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JULY 2026

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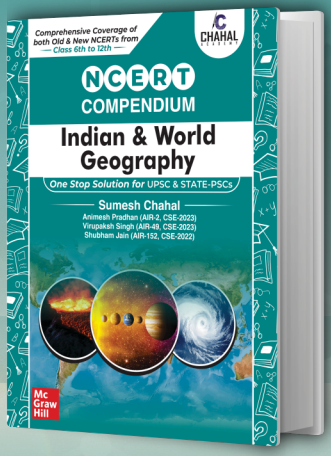

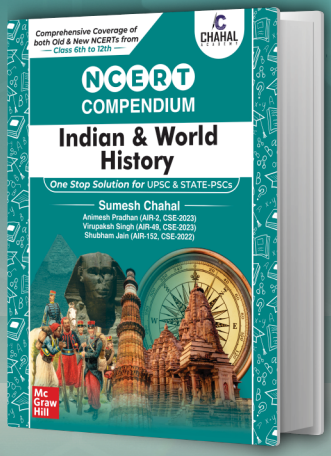

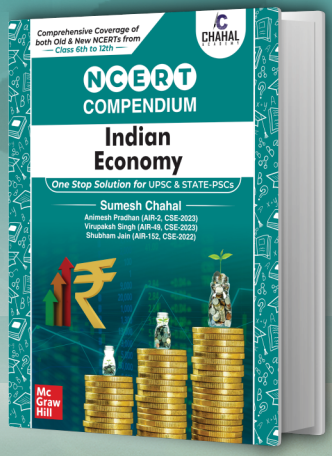

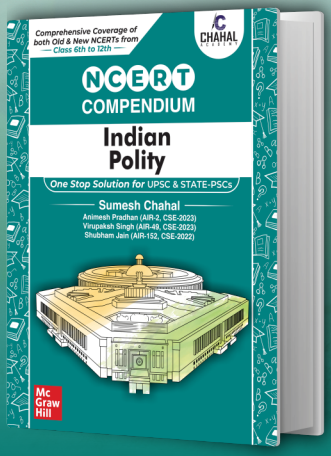

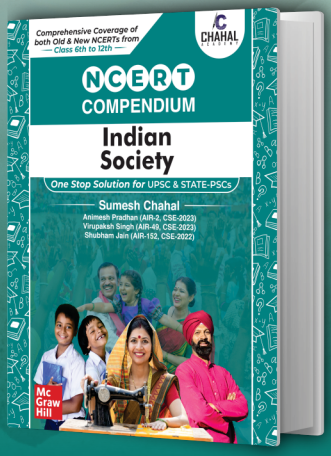

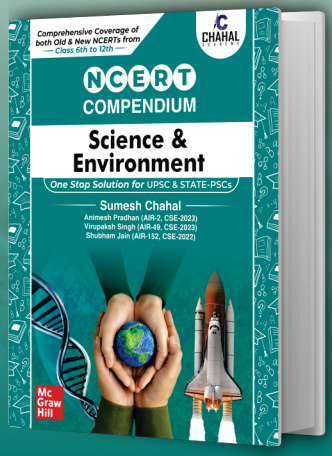

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POLITY & GOVERNANCE

24×7 Access to Constitutional Justice

Why in News: The **Supreme Court of India** has agreed to examine the possibility of framing a **Standard Operating Procedure (SOP)** that would enable citizens to approach constitutional courts **at any time day or night in cases involving life, personal liberty, and other urgent violations.**

Background

- The issue came before a **three-judge Bench** headed by **Chief Justice of India (CJI) Surya Kant**, while hearing a petition filed by **Supreme Court advocate Maheravish Rein**.
- The petitioner argued that fundamental rights violations frequently occur **outside normal court hours**, including during nights, weekends, and public holidays, leaving affected citizens without timely judicial protection.
- The petition urged the Supreme Court to establish a **uniform emergency judicial mechanism** so that constitutional courts remain effectively accessible whenever urgent intervention is necessary.

Why is a 24×7 Judicial Access Mechanism Needed?

- The petition highlights that constitutional rights cannot remain dependent upon the working schedule of courts.
- Increasingly, urgent executive actions such as:
  - Illegal arrests
  - Preventive detentions
  - Custodial violence
  - Demolition of homes
  - Deportations
  - Forced evictions
  - Other coercive State actions

often take place **late at night, early morning, or during holidays**, making it practically difficult for citizens to secure immediate judicial protection.

The petitioner argued that:

> ***"The Constitution cannot fall silent at night, nor can the protection of liberty wait until the courts reopen."***

- This raises an important constitutional question - **Can justice wait when liberty itself is at stake?**

Supreme Court's Observations

- The Bench acknowledged that there may be a need to develop an institutional mechanism that significantly reduces the response time in urgent constitutional matters.
- Chief Justice Surya Kant observed that:
  - An SOP could ensure that courts respond rapidly in cases involving life and liberty.
  - Ideally, urgent requests should receive judicial attention **within an hour** of being brought before the court.
- This reflects the judiciary's recognition that **speed itself can become an essential component of justice**, particularly where irreversible harm is likely.

Should the SOP be Judicial or Administrative?

- During the hearing, **Solicitor General Tushar Mehta** suggested that such a mechanism should be developed **administratively** rather than through judicial orders.
- However, the Chief Justice pointed out that:
  - High Courts enjoy constitutional autonomy.
  - The Supreme Court cannot administratively direct High Courts under India's federal judicial structure.
  - Therefore, any nationwide framework may require judicial directions rather than purely administrative instructions.
- This highlights the constitutional balance between judicial independence and institutional coordination.

Digital Technology (An Opportunity Yet to be Fully Utilised)

- Justice **Joymalya Bagchi** noted that modern technology has fundamentally transformed access to justice.
- Today, courts already possess digital infrastructure such as:
  - e-Filing systems
  - Electronic case records
  - Virtual hearings
  - Email communication
  - Online mentioning mechanisms
- According to the judge: Even a **phone call, email, or letter** should be sufficient to activate the judicial process in genuine emergencies.
- The petitioner agreed that India's digital judicial ecosystem has advanced considerably but argued that these technological capabilities **have not yet been integrated into a structured emergency response system**.
- In other words, while technology exists, **institutional procedures for emergency constitutional relief remain absent or inconsistent across courts.**

Need for a Standard Operating Procedure (SOP)

- The proposed SOP seeks to establish a predictable institutional framework that would ensure emergency judicial access beyond regular court timings.
- Such a framework may include:
  - 24×7 emergency judicial registry
  - Dedicated constitutional emergency benches
  - Uniform digital filing mechanism
  - Rapid screening of urgent petitions
  - Virtual hearing facilities during nights and holidays
  - Clearly defined categories of emergency matters
  - Time-bound judicial response protocols
- This would transform emergency constitutional remedies from an **exceptional arrangement into an institutional guarantee.**

Constitutional Significance

- The proposal directly strengthens several constitutional guarantees.
- **Article 21:** Guarantees the **Right to Life and Personal Liberty**, which the Supreme Court has repeatedly interpreted as requiring timely and effective judicial protection.
- **Article 32:** Provides every citizen the right to directly approach the Supreme Court for enforcement of Fundamental Rights.
- Dr. B.R. Ambedkar famously described Article 32 as the **"heart and soul of the Constitution."**
- **Article 226:** Empowers High Courts to issue writs for the protection of fundamental and legal rights.
- **Article 14:** Ensures equality before law and equal protection of laws, requiring that access to justice should not depend upon the timing of executive action.

Potential Benefits

- A round-the-clock judicial access framework could:
  - Strengthen protection of fundamental rights.
  - Prevent irreversible violations before they occur.
  - Reduce misuse of executive power.
  - Improve citizens' trust in constitutional institutions.
  - Enhance accountability of public authorities.
  - Make justice more responsive in emergency situations.
  - Fully utilise India's digital judicial infrastructure.

Challenges

- Despite its importance, implementing such a system would require addressing several practical concerns:
  - Availability of judges after working hours.
  - Creation of specialised emergency registries.
  - Uniform implementation across High Courts.
  - Preventing misuse through frivolous petitions.
  - Ensuring adequate administrative and technological support.
  - Balancing judicial workload with continuous accessibility.
- A carefully designed SOP would therefore need to distinguish genuine emergencies from routine litigation.

Way Forward

- The proposal reflects an evolving understanding that **constitutional justice must adapt to the realities of a digital and fast-moving society**. While courts cannot function in full strength throughout the day, they can establish institutional mechanisms that guarantee immediate access in exceptional situations where delay may cause irreversible harm.
- A technology-enabled, transparent, and uniform emergency judicial framework would strengthen India's constitutional commitment to protecting life and liberty.

Conclusion

- The Supreme Court's consideration of a **24×7 emergency judicial access mechanism** marks an important step towards making constitutional rights truly effective rather than merely symbolic.

Manufacturing justice

Why in News: The **Supreme Court** warned against AI-generated fake legal citations after finding that the NCLT relied on hallucinated judgments in an insolvency case, prompting stricter safeguards for AI use in courts.

Key Details

- **AI Hallucinations:** The Supreme Court compared AI-generated fake legal citations to the Bhopal gas tragedy—dangerous, invisible, and capable of causing grave injustice.
- **Recent Judgment:** The Court set aside orders of the **National Company Law Tribunal** and **National Company Law Appellate Tribunal** for relying on fictitious AI-generated case laws.
- **Limited Role of AI:** AI can assist in legal research and administrative tasks but cannot replace judicial reasoning, discretion, or accountability.
- **Draft AI Regulations 2026:** The proposed rules prohibit AI from adjudication, sentencing, deciding bail, or assessing the credibility of parties and witnesses.
- **Professional Accountability:** The Court directed the **Bar Council of India** to frame strict norms and disciplinary measures against lawyers citing unverified AI-generated material.

Supreme Court's Strong Warning Against AI Hallucinations

- The Supreme Court warned that AI-generated fake legal citations can cause serious miscarriages of justice.
- It compared AI hallucinations to the poisonous gas in the **Bhopal gas tragedy** invisible, harmful, and catastrophic before being detected.
- The Court stressed that judicial decisions must never rely on fabricated AI-generated content.

Recent Case and Judicial Observations

- The Supreme Court set aside orders of the **National Company Law Tribunal** and **National Company Law Appellate Tribunal** after finding reliance on fictitious AI-generated legal citations.
- The appellate tribunal failed to detect this serious error.
- Earlier, on February 27, a Bench of Justices **P. S. Narasimha** and **Alok Aradhe** termed reliance on AI-generated fake case laws as judicial misconduct, not merely an error.

Supreme Court's Stand on AI in Justice Delivery

- AI can be used only as an assistive tool to improve efficiency.
- It cannot replace:
  - Independent human reasoning
  - Judicial discretion
  - Professional accountability
  - Any judgment influenced by fabricated AI material is legally invalid ("no decision in the eyes of law").

Draft AI Regulations for Courts (2026)

- The draft **"Regulations for Use of Artificial Intelligence (AI) in Courts, 2026"** prohibits AI from:
  - Making judicial decisions or adjudication
  - Determining sentences or bail eligibility
  - Assessing the credibility of parties or witnesses
- The regulations are currently open for public consultation.

Accountability and Future Safeguards

- The Court held that citing fake AI-generated judgments amounts to:
  - Professional misconduct by advocates.
  - Serious dereliction of duty by judges.
- It directed the **Bar Council of India** to establish a committee for:
  - Framing strict AI-use guidelines.
  - Prescribing disciplinary action against lawyers using unverified AI-generated material.
- The Court reaffirmed that justice must be based on verified facts, human judgment, and legal reasoning—not AI hallucinations.

Conclusion

Artificial Intelligence can enhance judicial efficiency by assisting with research and case management, but it cannot replace human judgment, ethical reasoning, or **constitutional accountability.** The Supreme Court's observations highlight the need for a balanced approach in which AI remains a supportive tool, while judicial decision-making continues to be guided by human discretion, constitutional principles, and accountability.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Artificial Intelligence can improve judicial efficiency, but unchecked reliance on AI poses serious risks to justice delivery." Discuss in the context of the Supreme Court's recent observations on AI in courts. (15 Marks, 250 Words)

Old wine, new bottle

Why in News: The **Union government** notified revised **EPF, EPS and EDLI** rules under the **Code on Social Security, 2020**, but retained the **₹1,000** minimum pension and ₹15,000 wage ceiling, triggering concerns among pensioners and labour organisations.

Key Details

- **No pension revision:** Minimum EPS pension remains **₹1,000**, unchanged for over 12 years despite inflation.

- **Low-wage ceiling:** PF/EPS contribution ceiling continues at **₹15,000**, reducing retirement savings for many workers.
- **Inadequate social security:** Nearly **36.8 lakh pensioners** receive ₹1,000 or less, limiting post-retirement financial security.
- **Delayed reforms:** Repeated demands from pensioners and stakeholders remain unaddressed despite modest fiscal implications.
- **Limited inclusiveness:** EPS does not adequately cover all workers, leaving many employees outside comprehensive pension protection.

New Rules Align with Social Security Code

- Union Labour Ministry notified fresh rules for **EPF, EPS and EDLI** after implementation of the **Code on Social Security, 2020**.
- Follows approval by the **Central Board of Trustees (CBT)** of the **Employees' Provident Fund Organisation**.
- Aligns existing provident fund framework with the new labour code that consolidates **nine labour laws**.
- Ensures legal continuity rather than introducing major policy changes.
- Impacts nearly **8 crore EPFO subscribers** and their families.

No Major Change in PF Contributions

- Voluntary PF contributions beyond the **₹15,000 statutory wage ceiling** continue as before.
- Employees can contribute **up to 12% of their basic salary**, irrespective of the wage ceiling.
- This practice existed before the **COVID-19 pandemic**.
- During the pandemic, many employers restricted contributions to the wage ceiling due to financial stress.
- The notification mainly restores earlier flexibility without introducing a new benefit.

Pensioners' Key Demands Remain Unaddressed

- No revision of the **minimum monthly EPS pension of ₹1,000**, fixed **12 years ago**.
- No increase in the **₹15,000 monthly wage ceiling** for PF/EPS contributions.
- Pensioners and stakeholders had expected reforms on both issues.
- Around **36.8 lakh of 81.5 lakh pensioners** receive **₹1,000 or less** per month.
- The notification has therefore disappointed many beneficiaries.

Government Should Expand Social Security

- Government has not acted despite repeated demands from pensioners and stakeholders.
- Raising the minimum pension would require only about **₹1,000 crore annually** as grant-in-aid.
- Most of the government's **₹11,000 crore EPS allocation** funds its **1.16% contribution** to members' pensions.
- EPS coverage should be restored for **all workers**, irrespective of salary levels.
- If EPFO faces capacity constraints, a separate pension scheme can be designed with the **Pension Fund Regulatory and Development Authority**.

Way Forward

- Revise the **minimum pension** and **wage ceiling** in line with inflation and rising living costs.
- Ensure **universal and inclusive pension coverage** for all workers.
- Continue simplifying and expediting **EPFO claim settlement** processes.
- Balance financial sustainability with **adequate social security protection**.
- Recognise that EPFO policy decisions have a **direct impact on crores of employees and pensioners**.

Conclusion

The latest EPFO notification ensures legal continuity but misses an opportunity to strengthen **India's social security architecture.** Revising pension benefits, updating wage ceilings, expanding coverage, and simplifying service delivery areessential to make social security more adequate, inclusive, and responsive to changing economic realities.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Social security reforms must prioritize adequacy and inclusiveness over procedural compliance." Discuss in the context of the recent EPFO notifications under the Code on Social Security, 2020. (150 words, 10 marks)

Telangana's Political Lingo Needs a Reset

Why in News: Political discourse in **Telangana** is witnessing increasing **personal attacks**, **abusive rhetoric**, and **social media-driven polarization**, raising concerns over **democratic debate**, **governance**, and responsible exercise of **free speech**.

Key Details

- **Declining Political Discourse:** Political communication in **Telangana** has shifted from **policy debates** to **personal attacks**, **abusive rhetoric**, and **social media-driven sensationalism**, weakening democratic deliberation.
- **Historical Evolution:** While politics in **undivided Andhra Pradesh** was confrontational, the **Telangana Statehood Movement** normalised **ridicule** and emotionally charged rhetoric, which gradually evolved into a culture of **personal abuse**.
- **Role of social media:** The rise of **YouTube**, **digital volunteers**, and **party-affiliated influencers** has incentivised provocative content, leading to the **"YouTubeisation" of politics**, where engagement often outweighs substance.
- **Democratic Consequences:** Public discourse increasingly revolves around **personalities** rather than **governance**, affecting debates on issues such as the **Kaleshwaram Project**, **public debt**, and **water management**, while fuelling political polarisation and legal disputes.
- **Need for Responsible Politics:** The article emphasises balancing **Article 19(1)(a)** (freedom of speech) with **Article 19(2)** (reasonable restrictions), urging political parties to

promote **civil**, **issue-based**, and **constitutional** democratic discourse.

Rising Decline in Political Discourse

- **Personal abuse** is increasingly replacing **policy-based debates**.
- **Social media virality** is often prioritised over meaningful political engagement.
- **Personal attacks** overshadow discussions on **governance** and **accountability**.
- **Families of political leaders** are sometimes dragged into political disputes.
- Public discourse is becoming more **confrontational** and less **issue-centric**.

Evolution of the Abuse Culture

- Political rivalry in **undivided Andhra Pradesh** was intense but largely avoided **personal insults**.
- The **Telangana Statehood Movement** intensified **identity-based** and **emotional mobilisation**.
- **Ridicule** of political opponents gradually became socially acceptable.
- Political rhetoric evolved from **satire** to **personal abuse**.
- The confrontational style continued even after **Telangana's formation (2014)**.

Role of Leaders and Social Media

- Political leaders increasingly adopted **aggressive rhetoric** to mobilise supporters.
- **Social media**, **YouTube channels**, and **digital volunteers** amplified sensational content.
- Online algorithms rewarded **provocative statements** over **reasoned debate**.
- Younger political leaders embraced confrontational communication for **political visibility**.
- The **"YouTubeisation" of politics** accelerated the culture of abuse.

Impact on Democracy and Governance

- Public debate has shifted from **facts** and **public policy** to **personalities**.
- Critical issues such as the **Kaleshwaram Project**, **public debt**, and **water sharing** receive less substantive attention.
- **Grassroots political workers** are becoming increasingly **polarised**.
- **Media coverage** often focuses on political insults rather than **governance outcomes**.
- Rising **FIRs**, **defamation cases**, and legal disputes reflect deteriorating political discourse.

Constitutional Concerns and Way Forward

- **Article 19(1)(a)** guarantees **freedom of speech**, not unrestricted abusive speech.
- **Article 19(2)** allows **reasonable restrictions** to ensure responsible expression.
- Political accountability should focus on **policies**, **performance**, and **public welfare**.
- Political parties should encourage **civil**, **evidence-based**, and **issue-oriented** debates.
- Strengthening **ethical political communication** is essential for a healthy **democracy**.

Conclusion

A vibrant democracy depends on **civil discourse,** constitutional **values, and** evidence-based policymaking, **not personal** abuse. Telangana's **experience underscores** the need to restore ethical political communication, strengthen **democratic accountability, and** encourage issue-based debate, tolerance of dissent, and respect for constitutional values.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "The quality of political discourse is essential for a healthy democracy." Examine the causes behind the decline in political communication in India and suggest measures to promote responsible democratic debate. (10 marks, 150 words)

Accommodating Dissent

Why in News: The issue is in news because the **TVK government in Tamil Nadu** has faced criticism over multiple **speech-related arrests**, raising concerns about **free speech, misuse of police powers, and democratic freedoms**.

Key Details

- **At least 10 people** faced police action for allegedly criticising the Chief Minister, Ministers, or the ruling party through speeches, social media posts, YouTube videos, and Instagram content.
- Those targeted included **politicians, YouTubers, social media users, and ordinary citizens**, with some also facing police searches of their residences.
- Police invoked **criminal defamation, cybercrime, and Information Technology Act-related provisions** in several speech-related cases.
- Complaints were filed by **ruling party members**, while in some instances the police initiated **suo motu** action against individuals accused of making derogatory remarks.
- The incidents have raised concerns over **misuse of criminal law, selective enforcement, curbs on dissent, and the balance between freedom of speech and public order**.

Multiple Arrests over Criticism of the Government

- Around **10 individuals** have faced **police action** for allegedly criticising the **Chief Minister** or Cabinet Ministers.
- Cases involved **social media posts, public remarks, YouTube videos, and Instagram content**.
- Those targeted include **politicians, YouTubers, social media users, and ordinary citizens**.
- Police also conducted **searches of residences** over alleged "derogatory" online posts.
- The incidents have raised concerns about **shrinking space for political criticism**.

Misuse of Criminal Law to Protect Political Reputation

- Successive governments have often used **police and criminal law** to shield political leaders from criticism.
- Criminal provisions are increasingly invoked instead of allowing **political debate or civil defamation remedies**.
- This reflects a broader trend of **criminalising dissent** rather than addressing criticism democratically.
- Such practices risk turning **state institutions into political tools**.

- The pattern poses a **structural threat to democratic governance**.

Growing Concerns over Democratic Values

- Democracy depends on **tolerance of dissent** and **respect for the rule of law**.
- Frequent speech-related arrests create a perception of **authoritarian governance**.
- Filing criminal cases for criticism can have a **chilling effect on free expression**.
- Police action against dissenters may weaken **public trust in democratic institutions**.
- Protecting political leaders from criticism should not come at the cost of **constitutional freedoms**.

Use of Cyber Laws Against Critics

- Authorities have reportedly invoked **defamation laws, cybercrime provisions, and the Information Technology framework** against critics.
- Complaints filed by ruling party members have often resulted in **swift police action**.
- Police have also taken **suo motu action** in some cases involving online criticism.
- Such use of cyber laws raises concerns about **selective enforcement**.
- Critics argue these provisions should target **genuine cyber offences**, not political expression.

Need to Balance Free Speech and Responsible Regulation

- A democratic government should **accept criticism as part of public accountability**.
- Allegations against public officials can be addressed through **civil courts or political debate**, rather than criminal prosecution.
- Constructive criticism and dissent can **strengthen governance and policymaking**.
- Restrictions should remain limited to **harmful, obscene, or unlawful content**, as permitted by law.
- Governments must ensure that **freedom of speech remains the guiding constitutional principle**, while balancing legitimate public order concerns.

Conclusion

A mature democracy is measured not by how it treats supporters but by how it responds to criticism. Governments should avoid using criminal law to curb dissent and instead upholdconstitutional freedoms, due process, and the right to peaceful criticism while maintaining legitimate public order.

Checkbox caste

Why in News: The **Census 2027** pre-test has begun in **16 States and Union Territories**, testing **caste enumeration** methodology. Its findings will determine how India collects accurate, reliable, and legally backed caste data.

Key Details

- **Census 2027** pre-test (July **6–20**) includes **statutory caste enumeration** with an **open-response column**.
- The **2011 SECC** produced over **46 lakh caste names**, making the data **inconsistent** and **unusable**.
- The government is considering **digital handheld devices** with a **standardised caste list** to improve accuracy.
- The **2022–23 Bihar Caste Survey** demonstrated that a **structured digital approach** yields more reliable caste data.
- Accurate caste data will support **targeted welfare**, **reservation policies**, **creamy layer identification**, and **sub-categorisation** of beneficiary groups.

Census 2027 Pre-test

- The **second-phase pre-test** of **Census 2027** is being conducted in **16 States and Union Territories** from **July 6–20**.
- It includes an **open column** allowing respondents to **self-report their caste**.
- Unlike the **2011 Socio-Economic and Caste Census (SECC)**, caste enumeration now has **statutory backing**.
- The pre-test aims to **finalise the methodology** for caste enumeration.
- The exercise seeks to improve the **accuracy** and **reliability** of caste data.

Problems with the Open-ended Approach

- The **2011 SECC** generated over **46 lakh caste names**, compared to **4,147** caste entries in the **1931 Census**.
- Respondents often reported **surnames**, **sub-castes**, **clans**, and **community names** interchangeably.
- The resulting database became **fragmented**, **inconsistent**, and **unusable**.
- In **2021**, the **Central Government** informed the **Supreme Court** that the SECC caste data contained **serious errors**.
- An **open-ended format** risks reducing the quality and usability of caste statistics.

Proposed Solution for Better Enumeration

- Use **digital handheld devices** pre-loaded with a **standardised list** of **castes** and **sub-castes**.
- Enumerators can select the **appropriate entry** after verifying the respondent's identity.
- This approach reduces **duplication**, **spelling variations**, and **classification errors**.
- The **2022–23 Bihar Caste Survey** demonstrated that a **structured digital method** produces more reliable data.
- Standardisation can significantly improve **data consistency** and **policy relevance**.

Why Count Caste?

- **Caste** remains a major source of **social inequality**, **discrimination**, and **unequal access** to opportunities.
- The **Constitution** abolishes **untouchability** and prohibits **caste-based discrimination**, while promoting **social justice**.
- Reliable caste data helps improve **targeting of welfare schemes** and **affirmative action**.

- It supports evidence-based decisions on the **creamy layer**, **sub-categorisation**, and **reservation policies**.
- Accurate data enables better **policy formulation** while advancing **social equity**.

Way Forward

- Adopt a **standardised digital enumeration system** instead of an open-text response.
- Prepare a **scientifically validated national caste directory** with periodic updates.
- Ensure **enumerator training**, **verification mechanisms**, and **quality checks**.
- Protect **data privacy**, **transparency**, and **public trust** throughout the process.
- Collect **accurate and credible caste data** to strengthen **evidence-based policymaking** and **inclusive development**.

Conclusion

A **credible caste census** is essential for **evidence-based policymaking** and achieving **social justice.** However, its success depends on adopting a standardised, **technology-driven,** and **transparent** enumeration process.

Democracy needs civic action. New FCRA rules shrink it

Why in News: The **Foreign Contribution Regulation (Amendment) Rules, 2026** have been notified, introducing **stricter disclosure**, **classification**, and **compliance requirements** for NGOs, sparking concerns over increased **executive control** and shrinking **civil society space**.

Key Details

- **Expanded Regulation:** NGOs must classify activities, specify **geographical areas**, and submit **granular disclosures**, increasing government oversight.
- **Religious Organisations:** Stricter scrutiny applies to organisations engaged in **religious activities**, citing concerns over **foreign fund misuse** and **unlawful conversions**.
- **Evolution of FCRA:** The law, enacted in **1976**, was strengthened in **2010** and **2020**, progressively expanding **executive discretion** and compliance obligations.
- **Impact on NGOs:** Around **20,000 organisations** have lost **FCRA licences** in the last **12 years**, affecting organisations working in **education, healthcare, legal aid, and environmental conservation**.
- **Democratic Concerns:** Critics argue that excessive **surveillance**, mandatory disclosure of **social media accounts**, and procedural controls may reduce the **autonomy** of civil society organisations.

Expanded Executive Control over NGOs

- The **Foreign Contribution Regulation (Amendment) Rules, 2026** increase **government control** over **civil society organisations (CSOs)**.
- The rules shift the **FCRA** from regulating **foreign funding** to closely supervising **NGO activities**.
- NGOs must classify their work into **narrowly defined categories**.
- They are required to specify their **geographical areas of operation**.
- This expands **executive discretion** over how **voluntary organisations** function.

Stricter Compliance and Disclosure Requirements

- NGOs must provide more **granular disclosures** about their activities.
- Organisations face **stricter compliance obligations** than before.
- Additional oversight applies to organisations involved in **religious activities**.
- The government justifies these measures by citing **misuse of foreign funds** and **unlawful religious conversions**.
- While **transparency** is essential, excessive regulation can restrict **independent civic action**.

Evolution of the FCRA

- The **FCRA** was enacted in **1976** during the **Emergency** to prevent **foreign interference** in India's political process.
- It was substantially revised in **2010**, introducing **stricter registration** and **reporting requirements**.
- The **2020 Amendment** prohibited the **onward transfer of foreign contributions** to partner organisations.
- It also capped **administrative expenses** at **20%** of **foreign contributions**.
- Each amendment has expanded **compliance burdens** and increased **executive discretion**.

Impact on Civil Society

- Nearly **20,000 organisations** lost their **FCRA licences** over the last **12 years** (as of **March 2026**).
- **Civil society organisations** play a key role in **education**, **healthcare**, **environmental conservation**, **legal aid**, and supporting **vulnerable communities**.
- These organisations fill important **governance gaps** where the government cannot or does not provide services.
- Increasing **regulatory burdens** may reduce the effectiveness of NGOs.
- A shrinking **civic space** can weaken **democratic participation** and **public welfare**.

Concerns for Democracy

- The new rules require disclosure of **social media accounts** and **publications** of **key functionaries**.
- This reflects expanding **government surveillance** and **procedural control** over NGOs.
- Treating **civil society** as a **potential risk** rather than a **democratic asset** undermines democracy.
- **Misuse of funds** should be addressed through **targeted investigations** and **legal action**.
- However, **blanket restrictions** and excessive **regulatory oversight** can erode the **autonomy**, **independence**, and **confidence** of **voluntary organizations**.

Conclusion

- **Transparency** in foreign funding is essential for **national security** and **accountability.** However, regulation should remain proportionate, fair, and non-arbitrary. A vibrant civil society complements governance by addressing developmental gaps.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. With reference to the Foreign Contribution Regulation (Amendment) Rules, 2026, consider the following statements:

1) NGOs are required to classify their activities under specified categories and disclose their geographical areas of operation.
2) The Rules prohibit all NGOs from receiving foreign contributions for religious activities.
3) The Rules require key functionaries of NGOs to disclose their social media accounts and publications.

Which of the statements given above is/are correct?

(a) 1 only
(b) 1 and 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: b

On SIR, listen to digital governance and Aadhaar pioneer

Why in News: The **Special Intensive Revision (SIR)** of electoral rolls by the **Election Commission of India (ECI)** is under scrutiny after former UIDAI chief **Ram Sewak Sharma** questioned its document-heavy approach and warned against potential voter disenfranchisement.

Key Details

- **Risk of Disenfranchisement:** Genuine voters may be excluded due to stringent documentation requirements.
- **Burden on Citizens:** Individuals must prove birth, residence, and citizenship despite gaps in State record-keeping.
- **Underutilisation of Aadhaar:** Existing Digital Public Infrastructure (DPI) is not being fully leveraged for voter verification.
- **Constitutional Concerns:** Electoral roll revision must uphold the fundamental right to vote and principles of inclusiveness.
- **Need for Balanced Reforms:** Electoral integrity should be strengthened without compromising accessibility and fairness.

Need to Balance Electoral Integrity and Inclusion

- The **Government** and the **Election Commission of India (ECI)** should carefully consider concerns raised about the **Special Intensive Revision (SIR)** of electoral rolls.
- **Ram Sewak Sharma**, former founding Director of **UIDAI**, has highlighted several shortcomings in the current exercise.
- While updating voter lists by removing **duplicate and deceased voters** and adding **new eligible voters** is necessary, it should not result in the **wrongful exclusion** of genuine voters.
- Electoral reforms must balance **accuracy** with the **constitutional right to vote**.
- Excessive procedural hurdles risk undermining **inclusive democratic participation**.

Excessive Burden on Citizens

- The current SIR process places the primary burden of proving eligibility on **individual citizens**.
- Voters are required to submit documents proving **birth, residence, and citizenship**.
- This requirement is considered unfair because the **State itself has often failed to maintain reliable records**.
- Genuine voters, especially vulnerable groups, may struggle to produce such documentation.
- Verification systems should minimise inconvenience rather than shift administrative failures onto citizens.

Underutilisation of Aadhaar and Digital Public Infrastructure

- India has already developed a robust **Digital Public Infrastructure (DPI)** through **Aadhaar**.
- Aadhaar contains **verified identity, biometric data, age, and address information**, making it a credible tool for identity verification.
- However, the ECI has chosen **not to recognise Aadhaar as valid address proof** for the SIR.
- This ignores an existing, technologically advanced database created by the State itself.
- As Sharma argues, the SIR is relying on a **document-heavy approach to solve a problem that has largely been addressed through digital infrastructure**.

Constitutional and Democratic Concerns

- Any exercise that may lead to **disenfranchisement** requires the **highest level of constitutional scrutiny**.
- Repeatedly asking citizens to prove their identity and eligibility weakens trust in public institutions.
- A responsible republic should avoid making people repeatedly establish that they belong to the electoral community.
- Electoral processes must uphold both **fairness** and **accessibility**.
- Protecting the **right to vote** is as important as ensuring the integrity of electoral rolls.

Role of Institutions and the Way Forward

- The **Government** and the **ECI** should seriously consider Sharma's recommendations while refining the SIR process.
- The **Supreme Court** should continue to ensure that electoral roll revisions remain **inclusive and constitutionally compliant**.
- Institutions should leverage India's globally recognized **Digital Public Infrastructure** instead of disregarding it.
- Ignoring trusted digital identity systems would undermine years of investment in governance reforms.
- A citizen-centric verification process should combine **technological efficiency**, **administrative fairness**, and **constitutional safeguards**.

Conclusion

A credible electoral roll is essential for free and fair elections, but its preparation must not come at the cost of **excluding eligible voters.** The SIR process should combine constitutional safeguards with technological efficiency, administrative fairness, and citizen-centric verification.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. The right to vote is meaningful only when electoral processes remain accessible and inclusive. Analyze. (10 marks, 150 words)

Due Process Is Not a Waste of Anyone's Time

Why in News: The **Supreme Court**'s remarks on pleas alleging police excess during student protests at **Jantar Mantar** have sparked **debate over judicial responsiveness,** police accountability, and protection of the constitutional right to protest.

Key Details

- **Student protests** continue at **Jantar Mantar** despite government assurances following the **July 20 police crackdown**.
- **CJI Surya Kant's oral remarks** declining immediate intervention drew criticism for appearing insensitive to citizens' concerns.
- Allegations include **excessive police force**, such as **pellet guns, lathi charges, and tear gas** against largely student protesters.
- **Delhi Police Standing Orders 309 and 152** prescribe procedures for dispersing protests, emphasizing restraint and due process.
- The Supreme Court is expected to uphold the **rights of vulnerable citizens** during periods of unrest.
- It should encourage **accountability**, safeguard constitutional freedoms, and promote **peaceful dialogue**.
- Judicial institutions are expected to strengthen public confidence in democratic processes.

Chief Justice's Remarks and Public Perception

- CJI **Surya Kant**, while hearing a plea on alleged police excesses, declined immediate intervention, stating that the Court had no time to examine videos.
- Although these were **oral observations**, they gained widespread attention on social media.
- In the digital age, judicial remarks can quickly shape public opinion, often beyond their original context.

Allegations of Police Excess

- Reports suggest the use of **pellet guns, lathi charges, and tear gas shells** against student protesters.
- Concerns have also been raised about possible violations of established procedures for crowd control.
- These allegations require an impartial examination to determine whether the force used was proportionate.
- The **Supreme Court's 2012 Ramlila Maidan judgment** requires adherence to the **principle of least invasiveness** while maintaining public order.

Continuing Student Protests

- Young protesters continue to gather at **Jantar Mantar** despite the **July 20 police crackdown**.
- Government assurances have failed to ease public concerns or end the demonstrations.
- The protests reflect persistent demands for justice and accountability.

Expected Role of the Supreme Court

Need for Accountability and Legal Compliance

- **Delhi Police Standing Orders 309 and 152** prescribe procedures for dispersing protests.
- The **Supreme Court's 2012 Ramlila Maidan judgment** emphasised adherence to these protocols and the principle of **"least invasiveness."**
- An independent inquiry should examine whether these legal safeguards were followed, particularly given that the protesters were largely students.

Conclusion

A constitutional democracy must protect both **public order** and **fundamental rights.** Allegations of excessive force against peaceful protesters warrant an impartial inquiry to ensure accountability and adherence to legal safeguards.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "The right to peaceful protest is a cornerstone of democracy, but its exercise must be balanced with public order. Discuss in the light of recent debates on police action and judicial accountability." (150 words, 10 marks)

Corruption, Transparency and Accountability in India

Why in News: The debate on corruption and institutional accountability has once again come to the forefront following nationwide protests over the alleged **NEET examination paper leak.**

Introduction

Corruption has been one of the defining governance challenges of independent India. It has influenced elections, destabilized governments, triggered nationwide public movements, and weakened public confidence in democratic institutions. From the **India Against Corruption Movement (2011)** to the recent **NEET examination controversy**, demands for transparency, accountability and institutional integrity continue to shape public discourse.

Over the past two decades, India has introduced several reforms—including the **Right to Information (RTI) Act, digital governance initiatives, Direct Benefit Transfers (DBT), Aadhaar-enabled services, and anti-corruption institutions such as the Lokpal**—to reduce corruption and

improve public service delivery. While these measures have enhanced transparency in several sectors, concerns remain regarding institutional independence, delayed investigations, weak enforcement, and declining access to information.

Understanding Corruption

Corruption refers to the **abuse of public office or entrusted authority for private gain**. It extends far beyond bribery and includes favouritism, embezzlement, abuse of discretionary powers, regulatory capture, procurement irregularities, crony capitalism, and misuse of public resources.

Broadly, corruption in India can be classified into:

- **Petty Corruption:** Everyday bribery for obtaining routine public services such as certificates, licences or welfare benefits.
- **Grand Corruption:** Large-scale misuse of public authority involving high-level political and administrative decisions.
- **Systemic Corruption:** Deep institutional failures where corruption becomes embedded within governance structures.

Has Digitalization Reduced Corruption?

Digital governance has undoubtedly transformed public administration by reducing direct interactions between citizens and officials.

Major Achievements

- Expansion of **Direct Benefit Transfer (DBT)** has reduced leakages in welfare schemes.
- Online applications and e-governance portals have improved transparency in several public services.
- Digital payments have reduced cash-based transactions.
- Computerization of land records and public procurement has improved traceability.

These initiatives have helped curb several forms of petty corruption.

Persistent Challenges

However, digitalization alone cannot eliminate corruption.

Experts argue that technology merely changes the **mode** of corruption unless accompanied by institutional accountability.

Several challenges continue:

- Digital exclusion of poor, rural and marginalized citizens.
- Emergence of private intermediaries charging high fees to access government services.
- Manipulation of digital records.
- Weak grievance redressal mechanisms.
- Lack of accountability when digital systems fail.

Thus, technology remains an important governance tool, but **institutional reform not technology alone is the key to reducing corruption.**

The Right to Information (RTI): India's Transparency Revolution

Enacted in **2005**, the RTI Act transformed governance by granting citizens the legal right to access information held by public authorities.

It is widely regarded as one of the world's strongest transparency laws.

The Act has enabled citizens to:

- expose corruption,
- monitor public expenditure,
- improve delivery of welfare schemes,
- strengthen citizen participation,
- enhance administrative accountability.

India witnesses nearly **six million RTI applications annually**, making it one of the most actively used transparency laws globally.

Several major public controversies—including the **Adarsh Housing Society case, Vyapam scam, and Electoral Bonds litigation**—have relied significantly on information accessed through RTI.

Emerging Concerns Regarding RTI

Despite its achievements, concerns have emerged regarding the gradual weakening of the transparency regime.

Digital Personal Data Protection (DPDP) Act, 2023

Critics argue that amendments introduced through the DPDP Act have expanded the scope for withholding information by strengthening privacy exemptions.

The concern is that:

- greater reliance on "personal information" exemptions,
- broader interpretation of privacy,
- reduced disclosure obligations,

could make accessing information relating to public officials and corruption more difficult.

The challenge before policymakers is to maintain a **careful balance between the Right to Privacy and the Right to Information**, both of which serve important constitutional objectives.

Institutional Challenges in Combating Corruption

India has established multiple institutions to investigate and prevent corruption, including:

- Central Vigilance Commission (CVC)
- Central Bureau of Investigation (CBI)
- Enforcement Directorate (ED)
- Lokpal
- State Lokayuktas
- Vigilance Departments

However, several structural issues continue to limit their effectiveness.

Key Concerns

- Delay in investigations.
- Requirement of prior government sanction in certain cases involving public servants.
- Low conviction rates.
- Judicial delays.
- Vacancies in accountability institutions.
- Questions regarding institutional independence.
- Delays in appointments of Information Commissioners.

Without timely investigation and prosecution, corruption often becomes a **low-risk, high-reward activity**, reducing the deterrent effect of anti-corruption laws.

Judicial Delays and Corruption

Effective anti-corruption enforcement depends heavily upon the speed of the justice delivery system.

Lengthy investigations and prolonged trials weaken public confidence.

Experts argue that:

- corruption cases should be prioritized,
- investigations should be completed within fixed timelines,
- special courts should dispose of corruption cases expeditiously,
- judicial vacancies must be filled promptly.

Timely justice is itself an essential anti-corruption measure.

Weak Institutions or Corruption-Which Comes First?

The relationship between corruption and institutions is circular.

Corruption Weakens Institutions

- reduces public trust,
- encourages political patronage,
- undermines independent oversight,
- discourages honest officials,
- weakens democratic accountability.

Weak Institutions Encourage Corruption

- ineffective investigations,
- delayed justice,
- poor transparency,
- weak enforcement,
- lack of independent oversight.

Therefore, strengthening institutions remains central to combating corruption.

The Human Cost of Corruption

Corruption is not merely an economic issue—it directly affects citizens' quality of life.

It leads to:

- denial of welfare benefits,
- poor healthcare delivery,
- compromised education,
- weakened infrastructure,
- inefficient public spending,
- widening inequality,
- erosion of public trust.

For vulnerable sections of society, corruption often translates into denial of fundamental rights rather than merely financial loss.

Major Reforms Required

A comprehensive anti-corruption strategy should include:

- Strengthening the RTI framework while balancing privacy concerns.
- Establishing an effective **time-bound Grievance Redressal Law**.
- Ensuring transparent appointments to Information Commissions and accountability institutions.
- Strengthening the independence of investigative agencies.
- Fast-tracking corruption cases through special courts.
- Filling judicial and institutional vacancies.
- Expanding digital governance alongside digital inclusion.
- Protecting whistle-blowers and RTI activists.
- Enhancing citizen participation through social audits and public oversight.

Constitutional and Legal Dimensions

The fight against corruption is closely linked to constitutional governance.

- **Article 14:** Equality before law and protection against arbitrariness.
- **Article 19(1)(a):** Freedom of speech and expression, interpreted to include the **Right to Information**.
- **Article 21:** Protection of life and personal liberty through transparent and accountable governance.
- **Directive Principles of State Policy:** Promotion of justice, welfare, and good governance.

- **Lokpal and Lokayuktas Act, 2013**
- **Right to Information Act, 2005**
- **Prevention of Corruption Act, 1988 (as amended)**
- **Whistle Blowers Protection Act, 2014**
- **Digital Personal Data Protection Act, 2023**

Way Forward

India's experience demonstrates that combating corruption requires more than technology, stronger laws, or additional institutions in isolation. Sustainable progress depends upon **transparent governance, independent institutions, effective enforcement, timely justice, active citizen participation, and political commitment**.

Digital governance can reduce opportunities for corruption, but it cannot substitute institutional accountability. Likewise, transparency laws remain effective only when supported by an independent judiciary, impartial investigative agencies, and a responsive administrative system.

As India aspires to become a developed nation, strengthening the rule of law and restoring public confidence in democratic institutions will remain essential pillars of good governance.

Conclusion

Corruption continues to be one of the most significant obstacles to India's developmental aspirations because it weakens institutions, distorts public policy, undermines economic growth, and erodes citizens' trust in democracy.

Election Commission's Discretion in Conducting Bye-Elections

Why in News: The **Election Commission of India (ECI)** has announced **bye-elections to only three vacant Assembly constituencies**—one each in **Bihar, Madhya Pradesh, and Gujarat**—despite several other vacancies existing in Parliament and various State Legislatures.

The decision has reignited a debate over the **Election Commission's discretionary powers** in scheduling bye-elections, with opposition parties questioning both the **speed** of conducting some by-polls and the **delay** in others. The controversy has once again brought attention to the legal framework governing bye-elections under the **Representation of the People Act, 1951 (RPA)** and the judicial principles evolved by the Supreme Court.

Why Are Bye-Elections Necessary?

A **bye-election (bypoll)** is conducted to fill a legislative seat that becomes vacant before the expiry of the House's normal term.

Vacancies may arise due to:

- Death of a sitting member
- Resignation
- Disqualification
- Conviction by a court
- Election to another House
- Any other reason leading to the seat becoming vacant

Bye-elections ensure that citizens continue to have representation in Parliament or State Legislatures throughout the tenure of the House.

Election Commission Announces Polls for Only Three Assembly Seats

The Election Commission recently announced bye-elections for:

- **One Assembly seat in Bihar**
- **One Assembly seat in Madhya Pradesh**
- **One Assembly seat in Gujarat**

However, this decision attracted attention because **at least 14 Assembly seats across various States** and **six Parliamentary seats (three Lok Sabha and three Rajya Sabha)** are currently vacant.

The selective scheduling has prompted questions regarding **how and when the Election Commission decides to hold bye-elections.**

What Does the Law Say?

The conduct of bye-elections is governed by the **Representation of the People Act, 1951 (RPA).**

General Rule

The Act mandates that a bye-election should ordinarily be conducted **within six months** from the date on which a seat becomes vacant.

This provision aims to prevent prolonged vacancies and ensure uninterrupted democratic representation.

However, the law **does not require the Election Commission to conduct the election immediately after the vacancy arises.** Instead, it provides the Commission with the flexibility to choose any suitable date **within the six-month period**.

This discretion enables the Commission to consider administrative preparedness, security arrangements, electoral logistics, and other practical considerations before announcing the election schedule.

Statutory Exceptions to the Six-Month Rule

The Representation of the People Act recognizes situations where conducting a bye-election within six months may not be feasible.

1. Remaining Tenure Less Than One Year

If the remaining term of the concerned House is **less than one year**, the Election Commission is not required to conduct a bye-election.

Conducting an election for a very short tenure may not be administratively or financially justified.

2. Practical Difficulty in Holding Elections

The Election Commission may also postpone a bye-election if, **after consulting the Central Government**, it certifies that conducting the election within six months is difficult due to extraordinary circumstances such as:

- Natural disasters
- Serious law-and-order issues
- Administrative constraints
- Other exceptional situations

Judicially Recognized Third Exception

Apart from the two statutory exceptions, the judiciary has recognised another important circumstance.

If an **election petition challenging the validity of the previous election is pending before a competent court**, the Election Commission generally waits until the matter is resolved before conducting a bye-election.

This judicial principle seeks to avoid conflicting legal outcomes.

If the court later declares another candidate as the validly elected representative, a bye-election conducted in the meantime would become legally unnecessary and administratively wasteful.

Why Has the Recent Decision Become Controversial?

The latest bye-election announcement has triggered criticism from opposition parties on two different grounds.

Allegations of 'Hurry' in Madhya Pradesh

The Congress has objected to the announcement of the bye-election for **Datia Assembly constituency** in Madhya Pradesh.

The seat became vacant after the disqualification of Congress MLA **Rajendra Bharti**, who was convicted in a fraud case.

However, Bharti has challenged his conviction before the **Delhi High Court**, where his appeal remains pending.

The Congress argues that the Election Commission should have waited until the High Court considered his plea before announcing the election.

Legal experts, however, clarify that **the mere pendency of a case does not prevent the Election Commission from announcing a bye-election.**

Unless the Court specifically stays the election process, the Commission remains legally empowered to proceed.

Allegations of 'Delay' in Uttar Pradesh

The Congress has also pointed to the delay in conducting the bye-election for **Milkipur Assembly constituency** in Uttar Pradesh.

The seat became vacant after Samajwadi Party leader **Awadhesh Prasad** was elected to the Lok Sabha.

In this case, however, an **election petition challenging the previous Assembly election** was pending before the Allahabad High Court.

The Election Commission waited until the petition was withdrawn before announcing the bye-election.

This delay was consistent with established judicial principles.

Supreme Court's Interpretation

The legal position was clarified by the **Supreme Court** in **Election Commission of India v. Telangana Rashtra Samithi**.

The Court held that:

A legislative seat cannot ordinarily be treated as vacant for the purpose of conducting a bye-election while the validity of the previous election itself remains under judicial challenge.

The Court reasoned that if the election petition ultimately results in another candidate being declared duly elected, conducting a fresh bye-election beforehand would defeat the very purpose of judicial review.

This interpretation has become an important guiding principle for the Election Commission while scheduling bye-elections.

Balancing Legal Certainty and Democratic Representation

The controversy illustrates the delicate balance that the Election Commission must maintain.

On one hand, democratic principles require vacant constituencies to receive timely representation through bye-elections.

On the other hand, conducting elections prematurely while legal disputes remain unresolved may create constitutional complications and administrative uncertainty.

The Commission therefore exercises discretion within the legal framework while remaining subject to judicial oversight whenever its decisions are challenged.

Conclusion

The recent debate over bye-election scheduling highlights the **complex interplay between electoral administration, statutory provisions, and constitutional principles.** While the Representation **of the People Act, 1951, generally** mandates that bye-elections held within six months of the vacancy, it also provides exceptions where the remainder of the term is less than one year or where holding the election is not feasible.

New Telecom Rules under the Telecommunications Act, 2023

Why in News: The **Union Government** has notified a fresh set of rules under the **Telecommunications Act, 2023,** bringing into force a major part of India's new telecom regulatory framework.

Replacing Colonial-Era Telecom Laws

For over a century, India's telecommunications sector operated under the **Indian Telegraph Act, 1885**, enacted during the colonial period when telegraph wires represented the primary communication technology.

Over time, the law underwent numerous amendments but gradually became inadequate for regulating:

- Mobile communication
- Broadband services
- Internet Service Providers (ISPs)
- Digital communication platforms
- Satellite-based internet
- Emerging communication technologies

The Telecommunications Act, 2023 replaces:

- Indian Telegraph Act, 1885
- Indian Wireless Telegraphy Act, 1933
- Several associated telecom regulations

The new legislation seeks to establish a **single, technology-neutral legal framework** capable of governing present and future communication systems.

Major Change (From Licensing to an Authorisation Regime)

One of the most significant reforms introduced through the new rules is the replacement of the traditional **licensing system** with an **authorisation-based framework**.

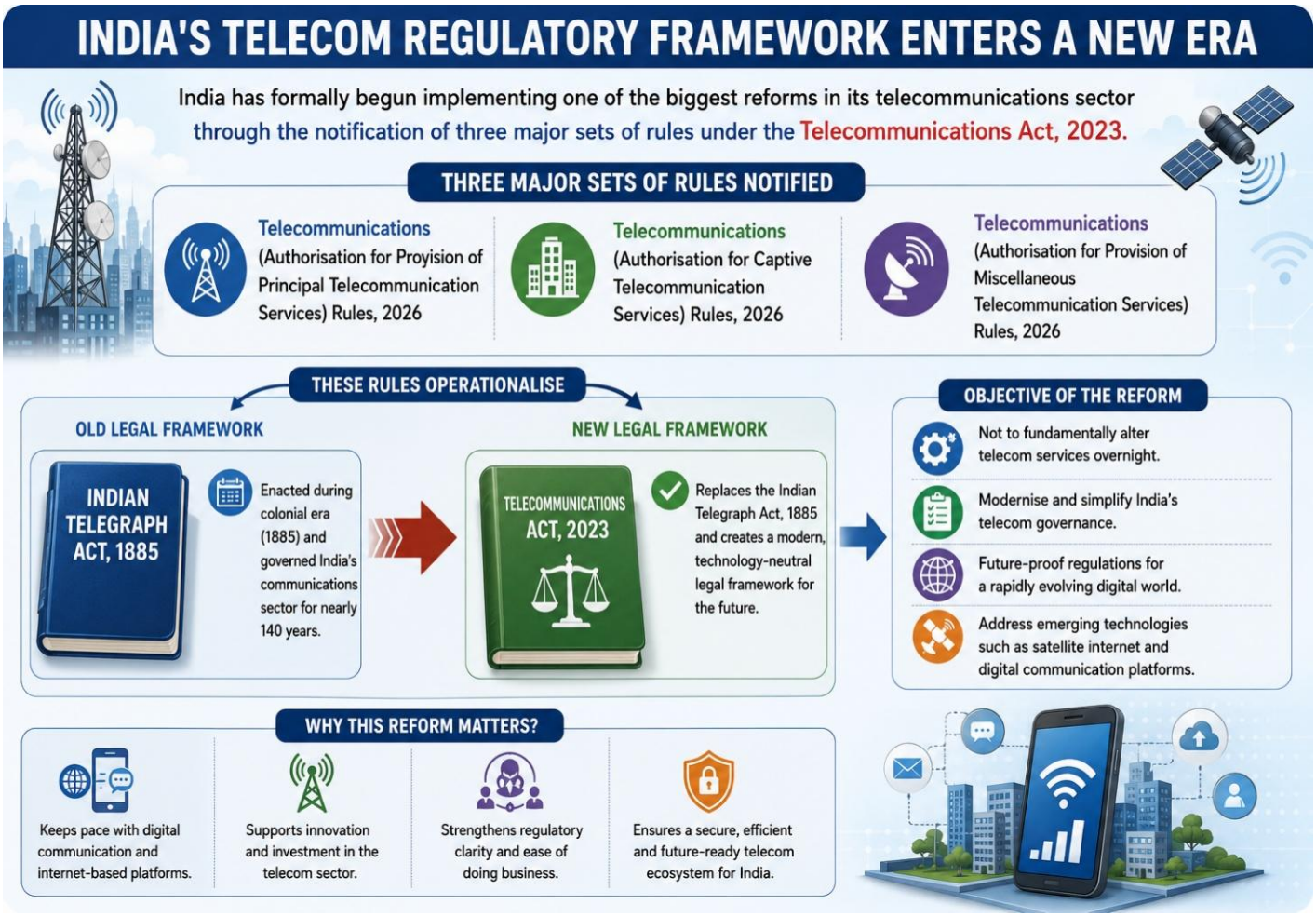
Earlier, telecom companies and Internet Service Providers operated under numerous licences containing complex procedural requirements.

Under the new framework:

- Licences are replaced by **authorisations**.
- Documentation requirements have been simplified.
- Compliance procedures have been rationalised.
- Administrative processes are expected to become faster and more transparent.

The change aims to reduce regulatory burden while improving ease of doing business in India's rapidly expanding digital economy.

Importantly, telecom companies are **not required to shift immediately** to the new framework. Existing operators may continue under their current licences until expiry or voluntarily migrate to the new authorisation regime.



What Changes for Telecom Operators and Consumers?

For consumers, the immediate impact is expected to be minimal.

The reforms primarily affect:

- Telecom Service Providers (TSPs)
- Internet Service Providers (ISPs)
- Infrastructure providers
- Enterprise communication networks

Operational telecom services, tariffs, and consumer access remain largely unchanged.

However, behind the scenes, operators will gradually transition towards a simplified compliance architecture with revised regulatory obligations.

Expanded Regulatory Powers of the Government

While simplifying regulations, the Telecommunications Act also expands certain powers of the Union Government.

1. Broader Definition of "Telecommunication"

The Act introduces a much wider definition of **telecommunication**, potentially extending regulatory oversight beyond conventional telecom operators.

The broader definition creates the legal basis for regulating certain internet-based communication platforms, including messaging applications.

This provision has attracted significant public attention because it raises questions regarding the future regulation of Over-the-Top (OTT) communication services.

2. Anti-Spam Obligations

The newly notified rules make **anti-spam enforcement** a statutory responsibility of authorised telecom service providers.

Telecom operators will now be expected to strengthen systems that curb:

- Unsolicited commercial communications
- Fraudulent calls
- Spam messages
- Telecom-based cyber fraud

This reflects the government's growing emphasis on improving digital trust and consumer protection.

Important Provisions Already Brought into Force

Implementation of the Telecommunications Act began well before the latest rules were notified.

Several key provisions have already become operational.

Digital Bharat Nidhi

The long-standing **Universal Service Obligation Fund (USOF)** has been renamed as the **Digital Bharat Nidhi**.

This fund continues to finance telecom infrastructure in remote, rural, and commercially unviable regions to bridge India's digital divide.

National Security Powers

The Act empowers the government to temporarily take control of telecom infrastructure during situations involving:

- National security
- Public emergency
- War

This provision provides a statutory basis for emergency control over critical communication infrastructure.

Interception Framework

The Act also replaces the earlier interception provisions.

Despite suggestions from industry stakeholders and civil society groups seeking stronger safeguards, the government

has retained powers allowing authorised senior officials to issue interception orders relating to phone calls and internet communications under prescribed circumstances.

Satellite Internet

One of the most anticipated features of the Telecommunications Act was the recognition of **satellite communication services**.

However, the latest rules have not provided complete operational clarity.

Earlier draft rules explicitly referred to **Global Mobile Personal Communications by Satellite (GMPCS)**.

These references have been omitted from the final rules.

Consequently, regulatory uncertainty continues regarding satellite internet services, including the operational framework for companies seeking to provide such services in India.

The issue has gained attention because several global satellite internet providers continue to await regulatory approvals before launching commercial operations in the country.

Implementation Challenges Remain

Although the legal framework has now been substantially notified, many operational details remain pending.

Several aspects still require clarification through future guidelines, including:

- Technical specifications
- Eligibility criteria for authorisation
- Standards for assessing "sound track record"
- Exemption thresholds
- Operational compliance procedures
- Satellite communication regulations

Until these details are notified, the complete implementation of the new telecom regime will remain a work in progress.

Significance of the Reform

The Telecommunications Act, 2023 represents far more than a routine legal amendment.

It reflects India's attempt to build a **future-ready regulatory framework** capable of governing:

- Digital communication networks
- Internet infrastructure
- Next-generation telecom services
- Emerging technologies such as satellite broadband
- Evolving cybersecurity and anti-spam requirements

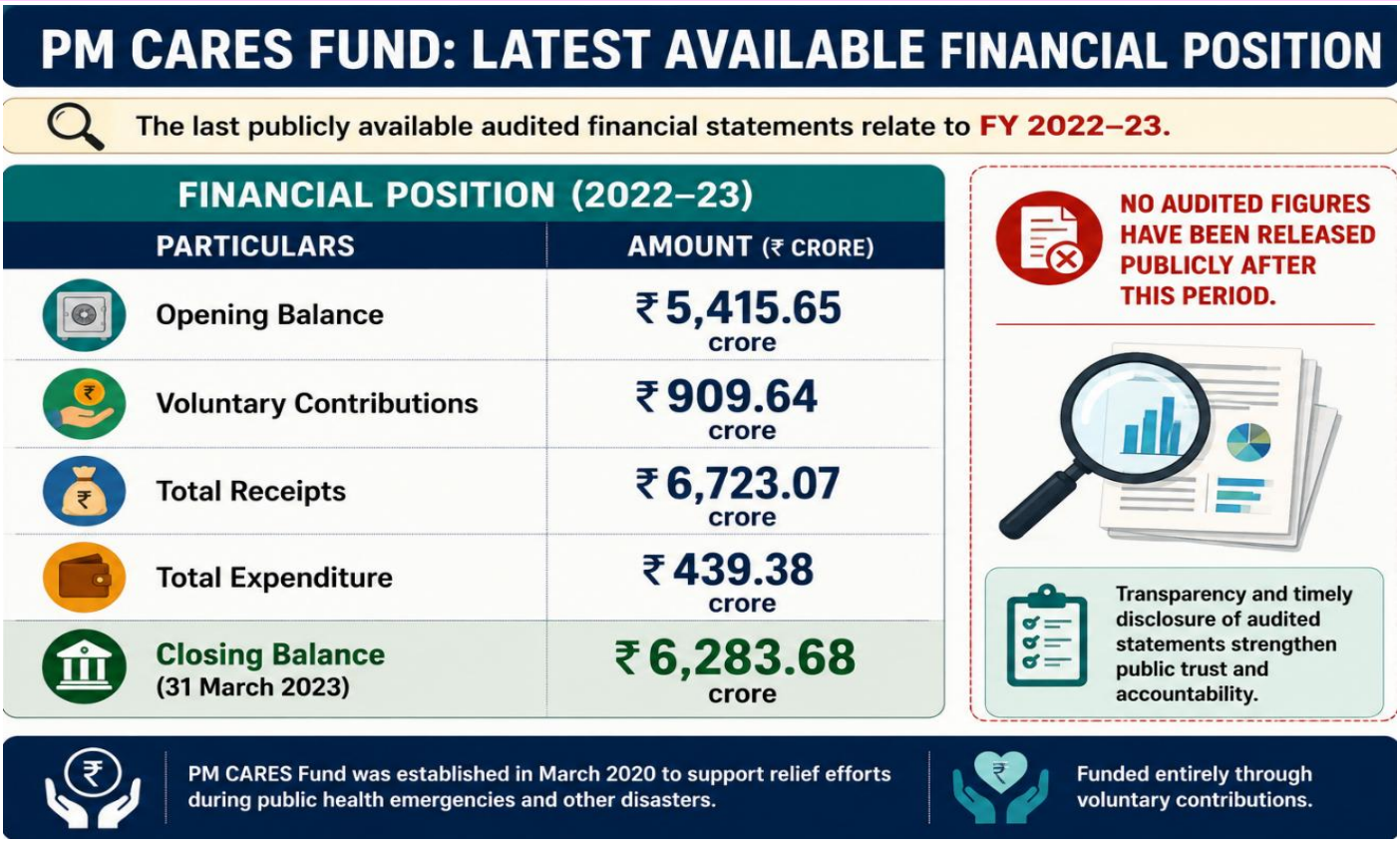
By replacing colonial-era legislation with a modern technology-neutral framework, the Act aims to improve regulatory efficiency while supporting India's digital transformation.

Conclusion

The notification of the new telecom rules marks a significant milestone in India's transition towards a modern, digitally driven telecommunications ecosystem. While the shift from a licence-based to an authorisation-basedauthorisation-based system, the success of the reform will depend on clear rules, effective implementation, and a balance between ease of doing business, innovation, and regulatory oversight.

PM CARES Fund and the Debate on Transparency

Why in News: The **Prime Minister's Citizen Assistance and Relief in Emergency Situations (PM CARES) Fund** has once again come under public scrutiny after it emerged that **no audited financial statements have been made publicly available for the last three financial years (2023–24, 2024–25 and...**



Background

The **PM CARES Fund** was established in **March 2020** during the COVID-19 pandemic as a **public charitable trust** to provide financial assistance during public health emergencies and other disaster situations.

According to the Government of India:

- The Fund is registered under the **Registration Act, 1908**.
- It is financed **entirely through voluntary contributions**.
- It receives **no budgetary support** from the Consolidated Fund of India.
- The **Prime Minister** serves as its **ex officio Chairperson**, while the **Union Ministers of Defence, Home Affairs, and Finance** serve as **ex officio trustees**.

Since its establishment, the Fund has primarily financed India's **COVID-19 response**, emergency healthcare infrastructure, procurement of medical equipment, and disaster relief initiatives.

Why Has the PM CARES Fund Become a Matter of Debate?

The controversy centres on the **absence of publicly available audited financial statements** after the financial year **2022–23**.

While audited accounts for:

- 2019–20,
- 2020–21,
- 2021–22, and
- 2022–23

remain available on the official PM CARES website, **no audit reports for the subsequent three financial years have been published**.

This has led transparency advocates to question whether sufficient public disclosure is being maintained for a fund that has received substantial public donations and enjoys multiple statutory privileges.

Concerns Raised Regarding Transparency

Transparency activists argue that the absence of updated financial statements raises important questions about public accountability.

According to **Anjali Bhardwaj**, Co-convener of the **National Campaign for People's Right to Information (NCPRI)**:

- The Fund was publicly presented as a national relief mechanism during the COVID-19 emergency.
- Government employees voluntarily contributed from their salaries.
- Citizens, corporations, and institutions donated substantial amounts in response to government appeals.

Given this public character, she argues that regular disclosure of audited accounts is essential to maintain public confidence.

Status Under the Right to Information (RTI) Act

One of the principal issues surrounding the PM CARES Fund concerns its legal status under the **Right to Information Act, 2005**.

The Government has consistently maintained that:

- PM CARES is **not a "public authority"** under the RTI Act.
- Consequently, it is **not obligated to disclose information** under the provisions of the RTI Act.

According to transparency advocates, this position means that the Fund presently remains outside:

- RTI-based information disclosure,
- Parliamentary scrutiny, and
- Audit by the **Comptroller and Auditor General (CAG)**.

Critics argue that this limits public oversight over the functioning of the Fund.

Government's Position

The Union Government has consistently maintained that PM CARES is a **public charitable trust** funded exclusively through **voluntary donations** and not through public finances.

According to the Government:

- It receives **no allocation from the Union Budget**.
- Donations are made voluntarily by individuals and organisations.
- The Trust functions according to its registered trust deed.

The Government has therefore maintained that the legal framework applicable to PM CARES differs from that governing government departments and statutory bodies.

Special Statutory Benefits Available to PM CARES

The PM CARES Fund enjoys several statutory incentives intended to encourage contributions.

1. Income Tax Benefits

Donations qualify for **100% deduction under Section 80G of the Income Tax Act, 1961.**

2. Corporate Social Responsibility (CSR)

Contributions made by companies qualify as **Corporate Social Responsibility (CSR) expenditure** under the **Companies Act, 2013**.

3. Foreign Contributions

The Fund has been granted exemption under the **Foreign Contribution (Regulation) Act (FCRA)**, enabling it to receive donations from foreign individuals and organisations through a designated account.

Importance of Transparency in Public Trusts

Transparency in institutions handling public donations serves several important objectives:

- Enhances public confidence.
- Strengthens accountability.
- Facilitates informed public oversight.
- Reduces the possibility of misuse or perceived conflicts of interest.
- Promotes better governance through periodic disclosure.

Regular publication of audited financial statements is generally regarded as an important element of institutional transparency.

Broader Governance Debate

The discussion surrounding PM CARES reflects a broader debate in public administration regarding the balance between:

- operational flexibility during emergencies, and
- institutional accountability through public disclosure.

While emergency relief funds often require quick decision-making, transparency advocates argue that periodic publication of audited accounts remains essential for sustaining public trust in such institutions.

Conclusion

The PM CARES Fund has played an important role in supporting India's emergency response, particularly during the COVID-19 pandemic. However, the absence of publicly available audited financial statements for thelast three financial years raises concerns about transparency and public accountability. A balance between operational flexibility during emergencies and periodic disclosure of audited accounts is essential to sustain public trust.

Prevention of Insults to National Honour (Amendment) Act, 2026

Why in News: Parliament has passed the **Prevention of Insults to National Honour (Amendment) Bill, 2026**, extending statutory protection under the **Prevention of Insults to National Honour Act, 1971** to **Vande Mataram**, India's National Song.

The development is significant because it brings the National Song within the same statutory protection that already exists for the National Anthem against deliberate obstruction or disturbance during its singing.

What does the Amendment do?

The amendment changes **Section 3 of the Prevention of Insults to National Honour Act, 1971**.

Under the amended provision, a person commits an offence if he or she **intentionally**:

- prevents the singing of the **National Anthem or the National Song**; or
- causes a disturbance to an assembly engaged in singing either of them.

The key point is that the law does **not simply criminalise every instance of criticism or expression concerning Vande Mataram**. The specific conduct covered by Section 3 is the **intentional prevention of singing or deliberate disturbance of an assembly engaged in singing** the National Song or National Anthem. This distinction is important while interpreting the scope of the amendment.

What is the punishment?

The punishment under the amended Section 3 remains the same as that applicable to the National Anthem:

Imprisonment up to three years, or fine, or both.

- Further, **Section 3A** of the 1971 Act provides an enhanced punishment for repeat offenders. A **second and subsequent conviction** for an offence under the relevant provisions attracts a **minimum imprisonment of one year**. This enhanced penalty now applies to repeat offences involving deliberate disruption of the singing of Vande Mataram as well.
- **The legal background (Prevention of Insults to National Honour Act, 1971)**
- The 1971 Act provides statutory protection to key symbols of the Indian Republic.

Section 2 — National Flag and Constitution

- It deals with acts of insult to or disrespect for the **Indian National Flag and the Constitution**. Acts such as burning, mutilating, defacing, destroying, trampling upon or otherwise showing disrespect in a public place can attract imprisonment of up to three years, a fine, or both.
- The law also recognises an important democratic safeguard: **legitimate criticism aimed at securing lawful amendment or alteration of the Constitution, the National Flag or government measures does not by itself constitute an offence under Section 2.**

Section 3 — National Anthem and National Song

- Before the 2026 amendment, Section 3 specifically protected the **National Anthem, Jana Gana Mana**, by penalising intentional prevention of its singing or disturbance to an assembly engaged in singing it.
- The 2026 amendment expands this provision to include **Vande Mataram**.
- The government's rationale is rooted in the **historical and constitutional significance of Vande Mataram**. The Statement of Objects and Reasons notes that the 1971 law provided statutory protection to the **National Anthem**, but no corresponding provision existed for the **National Song**. The amendment therefore seeks to **remove this legal distinction** and provide similar statutory protection to Vande Mataram.
- The government has also invoked the proceedings of the Constituent Assembly on January 24, 1950. On that occasion, Dr. Rajendra Prasad highlighted the historic contribution of Vande Mataram to India's freedom struggle and stated that it should be honoured equally with Jana Gana Mana.
- Thus, the legislative argument rests on two ideas: historical recognition of Vande Mataram and uniform statutory protection for the National Anthem and National Song against deliberate disruption.

Vande Mataram (From a Song to a National Symbol)

- The significance of Vande Mataram extends far beyond its legal status.
- Composed by Bankim Chandra Chatterjee, the song was first published in the literary journal Bangadarshan in 1875 and was later incorporated into his novel Anandamath in 1882. Rabindranath Tagore is recorded as having sung it at the 1896 session of the Indian National Congress in Calcutta.
- During the freedom struggle, Vande Mataram became a powerful expression of anti-colonial mobilisation. It was used prominently during the Swadeshi Movement, including as a political slogan in 1905.
- The song therefore occupies a distinctive place in India's national movement: it was not merely a literary composition but also became a symbol around which political resistance and patriotic mobilisation developed.
- The larger constitutional and governance debate
- The amendment raises an important issue for understanding the relationship between national symbols, individual liberty and the coercive power of the State.
- A democracy may legitimately protect symbols that embody its constitutional identity. At the same time, whenever criminal law is used to regulate conduct

connected with patriotism and national identity, the scope and precision of the offence become crucial.

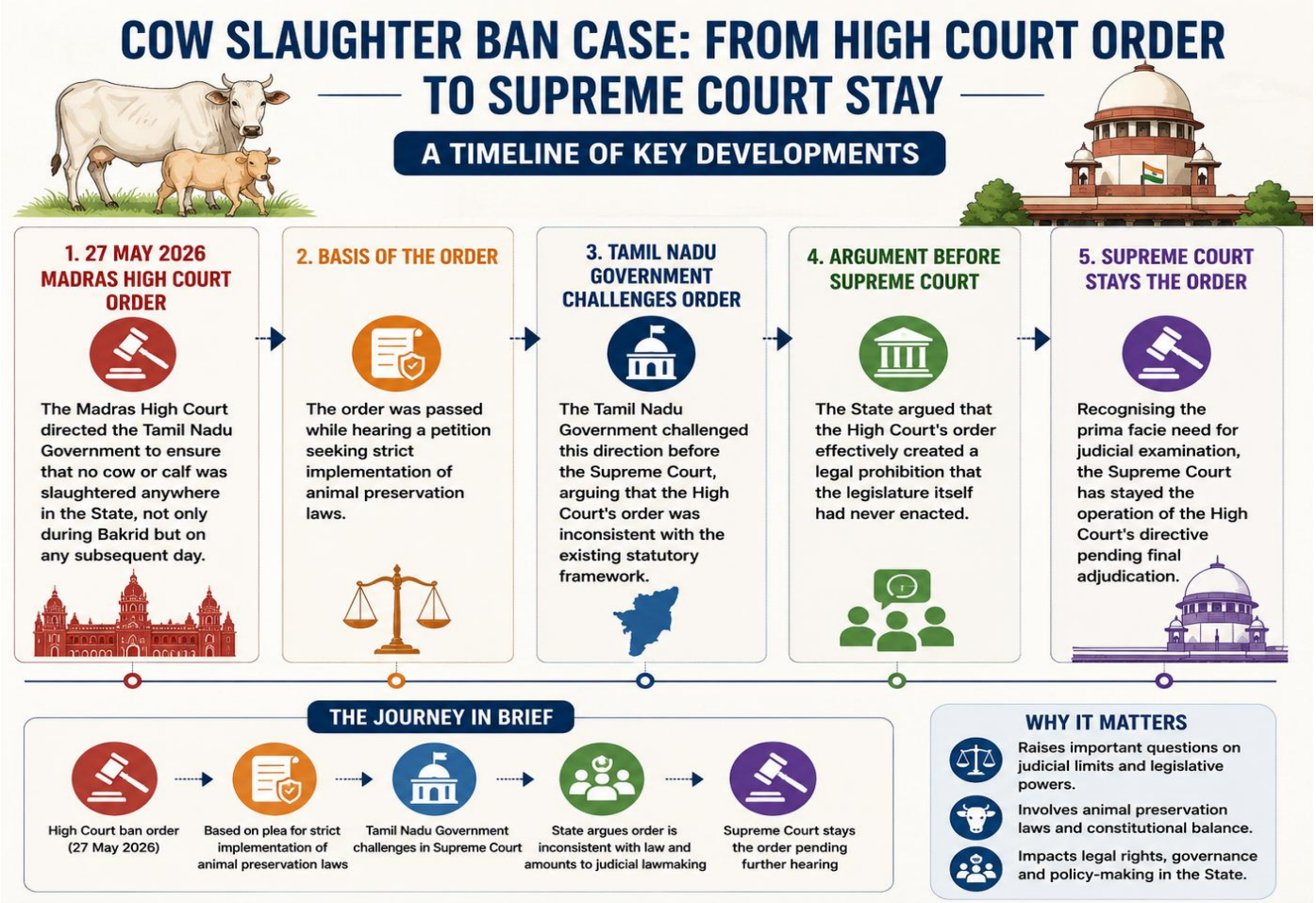
- The 2026 amendment is relatively specific in its wording. It targets the intentional prevention of singing or disturbance of an assembly engaged in singing. Therefore, its practical significance lies less in creating a general offence of "disrespect" and more in extending an existing statutory prohibition from the National Anthem to the National Song.
- This distinction matters for constitutional analysis because legitimate dissent, criticism and disagreement are essential features of democratic governance, while deliberate disruption of a public assembly is a different category of conduct. How authorities interpret and enforce the amended provision will determine the balance between these competing concerns.

