of FIFA member nations** have qualified, making it the **most inclusive World Cup** ever.
- Teams from **six of the seven continents** will participate, reflecting football's truly global appeal.
- For the first time, the tournament is being jointly hosted by **three countries** — the **United States, Canada, and Mexico**.
- The expanded format reinforces the World Cup's status as the premier global sporting spectacle.

Star-Studded Tournament and Major Contenders

- Football legends **Lionel Messi, Cristiano Ronaldo, and Neymar** are among the headline attractions.
- Renowned coaches such as **Carlo Ancelotti** and **Thomas Tuchel** add further prestige to the event.
- **Messi** will seek to help **Argentina** defend its 2022 title, while **Ronaldo** aims to secure Portugal's first-ever World Cup triumph.
- **Neymar** carries the hopes of **Brazil**, a five-time champion nation seeking to reclaim global supremacy.
- Strong contenders include **France, Spain, Germany, and England**, while **Italy** has surprisingly failed to qualify for a third consecutive World Cup.

World Cup as a Tool for Global Unity

- Beyond football, the World Cup promotes **international cooperation, cultural exchange, and people-to-people connections**.

- The tournament traditionally helps bridge social, political, and cultural divides among nations.
- It provides a platform for showcasing diversity and fostering mutual understanding.
- Millions of fans from different backgrounds come together through a shared passion for football.
- Such values form an essential part of the World Cup's global significance.

Challenges and Controversies Surrounding the Event

- Concerns have emerged regarding **visa restrictions and entry denials**, affecting officials, journalists, and participants.
- Somali referee **Omar Artan**, one of FIFA's selected match officials, was reportedly denied entry into the United States.
- Reports suggest that some journalists faced visa-related difficulties and increased immigration scrutiny.
- Geopolitical tensions have complicated participation for certain teams, particularly **Iran**, creating logistical difficulties.
- These developments have raised questions about fairness, accessibility, and equal treatment within the tournament.

Logistical and Sustainability Concerns

- Fans have expressed dissatisfaction over **high ticket prices, visa costs**, and limited public transport facilities.
- The vast distances between host cities increase travel burdens for teams, officials, and supporters.
- Conducting a highly travel-intensive tournament amid **global energy market disruptions** has attracted criticism.
- While excitement surrounding the matches may overshadow these issues, they remain important concerns.
- The tournament offers an opportunity for FIFA and host nations to learn lessons and work towards a **more accessible, sustainable, and inclusive World Cup in the future**.

Conclusion

The 2026 FIFA World Cup showcases football's unmatched ability to unite nations through an expanded and highly **inclusive format**. However, concerns regarding visas, logistics, affordability, and sustainability highlight important shortcomings. While the **tournament promises** exceptional sporting action, it also underscores the need for **future World Cups** to become more accessible, equitable, and globally inclusive for players, officials, journalists, and fans alike.

TRAGIC EVENING

Why in News: Two **powerful earthquakes** struck Venezuela, causing massive casualties and destruction. The disaster has **renewed attention on earthquake preparedness**, seismic

building standards, and the need for resilient infrastructure in earthquake-prone countries like India.

Key Details

- **Twin earthquakes of magnitude 7.1 and 7.5** struck Venezuela within seconds, causing widespread destruction, with **La Guaira** emerging as the worst-hit region.
- The disaster has claimed **920 lives** and injured **3,360 people**, while the **USGS** estimates that the final death toll could exceed **10,000**.
- Seismologists identified the event as a rare **earthquake doublet**, caused by a **complex rupture interaction** along the **South American–Caribbean plate boundary**.
- The earthquakes originated at a **shallow depth (less than 30 km)**, resulting in severe surface shaking and extensive damage to buildings and infrastructure.
- The tragedy has highlighted the importance of **earthquake-resistant infrastructure**, prompting India to extend humanitarian assistance and reassess its own seismic preparedness and building standards.

Major Earthquake Disaster in Venezuela

- Two powerful earthquakes of **magnitude 7.1 and 7.5** struck within seconds, causing widespread devastation.
- The death toll reached **920**, with **3,360 people injured**.
- **La Guaira** was the worst-affected state, where over **100 buildings collapsed**.
- The shallow depth of the earthquakes (**less than 30 km**) greatly increased surface damage.
- The **USGS** estimates that the final death toll could exceed **10,000**.

Geological Cause of the Earthquakes

- Venezuela lies along the boundary between the **South American and Caribbean tectonic plates**.
- These plates mainly **slide past each other (strike-slip boundary)** rather than collide.
- Stress accumulates slowly over decades before being released suddenly.
- Seismologists classified the event as an **earthquake "doublet"** caused by a **complex rupture interaction**.
- Similar doublet earthquakes occurred in **northern Venezuela (2025)** and **Türkiye–Syria (2023)**.

India's Immediate Response

- India has extended humanitarian assistance to Venezuela.
- Priority should be given to **search and rescue operations**.
- Medical supplies and emergency healthcare support should be provided.
- Efficient logistics are essential for delivering relief in disaster-hit areas.
- Quick international cooperation can reduce human suffering after major disasters.

Lessons for India's Earthquake Preparedness

- The **Bureau of Indian Standards (BIS)** withdrew proposed revisions that had identified higher seismic risks in the Himalayan region.

- The revised standards would have **increased building design safety requirements** and introduced a **sixth seismic zone**.
- The proposal was shelved due to concerns over its impact on ongoing infrastructure projects.
- India's highest seismic design standard (**0.36g**) remains lower than those used by **Pakistan, Nepal, Japan, and the United States**.
- Scientific risk assessments should be incorporated into infrastructure planning without delay.

Need for Stronger Earthquake Resilience

- Around **79% of India's population** lives in moderate to high earthquake-risk zones.
- Nearly **95% of earthquake deaths** occur in low-rise buildings that often do not comply with safety standards.
- Accurate earthquake prediction remains uncertain despite scientific advances.
- The best defence is **earthquake-resistant buildings and strict enforcement of building codes**.
- The Venezuela tragedy highlights that preparedness and resilient infrastructure are the most effective ways to save lives.

Conclusion

The Venezuela earthquake underscores that while earthquakes cannot be prevented or accurately predicted, their impact can be significantly reduced through scientific planning, **resilient infrastructure**, and strict enforcement of building standards. For India, **integrating updated** seismic assessments with disaster preparedness and community awareness is essential to safeguard lives, livelihoods, and **critical infrastructure** against future seismic disasters.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Which one of the following is **not** commonly associated with the Pacific's Ring of Fire?