Conclusion

The Prevention of Insults to National Honour (Amendment) Act, 2026 marks an important change in India's statutory framework governing national symbols by extending the legal protection available to the National Anthem to Vande Mataram.

SC stays Madras HC order banning cow slaughter

Why in News: The **Supreme Court of India** has stayed a **Madras High Court order** that had directed the Tamil Nadu **Government** to impose a **Statewide prohibition on the slaughter of cows and calves.**



What Did the Supreme Court Decide?

A Bench comprising **Justice Vikram Nath** and **Justice Sandeep Mehta**:

- Stayed the Madras High Court's direction imposing a **complete ban** on cow slaughter.
- Issued notice on the Tamil Nadu Government's appeal.
- Observed that the High Court's order **required prima facie correction**.
- Clarified that the legality of the issue will be examined in greater detail during further hearings.

The stay means that **Tamil Nadu's existing statutory framework continues to remain operative** until the Supreme Court delivers its final judgment.

Tamil Nadu Government's Arguments

The State Government contended that the High Court's order exceeded judicial authority and conflicted with the legislative scheme already governing animal slaughter.

Key Arguments

1. Contrary to the Tamil Nadu Animal Preservation Act, 1958

The **Tamil Nadu Animal Preservation Act, 1958** does **not impose an absolute prohibition** on cow slaughter.

Instead, it permits slaughter under specified conditions.

A cow may be slaughtered if:

- it is **more than 10 years old**, and
- a competent authority certifies that it is **permanently unfit for breeding or agricultural work.**

Thus, the legislation adopts a **regulated approach rather than a blanket ban**.

2. Existing Laws Already Regulate Slaughter

The Government argued that multiple statutes already govern slaughter practices.

These include:

- **Prevention of Cruelty to Animals Act, 1960**
- **Prevention of Cruelty to Animals (Slaughter House) Rules, 2001**
- **Tamil Nadu Urban Local Bodies Act, 1998**
- **Tamil Nadu Urban Local Bodies Rules, 2023**

These laws regulate:

- licensing of slaughterhouses,
- hygiene standards,
- humane treatment of animals,
- designated slaughter locations,
- public health requirements.

None of them prohibit slaughter altogether.

3. Judicial Lawmaking

Tamil Nadu further argued that the High Court's direction amounted to **judicial lawmaking**.

According to the State:

- Courts are responsible for interpreting laws.
- Legislatures are responsible for making laws.

Since the Legislature deliberately allowed regulated slaughter under certain circumstances, directing a complete prohibition effectively created **new law**, exceeding judicial functions.

4. Internal Contradiction in the High Court Order

The Government also pointed out an apparent inconsistency.

The High Court had acknowledged that:

- slaughter could legally occur only in **licensed slaughterhouses** or officially notified places.

However, it simultaneously directed a **complete prohibition**, making the earlier observation practically redundant.

State Government's Existing Position

Tamil Nadu informed the Supreme Court that it has consistently enforced laws preventing:

- slaughter in public places,
- illegal animal sacrifice,
- unhygienic slaughter practices.

The Government reiterated that:

- any permissible slaughter must occur only in **authorised enclosed premises**,
- away from public view,
- and strictly in accordance with statutory provisions.

Legal Issues Involved

The dispute raises several important constitutional and legal questions.

Scope of Judicial Review

Can courts issue directions that effectively alter the legislative policy already laid down by Parliament or the State Legislature?

Separation of Powers

The case highlights the constitutional balance between:

- Legislature (law-making)
- Executive (law implementation)
- Judiciary (law interpretation)

The Supreme Court's final decision may clarify the limits of judicial intervention in policy matters.

Animal Preservation vs Statutory Regulation

The case also examines whether animal preservation should be achieved through:

- complete prohibition, or
- regulated slaughter under statutory safeguards.

Constitutional Perspective

The issue intersects with several constitutional provisions.

Article 48 (Directive Principles of State Policy)

Directs the State to organise agriculture and animal husbandry on modern lines and prohibit slaughter of cows, calves, and other milch and draught cattle.

However, Directive Principles are **not directly enforceable** and must operate within the framework of enacted legislation.

Article 19(1)(g)

Protects the right to practise any profession or carry on any occupation, trade, or business, subject to reasonable restrictions.

Article 25

Guarantees freedom of religion while making it subject to public order, morality, health, and other provisions of the Constitution.

Significance of the Case

The Supreme Court's eventual judgment is likely to have implications beyond Tamil Nadu.

It may clarify:

- the extent of judicial powers in issuing policy directions,
- interpretation of State animal preservation laws,
- relationship between Directive Principles and statutory legislation,
- constitutional balance between legislative policy and judicial review.

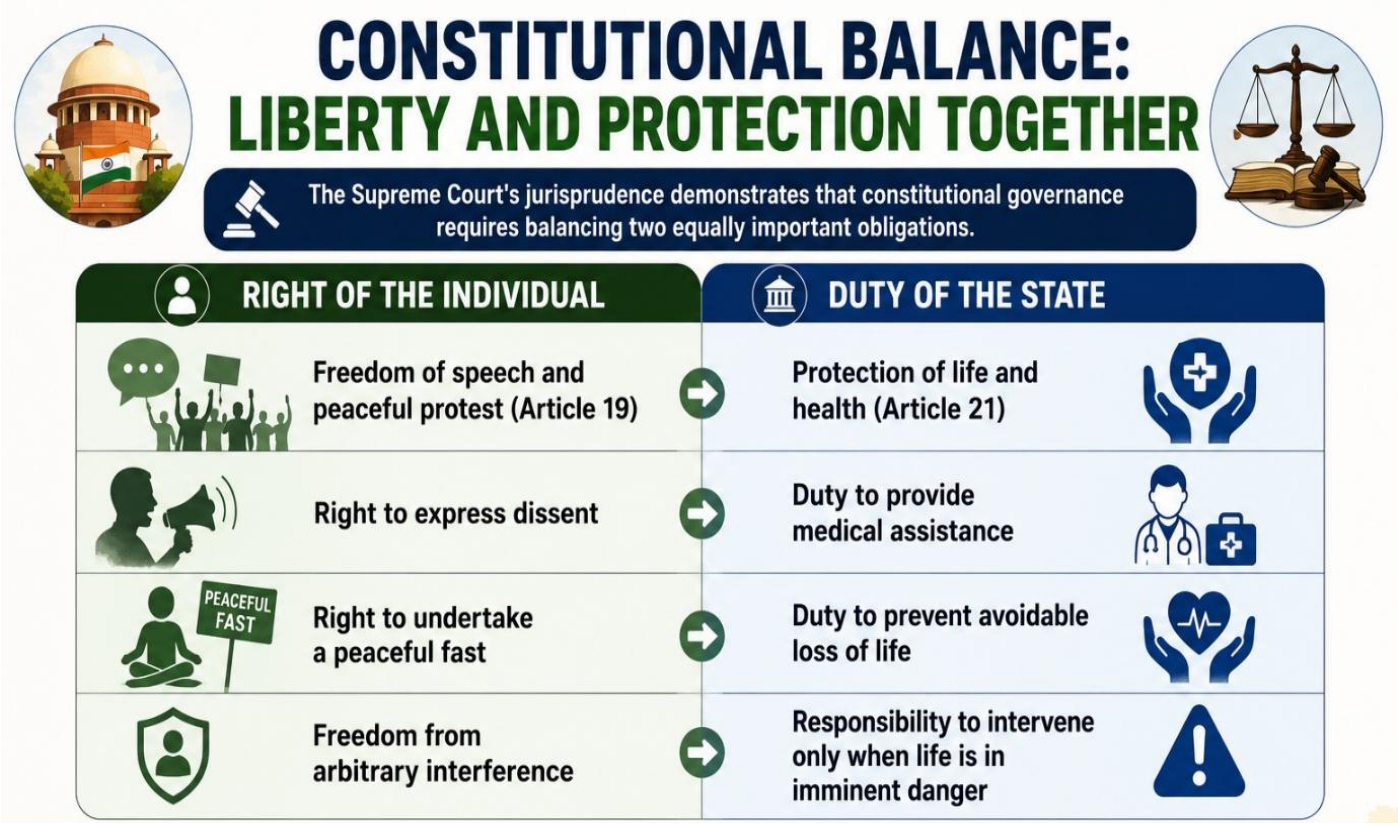
The judgment could also serve as an important precedent in future disputes concerning animal preservation laws across different States.

Conclusion

The Supreme Court's interim stay does not decide the legality of cow slaughter in Tamil Nadu; rather, it restores the operation of the **existing statutory framework** until the matter is finally adjudicated.

Supreme Court on Hunger Strikes

Why in News: The issue has gained renewed attention as **climate activist Sonam Wangchuk** continues his indefinite hunger strike at **Jantar Mantar,** prompting concerns over his deteriorating health.



Supreme Court's Constitutional Approach to Hunger Strikes

The Supreme Court has consistently recognised that **a hunger strike is a legitimate democratic form of peaceful protest**. At the same time, it has held that the State cannot remain a passive spectator when the life of a fasting individual comes under serious threat.

Rather than treating these two principles as conflicting, the Court has attempted to harmonise them by protecting **both the right to dissent and the right to life**.

Right to Protest through Hunger Strike

The Supreme Court has repeatedly affirmed that hunger strikes occupy a legitimate place in India's constitutional democracy.

The Court has observed that:

- Hunger strikes are **not unconstitutional**.
- No law in India prohibits a peaceful hunger strike.
- It represents a recognised form of political expression rooted in India's democratic traditions and freedom movement.

Therefore, a peaceful fast falls within the broader ambit of:

- **Article 19(1)(a): Freedom of Speech and Expression**
- **Article 19(1)(b): Right to Assemble Peacefully**

The Court has clarified that such protests cannot be curtailed merely because they inconvenience the government or express political disagreement.

State's Duty to Protect Life

While recognising the right to protest, the Court has simultaneously emphasised that **Article 21 imposes a positive obligation on the State to protect every citizen's life**.

This creates what constitutional scholars describe as the **State's paternalistic duty of care**.

The government cannot simply ignore a protester whose health is rapidly deteriorating.

Instead, it must:

- Continuously monitor the protester's medical condition.
- Ensure immediate access to healthcare.
- Prevent irreversible harm.
- Attempt dialogue and peaceful engagement.
- Respect the protester's autonomy unless medical intervention becomes absolutely necessary to save life.

Thus, the State must act **without criminalising the protest or suppressing dissent.**

Jagjit Singh Dallewal Case (2024)

The Supreme Court elaborated this principle while hearing petitions concerning **Punjab farmer leader Jagjit Singh Dallewal**, who had undertaken a prolonged hunger strike during the farmers' agitation.

At the time of hearing:

- Mr. Dallewal was over seventy years old.
- His fast had crossed twenty days.
- Serious concerns arose regarding his deteriorating health.

A Bench headed by **Justice Surya Kant** (now Chief Justice of India) held that both the **Union Government and the Punjab Government** bore a constitutional responsibility to safeguard his life.

The Court directed that:

- Immediate and adequate medical assistance must be provided.
- His health should be regularly monitored.

- Authorities should avoid compelling him to end the fast unless such intervention became absolutely essential to prevent loss of life.

The Court clearly stated that **preserving life and respecting dissent are not mutually exclusive constitutional obligations.**

Ramlila Maidan Judgment

The Supreme Court further elaborated its approach in **In Re: Ramlila Maidan Incident**.

The judgment examined the events surrounding **Baba Ramdev's anti-corruption movement in 2011**.

The Court recorded that before the hunger strike began:

- Prime Minister **Dr. Manmohan Singh** personally wrote to Baba Ramdev requesting him to reconsider his decision.
- Four senior Union Ministers met him at the airport upon his arrival in Delhi.
- The Government attempted negotiation before resorting to any coercive measures.

The Supreme Court appreciated these efforts and emphasised that **governments should first engage with peaceful protesters through dialogue rather than confrontation.**

The judgment reinforced the democratic principle that **communication is preferable to coercion.**

Limits on State Intervention

The Court has also laid down important safeguards regarding governmental interference with peaceful protests.

The executive cannot prohibit or disperse a hunger strike merely because:

- it criticises government policies,
- causes political embarrassment, or
- attracts widespread public attention.

Restrictions are constitutionally permissible only when there exists a genuine and imminent threat to:

- public order,
- communal harmony,
- national security, or
- public tranquillity.

This interpretation flows from the reasonable restrictions permitted under **Article 19(2).**

Constitutional Significance

The issue raises several important constitutional principles:

- **Article 19(1)(a):** Freedom of Speech and Expression.
- **Article 19(1)(b):** Right to Peaceful Assembly.
- **Article 21:** Right to Life and Personal Liberty.
- **Doctrine of Proportionality:** Any restriction on protest must be necessary, reasonable, and proportionate.
- **Rule of Law:** Executive action must remain consistent with constitutional guarantees.

Contemporary Relevance

The ongoing hunger strike by **Sonam Wangchuk** has once again highlighted the practical challenges of implementing these constitutional principles.

The judiciary has repeatedly maintained that governments cannot ignore prolonged hunger strikes simply because they involve political demands. At the same time, constitutional authorities must avoid excessive coercion that undermines democratic freedoms.

The challenge lies in ensuring that **public order, democratic dissent, and the protection of human life coexist within the constitutional framework.**

Conclusion

The Supreme Court's jurisprudence on hunger strikes reflects the mature philosophy of India's constitutional democracy. It recognises that peaceful fasting is a legitimate form of democratic dissent, deeply rooted inIndia's tradition of peaceful protest and constitutional freedoms. The challenge lies in ensuring that public order, democratic dissent, and the protection of human life coexist within the constitutional framework.

21st East Asia Summit

Why in News: At the **21st East Asia Summit (EAS)** held in **Manila, Philippines,** External Affairs Minister Dr. Jaishankar

India Reiterates Commitment to Maritime Security and Regional Stability

- At the East Asia Summit, India stressed that **international maritime routes are the lifelines of global trade and economic stability** and must remain **safe, open, and free from disruption**.
- Referring to the evolving security situation in **West Asia and the Persian Gulf**, Dr. Jaishankar emphasised that disputes should be resolved through **dialogue and diplomacy**, warning that attacks on merchant vessels, civilian shipping, or critical maritime infrastructure threaten global commerce and violate international law.
- He observed that the current international environment has become increasingly **uncertain, volatile, and strategically complex**, making multilateral cooperation more important than ever.

India's Indo-Pacific Vision

India reaffirmed its long-standing support for a **rules-based Indo-Pacific order**, founded on:

- Freedom of navigation and overflight.
- Respect for sovereignty and territorial integrity.
- Peaceful settlement of disputes.
- Compliance with international law, particularly the **United Nations Convention on the Law of the Sea (UNCLOS), 1982**.
- ASEAN Centrality in regional security architecture.

Highlighting India's active regional engagement, Dr. Jaishankar announced that India will host:

- **The 7th East Asia Summit Conference on Maritime Security Cooperation** in **Kochi**.
- **The East Asia Summit Maritime Heritage Festival** in **Lothal, Gujarat**, showcasing India's ancient maritime civilisation and cultural linkages with Southeast Asia.

These initiatives reinforce India's vision of combining **maritime security with cultural diplomacy**.

India's Position on the South China Sea

India reiterated its support for the early conclusion of a **substantive, effective, and legally binding Code of Conduct (CoC)** for the South China Sea.

India maintained that the Code of Conduct should:

- Fully comply with **UNCLOS 1982**.

- Protect the legitimate rights of all users of international waterways.
- Promote peace, stability, and freedom of navigation.
- Avoid prejudicing the lawful rights of any stakeholder.

India also reaffirmed support for:

- ASEAN Centrality.
- A free, open, inclusive, and prosperous Indo-Pacific.
- Peaceful resolution of maritime disputes.

India Calls for Political Solution in Myanmar

On the ongoing crisis in Myanmar, India reiterated support for **ASEAN-led diplomatic efforts**.

India emphasised that:

- The conflict should be resolved through **political dialogue**.
- Peace and stability in Myanmar are essential for regional security.
- Inclusive political engagement remains the most sustainable path toward national reconciliation.

India's position reflects its broader policy of encouraging peaceful settlement while supporting ASEAN's Five-Point Consensus.

Strong Message Against Terrorism and Cybercrime

At both the **East Asia Summit** and the **ASEAN Regional Forum (ARF)**, India reiterated its **zero-tolerance policy towards terrorism**.

Dr. Jaishankar emphasised that:

- Terrorism cannot be justified under any circumstances.
- Terrorist acts must carry clear consequences.
- Countries should strengthen international cooperation against cross-border terrorism.
- Collective action is urgently needed to dismantle **cyber scam centres**, which have emerged as a growing transnational security challenge across Southeast Asia.

India Reaffirms Support for the Two-State Solution

On the Israel–Palestine issue, India reiterated its consistent diplomatic position that:

- Dialogue and diplomacy remain the only sustainable path.
- A **two-state solution** is essential for achieving lasting and durable peace.
- Regional stability can only emerge through peaceful negotiations.

India Responds to Pakistan's Remarks

On the sidelines of the ASEAN meetings, Pakistan raised issues relating to **Jammu & Kashmir** and the **Indus Waters Treaty**.

Responding firmly, the Ministry of External Affairs rejected Pakistan's statements, asserting that:

- Multilateral forums should not be misused for political propaganda.
- Pakistan continues to spread misinformation and state-sponsored disinformation.
- Cross-border terrorism remains the principal obstacle to regional peace.

India maintained its consistent position that bilateral issues cannot be internationalised through multilateral platforms.

Significance of India's Participation

India's participation in the East Asia Summit highlights several strategic priorities:

- Strengthening the **Act East Policy**.
- Advancing the vision of a **free, open, inclusive, and rules-based Indo-Pacific**.
- Enhancing maritime cooperation with ASEAN partners.
- Promoting adherence to international maritime law.
- Reinforcing India's role as a responsible stakeholder in regional security.
- Expanding cooperation on cybersecurity, counter-terrorism, and disaster resilience.

Conclusion

India's interventions at the **21st East Asia Summit** reaffirm its commitment to **multilateralism, maritime security, international law, and peaceful conflict resolution.** By advocating freedom of navigation, supporting ASEAN-led regional architectureASEAN-led regional architecture, and supporting a free, open, inclusive, and rules-based Indo-Pacific, India seeks to strengthen regional stability through constructive multilateral engagement.

Steady in turbulence

Why in News: **Prime Minister Narendra Modi**'s visits to **Australia** and **New Zealand** strengthened India's strategic partnerships in the **Indo-Pacific**, focusing on defence, maritime security, trade, critical minerals, and resilient supply chains.

Key Details

- **Strategic Outreach:** Prime Minister Narendra Modi visited **Australia** and **New Zealand** to deepen India's strategic engagement in the **Indo-Pacific** under the **Act East Policy** and **MAHASAGAR** vision.
- **India–Australia Cooperation:** Both countries adopted a **Joint Declaration on Defence and Security Cooperation**, enhanced military interoperability, launched an **Annual Defence Ministers' Dialogue**, unveiled a **Maritime Security Collaboration Roadmap**, and expanded cooperation on **cybersecurity**, **critical minerals**, and **uranium exports** for India's civilian nuclear programme.
- **India–New Zealand Partnership:** Bilateral ties were elevated to a **Formal Strategic Partnership**, supported by a **four-year cooperation roadmap**, maritime cooperation, mutual naval logistics support, implementation of the **India–New Zealand Free Trade Agreement**, and agricultural collaboration.
- **Strategic Importance:** The partnerships aim to strengthen **maritime security**, diversify **supply chains**, improve **energy security**, secure access to **critical minerals** and **emerging technologies**, and support India's strategic autonomy.
- **Broader Objective:** The visits reflect India's strategy of building a network of trusted partners to maintain a **free, open and inclusive Indo-Pacific** while navigating

increasing geopolitical competition and global economic uncertainty.

Strengthening Indo-Pacific Strategy

- Visits reinforced India's **Act East Policy** and **MAHASAGAR** vision.
- Reaffirmed commitment to a **free, open, inclusive and rules-based Indo-Pacific**.
- Expanded ties beyond economic and diaspora relations to **strategic cooperation**.
- Strengthened India's engagement in the **southern Indo-Pacific arc**.
- Aimed to safeguard India's interests amid rising geopolitical competition.

Key Outcomes of India–Australia Visit

- Adopted a **Joint Declaration on Defence and Security Cooperation**.
- Agreed to enhance **military interoperability** and expand joint exercises.
- Established an **Annual Defence Ministers' Dialogue**.
- Unveiled the **India–Australia Maritime Security Collaboration Roadmap**.
- Australia approved **uranium exports** for India's civilian nuclear programme and expanded cooperation on **critical minerals**.

Key Outcomes of India–New Zealand Visit

- Elevated bilateral ties to a **Formal Strategic Partnership**.
- Adopted a **four-year roadmap** for strategic cooperation.
- Strengthened **maritime cooperation** and mutual logistics support between navies.
- Agreed to significantly expand **bilateral trade by 2030** under the recently concluded **India–New Zealand Free Trade Agreement**.
- Explored new opportunities for **agricultural cooperation**.

Strategic Significance for India

- Enhances **maritime security** in the Indo-Pacific.
- Diversifies **global supply chains** and reduces strategic vulnerabilities.
- Improves access to **critical minerals**, energy resources and emerging technologies.
- Supports India's **clean energy transition** through uranium supply.
- Strengthens India's **strategic autonomy** through diversified partnerships.

Challenges and Way Forward

- Balance strategic partnerships without getting entangled in **great-power rivalries**.
- Ensure effective implementation of defence and economic agreements.
- Deepen cooperation in **cybersecurity**, emerging technologies and maritime domain awareness.
- Expand trade and investment while maintaining resilient supply chains.
- Continue building a broad network of trusted partnerships to navigate global uncertainty.

Conclusion

India's engagement with **Australia and New Zealand** marks a shift from primarily economic ties to comprehensive strategic partnerships. By strengthening **defence cooperation,** maritime security, **trade, critical minerals and clean** energycan deepen mutual strategic trust, diversify economic and technology partnerships, and contribute to a more resilient and stable Indo-Pacific.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "India's engagement with Australia and New Zealand reflects the growing strategic importance of the Indo-Pacific in its foreign policy." Discuss the significance of this partnership. (15 marks, 250 words).

Canada-India defence collaboration for a secure future

Why in News: Canada has proposed expanding **defence, technology, space, and critical minerals cooperation** with India amid shifting global security dynamics, signalling renewed strategic engagement under Prime Minister **Mark Carney**.

Key Details

- **Defence Partnership:** Canada and India established a **Defence Dialogue**, appointed Defence Advisers, and expanded military exchanges and joint naval exercises.
- **Industrial Cooperation:** Canada invited India to collaborate in **defence manufacturing, aerospace innovation, drones, and supply-chain diversification**.
- **Space Collaboration:** Both countries aim to leverage strengths in **satellite technology, space robotics, and low-cost space platforms**.
- **Critical Minerals:** The **2026 Critical Minerals Value Chain MoU** seeks to ensure resilient supply chains for strategic and defence industries.
- **Strategic Context:** The partnership reflects a changing global order where **economic security, technological resilience, and defence preparedness** are increasingly interconnected.

Changing Global Security Landscape

- Canada is reshaping its defence policy in response to evolving threats such as **drones, autonomous systems, and space-based weapons**.
- Prime Minister **Mark Carney** has called for rebuilding and modernising the **Canadian Armed Forces**.
- The changing geopolitical environment creates new opportunities for **Canada–India strategic cooperation**.
- Both leaders recognise a transformed global order marked by increasing geopolitical uncertainty.
- Defence collaboration is seen as a key pillar for ensuring **shared security and stability**.

Strengthening Bilateral Defence Engagement

- Canada and India have appointed **Defence Advisers** in **Ottawa and New Delhi**.
- Both countries agreed to establish a **Defence Dialogue** to enhance strategic cooperation.

- Their navies participated together in **RIMPAC** and **Talisman Sabre** military exercises.
- A delegation from **India's National Defence College** visited Canada for military exchanges.
- These initiatives aim to deepen institutional ties and interoperability between the armed forces.

Defence Industrial & Technology Partnership

- Canada has created a **Defence Investment Agency** to improve military procurement.
- A new **Defence Industrial Strategy** seeks to diversify supply chains through trusted partners like India.
- Canada has invited India for **co-development, subsystem manufacturing, and defence sustainment**.
- Investments include a **CAD 500 million** initiative for next-generation aerospace technologies and a **drone innovation hub**.
- Canada's advanced R&D capabilities complement India's manufacturing scale and innovation ecosystem.

Strategic Cooperation in Space & Critical Minerals

- Both countries possess advanced **space capabilities**, enabling cooperation in satellite and space technologies.
- Canada's expertise in **satellite components, space robotics, and RADARSAT systems** complements India's low-cost space platforms.
- Critical minerals are vital for defence manufacturing and advanced technologies.
- Canada possesses abundant reserves of **31 critical minerals**, including rare earths, uranium, cobalt, and tungsten.
- The **2026 Canada–India MoU on Critical Minerals Value Chain** aims to build resilient and secure supply chains.

Shared Legacy & Future Outlook

- Canada and India share a long history of cooperation, including sacrifices during the **Second World War**.
- The **Kirkee War Cemetery** in Pune symbolises their historical military ties.
- Both countries seek to build on this shared legacy to strengthen future defence relations.
- Enhanced cooperation supports both **national security** and **economic security** amid global uncertainties.
- A stronger Canada–India partnership can contribute to a **secure, resilient, and rules-based Indo-Pacific order**.

Conclusion

India and Canada have an opportunity to transform their relationship through cooperation in **defence, advanced technologies, space, and critical minerals. Building** trust, expanding institutional dialogue, and strengthening resilient supply chainscan enhance mutual security, economic resilience, and cooperation in the Indo-Pacific while supporting a stable and rules-based regional order.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. In an era of evolving geopolitical and technological challenges, examine the significance of India - Canada defence and strategic cooperation. Discuss the opportunities and challenges in deepening bilateral ties. (150 words, 10 marks)

Political minefield

Why in News: **Andy Burnham** has become the **U.K. Prime Minister**, succeeding **Keir Starmer**, amid political instability, economic challenges, immigration debates, strained global relations, and growing demands for governance reforms.

Key Details

- **Leadership Change:** Andy Burnham is the **7th U.K. Prime Minister in just over a decade**, reflecting prolonged political instability.
- **Domestic Challenges:** He faces **high living costs**, welfare pressures, an ageing population, and divisions over immigration policy.
- **Fiscal Constraints:** Labour has pledged **not to raise taxes**, limiting revenue while requiring welfare reforms.
- **Foreign Policy:** Burnham must balance support for **Ukraine**, strengthen ties with **Europe**, and rebuild the **U.S.–U.K. special relationship**.
- **Political Priority:** Success depends on **party unity, governance reforms, and innovative policymaking** rather than short-term political survival.

Political Instability and Demand for Change

- **Andy Burnham** has assumed office as the **Prime Minister of the U.K.** during a period of deep political uncertainty.
- He is the **7th Prime Minister in just over a decade** and the **5th in four years**, reflecting frequent leadership changes.
- He has promised a **fresh political beginning** along with **economic and social revival**.
- To distinguish himself, he must move beyond the shortcomings of the previous government.
- Public expectations are high for **stable, decisive and effective governance**.

Lessons from Keir Starmer's Tenure

- **Keir Starmer** secured a major electoral victory in **2024** with only **34% of the popular vote**.
- Analysts described it as a **"loveless landslide"**, driven more by voter dissatisfaction with the Conservatives than enthusiasm for Labour.
- His government faced criticism over:
  - **Acceptance of gifts** by government officials.
  - **Controversial welfare spending cuts**.
  - Appointment of **Peter Mandelson** as U.K. Ambassador to the U.S., despite controversy over his links with **Jeffrey Epstein**.
- These controversies weakened his credibility and ultimately led to his removal by the Labour Party.

Major Governance Challenges

- Burnham must address multiple crises simultaneously, including:
  - **Rising cost of living**.
  - **Fiscal pressures from an ageing population**.
  - **Strains in global alliances**.
  - **Divisions over immigration policy**.
- He may need to **redefine traditional Labour policies** and pursue bold governance reforms.
- Controlling **internal Labour Party factionalism** will be essential for effective decision-making.
- Success depends on implementing reforms swiftly while maintaining political unity.

Economic and Foreign Policy Constraints

- Labour has pledged **not to increase taxes**, limiting options for raising public revenue.
- The government must find innovative ways to **reduce welfare expenditure** without causing public backlash.
- Burnham must continue supporting **Ukraine** while preserving relations with European allies.
- At the same time, he needs to rebuild ties with the **Donald Trump administration** to strengthen the **U.S.–U.K. "special relationship"**.
- Balancing domestic fiscal discipline with international commitments will be a key test of leadership.

Immigration Debate and the Road Ahead

- **Net migration** has declined compared to previous years, yet demands for **stricter immigration controls** persist.
- Many **Labour MPs** and progressive leaders favour a **balanced compromise** instead of harsher restrictions.
- Burnham must carefully navigate these politically sensitive issues without deepening divisions.
- The U.K. requires a governance model capable of restoring stability in the **post-Brexit** era.
- Long-term success will depend on **bold reforms, innovative policymaking, and dynamic leadership**, rather than merely managing political survival.

Conclusion

Andy Burnham's leadership begins at a critical moment for the United Kingdom. **Restoring political stability, reviving economic confidence,** and balancing domestic and international priorities will determine his success.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Frequent leadership changes undermine governance stability and public trust in democratic systems." Examine this statement in the context of recent political developments in the United Kingdom. (250 words, 15 marks)

India must lead in securing the Strait of Bab el-Mandeb

Why in News: Iran reportedly asked Yemen's Houthis to threaten closure of the **Bab-el-Mandeb Strait**, reviving concerns over Red Sea shipping disruptions and their impact on India's trade, energy security, and maritime interests.

Key Details

- **Strategic chokepoint:** The **Bab el-Mandeb Strait** connects the **Red Sea** with the **Gulf of Aden** and carries nearly one-third of India's trade.
- **Renewed Houthi threat:** Iran reportedly instructed the **Houthis** to close the Strait if the U.S. attacked Iranian power plants, escalating regional tensions.
- **Lessons from 2024:** Houthi attacks on commercial shipping disrupted global supply chains, increased insurance costs, and forced vessels to bypass the **Suez Canal**.
- **Challenges for India:** Any renewed disruption could raise freight costs, delay imports, threaten Indian seafarers, and compound the impact of tensions in the **Strait of Hormuz**.
- **Suggested response:** India should strengthen maritime cooperation with **France, Japan, Egypt, and Saudi Arabia**, while leveraging the **Information Fusion Centre–Indian Ocean Region (IFC-IOR)** to protect shipping.

Emerging Threat: Bab el-Mandeb Crisis

- Following the **Strait of Hormuz** tensions, a new geopolitical risk has emerged in the **Bab el-Mandeb Strait**.
- On **July 16**, Iran reportedly instructed the **Houthis** to close the strait if the **U.S. attacked Iranian power facilities**.
- The strait connects the **Red Sea and the Gulf of Aden**, making it a vital global maritime chokepoint.
- Regardless of whether the Houthis can enforce the threat, the possibility itself has raised serious concerns.
- The crisis could endanger **nearly one-third of India's total trade**, which passes through this route.
- The development highlights India's growing vulnerability to disruptions in critical sea lanes.

Lessons from the 2024 Red Sea Crisis

- During the **Gaza conflict (2023–24)**, the Houthis launched attacks on ships linked to or bound for Israel.
- Between **November 2023 and March 2024**, over **40 commercial vessels** were targeted in the Red Sea.
- The **U.S.-led Operation Prosperity Guardian** and **UNSC Resolution 2722 (2024)** sought to restore freedom of navigation.
- The **Indian Navy** played a humanitarian role by rescuing the crew of a British tanker attacked by the Houthis.
- Although a ceasefire was declared in **May 2025**, major disruptions had already affected global shipping.
- The episode demonstrated how regional conflicts can quickly threaten global maritime trade.

Economic and Strategic Impact

- Rising security risks forced nearly **2,000 ships** to avoid the **Suez Canal** and sail via the **Cape of Good Hope**.
- Longer routes delayed imports, increased freight and insurance costs, and disrupted global supply chains.
- **Egypt** lost around **25% of Suez Canal revenue**, while Israel's **Eilat Port** suffered severe financial losses.
- Marine insurers became highly cautious, significantly increasing shipping costs.
- A renewed crisis would severely affect India's trade, energy imports, and export competitiveness.
- Thousands of **Indian seafarers** could also face heightened security risks and employment challenges.

Why the Current Situation Is More Challenging

- The present geopolitical environment is more uncertain than in 2024.
- The **U.S.** is primarily focused on tensions with **Iran**, reducing attention to Red Sea security.
- The **UN Security Council** remains deeply divided, limiting the possibility of collective military action.
- **China** may continue protecting its shipping through separate arrangements with the Houthis rather than multilateral efforts.
- India's previous reliance on **Iran** to influence the Houthis may no longer be equally effective.
- These factors increase the likelihood of prolonged instability in the Bab el-Mandeb region.

What India Should Do

- India should proactively establish a **naval task force** with **France** and **Japan** to safeguard commercial shipping.
- France and Japan already maintain military bases in **Djibouti**, providing strategic logistical support.

- India should strengthen diplomatic engagement with **Egypt** and **Saudi Arabia**, whose economic interests are also at stake.
- Greater maritime cooperation can help deter attacks before they escalate into a major crisis.
- Continuous coordination with regional partners can improve maritime security across the **Red Sea–Bab el-Mandeb corridor**.
- A proactive strategy is preferable to reacting after trade disruptions occur.

A Rules-Based Maritime Response

- India should promote a **Trade Protection Task Force** focused solely on securing commercial shipping.
- The initiative should function as a **maritime security mechanism**, not a military alliance.
- India's **Information Fusion Centre–Indian Ocean Region (IFC-IOR)** can provide maritime domain awareness.
- Partner navies should adopt **common rules of engagement** and escort vulnerable merchant vessels when required.
- The effort would reinforce India's **SAGAR (Security and Growth for All in the Region)** vision and commitment to a rules-based maritime order.
- By leading such cooperation, India can help prevent the **Bab el-Mandeb ("Gate of Tears")** from becoming another major global maritime crisis.

Conclusion

The **Bab-el-Mandeb Strait is** a vital artery for global commerce and India's external trade. Rising geopolitical tensions demand a proactive, rules-based maritime strategy combining naval cooperation, **regional diplomacy, and** enhanced maritime domain awareness.

Warning Signals for India from NATO's Ankara summit

Why in News: The **2026 NATO Ankara Summit** reaffirmed collective defence, increased defence spending commitments, strengthened support for **Ukraine**, and prioritised building a stronger **European Defence Industrial Base (DIB)**.

Key Details

- **Four Key Commitments:** Reaffirmed **Article 5**, endorsed **5% of GDP** defence spending by **2035**, backed **Ukraine**, and strengthened the **European Defence Industrial Base (DIB)**.
- **Strategic Shift:** NATO is transforming from crisis management to **deterrence and military preparedness** amid growing **Russia-China strategic cooperation**.
- **Defence Production Gaps:** Europe faces shortages of **missiles, ammunition, and precision-guided weapons**, exposing industrial bottlenecks.
- **Growing U.S. Dependence:** Nearly **50% of Europe's defence procurement (2022–24)** came from the **U.S.**, raising concerns over strategic autonomy.
- **Implications for India:** Rising NATO demand may delay arms supplies and increase costs, reinforcing the need for **Aatmanirbhar Bharat** in advanced defence technologies.

Major Commitments Adopted

- **32 NATO members** met in **Ankara (July 7–8, 2026)** to review progress since the **2025 Hague Summit**.
- Reaffirmed **collective defence under Article 5** and the **transatlantic partnership**.
- Endorsed the **5% of GDP defence spending target by 2035**, replacing the earlier **2% benchmark**.
- Reiterated **strong support for Ukraine's sovereignty and territorial integrity**.
- Agreed to strengthen a **high-tech, Europe-wide Defence Industrial Base (DIB)**.

NATO's Strategic Transformation

- Focus shifted from **political declarations to implementation** through investment, innovation, and industrial capacity.
- NATO views its expansion as an adaptation to changing security realities, not expansionism.
- Evolved from **Cold War collective defence** to **Balkan peace operations**, then the **Global War on Terror** after **9/11**, and now to countering **Russia–China strategic alignment**.
- Finland and Sweden joined NATO after Russia's invasion of Ukraine, expanding the alliance to **32 members**.

Defence Industrial Challenges

- Europe prioritised revitalising its **Defence Industrial Base (DIB)** amid rising security threats.
- Defence firms such as **MBDA** and **Rheinmetall** warned of **ammunition production shortages**.
- Ukraine war exposed shortages in **air defence systems, precision-guided munitions, and artillery rockets**.
- Greater alliance-wide coordination is needed despite strong national defence industries.

Growing Dependence on the U.S.

- Europe's increased defence spending has **not reduced dependence on U.S. defence supplies**.
- Around **50% of Europe's defence imports (2022–24)** came from the U.S., up from **28% (2019–21)**.
- U.S. Foreign Military Sales to Europe rose to **$76 billion in 2024**, four times the 2008 level.
- High operational demand, illustrated by heavy U.S. missile use in **Operation Epic Fury**, highlights global supply constraints.

Implications for India

- Rising NATO demand is shifting the global arms market from a **buyer's market to a seller's market**.
- India is already facing supply delays, including **GE Aerospace's F-404 engines** for the **Tejas** programme.
- India must accelerate **Aatmanirbhar Bharat in defence**, particularly in **drones, AI, cyber warfare, electronic warfare, and resilient networks**.
- Strengthening indigenous defence manufacturing is essential to reduce dependence on overstretched foreign suppliers.

Conclusion

The **Ankara Summit** marks NATO's transition towards sustained military readiness through higher defence spending and industrial expansion. While it strengthens collective security in Europe, it may intensify competition for global defence supplies.

All art, No Deal

Why in News: The **U.S. and Saudi Arabia** announced a **civil nuclear cooperation agreement**, but **President Donald Trump later linked** its implementation to Saudi Arabia joining the **Abraham Accords**, raising regional security concerns.

Key Details

- **Civil Nuclear Cooperation:** The agreement supports **Saudi Arabia's peaceful nuclear energy programme**, aligned with **Vision 2030** to diversify the economy, reduce dependence on oil and meet rising electricity demand.
- **Strategic Concerns:** The deal reportedly permits the possibility of **uranium enrichment on Saudi soil**, despite the U.S. opposing similar enrichment by **Iran**, exposing a policy inconsistency.
- **Weak Safeguards:** The agreement reportedly does **not require Saudi Arabia to adopt the IAEA Additional Protocol**, limiting international inspection powers and raising proliferation concerns.
- **Political Conditionality:** After signing the deal, **President Trump** stated that it would proceed only if Saudi Arabia joined the **Abraham Accords**, introducing a new political condition absent from the original agreement.
- **Regional Implications:** The agreement may **harden Iran's stance** in future nuclear negotiations, increase Saudi doubts over U.S. reliability, and complicate West Asian strategic stability.

Background and Context

- The **U.S.-Saudi Arabia civil nuclear agreement** was announced during heightened tensions following the **U.S.-Iran conflict** over Tehran's nuclear programme.
- After the agreement was signed, **U.S. President Donald Trump** introduced a new condition that **Saudi Arabia must join the Abraham Accords** for the deal to proceed.
- This additional condition complicated the agreement and raised questions about its future implementation.

Saudi Arabia's Nuclear Ambitions

- Saudi Arabia has long sought to establish a **civilian nuclear energy programme**.
- Under **Vision 2030**, Crown Prince **Mohammed bin Salman (MBS)** aims to:
  - Diversify the economy beyond oil.
  - Support sectors such as **finance, tourism, megaprojects and AI data centres**.
- Nuclear power is viewed as a means to:
  - Meet rising domestic electricity demand.
  - Reduce dependence on oil and gas for power generation.
  - Increase oil and gas exports by freeing domestic supplies.

Features of the Nuclear Agreement

- As a **signatory to the Nuclear Non-Proliferation Treaty (NPT)**, Saudi Arabia is entitled to pursue **peaceful nuclear energy**.
- However, the agreement:
  - Allows the possibility of **uranium enrichment on Saudi soil**.
  - Does **not reportedly require** Saudi Arabia to adopt the **IAEA Additional Protocol**, which permits more rigorous and short-notice international inspections.
- These provisions have raised concerns about the kingdom's potential to eventually acquire **nuclear weapons capability**.

Strategic and Geopolitical Concerns

- The agreement highlights a **double standard** in U.S. nuclear policy:
  - The U.S. opposes **uranium enrichment in Iran**.
  - Yet it appears willing to allow similar capabilities for **Saudi Arabia**.
- President Trump's later insistence on Saudi Arabia joining the **Abraham Accords** introduced political uncertainty.
- The reversal has:
  - Reduced Saudi confidence in **U.S. security guarantees**.
  - Increased uncertainty over the implementation of the agreement.

Regional Implications

- If implemented, the deal could:
  - Encourage **Iran to adopt a tougher stance** on uranium enrichment in future nuclear negotiations.
  - Intensify strategic competition in **West Asia**.
  - Weaken the credibility of the **global nuclear non-proliferation regime** through inconsistent application of nuclear standards.
- The episode illustrates how **ill-timed diplomacy, ambiguous provisions and shifting political conditions** can undermine regional trust and stability.

Conclusion

The proposed U.S.-Saudi nuclear deal highlights the complex intersection of **energy security, nuclear non-proliferation and geopolitical strategy.** Inconsistent conditions and selective application of nuclear norms risk undermining global non-proliferation efforts and regional stability.

Hormuz to home, India's resilience in uncertain times

Why in News: The recent tensions around the **Strait of Hormuz** highlighted India's ability to safeguard energy security, shipping, and macroeconomic stability through coordinated diplomacy, diversified energy sourcing, and resilient economic management.

Key Details

- **Energy vulnerability:** India imports nearly **90% of its crude oil**, making it highly exposed to geopolitical disruptions.
- **Maritime risks:** Shipping delays, higher freight costs, and insurance premiums threaten global trade and supply chains.
- **Inflationary pressures:** Rising oil prices can increase inflation, fiscal burden, and current account deficit.
- **Export competitiveness:** Higher logistics costs reduce export competitiveness and disrupt international trade.

- **Persistent geopolitical uncertainty:** Long-term conflicts require continuous investments in energy diversification and strategic preparedness.

Strategic Importance of the Strait of Hormuz

- The **Strait of Hormuz** is one of the world's most critical maritime chokepoints.
- Nearly **20% of global oil consumption** passes through this narrow waterway.
- Any disruption affects **global energy security, trade, shipping, freight, insurance, and commodity markets**.
- Rising geopolitical tensions in **West Asia** increase risks to global supply chains.
- Safe navigation through the Strait is vital for oil-importing countries like India.

India's Swift Response to Maritime Challenges

- Indian authorities coordinated with **shipping companies, diplomatic missions, maritime agencies, and international partners**.
- Ensured the **safe passage of Indian-flagged vessels** during regional tensions.
- Prioritised the safety and welfare of **Indian seafarers and crew members**.
- Demonstrated effective crisis management through **quick, coordinated, and timely intervention**.
- Reflected India's growing institutional capacity to respond to external shocks.

Managing Economic and Energy Security

- India imports nearly **90% of its crude oil**, making it vulnerable to global disruptions.
- Despite rising crude prices and freight costs, **inflation remained broadly within the RBI's target range**.
- Strong **domestic demand, public investment, and manufacturing** supported economic growth.
- Government ensured uninterrupted petroleum supplies through **diversified sourcing, inventory management, and diplomatic engagement**.
- Prudent fuel price management helped contain inflationary pressures.

Whole-of-Government Strategy for Resilience

- Adopted a **whole-of-government approach** involving Ministries, States, oil companies, and industry.
- Expanded **City Gas Distribution (CGD)** network from **55 geographical areas (2014) to over 300**.
- Promoted **Piped Natural Gas (PNG)** to reduce dependence on imported fuels where infrastructure existed.
- Supported exporters through **liquidity assistance, logistics facilitation, and simplified customs procedures**.
- The **Reserve Bank of India** strengthened financial stability through liquidity management, forex swap facilities, NRI deposit schemes, and measures to attract foreign investment.

Building Long-Term Economic Preparedness

- The Hormuz crisis highlighted that resilience requires **long-term preparedness**, not just emergency response.
- India has expanded **refining capacity, strategic petroleum reserves, and diversified crude imports**.
- Investments in **gas infrastructure, logistics, and cleaner energy** have strengthened energy security.
- Institutional coordination and policy preparedness have enhanced India's ability to withstand global shocks.
- These reforms strengthen India's journey towards **Viksit Bharat 2047** by improving economic resilience and strategic competitiveness.

Conclusion

The Strait of Hormuz crisis reaffirmed that resilient economies are built through long-term investments in energy security, logistics, diplomacy, and institutional coordination. India's calibrated response protected growth, controlled inflation, andensured energy security, and limited the broader economic impact of the disruption. Future preparedness must therefore combine diversification, strategic reserves, and diplomatic engagement.

A global crackdown and a chance for India

Why in News: **Operation Hard Ball**, a multinational crackdown on organised crime, exposed the crime-terror nexus targeting the Indian diaspora, strengthened India's position in the Nijjar controversy, and opened avenues for improved India–Canada relations.

Key Details

- **Global Operation:** A coordinated law enforcement initiative involving multiple countries dismantled transnational organised crime networks.
- **India Vindicated:** The findings supported India's position that it had no role in the 2023 killing of Khalistani separatist Hardeep Singh Nijjar.
- **India–Canada Reset:** The new Canadian leadership has prioritised restoring bilateral cooperation in trade, education and security.
- **Crime–Terror Nexus:** Investigations exposed links between organised crime, drug trafficking, separatist groups and terror financing.
- **Diaspora Security:** Criminal syndicates exploited vulnerable Indian students and targeted the Indian diaspora through extortion and intimidation.

Global Crackdown on Transnational Crime

- **Operation Hard Ball** was a coordinated **multi-agency international operation** targeting organised crime networks across continents.
- **India actively cooperated** with partner countries during the investigation.
- The operation highlighted the **global nature of organised crime and terror financing**.
- It demonstrated the importance of **cross-border intelligence sharing**.
- The crackdown strengthened international efforts against **transnational criminal syndicates**.

India's Stand on Nijjar Case Vindicated

- The investigation **reinforced India's long-standing position** that it had no role in overseas terror-related incidents.

- Earlier allegations over the **killing of Hardeep Singh Nijjar (June 2023)** had severely strained India–Canada relations.
- Public accusations by the **Justin Trudeau government** had led to a prolonged diplomatic freeze.
- Recent statements by the **Royal Canadian Mounted Police (RCMP)** reflect a more balanced and evidence-based approach.
- The findings have helped **restore India's credibility** on the international stage.

Reset in India–Canada Relations

- The new Canadian government under **Prime Minister Mark Carney** has adopted a pragmatic approach.
- Ottawa is working to **normalise diplomatic ties** with India.
- Both countries are prioritising cooperation in **trade, education and strategic engagement**.
- Educational exchanges, particularly involving **Indian students in Canadian universities**, are expected to revive.
- Improved relations will strengthen **people-to-people and institutional partnerships**.

Organised Crime–Terror Nexus Exposed

- The operation uncovered the **global reach of organised criminal syndicates** targeting the Indian diaspora.
- Indian agencies had earlier warned about the **link between organised crime, terrorism and separatist networks**.
- Criminal groups have used **drug trafficking, extortion and terror financing** to sustain separatist agendas.
- Extortion has emerged as a major tool to **intimidate Indians living abroad**.
- The findings underline the need for **greater international cooperation against hybrid security threats**.

Impact on the Indian Diaspora

- Criminal networks have increasingly **targeted Indian communities** in Canada, the US, Europe and Australia.
- Vulnerable **Indian students** have often been exploited as operatives by these syndicates.
- Such activities have **damaged the reputation of the Indian diaspora** overseas.
- Stronger law enforcement cooperation can improve the **safety and security of overseas Indians**.
- The operation highlights the need to **protect diaspora communities while dismantling transnational criminal networks**.

Conclusion

Operation Hard Ball demonstrates that transnational security threats cannot be addressed through unilateral action. **Strong intelligence** sharing, coordinated law enforcement, and mutual trust among nations are essential to dismantle organised **crime and terror networks.**

EXPECTED QUESTION FOR UPSC CSE
Descriptive Question
Q. "Operation Hard Ball highlights the growing nexus between transnational organised crime and terrorism." Discuss the need for enhanced international cooperation to counter this nexus. **(150 words, 10 marks)**

Ahead of the India-US deal, strike a careful balance

Why in News: India is responding to evolving U.S. tariff measures, energy-related trade pressures, and forced labour investigations while negotiating a bilateral trade agreement amid increasing uncertainty in U.S. trade policy.

Key Details

- **India amended its Foreign Trade Policy** by introducing provisions on **forced labour** after the U.S. proposed tariffs under **Section 301 of the Trade Act, 1974**.
- **India challenged the proposed 12.5% USTR tariff**, arguing that the U.S. investigation contained inconsistencies and sought a formal review.
- The U.S. is also investigating **structural excess manufacturing capacity**, which could result in additional tariffs on Indian exports.
- A proposed U.S. sanctions bill seeks **up to 100% tariffs** on major buyers of **Russian oil and gas**, creating risks for India's energy security.
- India is balancing these pressures by **expanding trade agreements** (UK, Australia, EU) while pursuing a comprehensive **India–U.S. trade deal**.

USTR Tariff Proposal and India's Response

- The **U.S. Trade Representative (USTR)** proposed tariffs on **60 countries** under **Section 301 of the US Trade Act, 1974**.
- In response, India introduced a **new Foreign Trade Policy provision on forced labour**.
- Similar commitments have also been made by **Indonesia, Canada, Cambodia and Peru**.
- India has requested a **review of the proposed 12.5% USTR tariff**, citing inconsistencies in the investigation.
- The move reflects India's effort to **avoid additional trade barriers while addressing U.S. concerns**.

Expanding US Tariff Measures

- President **Donald Trump** implemented a **10% universal tariff** under **Section 122 of the Trade Act**.
- This tariff can remain in force for **only 150 days without Congressional approval**, ending on **July 24**.
- The USTR is also investigating **forced labour** and **structural excess manufacturing capacity** in countries including India.
- These investigations may result in **additional tariffs**, with outcomes still pending.
- The evolving U.S. tariff strategy increases uncertainty for Indian exporters.

Energy Trade as a Strategic Pressure Point

- A group of **U.S. senators** proposed sanctions imposing **up to 100% tariffs** on major buyers of **Russian oil and gas**.
- The targeted countries include **India, China, Slovakia, Hungary and Azerbaijan**.
- Russia remains a **key supplier** in India's energy import basket.
- To address U.S. concerns, Indian **public sector companies** signed agreements to source **10% of LPG imports from the United States**.

- Energy trade has emerged as another major issue in India–U.S. economic relations.

India's Trade Diversification Strategy

- India has recently concluded **trade agreements** with countries such as the **UK** and **Australia**.
- It is also advancing negotiations with the **European Union (EU)**.
- A comprehensive trade agreement with the **United States** could significantly expand bilateral trade.
- Such a deal would also reduce policy uncertainty affecting businesses in both countries.
- Trade diversification strengthens India's long-term economic resilience.

Challenges Ahead for India

- The United States is expected to **seek greater market access and policy concessions** during negotiations.
- India must protect its **strategic sectors, energy security and domestic industries**.
- Balancing ties with the U.S. while maintaining other global partnerships will be crucial.
- Frequent shifts in U.S. trade policy increase negotiation risks.
- India will need a **carefully calibrated and flexible trade strategy** to safeguard its economic interests.

Conclusion

India's trade strategy must combine **economic pragmatism with strategic autonomy.** While deeper engagement with the United States can boost trade, technology and investment, India must simultaneously safeguard its energy security, manufacturing interests and policy space.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "India–U.S. trade relations are increasingly shaped by strategic, economic and geopolitical considerations rather than conventional market access issues." Discuss in the context of recent U.S. tariff measures and India's trade diplomacy. (10 marks, 150 words)

Trump, Netanyahu and the cracks between US and Israel that are starting to show

Why in News: Israeli Prime Minister **Benjamin Netanyahu** met **US President Donald Trump** amid growing differences over **Iran, Gaza, and Lebanon**, while declining public support for Israel in the US and the proposed **US–Saudi nuclear deal** added fresh tensions.

Key Details

- **Strategic differences** over **Iran**, **Gaza**, and **Lebanon** have strained US–Israel ties.
- **Trump and Netanyahu** face electoral pressures, influencing foreign policy decisions.
- **US public and bipartisan support** for Israel has declined amid the Gaza war.
- The **US–Saudi nuclear deal** has raised Israeli concerns over its regional strategic edge.
- **Netanyahu offered security concessions**, but the meeting's outcome remains uncertain.

Growing Differences Between the US and Israel

- The **US–Israel relationship** is facing increasing strain due to differences over **Iran**, **Gaza**, and **Lebanon**.
- The personal relationship between **Donald Trump** and **Benjamin Netanyahu** also appears to be weakening.
- Both leaders are under **electoral pressure**, making foreign policy decisions politically sensitive.
- Netanyahu sees his ties with Trump as a political advantage, while Trump faces growing public criticism over the war.
- The outcome of their meeting will depend on how they balance **strategic interests** with **domestic politics**.

Concerns Over the US–Saudi Nuclear Deal

- The proposed **US–Saudi civil nuclear deal** has raised concerns in Israel.
- Israel fears the deal could reduce its **strategic military and technological edge** in the Middle East.
- It may also weaken Israel's bargaining power in achieving **normalisation of relations with Saudi Arabia**.
- A stronger Saudi Arabia could alter the **regional balance of power**.
- These concerns add another source of tension between Washington and Tel Aviv.

Declining Public and Political Support for Israel in the US

- Since the **1967 Six-Day War**, the US and Israel have shared a close strategic alliance.
- However, support for Israel among the **American public** has declined sharply during the Gaza conflict.
- Younger Americans are less supportive than previous generations.
- The traditional **bipartisan consensus** on supporting Israel is weakening.
- Growing public criticism is influencing US policymakers.

Political Divisions Within the United States

- More than **100 House Democrats** recently voted to reduce US military aid to Israel.
- This reflects growing dissatisfaction within the Democratic Party over Israel's actions in Gaza.
- New York City Mayor **Zohran Mamdani** urged enforcement of the **ICC arrest warrant** against Netanyahu.
- Republican support for Israel may also depend on the outcome of the **Iran conflict**.
- Israel is becoming an increasingly **polarising issue** in American politics.

Netanyahu's Concessions and Future Challenges

- Before the meeting, Netanyahu offered several concessions to Trump.
- He agreed to cooperate on a **US-backed security arrangement in southern Lebanon**.
- Israel also approved the entry of a **multinational security force into Gaza** under Trump's proposed plan.
- It remains uncertain whether these concessions will satisfy the US administration.
- Both leaders must balance **domestic political pressures** with the need to preserve the long-standing **US–Israel alliance**.

Conclusion

The US–Israel partnership remains strategically significant but faces new challenges from changing regional **dynamics, shifting public opinion,** and domestic political pressures. Managing differences over Iran, Gaza, and the US–Saudi **nuclearSaudi nuclear issue will require sustained**

diplomacy, strategic restraint, and careful management of alliance differences.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "The US–Israel strategic partnership is increasingly shaped by domestic politics and changing geopolitical realities." Discuss the emerging challenges in US–Israel relations and their implications for West Asian stability. (15 Marks, 250 words)

India Launches Campaign for UNSC Non-Permanent Seat

Why in News: India has officially launched its campaign for election as a **non-permanent member of the United Nations Security Council (UNSC) for the 2028–29 term.**

Launch of the 'SHANTI' Vision

During the campaign launch, External Affairs Minister **S. Jaishankar** unveiled India's diplomatic framework titled **SHANTI**, which will guide India's outreach during the campaign.

SHANTI stands for:

- **S**ecuring
- **H**olistic
- **A**dvancement through
- **N**orms,
- **T**rust and
- **I**ntegrity

The framework highlights India's commitment to:

- International peace and security.
- Rules-based international order.
- Inclusive multilateralism.
- Sustainable development.
- Trust-based global partnerships.
- Equitable representation of developing countries in global institutions.

The initiative reinforces India's image as a responsible stakeholder committed to consensus-building and global cooperation.

Why This Election Matters for India

India views its UNSC candidature as an opportunity to expand its role in shaping international peace and security.

A successful election would enable India to:

- Contribute more actively to global conflict resolution.
- Represent the concerns of developing countries and the Global South.
- Influence discussions on terrorism, maritime security, climate change, and emerging technologies.
- Strengthen its case for permanent membership in a reformed Security Council.
- Enhance its diplomatic influence within the United Nations system.

The campaign also aligns with India's broader objective of becoming a leading voice in an increasingly multipolar world.

India's Diplomatic Outreach

Over recent months, External Affairs Minister S. Jaishankar has undertaken extensive diplomatic engagements across multiple regions to consolidate international support for India's candidature.

India has already received public support from several countries, including:

- United States
- Fiji
- Austria
- Sri Lanka

However, securing the required majority will demand sustained diplomatic engagement with countries across Asia, Africa, Latin America, the Pacific, and the Caribbean.

Competition from Tajikistan

India's principal challenger for the Asia-Pacific seat is **Tajikistan**.

The contest has strategic significance because:

- Tajikistan reportedly enjoys the backing of the **57-member Organisation of Islamic Cooperation (OIC)**.
- Both India and Tajikistan are members of the **Shanghai Cooperation Organisation (SCO)**.
- Diplomatic engagement within regional forums such as the SCO may influence voting dynamics ahead of the election.

The competition highlights the increasingly complex geopolitical environment surrounding elections to major multilateral institutions.

India's Consistent Advocacy for UN Security Council Reform

India has long argued that the present structure of the Security Council no longer reflects contemporary geopolitical realities.

Its key reform demands include:

- Expansion of both permanent and non-permanent membership.
- Greater representation for developing countries.
- Increased representation for Africa, Latin America, and Asia.
- A more democratic, transparent, representative, and accountable Security Council.

India maintains that institutions created in 1945 must evolve to reflect the political and economic realities of the 21st century.

India's Credentials for UNSC Membership

India enters the campaign with a strong record of contributions to the United Nations.

Its major credentials include:

- Founding member of the United Nations.
- One of the world's largest contributors to UN Peacekeeping Operations.
- Longstanding advocate of multilateralism.
- Strong voice for the Global South.
- Leadership in climate action, disaster resilience, sustainable development, and digital public infrastructure.
- Active role in humanitarian assistance and disaster relief.

India has previously served **eight terms** as a non-permanent member of the Security Council, most recently during **2021–2022**.

Challenges Before India

Despite its strong international profile, India's campaign faces several challenges:

- Competition from Tajikistan.

- Complex regional and geopolitical alignments.
- Voting preferences influenced by bloc politics.
- Need for sustained diplomatic engagement across all regional groups.
- Balancing multiple foreign policy priorities while securing broad-based international support.

These factors make India's campaign one of the most significant diplomatic exercises leading up to the 2027 UN General Assembly elections.

Significance for the Global South

India has consistently positioned itself as a leading voice for developing nations.

Through initiatives such as:

- **Voice of Global South Summit,**
- **Development partnerships,**
- **South-South Cooperation,**
- **Climate justice,**
- **Digital public infrastructure,**
- **Food and health security,**

India seeks to strengthen the representation of emerging economies within global governance institutions.

Its UNSC campaign therefore extends beyond national interest and aims to amplify the concerns and aspirations of the broader Global South.

Conclusion

India's campaign for the **2028–29 non-permanent seat on the UN Security Council** represents far more than an electoral exercise—it is a reflection of the country's expanding global role and itsexpanding role in global governance and its commitment to a more representative and effective multilateral order.

India - Afghanistan Agricultural Cooperation

Why in News: A high-level delegation from Afghanistan, led by **Ataullah Omari,** the Taliban administration's Minister **for Agriculture, Irrigation and Livestock, concluded** a six-day visit **to India aimed at** strengthening bilateral cooperation in agriculture, irrigation, food processing and rural development.

Major Areas of Cooperation Discussed

1. Agricultural Trade

Both countries explored ways to enhance bilateral trade in agricultural and food products by improving market access and facilitating commercial partnerships.

Greater agricultural trade can help:

- Improve food security.
- Generate rural employment.
- Increase farmers' incomes.
- Strengthen regional economic integration.

2. Irrigation and Agricultural Infrastructure

Given Afghanistan's dependence on agriculture and its recurring water scarcity, irrigation emerged as a key area of discussion.

The two sides explored cooperation in:

- Irrigation infrastructure
- Water resource management
- Sustainable agricultural practices
- Farm productivity enhancement

India's expertise in micro-irrigation and water-efficient farming could significantly support Afghanistan's agricultural revival.

3. Food Processing and Value Addition

The discussions also focused on developing Afghanistan's food-processing sector.

Emphasis was placed on:

- Value addition to agricultural produce
- Agro-processing industries
- Post-harvest management
- Reducing food wastage
- Improving export competitiveness

Developing food-processing industries would enable Afghan farmers to earn higher returns while creating employment opportunities across rural areas.

4. Capacity Building and Agricultural Research

Recognising the importance of scientific agriculture, both sides discussed expanding cooperation in:

- Agricultural education
- Research collaboration
- Skill development
- Technology transfer
- Farmer training programmes

India's well-developed agricultural research ecosystem offers valuable opportunities for strengthening Afghanistan's agricultural institutions.

High-Level Meetings During the Visit

During the visit, the Afghan delegation held discussions with several senior Indian leaders, including:

- **Shivraj Singh Chouhan**, Minister of Agriculture and Farmers' Welfare and Rural Development
- **Chirag Paswan**, Minister of Food Processing Industries
- **Pabitra Margherita**, Minister of State for External Affairs

These meetings focused on expanding cooperation across multiple developmental sectors while reinforcing people-centric engagement.

Institutional Engagement

The Afghan delegation also interacted with several leading Indian institutions, including:

- **National Bank for Agriculture and Rural Development (NABARD)**
- **Indian Council of Agricultural Research (ICAR)**
- **Indian Agricultural Research Institute (IARI)**

- **Federation of Indian Chambers of Commerce and Industry (FICCI)**
- **PHD Chamber of Commerce and Industry (PHDCCI)**

These interactions highlighted opportunities for collaboration in agricultural finance, scientific research, agribusiness, and private-sector participation.

India's Approach Towards Afghanistan

India has adopted a balanced and pragmatic policy towards Afghanistan following the Taliban's return to power in August 2021.

India has not formally recognised the Taliban administration.

However, India has gradually expanded functional engagement by:

- Upgrading its technical mission in Kabul to the level of **Chargé d'Affaires**.
- Maintaining dialogue on humanitarian and developmental issues.
- Continuing assistance to the Afghan people.

This approach allows India to safeguard its strategic interests while maintaining support for the Afghan population without extending formal diplomatic recognition.

India's Humanitarian Assistance to Afghanistan

India has remained one of Afghanistan's major humanitarian partners.

It has supplied:

- Food grains
- Medicines
- Essential medical supplies
- Humanitarian relief materials

This assistance has become increasingly important as Afghanistan continues to face severe economic distress, food insecurity, and shortages of essential commodities.

Role of Chabahar Port

Much of India's humanitarian assistance has traditionally been routed through **Iran's Chabahar Port**, which provides India with direct access to Afghanistan while bypassing Pakistan.

The corridor has served as a critical lifeline for:

- Humanitarian supplies
- Commercial trade
- Regional connectivity

However, recent regional instability, including the conflict involving Iran, has temporarily disrupted this important supply route, highlighting the strategic significance of diversified connectivity options.

Significance for India

Strengthening agricultural cooperation with Afghanistan carries multiple strategic benefits for India:

- Reinforces India's image as a reliable development partner.
- Enhances goodwill among the Afghan people.
- Supports regional food security.
- Promotes economic stability in Afghanistan.
- Expands India's developmental footprint in Central and South Asia.
- Contributes to regional connectivity and economic integration.

Importantly, developmental engagement enables India to maintain constructive relations with Afghanistan without compromising its broader diplomatic position.

Way Forward

Going forward, India and Afghanistan can deepen cooperation through:

- Expansion of agricultural research partnerships.
- Promotion of climate-resilient farming practices.
- Joint capacity-building programmes.
- Greater investment in food-processing industries.
- Strengthening irrigation and water management systems.
- Facilitating private-sector collaboration in agribusiness.
- Enhancing regional connectivity through sustainable transport corridors.

Such cooperation can contribute to long-term agricultural productivity, rural development, and economic resilience in Afghanistan while advancing India's neighbourhood and regional connectivity objectives.

Conclusion

The visit of Afghanistan's Agriculture Minister marks another important step in sustaining India–Afghanistan developmental engagement despite the absence of formal diplomatic recognition. By focusing on agriculture, irrigation, food processing, andIndia can sustain its developmental partnership with Afghanistan while strengthening regional food security, economic resilience, and connectivity.

India - Australia Strategic Partnership

Why in News: India and Australia have significantly elevated their **Comprehensive Strategic Partnership** by adopting a **Joint Declaration on Defence and Security Cooperation** during **Prime Minister Narendra Modi's** visit to Australia.

India–Australia Relations Reach a New Strategic Milestone

India and Australia have emerged as two of the Indo-Pacific's most important strategic partners. Over the past decade, bilateral relations have expanded rapidly from traditional economic cooperation to encompass defence, maritime security, critical technologies, supply chain resilience, energy security, and digital governance.

The newly adopted **Joint Declaration on Defence and Security Cooperation** marks one of the most comprehensive upgrades in bilateral security relations since the **2009 Joint Declaration on Security Cooperation**, reflecting the growing convergence between the two democracies amid an increasingly uncertain geopolitical environment.

Joint Declaration on Defence and Security Cooperation

The centrepiece of the visit was the adoption of a new strategic roadmap to deepen defence cooperation.

The declaration commits both countries to significantly strengthen military engagement through:

- Regular strategic consultations on Indo-Pacific security developments.
- Expansion of bilateral and multilateral military exercises.
- Greater interoperability between the Indian and Australian armed forces.
- Enhanced intelligence and information sharing.
- Increased deployment of military aircraft from each other's territories.
- Greater collaboration in defence science, research, technology, and industrial production.
- Building resilient defence supply chains.
- Expanded education, training, and personnel exchanges among defence establishments.

The declaration reflects the shared understanding that India and Australia must cooperate more closely to maintain peace, stability, and a rules-based regional order.

Strengthening Maritime Security in the Indo-Pacific

Maritime security emerged as one of the central pillars of the partnership.

Both countries agreed to implement an **India–Australia**

Maritime Security Collaboration Road Map aimed at:

- Enhancing coordination across the Indian Ocean.
- Strengthening maritime domain awareness.
- Promoting freedom of navigation and overflight.
- Protecting sea lines of communication.
- Combating maritime crimes.
- Supporting regional maritime capacity-building.

Prime Minister Modi described the Indo-Pacific not merely as the meeting point of two oceans but as **"the symbol of the shared aspirations of like-minded democracies."**

The agreement reinforces both countries' commitment to maintaining a **Free, Open, Inclusive and Rules-Based Indo-Pacific (FOIP)** based on international law, particularly the **United Nations Convention on the Law of the Sea (UNCLOS).**

Boost to Defence Industrial Cooperation

The declaration places strong emphasis on building defence manufacturing partnerships.

The two sides agreed to:

- Encourage greater integration between defence industries.
- Promote joint research and innovation.
- Develop advanced defence technologies.
- Build resilient industrial supply chains.
- Explore cooperation in defence manufacturing and logistics.

This aligns with India's **Atmanirbhar Bharat** initiative while helping Australia diversify defence production partnerships.

Civil Nuclear Energy Cooperation

One of the most significant outcomes of the visit was the signing of a new agreement on **civil nuclear energy**.

The agreement enables the commercial supply of **Australian uranium** to India for peaceful nuclear energy generation.

This builds upon the landmark **India–Australia Civil Nuclear Cooperation Agreement** signed nearly twelve years ago and supports India's long-term clean energy transition.

The agreement is expected to:

- Strengthen India's energy security.
- Support expansion of nuclear power generation.
- Reduce dependence on fossil fuels.
- Advance India's commitment towards low-carbon development.

Critical Minerals Partnership

Recognising the strategic importance of minerals essential for modern technologies, both countries launched cooperation on a **Critical Minerals Corridor**.

The partnership seeks to strengthen supply chains for minerals required in:

- Electric vehicles.
- Battery manufacturing.
- Renewable energy technologies.
- Semiconductors.
- Defence manufacturing.
- High-technology industries.

Australia possesses some of the world's largest reserves of critical minerals, while India is rapidly emerging as a major manufacturing hub, making the partnership strategically significant for both economies.

Partnership on Cyber Security and Critical Technologies

The leaders also announced the **Australia–India Partnership on Cyber, Critical Technologies and Supply Chains**.

The initiative aims to strengthen cooperation in:

- Cybersecurity.
- Artificial Intelligence.
- Quantum technologies.
- Emerging digital technologies.
- Trusted telecommunications.
- Semiconductor ecosystems.
- Resilient global supply chains.

The partnership reflects the increasing recognition that technological security has become an integral component of national security.

Energy Security Cooperation

Both countries agreed to deepen cooperation in ensuring stable and secure energy supplies.

The partnership covers:

- Coal.
- Natural gas.
- Diesel.
- Other liquid fuels.
- Clean energy technologies.

The objective is to enhance long-term energy resilience while supporting the global transition towards cleaner and more sustainable energy systems.

Support for Regional Institutions

India and Australia reaffirmed their support for regional multilateral institutions that promote dialogue, cooperation, and stability.

These include:

- **Indian Ocean Rim Association (IORA).**
- **ASEAN-led regional architecture.**
- **Pacific Islands Forum.**

Both leaders reiterated that regional challenges are best addressed through inclusive, rules-based multilateral cooperation.

Australia's Social Media Ban for Children (A New Digital Governance Model)

Beyond strategic and economic cooperation, digital governance also featured prominently during the discussions.

Prime Minister Narendra Modi praised Australia's landmark legislation restricting social media access for children below the age of 16, describing it as an initiative that is inspiring countries around the world.

Australia's **Online Safety Amendment (Social Media Minimum Age) Act, 2024** requires social media companies to verify users' ages and prevent children under sixteen from accessing their platforms.

Could India Introduce Similar Restrictions?

Prime Minister Modi's remarks indicate that India is seriously examining similar safeguards.

Earlier, the Union Minister for Electronics and Information Technology had confirmed that the government is discussing age-based restrictions with major social media platforms.

The proposed Indian approach may adopt a **graded regulatory framework**, under which:

- Different age groups may receive different levels of platform access.
- Harmful content may be restricted for minors.
- Greater parental controls may be introduced.
- Platforms may face stronger obligations regarding child safety.

The government is reportedly considering whether these safeguards should be implemented through:

- New parliamentary legislation, or
- Amendments to the **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.**

The initiative reflects growing global concern regarding the impact of social media on children's mental health, online safety, privacy, and digital well-being.

Strategic Significance of the Visit

The outcomes of the visit demonstrate the transformation of India–Australia relations from a predominantly economic partnership into a comprehensive strategic partnership.

The agreements strengthen cooperation across multiple strategic sectors:

- Defence and security.
- Maritime cooperation.
- Clean energy.
- Critical minerals.
- Cybersecurity.
- Advanced technologies.
- Supply chain resilience.
- Digital governance.

Together, these initiatives contribute to greater regional stability while reinforcing both countries' commitment to a rules-based international order.

Conclusion

The latest India–Australia agreements represent a major milestone in the evolution of bilateral relations. As both nations navigate an increasingly complex geopolitical and technological landscape, their expanding cooperation in defencecan deepen strategic trust and contribute to regional stability, economic resilience, and a free, open, and rules-based Indo-Pacific.

India - Indonesia Partnership

Why in News: Prime Minister **Narendra Modi** visited **Indonesia** as the first leg of his three-nation tour covering **Indonesia, Australia, and New Zealand.**

A New Momentum in India–Indonesia Relations

India and Indonesia share one of Asia's oldest civilisational relationships, dating back more than two millennia through maritime trade, Buddhism, Hinduism, and cultural exchanges. Over the past decade, this relationship has evolved into a comprehensive strategic partnership encompassing defence, economic cooperation, regional security, and people-to-people ties.

Prime Minister Modi's visit reflects India's growing emphasis on Southeast Asia under its **Act East Policy** and reinforces Indonesia's importance as India's largest strategic partner within ASEAN.

In a special diplomatic gesture, Indonesian President **Prabowo Subianto** personally received the Prime Minister at Jakarta airport, accompanied by four Cabinet Ministers. The ceremonial reception, including a Guard of Honour, highlighted the warmth and importance attached to the bilateral relationship.

Strengthening India's Act East Policy and MAHASAGAR Vision

The visit aligns closely with two major pillars of India's foreign policy.

Act East Policy

India's **Act East Policy**, launched in 2014, seeks to deepen political, economic, strategic, and cultural engagement with Southeast Asia and the wider Indo-Pacific region. Indonesia occupies a central position in this strategy because of its geographic location at the crossroads of the Indian and Pacific Oceans.

MAHASAGAR Vision

Prime Minister Modi also reaffirmed India's commitment to the **MAHASAGAR Vision (Mutual and Holistic Advancement for Security Across the Regions)**, which seeks to promote:

- Maritime security
- Sustainable economic growth
- Regional connectivity
- Disaster resilience
- Blue Economy cooperation
- Rules-based maritime governance

Together, these initiatives underline India's objective of becoming a leading maritime power while contributing to peace, stability, and prosperity across the Indo-Pacific.

Shared Commitment to a Free and Rules-Based Indo-Pacific

One of the central outcomes of the visit was the reaffirmation of a common strategic vision for the Indo-Pacific.

Both countries emphasised:

- Freedom of navigation.
- Respect for international law.
- Peaceful settlement of disputes.
- Sovereignty and territorial integrity.
- An open, inclusive, and rules-based maritime order.

Recognising ASEAN's central role in the regional architecture, both leaders highlighted the strong convergence between **India's Indo-Pacific Oceans Initiative (IPOI)** and **Indonesia's ASEAN Outlook on the Indo-Pacific (AOIP)**.

Major Defence Cooperation

A landmark achievement of the visit was the significant expansion of bilateral defence cooperation.

Among the **14 Memoranda of Understanding (MoUs)** signed, the most notable relate to defence technology and military collaboration.

Key Defence Outcomes

- India will supply the **BrahMos supersonic cruise missile system** to Indonesia.
- India will also provide the **Astra Mk-1 Beyond Visual Range Air-to-Air Missile (BVRAAM)**.
- Expansion of defence industrial cooperation.
- Greater maritime security collaboration.
- Enhanced naval interoperability and strategic dialogue.

The defence agreements reflect India's emergence as an increasingly important defence manufacturing and export partner under the **"Make in India"** initiative.

Maritime Cooperation and Sabang Port

Maritime connectivity emerged as another major pillar of the partnership.

Indonesia welcomed India's proposal to collaborate in the integrated development of **Sabang Port**, located near the entrance to the strategically important **Strait of Malacca**.

The proposed cooperation includes:

- Port infrastructure development.
- Maritime industries.
- Offshore energy support services.
- Logistics connectivity.
- Economic activities in the Andaman Sea.

Given its strategic location, Sabang Port can significantly strengthen India's maritime presence in Southeast Asia while improving regional connectivity and trade.

Shared Position on Global Issues

The visit also reflected growing diplomatic coordination on major international developments.

West Asia Conflict

Expressing deep concern over continuing instability in West Asia, both leaders underscored the importance of diplomacy and peaceful dialogue.

Prime Minister Modi reiterated India's longstanding position supporting a **Two-State Solution** to the Israel–Palestine conflict.

He observed that in an era of growing geopolitical uncertainty, dialogue and diplomacy remain the most effective instruments for achieving durable peace.

The joint statement also welcomed recent diplomatic efforts aimed at reducing tensions in the region and emphasised the importance of ensuring uninterrupted maritime navigation through the **Strait of Hormuz** in accordance with international law and the **United Nations Convention on the Law of the Sea (UNCLOS)**.

Celebrating Shared Civilizational Heritage

The visit also highlighted the centuries-old cultural relationship between the two countries.

Prime Minister Modi visited the magnificent **Prambanan Temple Complex**, Indonesia's largest Hindu temple and one of Southeast Asia's finest examples of Hindu architecture.

He also witnessed a traditional **Wayang Kulit** (shadow puppet) performance depicting the **Ramayana**, describing it as a powerful reminder of the enduring civilisational links that continue to unite India and Indonesia across generations.

These cultural engagements reinforce the deep historical connections that form the foundation of contemporary bilateral relations.

Indonesia Confers Its Highest Civilian Honour

In recognition of his contribution to strengthening bilateral relations, Indonesia conferred its **highest civilian honour**, the **"Bintang Adipurna of the Republic of Indonesia,"** upon Prime Minister Modi.

This prestigious award symbolises the exceptional friendship between the two nations.

Prime Minister Modi became only the **second Indian Prime Minister** to receive the honour after **Jawaharlal Nehru**, who was awarded it posthumously in 1995.

Accepting the award, the Prime Minister described it as a tribute not merely to himself but to the enduring friendship between the peoples of India and Indonesia.

Why Indonesia Matters for India

Indonesia occupies immense strategic importance for India due to several reasons:

- Largest economy in Southeast Asia.
- World's largest Muslim-majority nation.
- Founding member of ASEAN.
- Controls vital sea lanes connecting the Indian and Pacific Oceans.
- Strategic location near the Strait of Malacca.
- Important maritime security partner.
- Growing defence and economic partner in the Indo-Pacific.

Strengthening ties with Indonesia significantly enhances India's strategic influence across the Indo-Pacific region.

Conclusion

Prime Minister Modi's visit marks another important milestone in the rapidly expanding **India–Indonesia Comprehensive Strategic Partnership.** The agreements on defence, maritime cooperation, connectivity, culture, and regional security demonstrate that bilateralcooperation and provide a strong foundation for deeper strategic engagement in the Indo-Pacific.

India - Japan Partnership

Why in News: Prime Minister **Narendra Modi** and Japanese Prime Minister **Sanae Takaichi** held high-level bilateral talks in New Delhi, reaffirming their shared commitment to a **Free and Rules-Based Indo-Pacific (FOIP).**

A Shared Vision for the Indo-Pacific

Both leaders reiterated that the Indo-Pacific has emerged as the centre of global economic growth as well as geopolitical competition.

Prime Minister Modi described a **"free, prosperous and rules-based Indo-Pacific"** as a shared priority of both nations and reaffirmed India's commitment to working closely with Japan to ensure peace, stability, and sustainable development across the region.

Prime Minister Takaichi similarly emphasised Japan's vision of a **Free and Open Indo-Pacific (FOIP)**, stating that India and Japan are "perfectly aligned" in their strategic outlook.

The convergence of India's **Indo-Pacific Oceans Initiative (IPOI)** and Japan's **FOIP vision** highlights the increasing coordination between the two countries in shaping the regional security architecture.

Major Breakthrough in Defence Cooperation

One of the most significant outcomes of the summit was the expansion of bilateral defence collaboration.

India and Japan announced their **first agreement for the co-development of defence technology**, marking an important milestone in their strategic partnership.

The inaugural project involves the **joint development of naval radio antenna systems**, representing the beginning of a broader defence technology partnership.

The agreement demonstrates a gradual shift in bilateral relations—from buyer-seller interactions towards **joint research, co-development, and technological collaboration**.

Both countries also expressed their intention to jointly develop advanced defence technologies capable of strengthening:

- Maritime security
- Naval communication systems
- Regional stability
- Rules-based maritime order

Japanese officials clarified that the technologies being exported are intended strictly for **defensive purposes** and are aimed at strengthening regional peace rather than promoting military confrontation.

Strengthening Maritime Security Cooperation

Maritime security emerged as one of the central themes of the summit.

Recognising the strategic importance of the Indian Ocean and the wider Indo-Pacific, both countries agreed to deepen cooperation through:

- Expanded bilateral naval exercises
- Enhanced Maritime Domain Awareness (MDA)
- Greater information sharing
- Improved coordination between maritime agencies

Both governments stressed that secure sea lanes are essential for:

- Global trade
- Energy transportation
- Regional stability
- Protection of sovereignty
- Freedom of navigation

The emphasis on maritime cooperation assumes greater significance in view of increasing geopolitical competition across the Indo-Pacific region.

Economic Partnership Reaches New Heights

Alongside strategic cooperation, India and Japan significantly expanded their economic partnership.

During the India–Japan Economic Session, companies from both countries signed **129 Memoranda of Understanding (MoUs)** covering:

- Artificial Intelligence (AI)
- Advanced technologies
- Manufacturing
- Infrastructure
- Digital innovation
- Industrial investment

These agreements reflect the growing confidence of Japanese industries in India's expanding economy and manufacturing ecosystem.

Japan's Expanding Investment in India

Japan reiterated its long-term commitment to India's economic development.

According to the details shared during the summit, Japan is progressing towards investments worth nearly **$1 trillion** across several Indian States, including:

- Haryana
- Maharashtra
- Gujarat
- Odisha
- Northeastern States

These investments are expected to support:

- Industrial development
- Manufacturing expansion
- Smart infrastructure
- Logistics networks
- Digital economy
- Employment generation

The expanding investment partnership complements India's objective of becoming a global manufacturing and technology hub.

Energy Security Becomes a Strategic Priority

The evolving geopolitical situation in West Asia also figured prominently during the discussions.

Both leaders acknowledged that disruptions in the Persian Gulf region pose significant risks to global energy supplies.

To reduce vulnerabilities, India and Japan agreed to strengthen cooperation in:

- Energy security
- Diversification of energy sources
- Strategic crude oil reserves
- Long-term energy resilience

Japanese officials noted that their country is actively diversifying energy suppliers amid the ongoing uncertainty in West Asia.

The issue has acquired added urgency as several Japanese commercial vessels continue to face operational challenges in the vicinity of the **Strait of Hormuz**, one of the world's most important energy transit corridors.

Strategic Significance of the India–Japan Partnership

The summit reflects the steady transformation of India–Japan relations into one of the most important strategic partnerships in the Indo-Pacific.

The partnership is now built upon multiple complementary pillars:

- Shared democratic values
- Rules-based international order
- Maritime security
- Defence technology cooperation
- Supply chain resilience
- Infrastructure development
- Emerging technologies
- Economic investment
- Energy security
- Regional peace and stability

As geopolitical competition intensifies across the Indo-Pacific, both countries increasingly view each other as trusted partners capable of contributing to a stable regional balance.

Conclusion

The India–Japan summit marks another significant milestone in the evolution of their **Special Strategic and Global Partnership.** By expanding cooperation in defence technology, maritime security, critical infrastructure, artificial intelligence, andgreen technologies can deepen strategic convergence and contribute to a free, open, and resilient Indo-Pacific.

India - U.K. Comprehensive Economic and Trade Agreement (CETA)

Why in News: Recently, the **India–United Kingdom Comprehensive Economic and Trade Agreement (CETA)** and the **Double Contribution Convention (DCC)** came into force, marking a historic milestone in India–U.K. economic relations.

Describing the agreement as a **"gold standard"** and one of India's **most ambitious Free Trade Agreements (FTAs)**, the Government stated that the pact will deepen trade, investment, technology partnerships, and labour mobility while creating significant opportunities for businesses, farmers, professionals, women entrepreneurs, and the services sector.

Why is CETA Being Described as a 'Gold Standard' FTA?

Commerce Secretary **Rajesh Agrawal** described CETA as a **"gold standard"** because of its:

- Wide sectoral coverage.
- Comprehensive reduction in tariff and non-tariff barriers.
- Balanced protection of India's sensitive sectors.
- Inclusion of emerging areas such as digital trade and innovation.
- Long-term framework for strategic economic cooperation.

Unlike earlier trade agreements that focused mainly on merchandise trade, CETA adopts a **whole-of-economy approach**, making it one of India's most modern and comprehensive trade agreements.

Key Features of the India–U.K. CETA

1. Significant Tariff Liberalisation

U.K. Commitments

The United Kingdom has agreed to:

- Immediately eliminate tariffs on **96.8% of tariff lines**.

- Cover **97.7% of India's export value** through immediate tariff removal.
- Offer quota-based tariff reductions on another **2% of tariff lines**.

Overall, the U.K. market will provide preferential access to:

- **98.8% of tariff lines**
- **99.5% of India's export value**

This substantially improves market access for Indian exporters.

India's Commitments

India will:

- Immediately eliminate tariffs covering **30.3% of trade value**.
- Gradually eliminate tariffs on an additional **47% of trade value** over a phased period.
- Provide quota-based tariff concessions on **12.1% of trade value**.

Overall, India will liberalise:

- **89.5% of tariff lines**
- **89.4% of bilateral trade value**

The phased approach provides adequate adjustment time for domestic industries.

Protection of Sensitive Domestic Sectors

While expanding trade, India has safeguarded several strategically important sectors.

Sensitive sectors receiving protection include:

- Dairy products
- Cereals
- Pulses
- Vegetables
- Gold and jewellery
- Smartphones
- Critical polymers

This reflects India's strategy of balancing **trade liberalisation with domestic economic interests**.

Reduction of Non-Tariff Barriers

Modern trade is increasingly affected by regulatory barriers rather than customs duties.

CETA therefore addresses important **Non-Tariff Barriers (NTBs)** through provisions relating to:

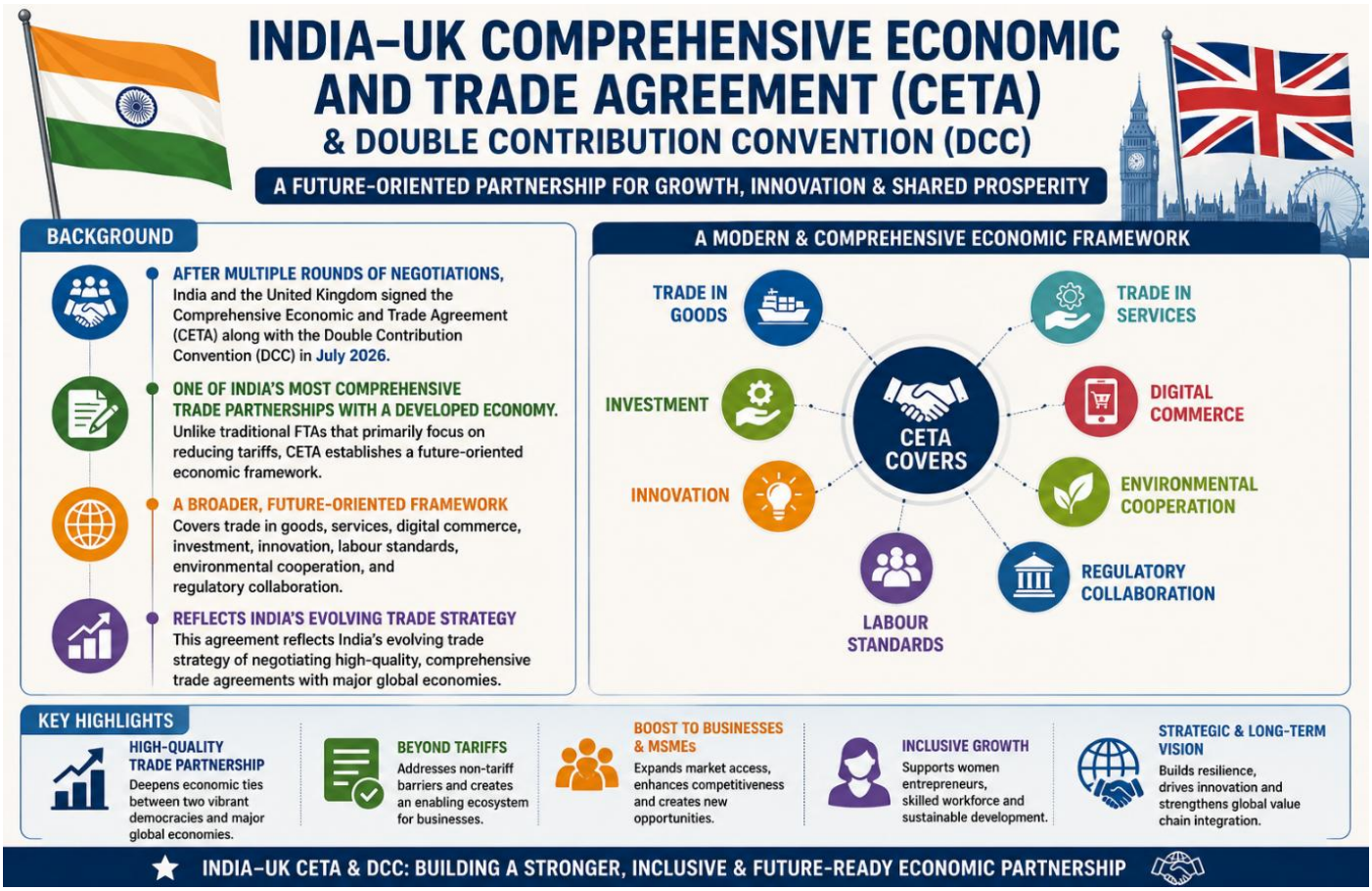
Sanitary and Phytosanitary (SPS) Measures

These govern food safety, plant health, and animal health standards.

Technical Barriers to Trade (TBT)

These include technical regulations, product standards, certification requirements, and conformity assessments.

The agreement aims to ensure that such regulations are **science-based, transparent, and non-discriminatory**, preventing them from becoming hidden restrictions on trade.



A Comprehensive 21st Century Trade Agreement

The agreement consists of **30 chapters**, covering areas beyond conventional trade in goods.

Major areas include:

- Trade in goods
- Trade in services
- Digital trade
- Government procurement
- Small and Medium Enterprises (SMEs)
- Innovation
- Intellectual property

- Labour standards
- Environmental cooperation
- Gender-inclusive trade
- Investment facilitation

This reflects the changing nature of global trade, where services, technology, and digital commerce have become equally important as merchandise exports.

Double Contribution Convention (DCC) (A Major Boost for Indian Professionals)

One of the most significant components of the package is the **Double Contribution Convention (DCC)**.

The Existing Problem

Indian professionals temporarily working in the United Kingdom were required to contribute to:

- India's social security system, **and**
- The U.K.'s National Insurance System.

Since many professionals return to India before qualifying for U.K. social security benefits, these contributions effectively became **non-recoverable costs**.

What Changes Under the DCC?

The DCC provides that:

- Indian employees who continue contributing to India's social security system **will not be required to contribute simultaneously to the U.K.'s National Insurance system**.
- This exemption applies for **up to five years** for eligible temporary workers.

This prevents **double social security contributions**, reducing employment costs for both workers and employers.

Who Will Benefit?

According to the Commerce Ministry:

- More than **75,000 Indian professionals** are expected to benefit.
- Around **900 Indian employers** operating in the U.K. will also gain from lower employment costs.

The agreement is expected to particularly benefit professionals in sectors such as:

- Information Technology
- Engineering
- Financial services
- Consulting
- Healthcare
- Research
- Education

Expected Economic Benefits

The agreement is expected to generate wide-ranging gains for both economies.

For India

- Greater access to the U.K. market.
- Increased exports of labour-intensive products.
- Improved competitiveness of Indian businesses.
- Enhanced opportunities for MSMEs.
- Greater services exports.
- Increased employment generation.
- Boost to women-led enterprises and start-ups.
- Attraction of foreign investment.

For the United Kingdom

According to the **City of London Corporation**, the agreement will deepen cooperation in:

- Financial services
- Insurance
- FinTech
- Sustainable finance
- Infrastructure investment
- Professional services

As one of the world's largest financial centres, London is expected to play an important role in mobilising investment for India's long-term growth.

Strategic Significance

Beyond trade, CETA strengthens the broader **India–U.K. Comprehensive Strategic Partnership**.

The agreement supports cooperation in:

- Supply chain resilience
- Digital economy
- Innovation ecosystems
- Green technologies
- Skilled workforce mobility
- Investment partnerships

At a time of increasing geopolitical uncertainties and global supply chain diversification, the agreement enhances the economic resilience of both countries.

Challenges Ahead

Successful implementation will require:

- Efficient customs facilitation.
- Harmonisation of regulatory standards.
- Awareness among MSMEs regarding new market opportunities.
- Effective utilisation of preferential tariff benefits.
- Continued support for domestic industries adjusting to increased competition.
- Strong institutional mechanisms to resolve trade disputes.

Maximising the benefits of the agreement will depend on the ability of businesses to fully utilise the opportunities created under CETA.

Way Forward

The India–U.K. CETA marks a significant shift in India's trade policy towards **high-quality, comprehensive trade agreements** with advanced economies. Going forward, India must focus on:

- Improving export competitiveness.
- Strengthening manufacturing capacity.
- Supporting MSMEs in global value chains.
- Enhancing logistics and trade infrastructure.
- Promoting services exports.
- Expanding digital trade partnerships.

Successful implementation could serve as a model for future trade agreements with other developed economies.

Conclusion

The **India–U.K. Comprehensive Economic and Trade Agreement (CETA)** represents a landmark achievement in India's external economic policy. By combining extensive tariff liberalisation with modern disciplines on digital trade, services, investment can deepen economic integration, expand market access, and strengthen the long-term India–U.K. strategic partnership.

Insular incentive:

Why in News: The **government**'s decision to continue **higher-priced E20 petrol despite falling crude oil prices** has reignited debate over balancing farmer welfare, consumer interests, resource efficiency, and sustainable biofuel policy.

Key Details

- **Higher E20 pricing:** Government retains higher E20 petrol prices to ensure better returns for farmers supplying ethanol feedstock.
- **Sugarcane dependence:** Ethanol production relies mainly on sugarcane, a highly **water- and fertilizer-intensive** crop grown in water-stressed regions.
- **Need for diversification:** Alternatives like **maize, millets, sweet sorghum**, and **agricultural residues** can improve sustainability and reduce pressure on water resources.
- **Promise of 2G ethanol:** Ethanol from crop residues reduces **food-fuel competition**, curbs **stubble burning**, and promotes a circular economy despite higher initial costs.
- **Policy reforms required:** Incentivise **2G ethanol**, strengthen residue collection infrastructure, and align **ethanol policy with agricultural, environmental, and consumer welfare goals**.

Concerns with the Current E20 Ethanol Pricing Policy

- Government continues **higher-priced E20 petrol** even when crude oil prices fall below **$70/barrel** to support farmer incomes.
- Most ethanol feedstock comes from **sugarcane**, a **water- and fertilizer-intensive crop**.
- Sugarcane is largely cultivated in **water-stressed States** like **Maharashtra** and **Karnataka**.
- Policy increases **fuel prices for consumers**, including poorer households, while benefits reach farmers only through multiple intermediaries.
- Higher feedstock prices alone do **not solve structural causes of low farm income**, such as poor market access and post-harvest losses.

Economic and Environmental Trade-offs

- Policy is beneficial only if **lower crude oil imports**, **environmental gains**, and **higher rural incomes** exceed the additional costs.
- Consumers pay **more for lower-mileage E20 fuel** compared to pure petrol.
- Administered ethanol pricing can reduce **market efficiency** and distort incentives.
- Uniform incentives for ethanol production encourage **sugarcane dominance** because of its large existing production base.
- Ethanol policy should balance **energy security**, **resource efficiency**, **consumer welfare**, and **food security**.

Alternative Feedstocks for Sustainable Ethanol Production

- **Maize** is less water-intensive than sugarcane but still requires substantial fertilizer use.
- **Millets** consume less water but produce **lower fermentable starch per hectare**.
- **Sweet sorghum** requires less water and has a **shorter growing season**, making it a promising alternative.
- Government has expanded **grain-based distillation capacity** and used surplus or damaged **FCI rice** for ethanol production.
- Diversifying feedstocks reduces dependence on sugarcane and improves long-term sustainability.

Potential of Second-Generation (2G) Ethanol

- **2G ethanol** is produced from **agricultural residues** like rice straw, wheat straw, maize stover, and groundnut shells.
- It avoids using **cropland for fuel**, reducing competition with food production.
- Utilising crop residues helps address **stubble burning** and associated air pollution.
- Although technologically complex and costlier, it offers significant environmental and resource benefits.
- Investing in 2G technology supports a more sustainable and circular biofuel economy.

Policy Reforms for a Sustainable Ethanol Programme

- Provide **premium prices** for ethanol produced from agricultural residues rather than all feedstocks equally.
- Subsidise **equipment, storage facilities, and logistics** for crop residue collection.
- Facilitate **long-term contracts** between residue aggregators and ethanol distilleries.
- Offer **viability-gap funding** and **assured offtake agreements** for 2G ethanol projects.
- Integrate **ethanol policy with agricultural policy**, focusing on **resource efficiency**, **farmer welfare**, **food security**, and **consumer interests** rather than import substitution alone.

Conclusion

India's ethanol policy should go beyond import substitution and farmer income support to promote **resource efficiency, food security, and consumer welfare.** Diversifying feedstocks, encouraging second-generation ethanol, and integrating biofuel policy diversified feedstock base, technological innovation, and adequate safeguards for food security and environmental sustainability.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "India's ethanol blending programmed aims to enhance energy security and reduce crude oil imports. Critically examine the economic, environmental, and agricultural challenges associated with the policy. Suggest measures to make India's biofuel strategy more sustainable." (250 words, 15 marks)

Export gains

Why in News: India's **June 2026 trade data** attracted attention as the **trade deficit surged 430%**, while strong merchandise exports highlighted the economy's resilience despite the **West Asia crisis** and global uncertainties.

Key Details

- **Trade deficit** jumped **430%** in June 2026, mainly due to higher imports of crude oil, gold, fertilizers, and electronics.

- **Crude oil, gold, and fertilizer imports** increased because of the **West Asia crisis** and rising global prices.
- **Electronics imports** rose to support India's expanding **electronics manufacturing** sector.
- **Merchandise exports** grew strongly by **15.5%** in June, with robust growth in **non-petroleum exports**.
- **Services exports** grew slowly, highlighting the need to strengthen India's global competitiveness in high-value services.

Trade Deficit Driven by Essential Imports

- **India's trade deficit surged 430%** in June 2026, but the rise was mainly due to **higher merchandise imports**, not weak exports.
- **Crude oil imports** increased **40%** because of elevated global oil prices amid the **West Asia crisis**.
- **Gold imports** became costlier due to rising global prices and the **doubling of gold import duties** in May.
- **Fertilizer imports** rose **201%** as disruptions in West Asia reduced natural gas supplies.
- The import surge largely reflected **external shocks and essential needs**, reducing concerns over the headline trade deficit.

Electronics Imports Support Manufacturing Growth

- **Electronic goods imports** increased mainly due to **domestic manufacturing expansion**.
- India imports more **components and parts** for assembling electronics such as smartphones and laptops.
- The government removed **basic customs duty** on key imported inputs like **display assembly parts, lithium-ion cells, and inductor coil modules**.
- The policy aims to strengthen **high-end electronics manufacturing** under the Make in India initiative.
- In the long run, India should **develop domestic production of these components** to build resilient supply chains.

Merchandise Exports Remain Strong

- **Merchandise exports** grew **15.5% in June** and **16% in Q1 of 2026–27**.
- Growth was **broad-based**, not limited to petroleum exports.
- **Non-petroleum exports** increased **16.5% in June** and **12.4% in Q1**.
- Export performance remained strong despite disruptions caused by the **West Asia crisis**.
- The data indicate **healthy external demand** and improving export competitiveness.

Export Diversification Strengthens Resilience

- India's exports to **all regions except West Asia** recorded growth during Q1.
- Export expansion occurred in both **volume and value**, not merely due to higher prices.
- Indian exporters quickly **diversified markets**, reducing dependence on crisis-affected regions.
- This diversification helped cushion the impact of geopolitical disruptions.
- Expanding into multiple markets enhances **trade resilience and stability**.

Services Exports Need Greater Momentum

- **Services exports** grew only **2.9% in June** and **6.2% in Q1**, lagging merchandise exports.
- Growth in **Global Capability Centres (GCCs)** alone is insufficient for long-term success.
- The **Chief Economic Adviser** cautioned against complacency in the services sector.
- India must continue expanding its **high-value service exports** and improve competitiveness.
- Sustained reforms and innovation are essential to maintain India's advantage in global services trade.

Conclusion

India's June 2026 trade data highlights that the widening trade deficit was primarily driven by essential imports amid global disruptions, while merchandise exports remained resilient through diversification.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements:

1) A trade deficit occurs when the value of a country's imports of goods exceeds the value of its exports of goods.
2) A country with a trade deficit necessarily experiences a deficit in its overall Balance of Payments (BoP).

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

Answer: a

Breaching the target

Why in News: India's **retail inflation** rose above the **RBI's 4% target** in June due to rising fuel, transport and food costs, increasing concerns over imported inflation, monetary policy and economic stability.

Key Details

- **Imported Inflation:** High crude oil prices and rupee depreciation have increased import costs, raising inflation across sectors.
- **Food Security Risks:** A deficient southwest monsoon may reduce agricultural output, leading to higher food inflation.
- **Cost-Push Inflation:** Elevated fuel, transport and logistics costs are increasing production and consumer prices.
- **Household Burden:** Rising prices of food, transport, restaurants and jewellery are eroding purchasing power.
- **Policy Constraints:** Persistent inflation limits the RBI's ability to reduce interest rates and support economic growth.

Retail and Wholesale Inflation Trends

- **Retail inflation (CPI)** rose to **4.38% in June**, crossing the **RBI's 4% target** for the first time under the new CPI series.
- It increased from **3.93% in May** and around **2.7%** a year earlier.

- **Wholesale inflation (WPI)** remained elevated at **9.87%**, compared to **9.68%** in May.
- The gap between **wholesale and retail inflation** narrowed only marginally.
- Rising producer costs are increasingly being **passed on to consumers**.

Imported Inflation and Fuel Price Impact

- The **U.S.–Iran conflict** triggered a sharp rise in **global crude oil prices**, increasing inflationary pressures.
- India imports nearly **90% of its crude oil**, making it highly vulnerable to external shocks.
- Merchandise imports increased to **$70.8 billion in June** from **$54.1 billion** a year earlier.
- **Fuel and power inflation** remained very high at **27.41%**, significantly raising production costs.
- **Rupee depreciation** further increased import costs, though **RBI intervention** moderated the currency's fall.

Transport and Food Price Pressures

- **Transport inflation** more than doubled to **4.31%** from **1.75%** in May.
- Inflation in **transport services for goods** stayed elevated at **7.70%**, increasing logistics costs.
- **Consumer Food Price Index (CFPI)** rose to **5.32%** from **4.78%** in May.
- Higher transport and fuel costs have raised the prices of food and essential commodities.
- A **projected deficient southwest monsoon** poses additional risks to agricultural output and food inflation.

Services and Bullion-Driven Inflation

- **Restaurants and hotels** witnessed higher costs due to elevated commercial LPG prices.
- Although commercial LPG prices were reduced slightly, earlier steep hikes continued to affect businesses.
- The Centre increased **import duties on gold and silver** from **6% to 15%**.
- Despite higher duties, **bullion imports remained strong** amid global uncertainty.
- Rising jewellery prices have added to **household inflationary pressures**.

Outlook and Monetary Policy Implications

- A temporary decline in crude oil prices after the **late-June ceasefire** has reversed with prices rising again.
- Continued **geopolitical uncertainty** and elevated commodity prices are sustaining inflation.
- Persistent upstream cost pressures are likely to keep inflation above the RBI's target.
- Inflation is unlikely to return to **4%** in the near term.
- As a result, the **Monetary Policy Committee (MPC)** is expected to **avoid a policy rate cut** in its August meeting.

Conclusion

Persistent inflation reflects the combined impact of global geopolitical tensions, imported energy costs and domestic supply-side risks. India must strengthen energy security, improve agricultural resilience, diversify import sources and enhance supply chain efficiency.

Forced labour farce

Why in News: The **United States** has imposed a **10% Section 301 tariff** on imports from India and other countries over alleged links to forced labour, raising concerns over global trade rules and India-U.S. trade negotiations.

Key Details

- **Permanent Tariff Tool:** The new **Section 301 tariffs** replace the expired temporary reciprocal tariffs and provide a more durable mechanism for imposing trade restrictions.
- **Trade Deal Incentive:** Countries with **trade agreements** with the U.S. (EU, Japan, South Korea, Taiwan, Switzerland) receive **preferential tariff treatment**, indicating tariffs are also used as leverage in trade negotiations.
- **India's Position:** India, despite **not being accused of using forced labour**, faces a **10% additional tariff** due to its trade links with countries alleged to engage in such practices.
- **India's Response:** India reduced the proposed tariff from **12.5% to 10%** by notifying a ban on imports of goods produced using forced labour, although implementation remains challenging.
- **Continuing Uncertainty:** Another **Section 301 investigation** on **excess industrial capacity** may lead to additional tariffs, delaying progress on a comprehensive India-U.S. trade agreement.

Nature of the New U.S. Tariffs

- The **10% U.S. tariff** on imports from India and several other countries is presented as a measure against **forced labour**, but primarily aims to:
  - Restore **more permanent tariffs** after temporary reciprocal tariffs expired.
  - Increase pressure on countries to **enter trade agreements** with the U.S.
- The policy appears to be driven more by **trade negotiations** than by labour rights concerns.

Shift from Temporary to Permanent Tariffs

- The **U.S. Supreme Court (February 2026)** weakened the U.S.'s ability to use **high reciprocal tariffs** as leverage in trade negotiations.
- In response:
  - The U.S. imposed a **temporary 10% tariff** on all countries.
  - However, the policy had two major limitations:
    - It was valid only for **150 days**.
    - It applied **equally to all countries**, regardless of whether they had trade agreements with the U.S.
- After these tariffs expired, the U.S. introduced **Section 301 'forced labour' tariffs**, which are more **permanent** and selectively favour countries with trade agreements.

Preferential Treatment under the Tariff Regime

- Countries with trade agreements with the U.S. receive **more favourable tariff treatment**.
- **India:** Faces an additional **10% tariff** over the existing U.S. base tariff.

- **European Union, Taiwan, Japan, South Korea and Switzerland:** Face a **total tariff of only 10%** due to ongoing or formalised trade agreements.
- This differential treatment indicates that:
  - Tariffs are being used as a **trade policy instrument** rather than solely to eliminate forced labour.
  - If labour rights were the primary objective:
    - Tariffs would have been **uniformly imposed** on all offenders.
    - There would have been **fewer product exemptions and country-specific quotas**.

India's Response and Continuing Uncertainty

- India was **not accused of using forced labour**, yet faced tariffs because of its trade links with countries alleged to have such practices.
- India successfully reduced the proposed tariff from **12.5% to 10%** by:
  - Issuing a notification **banning imports of goods produced through forced labour**.
- However:
  - Enforcement remains difficult because it would require inspections in countries such as **China and Malaysia**.
  - Another **Section 301 investigation** on **excess industrial capacity** is still pending and may lead to **additional tariffs**, creating uncertainty.

Implications for India-U.S. Trade Relations

- India is **unlikely to finalise a trade agreement** until the outcome of the pending U.S. tariff investigations becomes clear.
- The new tariffs **should not pressure India** into hastily concluding a trade deal because:
  - The U.S. tariff regime has shown significant **policy volatility**.
  - Even after signing trade agreements, the U.S. has previously **altered its tariff policies**, reducing the predictability and long-term value of such deals.

Conclusion

The latest U.S. tariffs reflect the growing use of **trade policy as a strategic tool** to influence global supply chains and trade negotiations. While India has mitigated the immediate impact, continued diversification of export markets and strengthening domestic competitiveness will be important to sustain India's trade resilience.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Trade measures are increasingly being used as instruments of strategic and geopolitical influence rather than purely economic policy." Discuss in the context of recent U.S. tariff actions against India. (150 words, 10 marks)

Temporary respite

Why in News: India's **Index of Industrial Production (IIP)** grew **7.3% in June 2026**, the highest in **23 months**, reflecting resilient industrial activity despite geopolitical tensions, a deficient monsoon, and global economic uncertainties.

Key Details

- **IIP** grew **7.3% in June 2026**, recording the **highest growth in 23 months**.
- Growth remained strong despite the **West Asia crisis** and a **deficient monsoon**.
- **Manufacturing** was the main driver, supported by both **domestic demand** and **merchandise exports**.
- **Consumer durables** grew above **7%** for the second consecutive month, while **consumer non-durables** reached a **six-month high**.
- **Merchandise exports** increased by **15.5%**, indicating strong external demand.
- **Capital goods** recorded **double-digit growth**, achieving this in **8 of the last 10 months**, signalling sustained investment.
- **Government capital expenditure (CapEx)** continued to be the primary engine of economic growth.

Strong Industrial Growth Despite Economic Headwinds

- **Index of Industrial Production (IIP)** grew by **7.3% in June 2026**, the **highest growth in 23 months**.
- Growth exceeded expectations despite challenges such as the **West Asia crisis** and a **deficient monsoon**.
- Part of the increase was due to a **low base effect**, as June 2025 had recorded one of the weakest performances in nearly a year.
- Even after accounting for the base effect, the data reflects **strong resilience in industrial activity**.
- The performance indicates that the Indian economy continues to withstand external shocks.

Manufacturing and Investment Drive Industrial Expansion

- **Manufacturing** emerged as the key driver, supported by both **domestic demand** and **rising exports**.
- **Consumer durables** recorded growth of **over 7%** for the **second consecutive month**, indicating sustained consumer demand.
- **Consumer non-durables** expanded at a **six-month high**, reflecting improved consumption trends.
- **Merchandise exports** increased by **15.5% in June**, signalling robust external demand.
- **Capital goods** registered **double-digit growth**, achieving such growth in **8 of the last 10 months**, indicating continued investment activity.

Government Capital Expenditure Remains the Main Growth Engine

- **Capital formation**, largely driven by **government spending**, has remained the most consistent source of economic growth after the pandemic.
- Continued public investment is essential because other growth drivers remain uncertain.
- **Exports** are vulnerable to global geopolitical developments and slowing world demand.
- **Private consumption** remains susceptible to inflation and weak rural demand.
- Therefore, sustaining **capital expenditure (CapEx)** is critical for maintaining economic momentum.

Temporary Boosts and Emerging Risks

- The **electricity sector** recorded its **highest growth in 25 months**, mainly due to increased power demand during the heat wave.
- The **mining sector** returned to growth after **four consecutive months of contraction**.
- However, these gains are expected to be temporary.
- The advancing **southwest monsoon** is likely to disrupt mining operations.
- Sector-specific improvements may therefore weaken in the coming months.

Outlook: Need for Strong Domestic Policy Support

- Economists warn that a **deficient monsoon** could weaken **rural demand**, affecting consumer-oriented industries.
- Rising uncertainty in **West Asia** is increasing **oil price volatility**, creating inflationary and investment risks.
- Businesses may postpone investments, consumers may delay spending, and households may prioritise savings over consumption.
- While the economy has shown resilience, prolonged external shocks could strain growth prospects.
- If global conditions remain adverse, the government must continue **high capital expenditure** and adopt new measures to **revive domestic demand** despite growing fiscal pressures.

Conclusion

The June 2026 IIP data highlights the resilience of India's industrial sector, driven by **manufacturing, exports, and public capital expenditure.** However, geopolitical uncertainties, oil price volatility, and a weak monsoon pose significant risks.

Data Doubts

Why in News: India's **Index of Industrial Production (IIP)** grew by **5.1% in May 2026**, reaching a five-month high, indicating industrial resilience despite global uncertainties, while raising questions over demand patterns and data methodology.

Key Details

- **Industrial Growth Improves:** India's **IIP grew 5.1% in May 2026**, led by **5.5% manufacturing growth**, reflecting a strong recovery after disruptions caused by the West Asia crisis.
- **Demand Pattern Debate:** Growth may be driven by rising **exports**, as merchandise exports reached record highs, while slower GST collections suggest **domestic consumption remains weak**.
- **Consumer Goods Performance: Consumer durables and non-durables** recorded multi-month highs, indicating improving production, though the strength of domestic demand remains contested.
- **Methodology Change:** Ministry of Statistics and Programme Implementation replaced the **Wholesale Price Index (WPI)** with the **Producer Price Index (PPI)** as the deflator for some sectors, improving accuracy but raising concerns over delayed implementation.
- **Data Discrepancy:** The strong IIP growth contrasts with the weak **Index of Eight Core Sectors**, highlighting inconsistencies in industrial measurement and the need for updated, harmonized statistical systems.

Strong Industrial Recovery

- India's industrial output has strengthened despite weak global economic conditions.
- The economy recovered quickly from the initial impact of the **West Asia crisis**.
- The **Index of Industrial Production (IIP)** grew by **5.1% in May 2026**, the highest in five months.
- This followed growth of **4.9% in April**, showing sustained improvement.
- The data indicate increasing resilience in the industrial sector.

Manufacturing Drives Growth

- The **manufacturing sector** expanded by **5.5% in May 2026**.
- Although slightly slower than April, manufacturing remained the main growth driver.
- **Consumer durables** recorded strong growth in both April and May.
- **Consumer non-durables** also reached multi-month highs.
- These trends suggest improved industrial activity.

Debate Over Growth Drivers

- One view attributes industrial growth to a recovery in **domestic consumption**.
- Another argues that **exports**, rather than domestic demand, are driving production.
- Domestic GST collections have grown more slowly in recent months.
- Merchandise exports reached a **four-year high in April** and an **all-time high in May**.
- Heavy dependence on external demand makes the economy vulnerable to global shocks.

Changes in Industrial Data Methodology

- The **Ministry of Statistics and Programme Implementation (MoSPI)** revised the IIP calculation method.
- It replaced the **Wholesale Price Index (WPI)** with the **Producer Price Index (PPI)** as the production deflator.
- The new methodology is considered more accurate.
- However, the delayed implementation raised questions about data management.
- Greater transparency in statistical revisions is needed.

Concerns and Way Forward

- Strong IIP growth contrasts with weak performance in the **Index of Eight Core Sectors**.
- The core sector index recorded its **second-lowest growth in 21 months**.
- Differences between the two indices raise concerns over measurement consistency.
- India needs updated, harmonized, and transparent industrial statistics.
- Sustainable industrial growth requires stronger domestic demand alongside robust exports.

Conclusion

India's recent industrial growth reflects resilience and improving manufacturing activity, but **sustainability depends** on stronger domestic demand rather than export-led expansion alone. Simultaneously, transparent and consistent **statistical methodologies** are essential for credible policymaking.

Unwelcome Surge

Why in News: India's June 2026 GST collections rose 13.9% to ₹1.95 lakh crore. However, the increase was largely driven by import-related taxes, raising concerns over weak domestic demand and imported inflation.

Key Details

- **GST Collections Rise: Gross GST revenue** reached **₹1.95 lakh crore** in June, registering **13.9% year-on-year growth**, mainly due to a sharp rise in **Import IGST**.
- **Import-Led Growth: Import IGST** grew **34.6%**, driven by higher imports of **crude oil**, **petroleum products**, and **gold**, while **domestic GST** increased by only **6.5%**.
- **Imported Inflation Impact: Rupee depreciation**, rising **global commodity prices**, higher **freight costs**, and increased **gold import duty** inflated import values, boosting GST collections.
- **Weak Domestic Economic Activity:** Growth in the **eight core industries** slowed to **2.8%**, while the **Manufacturing PMI** indicated moderating industrial activity, reflecting subdued domestic value addition.
- **GST at Nine Years:** GST has expanded the **taxpayer base**, improved **tax compliance** and **formalisation**, but issues relating to **Input Tax Credit (ITC)**, litigation, and **fiscal federalism** continue.

Strong GST Collection Growth

- **GST collections** increased **13.9% (YoY)** to **₹1.95 lakh crore** in **June**.
- The growth was primarily driven by **Import Integrated GST (IGST)**.
- **Import IGST** surged by **34.6%**, significantly higher than **17.2%** growth in May.
- **Domestic GST collections** grew by only **6.5%**.
- This indicates that overall GST growth was **not driven by broad-based domestic economic activity**.

Import-Led Rise in Tax Collections

- **June GST** reflects **economic activity during May**.
- The rise in imports was led by **crude oil, petroleum products, and gold**.
- A sharp increase in **gold prices** encouraged higher imports as a **safe-haven investment**.
- The government increased **gold import duty** from **6% to 15%**, boosting GST collections.
- Higher imports expanded the **tax base**, contributing to stronger GST revenues.

Role of Imported Inflation

- **Rupee depreciation** against the **US dollar** increased import costs.
- Rising **global commodity prices** and **higher freight charges** further inflated import values.
- Increased import values resulted in **higher GST collections**.
- The rise reflected **price effects** rather than increased production.
- This suggests GST growth was largely driven by **imported inflation**.

Signs of Moderating Domestic Economy

- The **eight core industries** grew by only **2.8%** in **Q1 FY27**, lower than the previous year.
- Growth remained weak in **crude oil, natural gas, refinery products, fertilisers, and electricity**.
- The **Manufacturing PMI** indicated continued but **moderating industrial activity**.
- Domestic **value addition** remained subdued.
- Overall economic momentum appeared weaker despite higher GST collections.

Nine Years of GST: Achievements and Challenges

- The **GST taxpayer base** expanded from **66 lakh** to over **1.65 crore**.
- GST has improved **tax compliance**, **formalisation**, and **refund mechanisms**.
- Issues related to **Input Tax Credit (ITC)**, **litigation**, and **Centre-State revenue sharing** remain.
- GST has strengthened India's **indirect tax system**.
- Sustained revenue growth ultimately depends on **strong domestic production** rather than **import-led inflation**.

Conclusion

The rise in GST collections is a positive fiscal indicator, but sustainable revenue growth must be supported by **strong domestic manufacturing,** higher **consumption, and** greater value **addition rather than** imported inflation.

India's easing up on China is the right move at the right time

Why in News: India has approved the Dixon Technologies–Vivo Mobile joint venture and eased restrictions on selected Chinese investments, signalling a calibrated shift to strengthen manufacturing, attract FDI, and boost supply chain integration.

Key Details

- **Strategic Shift:** India approved the **Dixon Technologies–Vivo** joint venture despite maintaining security checks under **Press Note 3 (2020)**.
- **Trade Imbalance:** China remains India's largest import source, with **imports touching $131 billion in 2025–26**and accounting for nearly half of India's non-oil trade deficit.
- **Low Chinese FDI:** Despite strong trade ties, **Chinese FDI since 2000 totals only about $2.5 billion**, reflecting restrictive investment policies.
- **Boost to Manufacturing:** Customs duty exemptions on **85 key components** aim to strengthen domestic electronics, batteries, and display assembly manufacturing.
- **China+1 Opportunity:** The policy seeks to help India attract global manufacturing investments and integrate into global value chains while safeguarding national security.

India's Cautious Approach Towards China

- **India stayed out of RCEP (2019)** over concerns about rising Chinese imports and trade imbalance.
- **Press Note 3 (2020)** made prior government approval mandatory for FDI from neighboring countries.
- Both measures were largely influenced by **national security concerns** related to China.
- Political tensions led to tighter scrutiny of Chinese economic engagement.
- The policy prioritised **strategic and economic security** over unrestricted market access.

Rising Trade, Limited Investment

- Despite strained relations, **India-China trade has expanded significantly**.
- **Imports from China reached $131 billion in 2025–26**.
- China now accounts for **around half of India's non-oil merchandise trade deficit**.
- In contrast, **Chinese FDI has remained very low**, totalling only **$2.5 billion since 2000**.
- This highlights India's dependence on Chinese imports without corresponding investment inflows.

Shift Towards Selective Chinese Investment

- The government approved the **Dixon Technologies–Vivo Mobile joint venture** for electronics manufacturing.
- The move reflects a **pragmatic and calibrated policy shift** towards selective Chinese investments.
- The Union Cabinet also eased certain **FDI norms** for neighbouring countries.
- **Customs duty exemptions** on 85 manufacturing inputs will lower production costs.
- These measures aim to strengthen India's **electronics manufacturing ecosystem**.

Capturing the China+1 Opportunity

- Global firms are diversifying production under the **China+1 strategy**.
- **Vietnam and other Asian economies** have benefited more than India.
- The **Economic Survey 2023–24** suggested encouraging **greater Chinese FDI** to leverage trade diversion.
- Greater investment can integrate India into **global supply chains**.
- This can improve exports, technology transfer, and manufacturing competitiveness.

Balancing Growth with National Security

- Recent approvals indicate a **selective opening**, not unrestricted access.
- Chinese firms are being allowed in **carefully screened sectors and projects**.
- Reportedly, some Chinese power equipment firms have also been permitted to participate in **critical infrastructure tenders**.
- The objective is to attract investment while protecting **strategic interests**.
- A balanced policy can promote **economic growth, resilient supply chains, and strategic autonomy**.

Conclusion

India's calibrated easing of restrictions on select Chinese investments reflects a pragmatic shift from outright caution to strategic engagement. By combining security screening with targeted investment facilitation, India can strengthen India's manufacturing capacity, supply-chain resilience, and strategic autonomy while maintaining appropriate security safeguards.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. India's evolving approach towards Chinese investment reflects a balance between economic pragmatism and strategic security. Discuss in the context of the China+1 strategy and India's manufacturing ambitions.

Rising inflation complicates RBI's choice

Why in News: **India's retail inflation** rose to **4.38% in June**, driven by higher **food, transport, and restaurant prices**, ahead of the **RBI Monetary Policy Committee's August meeting**, making the interest rate decision crucial.

Key Details

- **Retail inflation (CPI)** increased to **4.38% in June** from **3.93% in May**, while the quarterly average stood at **3.9%**, slightly below the RBI's **4.2%** projection.
- **Food inflation** climbed to **5.32%**, led by rising prices of **ginger, tomatoes, and raisins**, highlighting persistent food price pressures.
- **Deficient monsoon rainfall** (**19.3% below normal**) and **16% lower kharif sowing** have raised concerns over future food supply, with **El Niño** adding uncertainty.
- **Transport inflation** rose due to **petrol and diesel price hikes**, while higher food and fuel costs also pushed up **restaurant prices** and may gradually spill over to other goods.
- The **RBI MPC** faces a difficult balancing act as **West Asia tensions** have lifted crude oil prices, while global central banks such as the **ECB** and **US Federal Reserve** continue to influence the global monetary environment.

Retail Inflation Rises: Key Highlights

- **Headline inflation moves up: Retail inflation (CPI)** increased to **4.38% in June** from **3.93% in May**, taking the **quarterly average to 3.9%**, which is slightly below the **RBI's projected 4.2%**.
- **Food inflation accelerates: Food inflation** rose to **5.32%** from **4.78%**, mainly due to higher prices of **ginger, tomatoes, and raisins**.
- **Transport and restaurant costs increase:** Inflation in **transport** reflected the full impact of **petrol and diesel price hikes**, while higher **food and energy costs** pushed up **restaurant prices**.
- **Inflation outlook remains uncertain:** Rising **input and fuel costs** may gradually increase prices of other **non-food goods**, keeping inflationary pressures elevated.
- **Critical policy context:** This is the **last inflation data before the RBI Monetary Policy Committee (MPC) meeting in August**, making it an important input for the upcoming policy decision.

Monsoon and Food Price Concerns

- **Weak monsoon impacts agriculture: Cumulative rainfall** since **June 1** has been **19.3% below normal**, raising concerns over agricultural output.
- **Kharif sowing slows: Overall kharif acreage** is **16% lower** than last year, with the sowing season nearing its end.
- **El Niño adds uncertainty:** The strengthening **El Niño** raises the risk of weaker rainfall, which could further affect crop production and food prices.
- **Food inflation risks persist:** Lower agricultural output may lead to **higher food prices**, complicating the inflation outlook.
- **Challenge for the RBI:** Uncertainty over **monsoon performance and food inflation** makes the MPC's policy decision more difficult.

Implications for RBI Monetary Policy

- **Previous policy unchanged:** In its last meeting, the **RBI MPC** kept both the **policy rate and monetary stance unchanged**.
- **Crude oil remains a concern:** Although oil prices had softened earlier, **renewed tensions in West Asia** pushed **Brent crude prices up by about 7.5%** over five days.
- **Balancing inflation and growth:** The MPC must assess both **domestic inflation risks** and **external growth challenges** before taking a decision.
- **Global central banks tightening:** The **European Central Bank (ECB)** has already **raised interest rates**, reflecting continued concerns over inflation.
- **US Fed decisions matter:** The upcoming **US Federal Reserve** policy meeting will influence **global monetary conditions**, capital flows, and could shape the RBI's policy approach.

Conclusion

India's inflation trajectory remains uncertain due to **food price pressures,** weather-related **risks, and** volatile global **energy markets. The RBI** must balance **its** objective of maintaining price stability while **supporting economic** growth.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Rising food inflation, climate uncertainties, and global commodity price shocks have complicated monetary policy decisions in India." Discuss the challenges before the Reserve Bank of India in maintaining price stability while supporting economic growth. (250 words, 15 marks)

Signs of economic resilience, but internal and external risks need monitoring

Why in News: India's latest economic indicators and the RBI's Financial Stability Report show resilient growth despite the West Asia conflict, while highlighting emerging risks from slowing industrial output, rising household debt, and monsoon uncertainty.

Key Details

- **Resilient Growth:** India maintained strong economic growth despite disruptions caused by the **West Asia conflict**, supported by robust high-frequency indicators.
- **Industrial Moderation:** Growth in the **Eight Core Industries** slowed to **1.1% (April–May)**, indicating softer industrial momentum.
- **Healthy Banking Sector: Gross NPAs** declined to **1.8%**, while banks remained well-capitalised with a **CRAR of 17.7%** and strong liquidity.
- **Emerging Domestic Risks: Private investment** remains subdued, while **household debt (45.5%)** is increasingly driven by consumption rather than asset creation.
- **External & Climate Risks:** Continued **West Asia uncertainty**, a **deficient monsoon**, and the possibility of **El Niño** could fuel food inflation and affect agricultural output.

Strong Economic Growth Despite Global Challenges

- **India's economy** recorded **healthy growth** in **Q4 of FY 2025-26** despite disruptions from the **West Asia conflict**.
- **High-frequency indicators** such as **e-way bill generation, PMI indices, and electricity consumption** indicate that economic momentum has largely continued.
- However, some signs of **moderation** have emerged in recent months.

Early Signs of Slower Industrial Activity

- The **Index of Eight Core Industries** grew by only **1.1% during April–May**, indicating a slowdown in industrial production.
- Weakness in core sectors may affect overall manufacturing and infrastructure growth.
- Continuous monitoring is needed to prevent a broader economic slowdown.

Strong Financial Sector and Corporate Health

- India entered the crisis with **high growth, low inflation, and strong bank and corporate balance sheets**.
- **Gross Non-Performing Assets (GNPAs)** of banks declined to **1.8% (March 2026)**, reflecting improved asset quality.
- Banks maintained a healthy **Capital to Risk-Weighted Assets Ratio (CRAR) of 17.7%**, with adequate liquidity and stable profitability.
- **RBI stress tests** indicate that banks can withstand adverse economic shocks.
- Corporate leverage has continued to decline, and companies have improved their debt-servicing capacity.

Emerging Domestic Concerns

- **Private corporate investment** remains weak despite stronger corporate finances.
- **Household debt** increased to **45.5%** (September 2025).
- Consumer borrowing, rather than loans for **asset creation**, is driving household debt, raising concerns about long-term financial sustainability.
- Funding constraints continue to be a challenge for banks.

External and Climate-Related Risks

- Continued **uncertainty in West Asia** could disrupt global trade and energy markets.
- A **deficient monsoon** has affected **kharif sowing**, while a strengthening **El Niño** threatens the upcoming **rabi crop**.

- Higher food inflation remains a key risk, as seen during the **2023–24 El Niño**, when average food inflation stood at **8.5%**.
- These domestic and external risks require **close policy monitoring** to protect growth and price stability.

Conclusion

India's economy has demonstrated resilience through strong financial institutions, stable banking, and sustained growth. However, slowing industrial activity, weak private investment, rising **consumption-led household** debt, **geopolitical uncertainties,** and climate-related risks require close monitoring and calibrated policy responses to sustain growth, contain inflation, and strengthen economic resilience.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Despite India's strong macroeconomic fundamentals, rising domestic and external risks continue to pose challenges to sustainable growth. Discuss. (250 words)

An uncertain world needs food, fuel, forex buffers

Why in News: The **West Asia conflict** highlighted the importance of **strategic reserves** as oil, food, and forex buffers helped stabilize prices and shield economies from supply disruptions caused by war, climate risks, and geopolitical uncertainty.

Key Details

- **Oil buffer:** IEA released **426 million barrels**, preventing a major surge in crude prices despite the West Asia conflict.
- **Food buffer:** India holds **121.7 MT** of rice and wheat and **4+ MT** of pulses, ensuring food security.
- **Global resilience:** Record **2025–26 harvests** and adequate reserves can cushion **El Niño** and supply disruptions.
- **Lesson from 2022:** Weak oil and food buffers during the Russia–Ukraine war and COVID disruptions worsened inflation.
- **Policy priority:** Integrated **Food–Fuel–Forex** reserves are essential for economic stability, national security, and crisis preparedness.

Oil Buffers Prevented a Major Price Shock

- **West Asia conflict** disrupted nearly **20% of global oil supply** passing through the **Strait of Hormuz**.
- **Crude prices remained stable** compared to the **2008** and **2022** oil shocks.
- **IEA-coordinated release** of **426 million barrels** from emergency reserves helped contain prices.
- Oil prices stayed around **$90–110/barrel** before easing to **$70–80/barrel**.
- Renewed hostilities may pose risks as **global oil inventories have declined**.

Strong Food Stocks Provide a Safety Cushion

- **FCI holds 121.7 million tonnes** of rice and wheat, nearly **three times** the buffer norm.
- Government agencies also maintain **over 4 million tonnes** of pulse stocks.
- **Record global harvests (2025–26)** have boosted supplies of wheat, rice, corn, sugar, edible oils and soyabean.
- These reserves can offset **El Niño-induced production losses** and stabilize food prices.
- Adequate food stocks enhance **food security** during climate-related disruptions.

Contrast with the 2022 Global Crisis

- **Russia–Ukraine war** coincided with lingering **COVID-19 supply chain disruptions**.
- Global **oil and food reserves were insufficient** to absorb the supply shock.
- India also faced a **strong El Niño (2023–24)** that reduced agricultural output.
- The combined shocks triggered **persistent food inflation**.
- Stronger buffers today make economies **more resilient** to similar crises.

Strategic Importance of Building Reserves

- **Strategic reserves** of **food, fuel and foreign exchange (Forex)** are vital in an era of **climate change** and **geopolitical uncertainty**.
- They act as **shock absorbers** during wars, natural disasters and balance-of-payments crises.
- Reserves ensure **price stability**, **economic resilience** and **national security**.
- Stockpiling reduces dependence on volatile international markets.
- It strengthens the government's crisis-response capacity.

Need for an Integrated Strategic Reserve Policy

- Maintaining reserves involves **significant fiscal costs**, similar to defence preparedness.
- Governments must balance the **cost of stockpiling** with its long-term strategic benefits.
- Reserve levels should be based on **risk assessment** and **future uncertainties**.
- A coordinated approach is needed across **Food, Fuel and Forex** reserves.
- An **integrated strategic reserve policy** will improve India's preparedness against future global shocks.

Conclusion

Strategic reserves are no longer merely economic assets but critical instruments of **national security and resilience.** As climate change, geopolitical conflicts and supply chain disruptions become more frequent, India must remain essential for protecting the economy against external shocks and ensuring continuity of critical supplies.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Strategic reserves of food, fuel and foreign exchange have become essential instruments of economic security in an era of climate change and geopolitical uncertainty. Discuss. (150 words, 10 marks)

Learning the right lessons at the bank

Why in News: HDFC Bank's board penalised three top executives after an internal investigation found **₹45 crore** was disguised as marketing expenditure to provide higher interest on deposits, raising serious corporate governance concerns.

Key Details

- **Corporate Governance Failure:** Senior management allegedly approved misleading accounting practices.
- **Regulatory Non-Compliance:** Differential interest payments violated RBI's interest rate guidelines.
- **Lack of Transparency:** Interest payments were disguised as marketing expenses, misleading stakeholders.

- **Weak Internal Controls:** Internal audit detected lapses only after substantial payments had been made.
- **Reputational Risk:** The incident undermines investor confidence in India's largest private sector bank.

Board Initiates Disciplinary Action

- **HDFC Bank's board** took action after an investigation into irregular payments.
- **Warning letters** were issued to three senior officials.
- A **₹1 lakh penalty** was imposed on the **MD & CEO, CFO, and Group Head of Retail Assets**.
- The move is **unprecedented** for the bank.
- The action under the **new chairman** signals a stronger emphasis on **accountability and compliance**.

Internal Investigation into Irregular Payments

- On **March 12**, the bank's **Audit Committee** ordered an **internal vigilance investigation**.
- The probe examined **₹45 crore** paid to the **Maharashtra State Road Development Corporation (MSRDC)**during **2023–24 and 2024–25**.
- The investigation followed concerns raised during an **internal audit**.
- The marketing division received an **"unsatisfactory" performance rating**.
- The audit identified suspicious accounting of these payments.

Camouflaging of Differential Interest

- The investigation found that the **₹45 crore** represented **additional interest** paid on deposits.
- **RBI regulations** prohibit banks from negotiating special deposit interest rates.
- Instead of recording the amount as **interest**, the bank routed it through the **marketing department**.
- The payments were shown as contributions towards **awareness and marketing campaigns**.
- This accounting method effectively **concealed the true nature of the transaction**.

Corporate Governance Concerns

- The episode raises serious questions about **corporate governance** at India's largest private bank.
- It reflects **weak internal controls** and lapses in **financial reporting**.
- Misclassification of payments undermines **transparency and regulatory compliance**.
- The incident highlights the importance of **effective board oversight**.
- It also underscores the need for stronger **ethical standards** within financial institutions.

Leadership Changes and Wider Implications

- The investigation was ordered on **March 12**.
- Just **six days later (March 18)**, then Chairman **Atanu Chakraborty** resigned.
- The timing of the resignation drew attention amid the ongoing probe.
- The board's disciplinary action indicates a commitment to restoring **investor confidence**.
- The case serves as a reminder that **strong governance and regulatory compliance are essential for maintaining trust in the banking sector**.

Conclusion

The HDFC Bank episode highlights that robust corporate governance, ethical leadership, and transparent financial reporting are indispensable for maintaining trust in the banking system. Strong board oversight, effective internal audits are indispensable for maintaining investor confidence and ensuring transparency, regulatory compliance, and stability in the banking sector.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. Corporate governance failures in financial institutions undermine public trust and financial stability.Discuss in the context of the recent HDFC Bank governance controversy. (10 marks, 150 words)

El Niño and Iran sharpen India's food prices challenge

Why in News: India faces a **weak monsoon** and a strengthening **El Niño**, threatening kharif and rabi production, increasing food inflation risks, and requiring proactive supply management, farmer support, and climate-resilient agriculture.

Key Details

- **Deficient Monsoon:** June rainfall was **39.8% below normal**, delaying **kharif sowing** and reducing acreage under oilseeds, pulses, and cotton.
- **El Niño Intensification:** A **strong El Niño** may suppress rainfall, raise temperatures, shorten winter, and adversely affect both **kharif and rabi crops**.
- **Food Inflation Risk:** Lower domestic production could revive **persistent food inflation**, similar to **2023–24**, increasing pressure on household budgets.
- **Import Dependence:** India may require **higher imports of edible oils and pulses**, increasing vulnerability to global price volatility and external supply shocks.
- **Implementation Challenges:** Effective execution of **MSP support**, **crop insurance**, and **rural employment schemes** is crucial to protect farmers and stabilize rural incomes.

Weak Monsoon Performance

- **June rainfall** was **39.8% below normal**, with **99.5 mm** rainfall—the **5th lowest** June rainfall on record.
- Only **2014, 2009, 1926, and 1905** recorded lower June rainfall.
- The weak onset delayed **kharif crop sowing**, raising concerns over agricultural output.

Recent Improvement in Monsoon

- **Rainfall deficit** narrowed to **24.1% (as of July 5)** due to improved monsoon activity.
- The **southwest monsoon** has now covered **about 95% of the country**.
- Revival since **June 30** is expected to **accelerate kharif sowing** and partially bridge earlier planting gaps.

Impact on Kharif Agriculture

- Overall **kharif sowing** was **22.7% lower** than last year by **June 25**.
- Major sowing deficits were:

- **Oilseeds: 53.3%**
- **Pulses: 30.5%**
- **Cotton: 34.6%**

- Improved rainfall can help recover these acreage losses.

El Niño Risks and Economic Concerns

- **Moderate El Niño** is expected to strengthen into a **strong event** during the second half of the monsoon.
- Likely impacts include:
  - **Below-normal rainfall** and **higher temperatures**.
  - **Reduced kharif yields** and a **shorter, warmer winter**, affecting **rabi crops** such as wheat, mustard, chana, masoor, and potato.
  - Higher risk of **food inflation**, similar to **2023–24**, when retail food inflation averaged **over 8.5%**.

Policy Priorities

- Keep **imports of pulses and edible oils** open to manage supply shortages.
- Ensure **Minimum Support Price (MSP)** support through **price deficiency payments** for **pulses, oilseeds, millets, and cotton** to encourage cultivation over water-intensive crops.
- Strengthen implementation of:
  - **Pradhan Mantri Fasal Bima Yojana (PMFBY)**
  - **VB-G RAM G**
- Combine **effective supply-side measures** with strong scheme implementation to contain food inflation and protect farmers.

Conclusion

The evolving monsoon and El Niño situation highlights India's growing **climate vulnerability.** A balanced strategy combining climate-resilient **agriculture, timely** farmer incentives, **efficient crop** insurance, diversified **cropping patterns,** and proactive food supply management is **essential.**

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "A strong El Niño poses significant challenges to India's agriculture and food security." Discuss its likely economic impacts and suggest policy measures to enhance climate resilience. (150 words, 10 marks)

On ethanol fuel, move slower — with a plan

Why in News: The Centre has paused plans for **ethanol blending beyond 20% (E20)** to address vehicle compatibility, mileage, consumer concerns, and sustainable feedstock issues before expanding to **E25** and **E30**.

Key Details

- **Rapid Progress:** India achieved **20% ethanol blending (E20)** well before the original **2030** target.
- **Consumer Concerns:** Higher ethanol blends may reduce **fuel efficiency** and increase **engine wear**, especially in older vehicles.
- **Vehicle Compatibility:** Only vehicles manufactured **after April 2023** are fully compatible with **E20** fuel.
- **Energy Security:** Ethanol blending reduces India's **90% crude oil import dependence** and improves energy resilience.
- **Sustainable Feedstocks:** The government aims to promote **millets, sweet sorghum, and bajra** over water-intensive **rice** for ethanol production.

Why the Government is Pausing Higher Ethanol Blending

- **Pause after achieving E20:** India rapidly increased ethanol blending from **5% (2019-20)** to **20% (2026)**, much ahead of the original **2030 target**, making a temporary pause a practical policy decision.
- **Address consumer concerns:** The pause provides time to resolve issues related to **vehicle performance, compatibility, and consumer awareness** before moving to **E25 or E30**.
- **Need for transparent transition:** Future expansion should be gradual and backed by clear communication and consumer confidence.
- **Policy refinement:** The government can use this period to improve standards, infrastructure, and implementation strategies.
- **Balanced approach:** A calibrated roadmap can ensure energy security without imposing sudden costs on consumers.

Concerns of Motorists

- **Lower fuel efficiency:** Ethanol has **30–35% lower calorific value** than petrol, resulting in reduced mileage.
- **Risk of corrosion:** Ethanol is **hygroscopic**, absorbing moisture that may corrode fuel tanks and engine components.
- **Compatibility issues:** Only vehicles manufactured **after April 2023** are fully compatible with **E20 fuel**.
- **Impact on older vehicles:** Owners of older cars and two-wheelers may face increased engine wear and maintenance costs.
- **Need for incentives:** Pricing or tax incentives for higher ethanol blends can encourage consumer acceptance.

Need to Continue Biofuel Transition

- **Reduce import dependence:** India imports nearly **90% of its crude oil**, making energy security a national priority.
- **Protection from global shocks:** Diversifying fuel sources reduces vulnerability to geopolitical disruptions in oil supply.
- **Support cleaner transport:** Biofuels and vehicle electrification contribute to lower fossil fuel consumption and emissions.
- **Long-term sustainability:** Ethanol blending remains an important component of India's clean energy strategy.
- **Gradual implementation:** Higher blends should be introduced through a well-planned and predictable roadmap.

Sustainable Feedstock for Ethanol Production

- **Avoid water-intensive crops:** Large-scale use of **rice** for ethanol is environmentally unsustainable due to its high-water requirement.
- **Promote alternative crops: Sweet sorghum, bajra, and other millets** offer more sustainable feedstock options.
- **Enhance crop productivity:** Research should develop high-starch varieties with better ethanol yields.

- **Improve processing efficiency:** Better fermentation technologies can make alternative feedstocks competitive with **maize and sugarcane**.
- **Support climate-resilient agriculture:** Diversifying feedstocks can improve sustainability while benefiting farmers and resource conservation.

Government Measures Supporting Higher Ethanol Blends

- **Excise duty exemption:** Petrol blended with **22%, 25%, 27%, and 30% ethanol** has been exempted from excise duty.
- **BIS standards issued:** The **Bureau of Indian Standards (BIS)** has notified specifications for higher ethanol blends.
- **Mandatory E20 rollout: E20 petrol** became mandatory across India from **April 2026**.
- **Consumer-centric policies:** Future blending targets should be accompanied by transparent communication and fiscal incentives.
- **Balanced energy transition:** Policies should simultaneously promote **energy security, consumer protection, and environmental sustainability**.

Conclusion

India's ethanol blending programme is a crucial step towards **energy security,** lower **emissions, and** reduced oil import **dependence. However, future** expansion beyond E20 should be **gradual,** transparent, and supported by adequate safeguards for food security, water resources, farmer interests, and environmental sustainability.

Automobile Industry Reassures Consumers on E20 Fuel Safety

Why in News: Concerns regarding the safety of **E20 petrol (20% ethanol-blended fuel)** have resurfaced after a viral social media video alleged that a premium vehicle suffered engine damage due to the use of **E20** fuel.

Background (India's Transition to E20 Fuel)

India formally launched **E20 petrol** in **February 2023** as part of the **National Biofuel Policy** and the **Ethanol Blended Petrol (EBP) Programme**.

E20 fuel contains:

- **20% ethanol**
- **80% petrol**

The initiative aims to:

- **Reduce India's dependence on imported crude oil.**
- **Lower vehicular carbon emissions.**
- **Promote cleaner transportation.**
- **Increase farmers' income by creating demand for ethanol produced from sugarcane, maize, damaged food grains, and other agricultural feedstocks.**
- **Improve India's energy security through greater use of renewable fuels.**

Why Did Concerns Re-Emerge?

The recent controversy began after a widely circulated social media video claimed that a luxury vehicle had suffered severe mechanical damage after being refuelled with E20 petrol.

The video quickly attracted millions of views and was accompanied by several anecdotal claims suggesting similar experiences.

The incident generated public concern regarding:

- Engine durability
- Fuel system corrosion
- Mileage reduction
- Long-term reliability of E20-compatible vehicles

Recognizing the growing uncertainty among consumers, automobile manufacturers and industry experts held a joint media interaction to address these concerns using scientific evidence and testing data.

Toyota Clarifies the Viral Incident

Toyota Kirloskar Motor clarified that the vehicle shown in the viral video **was not damaged because of E20 fuel compatibility**.

According to the company:

- The problem was traced to **fuel contamination**.
- The fuel tank and fuel lines were completely drained.
- The entire fuel system was thoroughly cleaned.
- Fresh standard E20 petrol was refilled.
- After inspection, the vehicle functioned normally and was returned to the customer.

The company emphasised that the incident should not be interpreted as evidence against the safety of E20 fuel.

Automobile Industry Reaffirms E20 Compatibility

Leading automobile manufacturers reiterated that E20 fuel has undergone extensive laboratory testing as well as real-world validation before nationwide rollout.