- (a) Deep ocean trenches
- (b) Fold mountain formation
- (c) Frequent tsunamis
- (d) Extensive coral reef formation

Answer: d

SOCIAL MEDIA OVERTAKES TRADITIONAL MEDIA

Why in News: The **15th Reuters Institute Digital News Report (2026)** has revealed a major transformation in global news consumption patterns. For the first time, **social media and video-sharing platforms have overtaken television, newspapers, and the websites of established news organisations as the primary source of news for people worldwide**.

Social Media Becomes the Primary Gateway to News

One of the report's most significant findings is that **social media and video platforms have now surpassed traditional news outlets** as the leading source of news globally. Increasingly, people are accessing news through platforms such as:

- Facebook
- Instagram

- YouTube
- TikTok

rather than:

- Television channels
- Newspapers
- News websites
- Dedicated news applications

This marks a structural change in the global media landscape, where technology platforms have become the primary distributors of news content.

Changing News Consumption Habits

The report reveals that audience behaviour is changing rapidly.

Key Trends

- People are becoming **less directly connected** with traditional news organisations.
- Audiences increasingly discover news through **algorithm-driven social media feeds** rather than by intentionally visiting news websites.
- Video-based news consumption has grown dramatically across all age groups.

Importantly, the study notes that this shift is **no longer limited to younger generations**.

Older audiences are increasingly adopting the same digital news consumption habits as younger users.

Declining Interest in Traditional News

The report highlights a worrying trend of **declining interest in news globally**.

Many users are:

- Avoiding news due to information overload.
- Feeling emotionally exhausted by continuous negative coverage.
- Preferring shorter, visually engaging news formats available on digital platforms.

As a result, traditional habits such as reading newspapers or regularly visiting news websites continue to decline.

Trust in News at Its Lowest Level Since 2015

Despite unprecedented access to information, **public trust in news has fallen to its lowest level since 2015**.

The report attributes this decline to several factors:

- Rapid spread of misinformation
- Political polarisation
- Difficulty distinguishing credible journalism from online content
- Growing influence of unverified social media posts

Interestingly, while trust in news has declined overall, **established news organisations continue to enjoy relatively higher credibility**, and public support for **independent and impartial journalism** remains strong.

Rise of AI Chatbots as News Sources

The report identifies the growing use of **Artificial Intelligence (AI) chatbots** for accessing news.

Key Finding

- Around **10% of respondents globally** now use AI chatbots to obtain news and information.

This trend is particularly prominent among:

- Individuals below **35 years of age**
- Digitally native audiences seeking quick summaries and conversational explanations

The finding signals the emergence of AI as a new intermediary in news distribution.

Online News Videos Witness Rapid Growth

Video has become one of the fastest-growing formats for news consumption.

According to the report:

- **77% of respondents worldwide watch online news videos every week.**

However, these videos are increasingly consumed on:

- YouTube
- Instagram
- TikTok
- Facebook

rather than on the websites or applications of traditional news organisations.

This indicates that **platforms now control both the discovery and delivery of news content**.

Growing Concern Over Misinformation

Paradoxically, as more people rely on social media for news, concerns about **fake news and misinformation** have intensified.

Many users express anxiety over:

- False or manipulated information
- AI-generated content
- Deepfakes
- Lack of source verification

This highlights the growing challenge of maintaining information integrity in the digital era.

Key Takeaways from the Report

- Social media and video platforms have become the world's leading source of news.
- Trust in news has declined to its lowest level since 2015.
- Younger generations are unlikely to adopt traditional newspaper-reading habits.
- Older audiences are increasingly shifting towards digital-first news consumption.
- AI chatbots are emerging as a new source of news, especially among young users.
- Online video has become a dominant medium for news consumption.
- Concerns over misinformation continue to rise despite greater access to information.

Why It Matters

The findings highlight a profound transformation in the global information ecosystem. As technology platforms increasingly shape how news is produced, distributed, and consumed, questions surrounding **media credibility, algorithmic influence, misinformation, digital literacy, and the future sustainability of professional journalism** become more critical than ever. The report underscores the need for stronger media literacy, responsible platform governance, and continued support for independent, fact-based journalism.

Conclusion

The **Reuters Digital News Report 2026** marks a watershed moment in the evolution of global media. While social media, video platforms, and AI tools have made news more accessible than ever before, they have also contributed to declining trust and rising misinformation. Going forward, the

challenge will be to strike a balance between technological innovation and the preservation of credible, independent journalism that remains essential for informed democratic societies.

VENEZUELA EARTHQUAKE

Why in News: Two powerful **earthquakes** (magnitudes 7.1 and 7.5) devastated Venezuela, causing severe casualties and infrastructure destruction in **Caracas** and **La Guaira**. The disaster has triggered an international **humanitarian response**, including support from India, while highlighting the global urgent need for **seismic risk assessment**, **disaster-resilient infrastructure**, and enhanced **earthquake preparedness**.

Twin Earthquakes Devastate Venezuela

Venezuela was struck by two massive earthquakes measuring **7.1 and 7.5 on the Richter Scale**, occurring just seconds apart. The phenomenon, known as an **earthquake doublet**, unleashed enormous destructive energy across northern Venezuela.

According to official estimates released by the Venezuelan government:

- **589 people have been confirmed dead** (initial figures),
- Nearly **2,980 people have been injured**, and
- Thousands have been displaced after extensive damage to homes, public buildings, and infrastructure.

The coastal State of **La Guaira** suffered the worst devastation, where more than a hundred buildings collapsed completely, while large parts of **Caracas** experienced severe structural damage.

The **United States Geological Survey (USGS)** has warned that the eventual death toll could exceed **10,000**, indicating that rescue operations are still underway and casualty figures are likely to rise.

Why Was the Earthquake So Destructive?

- From a geological perspective, such a catastrophic earthquake is relatively uncommon in Venezuela.
- The country lies along the boundary between the **South American Plate** and the **Caribbean Plate**, where the two tectonic plates primarily **slide horizontally past one another** along a transform (strike-slip) fault.
- Unlike the **Pacific Ring of Fire**, where tectonic plates collide and one plate is forced beneath another (subduction), Venezuela's plate boundary generally experiences lateral movement. Such boundaries usually produce fewer mega-earthquakes.
- However, stress can accumulate silently over decades before being released suddenly through powerful seismic events.

What is an Earthquake Doublet?

Seismologists have identified the Venezuelan event as an **earthquake doublet**.

An **earthquake doublet** refers to two large earthquakes of comparable magnitude that occur:

- within a short interval,
- in close geographical proximity, and
- through interconnected fault ruptures.

The **USGS** describes such events as "**complex rupture interactions**," where the first earthquake alters stress conditions sufficiently to trigger another major rupture almost immediately.