Maruti Suzuki's Position

Maruti Suzuki stated that:

- Vehicles manufactured before 2023 (originally designed for E10 fuel) have also been extensively tested using E20 petrol.
- Testing found **no significant wear and tear**.
- No abnormal corrosion was observed in engine components.
- There was **no reduction in the life of fuel system parts** exposed to E20 fuel.

According to the company, adequate engineering safety margins already existed in earlier vehicles, enabling them to safely use E20 fuel without causing engine damage.

Scientific Findings on E20 Fuel

Industry experts explained that years of research preceded India's adoption of E20.

The studies indicate that:

- E20 does **not cause engine failure**.
- No widespread corrosion has been observed in fuel system components.
- Fuel injectors and engine parts remain within acceptable durability limits.
- Modern vehicles manufactured after April 2023 are specifically engineered for full E20 compatibility.

For vehicles manufactured before E20 became standard, studies indicate only a **minor reduction in fuel efficiency (around 3–5%)** due to ethanol's lower energy content, rather than any significant mechanical damage.

Fuel Quality Remains Equally Important

While defending E20, automobile manufacturers also highlighted that **fuel contamination** remains an independent concern.

Poor-quality fuel containing impurities or water can damage any engine, irrespective of whether it contains ethanol.

Accordingly, industry representatives have urged authorities to strengthen nationwide fuel quality monitoring and establish more robust inspection mechanisms at petrol pumps to ensure consistent fuel standards.

Significance of E20 for India

The transition to E20 is an important component of India's broader energy and environmental strategy.

The programme contributes to:

- Reducing crude oil imports.
- Saving foreign exchange.
- Supporting domestic biofuel production.
- Lowering greenhouse gas emissions.
- Promoting cleaner combustion.
- Enhancing farmers' incomes through additional demand for agricultural feedstocks.

The Government has also clarified that there is **currently no proposal to increase ethanol blending beyond 20%** for regular petrol, and premium petrol variants will continue to remain ethanol-free where applicable.

Conclusion

The recent debate surrounding E20 petrol highlights the importance of **scientific communication in the age of social media,** where isolated incidents can quickly create widespread public anxiety.

India Abstains on ILO Gig-Worker Convention

Why in News: Recently, the **International Labour Conference (ILC)**, the **ILO**'s tripartite decision-making body, adopted the **Convention concerning Decent Work in the Platform Economy, 2026 (Convention No. 193)** in Geneva.

Key Details

- It is the **first international labour standard specifically dedicated to the platform economy**, covering workers who earn their livelihoods through digital labour platforms, including ride-hailing, delivery and online work. The Convention was adopted by an overwhelming vote of **406 in favour, 8 against and 36 abstentions**.
- India's position attracted particular attention because **its government delegate abstained**, while India's employer and worker delegates voted in favour. This divergence is especially significant because the ILO operates on a unique **tripartite model**, in which governments, employers and workers participate independently in the organisation's standard-setting process.
- **A New International Rulebook for the Platform Economy**
- The platform economy has transformed the way work is organised.
- A worker may now:
- deliver food through an app,
- drive passengers through a digital platform,
- perform household services booked online,
- work as a remote freelancer, or
- perform data-labelling and other digitally managed tasks.

The defining feature is not simply technology. It is the fact that the **platform stands between the worker and the customer and increasingly manages the work through algorithms**.

Convention No. 193 seeks to bring this rapidly expanding world of work within an international labour-rights framework. The ILO describes it as the first international labour standard specifically dedicated to the platform economy.

Its scope is deliberately broad: it applies to **digital labour platforms and digital platform workers**, subject to the Convention's provisions and limited possibilities for exclusions in particular circumstances.

What Does Convention No. 193 Seek to Protect?

The Convention establishes a framework around several basic dimensions of decent work.

These include:

- fundamental rights at work;
- occupational safety and health;
- protection against violence and harassment;
- timely and complete payment of remuneration in accordance with applicable law;
- social protection;
- protection of workers' personal data;
- freedom of association and collective bargaining.

But perhaps the most consequential aspect lies elsewhere: **how a platform worker is legally classified.**

The Classification Question: "Partner" or Worker?

One of the most important provisions of Convention No. 193 is its emphasis on the **"primacy of facts"**.

The Convention says that the existence of an employment relationship should be determined principally by the **facts relating to the performance of the work and payment**, while taking account of the specific characteristics of platform work.

This is significant because many platforms classify workers as:

"Independent contractors", "partners" or other forms of non-employee labour.

The legal label can have enormous consequences.

If a worker is classified as an employee, conventional labour protections may apply. If the worker is treated as an independent contractor, many of those protections may not automatically follow.

Convention No. 193 therefore seeks to prevent **contractual labels from overriding the factual reality of the working relationship**.

That is potentially one of the most important global developments in the regulation of gig work.

The Algorithm Is Becoming the New Manager

Platform work introduces a form of management that traditional labour law was not designed around.

A worker may never meet a conventional supervisor, yet software can effectively determine:

- which job is offered;
- how much the worker is paid;
- how performance is evaluated;
- whether incentives are received;
- whether an account is restricted or deactivated.

This is known as **algorithmic management**.

Convention No. 193 recognises the importance of transparency around such digital systems and establishes protections concerning automated decision-making, workers' data and information about how work is managed.

This marks a major conceptual shift:

The modern workplace may have no office, no supervisor and no attendance register—yet it can still have a manager. That manager may simply be an algorithm.

Why Does This Matter So Much for India?

India is already one of the world's largest and fastest-growing markets for gig and platform work.

NITI Aayog estimated that India's gig workforce stood at approximately **77 lakh (7.7 million) workers in 2020–21** and projected it to reach **2.35 crore (23.5 million) workers by 2029–30**, equivalent to about **6.7% of the non-agricultural workforce**.

The significance is enormous because platform work is no longer a marginal urban phenomenon.

It increasingly forms part of the infrastructure of everyday life:

Food arrives through platforms.
People travel through platforms.
Household services are booked through platforms.
Businesses increasingly hire labour through platforms.

The platform economy is becoming a structural part of India's employment landscape.

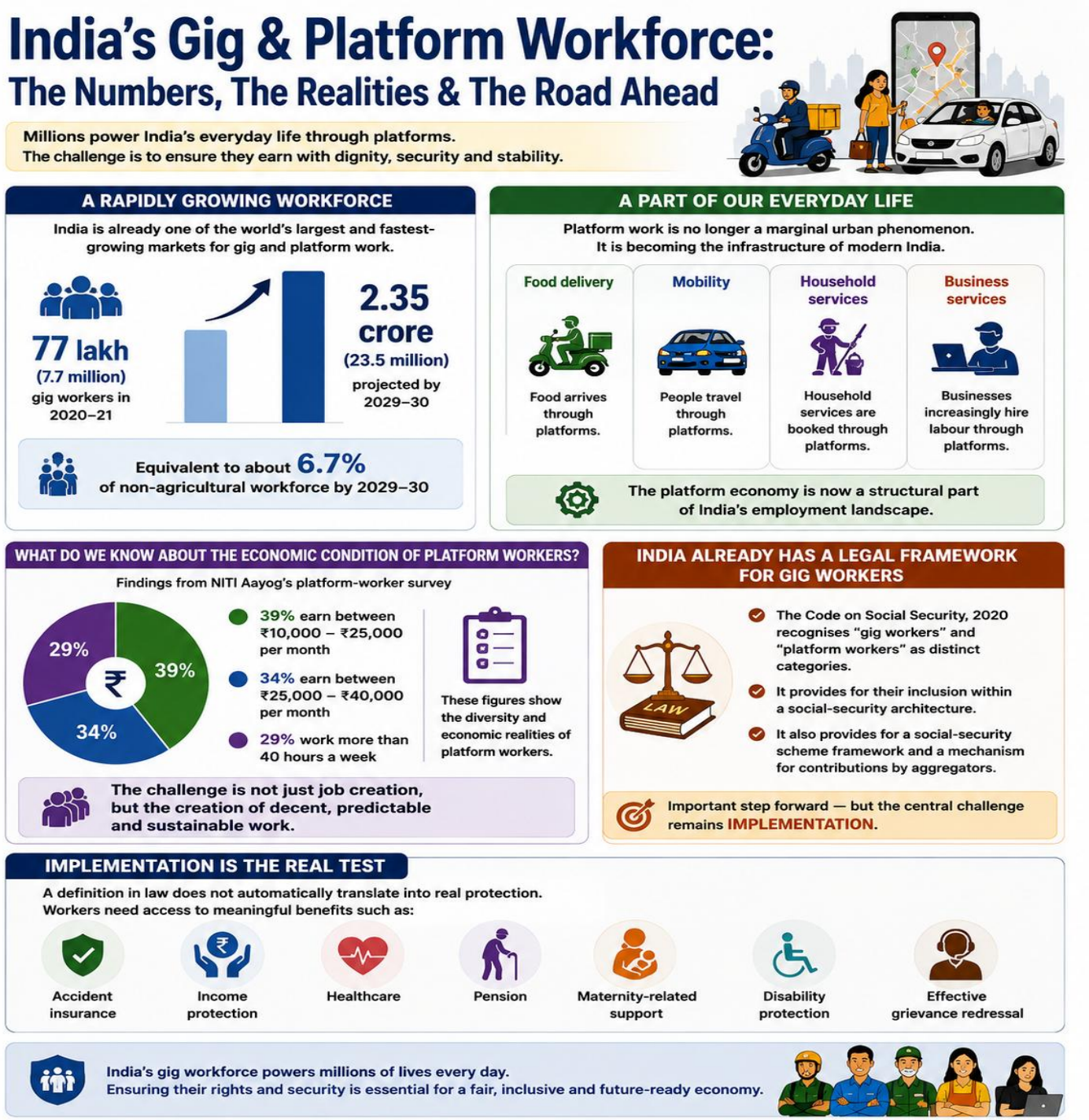
What Do We Know About the Economic Condition of Platform Workers?

NITI Aayog's earlier study provides an important glimpse into the diversity of the platform workforce.

Among respondents in its platform-worker survey:

- **39%** reported monthly incomes between **₹10,000 and ₹25,000**.
- **34%** reported monthly incomes between **₹25,000 and ₹40,000**.
- Around **29%** worked more than **40 hours a week**.

These figures should not be interpreted as a universal income profile for India's entire gig workforce, but they



illustrate the economic realities within an increasingly important category of workers.

The broader policy challenge is therefore not simply job creation.

It is the creation of **decent, predictable and sustainable work**.

India Already Has a Legal Framework for Gig Workers

India is not starting from zero.

The **Code on Social Security, 2020** formally recognises both **"gig workers" and "platform workers"** as distinct categories and provides for their inclusion within a social-security architecture.

This was an important departure from traditional labour legislation, which largely revolved around the employer–employee relationship.

The Code also provides for a social-security scheme framework for gig and platform workers and a mechanism for contributions by aggregators.

However, the central policy challenge is **implementation**.

A definition in legislation does not automatically translate into:

- accident insurance,
- income protection,
- healthcare,
- pension,
- maternity-related support,
- disability protection, or
- effective grievance redressal.

The effectiveness of India's framework will ultimately depend on the benefits that workers can actually access.

States Are Already Experimenting

India's federal structure adds another layer to the debate.

Labour is a **Concurrent List** subject, meaning both the Union and States have roles in shaping labour policy.

Several States have therefore begun experimenting with dedicated protections for platform workers.

The most prominent example is **Rajasthan**, which enacted the **Rajasthan Platform Based Gig Workers (Registration and Welfare) Act, 2023**.

Other States have also explored welfare-board and registration mechanisms.

This suggests that India's gig-worker regulation is evolving through a combination of:

Central legislation + State experimentation + judicial interpretation + platform-level policies.

So Why Did India Abstain at the ILO?

India has not publicly adopted Convention No. 193 as a ratified instrument merely by participating in its adoption process.

The abstention also cannot be interpreted simply as a rejection of worker protection.

Several considerations may explain why a government might prefer to abstain from a new international labour convention, including:

- concerns about compatibility with existing domestic law;
- the federal distribution of legislative powers;
- the evolving nature of platform business models;
- potential compliance costs for platforms;
- concerns about flexibility in employment arrangements.

These are legitimate policy questions.

However, **India's government has not, in the sources available here, publicly offered a detailed explanation for its abstention**. That absence itself has become part of the debate.

The Tripartite Irony of India's Vote

The most unusual aspect of India's position is that the country's own delegation was divided.

Under the ILO's tripartite structure, India had:

- a **Government delegate**,
- an **Employers' delegate**, and
- a **Workers' delegate**.

The Government delegate abstained, while the **employers' and workers' delegates voted in favour** of adopting Convention No. 193.

This does not mean that the Government, employers and workers necessarily hold identical views on every aspect of the Convention. But it does show that India's position was **not uniformly shared by the other two social partners representing India at the Conference**.

That makes the abstention particularly noteworthy.

Does Abstention Mean India Has No Gig-Worker Protection?

No.

This distinction is important.

India's abstention does **not** mean that Indian gig workers suddenly lose all labour or social-security protections. India already has domestic legislation addressing gig and platform workers.

Nor does adoption of an ILO Convention automatically impose its provisions on every ILO member.

Under the ILO system, a Convention becomes legally binding on an individual member **after that country ratifies it** and the Convention enters into force for that country.

Therefore, the immediate consequence of India's abstention is more accurately described as **India choosing not to support the adoption vote**, rather than automatically creating a new legal vacuum.

The larger issue is whether India will eventually **ratify Convention No. 193 or independently bring its domestic framework closer to the standards it establishes**.

What Could India Gain from Aligning with Convention No. 193?

Greater alignment could potentially strengthen India's gig economy in several ways.

1. Clearer Worker Classification

A facts-based approach could reduce disputes over whether a worker is genuinely independent or economically dependent on a platform.

2. Greater Social Security

Platform workers could gain clearer pathways to:

- insurance,
- healthcare,
- accident compensation,
- retirement protection and other benefits.

3. Algorithmic Accountability

Workers could receive greater transparency when important employment decisions are made through automated systems.

4. Stronger Collective Voice

Recognition of organising and collective-bargaining rights could strengthen workers' ability to negotiate collectively.

5. Responsible Platform Economy

Stronger labour standards could improve the sustainability and legitimacy of India's rapidly growing digital labour market.

The Real Question: Flexibility or Protection?

The gig economy offers something traditional employment often struggles to provide:

flexibility.

Workers can sometimes choose:

- when to work,
- how much to work,
- which platform to use,
- whether to treat platform work as primary or supplementary income.

NITI Aayog's research also found that flexibility is an important attraction of platform work, particularly for some women workers.

The challenge is therefore not to destroy flexibility.

It is to ensure that:

Flexibility for the platform does not become insecurity for the worker.

A well-designed regulatory framework must preserve the innovative and employment-generating character of the platform economy while preventing the shifting of all economic risk onto individual workers.

Way Forward for India

India does not necessarily have to choose between **international ratification** and **domestic innovation**.

The immediate priorities should be:

- Make the social-security framework for gig workers operational.
- Establish transparent mechanisms for aggregator contributions.
- Develop clear tests for determining employment status.

- Create minimum standards for accident and occupational-risk protection.
- Establish effective grievance-redressal mechanisms.
- Develop rules on algorithmic transparency and account deactivation.
- Strengthen collective representation of platform workers.
- Improve data collection on wages, working hours and employment conditions.

India can also use the experience of States as laboratories for developing a coherent national framework.

Conclusion

The adoption of **ILO Convention No. 193** marks a fundamental shift in the international understanding of work: **the fact that an app organises the work does not make the worker invisible to labour law.**

India Eases Restrictions on Chinese Firms in the Power Sector

Why in News: The **Union Government** has granted a **two-year exemption** to **four Chinese-owned or Chinese-linked companies,** allowing them to participate in government tenders in India's power sector.

Background (Why Were Restrictions Imposed?)

In **April 2020**, India introduced **Press Note 3**, making government approval mandatory for investments originating from countries sharing a land border with India.

The objective was to:

- Prevent opportunistic takeovers of Indian companies during the COVID-19 pandemic.
- Protect strategic sectors from foreign control.
- Strengthen national security following deteriorating India-China relations.

Subsequently, procurement rules were tightened, requiring companies from neighbouring countries to obtain government registration before participating in sensitive public projects.

What Has Changed?

On **24 June 2026**, the **Procurement Policy Division of the Ministry of Finance** issued an order granting **temporary exemptions** to four companies, allowing them to participate in government tenders related to the power sector **without undergoing the earlier registration restrictions**.

The exemption will remain valid for **two years**.

Importantly, the order explicitly clarifies that:

The exemption should not be treated as a precedent for future cases, indicating that approvals will continue to be evaluated individually.

Why Was the Exemption Granted?

The decision followed requests from the **Ministry of Power**, which argued that restrictions on Chinese-linked firms were affecting procurement of specialised electrical equipment required for India's rapidly expanding electricity infrastructure.

After consultations involving:

- **Ministry of Power**
- **Ministry of Finance**
- **Department for Promotion of Industry and Internal Trade (DPIIT)**
- **Committee of Secretaries**
- **Registration Committee**

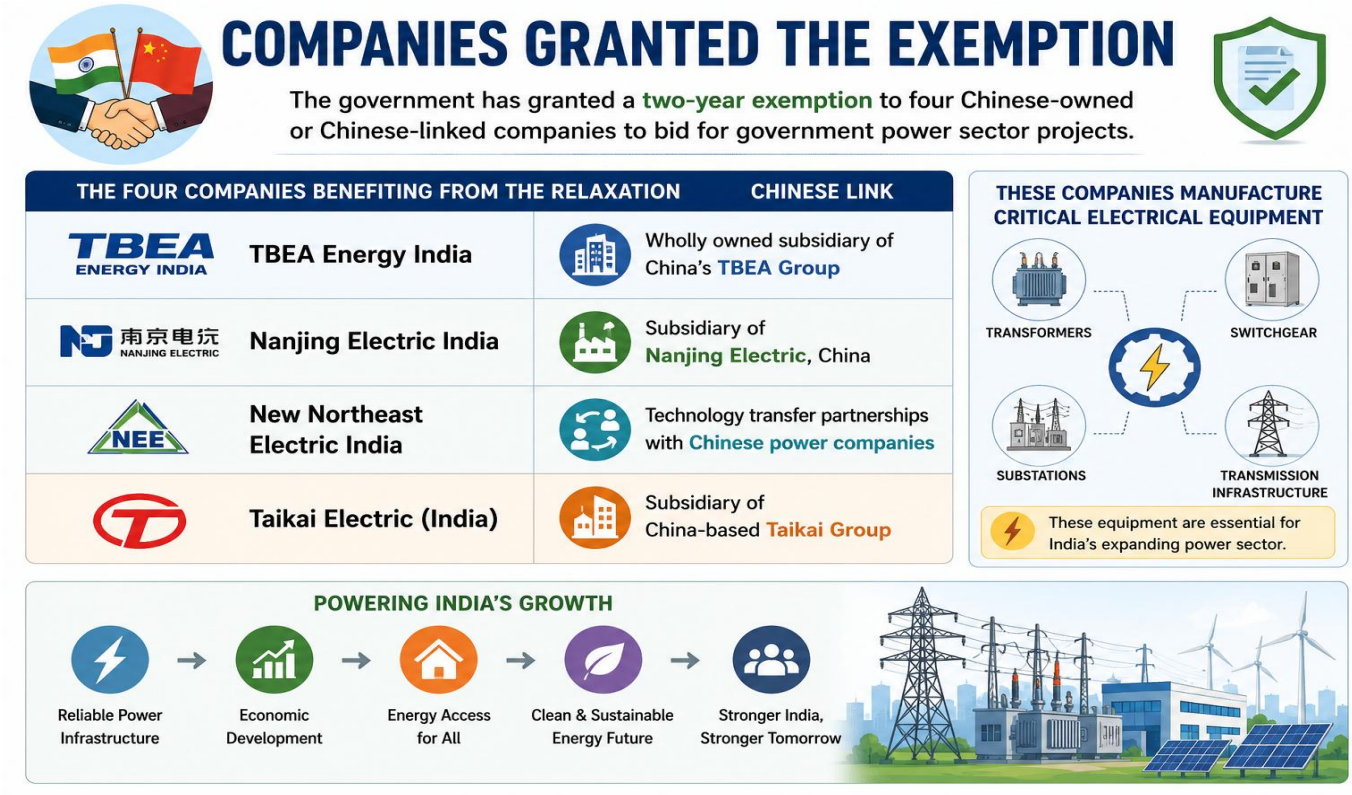
the government approved a **limited and conditional exemption**.

Part of a Broader Policy Shift

The latest decision builds upon earlier relaxations introduced by the Government.

In **May 2026**, India eased the investment norms by allowing:

- Overseas companies having **up to 10% Chinese shareholding** to invest through the **Automatic Route**, eliminating the need for prior government approval in such cases.



This marked the first significant dilution of the stringent **Press Note 3** restrictions.

The present exemption in the power sector represents another incremental step toward normalising investment flows while preserving strategic oversight.

Why Is the Power Sector Important?

India is undertaking one of the world's largest power infrastructure expansions, including:

- Renewable energy integration
- Ultra-high voltage transmission networks
- Smart grids
- Green energy corridors
- Grid modernisation
- Manufacturing of advanced electrical equipment

Several Chinese companies possess established expertise in manufacturing transformers, transmission equipment, and high-voltage technologies, making them important suppliers in global value chains.

Allowing limited participation could:

- Improve competition in government tenders.
- Reduce procurement costs.
- Ensure timely completion of infrastructure projects.
- Address shortages of specialised equipment.

Balancing Economic Needs with National Security

Despite the relaxation, the Government has maintained a cautious approach.

Key safeguards include:

- **Time-bound exemption** (two years only).
- **Case-specific approval** rather than a blanket relaxation.
- Continued government oversight over investments from neighbouring countries.
- Explicit clarification that the decision **does not create a policy precedent**.

This demonstrates India's effort to balance:

- Infrastructure development,
- Economic efficiency,
- Supply chain resilience,
- Strategic autonomy, and
- National security.

Significance

The decision reflects a pragmatic shift in India's economic policy.

While geopolitical concerns continue to influence investment policy, the government appears increasingly willing to permit carefully screened participation by Chinese-linked firms in sectors where technological capability and supply requirements outweigh blanket restrictions.

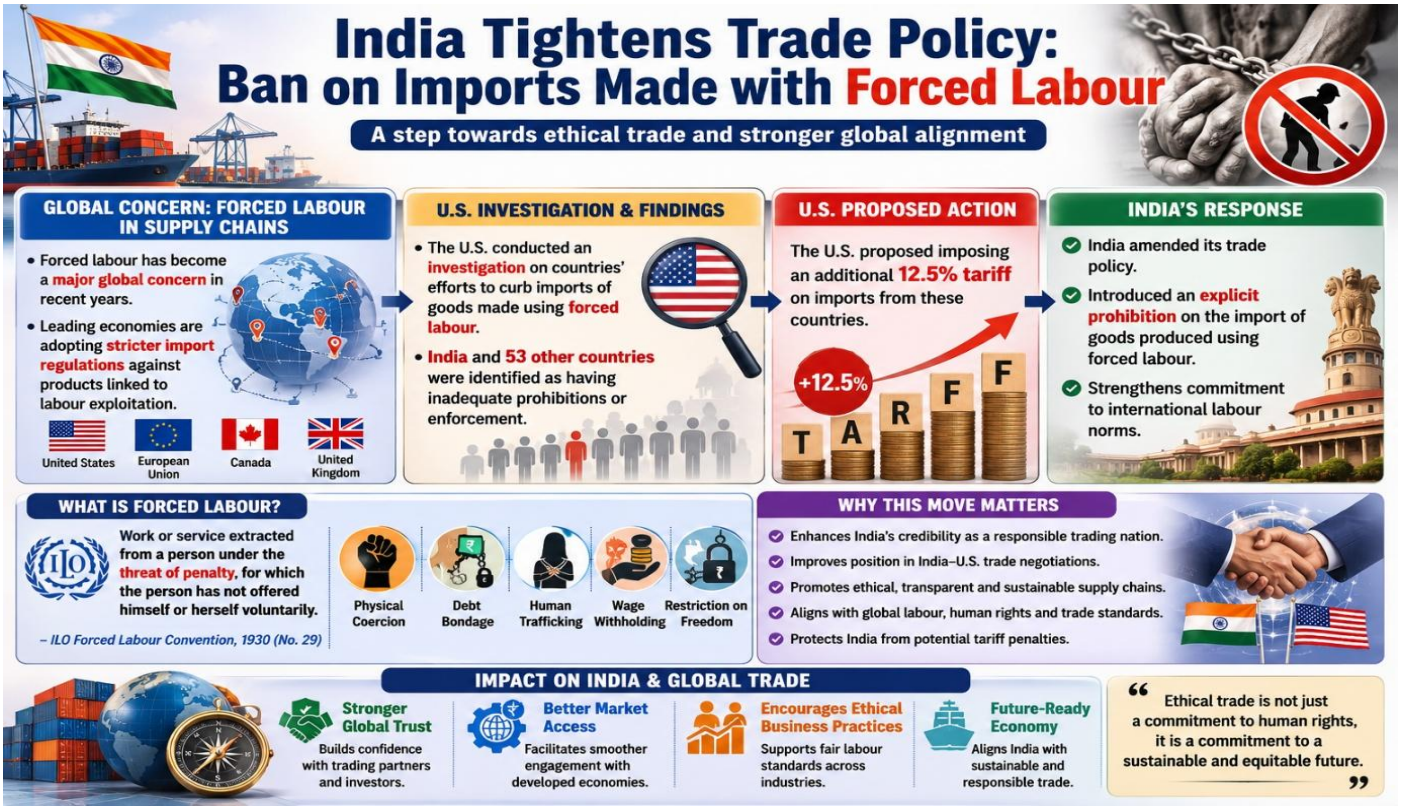
It also indicates that India is gradually moving from **broad-based prohibitions** toward a **risk-based regulatory framework**, where approvals are determined by sectoral sensitivity and national interest rather than by nationality alone.

Conclusion

The exemption granted to four Chinese-linked power companies represents **a calibrated policy adjustment rather than a complete liberalisation.** It highlights India's attempt to reconcile strategic security with developmental priorities by attract investment and technology while preserving security safeguards and reducing dependence on blanket restrictions.

India Prohibits Imports Made Using Forced Labour

Why in News: The **Government of India has notified a ban on the import of goods manufactured wholly or partly through forced labour,** marking a significant shift in India's trade policy.



Background

In recent years, **forced labour has emerged as a major concern in global supply chains**, prompting several developed economies—including the **United States, European Union, Canada, and the United Kingdom**—to adopt stricter import regulations against products linked to labour exploitation.

Following an investigation, the **United States identified India and 53 other countries** as jurisdictions that had **not adequately prohibited or enforced restrictions on imports produced through forced labour**. Consequently, the U.S. proposed imposing an additional **12.5% tariff** on imports originating from these countries.

Against this backdrop, India has amended its trade policy by introducing an explicit prohibition on the import of goods produced using forced labour, thereby reinforcing its commitment to international labour norms while strengthening its position in ongoing trade negotiations.

What Has the Government Announced?

The Ministry of Commerce and Industry has notified that:

The import of goods produced or manufactured, wholly or partly, through the use of forced labour is prohibited.

The notification further authorises the Central Government to:

- Notify specific categories of prohibited goods from time to time.
- Investigate suspected cases of forced labour in imported products.
- Take necessary action under India's Foreign Trade Policy.

The investigation into such cases will be carried out by the **Director General of Foreign Trade (DGFT)** in accordance with the procedures prescribed under the **Handbook of Procedures, 2023**.

What is Forced Labour?

The notification adopts the internationally accepted definition contained in the **International Labour Organization (ILO) Forced Labour Convention, 1930 (Convention No. 29).**

Accordingly,

Forced labour refers to any work or service extracted from a person under the threat of punishment and for which the individual has not offered himself or herself voluntarily.

Forced labour may occur through:

- Physical coercion
- Threats or intimidation
- Debt bondage
- Human trafficking
- Withholding wages
- Restriction on freedom of movement
- Confiscation of identity documents

It is recognised globally as a serious violation of **human rights and labour rights**.

Why is this Decision Important?

1. Strengthening India's Position in India–U.S. Trade Negotiations

The notification comes when India and the United States are negotiating an interim trade agreement.

The United States has made labour standards an important component of its trade policy.

By prohibiting imports linked to forced labour, India demonstrates its commitment to internationally accepted labour practices, thereby improving its negotiating position.

2. Alignment with Global Trade Standards

Several major economies now require companies to ensure that imported products are free from forced labour.

India's decision aligns its trade regime with evolving international standards promoted by:

- International Labour Organization (ILO)
- World Trade Organization (WTO) principles
- Responsible Business Conduct (RBC) frameworks
- Environmental, Social and Governance (ESG) standards

This improves India's credibility as a responsible trading nation.

3. Enhancing Supply Chain Transparency

Global companies increasingly seek suppliers whose products comply with ethical sourcing norms.

The new policy encourages:

- Better traceability in supply chains.
- Greater transparency in production processes.
- Responsible sourcing practices.
- Improved compliance with international labour standards.

This may enhance India's attractiveness as a manufacturing destination.

How Does It Affect India–U.S. Trade Relations?

The issue of forced labour has become one of the important factors influencing ongoing India–U.S. trade discussions.

Commerce Secretary **Rajesh Agrawal** confirmed that India has already submitted its response to the United States regarding the proposed tariff measures and has formally objected to them.

The Government has maintained that:

- India will enter into a trade agreement only if it secures a **comparative advantage** over competing economies.
- The final U.S. tariff structure will significantly influence the scope of the agreement.

Apart from forced labour, the U.S. is also examining whether partner countries are using **excess industrial capacity** to increase exports into the American market.

A Major Shift in India's Trade Policy

Experts describe the notification as a significant evolution in India's foreign trade framework.

Previously, India primarily addressed forced labour through:

- Labour laws
- Criminal laws
- Human trafficking legislation

Now, for the first time, **trade policy itself** has become an instrument for preventing products linked to forced labour from entering the Indian market.

According to trade experts, this marks India's transition towards integrating **ethical trade principles** into its external commercial policy.

Potential Benefits

The policy is expected to generate several long-term benefits:

- Enhances India's global trade credibility.
- Strengthens compliance with international labour standards.
- Supports ethical and sustainable supply chains.
- Improves investor confidence.

- Facilitates smoother trade negotiations with developed economies.
- Promotes responsible business practices.

Challenges in Implementation

Despite its significance, effective implementation will require addressing several practical challenges:

- Identifying products manufactured through forced labour.
- Tracing complex global supply chains.
- Strengthening customs verification mechanisms.
- Enhancing coordination among trade, labour, and enforcement agencies.
- Developing transparent investigation procedures.
- Building institutional capacity for compliance monitoring.

Ensuring that enforcement remains evidence-based and transparent will be essential to maintaining credibility.

Way Forward

Going forward, India should focus on:

- Developing robust due diligence mechanisms for imports.
- Strengthening supply chain traceability systems.
- Promoting ethical sourcing among businesses.
- Enhancing cooperation with international organisations such as the ILO.
- Building institutional capacity within DGFT and customs authorities.
- Integrating labour rights with broader trade and investment policies.

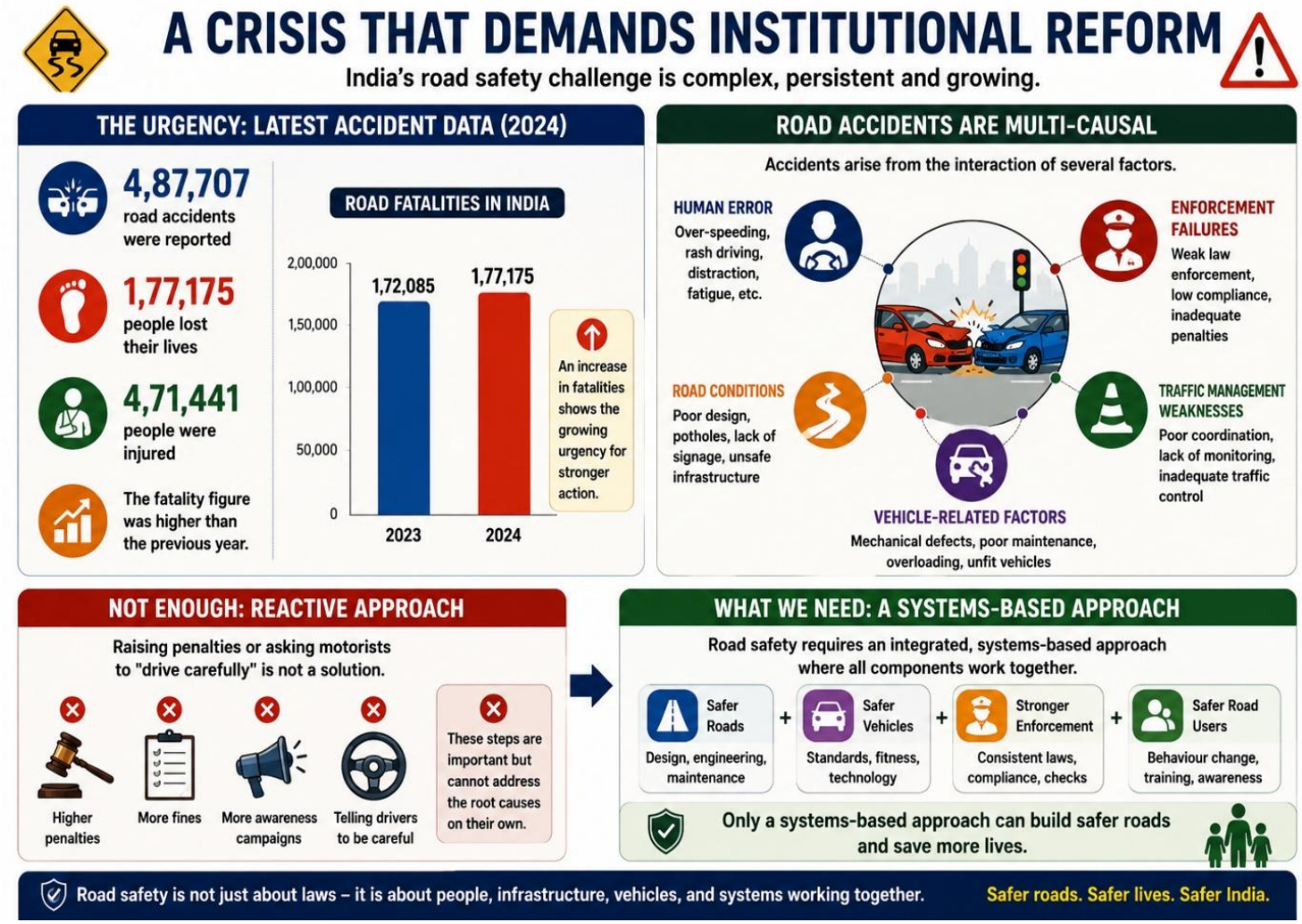
Such measures will position India as a trusted partner in an increasingly sustainability-oriented global trading system.

Conclusion

India's decision to prohibit the import of goods produced through forced labour marks a significant milestone in the evolution of its trade policy. By aligning domestic regulations with international labour standards and strengthening due diligence, India can promote ethical supply chains while protecting the credibility of its trade regime.

Index of Core Industries

Why in News: The **Union Government** has released a **revised series of the Index of Core Industries (ICI)** with **2022–23 as the new base year,** replacing the earlier 2011–12 series.



The new series is more than a statistical makeover. Changes in the **base year, composition, methodology and sectoral weights** are intended to make the index a more contemporary representation of India's industrial structure.

What is the Index of Core Industries?

The **Index of Core Industries (ICI)** is a monthly indicator compiled by the **Office of the Economic Adviser (OEA), Department for Promotion of Industry and Internal Trade (DPIIT)**. It tracks production in industries that form the backbone of the industrial economy.

Under the earlier series, the ICI covered **eight sectors**:

- Coal
- Crude oil
- Natural gas
- Refinery products
- Fertilizers
- Steel
- Cement
- Electricity

Together, these sectors have traditionally been regarded as critical because their output has a strong connection with industrial activity and infrastructure development.

The revised series introduces a **ninth sector — iron ore** — taking the total number of core industries from eight to nine.

What Has Changed in the New ICI Series?

1. Base Year Shift: 2011–12 → 2022–23

The most visible change is the replacement of the old **2011–12 base year** with **2022–23**.

A base year provides the reference point against which changes in production are measured. As the structure of an economy evolves, an old base year can gradually become less representative.

For example, the relative importance of electricity, steel, mining and other industries may change considerably over a decade. Updating the base year therefore allows the index to better capture the **current industrial structure**.

The government has also released a back series from **April 2023 onwards**, allowing users to analyse the revised data over time.

2. Iron Ore Enters the Core Industries Basket

The revised ICI adds **iron ore** as the ninth core industry.

The rationale is its intensive use in industrial production and its importance to industrial development. Iron ore has been assigned a weight of **4.905%** in the new index.

This is significant because iron ore is a critical upstream input for the steel industry, infrastructure and manufacturing.

3. Steel Production: From Net to Gross Output

The methodology for measuring steel production has also changed.

The new ICI uses **gross production** rather than **net production**, bringing the steel component into greater methodological consistency with the **Index of Industrial Production (IIP)**.

This improves comparability between two important indicators of industrial activity.

4. Coal Measurement Becomes More Precise

The new series retains only **raw coal**.

It excludes **coal middling and washed coal** because these are processed from raw coal. Including both the raw material and products derived from it could result in **double counting**.

The revision therefore seeks to measure coal production more cleanly and avoid overstating industrial output.

Who Gains and Who Loses Weight?

The most striking change is the increased importance of **electricity**.

Its weight has risen from **19.85% to 30.932%**.

By contrast:

- **Coal:** 10.33% → **5.596%**
- **Natural Gas:** 6.88% → **3.841%**
- **Refinery Products:** 28.04% → **22.572%**

The newly added **iron ore** receives **4.905%**.

Fertilizers, meanwhile, see only a marginal increase to **2.731%**.

Why do weights matter?

Suppose electricity accounts for nearly one-third of the index. A significant rise in electricity production can therefore have a much larger impact on overall ICI growth than an equally large percentage increase in a sector with a much smaller weight.

Thus, **changes in weights can alter the overall growth rate even when the underlying physical production has not changed dramatically**.

Has the New Series Changed India's Industrial Growth Story?

This is perhaps the most important question.

The answer is **yes, but not radically**.

The revised methodology produces different growth estimates for the same period. For example, the May 2026 growth rate under the new series was **3.2%**, compared with **0.5% under the old series** cited in the source material.

However, the difference becomes much smaller when we look at longer periods.

The government's revised series shows that ICI growth during **2025–26 was 3.0%**.

The larger lesson is that **a statistical revision does not automatically imply that the underlying economy has suddenly become stronger or weaker**.

A change in the measuring instrument can change the measured number without fundamentally changing the phenomenon being measured.

What Does the Latest ICI Tell Us?

The revised series also provides a more contemporary picture of recent industrial activity.

Under the new series, the ICI grew **5.0% year-on-year in June 2026**, compared with **3.2% in May 2026**.

June's growth was driven particularly by:

- **Iron ore: +43.9%**
- **Electricity: +9.8%**
- **Cement: +9.8%**
- **Steel: +4.6%**
- **Coal: +1.4%**

Meanwhile, natural gas, crude oil, refinery products and fertilizers recorded negative growth.

The broader picture therefore remains mixed: **some infrastructure- and construction-linked sectors are expanding strongly, while several energy and input sectors remain under pressure.**

Why Does the ICI Matter?

The ICI is important because the eight—or now nine—core industries have extensive linkages with the rest of the economy.

For instance:

Iron ore → Steel → Construction & Manufacturing → Infrastructure

Coal → Electricity → Industry & Transport

Crude oil → Refinery products → Transport & Manufacturing

Cement + Steel → Roads, Railways, Housing & Infrastructure

Therefore, movements in core-sector production can provide an early indication of the direction of broader industrial activity.

The ICI also has an important statistical relationship with the **Index of Industrial Production**, since the core sectors account for a substantial share of the IIP's weighting structure.

ICI vs IIP (Do Not Confuse the Two)

A useful distinction for understanding economic data is:

ICI = tracks nine key core industries

IIP = tracks a much broader basket of industrial activities

The ICI therefore provides a **narrower but strategically important snapshot** of industrial production, while the IIP offers a broader picture of the industrial economy.

The revised ICI's methodology has deliberately been aligned more closely with the revised IIP, particularly in terms of sectoral weights and steel production measurement.

Why the Revision Matters for Policymakers

Updating an economic index is not merely an exercise in statistical housekeeping.

A credible index should reflect the economy that policymakers are actually managing.

The revised ICI:

- uses a **more recent base year**;
- includes **iron ore**, reflecting its industrial importance;
- reduces potential **double counting in coal**;
- aligns steel measurement with the **IIP**;
- redistributes weights according to the contemporary industrial structure; and
- provides a revised historical series for meaningful comparison.

For policymakers, researchers and investors, this should produce a **more relevant signal of changes in India's industrial momentum**.

Conclusion

The revision of the **Index of Core Industries** is best understood as an attempt to ensure that India's industrial statistics keep pace with a changing economy.

Is the Indian Rupee Undervalued?

Why in News: The **Indian rupee's valuation** has attracted renewed attention after **Reserve Bank of India (RBI) Governor Sanjay Malhotra** said it was reasonable to think that the rupee was **"not overvalued"** and that, by some measures, it could be considered **undervalued,** including in Real...

What Does "Undervalued Rupee" Mean?

A currency is generally described as **undervalued** when its market exchange rate is considered lower than the level justified by a country's underlying economic fundamentals.

Those fundamentals can include:

- economic growth,
- productivity,
- inflation,
- trade performance,
- capital flows,
- interest-rate differentials,
- external balances, and
- investor confidence.

For example, if a country's economic fundamentals remain relatively strong but an external shock causes heavy capital outflows and raises demand for foreign currency, its domestic currency may depreciate more sharply than those fundamentals alone would suggest.

That is broadly the context in which the RBI Governor's assessment has been interpreted.

However, **"undervalued" does not mean that the rupee must immediately appreciate**. A currency can remain below an estimated equilibrium level for an extended period because exchange rates are influenced by financial flows, global risk sentiment and other market forces.

Nominal Exchange Rate vs REER

To understand the Governor's comment, it is important to distinguish between the **nominal exchange rate** and the **Real Effective Exchange Rate (REER)**.

1. Nominal Exchange Rate

The nominal exchange rate tells us how much of one currency is required to purchase another.

For example:

₹95 = US$1

This tells us the rupee's value against the U.S. dollar at that point in time.

But the problem is that India does not trade only with the United States.

It trades with:

- the European Union,
- China,
- Japan,
- the United Kingdom,
- Gulf economies,
- Southeast Asia, and many others.

Therefore, looking only at the rupee-dollar rate provides an incomplete picture of the currency's external value.

2. Real Effective Exchange Rate (REER)

The **REER** provides a broader measure.

It compares the rupee against a **basket of currencies of India's major trading partners** and adjusts for differences in relative prices or inflation.

In simplified terms:

REER = Exchange-rate movement + trade-partner weights + relative inflation adjustment

This makes REER useful for assessing the **international competitiveness of the Indian economy**.

If the rupee appreciates in real effective terms, Indian goods may become relatively more expensive internationally.

If it depreciates in real effective terms, Indian goods may become relatively more competitive, although the final effect also depends on productivity, input costs and global demand.

The RBI itself publishes both **Nominal Effective Exchange Rate (NEER)** and **REER** indices as part of its external-sector statistics.

Why Does the REER Matter More Than the Dollar Rate Alone?

Imagine the rupee weakens against the U.S. dollar but simultaneously strengthens against several other currencies.

Looking only at the dollar could therefore give a misleading impression of the rupee's overall external value.

REER helps answer a broader question:

After considering India's major trading partners and relative inflation, is the rupee making Indian goods more or less competitive?

This is why the Governor's reference to **REER** is more significant than a simple comment on the rupee-dollar exchange rate.

Why Has the Rupee Been Under Pressure?

The rupee's recent weakness has been driven by a combination of **external rather than purely domestic factors**.

1. Higher Crude-Oil Prices

India imports the overwhelming majority of its crude-oil requirement.

When global oil prices rise:

Higher crude prices → Higher dollar demand → Larger import bill → Pressure on rupee

Recent geopolitical tensions in West Asia have periodically pushed crude prices higher, increasing pressure on India's external account and currency.

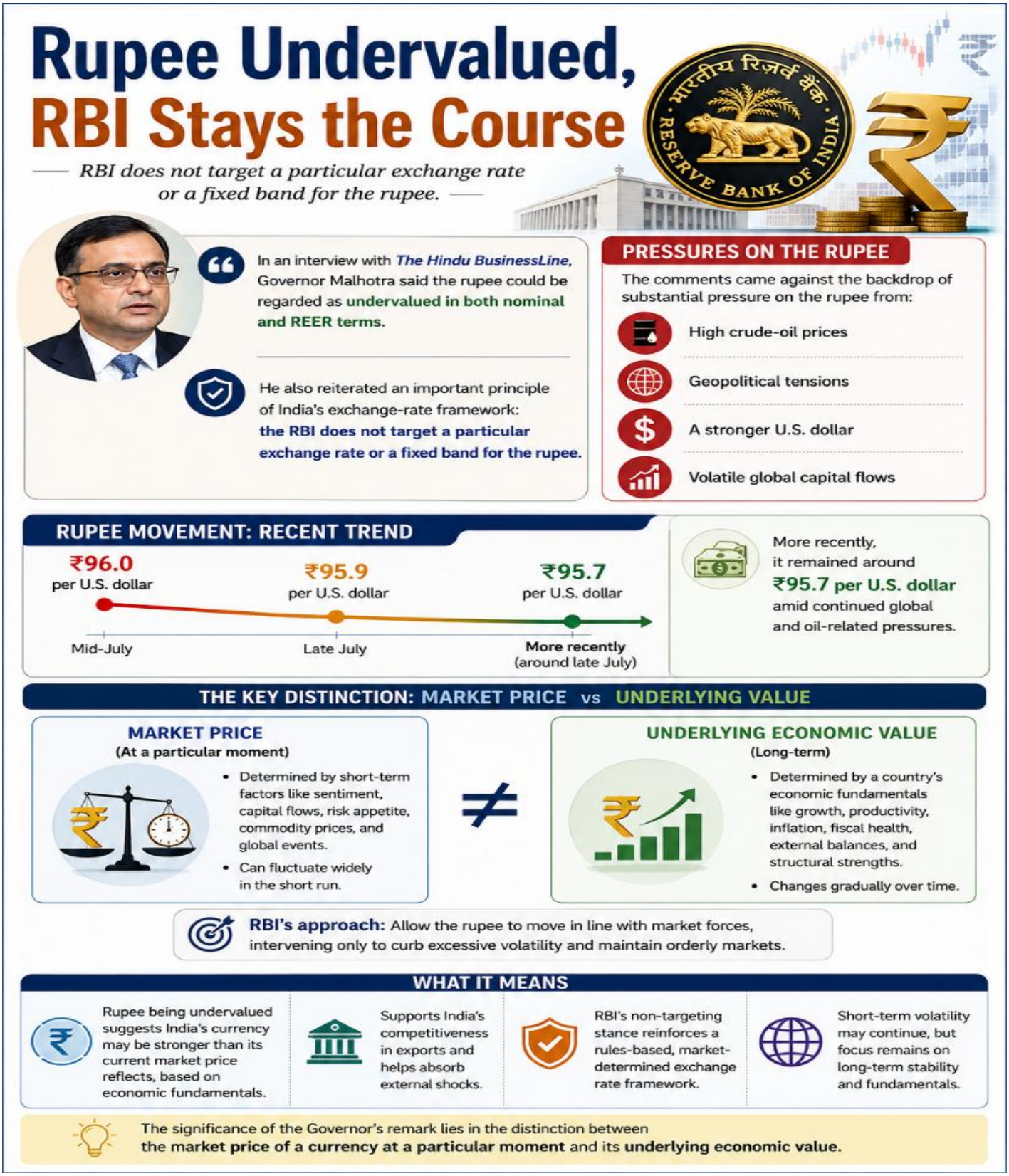
2. Strong U.S. Dollar

When the U.S. dollar strengthens globally, emerging-market currencies often come under pressure.

This can happen because investors shift towards dollar-denominated assets, increasing demand for dollars relative to emerging-market currencies.

3. Foreign Capital Flows

Financial markets respond quickly to changing global risk perceptions.



When foreign investors reduce exposure to Indian equities or other emerging-market assets:

Capital outflow → Dollar demand rises → Rupee faces depreciation pressure

At various points during 2026, foreign portfolio outflows were an important source of pressure on the rupee.

4. Geopolitical Uncertainty

Wars, trade restrictions and disruptions to global supply chains can cause investors to prefer safe-haven assets.

This can weaken emerging-market currencies even when the domestic economy remains comparatively resilient.

Does a Weak Rupee Mean the Indian Economy Is Weak?

Not necessarily.

This is perhaps the central idea behind the Governor's assessment.

Exchange rates are influenced by both:

Domestic fundamentals

and

Global financial conditions

A country can continue to experience strong economic growth while its currency depreciates because of:

- global dollar strength,
- higher oil prices,
- capital outflows,
- geopolitical shocks, or
- changes in international interest rates.

Recent RBI commentary has continued to describe India's macroeconomic fundamentals as resilient, while also highlighting risks from the West Asia conflict, energy prices and monsoon conditions.

India's External Buffers

India also has a substantial foreign-exchange reserve cushion.

In May 2026, Governor Malhotra described reserves of around **$682.3 billion** as adequate for approximately **11 months of imports**.

Since then, reserves have risen significantly. By **7 August 2026**, India's foreign-exchange reserves had reached roughly **$707 billion**, supported in part by strong policy-driven dollar inflows.

This reserve buffer is important because it provides the RBI with greater capacity to manage periods of excessive volatility.

It does **not**, however, mean that the RBI can or should permanently defend any particular rupee-dollar level.

Does the RBI Defend a Particular Rupee Level?

No.

India operates a **market-determined exchange-rate regime with managed intervention**.

This means the rupee's value is largely determined by market forces, including:

- demand and supply for foreign exchange,
- trade flows,
- capital flows,
- global interest rates,
- inflation differentials, and
- market expectations.

The RBI intervenes primarily to prevent **excessive or disorderly volatility**, rather than to maintain a fixed exchange rate.

This distinction is fundamental:

The RBI manages volatility, not a predetermined rupee price.

Governor Malhotra has repeatedly emphasised that the central bank is prepared to act to preserve orderly market conditions while avoiding a rigid exchange-rate target.

Why Might the RBI Prefer to Avoid a Sharp Rupee Movement?

A rapidly falling rupee can create several problems.

Impact on Inflation

India imports crude oil, machinery, electronics, chemicals and several other products.

A weaker rupee makes imported goods more expensive.

Rupee depreciation → Higher import costs → Higher domestic prices

Impact on External Debt

A weaker rupee increases the domestic-currency value of foreign-currency liabilities.

Impact on Businesses

Companies importing raw materials or capital equipment may face higher costs.

Impact on Households

Imported goods, overseas education, foreign travel and other dollar-linked expenses become more expensive.

But Is a Weaker Rupee Always Bad?

Not necessarily.

Depreciation can also improve **export competitiveness**, because exporters receive more rupees when converting their foreign-currency earnings.

The effects are therefore mixed.

Stronger Rupee	Weaker Rupee
Cheaper imports	Costlier imports
Helps moderate imported inflation	Can raise inflation
Makes foreign travel cheaper	Makes foreign travel costlier
Can reduce exporters' price competitiveness	Can improve exporters' competitiveness

This is one reason why the RBI does not pursue an ideological preference for either a permanently strong or permanently weak rupee.

The objective is **orderly adjustment**.

What Does the "Undervalued" Remark Actually Signal?

The Governor's comment should **not** be interpreted as a promise that the RBI will engineer a rupee appreciation.

It is better understood as an assessment that:

Recent rupee weakness ≠ necessarily a deterioration in India's underlying economic fundamentals.

In other words, external shocks may have pushed the currency below the level that some measures of economic fundamentals would suggest.

This distinction can also help shape market expectations by signalling that the central bank is monitoring whether currency movements become excessive relative to India's broader economic position.

Indeed, markets reacted positively to the Governor's remarks, with the rupee gaining **66 paise to close at ₹95.91 per U.S. dollar on 27 July**.

What Could Strengthen the Rupee Going Forward?

The future trajectory will depend on several variables.

Global Factors

- U.S. monetary policy

- Dollar strength
- Crude-oil prices
- West Asia geopolitics
- Global risk appetite

Indian Factors

- GDP growth
- Inflation
- Merchandise trade deficit
- Services exports
- Remittances
- Foreign direct investment
- Portfolio flows
- Forex reserves

India's strong services exports and remittance inflows provide important external-sector buffers, while higher oil prices and a wider merchandise trade deficit can work in the opposite direction.

The Bigger Economic Lesson

The rupee-dollar exchange rate is only **one number**.

It cannot, by itself, tell us whether the Indian economy is strong or weak.

A more complete assessment requires looking simultaneously at:

Growth + Inflation + Productivity + Trade Balance + Capital Flows + REER + External Debt + Forex Reserves

This is why the Governor's reference to **REER** is significant. It moves the discussion beyond the psychologically prominent rupee-dollar rate towards the broader question of **India's external competitiveness and real currency valuation**.

Conclusion

The RBI Governor's description of the rupee as **"not overvalued" and potentially undervalued** highlights an important distinction between **short-term currency movements and longer-term economic fundamentals.**

National Investment Policy for Urea-2026 (NIPU-2026)

Why in News: The **Cabinet Committee on Economic Affairs (CCEA)** approved the **National Investment Policy for Urea-2026 (NIPU-2026)** on **15 July 2026,** signalling a fresh push to expand India's domestic urea manufacturing capacity and reduce dependence on imports.

Why Does India Need a New Urea Investment Policy?

Urea is India's most widely used nitrogenous fertiliser. Its importance goes far beyond the fertiliser industry because nitrogen is essential for crop growth and therefore directly influences agricultural productivity.

Yet India continues to face a structural gap between **domestic urea production and national demand**, requiring imports to bridge the shortfall.

The Government's recent policy response therefore has two interconnected objectives:

Increase domestic production

↓

Reduce dependence on imports

↓

Strengthen fertiliser security

↓

Protect agricultural production from external shocks

NIPU-2026 is specifically designed to encourage fresh investment in **gas-based urea plants** and improve the investment framework for new projects.

What is NIPU-2026?

The **National Investment Policy for Urea-2026** is a policy framework of the Department of Fertilizers intended to make fresh investment in the domestic urea sector more attractive.

The Government expects the policy to facilitate the establishment of **8–9 new gas-based urea plants**, adding approximately **1 crore metric tonnes of annual production capacity**.

This is significant because expanding capacity is not merely about producing more fertiliser. It is also about creating a more resilient domestic supply chain in a sector exposed to international energy prices, import dependence and geopolitical disruptions.

What Has Changed Under NIPU-2026?

The new policy introduces several important changes compared with the earlier **NIP-2012** framework.

1. Separation of Fixed and Variable Costs

NIPU-2026 separates **fixed costs** from **variable costs** in the policy framework.

This is intended to improve:

- transparency,
- predictability of cost calculations,
- investment certainty, and
- administrative efficiency.

The change is important because urea manufacturing involves substantial capital expenditure as well as recurring input costs, particularly energy-related costs.

A clearer distinction between the two can provide investors with greater certainty about how project economics will be assessed.

2. A Defined Return on Equity Band

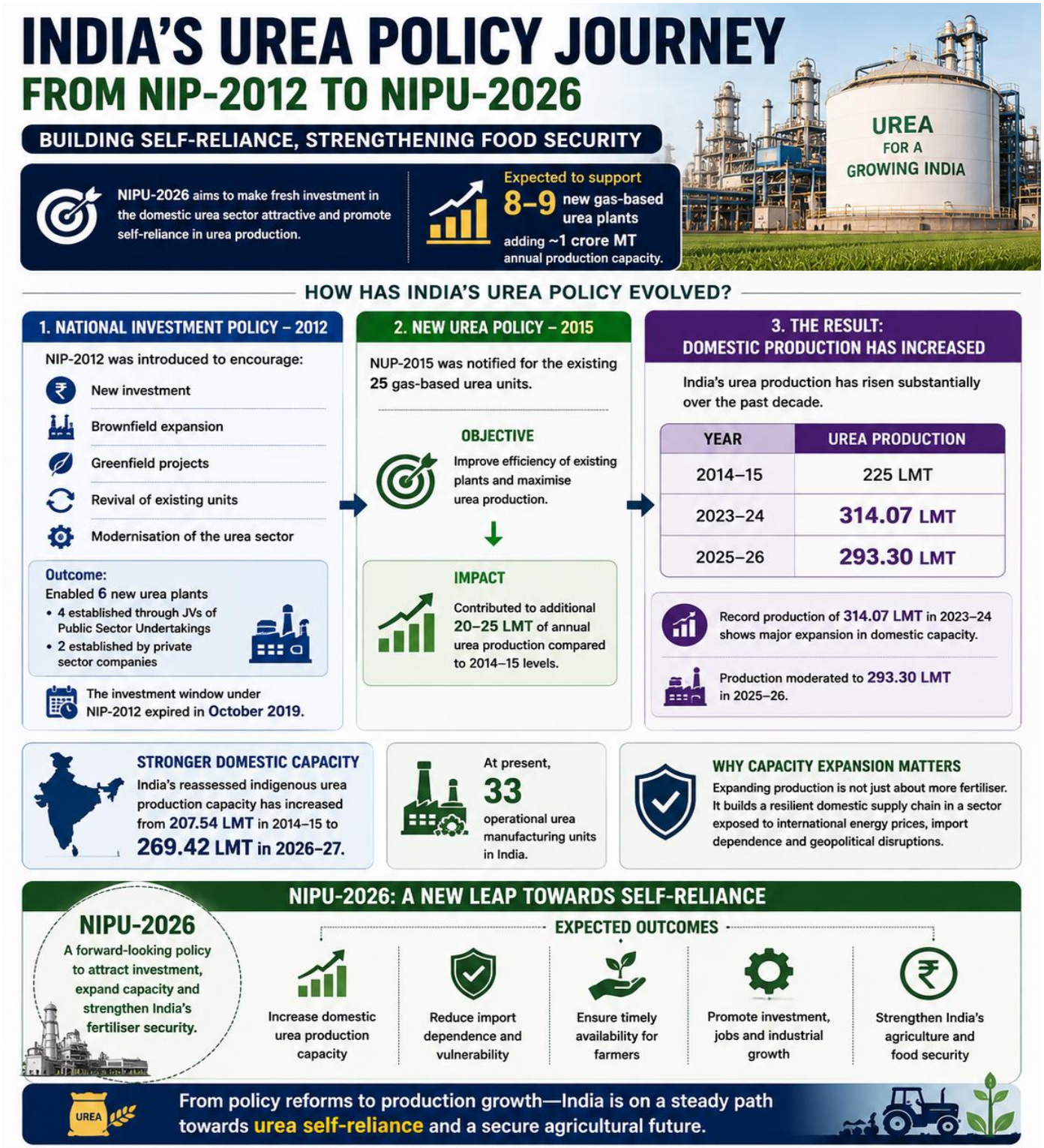
The policy introduces a **Return on Equity (RoE) band of 12% to 16%**:

- **Minimum RoE:** 12%
- **Maximum RoE:** 16%

This provides a clearer investment framework for companies considering new urea projects.

The significance is straightforward:

A major manufacturing project requires both substantial capital and long-term confidence in returns.



By establishing a defined RoE range, the Government seeks to balance **investment attractiveness with control over subsidy-related costs**.

3. Foreign-Exchange Risk Management

New urea plants can involve imported equipment and other costs denominated in foreign currencies, exposing investors to exchange-rate fluctuations.

NIPU-2026 addresses this risk by providing for the recognised **fixed cost to be converted into Indian rupees after four years**, using the prevailing exchange rate at that time.

This mechanism is designed to reduce uncertainty arising from currency movements and improve the long-term bankability of projects.

4. Lower Cost Compared with the Earlier Framework

According to the Government, the revised structure is expected to generate **savings of more than ₹250 crore per plant** compared with projects established under NIP-2012.

This matters because the ultimate cost of expanding domestic production affects not only investors but also the **public subsidy burden** associated with making urea affordable to farmers.

How Has India's Urea Policy Evolved?

NIPU-2026 is the latest stage in a policy journey that began more than a decade ago.

National Investment Policy — 2012

The Government introduced **NIP-2012** to encourage:

- new investment,
- brownfield expansion,
- greenfield projects,

- revival of existing units, and
- modernisation of the urea sector.

The policy eventually enabled **six new urea plants**:

- Four established through joint ventures involving public-sector undertakings.
- Two established by private-sector companies.

The investment window under NIP-2012 expired in **October 2019**.

New Urea Policy — 2015

The Government subsequently notified the **New Urea Policy (NUP)-2015** for the existing **25 gas-based urea units**.

Its objective was to improve the efficiency of existing plants and maximise production.

The policy contributed to an additional **20–25 lakh metric tonnes of annual urea production** compared with 2014–15 levels.

The Result: Domestic Production Has Increased

India's urea production has risen substantially over the past decade.

Year	Urea Production
2014–15	225 LMT
2023–24	314.07 LMT
2025–26	293.30 LMT

The record production of **314.07 LMT in 2023–24** demonstrates the significant expansion in domestic capacity, even though production subsequently moderated to **293.30 LMT in 2025–26**.

Meanwhile, India's reassessed indigenous urea production capacity has increased from **207.54 lakh metric tonnes per annum in 2014–15 to 269.42 LMT in 2026–27**.

At present, India has **33 operational urea manufacturing units**.

Why Does Import Dependence Remain a Concern?

Despite the growth in domestic production, India continues to import urea to bridge the gap between production and demand.

This creates vulnerability because the fertiliser supply chain can be affected by:

- international commodity prices,
- natural-gas availability,
- shipping disruptions,
- geopolitical tensions,
- export restrictions, and
- fluctuations in exchange rates.

The recent instability in global markets has therefore reinforced the argument for greater domestic production capacity.

The logic of NIPU-2026 is consequently not simply **"produce more urea"** but **"reduce the strategic vulnerability created by dependence on external supply."**

India's Fertiliser Subsidy Burden

The push for domestic production also needs to be understood against the backdrop of India's large fertiliser subsidy bill.

Fertiliser Subsidy

- **2024–25:** ₹1,77,162.06 crore
- **2025–26:** ₹2,17,281.10 crore

The **urea subsidy alone** stood at:

- **2024–25:** ₹1,24,319.50 crore
- **2025–26:** ₹1,42,175.74 crore

The subsidy for **phosphatic and potassic (P&K) fertilisers** was about ₹75,000 crore in 2025–26.

Thus, fertiliser policy involves a three-way balancing act:

Affordable fertiliser for farmers

- **Viable domestic production**
- **Fiscal sustainability**

Is India Facing a Urea Shortage This Kharif Season?

The Government's more recent data suggest that the immediate national supply situation is **comfortable rather than deficient**.

For **Kharif 2026**, the Government estimated urea requirement at **370.84 LMT**, while total availability was reported at **432.44 LMT**. Of this, **381.59 LMT** was to be made available for sale through the Direct Benefit Transfer (DBT) system.

A later parliamentary update reported that urea availability for the ongoing kharif season was **163.78 LMT against a requirement of 109.40 LMT for the period under consideration**, indicating a substantial buffer at that stage.

Therefore, NIPU-2026 should not be interpreted simply as an emergency response to an immediate nationwide shortage. Its larger purpose is **long-term capacity creation and strategic self-reliance**.

How Is Urea Reaching Farmers?

Subsidised fertiliser distribution is governed through the **Direct Benefit Transfer (DBT) system**.

Under the fertiliser DBT architecture:

- subsidised fertilisers are sold through **Point of Sale (PoS) devices** at retail outlets;
- purchasers are authenticated through approved identity mechanisms;
- transactions are digitally recorded; and
- subsidy is linked to actual fertiliser sales.

The system is intended to improve **transparency, monitoring and targeting** in fertiliser distribution.

But There Is Another Problem (Overuse of Urea)

India's fertiliser challenge is not only about **insufficient urea production**.

It is also about **imbalanced fertiliser use**.

Urea is comparatively inexpensive to farmers because of its heavily subsidised pricing structure. This can create an incentive to use more nitrogen than is agronomically optimal, contributing to imbalances in the use of nitrogen, phosphorus and potassium.

Excessive and imbalanced fertiliser application can affect:

- soil health,
- nutrient efficiency,
- groundwater quality, and
- long-term agricultural sustainability.

Therefore, **urea self-sufficiency should not be confused with agricultural nutrient sustainability**.

Integrated Nutrient Management (The Other Side of the Policy)

The Government promotes **Integrated Nutrient Management (INM)** to encourage the balanced use of:

- chemical fertilisers,
- organic inputs, and
- biological sources of nutrients.

The objective is to meet crop nutrient requirements while maintaining **soil fertility and environmental sustainability** over the long term.

This creates an important policy paradox:

India wants to produce enough urea to reduce import dependence, but it simultaneously wants farmers to become less excessively dependent on urea.

Both objectives can coexist.

The first is about **fertiliser security**.

The second is about **sustainable nutrient management**.

What About Nano Urea?

The Government has also promoted **Nano Urea** as a potential complement to conventional fertiliser use.

However, its wider adoption among farmers has remained limited, and debates have emerged over its performance and the evidence surrounding its effectiveness.

The larger lesson is that alternatives to conventional urea must ultimately succeed on the basis of **credible scientific evidence, agronomic performance and farmer acceptance**, rather than policy promotion alone.

Why NIPU-2026 Matters

The significance of the new policy can be understood at four levels.

Food Security

Reliable fertiliser availability is essential for maintaining agricultural productivity.

Strategic Autonomy

Greater domestic production reduces vulnerability to international supply disruptions.

Economic Security

Reducing import dependence can lower exposure to global prices and exchange-rate fluctuations.

Industrial Development

New gas-based fertiliser plants create opportunities for investment, manufacturing and infrastructure development.

The Bigger Policy Challenge

India's fertiliser policy ultimately has to solve **three problems simultaneously**:

Enough

Ensure that farmers can access fertilisers when they need them.

Affordable

Keep fertiliser prices within farmers' reach through an efficient subsidy system.

Balanced

Prevent excessive dependence on a single nutrient and protect long-term soil health.

NIPU-2026 primarily addresses the **"enough"** and **self-reliance** components. It must therefore be complemented by policies addressing the **"balanced use"** problem.

Conclusion

The **National Investment Policy for Urea-2026** represents a renewed effort to strengthen India's domestic fertiliser manufacturing base and reduce dependence on imported urea. By creating a clearer cost framework, offeringthe policy must be complemented by measures promoting balanced fertiliser use, soil health, and efficient nutrient management.

A perfect storm

Why in News: A debris slide triggered by heavy rainfall at the under-construction **Kalladi twin tunnel** in Wayanad killed six workers, reviving concerns over infrastructure development in ecologically fragile and landslide-prone regions.

Key Details

- **Heavy rainfall** triggered a debris slide at the tunnel entrance in **Meppadi, Wayanad**.
- **Six workers died**, prompting the Kerala government to suspend construction.
- The project is a **₹2,100-crore, 8.73-km twin-tube tunnel** linking Kozhikode and Wayanad.
- Authorities are investigating **compliance with environmental clearance conditions** issued by the **MoEFCC's Expert Appraisal Committee**.
- The incident has reignited the debate over **development versus ecological conservation** in climate-vulnerable hill regions.

Fresh Disaster in Climate-Vulnerable Wayanad

- A **heavy downpour on July 7** triggered a **debris slide** at the entrance of the **under-construction twin tunnel** at Kalladi in Meppadi, Wayanad.
- The incident resulted in the **death of six workers**.
- The affected area lies close to **Chooralmala**, which witnessed devastating landslides in **2024**, highlighting the region's recurring climate vulnerability.
- The Kerala government has **suspended construction** pending a detailed investigation.
- The probe will examine whether the project complied with the **environmental clearance conditions** laid down by the **Expert Appraisal Committee (EAC)** under the **Ministry of Environment, Forest and Climate Change (MoEFCC)**.

Wayanad's Growing Climate and Ecological Fragility

- Since the **2018 Kerala floods**, Meppadi and surrounding areas have faced repeated climate-induced disasters.
- Major landslides struck **Puthumala (2019)** and **Chooralmala (2024)**, causing extensive loss of life and property.
- The region's **steep slopes, fragile geology, and intense rainfall** make it highly susceptible to landslides.
- Scientists warn that **climate change is increasing the frequency and intensity of extreme rainfall events**.
- These recurring disasters underline the urgent need for **climate-resilient development** in ecologically sensitive areas.

Twin Tunnel Project and Environmental Concerns

- The **₹2,100-crore, 8.73-km twin-tube tunnel** aims to connect **Anakkampoyil (Kozhikode)** with **Meppadi (Wayanad)**.
- The project seeks to improve **connectivity and access to advanced healthcare**, which Wayanad currently lacks.
- Environmental groups opposed the project, arguing that large-scale excavation could **destabilise fragile hill slopes**.
- Despite objections, the project was **fast-tracked** due to its developmental importance.
- In **April 2026**, the **Supreme Court** upheld the project, describing it as one of **national importance**, though environmental groups plan to seek a review.

Possible Causes and Institutional Lapses

- Preliminary reports suggest that **multiple factors** may have contributed to the tragedy.
- The Kerala government alleged that the construction agency failed to **remove excavation debris** despite official directions.
- The executing company attributed the incident to **heavy rainfall and the area's inherent landslide susceptibility**.
- CCTV footage indicates an **avalanche-like flow of debris**, though a scientific geomorphological investigation is required to determine the exact trigger.
- Questions have also been raised about the **effectiveness of disaster preparedness and early warning systems**, despite weather conditions resembling those before previous disasters.

Lessons and the Way Forward

- Infrastructure development in **ecologically fragile regions** must balance developmental needs with environmental sustainability.
- Projects should be based on **rigorous environmental impact assessments**, climate-risk analysis, and geological studies.
- Authorities must ensure **strict compliance with environmental clearance conditions** and continuous monitoring during construction.
- Disaster management should shift from **reactive relief measures to proactive risk reduction and resilience building**.
- Kerala should comprehensively reassess the **social, environmental, and climate costs** of major infrastructure projects to minimise future disasters.

Conclusion

The Wayanad tunnel tragedy highlights the urgent need to integrate **ecological sustainability, climate resilience, and disaster risk reduction** into infrastructure planning. Development cannot ignore environmental limits, particularly in fragile hill ecosystems.

Falling behind

Why in News: Heavy monsoon rains triggered severe flooding across Mumbai and Maharashtra, **disrupting transport, causing landslides**, infrastructure failures, and fatalities, highlighting rising climate risks and urban governance challenges.

Key Details

- **Active southwest monsoon** and moisture-laden winds caused intense rainfall over the **Konkan Coast** and Mumbai.
- **High tides** and overloaded drainage systems aggravated urban flooding and waterlogging.
- **Transport infrastructure** including railways, expressways, and flights faced major disruptions due to floods and landslides.
- **Climate change**, rapid urbanisation, and reclaimed coastal land have increased Mumbai's flood vulnerability.

- **Incomplete drainage upgrades** and fragmented institutional coordination exposed significant governance shortcomings.

Causes of Heavy Rainfall

- **Active Southwest Monsoon:** Strong moisture-laden southwesterly winds brought intense rainfall over **Western India**.
- **Western Ghats Effect:** The **Western Ghats** forced moist winds to rise, causing heavy rainfall along the **Konkan Coast**.
- **Offshore Weather Systems:** Offshore systems directed additional moisture towards **Mumbai** and nearby regions.
- **High Rainfall Intensity:** Short-duration, high-intensity rainfall caused greater urban flooding than prolonged moderate rainfall.
- **High Tide Impact:** High tides reduced the efficiency of Mumbai's stormwater drainage, worsening waterlogging.

Impacts of the Heavy Rainfall

- **Urban Flooding:** Stormwater drains could not cope with several hundred millimetres of rain falling in a short period.
- **River Overflow:** River catchments in parts of **Maharashtra**, including **Nashik**, were overwhelmed.
- **Transport Disruptions:** Rail services, flights, and major highways were severely affected due to flooding and landslides.
- **Infrastructure Failures:** Landslides at **Bhor Ghat** suspended Mumbai–Pune rail services and damaged connectivity.
- **Loss of Lives:** A **chawl collapse in Mankhurd** resulted in the death of five children.

Structural Vulnerabilities of Mumbai

- **Reclaimed Land:** Much of Mumbai is built on reclaimed land, marshes, tidal flats, and low-lying coastal areas.
- **Flood-Prone Geography:** Heavy rainfall coinciding with high tide naturally increases flood risk.
- **Unplanned Urbanisation:** Rapid and haphazard development has reduced groundwater absorption and increased surface runoff.
- **Overburdened Drainage:** Stormwater drains receive more water than their designed capacity.
- **Linear Infrastructure Risks:** Flooding exposed the vulnerability of highways, railways, and expressways to extreme weather events.