Earthquake doublets are particularly dangerous because:

- rescue operations cannot begin before the second quake strikes,
- already weakened structures collapse during the second event,
- aftershocks become more severe, and
- emergency response systems become overwhelmed.

A similar phenomenon occurred during the **Türkiye-Syria earthquakes of 2023**, where twin earthquakes caused over **55,000 deaths**, making it one of the deadliest natural disasters in recent history.

Role of Shallow Earthquakes

Another factor contributing to the destruction was the **shallow depth** of the earthquakes.

Both tremors originated at depths of **less than 30 kilometres**, classifying them as **shallow-focus earthquakes**.

Shallow earthquakes generally cause far greater surface damage because seismic waves lose very little energy before reaching the ground.

Consequently:

- ground shaking becomes more intense,
- buildings experience greater structural stress,
- infrastructure collapses more readily, and
- casualties increase significantly.

India's Humanitarian Response

India has expressed solidarity with Venezuela and offered humanitarian assistance.

Relief efforts are expected to include:

- search and rescue teams,
- emergency medical assistance,
- essential medicines,
- temporary shelters,
- food and relief materials, and
- logistical support for disaster management.

India's response reflects its growing role as a **first responder in global humanitarian crises**, consistent with its commitment to the principle of "**Vasudhaiva Kutumbakam**" (**The World is One Family**).

Lessons for India

While Venezuela's tragedy is unfolding thousands of kilometres away, it carries important lessons for India.

India is among the world's most **earthquake-prone countries**, with nearly **79% of its population living in areas exposed to moderate or severe seismic risk**.

The Himalayan region, the Northeast, parts of the Indo-Gangetic Plain, Gujarat, and the Andaman-Nicobar Islands remain particularly vulnerable.

Yet concerns have emerged regarding India's seismic preparedness.

Debate over India's Seismic Hazard Assessment

A significant controversy recently arose after the **Bureau of Indian Standards (BIS)** reportedly withdrew a decade-long scientific revision of India's seismic hazard map.

The revised assessment had suggested:

- substantially higher seismic risk along the Himalayan belt,
- almost doubling the expected design forces for buildings in high-risk zones,
- creation of a **sixth seismic zone**, replacing the current five-zone classification.

However, the proposed revision was reportedly put on hold because of concerns that stricter standards would significantly increase costs for ongoing infrastructure projects, including highways, metros, bridges, and public buildings.

The episode has reignited debate over balancing **development costs with disaster resilience**.

India's Earthquake Design Standards

India currently designs buildings in the highest-risk **Seismic Zone V** for peak ground acceleration of approximately **0.36g**.

In comparison:

- Nepal and Pakistan, located along the same Himalayan collision zone, adopt design values approaching **0.75g**.
- Japan and several parts of the United States use design standards of **1g or higher**, reflecting greater emphasis on earthquake-resistant construction.

Experts argue that India's existing standards may underestimate seismic hazards in certain regions.

The Real Vulnerability (Unsafe Buildings)

The greatest threat, however, lies not merely in seismic zones but in the quality of construction.

Studies indicate that nearly **95% of earthquake-related deaths occur in low-rise residential buildings**, particularly one- to three-storey structures.

Many such buildings:

- are constructed without engineering supervision,
- do not comply with seismic building codes,
- use poor-quality materials,
- lack structural reinforcement, and
- escape regulatory oversight.

Consequently, even moderate earthquakes can produce catastrophic loss of life.

Way Forward

India must strengthen earthquake resilience through a comprehensive strategy that includes:

- Updating seismic hazard maps using the latest scientific evidence.
- Strict implementation of earthquake-resistant building codes.
- Retrofitting vulnerable public infrastructure such as schools, hospitals, bridges, and government buildings.
- Promoting earthquake-resistant housing, particularly in high-risk regions.
- Enhancing urban planning and land-use regulation.
- Expanding earthquake monitoring and early warning capabilities.
- Conducting regular public awareness campaigns and disaster preparedness drills.
- Strengthening the capacity of the **National Disaster Management Authority (NDMA)** and State Disaster Management Authorities (SDMAs).

Conclusion

The devastating earthquakes in Venezuela serve as a stark reminder that **earthquakes themselves do not kill—unsafe buildings do**. While predicting the exact timing of earthquakes remains beyond current scientific capability, reducing their impact through resilient infrastructure, scientific planning, and strict enforcement of safety standards is entirely within human control.

For India, where millions live in seismically vulnerable regions and rapid urbanisation continues unabated, the Venezuelan disaster underscores the urgent need to prioritise **earthquake resilience over short-term construction costs**. As climate-resilient and disaster-resilient development becomes central to sustainable growth, a truly **Viksit Bharat** must also be a **Disaster-Resilient Bharat**, where scientific preparedness safeguards lives before the next earthquake strikes.

Daily MCQs from The Hindu & Indian Express

(May 2026)

DAILY MCQs PRACTICE

Q1. Which of the following statements are correct in respect of 2015 Iran Nuclear Deal (JCPOA):

1. The JCPOA was signed in 2015 between Iran and the P5+1 countries.
2. India was one of the signatories to the agreement.
3. The International Atomic Energy Agency (IAEA) was given a role in monitoring Iran's compliance with the agreement.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Q2. Consider the following statements:

Statement 1: The National Education Policy (NEP) 2020 replaced the traditional 10+2 school structure with a 5+3+3+4 curricular and pedagogical framework.

Statement 2: The new framework incorporates Early Childhood Care and Education (ECCE) for children aged 3–6 years within the formal education structure.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q3. The maximum strength of a State Legislative Council cannot exceed:

- (a) One-half of the Legislative Assembly
- (b) One-third of the Legislative Assembly
- (c) One-fourth of the Legislative Assembly
- (d) Two-thirds of the Legislative Assembly

Q4. Consider the following statements regarding PM2.5 and PM10 pollution in Delhi:

1. PM2.5 concentration recorded in May 2026 was the lowest for the month of May since at least 2015.
2. PM10 particles generally remain suspended in the atmosphere for longer periods than PM2.5 particles.
3. PM10 pollution is commonly associated with dust re-suspension, construction activities and regional dust transport.
4. Rainfall and strong winds tend to disperse PM2.5 particles more effectively than PM10 particles.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Q5. Consider the following statements:

Statement 1: CARTOSAT satellites are primarily designed for high-resolution Earth observation and mapping applications.

Statement 2: The high-resolution imagery provided by CARTOSAT satellites is useful for urban planning, infrastructure development, and land-use mapping.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q6. Consider the following with reference to Ethanol:

1. Ethanol is a renewable biofuel that can be produced from sugarcane and maize.
2. Ethanol blending helps reduce dependence on crude oil imports.
3. Ethanol is commonly blended with petrol in India.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q7. Which of the following countries are members of the Indian Ocean Rim Association (IORA)?

1. India
2. Australia
3. Indonesia
4. South Africa
5. China

Select the answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 1, 2, 3 and 4 only
- (c) 2, 3, 4 and 5 only
- (d) 1, 2, 3, 4 and 5

Q8. Codeine is best classified as:

- (a) Benzodiazepine sedative
- (b) Opioid analgesic and cough suppressant
- (c) Non-steroidal anti-inflammatory drug
- (d) Antihistamine

Q9. Which of the following statements are correct in respect of Parliamentary Standing Committees?

1. Parliamentary Standing Committees are permanent committees that function on a continuous basis.
2. Department-related Standing Committees examine the Demands for Grants of Ministries and Departments.
3. The recommendations made by Parliamentary Standing Committees are legally binding on the Government.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Q10. Consider the following statements:

Statement 1: The National Security Adviser (NSA) is the principal adviser to the Prime Minister of India on matters related to national security and strategic affairs.

Statement 2: The NSA serves as the Secretary of the National Security Council Secretariat (NSCS), which assists in coordinating security-related policy issues among various government agencies.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q11. Consider the following statements regarding the On-Screen Marking (OSM) system introduced by the Central Board of Secondary Education (CBSE):

1. A dry run conducted before the 2026 Class 12 examinations highlighted technical glitches in the OSM system.
2. Participants in the dry run recommended postponing the implementation of OSM for at least one year.
3. Evaluators reported issues such as freezing of the platform and non-saving of evaluation progress.
4. The OSM system was first implemented only after all concerns raised during the dry run had been fully resolved.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Q12. With reference to water distribution and management in urban areas, consider the following statements:

1. Non-Revenue Water (NRW) refers to treated water that is lost before reaching consumers due to leakages, theft and distribution inefficiencies.
2. A dual piping system enables the separate supply of potable and treated recycled water for different uses.

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q13. The salary and allowances of the Leader of Opposition are governed by:

- (a) Representation of the People Act, 1951
- (b) Parliament (Prevention of Disqualification) Act, 1959
- (c) Salary and Allowances of Leaders of Opposition in Parliament Act, 1977
- (d) Parliamentary Proceedings Act, 1960

Q14. Consider the following:

1. Industrial robots used in automobile manufacturing.
2. Power generation turbines.
3. Passenger cars purchased for personal use.

How many of the above are *not* classified as Capital Goods?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q15. Consider the following statements:

Statement I: The June 3 Plan (Mountbatten Plan) accepted the partition of British India and proposed the creation of two independent Dominions.

Statement II: The Muslim League accepted the plan because it ensured the creation of Pakistan.

Statement III: The Congress accepted the plan primarily because it believed Partition would help contain communal violence and facilitate a stronger central government.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q16. With reference to the Real Effective Exchange Rate (REER), consider the following statements:

1. REER measures the value of the Indian Rupee against a basket of currencies adjusted for relative inflation differentials.

2. A decline in REER may indicate a loss of the domestic currency's relative value against trading partners.
3. REER is calculated solely on the basis of capital account transactions.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q17. Consider the following statements:

Statement 1: Municipal Corporations are established in larger urban areas of India.

Statement 2: The Constitution provides for Municipal Corporations under Part IIIA relating to Urban Local Bodies.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q18. Which one of the following is *not* a target customer group of Small Finance Banks?

- (a) Small and marginal farmers
- (b) Micro and small industries
- (c) Unorganized sector entities
- (d) Large multinational corporations

Q19. Which of the following organisations and groupings include Venezuela as a member?

1. Organization of the Petroleum Exporting Countries (OPEC)
2. Group of 77 (G-77)
3. Non-Aligned Movement (NAM)
4. BRICS
5. Community of Latin American and Caribbean States (CELAC)

Select the answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 1, 2, 3 and 5 only
- (c) 2, 3, 4 and 5 only
- (d) 1, 2, 3, 4 and 5

Q20. With reference to the concept of the "Adaptation Economy", consider the following statements:

1. Climate adaptation includes investments in climate-resilient infrastructure, water management systems and early-warning technologies.
2. Adaptation measures are intended to replace climate mitigation efforts in the long run.

3. According to the Global Commission on Adaptation, investments in climate adaptation can generate substantial economic returns.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q21. Which of the following statements are correct in respect of Vice-Chief of Air Staff:

1. The Vice-Chief of Air Staff is the second-highest-ranking officer in the Indian Air Force.
2. The Vice-Chief of Air Staff assists the Chief of the Air Staff in managing the Air Force.
3. The Vice-Chief of Air Staff may act on behalf of the Chief of the Air Staff when required.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 & 3

Q22. Consider the following statements:

Statement I: The National Security Adviser (NSA) serves as the principal adviser to the Prime Minister on national security matters.

Statement II: The NSA is appointed by the Chief Justice of India.

Statement III: The NSA is a constitutionally mandated member of the Union Cabinet.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q23. Which of the following indicators are commonly used to assess the fiscal health of a State Government?

1. Outstanding Liabilities as a percentage of GSDP
2. Interest Payments as a percentage of Revenue Receipts
3. Committed Expenditure as a percentage of Revenue Receipts
4. Capital Expenditure as a percentage of GSDP
5. Human Development Index (HDI)

Select the answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 1, 2, 3 and 4 only
- (c) 2, 3, 4 and 5 only
- (d) 1, 2, 3, 4 and 5

Q24. The Reserve Bank of India (RBI) primarily uses which of the following inflation indicators as its nominal anchor for monetary policy?

- (a) Wholesale Price Index (WPI)
- (b) Consumer Price Index (CPI)
- (c) GDP Deflator
- (d) Core Inflation

Q25. With reference to the prehistoric findings recently reported from the Bhondsi stretch of the Aravalli region, consider the following statements:

1. Petroglyphs are images or designs carved or engraved on rock surfaces.
2. Cupules are cup-shaped depressions made on rock surfaces and are often associated with prehistoric symbolic activity.
3. The Mesolithic period in India is associated only with stone tool-making and not with evidence of ritual or social life.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Q26. With reference to the Delhi Bird Atlas, consider the following statements:

1. Delhi lies along the Central Asian Flyway (CAF), an important migratory route for birds arriving from Central Asia and the Arctic region.
2. The atlas strictly mapped resident avian species and purposefully excluded migratory species to establish a permanent local baseline.
3. The Yamuna floodplains and associated wetlands have been highlighted as crucial ecological habitats for waterbirds in the region.
4. The atlas utilized a systematic, grid-based sampling framework across distinct seasons to eliminate geographic and urban sampling bias.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Q27. Which of the following statements are correct in respect of Kharif Crops?