Governance and Infrastructure Challenges

- **Incomplete Flood Projects:** Several **BRIMSTOWAD** drainage upgrades remain unfinished.
- **Climate Change Impact:** Existing drainage designs are based on outdated monsoon patterns no longer suited to changing climate conditions.
- **Limited Preparedness:** Despite pre-monsoon desilting, flooding, tree falls, building collapses, and transport failures exposed governance gaps.
- **Fragmented Accountability:** Responsibility is divided among the **BMC**, **IMD**, **NDRF**, Railway authorities, State Government, and highway agencies.
- **Delayed Administrative Response:** Advisories to halt hazardous construction were issued only after major damage had occurred.

Key Lessons and Way Forward

- **Improve Urban Planning:** Promote sustainable urban development with better water absorption and flood-resilient infrastructure.
- **Upgrade Drainage Systems:** Modernise drainage capacity to handle increasingly intense rainfall events.
- **Strengthen Climate Resilience:** Incorporate climate change projections into infrastructure planning and disaster management.
- **Enhance Institutional Coordination:** Improve coordination among civic bodies, transport agencies, and disaster-response authorities.
- **Shift from Reactive to Proactive Planning:** Mumbai has improved in reducing casualties, but future resilience requires faster infrastructure upgrades rather than waiting for systems to catch up with growing risks.

Conclusion

The floods demonstrate that extreme rainfall events are becoming more frequent under climate change, while urban infrastructure is failing to keep pace. Mumbai must adopt **climate-resilient planning,** modernise drainage systems upgrade drainage, strengthen institutional coordination, and integrate climate resilience into urban planning and disaster management.

The sea has a seat at the table

Why in News: The **Scottish Association of Marine Scientists (SAMS)** appointed the **Atlantic Ocean** as a symbolic trustee, highlighting the global movement to recognise **nature's rights** and incorporate ecosystem interests into institutional governance.

Key Details

- **Historic Institution:** SAMS, founded in **1884** by **John Murray**, is among the world's oldest marine research organisations.
- **Symbolic Trustee:** The **Atlantic Ocean** has been appointed as a trustee to represent long-term ecological interests.
- **Nature's Rights:** Reflects the growing global trend of granting **legal rights or personhood** to natural ecosystems.
- **Governance Shift:** Recognises that **scientific expertise alone** cannot always ensure environmentally sustainable decisions.
- **Global Significance:** May inspire other institutions to adopt **nature-inclusive governance** for conservation and sustainability.

SAMS Appoints the Atlantic Ocean as a Trustee

- The **Scottish Association of Marine Scientists (SAMS)**, founded in **1884** by **John Murray**, is one of the world's oldest ocean research institutions.
- Murray combined **scientific exploration of the oceans** with **practical economic activities**, including phosphate extraction from oceanic islands.
- In a landmark decision, **SAMS has appointed the Atlantic Ocean as one of its trustees**, symbolically giving the ocean a voice in institutional governance.

Growing Global Recognition of Nature's Rights

- The idea of granting **legal rights to nature** has gained momentum worldwide.
- **New Zealand** recognises the **Whanganui River** as a legal person.
- **Colombia's courts** have granted legal rights to the **Amazon rainforest**, while **Spain** has extended personhood to the **Mar Menor lagoon**.
- These developments reflect the belief that **ecosystems possess intrinsic value and deserve legal protection**.

Why SAMS Took This Step

- SAMS acknowledges that **scientific knowledge alone cannot ensure environmental protection**.
- Researchers can explain **changes in marine ecosystems**, but institutional decisions often fail to prioritise the **long-term health of oceans**.
- The symbolic trustee aims to encourage governance that better represents **ecological interests**.

Challenge of Representing the Ocean

- A key question is **who can genuinely speak for the sea**.
- Possible representatives include **marine scientists, fisher communities, marine species, and entire ecosystems**.
- The initiative highlights the need to balance **scientific expertise, local knowledge, and ecological concerns** in decision-making.

Significance and Future Implications

- SAMS' move reflects the growing global trend of **integrating environmental ethics into governance**.
- The institution will be closely observed to see **how the Atlantic Ocean's symbolic trusteeship influences board decisions and conservation policies**.
- The initiative could inspire **other scientific and environmental institutions** to adopt innovative governance models that prioritise ecosystem protection.

Conclusion

The appointment of the Atlantic Ocean as a trustee represents an innovative step towards integrating ecological interests into governance. While symbolic, it reinforces the principle that environmental protection requires institutional representation alongside scientific evidence.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Recognising the rights of nature marks a shift from human-centred to ecosystem-centred governance." Discuss with suitable global examples. (10 marks, 150 words)

On Winter Air, Delhi Does The Right Thing

Why in News: The Delhi government has unveiled a proactive winter pollution control strategy months before peak smog, **introducing early restrictions**, remote working measures, and cleaner transport initiatives to improve air quality.

Key Details

- **Early Action:** Restrictions on vehicles and construction will begin from **November 1**, instead of waiting for severe AQI alerts under GRAP.
- **Work From Home:** Government and private offices will operate with **50% in-person attendance** during the peak pollution season to reduce emissions.
- **Long-term Solutions Needed:** Temporary bans alone cannot solve pollution; sustained emission reduction through cleaner transport and governance reforms is essential.
- **Public Transport & EVs:** Expansion of electric buses, the EV policy, and improved Metro connectivity are positive steps, though last-mile connectivity remains inadequate.
- **Regional Airshed Approach:** Delhi's pollution is linked to emissions from neighbouring states due to biomass burning, industries, and transport, requiring coordinated Centre-State action.

Proactive Winter Pollution Plan

- Delhi has announced its pollution control strategy **about five months before** the winter pollution season.
- The plan includes most measures from the **Graded Response Action Plan (GRAP)**.
- Restrictions will begin **from November 1** and continue for **3–4 months**, instead of waiting for AQI red alerts.
- The strategy shifts from **reactive** to **preventive** pollution management.
- It addresses criticism that authorities act only after pollution reaches emergency levels.

Key Measures Under the Plan

- Restrictions on **vehicles** and **construction activities** will start in advance.
- Government and private offices will function with **50% in-person attendance**.
- Businesses will get time to redesign workflows before the pollution season.
- Workplaces can strengthen **digital infrastructure** and remote working systems.
- Employers can plan **staggered attendance** and transport arrangements.

Need for Long-Term Pollution Control

- Temporary bans and restrictions should **not become permanent solutions**.
- Delhi needs a governance system that encourages **continuous emission reductions**.
- Work From Home (WFH) should be promoted as a **public health measure**, not through coercion.
- WFH cannot replace the need for **clean and sustainable transportation**.
- Long-term solutions should focus on preventing pollution rather than only managing emergencies.

Importance of Sustainable Transport

- Delhi's **Electric Vehicle (EV) Policy** is a positive step toward cleaner mobility.
- Expanding the fleet of **electric buses** helps reduce transport emissions.
- The **Delhi Metro** has significantly improved urban mobility.
- **Last-mile connectivity** remains inadequate in many areas.
- Greater investment is needed in an integrated and reliable public transport system to reduce road congestion.

Need for a Regional and National Approach

- Delhi's pollution is part of a larger **regional airshed problem**.
- Winter smog is caused not only by local emissions but also by **biomass burning**, industrial pollution, and transport emissions from states extending from **Punjab to West Bengal**.
- Many Indian cities fail to meet **National Ambient Air Quality Standards (NAAQS)**.
- Delhi's decarbonisation efforts should be integrated into a **national clean air strategy**.
- The **Centre** should support and coordinate with states to ensure cleaner air across India.

Conclusion

Delhi's proactive winter pollution plan marks a shift from reactive crisis **management to preventive action.**

However, lasting improvements require cleaner transport, stronger public infrastructure, regional coordination across the **Indo-Gangetic airshed,** and sustained emission **reductions.**

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Delhi's winter pollution cannot be addressed through seasonal restrictions alone. Discuss the need for a long-term, regional airshed-based strategy for improving air quality in India." (150 words, 10 marks)

Supreme Court Balances Ecology And Public Interest. Centre Must Pay Heed

Why in News: The **Supreme Court** struck down the Centre's 2021 Office Memorandum permitting blanket post-facto environmental clearances while allowing only narrowly tailored amnesty schemes for projects justified by compelling public interest.

Key Details

- **SC quashed 2021 OM:** The Court invalidated the **2021 Office Memorandum** that regularised projects violating prior Environmental Impact Assessment (EIA) requirements.
- **Limited post-facto clearance allowed:** Blanket regularisation was rejected, but a **narrowly tailored amnesty scheme** may be permitted in exceptional **public interest** cases.
- **Proportionality test introduced:** The government must prove that relaxation is **necessary**, serves a **compelling public purpose**, and that environmental costs are proportionate to expected benefits.
- **Clarifies earlier rulings:** The judgment reconciles the **Alembic Pharmaceuticals (2020)** verdict with the reviewed **May 2025** decision, reaffirming that prior environmental clearance remains the norm.
- **Environmental protection upheld:** The Court recognised that **environmental conservation is itself a part of public interest**, especially amid climate change and ecological degradation.

Background: India's EIA Framework

- **Environmental Impact Assessment (EIA)** is based on the **precautionary principle**, requiring environmental appraisal **before** project execution.
- It prioritises **preventing ecological damage** rather than compensating after harm occurs.
- Prior environmental clearance is a key safeguard for **sustainable development**.

Government's Post-2017 Changes

- In **2017**, the Centre introduced a **one-time window** allowing projects already underway to seek environmental clearance later.
- This marked the beginning of a **post-facto environmental clearance** regime.
- In **2021**, an **Office Memorandum (OM)** further regularised projects that had violated environmental clearance norms.

Supreme Court's Latest Verdict (July 2026)

- The Supreme Court **struck down the 2021 Office Memorandum**, ending blanket regularisation of violations.
- However, it modified its **May 2025 ruling**, which had completely prohibited post-facto environmental clearances.
- The Court held that a **"narrowly tailored amnesty scheme"** may be allowed if it is **justified by public interest**.

Key Legal Principles Clarified

- The judgment reaffirms the **Alembic Pharmaceuticals (2020)** ruling that retrospective clearances violate environmental law.
- It places the **burden on the government** to justify exceptions through **reasoned selection** of projects.
- Any relaxation must satisfy the **test of proportionality**:
  - Serve a **compelling public interest**.
  - Be **strictly necessary**.
  - Balance **environmental costs** against **public benefits**.

Significance and Way Forward

- The verdict converts broad administrative discretion into a **limited constitutional exception**.
- Exceptions may be justified for **national defence, urgent healthcare infrastructure**, or **critical connectivity projects**.
- The Court emphasised that **environmental protection itself is a component of public interest**, especially amid **climate change** and **ecological degradation**.

Conclusion

The judgment strengthens India's environmental governance by reaffirming that **prior environmental clearance remains the rule,** while permitting only exceptional relaxations based on strict constitutional scrutiny.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q27. "The precautionary principle forms the foundation of India's Environmental Impact Assessment (EIA) regime. In light of the Supreme Court's recent judgment on post-facto environmental clearances, examine the balance between environmental protection and developmental needs." (15 Marks, 250 Words)

How To Absorb Rainwater – What Indian Cities Need To Learn

Why in News: Mumbai is **witnessing severe monsoon flooding** due to intense rainfall, high tides, and **inadequate urban drainage**, highlighting the urgent need for climate-resilient infrastructure and nature-based urban planning.

Key Details

- **Severe Monsoon Impact:** Heavy rainfall has caused deaths, submerged roads, flooded homes, and disrupted transport and educational institutions.
- **Geographical Vulnerability:** Mumbai's reclaimed land, low elevation, and loss of wetlands increase its susceptibility to urban flooding.
- **Drainage Challenges:** Existing storm-water drains depend on gravity, making them ineffective during high tides and intense rainfall.
- **Global Solutions:** China's **Sponge City** model and the **Netherlands' blue-green infrastructure** demonstrate sustainable flood-management practices.
- **Need for Resilient Planning:** Integrating wetlands, permeable pavements, green roofs, and water-retention systems is essential for climate-resilient urban development.

Current Flood Situation

- **Heavy monsoon rainfall** has caused severe flooding across Mumbai.
- At least **seven people have died** in the last five days.

- **Roads, homes, and low-lying areas** have been submerged.
- **Transport services** have been disrupted, delaying commuters.
- **Schools and colleges** have suspended classes and examinations.
- The **India Meteorological Department (IMD)** has forecast **more heavy rainfall over the next three days**, increasing flood risks.

Why Mumbai Faces Recurrent Flooding

- Mumbai was **built on reclaimed land** that originally consisted of **seven islands**.
- Large parts of the city lie **only a few metres above sea level**, making them highly flood-prone.
- **Rapid urbanisation** has destroyed **creeks, wetlands, and salt pans** that naturally absorbed rainwater.
- During heavy rainfall, water follows **old natural drainage channels**, causing repeated flooding in areas such as:
  - **Hindmata**
  - **Kurla**
  - **Sion**
  - **Western suburbs**

Limitations of Existing Flood Management

- After the **2005 Mumbai floods**, authorities introduced:
  - **Pumping stations**
  - Improved **weather forecasting systems**
  - Upgraded **storm-water drainage networks**
- However, these measures remain **inadequate** for handling **short-duration, high-intensity rainfall**.
- Mumbai's drainage system depends on **gravity** to discharge water into the sea.
- During **high tide**, seawater blocks drainage outlets, causing rainwater to flow back and worsen urban flooding.

Global Best Practices for Urban Flood Resilience

- **China's Sponge City Programme** improves water retention by:
  - Installing **permeable pavements**
  - Restoring **urban wetlands**
  - Creating **artificial lakes** to store rainwater
- **The Netherlands** has adopted innovative solutions such as:
  - **Water squares** that store floodwater while serving as public spaces during dry periods.
  - **Green roofs** that absorb rainfall and reduce runoff.
- These approaches combine **urban development with climate adaptation**.

The Way Forward for Mumbai and Indian Cities

- Mumbai has initiated **lake restoration projects**, but **blue-green infrastructure** is still limited.
- Urban planning should integrate:
  - **Wetland conservation**
  - **Permeable surfaces**
  - **Green roofs**
  - **Nature-based drainage systems**
- Future development must balance **housing, transport, and commercial growth** with **climate resilience**.
- Building **sustainable and flood-resilient cities** is essential to protect lives, infrastructure, and economic activity from increasing **extreme weather events**.

Conclusion

Mumbai's recurring floods underline the **need to shift from reactive** disaster management to proactive climate-resilient urban planning. Conserving wetlands, **restoring natural drainage,** adopting blue-green infrastructure, and integrating flood resilience into city development are essential.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q28. "Urban flooding in India is increasingly a consequence of poor urban planning rather than excessive rainfall alone." Discuss with reference to Mumbai, and suggest nature-based solutions for building climate-resilient cities. (150 words, 10 marks)

Ex Post Facto Environmental Clearances

Why in News: The **Supreme Court** has **quashed the Union Government's 2021 Office Memorandum (OM)** that created a mechanism for granting **ex post facto environmental clearances** to projects that had commenced construction or operations without obtaining the mandatory prior environmental clearance.

What is Ex Post Facto Environmental Clearance?

Environmental clearance (EC) is intended to ensure that the likely environmental consequences of certain projects are assessed **before** construction or operation begins.

The **EIA Notification, 2006**, issued under the Environment (Protection) Act, 1986, establishes this prior-clearance framework for a range of projects, including areas such as mining, infrastructure, industrial activities, airports and large construction projects.

An **ex post facto environmental clearance** reverses this sequence:

Normal principle: Assess environmental impact → obtain clearance → commence project

Ex post facto route: Commence project without clearance → assess/regularise later → obtain clearance

The Supreme Court's latest judgment is fundamentally concerned with this reversal of the preventive logic of environmental regulation.

The 2021 Office Memorandum

The Ministry of Environment, Forest and Climate Change issued the **2021 Office Memorandum** laying down a Standard Operating Procedure for dealing with projects that had commenced or were operating without the required prior environmental clearance.

The framework effectively created a route through which otherwise permissible projects could seek **post-facto regularisation**, subject to environmental assessment, remedial measures and compensation.

The Supreme Court, however, found a fundamental legal problem.

The **2006 EIA Notification is delegated legislation**, issued under statutory authority. The 2021 OM, by contrast, was merely an **administrative order**.

Therefore, according to the Court, an administrative instruction could not substantially modify or replace the requirements imposed by delegated legislation.

The Court's core principle

Administrative instructions cannot be used to rewrite statutory environmental safeguards.

That principle extends beyond environmental law. It reinforces the broader rule of administrative law that

executive convenience cannot override the legal framework created under delegated legislative power.

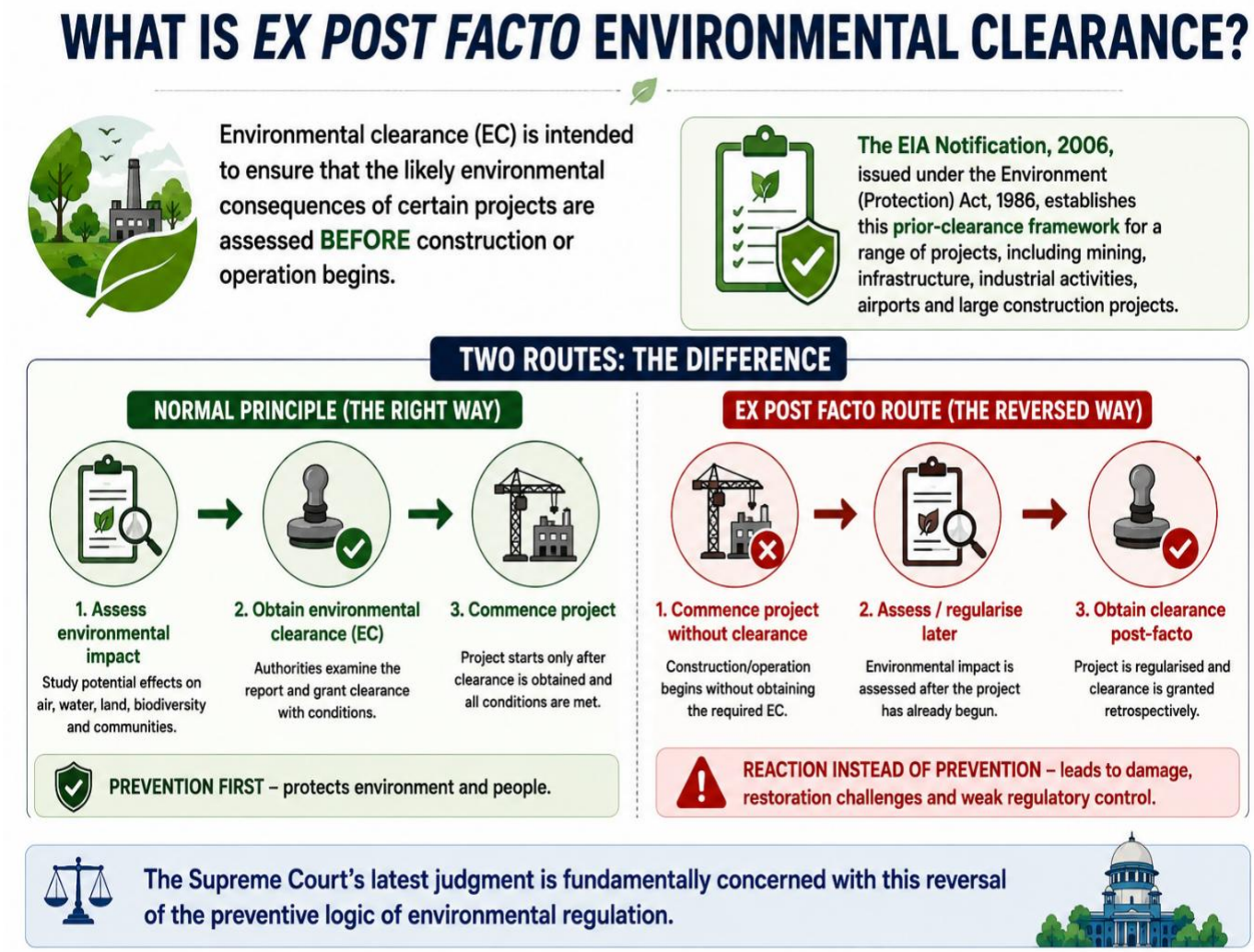
Why Did the Court Object to a "Perpetual Amnesty"?

The Court distinguished between a **limited amnesty** and a **permanent regularisation mechanism**.

An exceptional amnesty may sometimes be justified where continuing a particular project serves an overriding public interest.

But such a mechanism must be:

- **exceptional rather than routine;**
- **limited in duration;**
- **restricted to clearly defined categories;**
- based on intelligible criteria; and
- connected to a demonstrable **public interest**.



The 2021 OM, according to the Court, instead operated as a **perpetual amnesty applicable to permissible projects**.

This created a dangerous incentive structure:

No prior EC → commence project → pay environmental compensation → seek regularisation

The Court cautioned that such an approach risk replacing the preventive principle of environmental law with a **"pollute and then pay"** model.

Why Is Prior Environmental Clearance Important?

The significance of prior EC lies in its **preventive character**.

Environmental regulation is not merely about calculating the damage after it has occurred. It seeks to identify environmental risks **before irreversible decisions are made**.

Consider a large mining, airport or infrastructure project.

Once:

- forests have been cleared,
- groundwater systems disturbed,
- construction completed,
- habitats fragmented, or
- pollution-generating facilities become operational,

simply imposing monetary compensation may not restore the original environmental conditions.

This is why the Court linked the issue to the broader principles of:

Precautionary Principle

Environmental risks should be assessed and addressed before serious or irreversible damage occurs.

Sustainable Development

Development must be pursued without destroying the ecological foundations necessary for present and future generations.

Polluter Pays Principle

Those responsible for environmental damage should bear the cost of remediation.

The Court's concern was that the 2021 OM could allow the **polluter-pays principle to become a substitute for prior environmental scrutiny**, rather than a mechanism for imposing responsibility after violations.

What About the 2017 Notification?

The legal history of the issue goes back further.

In **2017**, the Environment Ministry introduced a **one-time mechanism** for dealing with certain projects that had commenced without prior environmental clearance.

The Supreme Court's 2026 judgment distinguishes this 2017 notification from the 2021 OM. It accepted the 2017 mechanism as a **narrowly tailored and time-bound delegated legislation**, while finding the 2021 OM legally impermissible because it created a continuing administrative route for post-facto clearances.

This distinction is crucial:

2017 Notification	2021 Office Memorandum
Narrowly tailored	Broad and continuing mechanism
Time-bound	Perpetual in operation
Statutory/delegated framework	Administrative instruction
Linked to specified circumstances	Applicable more broadly
Accepted by the Court	Quashed by the Court

Thus, the Court has **not simply declared every conceivable form of post-facto environmental regularisation unconstitutional**.

Instead, it has drawn a line around **how and when such a mechanism can legally be created**.

Can the Government Ever Permit Post-Facto Clearance?

Yes, but not through a mere Office Memorandum.

The Supreme Court held that the Centre has the power under **Section 3 of the Environment (Protection) Act, 1986** to formulate an appropriate statutory mechanism in exceptional circumstances.

However, such a mechanism must satisfy the requirements of legality, proportionality, public interest and environmental protection.

In other words:

The Court has closed the administrative shortcut, not necessarily every narrowly defined statutory route.

The judgment also clarified that its ruling does not prevent the Supreme Court itself from granting appropriate relief, including post-facto clearance, in exceptional cases while exercising its **plenary powers under Article 142** of the Constitution.

Why Did the Court Give the Judgment Prospective Effect?

The Court did something particularly important: it **quashed the 2021 OM prospectively**.

This means that the judgment does not automatically invalidate environmental clearances that had already been granted under the 2017 notification or 2021 OM.

The Court took this approach because immediately unsettling existing clearances could have serious consequences for several ongoing public-interest projects.

Among the projects mentioned were:

- an **AIIMS Medical College and Hospital in Odisha**;
- a **Centre of Excellence for Cancer Diseases in Tamil Nadu**;
- **Vijayapura Airport in Karnataka**;
- medical colleges;
- slum rehabilitation projects; and
- irrigation projects in drought-prone regions.

Thus, the Court attempted to balance **environmental rule of law with legal certainty and public interest**.

A Major Constitutional Dimension

The judgment goes beyond a technical dispute over environmental clearances.

The Court found that the 2021 OM failed the tests of **reasonableness and proportionality** and was inconsistent with **Articles 14 and 21** of the Constitution.

Article 14 — Equality

A broad regularisation mechanism applicable indiscriminately to projects can create unequal and arbitrary outcomes, particularly when there are no clear criteria for deciding which projects deserve the benefit of post-facto approval.

Article 21 — Right to Life

The right to life has been interpreted to include the right to a **clean and healthy environment**.

Environmental degradation can directly affect human health, livelihoods and quality of life. Therefore, environmental safeguards are not merely regulatory hurdles; they have a constitutional dimension.

What About Government Projects That Violate Environmental Rules?

The Court also raised an important accountability issue.

The **State is itself a principal guardian of the rule of law**. If government departments or public authorities undertake projects without obtaining mandatory environmental clearance, the government cannot simply regularise the violation and move on.

The Court therefore indicated that future amnesty schemes should contain effective deterrents, including the possibility of **disciplinary action and personal liability for environmental damage by public officials**, wherever appropriate.

This introduces an important principle:

Public interest cannot become a blanket defence for governmental non-compliance with environmental law.

The 2025–2026 Judicial Journey

The case has had a particularly eventful judicial history.

In **May 2025**, a Supreme Court Bench had struck down the 2017 notification and 2021 OM, treating retrospective environmental clearances as impermissible.

However, in **November 2025**, a larger Bench reviewing that decision took a different approach, including recognising the government's power to frame appropriately structured mechanisms for exceptional cases.

The **July 2026 judgment** now provides the more nuanced position:

Post-facto environmental clearance is not something the executive can create through a simple administrative memorandum.

But the government may, in appropriate circumstances, create a **valid statutory mechanism** through delegated legislative power, subject to strict safeguards.

What Does the Judgment Mean for Environmental Governance?

The ruling reinforces a fundamental shift from **post-damage compensation towards preventive environmental governance**.

Its larger message can be understood through four principles:

1. Prior environmental scrutiny is the rule. Projects covered by the EIA framework cannot treat environmental clearance as an approval that can simply be obtained later.

2. Administrative convenience cannot override delegated legislation.
An Office Memorandum cannot substantially rewrite the requirements of a statutory environmental regime.

3. Amnesty must remain exceptional.
If exceptional public interest genuinely requires regularisation, the mechanism must be narrowly designed, time-bound and legally authorised.

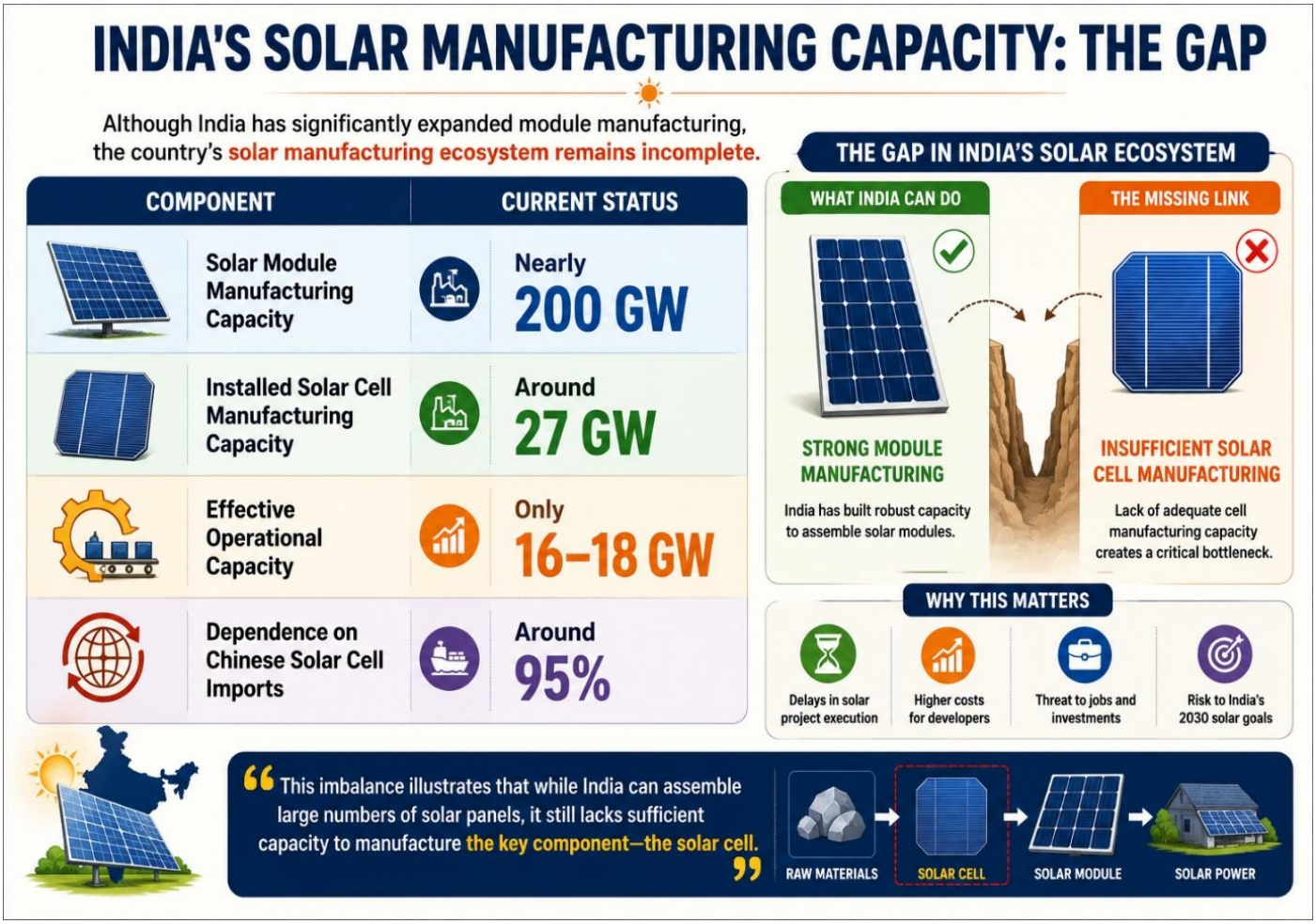
4. Development and environmental protection must coexist.
The Court has not adopted an anti-development approach. Rather, it insists that development must operate within a legally enforceable framework of environmental responsibility.

Conclusion

The Supreme Court's judgment draws a clear constitutional and administrative-law boundary: **environmental safeguards cannot be converted into a post-facto formality through executive instructions.** By quashing the 2021 Office Memorandum prospectively clarifies that environmental governance must remain rooted in prior scrutiny, legal authority, and enforceable safeguards while allowing development within a transparent regulatory framework.

India's Solar Manufacturing Challenge

Why in News: India's solar manufacturing sector is facing significant disruption following the implementation of new domestic sourcing norms that came into force on **1 June 2026.**



India's Push for Domestic Solar Manufacturing

India has emerged as one of the world's fastest-growing renewable energy markets. To strengthen energy security and reduce strategic dependence on imports, the Government has been promoting indigenous manufacturing across the solar value chain under the broader vision of **Atmanirbhar Bharat**.

A major policy shift came into effect on **1 June 2026**, mandating the use of domestically manufactured solar cells for several categories of solar projects. The objective is to create a complete domestic manufacturing ecosystem—from solar cells to finished modules—thereby reducing India's overwhelming dependence on Chinese imports.

However, while India's solar module manufacturing capacity has expanded rapidly, domestic production of solar cells—the critical intermediate component—remains far below demand, exposing a major structural bottleneck.

Why Are Solar Manufacturers Facing Difficulties?

The central challenge lies in the mismatch between **policy ambition and manufacturing capacity**.

Most small and medium-sized manufacturers produce only **solar modules** and rely on purchasing solar cells from external suppliers. Until recently, a large share of these cells was imported from China because they were readily available, technologically advanced, and comparatively inexpensive.

With the new domestic sourcing requirement, these manufacturers are now required to procure Indian-made solar cells. However, domestic production remains insufficient, leading to severe shortages.

As a result:

- Waiting periods for domestic solar cells have stretched to **six to eight months**.

- Nearly **one-third of India's small and medium solar module manufacturers** have temporarily halted production.
- Many remaining manufacturers are operating at only a fraction of their installed capacity.
- Several firms report that production costs have nearly doubled compared to manufacturing with imported Chinese cells.

The shortage has affected thousands of workers and placed nearly **US$4 billion of investments** under pressure.

Why Is Expanding Solar Cell Manufacturing So Difficult?

Building solar cell manufacturing facilities is significantly more complex than assembling solar modules.

Several structural challenges persist:

Technology-intensive manufacturing

Solar cell production requires sophisticated manufacturing technology, precision engineering, and highly specialised equipment.

High capital investment

Establishing a commercially viable manufacturing plant requires substantial financial investment and long gestation periods.

Dependence on Chinese technology

China dominates the global solar manufacturing ecosystem, including production equipment, technology, and specialised machinery.

Industry representatives have highlighted that Chinese export restrictions on manufacturing technology and equipment are slowing India's efforts to establish new cell manufacturing plants.

Long gestation period

Experts estimate that creating sufficient domestic cell manufacturing capacity could take **three to five years**, far longer than originally anticipated.

Impact on India's Renewable Energy Goals

The supply shortage has implications far beyond the manufacturing sector.

India has committed to achieving **500 GW of non-fossil fuel electricity capacity by 2030**, with solar energy expected to contribute nearly **292 GW**.

However, delays in manufacturing could:

- Slow the commissioning of new solar power projects.
- Increase project costs.
- Reduce investor confidence.
- Delay India's clean energy transition.

If solar deployment slows, India's rapidly growing electricity demand may increasingly be met through **coal-based thermal power**, slowing progress towards climate commitments and emissions reduction.

Government's Response

The Ministry of New and Renewable Energy (MNRE) has stated that:

- It has not received formal reports regarding widespread factory closures.
- Domestic cell manufacturing capacity is expected to improve over the coming months.
- Solar prices are being closely monitored.
- Certain projects have been granted an extension until **December 2026** to comply with domestic sourcing requirements.

However, industry bodies argue that the limited extension offers only temporary relief and have sought broader flexibility until adequate domestic manufacturing capacity becomes available.

Significance for India

The current situation reflects the broader challenge of balancing **industrial policy** with **energy transition goals**.

Strategic Importance

- Reduces dependence on imported critical technologies.
- Strengthens domestic manufacturing capabilities.
- Improves supply-chain resilience.
- Enhances long-term energy security.
- Creates employment in advanced manufacturing.

Immediate Concerns

- Production disruptions.
- Rising solar project costs.
- Delays in renewable energy expansion.
- Reduced competitiveness of Indian manufacturers.
- Risk of missing clean energy targets.

Way Forward

A calibrated policy approach is essential to ensure that India's self-reliance objectives complement rather than hinder renewable energy expansion.

Key policy priorities include:

- Rapid expansion of domestic solar cell manufacturing capacity.
- Greater financial incentives under Production Linked Incentive (PLI) schemes.
- Technology partnerships with trusted global partners.
- Faster approvals for manufacturing facilities.
- Support for research and development in next-generation photovoltaic technologies.
- Temporary policy flexibility until adequate domestic production becomes operational.
- Development of an integrated domestic supply chain covering wafers, ingots, polysilicon, and manufacturing equipment.

Conclusion

India's decision to promote domestic solar manufacturing marks a significant step towards **energy security, technological self-reliance, and resilient supply chains.** However, the current shortage of solar cells highlights the gap between India's ambitious manufacturing goals and the immediate availability of domestic solar cells. Bridging this gap requires faster capacity creation, targeted support, and temporary policy flexibility.

Ken-Betwa River Linking Project

Why in News: The **Ken-Betwa River Linking Project (KBLP),** India's first interlinking of rivers project under the National **Perspective Plan (NPP), has** once again come into the spotlight following large-scale protests by tribal communities in Madhya Pradesh's **Chhatarpur district.**

The protests ended after the State Government assured that families left out of the rehabilitation process would be included following a fresh survey.

Major Features of the Project

The project seeks to transfer surplus water from the **Ken River** to the **Betwa River** through major engineering infrastructure.

Key Components

- Construction of the **Daudhan Dam** on the Ken River
- A **221-km long canal** connecting the two river basins
- A **2-km tunnel**
- Hydropower generation of **103 MW**
- Solar power generation of **27 MW**

Expected Benefits

The project has been conceived primarily to address the chronic water scarcity affecting the **Bundelkhand region**, one of India's most drought-prone areas.

It aims to:

- Provide irrigation to large agricultural areas.
- Supply drinking water to nearly **4.4 million people** across **12 districts of Madhya Pradesh**.
- Supply drinking water to over **2 million people** across **10 districts of Uttar Pradesh**.
- Improve agricultural productivity.
- Enhance groundwater recharge.
- Generate renewable energy.
- Promote regional economic development.

Why are Tribal Communities Protesting?

Despite the anticipated developmental gains, the project has generated widespread opposition among local communities due to concerns regarding displacement and rehabilitation.

According to the Union Government:

- **22 villages** (14 in Chhatarpur and 8 in Panna district) will be affected.
- Around **7,193 families** face displacement.

However, affected communities argue that the rehabilitation framework excludes many genuine beneficiaries.

Major Demands of the Protesters

1. Individual Rehabilitation Benefits

Protesters demand that **every adult member** of an affected household should be recognised as an independent beneficiary.

Currently, rehabilitation assistance of **₹12.5 lakh** is largely calculated on a **family basis**, which they argue ignores adult children living within joint families.

2. Revision of the Eligibility Cut-off Date

The rehabilitation survey currently considers residents based on **16 February 2024**.

Villagers demand that the cut-off should be revised to the **present date** so that newly eligible families are also covered.

3. Fair Compensation in Other Irrigation Projects

The protests also cover the **Majhgaon** and **Runjh Irrigation Projects**.

Affected residents seek:

- compensation equal to that provided under the Ken-Betwa Project,
- similar rehabilitation packages,
- transparent beneficiary selection.

4. Alleged Irregularities in Beneficiary Lists

The protesters allege that:

- several genuine residents have been excluded,
- outsiders and ineligible persons have been included,
- surveys were conducted improperly,
- beneficiary identification lacked transparency.

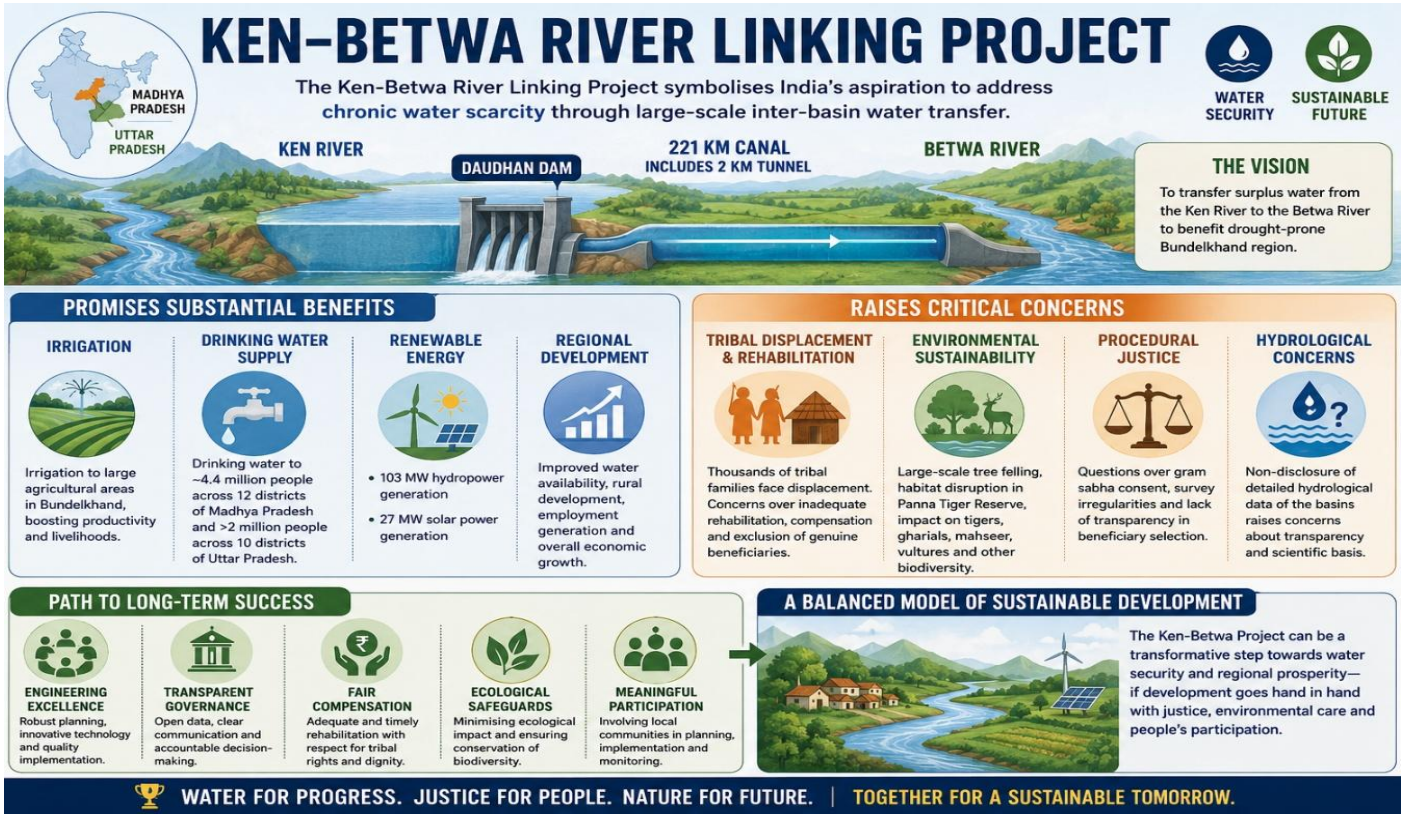
Activists even alleged large-scale corruption in the compensation process.

5. Gram Sabha Consent

Tribal communities have questioned the manner in which **Gram Sabha consent** was obtained.

They claim:

- meetings were improperly conducted,
- informed consent was not secured,
- provisions protecting tribal rights under the **Panchayats (Extension to Scheduled Areas) Act (PESA), 1996** and the **Forest Rights Act, 2006** were not adequately respected.



Government's Response

The Madhya Pradesh Government has attempted to address some of these concerns.

Measures Announced

- Approved an additional **₹300 crore** for rehabilitation.
- Increased compensation under the **Majhgaon** and **Runjh** projects from **₹5 lakh to ₹12.5 lakh** per eligible beneficiary.
- Conducted a fresh survey identifying nearly **750 additional families**, who have now been included in rehabilitation.

The administration maintains that many of the remaining demands are not legally sustainable and has alleged that certain groups are misleading villagers.

Environmental Concerns

The Ken-Betwa Project has also generated significant environmental debate because a substantial portion of the infrastructure lies within the **Panna Tiger Reserve**, one of India's most important protected forests.

Large-scale Tree Felling

According to the **Ministry of Jal Shakti**:

- Around **17,101 trees** have been identified for removal.
- More than **12,400 trees** have already been felled within reserved forest areas.

Such large-scale deforestation raises concerns regarding habitat fragmentation and biodiversity loss.

Threat to Panna Tiger Reserve

The reserve is internationally recognised for the successful **reintroduction of tigers** after the species became locally extinct in **2009**.

Environmentalists fear that construction activities could:

- fragment wildlife habitats,
- disrupt tiger movement,
- affect breeding patterns,
- increase human-wildlife conflict.

Impact on Other Species

Apart from tigers, conservationists warn that several ecologically significant species may also be affected, including:

- **Gharials**
- **Mahseer fish**
- **Endangered vultures**
- Other riverine biodiversity dependent on the Ken River ecosystem.

Hydrological Concerns

Experts have also raised concerns over the absence of publicly available hydrological data supporting the declaration of the Ken River as a "surplus" basin.

The Central Government has not released detailed basin data, citing its sensitivity because both rivers ultimately form part of the **Ganga basin**.

This has led to calls for greater scientific transparency before undertaking such large-scale river modifications.

Significance of the Issue

The Ken-Betwa River Linking Project represents one of India's most ambitious water resource initiatives.

However, it also highlights the complex policy challenge of balancing:

- water security,
- regional development,
- tribal rights,
- ecological conservation,
- sustainable infrastructure,
- participatory governance.

Its implementation is likely to influence the future of other river-linking projects proposed under the National Perspective Plan.

Conclusion

The Ken-Betwa River Linking Project symbolises India's aspiration to address chronic water scarcity through large-scale inter-basin water transfer. While the project promises substantial benefits in irrigation, drinking water supply, and drinking water supply, and renewable energy generation, its long-term success will depend on fair rehabilitation, ecological safeguards, and meaningful participation of affected communities.

Weak Monsoon And El Niño

Why in News: The **India Meteorological Department (IMD)** has forecast **below-normal rainfall for July 2026,** following a 40% **rainfall deficit in June, raising** concerns over the performance of the southwest monsoon.

Why the Southwest Monsoon Matters for India

The southwest monsoon is often described as the **lifeline of the Indian economy**. Nearly **half of India's cultivated land remains rain-fed**, making agricultural production heavily dependent on timely and adequate rainfall.

Although agriculture contributes only about **20% of India's Gross Value Added (GVA)**, it:

- Employs nearly **46% of India's workforce**.
- Supports the livelihoods of almost **55% of the population**.
- Provides raw materials to numerous industries.
- Drives rural consumption and domestic demand.

Consequently, a weak monsoon affects not only agricultural production but also manufacturing, services, employment, inflation, exports, and overall economic growth.

IMD's Warning (Consecutive Months of Rainfall Deficit)

The monsoon season has begun on a weak note.

- **June 2026** recorded a **40% rainfall deficit**, making it one of the weakest starts to the monsoon in recent years.
- The **IMD has forecast below-normal rainfall for July**, with precipitation expected to remain below **94% of the Long Period Average (LPA)**.

The IMD has cautioned that continued rainfall deficiency could adversely affect:

- Agricultural productivity.
- Reservoir storage.
- Drinking water availability.
- Hydropower generation.
- Ecosystem sustainability.

How a Weak Monsoon Affects the Indian Economy

A poor monsoon transmits economic stress through multiple channels.

1. Decline in Agricultural Production

Agricultural output is the most immediate casualty of deficient rainfall.

India entered the **2026 kharif season** from a position of strength, with foodgrain production reaching **357.73 million metric tonnes in 2024–25**, an increase of over **25 million metric tonnes** from the previous year.

However, inadequate rainfall threatens this momentum.

Farmers may alter cropping patterns by:

- Expanding paddy cultivation in irrigated States.
- Shifting from maize to more profitable crops.
- Increasing cultivation of pulses due to lower water requirements.
- Reducing vegetable cultivation because of higher production risks.

Lower agricultural production directly affects food availability and farm incomes.

2. Declining Rural Income and Demand

Agriculture remains the backbone of India's rural economy.

A weak monsoon reduces:

- Farm output.
- Farmers' incomes.
- Agricultural wages.
- Rural purchasing power.

Experts estimate that **farm incomes could decline by nearly 10%** under severe rainfall stress.

Reduced rural income also impacts non-farm sectors such as:

- Construction.
- Rural transport.
- Retail trade.
- Small manufacturing.
- Local services.

This weakens aggregate demand across the broader economy.

3. Rising Food Inflation

Food inflation is perhaps the most immediate macroeconomic consequence of a poor monsoon.

Lower production of cereals, vegetables, pulses, and oilseeds reduces market supply, pushing up prices.

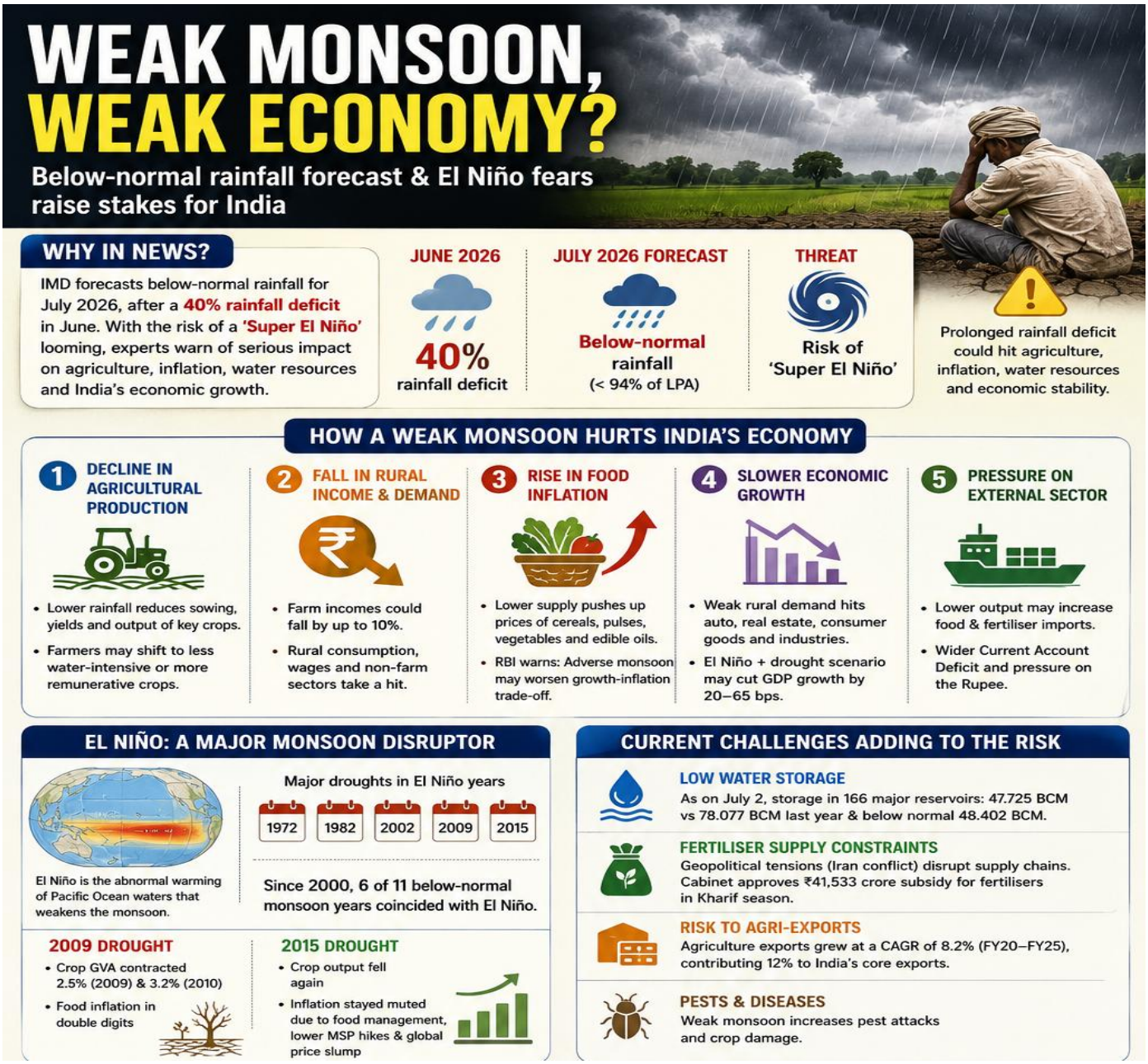
The Reserve Bank of India has already warned that an adverse monsoon could worsen India's **growth-inflation trade-off**.

Recent trends already indicate rising prices of:

- Edible oils.
- Potatoes.
- Onions.
- Tomatoes.

If rainfall remains deficient, food inflation could intensify further.

4. Impact on GDP Growth



Agriculture has strong multiplier effects on the overall economy.

Lower agricultural growth reduces demand for:

- Consumer goods.
- Farm machinery.
- Fertilisers.
- Automobiles.
- Housing.
- Rural infrastructure.

Historically, sectors such as **two-wheelers**, **tractors**, and **small-town real estate** are among the first to experience declining demand during weak monsoon years.

Economic assessments suggest that a combined **El Niño and drought scenario** could reduce India's GDP growth by **20–65 basis points**.

5. Pressure on External Sector

Lower agricultural production can also affect India's external balance.

If domestic production falls:

- Food imports may increase.
- Buffer stocks may need to be released.
- Fertiliser imports could rise.
- The Current Account Deficit (CAD) may widen.
- Pressure on the Indian Rupee may increase.

Additionally, agricultural exports—which have grown steadily in recent years—may also decline.

El Niño (Why It Matters)

El Niño is a climate phenomenon characterised by **abnormally warm sea surface temperatures in the central and eastern Pacific Ocean**, disrupting global atmospheric circulation.

For India, El Niño often weakens the southwest monsoon.

Historically, several major droughts have occurred during El Niño years, including:

- 1972
- 1982
- 2002
- 2009
- 2015

Since 2000, **six of India's eleven below-normal monsoon years have coincided with El Niño conditions**, demonstrating its strong influence on India's rainfall.

Lessons from Previous El Niño Years

2009 Drought

The 2009 El Niño led to:

- Significant decline in agricultural output.
- Crop Gross Value Added (GVA) contraction.
- Double-digit food inflation.
- Slower economic growth.

2015 Drought

Although crop production declined again, inflation remained relatively moderate because of:

- Better food stock management.
- Limited increases in Minimum Support Prices (MSPs).
- Lower global commodity prices.

These experiences highlight that effective policy interventions can significantly reduce the economic impact of adverse monsoon conditions.

Emerging Challenges

The current situation is further complicated by additional factors.

Reservoir Storage

According to the Central Water Commission:

- Water storage in major reservoirs remains below both last year's level and the long-term average.

Lower storage could affect:

- Irrigation.
- Drinking water.
- Hydropower generation.
- Industrial water supply.

Fertiliser Supply Constraints

Geopolitical tensions in West Asia have disrupted fertiliser supply chains.

To cushion farmers, the Union Cabinet has approved a **₹41,533 crore Nutrient-Based Subsidy (NBS)** for phosphatic and potassic fertilisers during the kharif season.

However, prolonged disruptions may still affect fertiliser availability and increase cultivation costs.

Can India Become Drought-Resilient?

The present situation underlines the urgent need to strengthen India's resilience against climate-induced agricultural risks.

Several policy measures can reduce long-term vulnerability.

Expand Irrigation Coverage

Over **300 districts remain highly vulnerable** because of inadequate irrigation infrastructure.

Greater investment in:

- Micro-irrigation.
- Canal networks.
- Rainwater harvesting.
- Watershed development.

can significantly reduce dependence on monsoon rainfall.

Develop Climate-Resilient Agriculture

India needs greater investment in:

- Drought-resistant crop varieties.
- Climate-smart agriculture.
- Efficient water management.
- Precision farming technologies.

Improved access to resilient seeds can help farmers withstand rainfall variability.

Shift from Compensation to Risk Reduction

Experts argue that India should move beyond post-disaster compensation towards **ex-ante risk reduction**.

This requires greater public investment in:

- Water conservation.
- Agricultural research.
- Rural infrastructure.
- Early warning systems.
- Climate adaptation measures.

Reducing risk before disasters occur is more effective than merely compensating losses afterwards.

Strengthen Agricultural Research

Investment in agricultural innovation remains essential for:

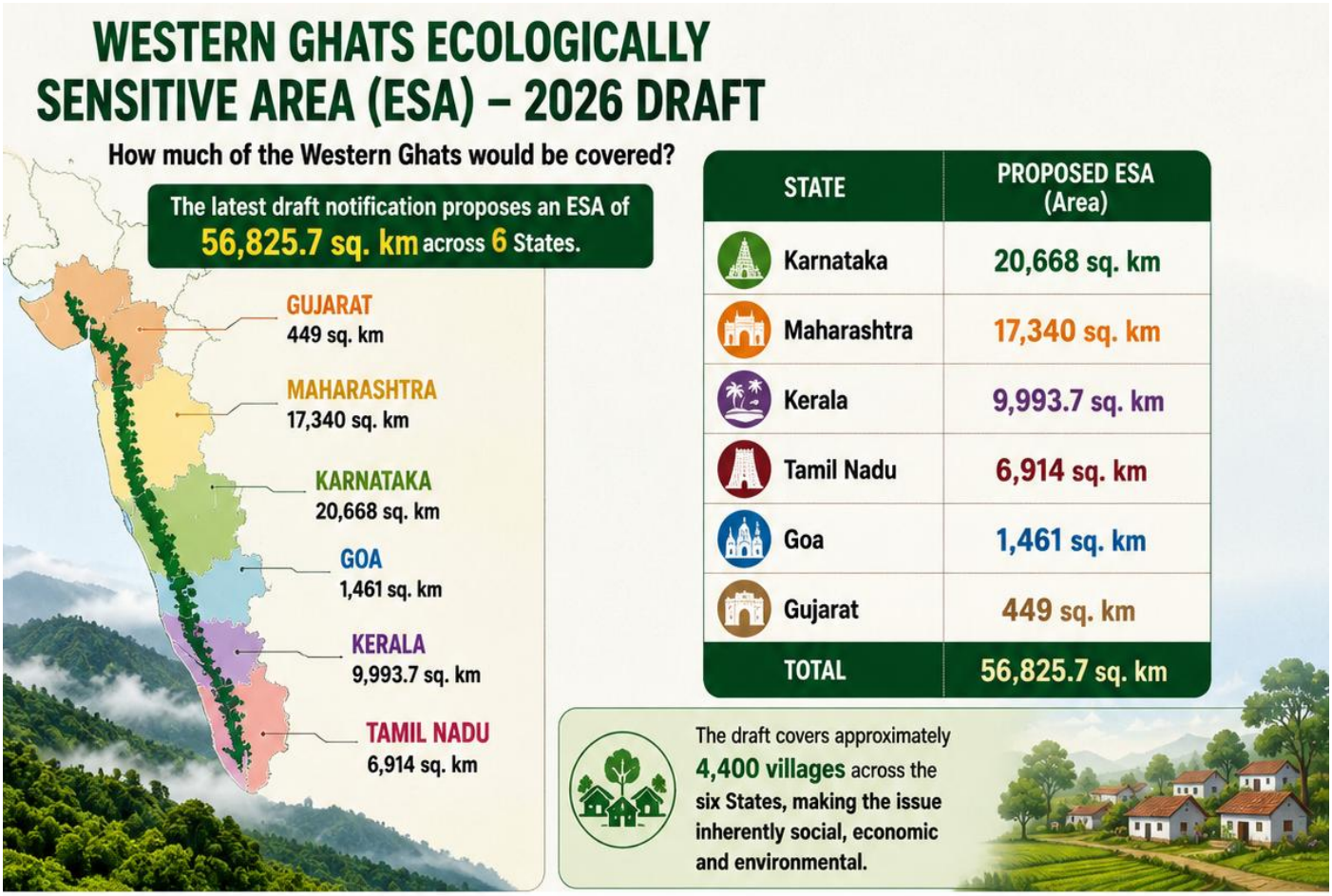
- Developing high-yield, drought-tolerant crops.
- Improving soil health.
- Enhancing water-use efficiency.
- Building long-term food security.

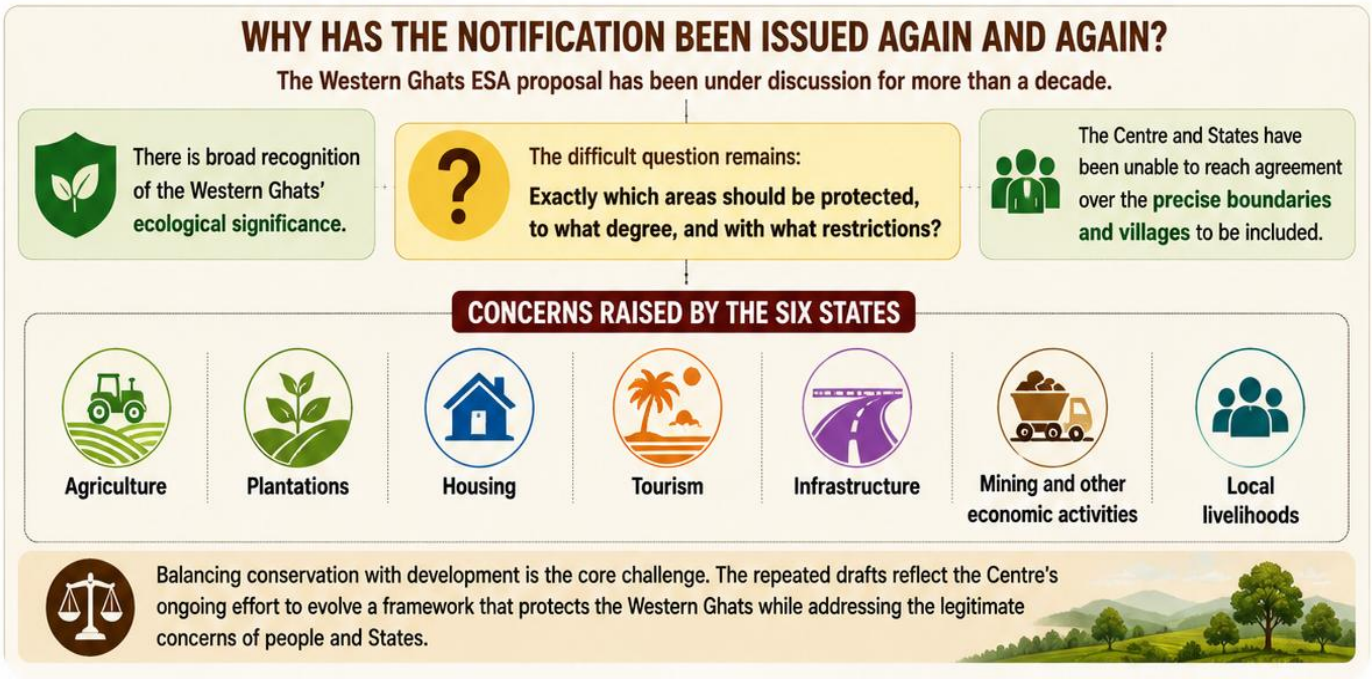
Conclusion

The IMD's forecast of below-normal rainfall and the possibility of a **Super El Niño** have once again highlighted India's continuing dependence on the southwest monsoon.

Western Ghats Ecologically Sensitive Area

Why in News: The **Union Ministry of Environment, Forest and Climate Change (MoEFCC) has reissued,** for the seventh time, **its draft** notification proposing an Ecologically Sensitive Area **(ESA) across parts of** the Western Ghats.





NOTE: The proposed ESA covers **56,825.7 sq. km across Gujarat, Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu**. The repeated re-notification reflects the unresolved challenge of reconciling **ecological conservation with the**

livelihood, infrastructure and development concerns of the six Western Ghats States.

Why Are the Western Ghats So Important?

The Western Ghats are among India's most ecologically significant landscapes. Stretching along the western side of peninsular India, the mountain system supports exceptionally rich biodiversity and contains many endemic species. It is also a major source region for several important rivers, making its ecological health closely connected with agriculture, drinking water, energy and the wider economy.

This creates a fundamental policy dilemma:

How can a fragile ecological landscape be protected without undermining the livelihoods and development aspirations of the people who live in it?

The Western Ghats ESA debate is essentially an attempt to answer this question through a regulatory framework.

What Is an Ecologically Sensitive Area?

An **Ecologically Sensitive Area (ESA)** is an area identified for special environmental protection because of its ecological importance and vulnerability.

The objective is not necessarily to prohibit all human activity. Rather, an ESA framework attempts to create a hierarchy:

Prohibited activities → Regulated activities → Permitted activities

The Western Ghats proposal therefore seeks to prevent activities considered particularly damaging while allowing livelihood and development activities subject to specified conditions.

What Does the Latest Draft Propose?

If finalised, the proposed ESA framework would prohibit or restrict several environmentally intensive activities.

Activities proposed to be prohibited include:

- Commercial mining
- Stone quarrying
- Sand mining
- Establishment of new thermal power plants
- Certain highly polluting industries
- Large-scale construction projects

Activities such as hydropower generation

Hydroelectric projects would not be treated in the same manner as prohibited activities but would be subject to **regulation and environmental safeguards**.

The framework is therefore not a blanket ban on development. Its central idea is to **alter the nature and intensity of development in ecologically fragile areas**.

The Expert Committee Still Has Work to Do

An **expert committee constituted by the Environment Ministry in 2022**, headed by former Director General of Forests **Sanjay Kumar**, has been examining objections and discrepancies raised by the States, particularly regarding the identification and boundaries of villages proposed for inclusion.

The committee's tenure has now been extended, reflecting the fact that the demarcation issue remains unresolved.

This is important because the dispute is not merely over the total area of the ESA. It is also about the **exact geography of regulation**.

A few kilometres on a map can determine whether a particular village, plantation or development project falls inside or outside the regulatory framework.

The Gadgil–Kasturirangan Journey

The present notification cannot be understood without looking at the two major expert approaches that preceded it.

Madhav Gadgil Committee — 2011

The **Western Ghats Ecology Expert Panel**, chaired by ecologist **Madhav Gadgil**, proposed treating the Western Ghats as a much larger ecologically sensitive landscape, with **graded levels of protection**.

The underlying philosophy was:

The ecological sensitivity of the Western Ghats required protection across a large continuous landscape rather than concentrating protection only in selected pockets.

The recommendations faced considerable resistance from States and other stakeholders, particularly because of concerns over restrictions on development and livelihoods.

Kasturirangan Committee — 2013

The Government subsequently constituted a **High-Level Working Group chaired by K. Kasturirangan** to review the Gadgil approach.

The Kasturirangan framework adopted a more selective approach, identifying approximately **37% of the Western Ghats**, or about **59,940 sq. km of natural landscape**, for ecological protection.

In broad terms:

Gadgil approach → Larger landscape + stronger ecological regulation

Kasturirangan approach → More selective area + greater emphasis on balancing conservation and development

This difference remains central to understanding the political and policy debate surrounding the Western Ghats ESA.

How Did Kerala's Position Evolve?

Kerala provides a useful example of why the demarcation issue is so complicated.

The area recommended for ESA within Kerala under the High-Level Working Group framework was subsequently reduced after the State conducted its own field verification exercise.

The proposed area within Kerala came down from approximately **13,108 sq. km to 9,993.7 sq. km**.

This illustrates the broader point: **the final boundary is not simply a theoretical ecological map; it is shaped by ground-level verification, State proposals and stakeholder concerns.**

What Has Changed in the 2026 Draft?

One notable feature of the latest notification is that the **proposed area, State-wise allocation and broad**

regulatory provisions remain substantially unchanged from the July 2024 draft.

The repeated draft therefore represents **continuity rather than a fundamentally redesigned policy**.

The central issue remains the same:

How can the Centre and six States agree on the final demarcation and regulatory framework?

The latest notification gives the consultation process another opportunity to move forward, but it does not by itself resolve the underlying political and administrative disagreement.

Why Is the Debate So Difficult?

The Western Ghats illustrate a classic **conservation versus development dilemma**.

The Conservation Argument

Environmental scientists emphasise the need to protect:

- Forest ecosystems
- Biodiversity
- Endemic species
- River catchments
- Landslide-prone landscapes
- Ecological resilience

The region's ecological degradation can generate consequences far beyond the boundaries of the protected landscape.

The Development Argument

State governments and local communities, meanwhile, are concerned about:

- Restrictions on infrastructure,
- Impact on agriculture and plantations,
- Housing and local development,
- Economic opportunities,
- Administrative uncertainty, and
- Possible restrictions on livelihood activities.

The policy challenge is therefore not simply **environment versus development**.

It is more accurately:

How can development be made compatible with ecological limits?

Why the Western Ghats Debate Matters Beyond the Region

The issue represents a larger question in India's environmental governance.

India's development needs:

- roads,
- electricity,
- housing,
- industries,
- tourism,
- irrigation,
- urban expansion.

At the same time, climate change and ecological degradation increase the economic cost of environmental damage.

The Western Ghats therefore represent an important test of the idea of **sustainable development**—development that meets present needs without undermining the ecological foundations required by future generations.

Centre–State Relations (Another Important Dimension)

The issue also has a strong **federalism** dimension.

The Centre has the statutory authority to notify ESAs under the **Environment (Protection) Act, 1986**, but environmental regulation directly affects areas administered by State governments and local authorities.

Consequently, effective implementation depends heavily upon:

- Centre–State consultation,
- accurate mapping,
- local participation,
- transparent criteria, and
- predictable regulatory procedures.

Repeated re-notification shows that **formal legal authority alone is insufficient when implementation requires cooperation across multiple levels of government**.

What Happens Next?

The latest draft is open for **public objections and suggestions for 60 days**. The Centre will have to examine responses from States, local stakeholders and other interested parties before deciding whether and how to proceed towards a final notification.

The process therefore remains unfinished.

The seventh draft is best understood as **another attempt to move a long-pending environmental framework towards finalisation**, rather than as the final legal declaration of the Western Ghats ESA.

Way Forward

A durable solution requires moving beyond a simple binary choice between conservation and development.

1. Scientific and transparent demarcation

Village boundaries and ecological criteria should be clearly mapped using reliable scientific data and GIS-based tools.

2. Differentiated regulation

Not every part of the Western Ghats has the same ecological sensitivity. Regulation should therefore reflect **graded levels of ecological vulnerability**.

3. Genuine community participation

Local residents should have meaningful opportunities to participate in decisions affecting land use and livelihoods.

4. Sustainable alternatives

Restrictions on environmentally damaging activities should be accompanied by support for sustainable livelihoods, eco-tourism, climate-resilient agriculture and other environmentally compatible economic opportunities.

5. Institutional certainty

Repeated draft notifications create uncertainty for both communities and investors. The objective should be a **clear, stable and scientifically defensible final framework**.

Conclusion

The Centre's seventh draft notification for the **Western Ghats Ecologically Sensitive Area** highlights a policy challenge that India has struggled with for more than a decade: **how to protect one protect a fragile ecological region while accommodating the legitimate developmental needs of its communities. A durable solution requires scientific evidence, transparent criteria, and cooperative federalism.**

World Bank Drops Climate Finance Target Amid U.S. Pressure

Why in News: The **World Bank Group (WBG)** has announced that it will **withdraw its climate finance targets** under its **Climate Change Action Plan (CCAP)**, marking a significant shift in its development financing strategy.

NOTE: The decision follows strong criticism from the **United States**, the Bank's largest shareholder, which argued that climate-related funding targets diverted the institution from its primary objective of reducing poverty and promoting economic growth .

Understanding the Climate Change Action Plan (CCAP)

The **Climate Change Action Plan (2021–2025)** was introduced to align the World Bank's lending operations with the objectives of the **Paris Agreement** and support countries in simultaneously pursuing economic development and climate resilience.

The Plan focused on two broad objectives:

1. Climate Change Mitigation

Reducing greenhouse gas emissions through investments in:

- Renewable energy
- Clean transportation
- Energy efficiency
- Sustainable urban development
- Green industrial technologies

2. Climate Change Adaptation

Helping countries prepare for unavoidable climate impacts by investing in:

- Climate-resilient agriculture
- Flood management
- Water security
- Disaster-resilient infrastructure
- Biodiversity conservation
- Coastal protection

The CCAP represented one of the most ambitious climate financing commitments made by any multilateral development institution.

Why Has the World Bank Changed Its Policy?

The immediate trigger behind this policy shift was strong opposition from the **United States government**.

The U.S. Treasury argued that:

- The World Bank should remain focused on **poverty reduction and economic growth**, its original development mandate.
- Mandatory climate finance targets created inefficiencies.
- Such targets distorted investment priorities.
- Every dollar should instead be directed toward measurable development outcomes.

The policy change reflects growing differences among major shareholders regarding the future direction of multilateral development institutions.

Climate Financing Will Continue but Without Fixed Targets

Importantly, the World Bank has **not abandoned climate action**.

Instead, it has clarified that it will continue to:

- Support countries in implementing their **Nationally Determined Contributions (NDCs)** under the Paris Agreement.
- Finance projects that improve climate resilience.
- Track reductions in greenhouse gas emissions.
- Measure the number of beneficiaries protected from climate risks.
- Continue periodic reporting on climate-related outcomes.

An **Independent Evaluation Group** will also assess the effectiveness of the Climate Change Action Plan.

The key change is that climate projects will no longer be required to account for a fixed share of the Bank's overall lending.

Potential Impact on India

India is among the largest beneficiaries of World Bank-supported climate projects.

Several major ongoing initiatives receive financial or technical assistance from the institution, including:

- Electrified freight railway corridors to reduce transport emissions.
- Inland water transport projects.
- Solar parks and rooftop solar programmes.
- Green hydrogen development.
- Battery energy storage systems.
- Climate-resilient agriculture for small farmers.
- Community-based groundwater management under the **Atal Bhujal Yojana**.
- Rehabilitation and safety improvement of ageing dams.
- Mangrove restoration along India's eastern and western coasts.
- Forest restoration and biodiversity conservation in **Madhya Pradesh** and **Meghalaya**.
- Flood forecasting and embankment strengthening in Bihar's **Kosi Basin**.
- Kerala's climate-resilient reconstruction after the 2018 floods.
- "One Health" programmes aimed at preventing zoonotic disease outbreaks.