1. Kharif crops are generally sown with the onset of the southwest monsoon.
2. These crops are usually harvested during October–November.
3. Wheat is a major Kharif crop in India.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only

- (c) 1 and 3 only
- (d) 1, 2 and 3

Q28. Consider the following statements:

Statement 1: The Indian Council of Medical Research (ICMR) is the apex body in India for the formulation, coordination and promotion of biomedical research.
Statement 2: ICMR conducts research only through private medical colleges.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q29. Which of the following statements are correct in respect of tectonic earthquakes?

1. They result from movement along faults in the Earth's crust.
2. They are the most common type of earthquakes.
3. They occur exclusively at convergent plate boundaries.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Q30. Consider the following statements:

Statement I: The Lieutenant Governor acts as the Administrator of certain Union Territories.

Statement II: Every Union Territory has a Legislative Assembly headed by a Lieutenant Governor.

Statement III: The office of Lieutenant Governor is mentioned only in the Representation of the People Act, 1951.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q31. With reference to contemporary Indian art, consider the following statements:

1. Indian art is confined only to preserving traditional forms and has no role in addressing contemporary social issues.
2. Contemporary artists often draw inspiration from both traditional heritage and modern experiences.

3. Public art, digital art, and installation art are among the emerging forms of artistic expression in India.
4. Government and private institutions have no role in promoting contemporary Indian artists.

How many of the above statements are incorrect?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Q32. The term "Manosphere", frequently discussed in contemporary social discourse, refers to:

1. A network of online communities promoting gender equality and women's empowerment.
2. A collection of online spaces that often promote male supremacy, anti-feminist views, and traditional gender hierarchies.
3. A government-supported platform aimed at addressing men's mental health concerns.
4. A global movement advocating equal representation of men and women in politics.

Select the correct answer using the code given below:

- (a) 1 and 4 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 4 only

Q33. Consider the following statements:

Statement 1: The World Heritage Committee decides on the inscription of sites on the World Heritage List.

Statement 2: The World Heritage Committee consists of representatives of States Parties elected by the General Assembly.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q34. Consider the following regarding GLP-1 receptor agonists used in diabetes management: Which of the following best explains their therapeutic benefit in patients with Type 2 Diabetes?

- (a) They increase insulin sensitivity by directly regenerating pancreatic β -cells.
- (b) They mimic naturally occurring gut hormones that help regulate blood sugar and appetite.
- (c) They permanently eliminate insulin resistance by reducing liver fat.
- (d) They primarily act by increasing glucose absorption from the intestine.

Q35. With reference to the declining Total Fertility Rate (TFR) across the world, consider the following statements:

1. A Total Fertility Rate (TFR) of 2.1 is generally considered the replacement-level fertility required for long-term population stability.
2. Declining fertility rates are observed only in high-income countries, while most developing countries continue to maintain fertility rates above replacement level.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q36. With reference to the Election Symbols (Reservation and Allotment) Order, 1968, consider the following statements:

1. Recognised National and State Parties are allotted reserved election symbols.
2. Independent candidates and unrecognised registered political parties are allotted symbols from the list of free symbols.
3. The Election Commission currently permits the allotment of new animal symbols to political parties.

How many of the statements given above are correct?

- (a) Only One
- (b) Only Two
- (c) All Three
- (d) None

Q37. Which of the following statements are correct in respect of Speaker of the Lok Sabha:

1. The Speaker continues in office even after the dissolution of the Lok Sabha until immediately before the first meeting of the newly elected Lok Sabha.
2. The Speaker's decision on the disqualification of members under the Tenth Schedule is subject to judicial review.
3. The Speaker can participate in the proceedings of a joint sitting of Parliament but has no authority to preside over it.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Q38. Consider the following statements:

Statement 1: A Returning Officer may reject a nomination paper if it does not comply with the statutory requirements prescribed under election law.

Statement 2: Every rejection of a nomination paper by a Returning Officer is final and cannot be challenged before any court or authority.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- (b) Both Statement 1 and Statement 2 are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q39. Consider the following statements:

Statement I: The FIFA World Cup promotes international sporting interaction among nations.

Statement II: National teams representing sovereign states and certain territories compete under FIFA regulations.

Statement III: The tournament provides a common platform where teams from different regions of the world compete against one another.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q40. With reference to Artificial Intelligence (AI) companies and foreign Initial Public Offerings (IPOs), consider the following statements:

- 1. Under the Liberalised Remittance Scheme (LRS), Indian residents can invest in foreign IPOs subject to the prescribed annual remittance limit.
- 2. A high private-market valuation of an AI company necessarily indicates strong and proven business fundamentals.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q41. Consider the following statements:

Statement I: The Tenth Schedule of the Constitution seeks to curb political defections by legislators.

Statement II: A member cannot be disqualified under the Tenth Schedule if he voluntarily gives up the membership of the political party on whose ticket he was elected.

Statement III: The Tenth Schedule was inserted into the Constitution through the 44th Constitutional Amendment Act, 1985.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q42. Consider the following with reference to The Industrial Relations Code, 2020:

- 1. It consolidates and replaces the Trade Unions Act, 1926, the Industrial Employment (Standing Orders) Act, 1946, and the Industrial Disputes Act, 1947.
- 2. It provides for the recognition of a negotiating union in industrial establishments.
- 3. It increases the threshold for prior government approval for layoffs, retrenchment, and closure from 100 workers to 300 workers.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q43. The Zaporizhzhia Nuclear Power Plant, often seen in the news due to the Russia–Ukraine conflict, is significant because it is:

- (a) The largest nuclear power plant in Europe
- (b) The oldest nuclear power plant in the world
- (c) The only nuclear power plant in Ukraine
- (d) A fusion-based nuclear power facility

Q44. Consider the following countries:

- 1. Iran
- 2. Israel
- 3. Saudi Arabia
- 4. Türkiye

Which of the above countries directly border the Persian Gulf?

- (a) 1 and 3 only
- (b) 1, 2 and 3 only
- (c) 2 and 4 only
- (d) 1, 3 and 4 only

Q45. Which of the following statements are correct in respect of Coal Controller Organisation (CCO)?

- 1. The Coal Controller is a statutory authority under the Coal Mines (Conservation and Development) Act, 1974.

2. CCO adjudicates disputes regarding coal grade declarations.
3. CCO is responsible for regulating coal imports into India.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 & 3

Q46. Consider the following with reference to Kharg Island:

1. It is situated in the northern part of the Persian Gulf.
2. The island hosts significant oil storage and loading facilities.
3. It is jointly administered by Iran and Iraq.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q47. Consider the following statements:

Statement 1: Article 41 forms part of the Directive Principles of State Policy contained in Part IV of the Constitution.

Statement 2: Article 41 seeks to establish a social welfare framework by encouraging the State to provide employment opportunities, education, and social security measures.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- (b) Both Statement 1 and Statement 2 are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q48. Which one of the following ministries is responsible for PM-KISAN?

- (a) Ministry of Rural Development
- (b) Ministry of Cooperation
- (c) Ministry of Agriculture and Farmers Welfare
- (d) Ministry of Panchayati Raj

Q49. Consider the following with reference to Oman:

1. The country shares land borders with the United Arab Emirates, Saudi Arabia and Yemen.
2. The Gulf of Oman connects the Arabian Sea with the Persian Gulf.
3. The Musandam Peninsula gives Oman a strategic position overlooking the Strait of Hormuz.

How many of the above is/are not correct?

- (a) Only one
- (b) Only two

- (c) All three
- (d) None

Q50. Which of the following statements are correct in respect of authority deciding defection cases?

1. The Speaker or Chairman of the House decides questions of disqualification under the Tenth Schedule.
2. The decision of the Speaker is subject to judicial review.
3. The Supreme Court has held that the Speaker's decision is completely beyond judicial scrutiny.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Q51. Consider the following statements:

Statement 1: CISF is the only CAPF that offers security services to private sector organizations on a consultancy and payment basis.

Statement 2: The provision was introduced to extend professional security expertise to strategically important private establishments.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- (b) Both Statement 1 and Statement 2 are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q52. Netaji Subhas Chandra Bose was elected President of the Indian National Congress at which session in 1938?

- (a) Lahore Session
- (b) Haripura Session
- (c) Karachi Session
- (d) Lucknow Session

Q53. Consider the following statements:

Statement 1: The Dancing Girl sculpture is carved from sandstone.

Statement 2: The sculpture is noted for its realistic depiction of ornaments and body posture.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- (b) Both Statement 1 and Statement 2 are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q54. Consider the following statements:

Statement I: The G7 is an informal grouping of advanced economies that discusses major global economic and political issues.

Statement II: The G7 does not have a permanent secretariat or a legally binding charter.

Statement III: The presidency of the G7 does not rotate annually among its member countries.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q55. Consider the following with reference to Right to Education (RTE) Act, 2009:

- 1. It provides free and compulsory education to all children between 6 and 14 years of age.
- 2. It makes elementary education a Fundamental Right under Article 21A.
- 3. It mandates a 25% reservation for disadvantaged groups in private unaided schools.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q56. With reference to the Delhi Preservation of Trees Act, 1994, consider the following statements:

- 1. In cases involving grave danger to life, property, or traffic, a tree may be felled immediately without prior permission of the Tree Officer, provided the action is reported within 24 hours.
- 2. If the Tree Officer fails to communicate a decision on an application for tree felling within 60 days, the application is deemed to have been rejected.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q57. Which of the following statements are correct in respect of North Atlantic Treaty Organization (NATO)?

- 1. All European countries are members of NATO.
- 2. NATO was established in 1949 through the signing of the Washington Treaty.

- 3. Article 5 of the NATO Treaty considers an attack on one member as an attack on all members.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Q58. Consider the following statements:

Statement I: A shift in the monsoon trough towards the foothills of the Himalayas may lead to floods in northern India.

Statement II: The monsoon trough is a high-pressure zone extending across northern India.

Statement III: When the trough shifts northward, rainfall activity becomes concentrated near the Himalayan foothills.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q59. Consider the following with reference to World Health Organization (WHO):

- 1. The WHO can impose legally binding health policies on member countries.
- 2. The International Health Regulations (IHR) are coordinated by the WHO.
- 3. The WHO plays a key role in global disease surveillance.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q60. With reference to the recent discussions at the G7 Outreach Session, consider the following statements:

- 1. The Prime Minister emphasized that mutual trust is the most important strategic asset in the contemporary world order.
- 2. India stated that lasting solutions to global conflicts can be achieved only through military intervention and strategic deterrence.
- 3. The Prime Minister highlighted the importance of secure maritime routes and the safety of seafarers for global trade.

How many of the above statements are correct?

- (a) Only one
- (b) Only two

- (c) All three
- (d) None

Q61. Which of the following statements are correct in respect of functioning of Motor Accident Claims Tribunal (MACT)?

1. State Governments may constitute one or more MACTs for specified areas.
2. MACT follows a summary procedure to ensure speedy disposal of claims.
3. Appeals against MACT awards lie directly to the Supreme Court.

Select the answer using the code given below:

- (a) 1 only
- (b) 1 and 2 only
- (c) 3 only
- (d) 1, 2 and 3

Q62. Consider the following statements:

Statement 1: Lok Adalats promote amicable settlement of disputes through conciliation and compromise.

Statement 2: Lok Adalats can decide disputes on merits even when parties fail to reach a settlement.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- (b) Both Statement 1 and Statement 2 are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q63. Consider the following with reference to National Family Health Survey (NFHS-6):

1. NFHS is India's version of the global Demographic and Health Surveys (DHS) programme.
2. The International Institute for Population Sciences (IIPS), Mumbai serves as the nodal agency for NFHS.
3. NFHS-6 is conducted once every year.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q64. With reference to India's foreign policy engagements, consider the following statements:

1. The G7 is a formal treaty-based organisation with a permanent secretariat.
2. The Quad consists of India, the United States, Japan and Australia.
3. The India-Middle East-Europe Economic Corridor (IMEC) aims to enhance connectivity, trade and economic cooperation among participating regions.

Which of the statements given above is/are correct?

- (a) 2 and 3 only
- (b) 1 and 2 only
- (c) 3 only
- (d) 1, 2 and 3

Q65. Consider the following statements:

Statement 1: FATF was established during the G7 Summit held in Paris in 1989.

Statement 2: The FATF functions under the United Nations as one of its principal organs.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- (b) Both Statement 1 and Statement 2 are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q66. Consider the following with reference to a Glacial Lake:

1. The Glacial lakes are formed when meltwater accumulates in depressions created by glaciers.
2. Rising temperatures and accelerated glacier melting can increase the size and number of glacial lakes.
3. Moraines composed of loose rock and debris often form natural dams for glacial lakes.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q67. Which one of the following statements regarding Article 21 is correct?