Although the World Bank has not indicated that these projects will be discontinued, uncertainty remains regarding the pace and scale of future climate-related financing.

Connection with the Paris Agreement

The World Bank's climate agenda has largely been guided by the **Paris Agreement (2015)**.

Under the Agreement, countries committed to limiting the rise in global average temperature to **well below 2°C above pre-industrial levels**, while pursuing efforts to limit warming to **1.5°C**.

Countries also pledged to submit **Nationally Determined Contributions (NDCs)** outlining their domestic climate actions.

Financing institutions like the World Bank play a crucial role in helping developing countries implement these commitments.

Developing Countries' Concerns

Developing nations have repeatedly argued that developed countries have failed to fulfil their climate finance commitments.

At successive climate conferences, advanced economies promised to mobilise large-scale financial resources to support:

- Renewable energy deployment
- Climate adaptation
- Disaster resilience
- Loss and damage response

Any weakening of climate commitments by major multilateral institutions may widen the already existing climate finance gap.

Several experts have warned that achieving international climate finance goals—such as mobilising **$300 billion annually for developing countries**—will become more difficult if institutions like the World Bank reduce their climate financing ambitions.

Why the Decision Matters Globally?

The World Bank is among the world's largest providers of concessional finance for climate adaptation and sustainable development.

Developing countries rely heavily on such financing because:

- **Climate adaptation requires massive public investment.**
- **Renewable energy transitions involve high upfront costs.**
- **Many developing economies lack sufficient domestic financial resources.**
- **Private investment alone cannot finance global climate transitions.**

Consequently, any reduction in dedicated climate financing may slow global efforts to achieve climate goals.

SCIENCE & TECHNOLOGY

AI And Women's Economic Inclusion

Why in News: As India advances towards the goal of **Viksit Bharat by 2047,** artificial intelligence (AI) is rapidly transforming the way economic activity is organised across sectors such as agriculture, logistics, healthcare and financial services.

AI FOR ALL, GROWTH FOR ALL

Ensuring Women's Inclusion in India's AI Journey to Viksit Bharat 2047

VIKSIT BHARAT 2047

AI is transforming India's economy—agriculture, logistics, healthcare, financial services and more.
The real challenge is not how fast India adopts AI, but **who benefits from it.**

AI can either **reproduce inequalities** or **remove them.**
The outcome depends on how it is designed, deployed and governed.

THE GENDER DIMENSION OF AI

A large share of women remain in informal work.

82% of working women in India are in informal employment

- Agriculture
- Home-based production
- Domestic work
- Micro-enterprises

If AI reaches only those with:

Digital access | Formal employment | Reliable connectivity | Financial resources | Technical skills | English access

it may widen existing inequalities.

But when AI is designed for women in informal & rural work, it can expand access to information, markets, finance, skills and public services.

AI IN AGRICULTURE & INFORMAL WORK

AI-enabled systems can empower women farmers with:

- Crop-health advisories
- Weather & pest information
- Input optimisation
- Market intelligence
- Farm-management decisions
- Access to information in local languages

According to PLFS 2023–24, **76.9%** of rural women are engaged in agriculture.
Women are a crucial constituency for AI in agriculture.

EVIDENCE FROM FARMER.CHAT

AI-based agricultural advisory platform deployed across 12 States

61% of women users reported improved quality of life within 45 days

2–3x women's engagement levels compared to male users

Key Insight

When AI tools are designed around women's actual circumstances—language, mobility, land access, time constraints and livelihood needs—meaningful engagement can follow.

The challenge is not simply to make AI available, but to make it relevant, accessible and usable for women.

THE WAY FORWARD: PRINCIPLES FOR INCLUSIVE AI

DESIGN FOR INCLUSION
Build AI systems in local languages, using diverse data and gender-sensitive design.

BUILD CAPABILITIES
Invest in AI literacy through DAY-NRLM, DDU-GKY, Skill India & Mission Shakti Sakhi network.

ENSURE DIGITAL SAFETY
Strengthen laws, grievance redressal & protections against online harassment and deepfakes.

MEASURE WHAT MATTERS
Track real outcomes—access to entitlements, better incomes, safer work and greater participation.

PARTNERSHIPS AT SCALE
Strengthen collaboration between government, industry, academia & civil society.

AI can be India's greatest equaliser—if women are at the centre of its design and deployment.
Inclusive AI today, a prosperous and equitable Viksit Bharat tomorrow.

NOTE: The question assumes particular importance for women, especially those working in the informal economy. The design of AI systems—**who they are built for, whose data they use, whose languages they understand, and how their decisions are explained and challenged**—will determine whether AI becomes a powerful instrument of inclusive growth or deepens existing inequalities.

AI and the Gender Dimension of Economic Growth

India's AI transition is unfolding alongside a labour market in which a large proportion of women remain concentrated in informal employment.

According to an **ILO report**, about **82% of working women in India were in informal employment**, spanning agriculture, home-based production, domestic work and micro-enterprises.

This makes the gender dimension of AI fundamentally a question of **economic inclusion**.

If AI improves productivity only for workers and enterprises that already possess:

- digital access,
- formal employment,
- reliable connectivity,
- financial resources,
- technical skills, and
- access to English-language systems,

then technological progress may unintentionally widen existing economic inequalities.

By contrast, if AI is deliberately designed for women in informal and rural work, it can expand access to information, markets, finance, skills and public services.

The distinction is therefore crucial:

AI can either reproduce existing inequalities—or help remove them. The outcome depends on how the technology is designed, deployed and governed.

AI in Agriculture and Informal Work

Agriculture offers one of the clearest examples of how AI can improve women's economic opportunities.

AI-enabled systems can help farmers with:

- crop-health advisories,
- weather and pest information,
- input optimisation,
- market intelligence,
- farm-management decisions, and
- access to relevant agricultural information in local languages.

Women are a major part of India's agricultural workforce. According to **PLFS 2023–24 data**, **76.9% of rural women were engaged in agriculture**.

This makes women a crucial constituency for AI-enabled agricultural services.

Evidence from Farmer.Chat

An encouraging example is **Farmer.Chat**, an AI-based agricultural advisory platform deployed across 12 States.

A 2024 study found that:

- **61% of women users reported improved quality of life within 45 days**.
- Women's engagement levels were reportedly **two to three times those of male users**.

The precise design features responsible for this outcome require further documentation. Nevertheless, the findings point towards an important insight:

When AI tools are designed around women's actual circumstances - language, mobility, land access, time constraints and livelihood needs - meaningful engagement can follow.

This suggests that the challenge is not simply to make AI available, but to make it **relevant and usable**.

Three Priorities for Gender-Responsive AI Governance

1. Make Gender Impact Assessments Routine

The principles of **fairness and equity** in India's AI Governance Guidelines need to be translated into measurable safeguards.

For AI systems that influence:

- employment,
- credit,
- welfare access,
- social protection, or
- personal safety,

gender-impact assessments should examine whether outcomes differ across:

- women and men,
- rural and urban populations,
- caste groups,
- persons with disabilities,
- different occupational categories, and
- different levels of digital access.

The assessment should also examine whether grievance-redressal systems are **accessible in regional languages**.

This matters because an AI decision that cannot be understood or challenged can disproportionately undermine trust among already marginalised groups.

Gender-Responsive Budgeting as a Practical Tool

Gender-responsive budgeting can provide another mechanism for accountability.

Before approving a major AI investment, policymakers should ask four basic questions:

Who are the women expected to benefit?

Which specific barrier is the intervention addressing—access, language, safety or capability?

How will outcomes be measured?

Which budget line will fund corrective action if the intervention fails to deliver?

This converts gender inclusion from a policy aspiration into a **measurable governance requirement**.

2. Treat AI Literacy as Public Infrastructure

Access to an AI tool does not automatically create empowerment.

A woman may have access to a smartphone but still be unable to use an AI system effectively because of:

- limited literacy,
- lack of digital confidence,
- language barriers,
- time constraints,
- poor connectivity, or
- unfamiliarity with digital interfaces.

Therefore, **AI literacy must become a form of public infrastructure**.

India already has large community-based platforms that can carry this capability into underserved populations.

AI literacy can be integrated into programmes such as:

- **Deendayal Antyodaya Yojana–National Rural Livelihoods Mission (DAY-NRLM)**
- **Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)**
- **Skill India**
- **Mission Shakti's Sakhi network**

The objective should be practical rather than merely numerical.

Success should be measured by asking:

Did AI help a woman access an entitlement, improve her livelihood, enter a better-paying occupation, navigate a digital platform or make a more informed economic decision?

That is a far more meaningful indicator than simply counting the number of people trained.

3. Digital Safety Must Become a Condition for Economic Participation

The expansion of AI also creates new forms of vulnerability.

Technology-facilitated gender-based violence—including:

- deepfakes,
- online harassment,
- non-consensual intimate imagery,
- impersonation, and
- other forms of digitally enabled abuse

can discourage women from participating fully in online economic and social spaces.

This creates a **"chilling effect"**: women may withdraw from platforms, avoid visibility or reduce their digital participation because the perceived risks become too high.

India already has legal and regulatory mechanisms addressing harmful online content, including grievance-redressal requirements under the **IT (Amendment) Rules, 2021**. The proposed mandatory labelling of AI-generated synthetic content could provide another layer of protection.

However, the real test is implementation.

Survivors need **accessible, rapid and affordable remedies**, including mechanisms that work in regional languages.

The **National Commission for Women's review of cyber laws**, as referenced in the source material, provides evidence-based recommendations that merit timely inter-ministerial action.

India's Emerging AI Ecosystem

India has already built significant digital and AI infrastructure in a relatively short period.

Key initiatives include:

IndiaAI Mission

A national framework aimed at strengthening India's AI ecosystem through infrastructure, innovation, skills, research and responsible AI development.

BHASHINI

The **BHASHa Interface for India** initiative seeks to make digital services more accessible across India's linguistic diversity.

AI Governance Guidelines

These establish broad principles for responsible AI, including **fairness and equity**.

Cross-Sector Partnerships

AI adoption is increasingly spreading across agriculture, healthcare, finance, logistics and other sectors.

The **India AI Impact Summit 2026** further demonstrated the growing ecosystem of technology practitioners, innovators, researchers and civil society organisations working around AI.

The next challenge is to ensure that this infrastructure reaches **people at the base of the economic pyramid**, rather than remaining concentrated among already-connected populations.

Who Should Benefit from India's AI Revolution?

The success of India's AI transformation should ultimately be visible among groups such as:

- women farmers,
- home-based workers,
- members of self-help groups,
- informal-sector entrepreneurs,
- platform workers,
- rural women entering digital markets, and
- other workers traditionally excluded from formal technological ecosystems.

This requires deliberate design at every stage:

Procurement → Product Design → Training → Deployment → Safety → Monitoring → Measurement

Inclusion must therefore be built into the system **from the beginning**, rather than added after problems emerge.

AI and the Viksit Bharat Vision

The AI debate is ultimately not about technology alone.

It is about the kind of economy India wants to build by 2047.

A technologically advanced economy can still remain unequal if:

- women cannot access digital systems,
- informal workers lack social protection,
- AI tools work only in dominant languages,
- algorithms reproduce social biases, or
- digital violence discourages women from participating.

Conversely, AI can become a powerful engine of inclusive development if it expands access to:

- knowledge,
- productive employment,
- healthcare,
- finance,
- markets,
- government services, and
- entrepreneurial opportunities.

The goal should therefore be **AI prosperity for all**, rather than AI growth measured only through aggregate investment or productivity statistics.

Way Forward

India's emerging AI strategy should focus on five interconnected priorities:

First, make gender-impact assessments an integral part of AI governance for high-impact systems.

Second, embed AI literacy within existing women-centric livelihood, skilling and community institutions.

Third, strengthen safeguards against technology-enabled gender violence and ensure accessible grievance redressal.

Fourth, expand multilingual and low-barrier AI systems so that linguistic and digital divides do not become new forms of exclusion.

Fifth, measure AI success through **real improvements in people's lives**, particularly among women in informal and low-income work.

Conclusion

India's AI transformation offers an extraordinary opportunity to raise productivity, create new forms of employment and expand access to essential services. But the success of this transformation will depend one quitable access to skills, infrastructure, and opportunities, particularly for women and other groups at risk of exclusion. AI governance must therefore remain inclusive, accountable, and human-centred.

The Right Path for India's Nuclear Power Development

Why in News: India is expanding nuclear power to achieve **100 GW by 2047**, while debates continue over **self-reliance versus imported reactors**, indigenous technology, safety standards, and private sector participation.

Key Details

- **Indigenous success:** Sanctions after **1974** accelerated India's development of **cost-effective, homegrown nuclear reactor technology**.
- **Cost advantage:** Indian nuclear plants cost about **$1,700/kW**, significantly cheaper than reactors from South Korea, France, and the US.
- **Technology roadmap:** India has developed **700 MW PHWRs**, commissioned a **500 MW Fast Breeder Reactor**, and aims to develop indigenous **Light Water Reactors (LWRs)**.
- **Expansion strategy:** The government targets **100 GW nuclear capacity by 2047** through greater participation of **public and private sectors**.
- **Safety first:** Rapid expansion must preserve India's strong **nuclear safety record**, with phased entry of new players and rigorous regulatory oversight.

Evolution of India's Nuclear Programme

- **1974 nuclear test:** International sanctions restricted imports of **uranium**, **nuclear technology**, and **power plants**.
- **2008 India–US Civil Nuclear Deal:** Ended most restrictions on **uranium imports** and **civil nuclear cooperation**.
- **Benefit:** Imported natural uranium enabled expansion of India's nuclear power generation.
- **Challenge:** Negotiations with Western suppliers failed as imported nuclear plants were **too expensive**.
- **Outcome:** India increasingly relied on **indigenous nuclear technology**.

India's Homegrown Nuclear Advantage

- **Sanctions fostered self-reliance:** India designed, developed, tested, and manufactured almost all nuclear plant components domestically.
- **Capacity expansion:** Reactor sizes increased from **200 MW → 500 MW → 700 MW**.
- **Current status: 4 units** under construction and **10 more** planned.
- **Cost advantage:** Indian nuclear plants cost around **$1,700/kW**, far cheaper than:
  - South Korea: **$2,200/kW**
  - France: **>$5,500/kW**
  - United States: **$15,000/kW**
- **Opportunity:** India has strong potential to become a **global exporter of nuclear power plants**.

Technology Development and Self-Reliance

- **Fast Breeder Reactor (FBR):** India is commissioning a **500 MW commercial Fast Breeder Reactor**, strengthening technological leadership.
- **Current strength:** India manufactures **Pressurised Heavy Water Reactors (PHWRs)** using **natural uranium**.
- **Future priority:** Develop indigenous **Light Water Reactors (LWRs)** using **enriched uranium**.
- **Reason:** The **Nuclear Suppliers Group (NSG) waiver** permanently restricts transfer of **uranium enrichment** and **reprocessing technologies**.
- **Need:** Greater investment and dedicated R&D to achieve complete technological independence.

Scaling Up Nuclear Capacity

- **National target:** Achieve **100 GW nuclear power capacity by 2047**.
- **Policy reform:** Sector opened to **public and private players** through investor-friendly legislation.
- **Preferred approach:** Expand using **proven, cost-effective indigenous technology** rather than expensive imports.
- **Small Modular Reactors (SMRs):**
  - Increasingly discussed for powering **AI data centres**.
  - India's **200 MW reactor technology** can serve as a domestic alternative.
- **Regulatory approach:** Foreign-designed SMRs should be deployed only after demonstrating successful commercial operation abroad.

Safety and Strategic Way Forward

- **Highest priority:** Preserve India's **excellent nuclear safety record** during rapid expansion.
- **Risk:** New private entrants may face challenges due to weaker industrial safety culture.
- **Lesson from history:** The **Chernobyl (1986)** disaster led to widespread public opposition and stalled nuclear expansion in many countries.
- **Recommended strategy:** Allow new entrants to initially build a **limited number of reactors**, with rigorous **external safety audits**, before scaling up.
- **Long-term vision:** Achieve **100 GW by 2047** while ensuring **self-reliance, affordability, global competitiveness, and uncompromising nuclear safety**.

Conclusion

India's nuclear programme demonstrates how strategic self-reliance can transform external constraints into technological strength. As the country pursues its **100 GW by 2047** target, the focus should remain on indigenous capability, rigorous safety oversight, and a gradual expansion of capacity. Strategic autonomy must be pursued without compromising safety, affordability, or reliability.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "India's nuclear energy ambitions must balance rapid capacity expansion with technological self-reliance and uncompromising safety standards." Discuss. (15 marks, 150 words)

Spreading Wings

Why in News: Skyroot Aerospace successfully launched Vikram-1, India's first private orbital rocket, marking a milestone in commercial spaceflight and highlighting the growing role of private enterprises in India's expanding space economy.

Key Details

- **First Private Orbital Launch:** Vikram-1 became India's first privately developed rocket to achieve orbital flight from **Sriharikota**.
- **Dedicated Launch Service:** The four-stage launcher offers customers **customized orbit and launch schedules**, unlike conventional rideshare missions.
- **Policy Reforms:** Space sector reforms since **2020**, the **2023 Space Policy**, and **49% automatic FDI** have enabled private participation.
- **Economic Significance:** Supports India's target of expanding the **space economy from ~$8 billion to $44 billion by 2033**.
- **Challenges Ahead:** Skyroot must achieve **commercial viability**, compete with global launch providers, ensure cost efficiency, and operate amid the absence of a dedicated **Space Activities Act**.

Historic Milestone

- **Skyroot Aerospace** successfully launched the **Vikram-1** rocket from **Sriharikota**.
- Marks **India's first private-sector orbital launch**, ending decades of government monopoly.
- India becomes the **third country** where a private company has demonstrated orbital launch capability.
- Represents a major step in India's commercial space ecosystem.

Features of Vikram-1 & Skyroot

- **Four-stage launch vehicle** designed for small satellite missions.
- Offers a **"cab service" model**, allowing customers to choose their **orbit and launch schedule** instead of shared rides.
- Launch cost targeted to be:
  - **Lower than PSLV**
  - **Higher than SSLV (projected)**
- Uses **carbon-composite structures** to reduce weight and cost.
- Skyroot also plans a **more powerful Vikram-2** launcher.

Policy Support & Growth of India's Space Sector

- Founded in **2018** by **two former ISRO engineers**.
- Key milestones:
  - **2020:** Engine tests.
  - **2022:** Suborbital flight.
  - **2026:** First orbital launch (Vikram-1).
- **Space sector reforms (2020)** and the **2023 Indian Space Policy** enabled private participation.
- **Up to 49% FDI** in launch vehicles permitted through the **automatic route (2024)**.
- Government aims to expand India's **space economy from ~$8 billion to $44 billion by 2033**, covering launch services, satellite manufacturing, communications, navigation, and Earth observation.

Challenges Ahead

- Must prove **commercial viability**, not just engineering capability.
- Needs to demonstrate:
  - **Reliable repeat launches**
  - **Stable launch costs**
  - **Scalable manufacturing**
- Faces intense competition from global players like **SpaceX**, **Rocket Lab**, and rapidly growing Chinese companies.
- **Rideshare launches** on larger rockets often remain **cheaper per kilogram**.
- Demand for premium, dedicated launches remains **uncertain**.

Key Issues & Way Forward

- Scaling production may increase **batch-to-batch quality variation**.
- India still lacks a **Space Activities Act**, creating regulatory uncertainty regarding:
  - Liability for launch failures.
  - Orbital accidents.
  - Commercial risk allocation.
- **Vikram-1 is an engineering success**, but long-term success depends on:
  - Sustainable commercial demand.
  - Competitive pricing.
  - Clear regulatory framework.
  - Continued innovation and policy support.

Conclusion

The Vikram-1 launch marks a turning point in India's space journey, demonstrating the technological **capability of private industry.** However, long-term success will depend on commercial competitiveness, regulatory certainty, reliable launch performance, and **sustained innovation.**

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Consider the following statements:

Statement 1: India permits up to 49% Foreign Direct Investment (FDI) under the automatic route in launch vehicle and associated systems manufacturing.

Statement 2: The liberalization of FDI norms aims to attract private investment, advanced technology, and global partnerships in India's space sector.

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* explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Answer: a

A Hold On AI

Why in News: The UN Independent International Scientific Panel on AI released its **Preliminary Report**, highlighting widening global **AI inequalities, governance gaps,** corporate accountability, and the urgent need for inclusive international AI regulation.

Key Details

- **Highlights Global AI Divide:** The UN report warns that **developed countries** will capture most AI benefits, while the **Global South** faces technological dependence and limited regulatory capacity.
- **Rapid AI Expansion:** AI is advancing much faster than previous digital technologies, making it difficult for governments to establish effective **regulatory and governance frameworks**.
- **Growing AI Risks:** The report identifies harms such as **deepfakes**, misinformation, threats to journalism, harmful AI interactions, and potential **financial instability** linked to AI.
- **Need for Accountability:** Governments must create robust mechanisms to **hold AI companies accountable**, ensuring transparency, safety, and ethical deployment of AI technologies.
- **India's Strategic Imperative:** India should strengthen **indigenous AI capabilities**, invest in computing infrastructure and talent, reduce dependence on foreign AI models, and actively shape **global AI governance**.

Growing Global AI Divide

- The UN report highlights a widening **Global North–Global South divide** in **AI development**.
- **Developed countries** are likely to capture most **AI-related economic and technological benefits**.
- **Developing nations** struggle to **regulate advanced AI models** beyond their domestic capabilities.
- Many countries face a choice between **heavy investment** or **dependence on a few global AI firms**.
- **AI governance** risks becoming concentrated in a **handful of countries and companies**.

Unequal Drivers of AI Leadership

- **AI leadership** depends on **abundant electricity**, **digital infrastructure**, and **computing capacity**.
- **Highly capitalised firms** attract **scarce AI talent** through **high salaries**.
- Intense **global competition** drives rapid **AI innovation** with limited **policy restraint**.
- Countries lacking these resources face **technological disadvantages**.
- This widens **economic**, **digital**, and **innovation inequalities** across nations.

Risks of Unchecked AI Development

- **AI technologies** are advancing much faster than **social media platforms** did.
- **Governments** struggle to regulate AI at the pace of **technological innovation**.
- Even **major powers** face limitations in controlling **AI development**.
- Rapid deployment increases **ethical**, **security**, and **governance risks**.
- Weak **global AI governance** creates uncertainty over AI's long-term impact.

Harms Caused by Irresponsible AI

- AI has encouraged harmful **parasocial relationships**, sometimes leading to **fatal consequences**.
- **Generative AI** threatens **news organisations** by reducing **traffic** and **revenues**.
- **Deepfakes** undermine **trust** in **images**, **videos**, and **written information**.
- Speculation around **Artificial General Intelligence (AGI)** could create **financial instability**.
- These harms highlight the need for stronger **corporate accountability** and **AI regulation**.

Need for Stronger Global Governance

- **Governments** must establish mechanisms to **hold AI firms accountable**.
- The **Global South** should actively participate in shaping **global AI governance**.
- **India's experience** highlights the risks of **dependence on foreign AI technologies**.
- AI should be viewed not only as a **geostrategic asset** but also as a **societal responsibility**.
- **International cooperation** is essential for **safe**, **inclusive**, and **equitable AI development**.

Conclusion

Artificial Intelligence has the potential to revolutionise economies, governance, and scientific research, but unchecked growth can deepen inequalities and create significant societal risks. Building an **inclusive,** ethical, **and** rules-based AIAI ecosystem must be governed through stronger accountability, inclusive access, international cooperation, and safeguards that ensure technological progress serves broader societal interests.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "The rapid advancement of Artificial Intelligence presents both transformative opportunities and serious governance challenges." Discuss the key concerns highlighted by the UN's Preliminary Report on AI and suggest measures for ensuring equitable and accountable AI governance. (15 Marks, 250 Words)

Promise Of Chips

Why in News: The Union Cabinet approved the **second phase of the India Semiconductor Mission (ISM)** with a **₹1.27 lakh crore** outlay to strengthen semiconductor manufacturing, boost self-reliance, and enhance India's strategic position in global electronics supply chains.

Key Details

- **Higher Outlay:** Phase II allocates **₹1.27 lakh crore**, expanding support through capital subsidies, manufacturing-linked incentives, and electronics ecosystem development.
- **Strategic Objective:** Seeks to establish India as a **global semiconductor manufacturing hub**, reducing import dependence and strengthening technological sovereignty.
- **Domestic Ecosystem:** Promotes **indigenous components, research, intellectual property, and skilled human capital** to build a resilient semiconductor ecosystem.
- **Challenges:** Returns from Phase I remain uncertain, advanced technologies like **EUV lithography** are dominated by a few countries, and global competition is intense.
- **Opportunity:** India's strong semiconductor talent pool can drive innovation, reduce brain drain, integrate India into global value chains, and support AI and emerging technologies.

Larger Investment & Incentive Framework

- **₹1.27 lakh crore** allocated under **Phase II**, significantly higher than Phase I.
- Focus on **capital subsidies**, **manufacturing-linked incentives (MLIs)**, and support across the **electronics manufacturing ecosystem**.
- Additional incentives for products using **domestic components, technology, and capabilities**.

Building India's Semiconductor Ecosystem

- Aims to position **India as a strategic hub** in the global semiconductor and electronics value chain.
- Focus on developing **manufacturing capacity, skilled workforce, research, and intellectual property (IP)**.
- Recognises semiconductor development as a **long-term, multi-decade national mission**.

Strategic Importance & Current Challenges

- Strengthens **economic security** and reduces dependence on foreign supply chains amid geopolitical uncertainties.
- Most **Phase I projects are yet to begin commercial production**, making returns uncertain.
- Sector may not generate massive employment but offers significant **strategic and technological advantages**.

Frontier Technologies & Global Competition

- Advanced technologies like **Extreme Ultraviolet (EUV) lithography** remain concentrated in a few countries.
- India faces intense competition from advanced economies with **greater financial resources and technological leadership**.
- Semiconductor capability is also crucial for future sectors such as **Artificial Intelligence (AI)** and high-performance computing.

Talent Development & Future Outlook

- India possesses a strong pool of **globally sought-after semiconductor engineers and chip designers**.
- Need to create **high-quality research, innovation, and employment opportunities** to prevent brain drain.
- Successful integration into global semiconductor value chains can enhance **strategic resilience, reduce supply-chain risks, and drive long-term economic growth**, similar to the **Asian Tigers**.

Conclusion

The second phase of the India Semiconductor Mission reflects India's long-term commitment to **technological self-reliance and strategic resilience.** While challenges such as technology gaps, global competition, and uncertain returns persist remain, successful integration into global semiconductor value chains will depend on sustained investment in talent, research, infrastructure, and commercially viable manufacturing.

India's Data Centre Boom

Why in News: India is entering a new phase of digital infrastructure expansion.

What Is Driving India's Data Centre Expansion?

A data centre is essentially the physical infrastructure that stores, processes and manages digital information. Every online transaction, cloud application, video stream, digital payment, enterprise software service and AI model depends ultimately on computing infrastructure somewhere.

India's digital transformation has therefore created a rapidly expanding demand for data-centre capacity.

Wood Mackenzie estimates that India's **digital economy was worth around ₹32 lakh crore in 2025**, equivalent to approximately **12% of GDP**. The country had more than **1.03 billion active internet users** and processed approximately **22 billion UPI transactions every month**. Meanwhile, India's domestic AI market is projected to reach **₹11.7 lakh crore by 2032**.

The chain is straightforward:

More digital users → More data → More computing → More data centres → More electricity demand

AI accelerates this process because AI applications require significantly greater computing power than many conventional digital services.

The AI Effect (Why the Next Wave Is Different)

Traditional cloud computing already requires large data centres, but AI is changing the economics of the industry.

Training and running advanced AI models require:

- High-performance processors;
- Dense computing infrastructure;
- Large-scale storage;
- High-speed networking;
- Advanced cooling systems; and
- Reliable, uninterrupted electricity.

Consequently, the growth of AI is not merely creating demand for software and digital services. It is also creating demand for **physical infrastructure capable of running increasingly power-intensive computing workloads**.

This explains why AI-dedicated capacity in India is projected to rise from just **275 MW in 2025 to 6,546 MW by 2030**.

From Digital Infrastructure to Strategic Infrastructure

The significance of this expansion goes beyond the technology sector.

Data centres increasingly influence:

Energy planning because they require continuous electricity.

Urban infrastructure because large facilities require land, transmission networks, water and connectivity.

Industrial investment because hyper scalers and technology companies are committing substantial capital.

National digital resilience because critical services increasingly depend on secure and reliable computing infrastructure.

Climate policy because electricity consumption and cooling requirements have direct environmental implications.

India's data - centre strategy is therefore becoming a question of **infrastructure policy, energy security and digital sovereignty simultaneously**.

Where Is India's Data Centre Capacity Concentrated?

The sector remains geographically concentrated.

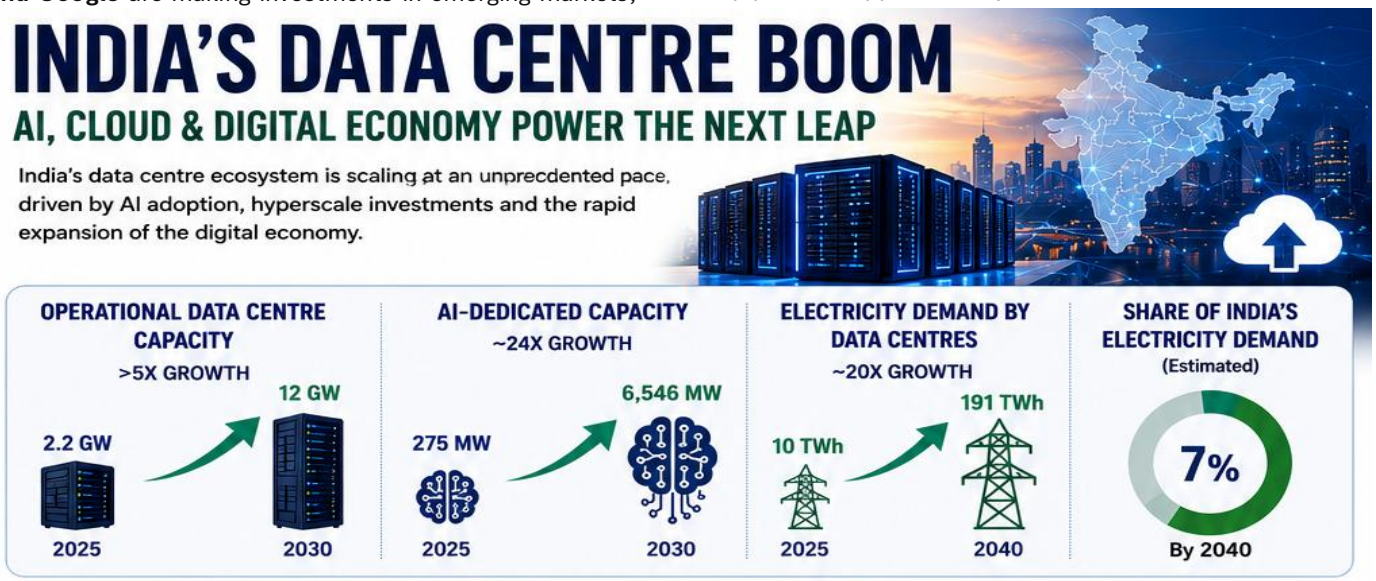
According to Wood Mackenzie, **Maharashtra and Tamil Nadu currently account for around 65% of India's installed IT load**. However, the next phase of expansion is expected to become more geographically dispersed.

States attracting growing interest include:

- **Andhra Pradesh**
- **Telangana**
- **Uttar Pradesh**

- **Karnataka**

Global hyperscalers such as **Amazon Web Services (AWS) and Google** are making investments in emerging markets, while domestic operators are also expanding. **AdaniConnex**, for instance, has announced a development pipeline of approximately **2.6 GW**.



This geographical diversification could generate new regional investment, employment and infrastructure development while reducing excessive concentration in a few established hubs.

The New Constraint: Electricity, Not Just Land or Capital

One of the most important findings of the Wood Mackenzie report is that the industry's principal constraint is changing. Historically, data-centre developers focused heavily on:

- land availability,
- capital,

- connectivity and
- proximity to major markets.

Today, **reliable and cost-competitive electricity is emerging as the decisive factor in site selection**.

A data centre cannot simply shut down when the electricity supply becomes unreliable. Even short interruptions can disrupt computing services, while high-density AI facilities can require very large amounts of continuous power.

As a result, developers are increasingly considering:

- **Captive power generation**
- **Long-term renewable Power Purchase Agreements (PPAs)**
- Open-access electricity arrangements
- Location-specific power economics
- Transmission availability

In effect:

The next data-centre competition may be as much about securing electricity as securing customers.

The Hidden Resource Challenge (Water)

Electricity is not the only resource constraint.

High-performance computing generates enormous amounts of heat, requiring sophisticated cooling systems. As AI workloads increase computing density, **water availability is becoming an increasingly important consideration**, particularly in water-stressed regions.

Wood Mackenzie identifies water management as an underappreciated investment risk, particularly for markets such as **Tamil Nadu and Karnataka**. Developers are therefore exploring technologies such as:

- Closed-loop cooling systems
- Water-efficient cooling
- Zero-liquid-discharge technologies

to reduce freshwater consumption and improve environmental resilience.

This introduces a new dimension to India's AI expansion:

Digital growth must also become resource-efficient growth.

The Energy–AI Nexus

The projected increase in data-centre electricity demand is particularly important for India's power sector.

Wood Mackenzie forecasts data-centre electricity consumption to rise **20-fold from 10 TWh in 2025 to 191 TWh by 2040**.

This creates both a challenge and an opportunity.

Challenge

Rapid data-centre growth could add significant pressure to:

- generation capacity,
- transmission networks,
- local distribution systems,
- power costs, and
- water resources.

Opportunity

The same demand can accelerate investment in:

- renewable power,
- battery storage,
- grid modernisation,
- captive clean-energy generation, and
- innovative cooling technologies.

Therefore, India's AI expansion could become a catalyst for a **cleaner and more resilient power ecosystem**, provided energy planning keeps pace with digital infrastructure growth.

Why Location Will Matter More Than Ever

The next generation of data-centre investments will not be determined solely by the availability of large parcels of land.

Developers will increasingly evaluate locations through a multi-dimensional lens:

Power availability

- **Renewable-energy access**
- **Transmission infrastructure**
- **Water availability**
- **Connectivity**
- **Policy environment**
- **Infrastructure resilience**

Wood Mackenzie has developed a **Hub Attractiveness Index** that evaluates Indian data-centre markets on factors including power economics, sustainability, infrastructure ecosystems and policy support.

This means that competition among States could increasingly revolve around **who can provide reliable, affordable and sustainable digital infrastructure**.

What Does This Mean for India's Digital Economy?

The expansion of data centres can produce wider economic benefits.

Digital Services

More computing capacity supports cloud services, digital payments, online commerce and enterprise applications.

AI Innovation

Domestic computing infrastructure can provide greater capacity for Indian AI companies, researchers and enterprises.

Investment

Large-scale facilities attract domestic and international capital.

Employment

Although highly automated data centres do not generate employment on the scale of traditional manufacturing, they create demand for specialised jobs in engineering, software, cybersecurity, power systems, cooling and facility management.

Digital Resilience

Greater domestic infrastructure can strengthen the reliability and resilience of critical digital services.

But Capacity Expansion Alone Is Not Enough

India's objective should not simply be to maximise the number of gigawatts of data-centre capacity.

The deeper question is:

Can India build data centres that are simultaneously scalable, reliable, affordable and environmentally sustainable?

An enormous data-centre footprint that faces electricity shortages, high operating costs or water stress would create new vulnerabilities even while solving existing digital constraints.

Therefore, the next phase of policy must focus on **quality of infrastructure as much as quantity of infrastructure**.

The Larger Strategic Significance

India is moving towards an economy in which **compute itself becomes a strategic resource**.

Just as ports, highways and electricity networks once formed the physical backbone of industrialisation, data centres are becoming part of the infrastructure underlying the digital economy.

AI makes this transformation even more pronounced.

The country that can provide:

- abundant computing capacity,
- reliable electricity,
- efficient cooling,
- secure digital infrastructure, and
- affordable access to AI,

will possess an important competitive advantage in the next phase of economic development.

India's rapidly expanding data-centre ecosystem therefore has implications not only for technology companies but also for **energy security, investment, industrial policy, urban planning and India's AI ambitions**.

Conclusion

India's projected rise from **2.2 GW of operational data-centre capacity in 2025 to 12 GW by 2030 reflects** a fundamental shift in the country's digital infrastructure landscape.

India's R&D Spending Crosses 0.8% Of GDP

Why in News: India's **Gross Expenditure on Research and Development (GERD)** has risen sharply in recent years, with national R&D spending reaching **0.83% of GDP in 2021–22—the** first time since 2009–10 that the ratio crossed the 0.8% mark.

India's R&D Landscape: Rising Private-Sector Participation

NOTE

The development is important because India has long faced a paradox: it possesses a large scientific workforce and a strong publication base, but its overall R&D intensity has remained modest compared with major innovation-led economies. The latest data suggest that India is not only spending more on research, but is also beginning to **shift who finances that research—from the State towards industry**.

Why Is This Change Important?

The source of R&D finance matters because the government and private industry typically pursue different but complementary objectives.

Government R&D

Often supports:

- Basic science
- Strategic technologies
- Space and atomic research
- Defence research
- Public-health research
- Agriculture and other areas where commercial returns may be uncertain or long-term

Private-Sector R&D

More often focuses on:

- Product development
- Industrial technologies
- Digital innovation
- Pharmaceuticals
- Advanced manufacturing
- Engineering
- Commercialisation and scaling

A healthy innovation ecosystem therefore needs **both**.

The significance of the latest data is that private firms appear to be taking a much greater role in converting India's scientific capability into commercially useful technologies.

The Numbers Behind the Shift

Private-sector R&D expenditure remained relatively stable around **₹44,000–₹47,000 crore** during 2017–18 to 2020–21.

Then the pattern changed dramatically:

- **2020–21:** ₹46,388 crore
- **2021–22:** ₹88,678 crore
- **2022–23:** ₹1,02,428 crore
- **2023–24:** ₹1,26,907 crore

The jump from 2020–21 to 2021–22 was particularly striking, with private-sector R&D expenditure **almost doubling in a single year**.

This rise also helps explain the sharp increase in overall GERD during the same period.

What Does the Government's Data Tell Us About Public Spending?

Government-sector R&D expenditure also increased:

- **2020–21:** ₹80,993 crore
- **2021–22:** ₹1,06,133 crore
- **2022–23:** ₹1,10,950 crore
- **2023–24:** ₹1,17,861 crore

Thus, the emerging story is **not one of government withdrawal from research**.

Rather, it is one of **private investment growing much faster than public expenditure**, gradually changing the balance of the national R&D ecosystem.

But India Still Has an R&D Intensity Problem

The improvement is significant, but India still spends a relatively modest share of its national income on research.

GERD reached 0.84% of GDP in 2023–24.

This remains below the levels seen in several major research-intensive economies.

The comparison matters because high-income innovation economies often sustain large R&D investments not merely through government laboratories but through strong **industry–university–research linkages** and substantial private R&D spending.

Therefore, India's challenge is no longer simply:

"How do we spend more on R&D?"

It is increasingly:

"How do we spend more efficiently, attract more private capital, and convert research into globally competitive innovation?"

Why Private R&D Matters for India's Growth Story

A higher private-sector contribution can potentially strengthen India's innovation pipeline in several ways.

1. From Research to Products

Companies have a direct incentive to convert research into commercial products and services.

2. Technology Absorption

Private R&D can accelerate the adoption and adaptation of advanced technologies.

3. Global Competitiveness

Research-intensive Indian firms can compete more effectively in sectors such as:

- Semiconductors
- Pharmaceuticals
- Biotechnology
- Defence technology
- Artificial intelligence
- Advanced materials
- Clean energy
- Manufacturing

4. Employment

Research-intensive industries can create demand for engineers, scientists, designers, data specialists and highly skilled technicians.

Thus, private R&D can help transform innovation from a **laboratory activity into a productivity and competitiveness engine**.

However, Private Investment Cannot Replace Public Research

There is an important caveat.

Companies naturally prioritise research with identifiable commercial or strategic returns. But some of the most transformative scientific advances emerge from **basic research whose economic value is difficult to predict in advance**.

This is where government-supported research remains indispensable.

For example:

Basic research → Scientific discovery → Technological breakthrough → Commercial application

The first step may offer no immediate financial return, but it can eventually produce entirely new industries.

Therefore, India's objective should not be to choose between government and industry.

It should be to build a **stronger public–private innovation ecosystem**.

Role of NSTMIS

India’s official R&D statistics are compiled through the **National Science and Technology Management Information System (NSTMIS)** under the Department of Science and Technology.

NSTMIS has been conducting national science and technology surveys since **1973**, using internationally recognised statistical concepts and classifications.

Its data collection covers:

- Government institutions
- Universities
- Public-sector organisations
- Private industry

The latest **Research & Development Statistics 2025–26** provides official data for **2021–22 through 2023–24**, filling an important gap in the publicly available series.

The latest DST website also lists the **Research & Development Statistics 2025–26** and accompanying statistical tables.

What Should India Focus on Next?

The latest figures are encouraging, but sustaining the momentum will require a deliberate policy push.

1. Strengthen Industry–Academia Linkages

Research institutions and universities must be connected more effectively with industry so that knowledge can move from laboratories to markets.

2. Increase R&D Intensity Further

Crossing **1% of GDP** should be seen as an important intermediate milestone, with a longer-term ambition to move towards the levels characteristic of major innovation economies.

3. Encourage High-Risk Research

Government funding remains crucial for frontier science where commercial incentives are weak.

4. Improve Commercialisation

India needs stronger mechanisms for:

- Technology transfer
- Intellectual-property protection
- Start-up incubation
- Research spin-offs
- Scaling laboratory discoveries

5. Focus on Strategic Technologies

Greater R&D investment should support national priorities such as:

AI + Semiconductors + Biotechnology + Defence + Space + Clean Energy + Advanced Manufacturing

The Bigger Picture

The latest R&D data reveal **two stories at once**.

The first is encouraging:

India’s total R&D spending is rising rapidly.

The second is even more significant:

The composition of that spending is changing.

The private sector, which historically played a relatively limited role in India's national R&D effort, has now become its **largest source of research expenditure**.

This may indicate that Indian industry is becoming more confident in investing in technology, innovation and long-term competitiveness.

But the journey is far from complete.

India's aspiration to become a major knowledge economy will depend not merely on spending more money on research, but on building an ecosystem in which **public science, private innovation, universities, start-ups and skilled researchers reinforce one another**.

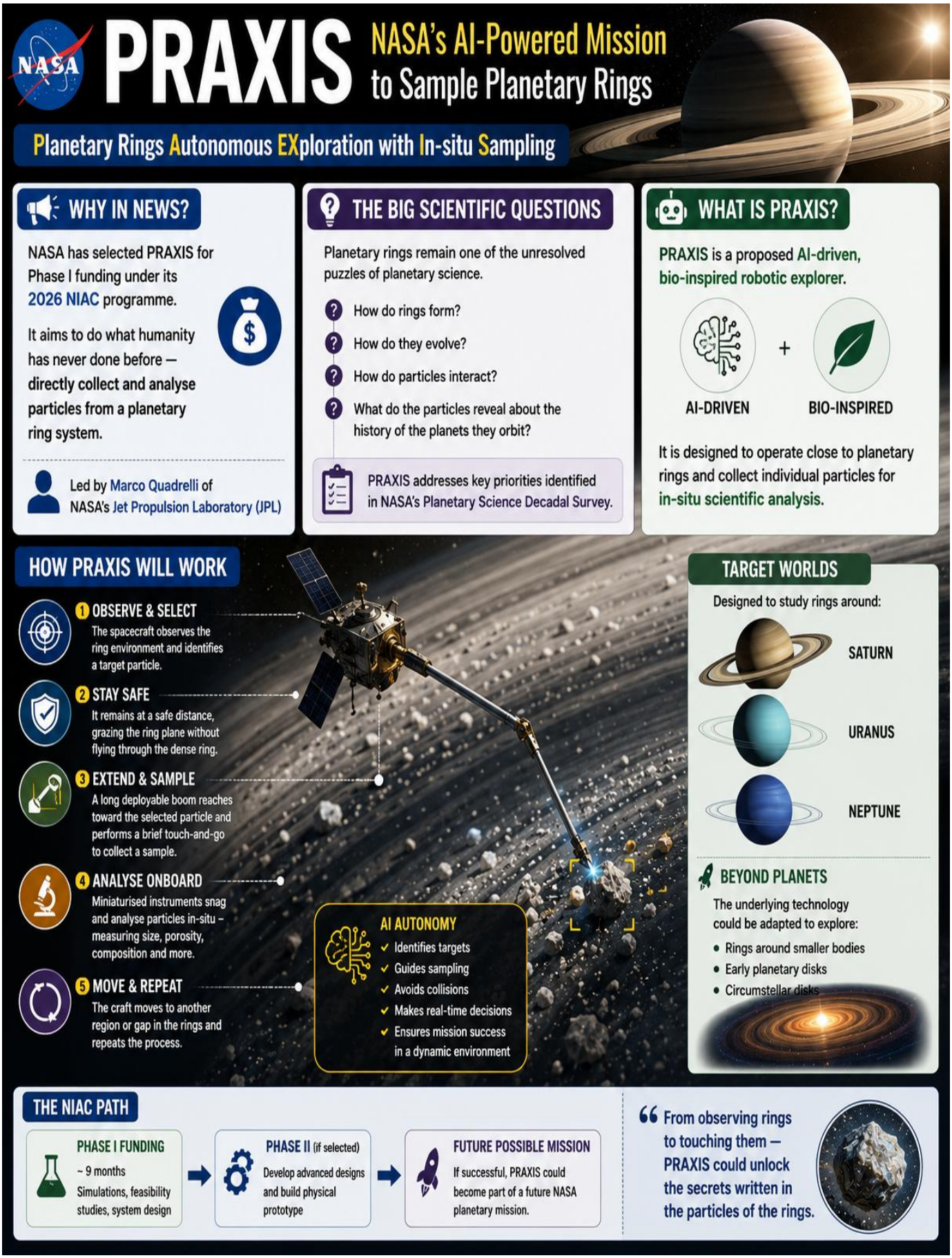
Conclusion

India's rise to **0.83% of GDP in R&D spending in 2021–22 and 0.84% in 2023–24** is an important reversal after years of stagnation. Even more significant is the emergence of a stronger research ecosystem in which **private investment, university -industry collaboration and high-quality human capital** can translate scientific spending into innovation and economic value

Praxis

Why in News: NASA has selected **PRAXIS — Planetary Rings Autonomous EXploration with In-situ Sampling — for Phase I funding under its 2026 NASA Innovative Advanced Concepts (NIAC) programme.**

The idea is important because planetary rings remain one of the unresolved puzzles of planetary science. Scientists still do not fully understand **how rings form, how they evolve, how particles interact, and what those particles reveal about the history of the planets they orbit**. NASA says PRAXIS directly addresses priorities identified in the planetary-science Decadal Survey.



What is PRAXIS?

PRAXIS is a proposed **AI-driven, bio-inspired robotic explorer** designed to operate close to planetary rings and collect individual particles for **in-situ scientific analysis**.

The concept is intended for studying rings around planets such as:

- **Saturn**
- **Uranus**
- **Neptune**

NASA also notes that the underlying technology could potentially be adapted for rings around smaller bodies and even for studying early planetary or circumstellar disks.

Why Do Scientists Want to Sample Planetary Rings?

Spacecraft have already photographed and observed planetary rings in extraordinary detail. The **Cassini mission**, for example, transformed scientific understanding of Saturn and its rings.

Yet observing rings from a distance has limits.

Scientists still want direct information about:

- **Particle size**
- **Porosity**
- **Composition**
- Physical interactions among particles
- The processes that shape ring structures

NASA notes that Saturn's rings contain particles ranging from **microscopic grains to house-sized boulders**, creating a highly dynamic environment in which particles are constantly moving.

A physical sample can therefore reveal information that remote sensing alone cannot provide.

The Central Challenge (How Do You Sample a Moving Ring Without Crashing?)

This is where PRAXIS becomes particularly innovative.

A spacecraft cannot simply fly straight through a dense ring system and collect material like a spacecraft passing through an asteroid field. The particles themselves are moving at high speeds, and a collision could severely damage the spacecraft.

Instead, PRAXIS proposes a **"graze-and-sample" strategy**.

The proposed sequence

1. Observe the ring
The spacecraft first studies the ring environment and identifies a suitable particle.

2. Stay at a safer distance
Rather than entering deeply into the ring plane, the spacecraft remains away from the moving particles.

3. Extend a long deployable boom
The spacecraft reaches towards the selected particle using a long, flexible sampling system.

4. Touch and collect
A brief **touch-and-go** interaction obtains a sample from the particle.

5. Analyse the sample onboard
Miniaturised instruments examine the material in situ.

6. Move to another region
The spacecraft can then travel to another section or gap in the rings and repeat the process.

This architecture is designed to combine **scientific access with collision avoidance**.

Why Does PRAXIS Need Artificial Intelligence?

Planetary rings are extraordinarily dynamic environments. Particles are constantly moving relative to one another, meaning a spacecraft cannot rely entirely on pre-programmed instructions.

PRAXIS therefore incorporates **AI-enabled autonomy** to help the robotic system:

- identify suitable particles,
- determine when and where sampling should occur,
- avoid collisions,
- guide the sampling mechanism,
- and support rapid scientific analysis.

This is an important evolution in space exploration.

Traditional spacecraft often depend heavily on commands sent from Earth. But at extreme distances, communication delays make continuous human control impossible.

An autonomous spacecraft must therefore be capable of **perceiving, deciding and acting on its own**.

A Bio-Inspired Approach

PRAXIS is described as a **bio-inspired robotic system**, meaning its design draws inspiration from strategies found in nature.

The concept also incorporates ideas adapted from **sport casting** to capture free-floating particles.

This illustrates a broader trend in space technology: rather than building spacecraft solely around conventional aerospace engineering, researchers are increasingly combining:

Biology + robotics + artificial intelligence + miniaturized scientific instruments

to solve problems that would otherwise be extremely difficult in space.

What Makes PRAXIS Different from Earlier Missions?

Previous missions have observed planetary rings extensively, but NASA states that **humanity has never directly touched and sampled ring particles**.

Cassini provided groundbreaking observations but did not have the capability to collect individual ring particles for this kind of direct sampling.

PRAXIS therefore seeks to add an entirely new capability:

From looking at planetary rings to physically touching and analysing them.

That could significantly improve scientific understanding of ring systems and the processes that create and reshape them.

What Does NIAC Phase I Funding Mean?

Being selected for **NIAC Phase I does not mean PRAXIS has become an approved NASA mission**.

NIAC is designed to support **early-stage, high-risk and high-potential concepts**.

Under Phase I, researchers investigate:

- whether the concept is technically feasible,
- how the system should be designed,
- what engineering challenges must be solved,
- and what technologies require further development.

NASA says Phase I studies are generally conducted over **nine months**. Successful concepts may later propose for **Phase II**, which supports more detailed development and a physical prototype.

Thus, the current stage is best understood as:

Concept → Feasibility study → Possible prototype → Possible future mission

There is no guarantee that PRAXIS will eventually fly.

A Technology with Wider Applications

One of PRAXIS's most interesting features is that its sampling system may not be limited to a single planetary ring mission.

NASA notes that the technology could potentially be used across multiple planetary exploration missions, including possible future investigations of **Uranus** and other ringed bodies.

This is important because the value of NIAC concepts often lies not only in one mission but in the **new capability they create for future exploration**.

Why Planetary Rings Matter to Planetary Science

Planetary rings are not merely beautiful structures.

They are natural laboratories for understanding:

- planetary formation,
- orbital dynamics,
- collisions between particles,
- gravity-driven structures,
- material evolution,
- and the history of planetary systems.

Studying rings can therefore help scientists understand not only the rings themselves but also the **larger processes through which planets and planetary systems evolve**.

What Happens Next?

During Phase I, the PRAXIS team will focus on **simulation, system design and feasibility studies**.

If the concept progresses to **Phase II**, the researchers can move towards a more advanced design and physical prototype.

Only after successfully passing these stages could the concept potentially become part of a future NASA planetary mission.

Conclusion

PRAXIS represents a fascinating shift in planetary exploration: **instead of merely observing distant worlds, spacecraft may increasingly be designed to interact directly with them.** By combining artificial intelligence, autonomous robotics and autonomous robotics, PRAXIS could open new possibilities for planetary science and future exploration missions.

Wealth Of Lacunae

Why in News: A **ransomware attack** targeting a contractor associated with the **Kudankulam Nuclear Power Project** exposed sensitive infrastructure-related data, raising concerns over cybersecurity, breach disclosure practices and protection of critical infrastructure.

Key Details

- **Critical Infrastructure Security:** Even non-operational data leaks can aid hostile actors in planning future cyber or physical attacks.
- **Weak Disclosure Practices:** Delayed and opaque reporting undermines public trust and hinders timely risk assessment.
- **Supply Chain Vulnerability:** Contractors and third-party service providers have become major entry points for cyberattacks.
- **Cyber Preparedness Gaps:** Many organisations treat cybersecurity as a compliance exercise rather than a strategic operational necessity.
- **National Security Risks:** Repeated attacks on critical sectors highlight India's growing exposure to cyber threats and espionage.

Cyberattack and Immediate Impact

- A **ransomware attack** targeted a contractor associated with the **Kudankulam Nuclear Power Project**, though there is no evidence that the plant's operational systems were compromised.
- Similar concerns had emerged in **2019**, when malware was detected on the administrative network, while the reactor network remained secure.

Weaknesses in Cybersecurity and Disclosure

- India's **cyber breach disclosure framework** remains inconsistent, with organisations often delaying or limiting public disclosure.
- Fear of reputational damage, financial losses, contractual impacts, and regulatory scrutiny discourages transparent reporting.
- Many organisations continue to view cybersecurity as a **compliance requirement** rather than a strategic necessity, weakening incident response.

Details of the Data Breach

- The attack was carried out by the ransomware group **World Leaks**, targeting systems of **Reliance Infrastructure**, a contractor for Kudankulam Units 3 and 4.
- The compromised data were hosted by **Yotta Data Services**, which detected suspicious activity on **May 29**, while leaked files started appearing online on **June 11**.
- Around **14.3 GB** of files—including ventilation layouts, floor plans, vendor lists, and insurance documents—were reportedly leaked.

National Security Concerns

- Although **NPCIL** stated that the leaked files relate only to infrastructure outside the nuclear island, such information could still support **intelligence gathering and future cyber or physical attacks**.
- The incident highlights growing cyber risks to India's **critical infrastructure**, especially as Kudankulam is central to the country's nuclear energy expansion.
- India has previously witnessed major cyberattacks on **AIIMS Delhi, airlines, and State government portals**, reflecting broader vulnerabilities.

Way Forward

- **CERT-In** and **NPCIL** should clearly disclose the authenticity of the leaked files, whether data were exfiltrated before detection, and if any credentials or supplier accounts were compromised.
- Strengthening **cyber resilience**, improving incident response mechanisms, and adopting proactive communication are essential.
- While complete transparency may not always be possible for strategic facilities, **basic cyber hygiene, timely disclosure, and accountability** are indispensable for protecting critical infrastructure.

Conclusion

The **Kudankulam incident** highlights that cybersecurity is integral to national security, particularly for critical infrastructure. India must strengthen supply chain security, enforce timely **breach disclosures,** enhance cyber resilience through regular security audits, timely disclosure, and coordinated incident response. Critical infrastructure protection must remain a continuous national-security priority.

Global Terrorism In Transition

Why in News: The **Global Terrorism Index (GTI) 2026** indicates a significant decline in global terrorism during **2025,** with terrorist attacks and fatalities reaching their lowest levels in several years.

Global Terrorism (A Statistical Decline with Hidden Risks)

At first glance, the global security landscape appears to offer reasons for optimism. According to recent international assessments, terrorism-related violence declined substantially during 2025.

- Global terrorist attacks fell to **2,944 incidents**.
- Terrorism-related deaths declined by **28%** to **5,582 fatalities**.
- Around **81 countries** recorded measurable improvements in their domestic security environment.

These figures suggest that global counter-terrorism efforts have achieved notable success. However, a closer examination reveals that the apparent improvement conceals a much deeper transformation. Terrorism is no longer spreading uniformly across the world; instead, it is becoming increasingly concentrated, adaptive, and difficult to detect.

Rather than disappearing, terrorism is evolving into a more localised, technologically enabled, and structurally resilient threat.

The Illusion of a Safer World

Aggregate global statistics often conceal regional realities.

Nearly **70% of all terrorism-related deaths** are now concentrated in just **five countries**:

- Pakistan
- Burkina Faso
- Nigeria

- Niger
- Democratic Republic of the Congo

Similarly, the **Sahel region of Sub-Saharan Africa** alone accounts for more than half of all global terrorism fatalities.

This concentration creates a dangerous illusion.

Countries experiencing relative stability may conclude that terrorism is steadily declining, while in reality, violence has merely shifted geographically toward fragile states suffering from political instability, weak governance, and prolonged conflict.

The risk is that terrorism occurring in chronically unstable regions gradually becomes normalised by the international community rather than treated as an urgent global security concern.

Changing Nature of Terrorism

The character of terrorism has changed significantly over the past decade.

Earlier, terrorist organisations relied heavily on:

- Large-scale coordinated attacks
- Extensive logistical networks
- Centralised command structures
- High-profile targets

Today, extremist groups increasingly prefer:

- Lone-wolf attacks
- Small decentralised cells
- Online radicalisation
- Low-cost, high-impact operations
- Cross-border networks

Digital communication platforms have dramatically lowered the barriers to recruitment, enabling extremist organisations to radicalise individuals remotely without requiring direct organisational contact.

As a result, terrorism is increasingly becoming an **internal security challenge** rather than merely a cross-border military threat.

The Dangerous Normalisation of Terrorism

One of the most worrying consequences of this transformation is the gradual normalisation of terrorism.

When attacks become less spectacular but more frequent, societies begin treating them as an unavoidable feature of modern life rather than an exceptional threat requiring comprehensive elimination.

This creates a dangerous complacency.

Security experts argue that terrorism should never be viewed as an inevitable "cost of modern civilisation." Accepting recurring extremist violence weakens political resolve and reduces international urgency in addressing its root causes.

Conflict Remains the Biggest Driver of Terrorism

Evidence continues to demonstrate a strong relationship between armed conflict and terrorism.

Nearly **99% of global terrorism-related deaths** occur in countries already experiencing violent conflict.

This highlights an important reality:

Terrorism rarely emerges in isolation.

Instead, it flourishes where:

- Governments lose administrative control.
- State institutions weaken.
- Law enforcement collapses.
- Political instability deepens.
- Civil wars create governance vacuums.

Extremist organisations exploit these conditions by offering alternative systems of authority, protection, identity, and ideology to vulnerable populations.

Border Regions (The New Epicentres of Terrorism)

Modern terrorism has acquired a distinctly geographical dimension.

Studies indicate that:

- More than **60% of terrorist attacks occur within 100 kilometres of international borders.**

Border regions often suffer from:

- Weak state presence
- Limited policing
- Poor infrastructure
- Informal economies
- Cross-border ethnic linkages

Such conditions enable terrorist organisations to:

- Establish safe havens
- Recruit members
- Smuggle weapons
- Finance operations
- Conduct cross-border attacks

Strengthening border governance has therefore become a critical pillar of contemporary counter-terrorism strategy.

From Reactive Security to Preventive Counter-Terrorism

Traditional counter-terrorism has largely focused on responding after attacks occur.

The changing threat landscape requires a shift toward preventive approaches.

Effective long-term counter-terrorism should include:

Strengthening State Capacity

- Improving governance
- Expanding administrative presence
- Enhancing policing and intelligence
- Strengthening judicial institutions

Border Management

- Integrated border surveillance
- Cross-border intelligence sharing
- Improved infrastructure
- Joint patrols with neighbouring countries

Countering Digital Radicalisation

- Monitoring extremist online networks
- Removing terrorist propaganda
- Detecting recruitment channels
- Building digital resilience among youth

Development-Led Security

Economic development remains one of the strongest long-term safeguards against extremism.

Investment in:

- Education
- Employment
- Healthcare
- Local governance
- Community policing

reduces the social vulnerabilities that extremist groups often exploit.

Emerging Challenges

Despite the decline in global fatalities, several factors could reverse recent gains.

1. West Asian Conflicts

Continuing conflicts in West Asia risk generating:

- Mass displacement
- Governance collapse
- Humanitarian crises
- Radicalisation

These conditions provide fertile ground for extremist organisations to regroup.

2. Geopolitical Rivalries

Persistent geopolitical tensions—including regional conflicts—create opportunities for extremist actors to exploit instability and recruit vulnerable populations.

3. Adaptive Terrorist Organisations

Major terrorist organisations continue to demonstrate remarkable resilience.

Groups such as:

- Islamic State (IS)
- Jama'at Nusrat al-Islam wal Muslimeen (JNIM)
- Tehrik-e-Taliban Pakistan (TTP)
- Lashkar-e-Taiba (LeT)
- Al-Shabaab

have increasingly shifted toward decentralised structures, making them harder to dismantle through conventional military operations.

Notably, while global terrorism declined overall, **TTP increased both its operational activity and attacks**, illustrating the adaptive capacity of modern terrorist organisations.

Implications for India

India's strategic environment makes these global trends especially significant.

The country continues to face challenges arising from:

- Cross-border terrorism
- Radicalisation through digital platforms
- Emerging technologies used by extremist groups
- Volatile neighbourhood dynamics

Consequently, India's counter-terrorism strategy must increasingly focus on:

- Intelligence-driven operations
- Border management
- Cyber surveillance
- International intelligence cooperation
- Counter-radicalisation programmes
- Strengthening internal security institutions

India's approach must remain proactive rather than reactive, recognising that future terrorist threats may increasingly originate from decentralised and digitally connected networks.

Way Forward

Addressing evolving terrorism requires a comprehensive and multidimensional strategy.

Key priorities include:

- Strengthening international intelligence cooperation.
- Enhancing border security and surveillance.
- Countering online extremism through technology and regulation.
- Investing in governance and institutional capacity in fragile regions.
- Promoting socio-economic development to reduce recruitment opportunities.
- Expanding global cooperation against terrorist financing and illicit networks.
- Building resilient communities through education, social inclusion, and counter-radicalisation initiatives.

Conclusion

The recent decline in global terrorism should certainly be welcomed, but it must not breed complacency. Terrorism has not disappeared; it has evolved into a more decentralised, technologically enabled, and geographically concentrated threat.

Supreme Court Examines The Use Of Pellet Guns

Why in News: The **Supreme Court of India** has observed that the use of **pellet guns by law enforcement agencies** may be permissible only in **"exceptional circumstances"** as part of a **graded response mechanism for crowd control.**

Background

The issue came before a **three-judge Bench** comprising **Chief Justice of India Surya Kant**, **Justice Joymalya Bagchi**, and **Justice N. Kotiswar Singh**, while hearing a petition filed by:

- Former IPS officer **Yashovardhan Azad**, and
- Pellet injury victims **Prashant Kumar Singh** and **Shekh Irshad Mansoori**.

The petition seeks a **complete prohibition on the use of kinetic metallic pellet guns** by law enforcement agencies during civilian protests and public demonstrations.

The petitioners argued that pellet guns have caused severe injuries, including permanent blindness and disability, and therefore violate the constitutional guarantees of **life, liberty, dignity, and bodily integrity**.

Why Has the Use of Pellet Guns Become Controversial?

Pellet guns are classified as **less-lethal crowd-control weapons**, but their use has remained highly controversial because the pellets disperse in multiple directions after being fired, making it difficult to control their impact.

Consequently, they have often resulted in:

- Serious eye injuries,
- Permanent vision loss,
- Facial disfigurement,
- Multiple bodily injuries, and
- Long-term physical disability.

Human rights organisations have repeatedly questioned whether such weapons are proportionate for managing civilian protests.

Supreme Court's Key Observations

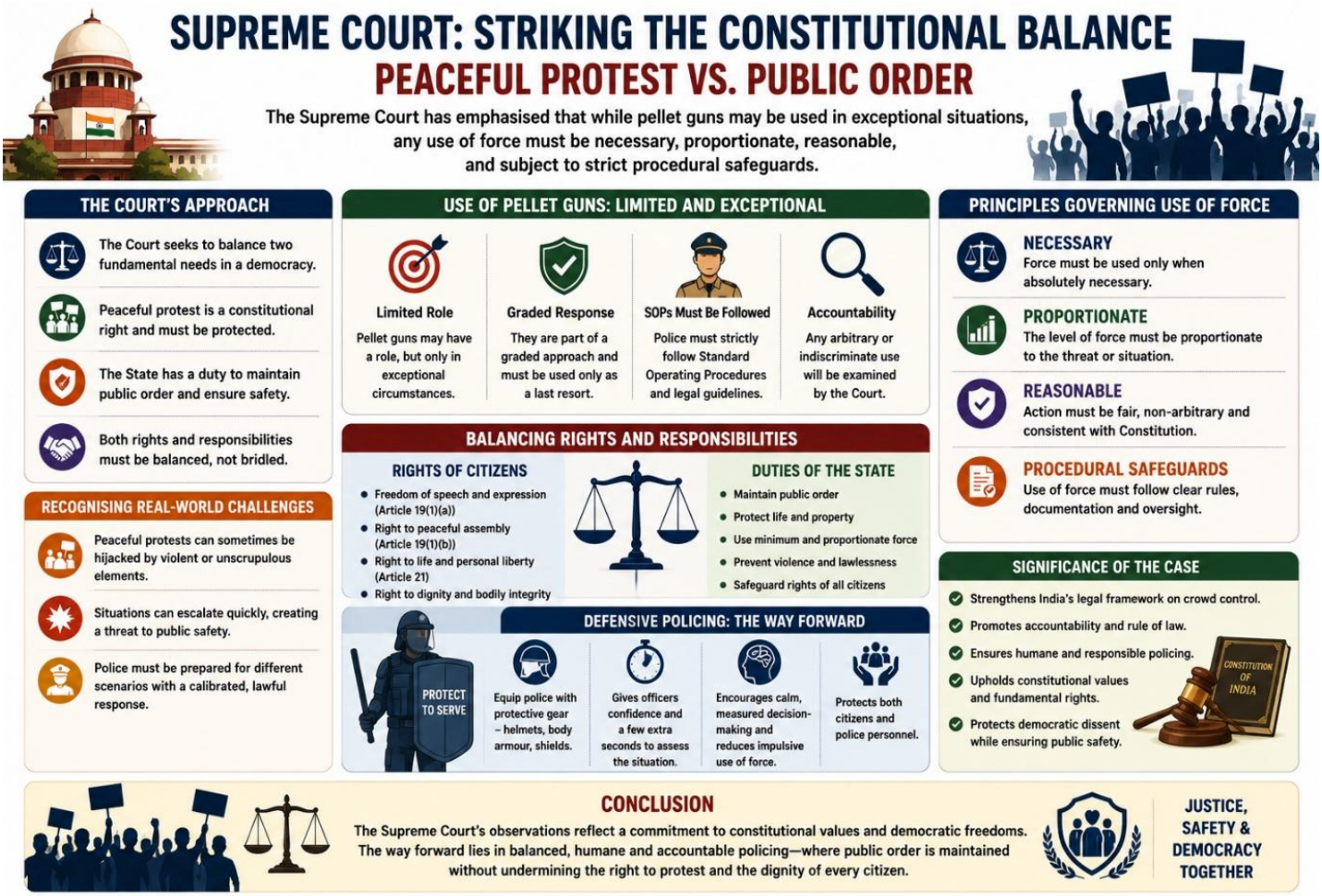
1. Pellet Guns May Be Used Only in Exceptional Circumstances

The Court observed that existing police regulations permit the use of pellet guns **only in exceptional situations** as part of a **graded crowd-control strategy**.

Justice Joymalya Bagchi remarked:

> *"Police rules allow the use [of pellet guns] in exceptional circumstances. One of the graded responses is the use of pellet guns."*

However, the Court deliberately refrained from defining what exactly constitutes "exceptional circumstances", indicating that this issue requires careful judicial examination.



2. No Blanket Ban at Present

The Bench declined to immediately prohibit pellet guns across the country.

Instead, it decided to examine whether:

- Standard Operating Procedures (SOPs) were followed,
- Police adhered to the prescribed sequence of force,
- Pellet guns were used only as a last resort, and
- Any incidents reflected arbitrary or excessive use of force.

Thus, the Court has focused on **accountability in implementation rather than an outright prohibition**.

3. Police Must Follow a Graded Response

The Court emphasised that modern policing requires a **graduated escalation of force**, rather than immediate resort to coercive measures.

A graded response generally involves:

- Dialogue and persuasion,
- Public announcements,
- Physical barriers,
- Non-violent crowd management,
- Minimal force where necessary,
- Use of specialised equipment only as a last resort.

The Court indicated that pellet guns can only form one component of this broader hierarchy.

Constitutional Challenge Raised by the Petitioners

The petition argues that the use of pellet guns fails to satisfy the constitutional principles governing restrictions on fundamental rights.

According to the petition, pellet guns violate:

Necessity

Force should be used only when absolutely necessary and no less harmful alternative exists.

Proportionality

The level of force employed must be proportionate to the threat posed by the crowd.

Reasonableness

State action must remain fair, non-arbitrary, and consistent with Articles **14**, **19**, and **21** of the Constitution.

The petitioners contend that indiscriminate firing of metallic pellets does not satisfy these constitutional standards.

Balancing Protest and Public Order

The Court strongly reaffirmed that **peaceful protests are a legitimate democratic right**.

Justice Bagchi observed that the State must respond to student protests and public demonstrations with **restraint rather than brutality**.

However, the Bench also recognised a practical challenge.

It observed that peaceful protests may sometimes be **"hijacked"** by disruptive or violent elements, transforming an otherwise lawful assembly into a law-and-order challenge.

According to the Court:

- A protest may begin peacefully.
- External elements may infiltrate it.
- Violence may escalate unexpectedly.
- Police must therefore remain prepared for different situations.

This possibility, the Court observed, justifies maintaining a calibrated framework for the use of force.

Emphasis on Defensive Policing

One of the most significant observations made by Justice Joymalya Bagchi concerned the need to **strengthen defensive rather than offensive policing**.

The Court suggested that police personnel should be equipped with better protective equipment such as:

- Helmets,
- Body armour,
- Protective shields,
- Defensive gear.

According to Justice Bagchi, better protection would allow officers to remain calm during volatile situations and reduce the likelihood of immediate resort to force.

He observed that protective equipment gives police personnel "a few extra seconds" to assess the situation before taking coercive action.

This reflects a shift towards **minimum-force policing**, where safeguarding both citizens and police personnel becomes equally important.

Significance of the Case

The proceedings are significant because they may shape India's future policy on:

- Crowd-control techniques,
- Police use of force,
- Human rights during protests,
- Standard Operating Procedures (SOPs) for law enforcement,
- Accountability for excessive police action, and
- Protection of constitutional freedoms during public demonstrations.

The case also contributes to the broader debate on balancing **civil liberties** with the **State's responsibility to maintain law and order**.

Conclusion

The Supreme Court's observations reflect an attempt to strike a constitutional balance between **the citizens' right to peaceful protest and the State's obligation to maintain public order.**

Theatre Commands and India's Military Readiness

Why in News: India is moving towards one of the most consequential organisational reforms in its military history: the creation of **integrated theatre commands** that bring the Army, Navy and Air Force together under unified operational structures.

India's proposed model seeks to move away from a predominantly service-centric system towards **joint, multi-domain military operations**. The objective is compelling: a future conflict is unlikely to remain confined to land, sea or air, but will increasingly involve cyber, space, drones, precision weapons, electronic warfare and information operations.

What Does Theatreisation Seek to Improve?

1. Unified Command

A theatre commander can coordinate Army, Navy and Air Force resources within a defined operational space rather than requiring multiple service headquarters to coordinate every major action.

2. Faster Decision-Making

A unified command structure can reduce duplication and allow commanders to allocate available capabilities according to the operational requirement.

3. Joint Intelligence

Integrated intelligence can provide a common operational picture rather than separate service-specific assessments.

4. Integrated Logistics

Fuel, ammunition, transport, communications, maintenance and other support functions can increasingly be planned jointly.

5. Multi-Domain Operations

Modern warfare requires simultaneous action across multiple domains. Theatreisation is intended to provide the organisational structure necessary for this form of warfare.