- (a) It is available only to Indian citizens.
- (b) It can be suspended during a National Emergency.
- (c) It protects life and personal liberty except according to procedure established by law.
- (d) It deals exclusively with protection against arrest and detention.

Q68. Consider the following country-group pairs:

1. South Korea – Semiconductor manufacturing
2. Taiwan – Advanced semiconductor foundries
3. Israel – Innovation and start-up ecosystem
4. Switzerland – Member of the G7

Which of the pairs given above are correctly matched?

- (a) 1, 2 and 3 only
- (b) 1 and 4 only
- (c) 2 and 3 only
- (d) 1, 2, 3 and 4

Q69. Which of the following statements are correct in respect of Ammonia?

1. It is naturally produced during the decomposition of organic matter.
2. It is a greenhouse gas with a warming effect much stronger than carbon dioxide.
3. It is a compound of nitrogen and hydrogen.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Q70. Consider the following statements:

Statement I: The AMRUT Mission aims to improve basic urban infrastructure such as water supply and sewerage services in cities.

Statement II: The mission is implemented exclusively in rural areas to improve agricultural irrigation facilities.

Statement III: The mission was launched to promote deep-sea fishing and maritime trade through coastal infrastructure development.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q71. Consider the following with reference to the Chabahar Port:

- 1. The Chabahar Port is located in Iran on the Gulf of Oman.
- 2. It provides India access to Afghanistan and Central Asia bypassing Pakistan.
- 3. Chabahar Port is being developed by China under the China-Pakistan Economic Corridor (CPEC).

How many of the above is/are not correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q72. With reference to Agriphotovoltaics (Agri-PV), consider the following statements:

- 1. Agriphotovoltaics allow simultaneous cultivation of crops and generation of solar power on the same piece of land.
- 2. Agri-PV systems generally require solar panels to be mounted at an elevated height to permit farming activities beneath them.
- 3. Agri-PV projects are less expensive than conventional ground-mounted solar projects due to dual land use.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q73. Consider the following statements:

Statement 1: The independence of the CAG is ensured through security of tenure and a difficult removal process.

Statement 2: The salary and service conditions of the CAG can be altered to his disadvantage after appointment.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- (b) Both Statement 1 and Statement 2 are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q74. Consider the following statements:

Statement I: The Union Budget is an annual statement of the estimated receipts and expenditure of the Government of India for a financial year.

Statement II: The Budget is presented in Parliament under Article 121 of the Constitution.

Statement III: The Budget is an important instrument of monetary policy.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q75. Consider the following with reference to Core Sector:

- 1. The Core Sector comprises eight industries that are considered the backbone of the economy.
- 2. The Index of Core Industries (ICI) is released by the Ministry of Statistics and Programme Implementation.
- 3. The performance of the Core Sector is used as an indicator of industrial activity in the country.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q76. With reference to the Delhi Preservation of Trees Act, 1994 and the recently notified Standard Operating Procedure (SOP) for tree-related offences, consider the following statements:

- 1. A First Offence Report (FOR) is registered under Section 22 of the Delhi Preservation of Trees Act, 1994.
- 2. The Tree Officer may issue a restraining order where there is a reasonable apprehension of illegal tree felling.
- 3. A person who fails to comply with a summons issued during inquiry proceedings may face the issuance of

an arrest warrant through the concerned police station.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Q77. Which of the following statements are correct in respect of Digital Health Mission (Ayushman Bharat Digital Mission)?

- 1. Participation in the creation of a Health ID is voluntary.
- 2. It facilitates secure sharing of health records with patient consent.
- 3. It is implemented by the National Health Authority.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Q78. Consider the following statements:

Statement 1: The PARAM Programme seeks to enhance governance through the use of Artificial Intelligence and emerging technologies.

Statement 2: Capacity building of public officials is essential for the effective adoption of technology-driven governance.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- (b) Both Statement 1 and Statement 2 are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q79. Consider the following statements:

Statement I: DeepSeek has emerged as a significant competitor in the global Large Language Model (LLM) ecosystem.

Statement II: DeepSeek's models are proprietary and their weights are not publicly released.

Statement III: DeepSeek was developed exclusively for military applications and is not available for civilian use.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q80. With reference to air pollution trends in Delhi during the first half of 2026, consider the following statements:

- 1. Average PM2.5 concentration declined slightly compared to the corresponding period in 2025.
- 2. Ground-level ozone concentration increased in 2026 compared to 2025.
- 3. Average nitrogen dioxide (NO₂) concentration showed a decline in 2026.
- 4. Delhi met the daily PM2.5 safety criteria prescribed by the WHO on more than half of the days.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Q81. Consider the following statements:

Statement 1: Retail food inflation measures the change in prices of food items purchased by consumers at the retail level.

Statement 2: Retail food inflation in India is measured through the Consumer Food Price Index (CFPI), which forms part of the Consumer Price Index (CPI).

Which one of the following is correct in respect of the above statements?

- (a) Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- (b) Both Statement 1 and Statement 2 are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q82. Consider the following with reference to Pax Silica:

- 1. The concept emphasizes the strategic importance of semiconductors in shaping global power.
- 2. It suggests that technological leadership may become as important as military power in international relations.
- 3. The term originated as an official doctrine of the United Nations.

How many of the above is/are not correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q83. Which one of the following is the most important institutional mechanism of SCO for counter-terrorism cooperation?

- (a) Eurasian Economic Commission
- (b) SCO Development Bank
- (c) Regional Anti-Terrorist Structure (RATS)
- (d) Collective Security Treaty Organization

Q84. Consider the following country–water body pairs:

1. Jordan – Dead Sea
2. Azerbaijan – Caspian Sea
3. Bolivia – Lake Titicaca
4. Mongolia – Aral Sea

Which of the pairs given above are correctly matched?

- (a) 1 and 2 only
- (b) 1, 2 and 3 only
- (c) 2, 3 and 4 only
- (d) 1, 2, 3 and 4

Q85. Which of the following statements are correct in respect of Foreign Contribution (Regulation) Act (FCRA), 2010?

1. The FCRA regulates the acceptance and utilisation of foreign contributions by individuals, associations, and NGOs.
2. The objective of the Act is to ensure that foreign contributions do not adversely affect national interest, sovereignty, and democratic institutions.
3. All NGOs in India are permitted to receive foreign contributions without prior registration or permission under the FCRA.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Q86. Consider the following statements:

Statement 1: India became the first Global South country to host the international AI Summit series.

Statement 2: The Summit was held as a follow-up to the AI Action Summit held in Paris in 2025.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- (b) Both Statement 1 and Statement 2 are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q87. Consider the following statements:

Statement I: Most earthquakes occur along the boundaries of tectonic plates.

Statement II: Plate boundaries are regions where tectonic plates collide, separate, or slide past one another, generating stress in rocks.

Statement III: The sudden release of accumulated stress along faults produces seismic waves that cause earthquakes.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q88. With reference to the recent developments in India–Bangladesh relations, consider the following statements:

1. India temporarily suspended the processing of all visa categories, including tourist visas, for Bangladeshi nationals following the political transition in Bangladesh in August 2024.
2. The resumption of limited visa services, focusing primarily on medical and emergency categories, was initially streamlined through select Indian Visa Application Centres (IVACs) like Dhaka.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q89. Consider the following statements:

Statement 1: New Zealand is regarded as a maritime nation in the South Pacific with significant strategic interests in the Pacific Islands.

Statement 2: New Zealand's Exclusive Economic Zone (EEZ) is among the largest in the world, giving it responsibility over vast ocean resources.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- (b) Both Statement 1 and Statement 2 are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q90. Consider the following statements:

Statement I: A significant appreciation of the Indian Rupee can adversely affect India's merchandise exports.

Statement II: A stronger rupee makes Indian imports more expensive in foreign markets.

Statement III: A stronger rupee reduces the cost of exports such as crude oil and machinery.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I

- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q91. Consider the following with reference to Rules of Origin (RoO) framework:

1. The Rules of Origin determine the national source of a product for international trade.
2. They are used to decide whether a product qualifies for preferential tariff treatment under a Free Trade Agreement (FTA).
3. They apply only to agricultural products and not to manufactured goods.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q92. Consider the following statements regarding citizenship laws in the given countries:

1. United States primarily follows the principle of *jus soli* (citizenship by birth).
2. Germany traditionally followed *jus sanguinis* (citizenship by descent), though it has introduced limited birth-based citizenship.
3. India currently grants citizenship solely on the principle of *jus soli* irrespective of the citizenship status of parents.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 only
- (d) 1, 2 and 3

Q93. Consider the following statements:

Statement 1: The Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) provides collateral-free credit guarantee support to eligible MSEs.

Statement 2: The scheme reduces lenders' credit risk, encouraging greater lending to micro and small enterprises.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- (b) Both Statement 1 and Statement 2 are correct and Statement 2 does not explain Statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Q94. Consider the following statements:

Statement I: The Governor appoints the Chief Minister of a State.

Statement II: The Governor normally appoints the leader of the majority party or coalition in the Legislative Assembly as Chief Minister.

Statement III: The Constitution expressly prescribes that the Governor must appoint the leader of the largest political party as Chief Minister.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q95. Consider the following with reference to State Legislative Assembly:

1. It is the lower House in States having a bicameral legislature.
2. Every State in India has a Legislative Assembly.
3. Members of the Legislative Assembly are directly elected by the people.

How many of the above is/are not correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q96. How many of the following statements regarding India–China economic relations are correct?

1. The India–China Strategic Economic Dialogue was launched to strengthen macroeconomic policy coordination and sectoral cooperation between the two countries.
2. The Strategic Economic Dialogue has continued uninterrupted since its inception.
3. India's major economic concern in bilateral trade with China is the persistent trade deficit.
4. Cooperation in energy security was one of the areas discussed under the Strategic Economic Dialogue.

Select the correct answer using the code given below:

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Q97. Consider the following statements:

Statement I: Hypersonic missiles are considered difficult to intercept using existing missile defence systems.

Statement II: They travel at speeds of Mach 5 or higher.

Statement III: They are capable of high-speed manoeuvring during flight, making their trajectory less predictable.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Q98. Consider the following with reference to the Indian Army:

1. The Indian Army is organised into Army Commands headed by General Officers Commanding-in-Chief (GOC-in-Chief).
2. All Army Commands are operational commands.
3. The Army Training Command (ARTRAC) is responsible for training and doctrinal development.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Q99. Which one of the following pairs is incorrectly matched?

- (a) Qwen — Alibaba
- (b) Llama — Meta
- (c) DeepSeek — DeepSeek AI
- (d) Kimi — Anthropic

Q100. With reference to the Indian Statistical Institute (ISI) and recent legislative developments, consider the following statements:

1. The Indian Statistical Institute was originally established as a registered society to promote statistical theory, methods, and their practical applications.
2. The existing statutory framework explicitly empowers the Institute to award degrees and diplomas in Computer Science and related technological fields.
3. The proposed Indian Statistical Institute Bill seeks to restructure the governance of ISI by transforming it from a registered society into a statutory body corporate.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 & 3

Answer Keys

Q1	c	Q2	a	Q3	b	Q4	c (1, 3, 4 only)	Q5	a
Q6	c (1, 2, 3 only)	Q7	b	Q8	b	Q9	a	Q10	a
Q11	c (1, 2, 3 only)	Q12	c	Q13	c	Q14	a (3 only)	Q15	a
Q16	b (1, 2 only)	Q17	c	Q18	d	Q19	b	Q20	b (1, 3 only)
Q21	d	Q22	d	Q23	b	Q24	b	Q25	a
Q26	c (1, 3, 4 only)	Q27	a	Q28	c	Q29	a	Q30	d
Q31	b (1, 4 only)	Q32	b	Q33	b	Q34	b	Q35	a
Q36	b (1, 2 only)	Q37	a	Q38	c	Q39	b	Q40	a
Q41	d	Q42	c (1, 2, 3 only)	Q43	a	Q44	a	Q45	a
Q46	b (1, 2 only)	Q47	a	Q48	c	Q49	d (None incorrect)	Q50	a
Q51	a	Q52	b	Q53	d	Q54	c	Q55	c (1, 2, 3 only)
Q56	a	Q57	b	Q58	c	Q59	b (2, 3 only)	Q60	b (1, 3 only)
Q61	b	Q62	c	Q63	b (1, 2 only)	Q64	a	Q65	c
Q66	c (1, 2, 3 only)	Q67	c	Q68	a	Q69	c	Q70	d
Q71	a (3 only)	Q72	b (1, 2 only)	Q73	c	Q74	d	Q75	b (1, 3 only)
Q76	d	Q77	d	Q78	a	Q79	d	Q80	b (1, 2 only)
Q81	a	Q82	a (3 only)	Q83	c	Q84	b	Q85	a
Q86	b	Q87	a	Q88	c	Q89	a	Q90	d
Q91	b (1, 2 only)	Q92	a	Q93	a	Q94	c	Q95	d (None incorrect)
Q96	c (1, 3, 4 only)	Q97	a	Q98	b (1, 3 only)	Q99	d	Q100	d

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