The Reform Is Large - And Therefore the Transition Matters

India's existing military architecture has evolved over roughly seven decades. Reorganising such a system is fundamentally different from simply purchasing a new weapon system.

A new aircraft, missile or radar can theoretically become operational once it has been inducted and its personnel trained.

Organisational reform is different.

It changes:

- Who commands whom.
- Who controls which assets.
- How operational decisions are made.
- How personnel are trained.
- How promotions and careers are structured.
- How logistics are organised.
- How the three services cooperate during combat.

This is why the central issue is **transition management**.

A military can approve a new organisational structure relatively quickly; creating the habits, interoperability, communications architecture and command confidence required to make that structure work can take much longer.

Three Major Risks During the Transition

1. The Joint-Command Knowledge Gap

A theatre commander will increasingly be expected to employ capabilities belonging to all three services.

But a commander usually spends the overwhelming majority of a career developing deep expertise within one service.

An Army officer may understand ground manoeuvre intuitively. A naval officer may possess decades of experience with maritime operations. An Air Force officer may have an instinctive understanding of aircraft availability, sortie generation, air defence and airspace management.

Joint staff can provide specialist advice, but **staff expertise cannot completely substitute for years of operational experience in another domain**.

This matters particularly during a fast-moving conflict, where decisions may have to be made within minutes rather than hours.

The challenge, therefore, is to create genuinely **joint commanders and staffs**, rather than simply placing officers from different services under the same headquarters.

2. Service Culture, Careers and Morale

Military integration is not simply an administrative exercise.

Each service has its own:

- Professional culture
- Traditions
- Command structures
- Training systems
- Career pathways
- Operational priorities

The most sensitive questions may arise around **rank equivalence, promotions, appointments and career progression**.

If personnel begin to believe that joint structures disadvantage their service or reduce their career opportunities, integration could generate:

- resentment,
- reduced motivation,
- bureaucratic competition, and
- resistance to reform.

The organisational reform will therefore succeed only when personnel perceive **jointness as a professional advantage rather than a loss of institutional identity**.

3. Decision-Making and Command Friction

The proposed structure also raises questions about the flow of authority between the CDS, service chiefs, theatre commanders and the political leadership.

The Government has been examining structures involving senior appointments within the joint headquarters, including the proposed role of a **Vice Chief of Defence Staff**. Earlier structural proposals had envisaged the Vice CDS dealing with areas such as strategic planning, capability development and procurement, while a Deputy CDS would support operations, intelligence and allocation of resources among theatres.

The key principle should be simple:

During war, the chain of command must be short, unambiguous and fast.

A structure that works on paper but requires multiple consultations before an operational decision is taken could undermine the very objective of theatreisation.

The Readiness Problem

This is where the debate becomes particularly important.

India has traditionally spoken of **defence preparedness**—a broad concept encompassing manpower, equipment, infrastructure and resources.

Modern military planning increasingly focuses on **readiness**:

What can the force do today, how quickly can it do it, and for how long can it sustain operations?

The distinction matters.

A military may possess:

- aircraft,
- tanks,
- ships,
- missiles,
- ammunition,
- trained personnel,

and still have inadequate operational readiness if those elements cannot be integrated quickly enough for a real contingency.

Therefore, theatreisation must be judged not simply by whether new commands are formally established, but by whether **combat capability actually improves during and after the transition**.

How Long Could the Transition Take?

The precise timeline remains dependent on the final approved organisational structure and implementation sequence.

The Army Chief stated in May 2026 that theatreisation could become visible on the ground over the **next two to three years**, while the wider process of institutional integration is likely to take considerably longer.

This distinction is crucial.

Initial Structural Transition

New commands, headquarters and reporting arrangements can be established relatively quickly.

Full Operational Integration

Creating:

- interoperable data systems,
- joint logistics,
- integrated intelligence,
- common procedures,
- cross-service training,
- joint career structures,

is a much longer process.

Therefore:

Formation of a theatre command ≠ Full military integration

International Experience Offers an Important Lesson

India is not the first country to reorganise its military around integrated commands.

The **United States**, **China** and the **United Kingdom** have all undertaken major reforms aimed at improving joint operations, although their organisational models differ substantially.

China's 2016 reform, for example, replaced its previous military regions with **five theatre commands**, a major transformation intended to improve joint operational capability.

India's proposed system is designed around its own strategic geography and force structure rather than simply copying another country's model.

The important lesson from foreign experience is that **organisational reform does not automatically produce combat effectiveness**.

Doctrine, training, communications, logistics and command culture must evolve alongside the structure.

India's Strategic Environment Makes the Transition More Sensitive

India faces a particularly demanding security environment.

It must simultaneously prepare for:

- the continuing challenge along the **Line of Actual Control with China**;
- security challenges along the **Pakistan front**;
- maritime competition across the **Indian Ocean Region**;
- emerging cyber and space threats.

A prolonged transition therefore creates a difficult policy dilemma:

How do you redesign the military while ensuring that the military remains fully prepared to fight a war tomorrow?

This is especially important because a short conflict may not give an organisation time to learn its new procedures.

A prolonged conflict gives an institution more time to adapt.

A short, intense conflict demands that the organisation already be ready.

Why India Needs a Military Readiness Framework

The most important reform accompanying theatreisation should therefore be the creation of a formal **military readiness framework**.

India needs to measure not merely what it owns, but **what it can actually deploy, integrate and sustain**.

A comprehensive readiness framework should assess three levels:

Unit-Level Readiness

Can an individual formation, squadron, ship or unit deploy and fight immediately?

Force-Level Readiness

Can multiple services operate together effectively under a theatre command?

Sustainability and Surge Capacity

Can the force maintain combat operations and rapidly generate additional capability if a conflict expands?

This would move defence planning beyond simple input measures such as **money, manpower and equipment** towards actual operational capability.

Four Priorities for a Safer Transition

1. Define Readiness Metrics

The government should clearly identify the scenarios against which the military must remain ready and establish measurable benchmarks.

Readiness should be assessed continuously rather than only after a crisis.

2. Institutionalise Readiness Oversight

A dedicated mechanism could continuously monitor:

- operational readiness,
- equipment availability,
- ammunition stocks,
- interoperability,
- logistics resilience,
- command-and-control systems,
- mobilisation timelines.

This would ensure that readiness problems are identified **before a crisis exposes them**.

3. Preserve a Transition Buffer

India could maintain reserve capacity outside the newly created structures during the initial transition.

The purpose would not be to resist theatreisation but to create a **risk buffer** while the new system is being tested and refined.

This is particularly valuable for short-duration contingencies.

4. Use Diplomacy to Buy Strategic Time

Diplomacy cannot eliminate India's security challenges.

But diplomacy can sometimes create **strategic time**.

Sustained engagement with China and Pakistan, confidence-building measures where possible, and crisis-management mechanisms can reduce the probability that a major conflict will coincide with the most fragile stage of military reorganisation.

That does not replace military readiness.

It gives military reform **time to mature without being tested prematurely by war**.

The Core Lesson

Theatreisation itself is not the risk.

The real risk lies in assuming that **changing the organisational chart automatically creates a more capable military**.

It does not.

The transformation will succeed only when organisational integration is matched by:

Joint training + interoperable technology + integrated intelligence + common logistics + clear command authority + compatible career structures + continuous readiness assessment

Only then will structural integration translate into actual combat power.

Conclusion

India's move towards integrated theatre commands is a necessary evolution in response to the changing character of warfare. The logic is compelling: future conflicts will demand forces that can operate jointness, interoperability, integrated intelligence, logistics, and readiness are developed alongside organisational reform.

SOCIAL ISSUES

Indian And Foreign

Why in News: The **CBSE's implementation of the three-language policy under the National Education Policy (NEP) 2020**, requiring two Bharatiya languages from Class 6, has sparked nationwide debate over language choice, English, and educational flexibility.

Key Details

- **Three-Language Formula:** CBSE has implemented the NEP 2020 mandate requiring students from **Class 6 onwards** to study **three languages**, with **two being Bharatiya (Indian) languages**.
- **Policy Contradiction:** While NEP recognizes **English** as essential for STEM, legal education, and global competitiveness, the three-language formula effectively reduces its status relative to Indian languages.
- **Impact on Students:** Students studying **French, Spanish, or other foreign languages** may have to switch to an Indian language, disrupting learning and affecting academic continuity.
- **Temporary Relaxation:** Following criticism, CBSE exempted current **Classes 7–9** from full implementation by allowing only **one additional Bharatiya language**, with no Board exam for the third language.
- **Suggested Approach:** Experts advocate making the **mother tongue and English** compulsory while allowing students to choose a **third language** based on interest, career goals, and school resources.

Contradictions in NEP 2020

- NEP 2020 recognizes the importance of **English**, especially in science, mathematics, and legal education.
- At the same time, it promotes the **three-language formula**, requiring two Indian (Bharatiya) languages.
- This effectively treats English like a foreign language despite its acknowledged significance.
- The policy sends mixed signals regarding the role of English in education.
- This contradiction has become the main source of the current controversy.

CBSE's Implementation and Concerns

- CBSE introduced the three-language policy from **Class 6 onwards**.
- Students in **Classes 7–9** were also initially required to study two Bharatiya languages.
- Students studying English with French or Spanish would have had to replace one foreign language with an Indian language.
- This could disrupt learning and affect **Class 10 Board examination** performance.
- Schools' investments in foreign language teachers and resources risk becoming underutilized.

Revised CBSE Relaxation

- Following criticism, CBSE relaxed the rules for current **Classes 7–9**.
- Such students now need to study only **one additional Bharatiya language**.
- The newly introduced third language will **not be tested** in the Class 10 Board examinations.
- These changes are temporary and apply only to the present batch.
- CBSE continues to implement the original three-language policy for future students from Class 6.

NEP's Broader Vision on Language Learning

- NEP recommends **bilingual textbooks** in the mother tongue and English for STEM subjects.
- It places the **mother tongue and English on equal importance** for effective learning.
- The policy also encourages learning global languages like **Japanese and German**.
- Foreign language skills are viewed as important for improving students' global mobility and employment opportunities.
- This reflects India's goal of building a globally competitive workforce.

The Way Forward

- Language policy should prioritize the **best interests of students** rather than rigid implementation.
- Every student should learn the **mother tongue** and **English** as core languages.
- Schools should offer a **third language based on student choice and available resources**.
- Flexibility would preserve students' academic continuity and global opportunities.
- A balanced approach can promote both India's linguistic diversity and international competitiveness.

Conclusion

India's language policy should strengthen national identity without limiting **students' global opportunities.** A balanced approach that ensures proficiency in the mother tongue and English while allowing flexibility in choosing athird language based on student choice and available resources, ensuring that linguistic diversity does not come at the cost of academic continuity or global opportunities.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Critically examine the three-language formula under the National Education Policy (NEP) 2020. How can India balance linguistic diversity with global competitiveness in education?" (150 words, 10 marks)

Over And Above

Why in News: The **AISHE 2023-24** report highlights record **female enrolment** in higher education and improved gender parity, while exposing persistent gaps in STEM participation, academic leadership and women's transition into quality employment.

Key Details

- **Record Enrolment:** Total higher education enrolment reached **4.5 crore**, with women accounting for **49.7%** of students.
- **Improved Gender Parity: Gender Parity Index (GPI)** increased to **1.08**, indicating **108 women** enrolled for every **100 men**.

- **Inclusive Growth:** Female enrolment among **SCs** increased by **51.4%** and among **STs** by **75.7%** over the past decade.
- **Persistent STEM Gap:** Women constitute only **31.1%** of engineering and technology students despite making up **44%** of overall STEM enrolment.
- **Employment Challenge: PLFS 2025** shows lower female salaried employment (**18.2%**) and lower average monthly earnings (**₹18,353**) than men.

Rising Female Enrolment in Higher Education

- **Female enrolment** increased by **42%** in a decade (from **1.57 crore** in 2014-15 to **2.24 crore** in 2023-24).
- **Male enrolment** grew by **22.16%**, reaching **2.26 crore** from **1.85 crore**.
- **Total higher education enrolment** touched a record **4.5 crore** students.
- Women now constitute **49.7%** of all higher education students.
- **Gender Parity Index (GPI)** reached **1.08**, indicating **108 women for every 100 men** in higher education.

Progress Among Marginalised Communities

- Female enrolment among **Scheduled Castes (SCs)** rose by **51.4%**.
- Female enrolment among **Scheduled Tribes (STs)** increased by **75.7%**.
- Indicates improved **access and inclusion** in higher education.
- Reflects the impact of **affirmative policies and social awareness**.
- However, enrolment gains alone do not ensure **economic empowerment**.

Persistent Gender Gaps in STEM Education

- Women account for **44% of STEM** enrolment overall.
- They form a **54.6% majority** in **general sciences** like biology and chemistry.
- **Engineering and Technology** remain male-dominated, with only **31.1% women**.
- Limited participation in emerging sectors such as **AI, software engineering and advanced technology**.
- This restricts women's access to **high-growth, future-ready careers**.

Structural Challenges in Higher Education

- Academic leadership remains **male-dominated**, with only **82 female teachers for every 100 male teachers**.
- Women are underrepresented in **senior administrative and leadership positions**.
- Rapid expansion of **private and low-tier colleges** has strained quality.
- Many institutions suffer from **faculty shortages and poor infrastructure**.
- Patriarchal institutional culture continues to hinder women's advancement.

Weak Transition from Education to Employment

- **Female Labour Force Participation Rate (FLFPR)** remains low due to **social norms, domestic responsibilities and safety concerns**.
- **PLFS 2025** shows men dominate **regular salaried employment** (**26.5% vs 18.2%**).
- Average monthly earnings: **₹24,217 (men)** vs **₹18,353 (women)**.
- **64.2% of women** are classified as **self-employed**, often including unpaid household or farm work.
- Policymakers, educational institutions and industry must ensure **quality jobs aligned with women's education**.

Conclusion

India has made significant progress in expanding women's access to higher education, reflecting greater social inclusion and educational equity. However, true empowerment requires equal opportunities in **STEM,** leadership, **and** formal employment.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Higher enrolment of women in higher education does not automatically translate into economic empowerment." Discuss in the light of the AISHE 2023-24 findings. Suggest measures to improve women's participation in quality employment. (250 words, 15 marks)

Buried Questions

Why in News: A methane gas burst inside the under-construction **Teesta Stage-VI hydropower tunnel** in Sikkim killed several workers, raising concerns over tunnel safety, environmental compliance, and infrastructure development in the fragile Himalayas.

Key Details

- **Methane explosion:** Workers struck a suspected methane pocket during tunnel excavation, triggering a deadly gas burst.
- **Geological risk:** The Teesta basin lies in a **young, seismically active Himalayan region** with fractured rocks that can trap methane.
- **Safety concerns:** Questions have arisen over **risk assessment, gas detection systems, ventilation, and compliance with safety protocols**.
- **Fragile ecosystem:** The project is located in the ecologically sensitive Himalayas, which have witnessed disasters such as the **2023 South Lhonak GLOF**.
- **Need for accountability:** The incident highlights the need for an **independent review** of environmental clearance conditions and construction safety standards.

What Happened?

- A tunnel under construction at the **Teesta Stage-VI Hydroelectric Project** in **Sikkim's Namchi district** collapsed after workers struck a suspected **methane gas pocket**.
- The gas burst partially damaged the tunnel during excavation.
- At least **15 workers were killed**, while rescue operations for trapped workers are ongoing.
- **NHPC Limited** has announced a detailed investigation into the incident.
- The accident highlights the risks associated with underground tunnelling in the Himalayas.

Why Methane Was Present

- **Methane is a known hazard** during underground excavation.
- The **Teesta basin** lies in a **seismically active Himalayan region**.
- The area contains **young, fractured and unstable rock formations**.
- **Compressed methane pockets** trapped over geological time can remain hidden until excavation disturbs them.

- Therefore, the presence of methane was **geologically expected**, though the accident raises questions about preparedness.

Key Safety Concerns

- It is unclear whether the **methane risk was properly assessed** before construction.
- Questions remain over whether **gas pockets were identified and modelled** during project planning.
- The functioning of **gas-detection systems** is under scrutiny.
- The adequacy of **ventilation systems** inside the tunnel also needs investigation.
- A detailed inquiry must determine whether prescribed safety protocols were followed.

Pattern of Similar Disasters

- Underground construction in India's difficult terrain has witnessed repeated accidents.
- In **2025**, an explosion at an illegal coal mine in **Meghalaya** killed around **30 workers**.
- In **2023**, a tunnel collapse in **Uttarakhand** trapped **41 workers** for **17 days** before they were rescued.
- Though causes differ, these incidents expose the persistent dangers of underground works.
- They underline the need for stronger safety standards and emergency preparedness.

Broader Environmental and Governance Issues

- Several hydropower projects on the **Teesta River** are located in the **ecologically fragile Himalayan region**.
- The **2023 South Lhonak Glacial Lake Outburst Flood (GLOF)** destroyed the **Teesta-III dam** and caused over **100 deaths** downstream.
- **Teesta Stage-VI** was later taken over by **NHPC** after its private developers became insolvent.
- After rescue operations, the government should conduct an **independent review** of the project.
- The review should verify whether all **environmental clearance conditions and safety requirements** were fully complied with before and during construction.

Conclusion

The Sikkim tunnel tragedy underscores the growing risks of undertaking large infrastructure projects in the fragile Himalayan ecosystem without robust geological assessment and safety safeguards.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Repeated tunnel and hydropower project accidents in the Himalayan region highlight the need to balance infrastructure development with environmental sustainability and worker safety." Discuss. (150 words, 10 marks)

Fix The House

Why in News: Prime Minister Narendra Modi endorsed Australia's social media ban for children below 16, reviving debate in India over balancing adolescent mental health, online safety, and evidence-based digital regulation.

Key Details

- **Australia's Model:** Australia introduced a **social media ban for users below 16 years** in 2024, but evidence of improved mental health remains limited.
- **Mixed Evidence:** Research links excessive social media use with poor mental health, especially among girls, but causality remains uncertain.
- **Limitations of Ban:** Around **85% of Australian children aged 12–16** reportedly continue accessing social media despite the ban.
- **Alternative Approach:** Experts recommend **digital literacy, stronger platform accountability, better content moderation, privacy protection, parental controls and age-appropriate platform design**.
- **Balanced Impact:** Social media can increase risks like **cyberbullying, sleep disruption and addictive algorithms**, but also provides **peer support, identity exploration and mental health resources**.

Growing Debate on Social Media and Teen Mental Health

- Public concern over **social media's impact on adolescents** has intensified globally.
- Earlier, social media was widely viewed as a major cause of the **mental health crisis** among teenagers.
- Researchers now adopt a **more cautious and evidence-based approach**.
- A clear association exists between **social media use and poor mental health**, especially among girls.
- However, the extent of **causation and the conditions under which harm occurs remain contested**.

Australia's Social Media Ban and India's Interest

- In **2024**, Australia banned **social media access for children below 16 years**.
- Prime Minister **Narendra Modi** praised Australia's decision, signalling possible policy interest in India.
- **Andhra Pradesh and Karnataka** have also considered similar restrictions.
- Experts describe Australia's policy as a **natural experiment** due to the absence of global precedent.
- Despite the ban, nearly **85% of children aged 12–16** continue to access social media.

Concerns Over Blanket Age-Based Bans

- Australian psychologists and child-rights experts question the **effectiveness of age-based bans**.
- Evidence linking **social media use with harm** is stronger than evidence supporting **bans as a solution**.
- Most existing studies are **observational**, making it difficult to establish causality.
- Reverse causation remains possible, as **teenagers with mental health issues may spend more time online**.
- Experts caution against **oversimplified policy responses** to a complex issue.

Alternative Regulatory Measures

- Experts recommend imposing a stronger **duty of care** on social media platforms.
- Introduce **digital literacy** as part of school education.
- Restrict **addictive algorithms and manipulative user interface designs**.
- Mandate **chronological feeds, stronger content moderation, privacy safeguards and parental controls** for minors.
- Focus should shift from **restricting access** to **making platforms safer by design**.

Balanced Impact and the Way Forward

- Social media can contribute to **sleep disruption, cyberbullying, self-harm content and eating disorder exposure**.
- At the same time, it supports **friendships, identity exploration and peer interaction**.
- It also provides **mental health resources** and safe communities, including for **LGBTQIA+ youth**.

- The impact depends on the **quality of engagement**, not merely the **time spent online**.
- Governments should prioritise **platform accountability, child safety and responsible digital governance** over blanket access bans.

Conclusion

Protecting children online requires **evidence-based, rights-based and technology-driven regulation** rather than blanket prohibitions. India should strengthen **platform accountability,** promote digital **literacy, enhance** privacy and **safety standards, and empower** parents and schools.

For Antibiotics, The Right Dose is Restraint

Why in News: A **Lancet Public Health** study revealed that India excessively uses **"watch" antibiotics** while underutilising first-line **"access" antibiotics**, raising concerns over antimicrobial resistance (AMR) and irrational antibiotic prescribing.

Key Details

- **Imbalanced antibiotic use:** India consumes **18.3 defined daily doses (DDD)** per 1,000 people/day, exceeding the optimal **9.9–14.7 DDD**.
- **Overuse of "Watch" antibiotics:** Usage stands at **9.3 DDD** against the recommended **6 DDD**, increasing AMR risk.
- **Underuse of "Access" antibiotics:** First-line antibiotics are used at only **4.5 DDD**, much below recommended levels.
- **Systemic drivers:** Poor diagnostics, fragmented healthcare, patient demand, and overburdened doctors encourage irrational antibiotic prescriptions.
- **Beyond healthcare:** Extensive antibiotic use in **livestock and agriculture** further accelerates antimicrobial resistance.

Overdependence on Stronger Antibiotics

- India relies heavily on **broad-spectrum ("watch") antibiotics** for common illnesses instead of safer first-line medicines.
- This excessive use has become a major public health concern.
- A **Lancet Public Health** study identifies a serious imbalance in antibiotic consumption.
- Overuse of stronger drugs accelerates **antimicrobial resistance (AMR)**.
- Routine illnesses are increasingly treated with medicines meant for more specific infections.

WHO Classification of Antibiotics

- **Access antibiotics:** First-choice medicines for common bacterial infections.
- **Watch antibiotics:** Broad-spectrum drugs to be used only in specific situations.
- **Reserve antibiotics:** Last-resort medicines for highly drug-resistant infections.
- WHO recommends prioritising **access antibiotics** to reduce resistance.
- Rational use of all three categories is essential to preserve antibiotic effectiveness.

India's Antibiotic Consumption Pattern

- India's **optimal antibiotic use** is estimated at **9.9–14.7 defined daily doses (DDD) per 1,000 people per day**.
- Actual consumption is much higher at **18.3 DDD**, indicating overuse.
- **Watch antibiotics** are used at **9.3 DDD**, well above the recommended **6 DDD**.
- **Access antibiotics** are used at only **4.5 DDD**, far below the desired level.
- This imbalance reflects irrational prescribing and consumption practices.

Why Stronger Antibiotics Are Overused

- Patients often expect **quick relief**, encouraging prescriptions of stronger drugs.
- Overburdened healthcare providers may prescribe broad-spectrum antibiotics as a precaution.
- Limited diagnostic facilities make targeted treatment difficult.
- Poor awareness about antibiotic stewardship among prescribers and patients contributes to misuse.
- Every unnecessary dose increases the risk of future drug resistance.

Systemic Challenges and Wider Drivers

- **Reserve antibiotics** remain underused even in genuine drug-resistant infections due to poor access.
- Fragmented healthcare delivery delays appropriate treatment.
- Inadequate diagnostic infrastructure leads to empirical antibiotic use.
- Widespread use of antibiotics in **livestock and agriculture** further fuels antimicrobial resistance.
- Strengthening antibiotic stewardship, diagnostics, and regulation is essential to combat India's growing AMR burden.

Conclusion

India's fight against antimicrobial resistance requires a shift from indiscriminate antibiotic use to **evidence-based prescribing and strong antibiotic stewardship.** Expanding diagnostic facilities, regulating antibiotic sales, promoting WHO's **AWaRe framework, and improving diagnostics, regulating antibiotic use, and strengthening surveillance and stewardship are essential to protect the effectiveness of existing and future antibiotics.**

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Antimicrobial resistance is a silent pandemic driven by irrational antibiotic use. Discuss the challenges in antibiotic stewardship in India and suggest measures to promote responsible antibiotic use." (15 Marks, 250 words)

Compassionate Release Policy for Elderly and Terminally Ill Prisoners

Why in News: In a significant judgment strengthening the **humanitarian dimension of criminal justice,** the Supreme **Court of India has** directed all States **and Union Territories to** formulate and notify, within three **months, a** uniform policy **for the premature release of elderly and terminally ill...**

Background

Indian prisons continue to face chronic overcrowding and inadequate healthcare infrastructure. According to official prison statistics, the **national prison occupancy rate stood at approximately 131% as of December 31, 2022**, leaving many prisons operating far beyond their sanctioned capacity.

The situation is particularly difficult for:

- Elderly prisoners,
- Terminally ill inmates,
- Prisoners suffering from serious medical conditions, and
- Persons requiring specialised long-term healthcare.

During inspections conducted across various prisons, **NALSA** found that States followed **different and often inconsistent standards** regarding premature release on humanitarian grounds. Several States lacked any clear policy altogether, resulting in unequal treatment of similarly placed prisoners.

Recognising these concerns, the Supreme Court sought to establish a **uniform, transparent and compassionate legal framework** across the country.

What Did the Supreme Court Direct?

A Bench comprising **Justice Vikram Nath** and **Justice Sandeep Mehta** directed every State and Union Territory to frame a comprehensive policy governing the **premature release of elderly and terminally ill prisoners**.

The Court held that each policy must clearly specify:

- Eligibility criteria;
- Procedure for applying for premature release;
- Medical assessment process;
- Decision-making authority; and
- Timelines for disposal of applications.

The objective is to ensure that compassionate release is **not left to administrative discretion alone but is governed by a transparent and predictable legal framework**.

Key Directions Issued by the Supreme Court

1. Uniform Policy Within Three Months

All States and Union Territories have been directed to:

- Frame and notify a comprehensive policy within **three months**.
- Develop the policy in consultation with the **State Legal Services Authorities (SLSAs)** to ensure better identification of eligible prisoners and institutional coordination.

2. Uniform Definition of Terminal Illness

The Court observed that different States currently use varying medical standards while assessing terminal illness.

To remove ambiguity, it directed States to adopt a **uniform definition**, drawing guidance from the **United Nations Office on Drugs and Crime (UNODC) Handbook on Prisoners with Special Needs**.

According to the UNODC definition:

Terminal illness refers to a medical condition where there is no reasonable possibility of recovery and the

disease is expected to progressively deteriorate, ultimately leading to death.

A common definition will ensure consistency and fairness across jurisdictions.

3. Constitution of Independent Medical Boards

The Court directed every State to establish **independent Medical Boards** responsible for:

- Examining prisoners claiming terminal illness;
- Assessing advanced medical vulnerability;
- Certifying eligibility under the compassionate release policy; and
- Providing objective medical opinions free from administrative bias.

This ensures that decisions are based on professional medical evidence rather than subjective assessments.

4. Digital Infrastructure for Implementation

Recognising the need for efficient implementation, the Court directed the **Union Government**, in coordination with the **National Informatics Centre (NIC)**, to provide:

- Digital infrastructure;
- Software support;
- Technical assistance; and
- Capacity-building and training for prison authorities.

Technology is expected to improve record management, application tracking, medical documentation, and monitoring of release decisions.

5. Compliance Monitoring

To ensure accountability, the Supreme Court directed:

- The Union Government,
- All States, and
- All Union Territories

to submit **compliance affidavits within six months**.

The affidavits must include:

- Number of eligible prisoners identified;
- Number of prisoners granted premature release;
- Number of pending applications; and
- Progress in implementing the Court's directions.

The matter has been listed for further monitoring on **19 January 2027**.

Why Was NALSA's Petition Important?

The petition filed by the **National Legal Services Authority (NALSA)** highlighted two interconnected concerns.

Humanitarian Concern

Many elderly and terminally ill prisoners:

- Require specialised medical care;
- Face chronic illnesses;
- Are often physically incapable of posing any threat to society; and
- Spend their final days in overcrowded prisons lacking adequate healthcare facilities.

Prison Overcrowding

India's prisons remain severely overcrowded.

As of **December 2022**:

- **Occupancy Rate: 131%**

This means prisons house significantly more inmates than their sanctioned capacity.

Compassionate release of eligible prisoners can:

- Reduce prison overcrowding;
- Improve prison administration;
- Allow better allocation of medical resources; and
- Enhance living conditions for remaining inmates.

Significance of the Judgment

The ruling marks an important step toward making India's prison administration **more humane, rights-based, and reform-oriented**.

Its significance includes:

- Promoting dignity and humane treatment of prisoners.
- Recognising healthcare as an essential component of prison administration.
- Ensuring uniform standards across all States and Union Territories.
- Strengthening transparency through clearly defined eligibility criteria.
- Reducing overcrowding and improving prison conditions.
- Enhancing coordination between prison authorities, medical professionals, legal services institutions, and governments.

The judgment also reinforces the constitutional principle that **loss of personal liberty through imprisonment does not extinguish the right to live with dignity.**

Constitutional and Legal Dimensions

The judgment draws strength from several constitutional principles:

- **Article 21** – Right to Life and Personal Liberty, which includes the right to live with dignity, even while incarcerated.
- **Article 14** – Equality before Law, requiring uniform and non-arbitrary treatment of similarly situated prisoners.
- **Directive Principles of State Policy** – Encouraging humane administration and social justice.
- **Prison Reform Jurisprudence** – Developed through landmark Supreme Court decisions affirming prisoners' fundamental rights.

The Court reiterated that imprisonment curtails liberty but **does not deprive an individual of basic human dignity and constitutional protections.**

Challenges in Implementation

Despite the progressive nature of the judgment, several challenges remain:

- Variations in prison administration across States.
- Limited healthcare infrastructure inside prisons.
- Delays in constituting Medical Boards.
- Administrative bottlenecks in processing remission applications.
- Need for regular monitoring to ensure uniform implementation.

Effective coordination between prison departments, health authorities, legal services institutions, and governments will be essential for successful implementation.

Conclusion

The Supreme Court's directive marks a significant milestone in India's evolving prison reform jurisprudence by placing **human dignity, compassion, and constitutional values** at the centre of correctional administration.

Exam Reforms in India

Why in News: The **Union Government** has constituted a **high-powered task force on examination reforms under the leadership of Nandan Nilekani**, following prolonged controversy surrounding examination irregularities and paper leaks.

Key Details

- Recently, the Prime Minister Narendra announced the initiative, stating that the objective is to make India's examination system **more reliable, transparent and technology-driven**.
- The development comes alongside a change in the leadership of the **Union Ministry of Education**, with **Pralhad Joshi** taking charge of the Ministry and immediately reviewing key educational programmes and examination-related issues.

- The reform effort is significant because examination integrity is not merely an administrative issue. For millions of students, a competitive examination determines access to **higher education, professional careers and public employment**. A compromised examination therefore affects not only individual candidates but also public confidence in the broader education system.

Why Has Examination Reform Become Necessary?

- Competitive examinations in India operate on an enormous scale. They determine admission to medical and engineering institutions, recruitment to government services, university admissions and several other career pathways.
- When question papers are leaked, impersonation occurs, answer sheets are manipulated or examination processes are compromised, the damage extends beyond the immediate examination.
- It can lead to:
- Loss of candidates' time and money.
- Re-examinations and uncertainty.
- Psychological distress among students.
- Unequal advantage for dishonest candidates.
- Loss of confidence in examination authorities.
- Questions over the credibility of merit-based selection.

Therefore, the central challenge is not simply **preventing paper leaks**. It is creating an examination ecosystem in which **every stage—from paper creation to result declaration—is secure, auditable and resistant to manipulation**.

The Nandan Nilekani-Led Task Force

The task force is headed by **Nandan Nilekani**, co-founder of Infosys and a prominent figure associated with India's digital public infrastructure, including the Aadhaar ecosystem. His experience with large-scale technology systems is expected to bring a strong technology and systems-design perspective to examination reform.

The multidisciplinary panel includes experts with experience across:

- Space technology
- Intelligence and security
- Higher education
- Public administration
- Digital infrastructure
- Logistics

Reported members include **former ISRO Chairman S. Somanath, former Intelligence Bureau Director Tapan Deka, IIT Madras Director V. Kamakoti, former Education Secretary Anita Karwal and logistics expert Amrit Lal Meena**.

The composition reflects an important principle: **examination security is no longer merely an education-sector problem; it is a technology, cybersecurity, logistics, governance and institutional-integrity problem.**

What Could Technology Bring to Examination Reform?

Technology can potentially strengthen the examination system at multiple points.

1. Secure Question-Paper Management

The most vulnerable stage is often the movement and handling of question papers.

Technology can help create:

- encrypted question-paper repositories,
- controlled digital access,
- multiple authentication layers,
- time-bound decryption,
- audit trails for every access.

The objective should be to ensure that **no individual has unnecessary access to the complete examination material before the prescribed time**.

2. Secure Examination Centres

Digital identity verification, biometric authentication and controlled access systems can reduce:

- impersonation,
- unauthorised entry,
- proxy candidates,
- manipulation of candidate identities.

However, technology must be accompanied by human supervision and clear accountability.

3. Data Analytics and Anomaly Detection

Large examination systems generate enormous quantities of data.

Analytical tools can identify unusual patterns such as:

- abnormal answer similarities,
- improbable score clusters,
- suspicious centre-level performance,
- unusual login or access activity,
- statistically anomalous result patterns.

Such systems can act as an **early-warning mechanism**, allowing authorities to investigate suspicious activity before it becomes a full-blown crisis.

4. End-to-End Digital Auditability

Every critical action should leave a verifiable trail:

Question creation → encryption → storage → distribution → examination → evaluation → result processing

The objective is to ensure that when something goes wrong, investigators can determine **who accessed what, when, from where and under whose authority**.

This is more powerful than simply increasing surveillance at examination centres.

Technology Alone Cannot Make an Examination Leak-Proof

One of the most important lessons from examination controversies is that **security is a system, not a software product**.

A technologically sophisticated system can still fail because of:

- insider threats,
- poor procurement practices,
- weak access controls,
- collusion,
- inadequate physical security,
- administrative negligence,
- poor response mechanisms.

Therefore, examination reform must combine:

Technology + Cybersecurity + Physical Security + Human Accountability + Independent Audit

A secure computer system is only as strong as the people and institutions that operate it.

Reforming the National Testing Agency

The examination controversy has placed particular focus on the **National Testing Agency (NTA)**, which conducts several major national-level examinations.

The task force is expected to contribute to reforms affecting the examination ecosystem, especially in terms of **technology and institutional structure**. Contemporary reporting has linked the initiative to efforts to make NTA's examination processes more secure, transparent and reliable.

The larger challenge is to determine whether examination functions should remain concentrated within a single institutional architecture or whether certain functions—such as testing, certification, cybersecurity, auditing and grievance resolution—should have stronger independent safeguards.

The New Education Minister and the Reform Agenda

Pralhad Joshi took charge as Union Education Minister shortly before the task-force announcement.

Following his appointment, he began reviewing the functioning of the Ministry and held discussions with senior officials. Key programmes reviewed included:

- **Samagra Shiksha**
- **PM-SHRI Schools**
- **PM POSHAN**
- School infrastructure and related initiatives

The change in leadership therefore coincides with a broader opportunity to address not only examination integrity but also the quality and credibility of India's education system.

Why Trust Is the Most Important Outcome

An examination system ultimately rests on **trust**.

A student who spends years preparing for an examination accepts the result because the system is presumed to be fair.

That trust is based on three perceptions:

1. Equality

Every candidate competes under the same conditions.

2. Integrity

Question papers, evaluation and results cannot be manipulated.

3. Accountability

When something goes wrong, responsibility is clearly established and affected students receive timely remedies.

If any one of these collapses, the legitimacy of the examination itself begins to weaken.

From Paper-Leak Prevention to Examination-System Reform

The policy response should therefore move beyond the narrow objective of preventing question-paper leaks.

A truly resilient examination system should address the entire chain:

Question-bank security

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Paper-setting and moderation

↓

Secure storage and transmission

↓

Examination-centre management

↓

Candidate authentication

↓

Evaluation integrity

↓

Result processing

↓

Grievance redressal

↓

Independent audit

This approach is important because a system can be secure at one stage and vulnerable at another.

Need for Independent Accountability

Technology can create audit trails, but institutions must possess the authority and independence to act upon them.

A stronger examination architecture should therefore include:

- Regular third-party security audits.
- Independent cybersecurity assessments.
- Mandatory incident reporting.
- Clear responsibility at every administrative level.
- Time-bound investigation of examination irregularities.
- Compensation or remedial mechanisms for genuinely affected candidates.
- Strong protection for whistle-blowers and officials reporting malpractice.

The central principle should be:

Every stage must have both a responsible authority and an accountable authority.

The Larger Significance

The examination crisis has exposed a deeper problem in India's education system: **the credibility of merit depends on the credibility of the institutions that certify it**.

A student can tolerate a difficult examination. A student can accept failure after genuine competition.

What students cannot reasonably accept is the belief that the outcome may depend upon **leaks, influence, manipulation or institutional failure**.

This is why examination reform is fundamentally a question of **social justice**.

A secure examination system ensures that access to opportunity depends on ability and effort rather than connections or malpractice.

Way Forward

The Nandan Nilekani-led task force provides an opportunity to build an examination architecture designed around **security by design**, rather than repairing vulnerabilities after every crisis.

The reform agenda should focus on:

- End-to-end encryption and access control.
- Strong cybersecurity and independent audits.
- Secure examination logistics.
- Biometric and multi-factor candidate authentication.
- AI-assisted anomaly detection with human oversight.
- Transparent examination protocols.
- Independent grievance and appeal mechanisms.
- Strong institutional accountability for failures.
- Regular stress-testing and simulated breach exercises.

Most importantly, reforms should be implemented **before the next crisis**, rather than announced only after public trust has already been damaged.

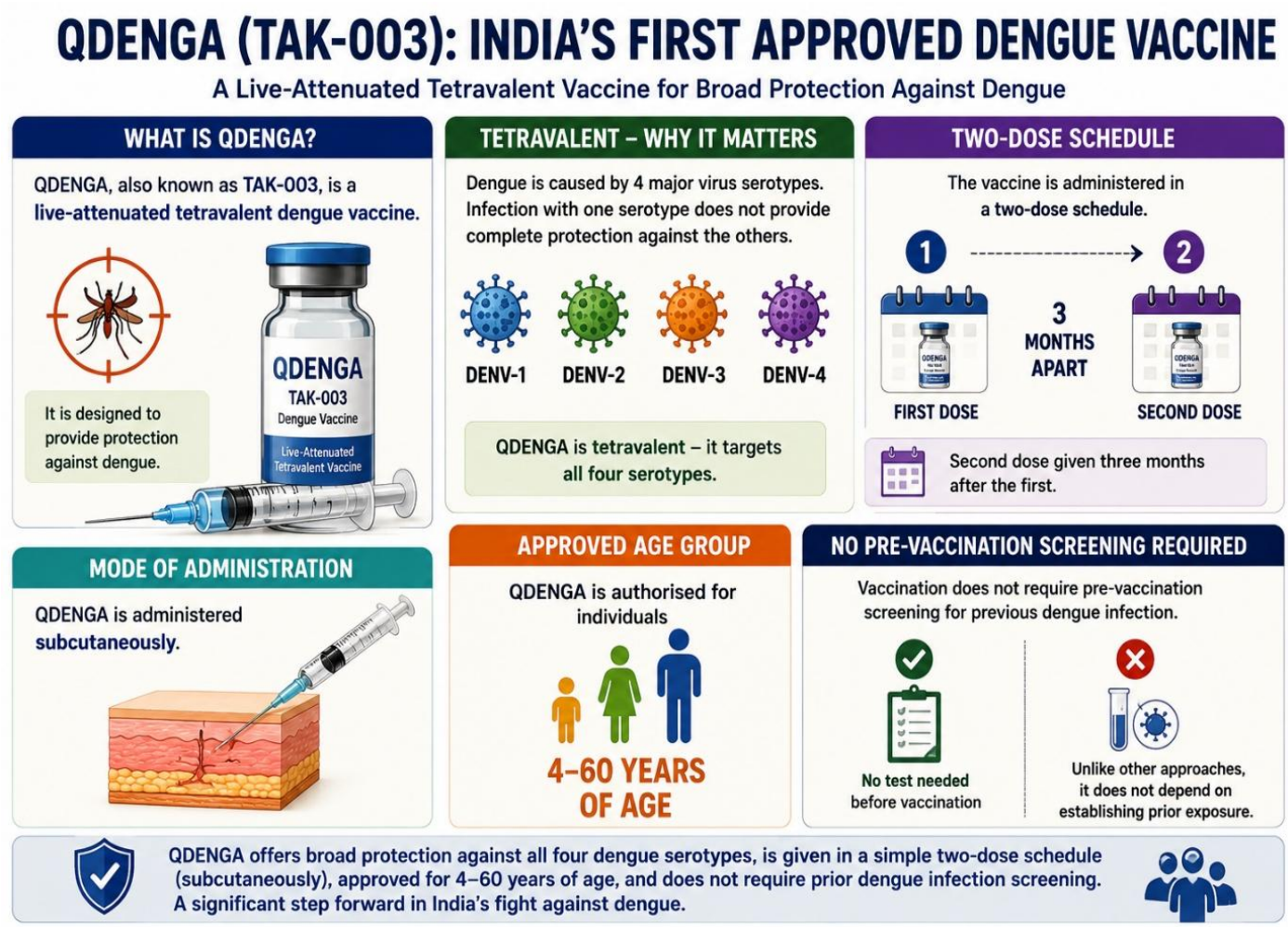
Conclusion

The constitution of the **Nandan Nilekani-led high-powered task force** is an important opportunity to rethink India's examination system from the ground up. The goal should not simply be to makesecure examinations; it should create an end-to-end system built on cybersecurity, transparency, accountability, and public trust.

India Approves Its First Dengue Vaccine

Why in News: India has taken a significant step forward in its fight against dengue with the **Drug Controller General of India (DCGI) granting market authorisation to QDENGA (TAK-003),** a dengue vaccine developed by Takeda Biopharmaceuticals India.

The development is particularly important for India, where dengue remains a major mosquito-borne public-health challenge. QDENGA is a **live-attenuated, tetravalent vaccine**, meaning that it is designed to provide protection against all four dengue virus serotypes.



Why is a Dengue Vaccine Important for India?

Dengue has increasingly become a major public-health concern in India.

The disease is transmitted primarily by infected **Aedes mosquitoes**, particularly *Aedes aegypti*. Urbanisation, water accumulation, inadequate vector control, climate variability and population mobility can create favourable conditions for transmission.

The challenge is particularly complicated because dengue is not a single-virus disease. Its four serotypes create a complex epidemiological landscape, and a person's previous infection can influence the risk profile of subsequent infections.

Therefore, dengue prevention cannot rely exclusively on treatment after infection. It requires a combination of:

- **Vector control**
- Elimination of mosquito breeding sites
- Surveillance and early diagnosis
- Public awareness
- Appropriate clinical management
- **Vaccination where recommended**

The availability of an approved vaccine therefore adds another layer to India's dengue-control strategy.

How Effective is QDENGA?

The vaccine's development involved a large international clinical programme.

According to Takeda, its global programme included **19 Phase I, II and III clinical trials involving more than 28,000 participants**. The pivotal Phase III TIDES trial enrolled more than 20,000 participants across dengue-endemic countries.

The figures cited by the company in the supplied material are:

Outcome	Reported Vaccine Efficacy
Virologically confirmed dengue, 12 months after second dose	80.2%
Dengue-related hospitalisation, at 18 months	90.4%

The Indian approval was additionally supported by a **Phase III study involving participants aged 4–60 years**, which the company said demonstrated that the vaccine was safe, well tolerated and immunogenic in the studied population.

Importantly, subsequent long-term Phase III data reported by Takeda have also shown sustained protection against hospitalisation over several years, reinforcing the importance of evaluating vaccines not merely by their initial efficacy but by their **durability of protection**.

A Vaccine Designed for All Four Serotypes

One of the central scientific challenges in developing a dengue vaccine is achieving meaningful protection against **all four serotypes**.

QDENGA is therefore designed as a tetravalent vaccine rather than targeting only one dengue virus type.

This matters because dengue epidemiology can change geographically and over time. A vaccine that provides broader serotype coverage has the potential to offer more comprehensive protection than a vaccine targeting only a particular serotype.

No Need to Establish Previous Dengue Infection

Another significant feature of QDENGA is its use irrespective of whether an individual has previously experienced dengue infection, subject to the applicable regulatory and public-health recommendations.

Takeda describes QDENGA as the first dengue vaccine approved for use regardless of previous dengue exposure in the markets where this indication applies.

This can simplify vaccination decisions because dengue infection is frequently underdiagnosed or may occur without laboratory confirmation.

However, **regulatory approval does not automatically mean universal vaccination of the entire eligible population**. Public-health authorities still have to determine questions such as target groups, vaccination strategy, cost-effectiveness, procurement and programme implementation.

India's Regulatory Milestone

The Indian approval followed regulatory scrutiny of clinical evidence, including an Indian Phase III clinical trial.

In March 2026, the CDSCO's Subject Expert Committee considered Takeda's Phase III clinical-trial report for the dengue tetravalent live-attenuated vaccine in healthy individuals aged 4–60 years and made recommendations concerning its import/new-drug permission.

This illustrates an important principle of vaccine regulation: **global clinical evidence can support development, but approval for use in India also requires consideration of evidence generated in the Indian population.**

QDENGA's Global Footprint

QDENGA is not a newly developed vaccine in the global market. It has already received regulatory approvals in numerous countries.

Takeda reports that QDENGA has been authorised in **more than 40 countries** and has been supplied through public and private immunisation programmes. It has also received **WHO prequalification**, an important step for potential use in public vaccination programmes internationally.

Takeda has also partnered with India's **Biological E. Limited** to expand manufacturing capacity, with the collaboration intended to produce up to 50 million doses annually.

This is particularly relevant for India because the success of any large-scale vaccination strategy ultimately depends not only on scientific efficacy but also on **affordability, manufacturing capacity, supply chains and equitable access**.

What Does the Approval Mean for India?

The approval should be viewed as an important addition to India's public-health toolkit rather than a stand-alone solution.

Potential benefits

1. Prevention rather than only treatment: Vaccination can reduce the risk of dengue illness and, importantly, severe outcomes requiring hospitalisation.

2. Broader serotype protection: The tetravalent design seeks to provide protection against all four dengue virus serotypes.

3. Reduced pressure on healthcare systems: Lower incidence of severe dengue could reduce hospital admissions and the burden on already stretched healthcare facilities during seasonal outbreaks.

4. Strengthening India's vaccine ecosystem: The approval, coupled with domestic manufacturing partnerships, can contribute to India's growing role in vaccine production and global health supply chains.

5. Complement to vector control: Vaccination can become another layer of protection alongside mosquito-control measures.

But Vaccination Alone Cannot Eliminate Dengue: The arrival of a vaccine should not create the impression that dengue can now be controlled simply through immunisation.

Dengue transmission depends heavily on **mosquito populations and environmental conditions**. Consequently, eliminating stagnant water, improving sanitation, strengthening surveillance and controlling *Aedes* mosquito breeding remain indispensable.

There are also broader policy questions surrounding any vaccination programme:

- Who should receive the vaccine first?
- Should vaccination be part of a universal or targeted programme?
- What will be the cost to individuals and the public health system?
- How should vaccination be integrated with existing dengue surveillance?
- How will long-term safety and effectiveness be monitored?

These questions will determine how much public-health impact the regulatory approval ultimately produces.

Conclusion

The approval of **QDENGA marks an important milestone in India's battle against dengue,** bringing vaccination into the country's formal arsenal against a disease that has imposed a growing burden on communities and healthcare systems.

National Road Safety Board

Why in News: India has taken an important institutional step towards strengthening road safety by constituting the **National Road Safety Board (NRSB)** under **Section 215B of the Motor Vehicles Act, 1988**.

The move assumes significance at a time when road crashes continue to impose an enormous human and economic cost. According to the latest *Road Accidents in India 2024* report of the Ministry of Road Transport and Highways (MoRTH), India recorded **4,87,707 road accidents in 2024, claiming 1,77,175 lives and injuring 4,71,441 people**.

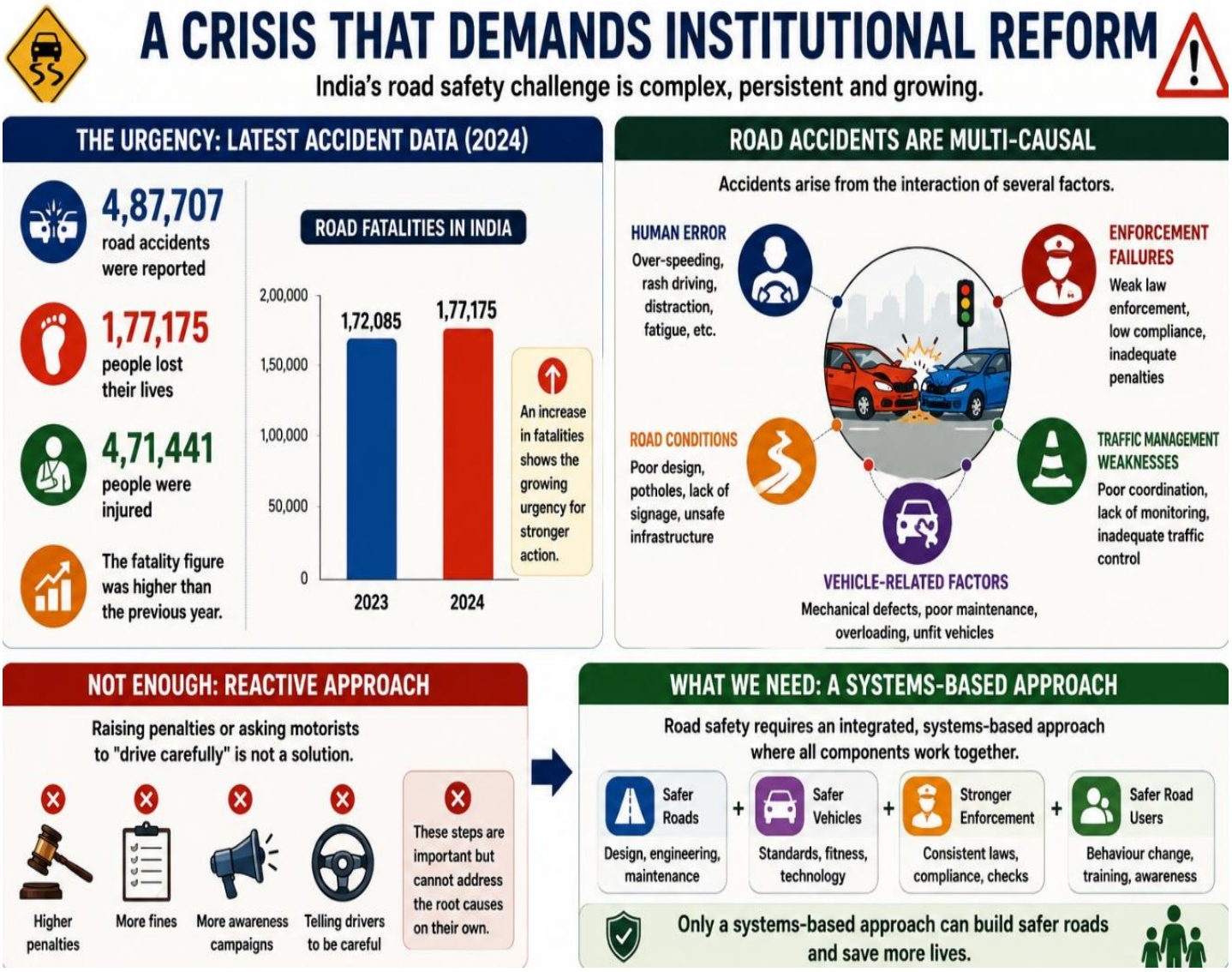
Why Does India Need a National Road Safety Institution?

Road safety in India is not the responsibility of a single agency. It involves multiple institutions dealing with **vehicle standards, road engineering, traffic management, licensing, enforcement, emergency response and public awareness**.

This fragmented structure can create gaps in coordination and accountability.

The National Road Safety Board has been created to provide expert advice to both the **Central and State Governments** on a broad range of issues relating to road safety and traffic management. Its statutory mandate includes matters such as vehicle and safety-equipment standards, registration and licensing, road infrastructure, traffic control, new vehicle technologies, vulnerable road users and road-safety awareness.

Thus, the Board is intended to function as a **national coordinating and advisory institution**, bringing technical expertise and a broader road-safety perspective into policymaking.



From the Sundar Committee to the National Road Safety Board

The idea of a dedicated national road-safety institution is not new.

The **Sundar Committee**, in its 2007 report, had proposed a national road-safety body with a considerably wider role. The proposed institution was envisaged as being capable of:

- prescribing road-safety standards;
- monitoring compliance;
- conducting safety audits;
- coordinating different agencies; and
- strengthening the overall road-safety framework.

The **National Road Safety and Traffic Management Board Bill, 2010** subsequently sought to institutionalise such a mechanism.

However, the Parliamentary Standing Committee on Transport, in its 2010 report, expressed reservations about the proposed framework. It observed that several functions

assigned to the proposed Board were already being performed by existing institutions and cautioned against creating **"yet another institution"** without giving it sufficient coordinating authority.

This history is important because it explains the central debate surrounding the present Board: **Is an advisory body sufficient, or should the national institution possess stronger regulatory and monitoring powers?**

The Supreme Court's Role in Road-Safety Reform

Judicial intervention has also played an important role in keeping road safety on the policy agenda.

The Supreme Court has been hearing the public interest litigation in ***S. Rajaseekaran v. Union of India*** since 2012, using the case to examine various aspects of road safety and implementation.

The Court's continuing intervention illustrates a larger institutional problem: **road safety requires sustained coordination and implementation, rather than isolated policy announcements.**

In May 2026, the Supreme Court pressed the Centre to operationalise the National Road Safety Board, noting that although the statutory provision had been brought into force and the relevant rules had been notified, the Board itself had not yet been constituted.

The eventual constitution of the Board therefore represents the culmination of a long-running institutional and judicial process.

Advisory Body or Powerful Regulator?

The most important debate now concerns the **powers of the Board**.

The case for a stronger regulator

Critics argue that merely advising governments may not be enough.

If the Board identifies unsafe road designs, inadequate enforcement or serious deficiencies in safety standards, but the concerned authorities are not clearly obligated to act on its recommendations, its effectiveness could remain limited.

From this perspective, India needs an institution capable of:

- setting uniform safety standards;
- monitoring their implementation;
- conducting independent safety audits;
- evaluating compliance;
- coordinating different agencies; and
- ensuring that road-safety recommendations translate into actual action.

The concern is essentially one of **accountability**: an institution that can only recommend may struggle to change the behaviour of institutions that are responsible for implementation.

The case for an advisory structure

However, another view is that giving extensive binding powers to a central road-safety body could create constitutional and federal complications.

Road safety and related subjects involve responsibilities shared between the **Union and the States**. A Board exercising binding authority over State governments could therefore generate disputes over jurisdiction and potentially create tensions within India's federal structure.

From this perspective, an advisory Board can perform a valuable role by providing **technical expertise, common standards and policy coordination**, while allowing elected governments and existing statutory authorities to retain their respective constitutional responsibilities.

The Federalism Question

The debate surrounding the Board is therefore larger than road safety alone.

It reflects a recurring challenge in Indian governance:

How can India establish uniform national standards while respecting the constitutional distribution of powers between the Union and the States?

Road safety requires national coordination because vehicles, highways, safety technologies and transport systems frequently cross State boundaries. At the same time, enforcement, local roads, traffic management and several implementation responsibilities remain closely connected to State and local institutions.

The effectiveness of the NRSB will therefore depend on whether it can function as a **bridge between national expertise and State-level implementation**, rather than becoming another layer of bureaucracy.

What Should Make the Board Effective?

The creation of the Board is only the beginning. Its real significance will depend on how effectively it translates expertise into measurable improvements.

A meaningful road-safety framework should focus on:

1. Evidence-based policymaking: Accident data should be systematically collected, analysed and used to identify high-risk locations and recurring causes.

2. Independent road-safety audits: Road design should be assessed not merely for engineering efficiency but also for its impact on pedestrians, cyclists, two-wheeler users and other vulnerable road users.

3. Uniform safety standards: Vehicle, road and traffic-management standards should be consistently applied across jurisdictions.

4. Better inter-agency coordination: Transport departments, police, road authorities, municipalities, emergency services and other stakeholders must work through clearly defined responsibilities.

5. Accountability for implementation: Recommendations should not disappear into administrative files. There must be mechanisms to track whether identified safety deficiencies are actually corrected.

6. Protection of vulnerable road users: Pedestrians, cyclists, children, elderly persons and two-wheeler users require particular attention because their exposure to road risks is often disproportionately high.

Way Forward

- The National Road Safety Board should not be judged merely by its creation but by the **institutional authority, technical capacity and accountability mechanisms** that accompany it.
- India needs to move from a reactive approach—responding after accidents occur—to a **preventive road-safety architecture** that identifies risks before they become fatalities.
- The ultimate objective should be to create a system in which road safety is treated not simply as a traffic-management issue but as a matter of **public health, governance and the right to life**.

Conclusion

The constitution of the National Road Safety Board marks an important step towards giving road safety a dedicated

institutional focus. Yet the enormous scale of India's road fatalities demonstrates that road safety cannot be improved through institutional creation alone. Its impact will depend on evidence-based standards, effective coordination, implementation, and accountability across levels of government.

Neosep1 Trial Expands To India

Why in News: India has joined the landmark **NeoSep1 international clinical trial,** one of the world's largest studies aimed at identifying effective antibiotic combinations to treat neonatal **sepsis, particularly** infections caused by antimicrobial-resistant (AMR) **bacteria.**

India Joins the Global Fight Against Neonatal Sepsis

Neonatal sepsis remains one of the greatest public health challenges worldwide, claiming the lives of over one million newborns every year. The problem has become even more serious with the rapid emergence of **antimicrobial resistance (AMR)**, which is making conventional antibiotics increasingly ineffective.

Against this backdrop, the **NeoSep1 Trial** seeks to identify safer, more effective and affordable antibiotic treatments for newborns suffering from sepsis, especially in **low- and middle-income countries (LMICs)** where the burden of neonatal mortality remains high.

India's participation is particularly significant because the country bears one of the world's highest burdens of neonatal infections and antimicrobial resistance.

What is the NeoSep1 Trial?

NeoSep1 is a large international clinical trial designed to evaluate new antibiotic combinations for newborns diagnosed with sepsis.

The study is sponsored by the **Global Antibiotic Research and Development Partnership (GARDP)** in collaboration with:

- University College London (UCL) Innovative Clinical Trials Unit
- City St George's, University of London (SGUL)
- Penta Foundation

The trial aims to recruit nearly **3,000 newborns across Asia and Africa by 2028**.

Countries participating include:

- India
- Pakistan
- Vietnam
- South Africa
- Kenya
- Ghana

The trial will soon expand to:

- Bangladesh
- Malaysia
- Uganda

What is Neonatal Sepsis?

Neonatal sepsis is a severe bloodstream infection occurring in infants younger than **90 days of age**.

It primarily affects:

- Premature babies
- Low birth-weight infants
- Babies with underdeveloped immune systems

The disease is broadly classified into two categories:

Early-Onset Sepsis (EOS)

- Occurs within the first **72 hours after birth**
- Usually transmitted from the mother during pregnancy or delivery.

Late-Onset Sepsis (LOS)

- Occurs after 72 hours up to 28–90 days.
- Frequently acquired from hospitals or the surrounding environment.

Without timely treatment, neonatal sepsis can rapidly progress to septic shock, organ failure, disability or death.

Why is the Trial So Important?

For decades, doctors have relied on standard antibiotics to treat neonatal sepsis.

However, the increasing spread of **drug-resistant bacteria** means that many of these antibiotics are no longer effective.

According to GARDP:

> ***"We stand at a tipping point. The antibiotics that have saved newborns for decades are increasingly failing against resistant infections."***

NeoSep1 seeks to provide clinicians with new evidence-based treatment options before antimicrobial resistance turns routine neonatal infections into untreatable diseases.

India's Neonatal Sepsis Burden

India carries one of the largest burdens of neonatal mortality globally.

According to recent research:

- Neonatal sepsis contributes to **30–40% of all neonatal deaths** in India.
- Nearly **2–2.5 lakh newborn deaths every year** are attributed to neonatal sepsis.
- Despite improvements in child survival, reductions in neonatal mortality have been relatively slow.

Thus, neonatal sepsis remains one of India's most significant preventable causes of infant mortality.

Why Does India Need Its Own Clinical Evidence?

One of the strongest reasons for India's participation is that the pattern of infections in Indian hospitals differs significantly from those seen in developed countries.

High-Income Countries

The leading cause of neonatal sepsis is:

- **Group B Streptococcus (GBS)**

India

Most infections are caused by multidrug-resistant Gram-negative bacteria such as:

- **Klebsiella pneumoniae**
- **Escherichia coli (E. coli)**
- **Acinetobacter species**
- **Pseudomonas aeruginosa**

These organisms often exhibit resistance to multiple antibiotics, making treatment increasingly difficult.

Consequently, treatment protocols developed in Western countries cannot always be directly applied in India.

NeoSep1 aims to generate **India-specific evidence** that reflects the country's unique microbial profile and antimicrobial resistance patterns.

A New Approach (Personalised Randomised Controlled Trial (PRACTical) Design)

NeoSep1 adopts an innovative **Personalised Randomised Controlled Trial (PRACTical)** design.

Unlike conventional clinical trials that compare only two treatment options, this approach evaluates multiple antibiotic combinations simultaneously.

The design enables clinicians to:

- Compare several antibiotic regimens.
- Rank treatments according to effectiveness.
- Adapt therapy to local bacterial resistance patterns.
- Improve clinical decision-making based on regional evidence.

This makes the trial particularly valuable for countries where antibiotic resistance varies significantly across hospitals and regions.

How Will the Trial Be Conducted?

The study follows a pragmatic clinical approach.

Doctors diagnose neonatal sepsis using routine clinical practice while applying a validated **NeoSep Sepsis Severity Score**, developed from the earlier **NeoOBS global observational study**, to identify babies with a high likelihood of infection.

Laboratory investigations include:

- Blood culture
- Spinal fluid culture (where necessary)
- Identification of bacterial species
- Detection of antibiotic resistance

What Will the Trial Measure?

Primary Outcome

The principal objective is to determine:

- Survival of newborns within **28 days** after enrolment.

Secondary Outcomes

Researchers will also assess:

- Survival up to 90 days.
- Requirement for additional antibiotics.
- Duration of hospital stay.
- Re-admission rates.
- Treatment safety.

These outcomes will help determine the most effective and practical antibiotic regimens for newborns with sepsis.

Building on Earlier Success

NeoSep1 builds upon the success of **Part 1 of the trial**, conducted in **South Africa and Kenya** in 2023.

The earlier phase successfully established safe dosing schedules for newer antibiotics such as:

- Fosfomycin
- Flomoxef

These antibiotics will now be evaluated in combination with other agents during the larger efficacy trial.

Significance for Global Health

The NeoSep1 Trial addresses two of the most urgent global health challenges simultaneously:

- **Reducing neonatal mortality**
- **Combating antimicrobial resistance (AMR)**

The study is expected to generate high-quality evidence that can guide future **World Health Organization (WHO)** treatment recommendations for neonatal sepsis, particularly in low-resource settings.

For India, the trial offers an opportunity to develop treatment protocols better suited to its unique disease burden while strengthening research capacity in neonatal medicine.

Conclusion

The expansion of the NeoSep1 Trial to India marks a major milestone in the global effort to combat neonatal sepsis and antimicrobial resistance. By generating India-specific evidence on effective antibiotic combinations, the trial can help inform treatment protocols that reduce neonatal mortality and strengthen the global response to antimicrobial resistance.

Sarnath – UNESCO World Heritage List

Why in News: The **Ancient Buddhist Site of Sarnath in Uttar Pradesh** has been inscribed on the **UNESCO World Heritage List,** following its approval at the 48th **session of the UNESCO World Heritage Committee in Busan, Republic of Korea.**

Why Is Sarnath Historically Important?

Sarnath, located near **Varanasi**, occupies a unique place in the history of Buddhism.

According to Buddhist tradition, after attaining enlightenment at **Bodh Gaya**, the Buddha travelled to Sarnath, where he delivered his **first sermon** to his former companions. This event is traditionally understood as the beginning of the Buddha's teaching mission.

The first sermon is associated with the Buddha's exposition of the **Dharma**, including the fundamental teachings

concerning suffering, its causes, its cessation and the path leading to its cessation.

Consequently, Sarnath is not simply an archaeological site. It represents a crucial moment in the development and transmission of one of the world's major religious and philosophical traditions.

A Landscape Built Around Buddhist Pilgrimage

UNESCO's inscription recognises the site as a **serial cultural property containing the architectural and archaeological remains of ancient Sarnath**.

Over centuries, Sarnath developed as an important Buddhist centre through **royal, monastic and lay patronage**.

This resulted in the construction of:

- Stupas
- Temples
- Viharas and monastic complexes
- Other structures associated with Buddhist learning and pilgrimage

These remains collectively document the evolution of Sarnath as a major centre of Buddhist religious and intellectual activity.

From Flourishing Buddhist Centre to Rediscovery

Sarnath flourished for centuries as an important Buddhist centre but gradually declined and fell into obscurity around the **12th century CE**.

The site was subsequently **rediscovered and brought back into archaeological attention in the 18th century**, eventually becoming an important archaeological and pilgrimage destination once again.

Today, the site is preserved through **two archaeological zones** and continues to attract pilgrims, historians, archaeologists and tourists from across the world.

This long historical trajectory—from flourishing centre, to decline, to archaeological rediscovery, and finally global heritage recognition—makes Sarnath a remarkable example of **heritage continuity and revival**.

What Does UNESCO Recognition Mean?

Inscription on the UNESCO World Heritage List means that Sarnath has been recognised as having **Outstanding Universal Value**—that is, cultural significance considered important not merely to India but to humanity as a whole.

The Sarnath property has been inscribed under UNESCO's cultural heritage criteria:

Criterion (iii)

It provides exceptional testimony to a cultural tradition or civilisation that has existed over a significant period.

Criterion (vi)

It is directly associated with events, traditions and ideas of outstanding universal significance.

UNESCO's listing records Sarnath as a **serial cultural property**, covering approximately **8.05 hectares**, with a buffer zone of about **72.2 hectares**.

Why Is This Recognition Significant for India?

1. India's UNESCO Footprint Expands

With Sarnath's inscription, India now has **45 properties** on the UNESCO World Heritage List. UNESCO's current country profile records **37 cultural properties** among India's 45 World Heritage properties.

The addition strengthens India's representation of both its tangible heritage—monuments, archaeological sites and cultural landscapes—and its wider civilisational traditions.

2. Strengthening Buddhist Heritage Diplomacy

Sarnath has significance far beyond India's borders.

Buddhism spread from the Indian subcontinent across large parts of **Asia**, creating enduring cultural and intellectual connections between India and countries across South, Southeast and East Asia.

The global recognition of Sarnath therefore reinforces India's position as an important centre of **Buddhist civilisational heritage** and strengthens the cultural dimension of India's engagement with Buddhist-majority and Buddhist-influenced countries.

3. Heritage Conservation and Sustainable Tourism

UNESCO recognition can also provide greater international visibility to conservation and interpretation efforts.

For Sarnath, this creates an opportunity to balance:

Conservation → Pilgrimage → Tourism → Local livelihoods

The challenge will be to ensure that rising visitor numbers do not place excessive pressure on archaeological remains, the surrounding landscape or the authenticity of the sacred site.

Sarnath and India's Wider Buddhist Heritage

Sarnath joins a growing group of Indian UNESCO sites with strong Buddhist associations, including:

- **Buddhist Monuments at Sanchi**
- **Mahabodhi Temple Complex at Bodh Gaya**
- **Archaeological Site of Nalanda Mahavihara at Nalanda**

Together, these sites illustrate different dimensions of India's Buddhist heritage—from the Buddha's enlightenment and first sermon to monastic learning and the spread of Buddhist artistic traditions.

The inclusion of Sarnath therefore strengthens the international visibility of **India's Buddhist heritage as a connected civilisational landscape rather than a collection of isolated monuments**.

India's Nomination Process

The Government of India had submitted the **"Ancient Buddhist Site, Sarnath"** dossier for the **2025–26 UNESCO nomination cycle**.

The nomination subsequently went through the technical evaluation process. UNESCO's evaluation records show that additional information was sought from India regarding issues including the site's evolution, archaeological records, landscape dimensions, management as a sacred pilgrimage space, reconstruction and heritage impact assessment. Additional information was submitted by India during 2025 and early 2026 before the final consideration of the nomination.

This underlines an important point about World Heritage inscription: **it is not merely an honorary declaration but follows a detailed international assessment of the nominated property's heritage value, authenticity, management and conservation framework.**

The Larger Significance

The Sarnath inscription comes at a time when India is increasingly seeking to connect **heritage conservation with cultural diplomacy, tourism and local development**.

The challenge now is to ensure that UNESCO recognition becomes more than a prestigious label.

It should translate into:

- stronger conservation;
- better scientific documentation;
- responsible tourism;

- improved visitor interpretation;
- preservation of the site's sacred character;
- greater local community participation; and
- international cultural cooperation.

The ultimate objective should be to ensure that **increased global attention strengthens rather than compromises the heritage value that led to inscription in the first place**.

Conclusion

The inscription of the **Ancient Buddhist Site of Sarnath on the UNESCO World Heritage List** is a landmark recognition of India's Buddhist and civilisational heritage.

Taj Mahal 'Tejo Mahalaya' Controversy

Why in News: The centuries-old debate over the historical identity of the **Taj Mahal** has returned to the judicial arena.

The Taj Mahal (The Established Historical Account)

The Taj Mahal at Agra is widely recognised as a **17th-century Mughal mausoleum commissioned by Emperor Shah Jahan in memory of his wife, Mumtaz Mahal**. Its construction began in the 17th century and the complex represents a sophisticated synthesis of Persian, Central Asian and Indian architectural traditions. Its distinctive features include the white-marble mausoleum, charbagh garden, monumental dome, minarets, Quranic calligraphy and intricate marble-inlay work known as *pietra dura* or *parchin kari*.

The monument is also a **UNESCO World Heritage Site** and remains one of India's most internationally recognised cultural landmarks.

The present controversy, however, challenges this established account.

What is the 'Tejo Mahalaya' Claim?

The petitioners argue that the Taj Mahal was originally a Hindu temple or temple-palace known as **"Tejo Mahalaya"**, associated with Lord Shiva. They seek a judicial declaration recognising this claim and have asked the court to permit an inspection of the monument to establish the alleged historical character of the structure.

The latest petition reportedly cites numerous architectural and historical features in support of its argument. However, these assertions remain **claims made by the petitioners and have not been judicially established**. The Allahabad High Court's issuance of notice simply means that the respondents have been asked to present their position before the court.

This distinction is crucial: **a court entertaining a petition does not amount to judicial acceptance of the petitioner's historical theory.**

The Long History of the Controversy

The controversy surrounding the origins of the Taj Mahal is not new.

Various theories regarding its architect and origins circulated over the centuries. However, the modern **"Taj as a Hindu temple" theory is most prominently associated with P.N. Oak**, a writer and former journalist who advanced the argument that the monument predated Shah Jahan and was originally a Hindu structure.

Oak's claims evolved over time. In his writings, he argued that the Taj Mahal was not originally constructed as a Mughal mausoleum but had an earlier Hindu identity. These arguments were rejected by mainstream historians for lack of convincing documentary and archaeological evidence.

The controversy subsequently entered the courts on several occasions.

Earlier Legal Challenges

- **2000:** The Supreme Court rejected a petition associated with P.N. Oak's claim concerning the Taj Mahal.
- **2005:** A separate claim was brought before the Allahabad High Court, asserting that the Taj was a temple constructed by the Chandela rulers. The contention was not accepted.
- **2015:** A civil suit was filed before an Agra court seeking recognition of the Taj Mahal as a Hindu temple.
- **2022:** A petition concerning the issue was again brought before the Supreme Court and was dismissed.
- **2026:** The latest litigation has reached the Allahabad High Court after Agra courts declined to order the requested survey. The High Court has now sought responses from the Centre and ASI.

Thus, the present case is **not the first judicial attempt to reopen the historical identity of the monument**; rather, it represents another chapter in a dispute that has repeatedly moved between historical debate and legal proceedings.

Why Does the Issue Matter?

The controversy goes beyond the identity of a single monument.

1. History versus Historical Revisionism

Historical claims must ultimately be tested through **primary sources, archaeological evidence, inscriptions, architectural analysis and credible historiography**. Courts are not ordinarily substitutes for historians or archaeologists. Their role is to determine legal rights and obligations on the basis of admissible evidence.

2. Judicial Role in Historical Disputes

The case raises an important institutional question: **How far can courts intervene in contested questions of history and archaeology?**

A judicially ordered survey can have consequences beyond the immediate litigation, particularly when the monument is nationally and internationally significant.

3. Protection of Cultural Heritage

The Taj Mahal is not merely a disputed site in a private civil proceeding. It is a protected monument and a major component of India's cultural heritage. Any alteration in its legal status, access or use would therefore have wider implications.

4. Evidence-Based Public Discourse

The controversy also highlights the importance of distinguishing between **a claim being made, a claim being investigated and a claim being established**. The fact that a court issues notice does not mean that the court has accepted the underlying historical argument.

What Happens Next?

The immediate next step is for the **Centre and ASI to respond to the Allahabad High Court's notice**. The court will then consider the legal challenge to the Agra courts' refusal to appoint an Advocate Commissioner and conduct the requested survey.

At present, therefore, **there is no judicial declaration that the Taj Mahal was a Hindu temple**. The "Tejo Mahalaya" proposition remains the petitioners' claim, while the established institutional and mainstream historical position continues to identify the monument as a Mughal-era mausoleum.

Conclusion

The renewed Taj Mahal controversy demonstrates how **history, heritage, religion and law can intersect in complex ways.** Historical questions deserve serious examination, but their resolution must ultimately rest on credible evidence rather than assertion.

Vikas Bhi, Virasat Bhi

Why in News: Recently, the Government of India highlighted the remarkable transformation of the country's heritage sector over the past twelve years under the vision of **"Vikas Bhi, Virasat Bhi" (Development Alongside Heritage).**

India's Heritage (A Civilisational Asset)

India possesses one of the world's richest civilisational legacies, stretching over five millennia. Its heritage extends beyond monuments to include temples, manuscripts, archaeological sites, traditional crafts, languages, performing arts, festivals, rituals, and knowledge systems.

Recognising that heritage is both a cultural responsibility and a developmental opportunity, the Government has adopted a comprehensive strategy that seeks to:

- preserve ancient monuments and archaeological remains,
- protect intangible cultural traditions,
- improve tourism infrastructure,
- digitise historical knowledge,
- reclaim stolen antiquities,
- and promote India's civilisational identity globally.

The guiding philosophy has been that **development and heritage conservation should complement—not compete with—each other.**

Major Pillars of India's Heritage Transformation

1. Heritage Conservation and Monument Preservation

The Archaeological Survey of India (ASI), India's premier heritage conservation institution, continues to be the backbone of monument protection.

Major Achievements

- **3,686 Centrally Protected Monuments** currently fall under ASI protection.
- Around **₹374 crore** was allocated during **2024–25** for conservation and restoration.
- Conservation efforts increasingly employ scientific techniques, structural engineering, GIS mapping, drone surveys, and LiDAR technology.

Rather than merely preserving monuments as historical relics, the focus has shifted towards making them vibrant cultural spaces that generate tourism, employment, and public engagement.

2. National Mission on Monuments and Antiquities (NMMA)

Conservation begins with documentation.

The **National Mission on Monuments and Antiquities (NMMA)** has emerged as India's largest heritage documentation initiative.

Achievements

- **1.84 lakh monuments** documented.
- **17.20 lakh antiquities** digitally catalogued.

This growing national inventory enables scientific conservation planning while reducing risks of theft, illegal trafficking, and heritage loss.

3. Heritage-Led Tourism Development

India has increasingly linked heritage conservation with tourism-driven economic growth.

PRASHAD Scheme

Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive (PRASHAD) was launched in 2015 to modernise pilgrimage destinations.

Achievements

- **54 projects** sanctioned.
- **₹1,726.74 crore** investment.
- **32 projects completed.**

Major beneficiaries include:

- Kedarnath
- Somnath
- Varanasi
- Kamakhya
- Ajmer
- Gaya

The scheme has significantly improved:

- sanitation,
- accessibility,
- pilgrim amenities,
- safety,
- visitor satisfaction,
- and tourism infrastructure.

Swadesh Darshan

Initially launched as a tourism circuit programme, it has now evolved into **Swadesh Darshan 2.0**, which adopts a destination-based approach focusing on sustainable tourism.

Achievements

Swadesh Darshan 1.0

- 76 projects
- ₹5,290 crore investment
- 75 completed

Swadesh Darshan 2.0

- 53 projects
- ₹2,208 crore investment

Challenge-Based Destination Development

- 38 projects
- ₹697.94 crore investment

The new model promotes innovation, community participation, environmental sustainability, and world-class visitor experiences.

HRIDAY Scheme

The **Heritage City Development and Augmentation Yojana (HRIDAY)** sought to integrate urban planning with heritage conservation.

Implemented across **12 heritage cities**, the programme improved:

- cleanliness,
- public infrastructure,
- tourism facilities,
- livelihoods,
- and preservation of cultural identity.

Cities including **Varanasi, Amritsar, Puri, Mathura, Ajmer, Warangal, Kanchipuram, and Gaya** benefited from the initiative.

Redevelopment of Iconic Heritage Sites

India has undertaken unprecedented redevelopment of major religious and cultural centres.

Kashi Vishwanath Corridor

- ₹355 crore investment.
- Direct connection between the temple and River Ganga.
- More than **25 crore visitors** in just three-and-a-half years.
- Estimated economic impact exceeding **₹1.25 lakh crore**.

Somnath Redevelopment

- Modern promenade
- Improved pilgrim facilities
- Sustainable waste management
- Miyawaki forest
- Light-and-Sound show
- Enhanced tourism infrastructure

Kedarnath Redevelopment

Highlights include:

- safer pilgrimage routes,
- upgraded infrastructure,
- ropeway project under Parvatmala,
- reduction of travel time from **8–9 hours to only 36 minutes.**

Ayodhya Transformation

Following the inauguration of the Ram Mandir, Ayodhya has emerged as one of India's fastest-growing spiritual tourism destinations.

Visitor numbers have increased dramatically, supported by major investments in:

- airports,
- railway stations,
- roads,
- hotels,
- public amenities,
- urban infrastructure.

Mahakal Lok and Kamakhya Divya Lok

These projects represent integrated heritage development combining:

- conservation,
- pilgrimage infrastructure,
- tourism,
- urban planning,
- cultural rejuvenation.

Adopt a Heritage 2.0

The revamped programme encourages collaboration between:

- private companies,
- public sector undertakings,
- NGOs,
- trusts,
- and civil society.

Through CSR funding, adopted monuments receive improved visitor facilities.

Current Status

- **30 MoUs signed**
- **13.59 million visitors** recorded at adopted monuments during FY 2024–25.

Reclaiming India's Lost Heritage

One of the most remarkable achievements has been India's success in bringing home stolen antiquities.

Major Repatriations

- Piprahwa Buddha Relics
- Annapurna Idol
- Rama-Sita-Lakshmana Bronze Idols
- Numerous sculptures returned from:
  - USA
  - UK
  - Canada
  - Australia
  - Germany
  - Singapore

Achievements

- **653 antiquities** repatriated since 2014.
- **613** recovered in the last five years alone.

These efforts have strengthened India's cultural diplomacy and reinforced global recognition of India's rightful ownership over its heritage.

India's Growing UNESCO Presence

India's cultural influence on the global stage has expanded significantly.

Major Achievements

- UNESCO World Heritage Sites increased from **31 to 44**.
- **12 new sites** added since 2014.
- **15 Intangible Cultural Heritage** elements now recognised.

Recognised traditions include:

- Yoga
- Kumbh Mela
- Durga Puja
- Garba
- Vedic Chanting

India also hosted the **46th UNESCO World Heritage Committee Session (2024)**.

Digitising India's Knowledge Heritage

Gyan Bharatam Mission

Launched in 2025, this flagship initiative aims to digitise India's manuscript wealth.

Progress

- Over **8 lakh manuscripts** reformatted.
- **1.29 lakh manuscripts** available through the National Digital Repository.
- National Manuscript Survey launched in 2026.

Vedic Heritage Portal

The portal serves as a digital archive of:

- Rigveda
- Yajurveda
- Samaveda
- Atharvaveda

It contains:

- manuscripts,
- audio recordings,
- ritual documentation,
- digital learning modules,
- recitation archives.

The initiative preserves one of humanity's oldest living oral traditions.

Technology-Driven Heritage Conservation

India is increasingly integrating advanced technologies into conservation.

These include:

- Artificial Intelligence
- LiDAR
- GIS Mapping
- Drone Surveys
- OCR
- Handwritten Text Recognition
- Metadata extraction
- Digital cataloguing

Platforms like:

- BHASHINI,
- BharatGen,
- Adi-Vaani,
- Gyan Bharatam,

are making India's linguistic and cultural heritage accessible to future generations.

Museums Enter a New Era

Archaeological Experiential Museum, Vadnagar

The world's first immersive archaeological museum allows visitors to experience live excavation sites alongside over **5,000 artefacts**.

Yuge Yugeen Bharat National Museum

Being developed in the historic North and South Blocks of New Delhi, it is envisioned as one of the world's largest museums narrating India's civilisational journey.

National Museum of Indian Cinema

The museum preserves India's cinematic legacy through:

- restored films,
- interactive galleries,
- archival collections,
- multimedia exhibits.

Heritage as an Instrument of Development

A defining feature of the Government's approach has been the integration of heritage conservation with:

- tourism,
- employment,
- local livelihoods,
- infrastructure,
- digital innovation,
- urban renewal,
- international cultural diplomacy.

Rather than viewing monuments merely as archaeological assets, heritage is increasingly treated as an economic and developmental resource capable of generating sustainable local growth.

Conclusion

The initiatives undertaken over the past decade reflect a shift from traditional monument preservation to a holistic model of **heritage-led development.** Conservation is now linked with technology, tourism, education, diplomacy, and community participation.

GOVERNMENT SCHEMES

Grand Ambitions

Why in News: The **Ministry of Cooperation** completed **five years** on **July 6**, highlighting reforms to modernise cooperatives, strengthen **PACS**, expand into new sectors, and promote inclusive, sustainable economic development.

Key Details

- **Institutional Reforms:** Ministry seeks policy coordination across **agriculture, dairy, fisheries, banking, housing, consumer cooperatives, and exports**.
- **Empowered PACS:** Legal reforms allow **Primary Agricultural Credit Societies (PACS)** to undertake **25+ business activities**, making them multi-service rural institutions.
- **Market Expansion:** New **multi-State cooperative societies** improve market access and strengthen value chains from production to exports.
- **Challenges:** Persistent **corruption, inefficiency, governance issues**, and concerns over **State autonomy** hinder cooperative growth.
- **Future Vision:** A **National Cooperation Policy** aims to create a **federated, technology-enabled, transparent, and competitive** cooperative ecosystem.

Need for a Strong Cooperative Model

- **Hypercompetitive business models** often widen **inequality**, weaken communities, and create social costs.
- **Cooperatives** provide a **people-centric and inclusive** alternative, though they also face operational challenges.
- The **Ministry of Cooperation**, completing **five years (July 6)**, aims to unlock the sector's untapped potential.
- Cooperatives must expand beyond **agriculture** into **services, housing, banking, exports, and consumer sectors**.
- Organising fragmented cooperatives is an **economic, social, and political necessity**.

Ministry's Reform Agenda

- Seeks **policy convergence** across **agriculture, dairy, fisheries, banking, housing, consumer cooperatives, and exports**.
- Promotes **coordination with States** and national cooperative federations.
- Focuses on **capacity building**, **digital technology adoption**, and **market integration**.
- Aims to strengthen cooperatives through **institutional reforms** and improved governance.
- Plans a comprehensive **National Cooperation Policy**.

Strengthening Rural Cooperatives

- **Primary Agricultural Credit Societies (PACS)** remain the backbone of the rural cooperative system.
- Legal reforms now allow **PACS to undertake over 25 business activities**.
- PACS are evolving into **multi-service rural institutions** beyond agricultural credit.
- New **multi-State cooperative societies** are expanding market access for members.
- Cooperative value chains are being integrated from **production to global exports**.

Key Challenges

- **Corruption** and **inefficiency** have weakened the cooperative movement.
- States and local communities fear **loss of autonomy** under greater national control.
- Balancing **centralisation and decentralisation** remains critical.
- Technology adoption must complement, not replace, **human participation**.
- Cooperatives need stronger governance to compete with large private enterprises.

The Way Forward

- Expand cooperatives into **production, processing, marketing, and services**, beyond agricultural credit.
- Build a **federated yet well-coordinated** cooperative ecosystem.
- Use cooperatives to reduce the **social, environmental, and political costs** of hypercapitalism.
- Strengthen transparency, professionalism, and member participation.
- Position **India's cooperative model** as a global example of **inclusive and sustainable development**.

Conclusion

A vibrant cooperative sector can promote **inclusive growth, economic democracy, and rural prosperity** while reducing the social costs of hypercompetitive capitalism. Success depends on transparent governance, stronger institutions, technological innovation, and cooperative federalism.

PERSONALITIES IN NEWS

Bankim Chandra Chattopadhyay Jayanti

Why in News: On **26 June 2026, Prime Minister Narendra Modi paid tribute to Bankim Chandra Chattopadhyay** on his birth anniversary, remembering him as one of India's greatest literary figures whose writings inspired patriotism and cultural awak ening.

On **26 June 2026**, Prime Minister **Narendra Modi** paid tribute to **Bankim Chandra Chattopadhyay** on his birth anniversary, remembering him as one of India's greatest literary figures whose writings inspired patriotism and cultural awakening. The occasion assumes added significance as **India is commemorating the 150th anniversary of *Vande Mataram***—the iconic national song composed by Bankim Chandra, which became one of the most powerful symbols of India's freedom struggle.

Prime Minister's Tribute

Paying homage to Bankim Chandra Chattopadhyay, the Prime Minister described him as a **towering literary luminary** whose works awakened the spirit of patriotism, national consciousness, and cultural pride among generations of Indians.

He noted that Bankim Chandra's literary contributions continue to inspire citizens and strengthen the collective resolve towards **nation-building**.

Highlighting the historic significance of the year, the Prime Minister observed that India is celebrating the **150th anniversary of *Vande Mataram***, describing it as one of the greatest intellectual and emotional gifts to India's freedom movement.

According to the Prime Minister, *Vande Mataram* became an enduring source of inspiration that united millions of Indians during the struggle against colonial rule.

Who Was Bankim Chandra Chattopadhyay?

Bankim Chandra Chattopadhyay (1838–1894) occupies a distinguished place in Indian literary and nationalist history.

He was:

- One of the pioneers of **modern Bengali literature**.
- Among the earliest Indian novelists writing in regional languages.
- A civil servant under British rule who simultaneously nurtured nationalist thought through literature.
- A philosopher, essayist, and poet whose writings profoundly influenced India's intellectual renaissance.

His literary works blended **history, philosophy, spirituality, and patriotism**, helping shape India's emerging national consciousness during the nineteenth century.

Vande Mataram: The Song That Inspired a Nation

Bankim Chandra composed **Vande Mataram** in Sanskritised Bengali and later included it in his famous novel **Anandamath**, published in **1882**.

The song personifies India as **Mother India (Bharat Mata)** and celebrates the country's natural beauty, cultural heritage, and spiritual strength.

During the freedom movement, *Vande Mataram* evolved into:

- A powerful nationalist slogan.
- A symbol of resistance against British colonial rule.
- A source of unity across diverse regions of India.
- An emotional rallying cry during public movements, protests, and political gatherings.

It inspired countless freedom fighters and became one of the defining expressions of India's struggle for independence.

National Song of India

India accords **Vande Mataram** the status of the **National Song**.

Important facts include:

- The **first two stanzas** have been officially adopted as the National Song.
- The song was first sung at the **1896 session of the Indian National Congress**.
- It enjoys immense historical and cultural significance alongside the National Anthem, *Jana Gana Mana*.

Contribution to Indian Literature

Beyond *Vande Mataram*, Bankim Chandra authored several influential novels that transformed Indian literature.

Some of his notable works include:

- **Anandamath**
- **Durgeshnandini**
- **Kapalkundala**
- **Devi Chaudhurani**
- **Krishnakanter Will**

His writings introduced modern narrative techniques while exploring themes of social reform, morality, patriotism, and cultural identity.

Significance of the 150th Anniversary of *Vande Mataram*

The commemoration of **150 years of *Vande Mataram*** is not merely the celebration of a literary masterpiece but also the remembrance of an idea that shaped India's national movement.

The anniversary provides an opportunity to:

- Honour India's literary heritage.
- Revisit the intellectual foundations of Indian nationalism.
- Recognise the role of literature in mobilising public opinion during the freedom struggle.
- Inspire younger generations to appreciate India's cultural and constitutional values.

It also reflects the enduring relevance of Bankim Chandra's vision of national unity and cultural confidence.

Legacy of Bankim Chandra Chattopadhyay

Bankim Chandra's legacy extends far beyond literature.

He is remembered as:

- A pioneer of India's cultural renaissance.
- An intellectual architect of modern Indian nationalism.
- A literary icon whose writings inspired generations of freedom fighters.
- A thinker who used literature as an instrument of national awakening.

His works continue to occupy an important place in India's literary, cultural, and historical consciousness.

Conclusion

The celebration of **Bankim Chandra Chattopadhyay's Jayanti,** coinciding with the 150th **anniversary of Vande *Mataram, serves*** as a reminder of the profound role that literature played in India's freedom movement.

Bhagwan Birsa Munda (Tribal Icon Of India's Freedom Struggle)

Why in News:

On **9 June 2026**, Prime Minister **Narendra Modi** paid rich tributes to **Dharti Aaba (Father of the Earth) Bhagwan Birsa Munda** on his **martyrdom day**, remembering his unparalleled contribution to India's freedom struggle and the protection of **Jal, Jungle, and Jameen (Water, Forest and Land)**.

The Prime Minister stated that Birsa Munda fought with extraordinary courage against British colonial rule and dedicated his entire life to safeguarding the **self-respect, culture, traditions, and rights of India's tribal communities**. He observed that Birsa Munda's sacrifice for the motherland continues to inspire patriotism and national pride across generations.

BHAGWAN BIRSA MUNDA

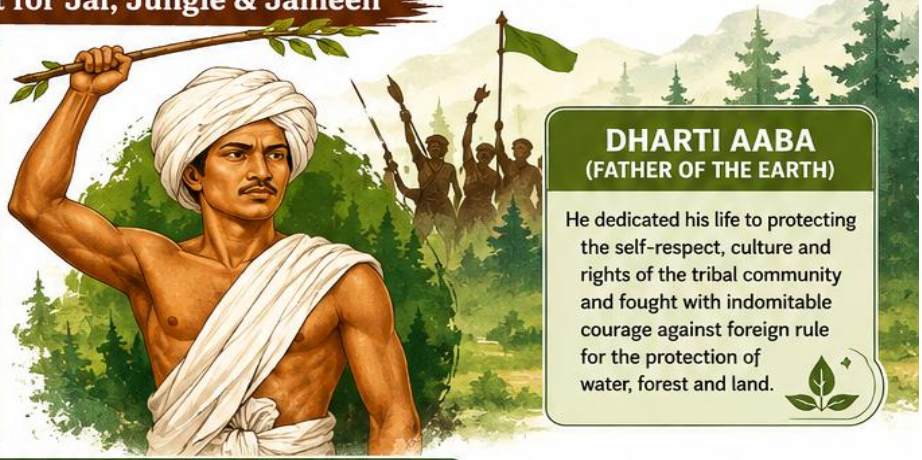
The Tribal Icon Who Fought for Jal, Jungle & Jameen

> *"Abua Raj Ete Jana, Maharani Raj Tundu Jana."*
> *– Let our rule be established and the Queen's rule end."*

Bhagwan Birsa Munda was a tribal freedom fighter, socio-religious reformer and folk hero from the Munda tribe of the Chotanagpur region, whose life and struggle continue to inspire generations of Indians.

Born: 15 November 1875
Ulihatu village, Jharkhand

Died: 9 June 1900
Ranchi Jail
(Official cause: Cholera)



DHARTI AABA
(FATHER OF THE EARTH)

He dedicated his life to protecting the self-respect, culture and rights of the tribal community and fought with indomitable courage against foreign rule for the protection of water, forest and land.

A LEGACY OF COURAGE & SACRIFICE

ANTI-COLONIAL MOBILISATION
He mobilised tribal communities against British colonial rule, landlord exploitation, moneylenders, missionary influence, forced labour and land alienation.

HISTORICAL BACKGROUND
His movement was influenced by the earlier **Sardari Larai** or **Sardar Movement**, which had shaped the political climate against land alienation in Chotanagpur.

LAND RIGHTS ASSERTION
Birsa Munda opposed the destruction of the traditional **Khuntkatti** system, under which tribal communities enjoyed collective customary rights over land.

POLITICAL SLOGAN
He gave the famous slogan **"Abua Raj Ete Jana, Maharani Raj Tundu Jana"**, meaning "Let our rule be established and the Queen's rule end."

RELIGIOUS REFORM
His teachings led to the rise of a distinct faith community known as the **Birsait** community, which emphasised social reform, moral discipline and tribal identity.

ULGULAN MOVEMENT (THE GREAT TUMULT)
He led the Ulgulan Movement at the turn of the twentieth century to end British rule, restore tribal self-rule, protect tribal land rights and resist exploitation by outsiders known as *dikus*.

ARREST & MARTYRDOM
Birsa Munda was arrested by the British and died in Ranchi Jail on 9th June 1900, with the official cause of death recorded as cholera.

LEGAL IMPACT
His struggle later influenced tribal land protection measures, especially the Chotanagpur Tenancy Act, 1908, which restricted the transfer of tribal land to non-tribals.

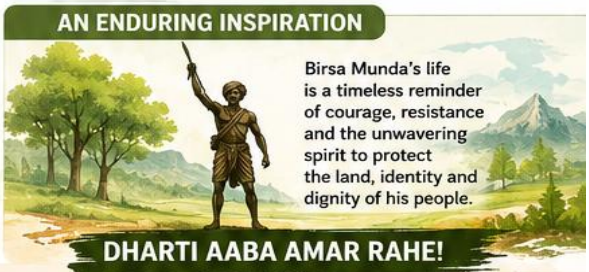
RECOGNITION
His birth anniversary is observed as Janjatiya Gaurav Divas to honour the contribution of tribal communities in India's history.

AREAS OF INFLUENCE
Chotanagpur region (present-day Jharkhand) and adjoining areas of Bihar, Odisha and West Bengal.

A TIMELINE OF HIS LIFE

- **1875** – Born on 15 November 1875 in Ulihatu village, Jharkhand.
- **1890s** – Began mobilising tribal communities and spreading awareness.
- **1899–1900** – Launched the Ulgulan Movement against British rule and exploitation.
- **3 Feb 1900** – Arrested by the British.
- **9 June 1900** – Passed away in Ranchi Jail.

AN ENDURING INSPIRATION



Birsa Munda's life is a timeless reminder of courage, resistance and the unwavering spirit to protect the land, identity and dignity of his people.

DHARTI AABA AMAR RAHE!

> *"His saga of sacrificing everything for the motherland will continue to infuse patriotism in every generation of the country."* – PM Narendra Modi

About Bhagwan Birsa Munda

Bhagwan Birsa Munda occupies a unique place in India's freedom movement as one of the earliest leaders to organise an indigenous resistance against colonial exploitation. He was not merely a revolutionary but also a **social reformer, religious leader, and symbol of tribal identity**, who transformed the political consciousness of the tribal communities of central and eastern India.

Born on **15 November 1875** in **Ulihatu village** of present-day **Jharkhand**, Birsa belonged to the **Munda tribe** of the Chotanagpur plateau. During the late nineteenth century, tribal society was undergoing severe distress due to British

land policies, exploitation by landlords and moneylenders, missionary expansion, and the erosion of traditional community rights over forests and land. Against this backdrop, Birsa emerged as the most influential voice of tribal resistance.

The Colonial Context (Why Tribal Resistance Emerged)

British colonial administration introduced land revenue systems that fundamentally altered the traditional tribal economy.

For centuries, tribal communities had managed forests and agricultural land through customary institutions based on collective ownership. However, colonial policies replaced these indigenous systems with private property rights, commercial agriculture, and revenue collection. This enabled landlords, moneylenders, contractors, and traders—collectively referred to as **"Dikus" (outsiders)**—to occupy tribal lands.

As a result, tribal communities experienced:

- **Large-scale land alienation**
- **Forced labour (Beth Begari)**
- **Indebtedness**
- **Loss of forest rights**
- **Cultural and religious interference**
- **Economic exploitation by zamindars and moneylenders**

Birsa Munda transformed these grievances into a powerful mass movement.

Influence of the Sardari Larai Movement

Birsa's movement did not emerge in isolation.

It drew inspiration from the earlier **Sardari Larai (Sardar Movement)**, a tribal mobilisation that challenged land alienation and demanded restoration of customary rights over tribal land.

While the Sardari Movement mainly sought legal remedies, Birsa broadened the struggle into a comprehensive socio-political movement that challenged the very legitimacy of British rule.

Defender of Tribal Land Rights

One of Birsa Munda's greatest contributions was his determined defence of the traditional **Khuntkatti land system**.

The **Khuntkatti system** recognised the collective ownership of land by tribal clans rather than by individual landlords. It ensured equitable access to agricultural land and protected tribal communities from dispossession.

British land settlements gradually dismantled this system by recognising zamindars and revenue intermediaries, resulting in widespread displacement of tribal cultivators.

Birsa demanded restoration of these customary land rights and opposed every attempt to transfer tribal land to outsiders.

His struggle made **land rights** the central issue of tribal politics.

The Vision of Tribal Self-Rule

Birsa Munda articulated one of the earliest indigenous visions of self-government.

His famous slogan became the political voice of tribal resistance:

> ***"Abua Raj Ete Jana, Maharani Raj Tundu Jana."***

Meaning:

> *"Let our own rule prevail; let the Queen's rule come to an end."*

This slogan represented far more than opposition to colonial rule.

It symbolised:

- Tribal self-governance
- Community ownership of resources
- Freedom from exploitation
- Restoration of traditional institutions
- Cultural autonomy

Religious and Social Reformer

Birsa Munda believed that political liberation required social reform.

He launched a movement to purify tribal society by encouraging:

- Moral discipline
- Simplicity in lifestyle
- Abandonment of superstitions
- Social unity
- Respect for indigenous traditions

His teachings inspired the emergence of a distinct religious community known as the **Birsait community**, which continues to exist today.

The movement strengthened tribal identity while resisting cultural assimilation during colonial rule.

The Ulgulan Movement (The Great Tumult)

Birsa Munda's most significant contribution came through the **Ulgulan**, meaning **"The Great Tumult"** or **"Great Rebellion."**

Launched around **1899 - 1900**, it represented one of the largest tribal uprisings against British rule.

Objectives of the Ulgulan

- End British colonial administration
- Restore tribal self-rule
- Protect tribal ownership of land
- Eliminate forced labour
- Resist exploitation by landlords and moneylenders
- Expel outsiders (Dikus) from tribal territories

The movement combined political resistance with social awakening and attracted thousands of tribal followers across the Chotanagpur region.

Although the British eventually suppressed the rebellion through military action, the movement fundamentally altered colonial policy toward tribal land rights.

Arrest and Martyrdom

Following the suppression of the Ulgulan, Birsa Munda was arrested by British authorities.

He died in **Ranchi Jail on 9 June 1900**, at the young age of **25 years**.

The British officially recorded **cholera** as the cause of death, though questions regarding the circumstances of his death have persisted in historical discourse.

Despite his short life, Birsa Munda became an enduring symbol of resistance against injustice and colonial oppression.

Legal Legacy (Influence on Tribal Land Protection)

Although the rebellion was militarily defeated, it compelled the British administration to acknowledge the seriousness of tribal grievances.

One of its most significant outcomes was the enactment of the **Chotanagpur Tenancy Act, 1908**.

Significance of the Act

- Restricted transfer of tribal land to non-tribal communities.
- Protected customary land ownership.
- Recognised traditional tribal land rights.
- Reduced arbitrary eviction of tribal cultivators.

Even today, the Act remains one of the strongest legal safeguards protecting tribal land ownership in the Chotanagpur region.

National Recognition

Over the decades, Birsa Munda has come to be recognised as one of India's foremost tribal freedom fighters.

His birth anniversary, **15 November**, is celebrated as **Janjatiya Gaurav Divas**, honouring not only his contribution but also the immense role played by India's tribal communities in the freedom struggle and nation-building.

Today, Birsa Munda stands as a symbol of:

- Tribal dignity
- Environmental stewardship
- Resistance against exploitation
- Protection of indigenous rights
- Inclusive nationalism

Conclusion

Bhagwan Birsa Munda's life represents one of the earliest and most powerful expressions of resistance against colonial exploitation in India. His struggle was not confined to political independence alone; it was also a struggle for tribal dignity, land rights, social justice, and protection of indigenous communities from exploitation.

Lokmata Ahilyabai Holkar

Why in News:

Recently, the **Prime Minister paid tribute to Lokmata Ahilyabai Holkar on her birth anniversary**, remembering her as one of India's greatest rulers whose life symbolised **wisdom, compassion, justice, and unwavering commitment to public welfare**. Her legacy continues to inspire modern governance through her emphasis on inclusive development, social reform, women's empowerment, religious harmony, and cultural preservation.

Even after nearly three centuries, Ahilyabai Holkar remains a shining example of ethical leadership, earning the enduring title of **"Lokmata" (Mother of the People)**.

Birth and Early Life

Ahilyabai Holkar was born on **31 May 1725** in **Chondi village**, located in present-day **Ahmednagar district of Maharashtra**.

Although born into a humble family, her intelligence, discipline, and strong moral values attracted the attention of **Malhar Rao Holkar**, the founder of the Holkar dynasty. Impressed by her character, he arranged her marriage to his son **Khanderao Holkar** in **1733**.

Marriage and Turning Point

Ahilyabai's life changed dramatically after her husband **Khanderao Holkar** was killed during the **Siege of Kumher Fort**.

Following his death, she decided to perform **Sati**, in keeping with prevailing social customs. However, her father-in-law, **Malhar Rao Holkar**, firmly prevented her from doing so.

Recognising her exceptional abilities, he personally trained Ahilyabai in:

- State administration
- Military strategy
- Revenue management
- Diplomacy
- Justice delivery

This decision would later shape the history of the Holkar Kingdom.

Ascension to the Throne

Following the death of **Malhar Rao Holkar in 1766** and her son **Male Rao Holkar in 1767**, Ahilyabai assumed the reins of the **Malwa Kingdom** in **1767**.

Despite facing resistance because she was a woman ruler, she successfully established herself as one of the strongest administrators of her time.

She appointed the experienced military commander **Tukoji Rao Holkar** as the commander of her army and shifted the capital of the Holkar kingdom to **Maheshwar (present-day Madhya Pradesh)**, which became a flourishing centre of administration, trade, culture, and learning.

Contributions to Governance and Public Welfare

Ahilyabai Holkar's reign is remembered as a golden period of good governance.

Her administration focused on:

- Efficient revenue administration
- Accessible justice
- Public welfare
- Agricultural development
- Infrastructure creation
- Religious tolerance
- Economic prosperity

She ensured that governance remained people-centric, transparent, and compassionate.

Because of her concern for the welfare of ordinary citizens, she came to be affectionately known as **Lokmata (Mother of the People).**

Patron of Religion and Cultural Heritage

Ahilyabai Holkar played a transformative role in preserving India's religious and cultural heritage.

She financed and supervised the reconstruction and restoration of several important temples destroyed or neglected during earlier periods.

Among her most celebrated contributions were:

- **Reconstruction of the Kashi Vishwanath Temple (Varanasi)**
- **Restoration of the Somnath Temple (Gujarat)**

Both temples are among the **twelve sacred Jyotirlingas of Lord Shiva** and remain major centres of pilgrimage.

Beyond temple construction, she also built:

- Ghats
- Wells
- Dharamshalas
- Pilgrim shelters
- Roads
- Water tanks

across different parts of India, greatly facilitating pilgrimage and public welfare.

Patronage of Literature and Arts

Ahilyabai Holkar was an important patron of scholars, poets, and artists.

Her court supported distinguished literary personalities including:

- **Khushali Ram**
- **Moropant**, the renowned Marathi poet
- **Shahir Anantaphandi**

Under her patronage, Maheshwar emerged as a vibrant centre of literature, philosophy, music, and classical learning.

Champion of Social Reform

Long before the emergence of organised social reform movements in the nineteenth century, Ahilyabai Holkar initiated several progressive reforms.

She actively promoted:

- Women's education
- Widow remarriage
- Social dignity for women
- Welfare of economically weaker sections

She strongly discouraged oppressive practices such as **Sati** and worked towards creating a more humane and inclusive society.

Her administration also focused on uplifting:

- Bhil tribes
- Gond tribes
- Lower caste communities
- Marginalised social groups

through welfare measures and greater social inclusion.

Economic Vision and Promotion of Trade

Ahilyabai Holkar recognised that prosperity depended upon commerce and skilled craftsmanship.

She transformed **Maheshwar** and **Indore** into thriving commercial centres by:

- Encouraging trade
- Supporting artisans
- Developing market infrastructure
- Promoting textile production

One of her greatest economic contributions was the promotion of the **Maheshwari weaving tradition**, which became renowned across India for its elegant handwoven sarees.

Today, **Maheshwari Sarees** enjoy **Geographical Indication (GI) Tag** status, reflecting the enduring legacy of her vision.

Cultural Legacy

Ahilyabai Holkar continues to enjoy immense respect across India.

She holds special cultural significance in:

- **Varanasi**, where she is remembered for restoring the Kashi Vishwanath Temple.
- The **Pal (Gadariya) community**, which reveres her as an ancestral figure.
- **Madhya Pradesh and Maharashtra**, where her birth anniversary is celebrated with great devotion.

Her legacy remains a symbol of ethical governance rooted in compassion and public service.

Why Is Ahilyabai Holkar Relevant Today?

Her model of governance continues to offer valuable lessons for modern India.

Her administration embodied:

- Good Governance
- Women-led Leadership
- Inclusive Development
- Cultural Preservation
- Religious Harmony
- Social Justice
- Public Accountability
- Sustainable Economic Development

She demonstrated that true leadership lies not in power but in service to the people.

Conclusion

Lokmata Ahilyabai Holkar occupies a unique place in Indian history as a ruler who combined administrative excellence with deep compassion for her people. Her reign transformed Malwa into a prosperous and culturally vibrant, while her emphasis on public welfare, social justice, and cultural preservation continues to offer enduring lessons in governance.

Syama Prasad Mookerjee

Why in News:

Prime Minister **Narendra Modi** paid tribute to **Dr. Syama Prasad Mookerjee** on his **125th birth anniversary**, describing him as a visionary nationalist, institution builder, and statesman whose life was dedicated to **India's unity, democratic values, self-reliance, and public service**. In an opinion article titled **"A Life Devoted to India's Unity and Progress"**, the Prime Minister highlighted Dr. Mookerjee's enduring contributions to nation-building, industrial development, educational reforms, and constitutional democracy, stating that his ideals continue to inspire India's journey towards **Viksit Bharat (Developed India)**.

A Visionary Who Dedicated His Life to Nation Building

Dr. Syama Prasad Mookerjee occupies a unique place in modern Indian history as a scholar, educationist, parliamentarian, industrial planner, and nationalist leader. Although born into a distinguished intellectual family, he consciously chose a life devoted to public service rather than personal comfort.

Prime Minister Modi observed that despite experiencing profound personal tragedies, including the loss of his infant child and later his wife, Dr. Mookerjee remained unwavering in his commitment to national service. Rather than weakening his resolve, these hardships strengthened his determination to work for India's unity and welfare.

The Prime Minister remarked that Dr. Mookerjee represented the rare combination of **intellectual brilliance, moral courage, and unwavering patriotism**, making him one of the foremost architects of post-independence India.

Champion of India's Unity and Territorial Integrity

One of Dr. Mookerjee's greatest contributions was his unwavering commitment to preserving India's territorial unity.

During the Partition of India, he played a decisive role in ensuring that **West Bengal remained an integral part of the Indian Union**, thereby safeguarding millions of people from being incorporated into East Pakistan.

His commitment to national integration later led him to oppose the special constitutional arrangement for **Jammu and Kashmir**. He strongly argued that one sovereign nation could not function under separate constitutional symbols and legal arrangements.

His famous slogan,

"Ek Desh Mein Do Vidhan, Do Nishan, Do Pradhan Nahin Chalenge"

(One Nation cannot have two Constitutions, two Flags, and two Prime Ministers)

became the defining slogan of his movement for complete national integration.

Dr. Mookerjee was arrested during his protest in Jammu and Kashmir and died in detention in 1953 under circumstances that remain a subject of historical discussion.

The Prime Minister described the **abrogation of Articles 370 and 35A in 2019** as a significant milestone that fulfilled Dr. Mookerjee's long-standing vision of complete constitutional integration of Jammu and Kashmir with the rest of India.

An Outstanding Educationist and Institution Builder

Before entering active politics, Dr. Mookerjee established himself as one of India's youngest academic leaders.

At the age of only **33**, he became the **youngest Vice-Chancellor of the University of Calcutta**, where he introduced several progressive academic reforms aimed at modernising higher education while nurturing Indian cultural values.

His educational philosophy sought to combine academic excellence with patriotism, character building, and national consciousness, reflecting his belief that education must prepare citizens to contribute meaningfully to nation-building.

Contribution to Industrial Development

Dr. Mookerjee also played a pioneering role in laying the foundations of India's industrial economy.

As **Independent India's first Minister for Industry and Supply**, he viewed industrialisation not merely as an economic activity but as a powerful instrument for restoring national confidence, creating employment, and strengthening self-reliance.

During his tenure, several landmark initiatives were launched, including:

- **Damodar Valley Corporation (DVC)** for integrated river valley development.
- **Sindri Fertilizer Plant**, one of India's earliest large-scale fertiliser projects.
- Promotion of heavy industry alongside support for traditional sectors such as handlooms, textiles, cottage industries, and artisans.

His approach reflected a balanced vision in which modern industrialisation complemented rather than displaced India's traditional economic strengths.

Founder of Bharatiya Jana Sangh

Recognising the need for an alternative political platform rooted in nationalism and democratic values, Dr. Mookerjee founded the **Bharatiya Jana Sangh (BJS)** in **1951**.

At a time when the Indian National Congress dominated national politics, the Bharatiya Jana Sangh emerged as an ideological alternative that emphasised:

- Cultural nationalism.
- National unity.
- Democratic governance.
- Economic self-reliance.
- Strong national security.

The Bharatiya Jana Sangh would eventually evolve into today's **Bharatiya Janata Party (BJP)**, making Dr. Mookerjee one of the foundational figures of contemporary Indian politics.

Commitment to Democratic Values

Prime Minister Modi also highlighted Dr. Mookerjee's unwavering commitment to constitutional democracy.

Although he initially joined **Prime Minister Jawaharlal Nehru's Cabinet**, believing that nation-building required cooperation beyond political differences, he later resigned on matters of principle when he felt that national interests demanded an alternative course.

Dr. Mookerjee also emerged as one of the strongest parliamentary critics of the **First Constitutional Amendment (1951)**, expressing concerns regarding restrictions on freedom of speech and civil liberties.

According to the Prime Minister, his commitment to democratic debate, constitutional accountability, and freedom of expression continues to hold relevance in contemporary India.

Enduring Legacy

Dr. Syama Prasad Mookerjee's life represents the ideals of:

- National integration.
- Constitutional nationalism.
- Educational excellence.
- Industrial self-reliance.
- Democratic accountability.
- Public service rooted in integrity and sacrifice.

His vision continues to influence discussions on national unity, governance, economic development, and India's civilisational identity.

Conclusion

The 125th birth anniversary of **Dr. Syama Prasad Mookerjee** offers an opportunity to revisit the legacy of a leader whose contributions extended far beyond politics.

MISCELLANEOUS

Unsafe Practices

Why in News: The **Vietnam speedboat tragedy** involving Indian tourists highlighted serious lapses in **marine safety practices**, renewing focus on mandatory life jackets, passenger management, and stronger tourist safety regulations.

Key Details

- **Cause of accident:** Rough weather and a sharp turn caused passengers to shift to one side, destabilising and capsizing the speedboat.
- **Safety lapses:** Passengers were reportedly not **mandatorily wearing life jackets** and were not securely seated, increasing fatalities.
- **Growing outbound tourism:** Around **3 crore Indians** travel abroad annually, with **South-East Asia** emerging as a major destination.
- **Need for safety culture:** Many tourist operators in developing countries have **inadequate enforcement** of basic water and fire safety protocols.
- **Policy response:** Vietnam has promised to **review and strengthen marine safety standards**, while India must improve traveller safety awareness.

Causes of the Boat Capsizing

- **Rough weather** and a **sharp turn** caused the speedboat to tilt to one side.
- **Passengers seated on the right shifted to the left simultaneously**, causing a sudden concentration of weight.
- The abrupt **weight imbalance destabilized the boat**, leading it to capsize.

Rescue and Casualties

- The **boat captain and guide escaped** through the open front door as the boat overturned.
- Some passengers managed to escape through available openings, while **others remained trapped inside** the capsized boat and drowned.
- Rescuers pulled survivors ashore, administered **first aid and resuscitation**, and later shifted them to hospitals, but the delay increased fatalities.
- **15 Indian tourists lost their lives**, while **17 Indians and all four Vietnamese crew members survived**.
- The victims were part of a **corporate incentive tour** involving over 100 employees of an Indian mobile company.

Rising Overseas Tourism and Safety Concerns

- Around **3 crore Indians travel abroad annually**, with a growing share coming from **non-metro cities**.
- **South-East Asia**, particularly **Thailand and Vietnam**, has become a preferred destination alongside Singapore and Malaysia.
- Many emerging tourist destinations **lack robust safety standards**, similar to challenges seen in India.

Safety Lapses Identified

- Although **life jackets were reportedly provided**, it is unclear whether **all passengers were required to wear them** before departure.
- **Seat restraints were either absent or not enforced**, allowing passengers to shift during rough weather.
- Even **small shifts in passenger weight** can significantly reduce the stability of speedboats, making adherence to seating norms essential.
- Failure to enforce these **basic safety protocols** was a key contributor to the tragedy.

Key Lessons and the Way Forward

- **Vietnam** has promised to **review and strengthen safety standards** for tourist speedboats.
- Popular speedboat routes around the **Phú Quôc archipelago** require stricter enforcement of safety regulations.
- Governments, tour operators, and tourists should jointly promote:
  - **Mandatory wearing of life jackets**.
  - **Proper seat-belt and seating compliance** throughout the journey.
  - Greater awareness of **water and fire safety protocols**.
- Stronger enforcement of safety practices can significantly reduce casualties in future tourist accidents.

Conclusion

The Vietnam boat tragedy underscores that tourism growth cannot come at the cost of safety. **Mandatory compliance** with life-saving protocols, strict enforcement of marine safety standards, **operator accountability,** and greater **traveller awareness are** essential.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "Rapid growth in international tourism must be accompanied by a strong safety culture among governments, operators, and travellers." Discuss in the context of recent tourist accidents abroad. (150 words, 10 marks)

Diminishing Relevance

Why in News: The 2026 Commonwealth Games in Glasgow have gained attention following Mirabai Chanu's historic third consecutive gold medal, while India prepares to host the centenary Commonwealth Games in Ahmedabad in 2030.

Key Details

- **Mirabai Chanu** became the first woman weightlifter to win **three successive Commonwealth Games gold medals**.
- **India** is expected to win around **30 medals** despite the exclusion of several traditional sports.
- **Glasgow 2026** is a scaled-down edition, reflecting the declining relevance of the Commonwealth Games.
- **India's doping concerns** continue to affect medal prospects and damage international credibility.
- **Ahmedabad 2030** presents an opportunity to showcase transparent governance and promote clean sport.

Mirabai Chanu's Historic Achievement

- **Mirabai Chanu** became the **first woman weightlifter** to win **three consecutive Commonwealth Games gold medals**.
- She secured her **fourth consecutive Commonwealth Games medal** in the **women's 48 kg category**.
- Her winning lift of **190 kg** reaffirmed India's dominance in weightlifting.

- Her emotional victory became the defining moment of the Glasgow Games.
- The achievement boosted the profile and significance of the Commonwealth Games.

India's Strong Medal Prospects

- India is projected to win **around 30 medals**, despite a reduced number of events.
- Strong performances are expected in **athletics, para-athletics, weightlifting, para-weightlifting, boxing, judo, and lawn bowls**.
- Athletes such as **Neeraj Chopra, Murali Sreeshankar, Praveen Chithravel, Lovlina Borgohain, and Jaismine Lamboria** are among the medal contenders.
- Indian athletes continue to showcase growing competitiveness across multiple disciplines.
- The Glasgow Games provide valuable international exposure ahead of future global events.

Declining Relevance of the Commonwealth Games

- The Games faced uncertainty after **Victoria (Australia)** withdrew as host because of rising costs.
- **Glasgow** rescued the event by organising a **scaled-down edition**.
- Only **10 integrated sports** were conducted across **four compact venues**.
- The reduced format reflects the **declining global importance** of the Commonwealth Games.
- The Olympics and Asian Games remain more prestigious international sporting competitions.

Challenges Before Indian Sports

- India's performances at the highest international level remain **inconsistent across sports**.
- The country has topped the **global doping charts for three consecutive years**.
- Several athletes failed to qualify or were withdrawn after **doping violations**.
- Doping scandals have reduced medal prospects and damaged India's sporting reputation.
- Greater emphasis is required on **clean sport, ethics, and athlete awareness**.

Preparing for Ahmedabad 2030

- India will host the **centenary Commonwealth Games in Ahmedabad in 2030**.
- Mirabai Chanu's success provides momentum and positive publicity for the event.
- India must ensure **transparent governance** and avoid controversies similar to the **Delhi 2010 Commonwealth Games**.
- Strong financial oversight is essential to prevent corruption and mismanagement.
- Promoting **integrity, accountability, and clean sport** will be crucial for hosting a successful global sporting event.

Conclusion

India's sporting rise must be supported by excellence, integrity and transparent governance. While hosting the 2030 Commonwealth Games offers an opportunity to strengthen **sporting infrastructure** and global reputation, sustained investmentin grassroots sporting development, athlete welfare, clean sport, and transparent governance will be essential for translating hosting ambitions into long-term sporting gains.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Q. "The Commonwealth Games remain an important platform for India's sporting aspirations despite their declining global relevance. Discuss the opportunities and challenges in the context of India's preparations for Ahmedabad 2030." (15 Marks, 250 Words)

Jharkhand Secures 11 New Gi Tags

Why in News: Jharkhand has achieved a significant milestone in the preservation and promotion of its rich cultural heritage by receiving **Geographical Indication (GI) tags for 11 traditional products.**

The latest registrations further strengthen Jharkhand's position as a repository of indigenous knowledge and traditional craftsmanship, while contributing to the Government's broader objective of promoting **'Vocal for Local', One District One Product (ODOP), and Atmanirbhar Bharat**.

Earlier Recognition: Sohrai Painting

This is not the first GI recognition for Jharkhand.

Earlier, **Sohrai Painting**, one of the State's most celebrated tribal art forms, had also received a **Geographical Indication (GI) Tag**.

The recognition significantly improved:

- Market visibility
- Export potential
- Artisan incomes
- Preservation of indigenous artistic traditions

The addition of eleven more products further strengthens Jharkhand's growing portfolio of geographically protected cultural assets.

Significance of the New GI Tags

The newly awarded GI tags carry importance far beyond intellectual property protection.

- **Preservation of Tribal Heritage**: The recognition safeguards traditional knowledge, indigenous craftsmanship, and cultural practices that have been transmitted across generations.
- **Economic Empowerment**: GI certification increases product credibility, enabling artisans and producers to command premium prices in domestic and international markets.
- **Protection Against Imitation**: Only authorised producers from the designated geographical region are legally permitted to use the registered product name, preventing misuse and counterfeit products.
- **Promotion of Rural Livelihoods**: The recognition creates better employment opportunities for tribal artisans, weavers, painters, bamboo workers, and silk producers by expanding market access.
- **Strengthening India's Cultural Economy**: GI tags contribute to India's creative economy by transforming traditional cultural assets into globally recognised brands while encouraging sustainable local production.

Geographical Indication (GI) Tag

A **Geographical Indication (GI)** is a form of intellectual property right that identifies a product as originating from a specific geographical region where its quality, reputation, or unique characteristics are essentially attributable to that place of origin.

Unlike trademarks, which identify a particular business or company, GI tags protect products that derive their identity from a particular geographical area.

Examples include Darjeeling Tea, Banarasi Sarees, Pashmina, Mysore Silk, and now several traditional products from Jharkhand.

Key Features of a GI Tag

- Identifies products associated with a specific geographical region.
- Protects traditional knowledge and indigenous production methods.
- Restricts the use of the product name to authorised producers within the notified geographical area.
- Prevents imitation, counterfeiting, and unfair commercial exploitation.
- Enhances consumer confidence by guaranteeing authenticity and quality.
- Encourages preservation of traditional skills and local craftsmanship.
- Registration remains **valid for 10 years** and can be renewed periodically.

Legal Framework Governing GI Tags in India

The protection of Geographical Indications in India is governed by a well-defined legal framework.

National Law

- **Geographical Indications of Goods (Registration and Protection) Act, 1999**

This Act provides legal protection to registered GI products and establishes the framework for registration, enforcement, renewal, and prevention of infringement.

International Framework

- **Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)** under the **World Trade Organization (WTO)**

TRIPS obligates member countries to provide legal protection to geographical indications, thereby facilitating international recognition of GI-certified products.

Administrative Authority

In India, the registration and administration of Geographical Indications are overseen by the:

Department for Promotion of Industry and Internal Trade (DPIIT)
Ministry of Commerce and Industry

Applications are processed through the **Geographical Indications Registry**, headquartered in **Chennai**.

Why GI Tags Matter for India?

As India increasingly promotes indigenous products in global markets, GI tags have emerged as a powerful tool for combining cultural preservation with economic development.

They help:

- Preserve traditional knowledge systems.
- Promote rural entrepreneurship.
- Enhance exports of unique regional products.
- Increase tourism linked to local crafts and cultural heritage.
- Encourage sustainable and community-based economic development.
- Strengthen India's global identity through region-specific products.

Conclusion

The conferment of **11 new Geographical Indication tags to Jharkhand** represents a significant step towards preserving the State's rich tribal heritage while creating sustainable economic opportunities for its artisans and traditional producers.

Daily MCQs - The Hindu & Indian Express

Daily MCQs Practice

Q1. The use of fibre-optic cables by birds for nest construction in war-affected areas is primarily an example of:

(a) Ecological succession
(b) Behavioural adaptation to altered environmental conditions
(c) Biomagnification due to anthropogenic pollution
(d) Ecological niche partitioning

Q2. With reference to school nutrition programmes in India, consider the following statements:

1. PM POSHAN aims to improve the nutritional status of children studying in government and government-aided schools.

2. Eggs are a mandatory component of the PM POSHAN menu across all States and Union Territories.

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

Q3. Consider the following statements:

Statement I: GST is a destination-based tax on the consumption of goods and services.

Statement II: The tax revenue under GST generally accrues to the State where the goods or services are consumed.

Statement III: GST replaced multiple indirect taxes levied by the Centre and the States.

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

Q4. Which one of the following countries shares borders with both Israel and Syria?

(a) Jordan
(b) Lebanon
(c) Egypt
(d) Iraq

Q5. Which of the following statements are correct in respect of the National Stock Exchange (NSE)?

1. NSE was the first stock exchange in India to introduce fully automated electronic trading.

2. NSE is owned and managed by the Ministry of Finance.

3. The clearing and settlement of NSE trades are carried out through the National Securities Clearing Corporation Limited (NSCCL).

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

Q6. Which one of the following correctly describes the role of the Vice Chief of the Army Staff (VCOAS)?

(a) Head of the Integrated Defence Staff
(b) Principal deputy to the Chief of the Army Staff
(c) Supreme Commander of the Armed Forces
(d) Head of the Department of Military Affairs

Q7. With reference to India's strategic environment in South Asia, consider the following statements:

1. The article argues that India should preserve its strategic autonomy by maintaining issue-based and transactional relations with both the United States and China.

2. According to the article, the revival of SAARC has significantly strengthened India's political influence over its neighbouring countries.

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

Q8. Consider the following countries in the context of cotton cultivation and biotechnology:

1. China cultivates genetically modified (Bt) cotton largely through varieties rather than hybrids.

2. Turkey has achieved high cotton productivity despite not approving genetically modified cotton cultivation.

3. India is the only major cotton-producing country that commercially cultivates Bt cotton hybrids.

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

Q9. Which one of the following correctly describes the position of the Chief Justice of India?

(a) Executive head of the judiciary
(b) Administrative head and first among equals in the Supreme Court

(c) Head of all courts in India with appellate powers over High Courts
(d) Chairperson of the Judicial Appointments Commission

Q10. Consider the following statements:

Statement 1: A Manufacturing PMI reading of exactly 50 indicates no change in manufacturing activity compared to the previous month.

Statement 2: The Manufacturing PMI is a diffusion index that measures the direction of change rather than the absolute level of production.

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 explains 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:

1. The Commission for Air Quality Management (CAQM) is responsible for implementing GRAP in NCR.
2. GRAP categorizes air quality into four stages of action based on AQI levels.

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

Q12. Which of the following drone types is primarily designed for long-endurance surveillance missions?

(a) Unmanned Aerial Vehicle (UAV)
(b) Hovercraft
(c) Glider
(d) Airship

Q13. Which of the following statements are correct in respect of areas of work of United Nations University Institute for Water, Environment and Health (UNU-INWEH):

1. Wastewater management
2. Ecosystem health
3. Public health linked to water resources

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

Q14. Consider the following statements:

Statement 1: Jal Jeevan Mission aims to provide Functional Household Tap Connections (FHTCs) to every rural household.

Statement 2: The mission focuses on ensuring adequate quantity, prescribed quality, and regular supply of drinking water through household taps.

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 explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q15. With reference to the evolution of American capitalism and its implications for the global economy, consider the following statements:

1. The globalization phase of American capitalism enabled production to be fragmented across countries through global value chains.
2. Techno-capitalism is primarily driven by artificial intelligence, advanced semiconductors, cloud computing, biotechnology, and robotics.
3. In the techno-capitalist model, economic value increasingly depends on ownership of technologies, data, and computing power rather than large low-cost workforces.
4. The emergence of techno-capitalism is expected to have limited impact on the international economic and strategic order.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) Only three
(d) All four

Answer: (c)

Q16. Consider the following statements regarding tiger conservation in India:

Statement 1: Tiger reintroduction is undertaken to restore tiger populations in reserves where they have become locally extinct.

Statement 2: Long-term conservation of tigers depends only on increasing the number of tigers in existing reserves, irrespective of habitat connectivity and prey availability.

Which one of the following is correct?

(a) Both Statement 1 and Statement 2 are correct, and Statement 2 is the correct explanation of Statement 1.
(b) Both Statement 1 and Statement 2 are correct, but Statement 2 is not the correct explanation of Statement 1.
(c) Statement 1 is correct, but Statement 2 is incorrect.
(d) Statement 1 is incorrect, but Statement 2 is correct.

Q17. Which of the following statements are correct in respect of Japan?

1. Japan consists of four main islands—Honshu, Hokkaido, Kyushu and Shikoku.
2. Japan is located on the Pacific Ring of Fire and experiences frequent earthquakes and volcanic activity.
3. Japan is a permanent member of the United Nations Security Council (UNSC)

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

Q18. Consider the following statements:

Statement 1: The South China Sea is a strategically important sea lane through which a significant share of global maritime trade passes.

Statement 2: The South China Sea connects the Pacific Ocean with the Indian Ocean through important straits such as the Strait of Malacca.

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 explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q19. Which of the following countries has a constitutional or legal framework that permits preventive detention under certain circumstances?

1. India
2. United Kingdom
3. Singapore
4. United States of America

Select the correct answer using the code below:

(a) 1 and 3 only
(b) 1, 2 and 3 only
(c) 2 and 4 only
(d) 1, 2, 3 and 4

Q20. Which of the following Articles empowers Parliament to make laws relating to the acquisition and termination of citizenship and all other matters connected therewith?

(a) Article 5
(b) Article 8
(c) Article 10
(d) Article 11

Q21. Which of the following statements are correct in respect of the Census of India?

1. The Census is conducted under the provisions of the Census Act, 1948.
2. The Census is conducted by the Office of the Registrar General and Census Commissioner, India under the Ministry of Home Affairs.
3. Census is included in the Union List of the Constitution.

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

Q22. Consider the following statements:

Statement 1: NATO follows the principle of collective defence among its members.

Statement 2: Article 5 of the North Atlantic Treaty states that an armed attack against one member is considered an attack against all members.

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 explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q23. With reference to India's Indo-Pacific strategy, consider the following statements:

1. India and Indonesia are strategically positioned to secure some of the world's most important maritime chokepoints.
2. The Australia–India Economic Cooperation and Trade Agreement (ECTA) was signed after the Comprehensive Economic Partnership Agreement (CEPA) with Australia.
3. New Zealand possesses one of the world's largest Exclusive Economic Zones (EEZs), making the Blue Economy an important area of cooperation with India.
4. ASEAN occupies a central position in India's vision for a free, open and inclusive Indo-Pacific.

Which of the statements given above are correct?

(a) 1, 3 and 4 only
(b) 1 and 2 only
(c) 2, 3 and 4 only
(d) 1, 2, 3 and 4

Q24. With reference to the India Energy Stack (IES), consider the following statements:

1. It provides a common digital framework for secure and interoperable exchange of data among stakeholders in the power sector.
2. It seeks to replace the existing electricity regulatory institutions with a single national digital authority.

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

Q25. Which of the following statements are correct in respect of Taj Mahal?

1. It represents a blend of Persian, Islamic and Indian architectural styles.
2. The main gateway is constructed entirely of white marble.
3. The four minarets surrounding the mausoleum are designed with a slight outward tilt.

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

Q26. Consider the following statements:

Statement 1: Primary Agricultural Credit Societies (PACS) are the grassroots-level institutions in India's cooperative credit structure.

Statement 2: PACS directly provide short-term and medium-term credit to farmers and rural members.

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 explains statement 1

(c) Statement 1 is correct, but Statement 2 is incorrect

(d) Statement 2 is correct, but Statement 1 is incorrect

Q27. In the context of animal communication research, the primary purpose of a playback experiment is to:

(a) Measure the frequency and intensity of animal vocalizations.

(b) Test whether a recorded signal conveys specific information by observing the receiver's behavioural response.

(c) Identify the genetic basis of vocal learning in animals.

(d) Compare vocal communication among different species using artificial intelligence.

Q28. With reference to the emerging "G Minus Two" strategy in the Indo-Pacific, consider the following statements:

1. The strategy seeks to enhance cooperation among major Asian middle and regional powers while maintaining engagement with both the United States and China.

2. The strategy advocates complete economic decoupling of Asian economies from China to reduce strategic dependence.

3. Strengthening India's economic competitiveness and defence industrial base is considered essential for the success of this strategy.

How many of the above statements are correct?

(a) Only one

(b) Only two

(c) All three

(d) None

Q29. Which of the following statements are correct in respect of Socio-Economic and Caste Census (SECC), 2011?

1. It was conducted to identify the socio-economic status of households in rural and urban India.

2. It collected caste data for all castes in addition to socio-economic information.

3. It was conducted by the Office of the Registrar General and Census Commissioner under the Census Act, 1948.

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. Why is the National Investigation Agency considered distinct from the state police?

(a) It functions under the Supreme Court.

(b) It investigates only cybercrimes.

(c) It has nationwide jurisdiction over scheduled offences under a central law.

(d) It can investigate every criminal offence in India.

Q31. With reference to corruption and governance in India, consider the following statements:

1. Corruption is confined only to illegal monetary transactions by public servants and does not include abuse of discretionary powers.

2. Digitisation of public services can reduce opportunities for petty corruption but cannot by itself eliminate high-level institutional corruption.

3. Creation of monopolies through misuse of political power may be regarded as a governance concern because it affects fair competition and market neutrality.

4. Transparency and accountability are considered important principles of good governance to reduce corruption.

How many of the above statements are correct?

(a) Only one

(b) Only two

(c) Only three

(d) All four

Q32. With reference to the Astra missile programme, consider the following statements:

1. Astra Mk-1 is an indigenously developed beyond-visual-range air-to-air missile (BVRAAM) developed by DRDO.

2. Astra Mk-3 (Gandiva) is expected to use Solid Fuel Ducted Ramjet (SFDR) technology to achieve a much longer engagement range.

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

Q33. Which of the following statements are correct in respect of U.S. military deployment in the Gulf?

1. Bahrain hosts the headquarters of the U.S. Fifth Fleet.

2. Kuwait hosts major U.S. Army logistics and support bases.

3. Both Bahrain and Kuwait are not located on the Mediterranean Sea.

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

Q34. Consider the following statements:

Statement 1: The Prime Minister must necessarily be a member of the Lok Sabha at the time of appointment.

Statement 2: A person who is not a member of either House of Parliament can be appointed as Prime Minister but must become a member within six months.

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 explains statement 1

(c) Statement 1 is correct, but Statement 2 is incorrect

(d) Statement 2 is correct, but Statement 1 is incorrect

Q35. The term "repatriation of cultural property" refers to:

(a) Returning illegally removed cultural objects or human remains to their country or rightful community of origin.

(b) Preserving monuments by declaring them as UNESCO World Heritage Sites.

(c) Transferring museum collections to another country for exhibition purposes.

(d) Digitising cultural artefacts for global public access.

Q36. With reference to the recent reforms introduced under the Employees' Provident Fund Organisation (EPFO) 2.01 initiative, consider the following statements:

1. Under the new centralised database, EPF members can have their service requests processed from any authorised EPFO office in the country, irrespective of the regional office where their account was originally maintained.

2. Under the revamped claim settlement process, eligible KYC-validated advance claims up to a specified limit can be processed through an automated settlement mechanism.

3. Under the revised withdrawal norms, EPF members are allowed to withdraw their entire provident fund balance immediately after completing one year of EPF membership, irrespective of their employment status.

How many of the above statements are correct?

(a) Only one

(b) Only two

(c) All three

(d) None

Q37. Which of the following statements are correct in respect of the All-India Survey on Higher Education (AISHE)?

1. AISHE is released annually by the Ministry of Education.

2. It collects data from universities, colleges and standalone institutions across India.

3. AISHE is conducted by the University Grants Commission (UGC) as a statutory survey.

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 I: A Gender Parity Index (GPI) of 1 indicates complete gender parity in enrolment.

Statement II: A GPI greater than 1 indicates lower female enrolment than male enrolment. Statement III: The GPI is expressed as the percentage of girls in total enrolment.

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

Q39. With reference to Pandavani, consider the following statements:

1. Pandavani is a traditional folk storytelling tradition based primarily on the narratives of the Mahabharata.

2. Pandavani originated in the present-day state of Chhattisgarh and incorporates several local folk traditions into the epic narration.

3. Traditionally, the performance of Pandavani was restricted to women, and later men also began performing it.

4. Teejan Bai is credited with popularising Pandavani by introducing innovative styles of narration and expanding the role of women in this art form.

How many of the above statements are correct?

(a) Only one

(b) Only two

(c) Only three

(d) All four

Q40. The periodic warming of sea surface temperatures over the central and eastern equatorial Pacific Ocean, which is generally associated with weaker Indian summer monsoon rainfall, is known as:

(a) Indian Ocean Dipole (IOD)

(b) Madden–Julian Oscillation (MJO)

(c) El Niño
(d) Pacific Decadal Oscillation (PDO)

Q41. Which of the following statements are correct in respect of West Bank?

1. The Palestinian Authority exercises varying degrees of civil and security control over parts of the West Bank.
2. Israel has established settlements in the West Bank.
3. The West Bank is internationally recognised as sovereign Israeli territory.

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

Q42. Consider the following statements:

Statement 1: The Gulf spot market is an important benchmark for pricing crude oil exports from the Middle East to Asia.

Statement 2: Many Gulf crude oil producers use spot market prices as a reference while fixing the Official Selling Price (OSP) for their exports.

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 explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q43. With reference to India's Indo-Pacific strategy, consider the following statements:

1. Development of Indonesia's Sabang Port is intended to strengthen India's maritime logistics and maritime domain awareness in the eastern Indian Ocean.
2. Australia is an important partner for India only because of its uranium exports, and it has negligible importance in the supply of critical minerals.
3. India's engagement with New Zealand is expected to strengthen its strategic presence in the South Pacific.

Which of the statements given above is/are correct?

(a) 1 and 3 only
(b) 2 only
(c) 1, 2 and 3
(d) 3 only

Q44. Which one of the following is the primary advantage of a reusable launch vehicle over a conventional expendable launch vehicle?

(a) It can place satellites only in geostationary orbit.
(b) It significantly reduces the cost of repeated space launches.
(c) It eliminates the need for multi-stage rocket design.
(d) It does not require rocket engines during re-entry.

Q45. Which of the following statements are correct in respect of Light Water Reactors (LWRs)?

1. They use ordinary water as both the coolant and the neutron moderator.
2. They generally require enriched uranium as fuel.
3. Pressurized Water Reactors (PWRs) and Boiling Water Reactors (BWRs) are types of Light Water Reactors.

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

Q46. Consider the following with reference to Vietnam:

1. Vietnam is bordered by the Gulf of Tonkin to its northeast.
2. The Annamite (Truong Son) Range forms much of Vietnam's western boundary with Laos.
3. The Red River Delta is located in northern Vietnam.

How many of the above is/are correct?

(a) Only one
(b) Only two
(c) All three
(d) None

Q47. Under the Foreigners Act, 1946, the burden of proving that a person is not a foreigner lies upon:

(a) The Central Government
(b) The State Government
(c) The person concerned
(d) The Foreigners Tribunal

Q48. With reference to publicly funded autonomous research institutions in India, consider the following statements:

1. Financial assistance from the government does not automatically give the government the authority to interfere in the academic and research autonomy of an institution.
2. Statutory funding agencies may examine whether grants are being utilized in accordance with prescribed financial and administrative rules.
3. Every opinion poll or research finding published by a publicly funded institution is legally deemed to represent the official position of the Government of India.
4. Academic autonomy and financial accountability are complementary principles and can coexist in publicly funded institutions.

How many of the above statements are correct?

(a) Only one
(b) Only two

(c) Only three
(d) All four

Q49. Which of the following statements are correct in respect of the Chinook helicopter:

1. It can carry the M777 Ultra-Light Howitzer to high-altitude areas.
2. The Indian Air Force uses the Chinook primarily for heavy-lift logistics in mountainous terrain.
3. The Chinook is a single-engine attack helicopter.

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

Q50. Consider the following statements:

Statement 1: The MQ-9B SkyGuardian is capable of long-endurance Intelligence, Surveillance, and Reconnaissance (ISR) missions and can also undertake precision strike operations.

Statement 2: The MQ-9B SkyGuardian is powered by twin jet engines that enable it to achieve supersonic speeds.

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 explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q51. With reference to the Strait of Hormuz and international maritime law, consider the following statements:

1. Under the United Nations Convention on the Law of the Sea (UNCLOS), natural straits used for international navigation generally cannot be subjected to mandatory transit tolls merely for passage.
2. The International Maritime Organization (IMO) framework allows for the collection of charges on commercial vessels passing through international straits if they are specifically levied for services rendered, such as ensuring maritime security or pilotage.
3. The Strait of Hormuz is one of the world's most important maritime chokepoints through which a significant share of global crude oil and liquefied natural gas (LNG) trade passes.
4. Any increase in the cost of transit through the Strait of Hormuz is likely to raise India's crude oil import bill due to its dependence on energy imports from West Asia.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) Only three
(d) All four

Q52. Which one of the following constitutional principles requires every statutory authority to exercise only those powers that are specifically conferred upon it by law?

(a) Collective Responsibility
(b) Rule of Law
(c) Parliamentary Sovereignty
(d) Cooperative Federalism

Q53. Which of the following statements are correct in respect of Kudankulam Nuclear Power Plant?

1. The reactors at Kudankulam are Light Water Reactors (LWRs) of the VVER series.
2. Nuclear fuel for the reactors is enriched uranium.
3. Kudankulam was India's first commercial Fast Breeder Reactor project.

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

Q54. Consider the following statements:

Statement I: The Solicitor General of India assists the Attorney General in representing the Union Government before courts.

Statement II: The Solicitor General is a constitutional office established under Article 76 of the Constitution.

Statement III: The Solicitor General is appointed by the President and enjoys the same constitutional status and tenure as the Attorney General.

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. With reference to the impact of rising night-time temperatures due to climate change, consider the following statements:

1. Night-time temperatures across the world are increasing faster than day-time temperatures due to climate change.
2. Higher night-time temperatures reduce the body's ability to recover from daytime heat stress.
3. Sleep loss caused by high night-time temperatures can increase the risk of cardiovascular diseases and heat-related illnesses.
4. According to recent studies, all sleep loss caused by unusually high night-time temperatures is directly attributable to human-induced climate change.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) Only three
(d) All four

Q56. With reference to the concept of nuclear deterrence and submarine-launched ballistic missiles (SLBMs), consider the following statements:

1. A country possessing a nuclear triad can deliver nuclear weapons through land-based missiles, aircraft and submarine-launched missiles.
2. Second-strike capability primarily aims to ensure that a country can retaliate with nuclear weapons even after suffering a nuclear attack.
3. Intercontinental Ballistic Missiles (ICBMs) can be launched only from land-based missile silos.

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

Q57. Which of the following statements are correct in respect of the Monsoon Session of Parliament?

1. The Constitution of India specifies the names and duration of the Monsoon, Budget and Winter Sessions.
2. There cannot be a gap of more than six months between two sessions of Parliament.
3. The President summons each House of Parliament from time to time.

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 1: The Consumer Food Price Index (CFPI) measures changes in the retail prices of food items consumed by households.

Statement 2: The Consumer Food Price Index (CFPI) is compiled and released by the National Statistical Office (NSO) under the Ministry of Statistics and Programme Implementation.

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 explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q59. Which one of the following statements regarding the Union Public Service Commission is correct?

(a) It is a statutory body established by an Act of Parliament.
(b) Its advice to the Government is legally binding.
(c) Its expenses are charged upon the Consolidated Fund of India.
(d) It submits its report to the Prime Minister.

Q60. With reference to the use of drones in India's tuberculosis (TB) control programme, consider the following statements:

1. The use of drones for transporting TB diagnostic samples has significantly reduced the time taken for molecular diagnosis in remote areas.
2. Under the pilot study, drones were used to transport medicines directly to TB patients in rural villages.

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

Q61. Consider the following statements:

Statement 1: Operation Toofan is a special anti-narcotics enforcement drive launched by the Kerala Police to curb the trafficking and abuse of narcotic drugs and psychotropic substances.

Statement 2: The operation focuses on intelligence-led raids, inter-agency coordination, and strict enforcement under the Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985.

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 explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q62. Which one of the following correctly describes the final step in the removal of a Supreme Court or High Court judge under the Judges (Inquiry) Act, 1968?

(a) The inquiry committee directly removes the judge.
(b) The President removes the judge after Parliament passes an address by a special majority in both Houses.
(c) The Chief Justice of India issues the removal order after the committee's report.
(d) The Supreme Court confirms the committee's findings and orders removal.

Q63. The power to direct the blocking of online content in India is primarily exercised under which of the following legal provisions?

(a) Section 66A of the Information Technology Act, 2000
(b) Section 69A of the Information Technology Act, 2000
(c) Section 43A of the Information Technology Act, 2000
(d) Section 72A of the Information Technology Act, 2000

Q64. With reference to the Indus Waters Treaty (1960), consider the following statements:

1. The treaty allocates the Eastern Rivers (Ravi, Beas and Sutlej) primarily for India's unrestricted use.
2. The treaty contains provisions that allow its modification through mutual agreement between India and Pakistan.
3. The treaty explicitly includes provisions relating to groundwater management and environmental flows.

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

Q65. Which of the following statements are correct in respect of Polar Satellite Launch Vehicle (PSLV):

1. PSLV is a four-stage launch vehicle using alternating solid and liquid propulsion stages.
2. PSLV is primarily designed to place satellites into Polar Sun-Synchronous Orbit (SSO) but can also undertake interplanetary missions.
3. PSLV uses only cryogenic engines in its upper stages.

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

Q66. Consider the following statements:

Statement 1: The Association of Southeast Asian Nations (ASEAN) was established in 1967 through the Bangkok Declaration.

Statement 2: ASEAN currently has 10 member countries, with Timor-Leste yet to become a full member.

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 explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q67. Which one of the following best explains why evidence from randomized controlled trials (RCTs) is generally considered more reliable than evidence from observational studies for assessing the effectiveness of a medical intervention?

(a) RCTs eliminate all forms of uncertainty in medical research.
(b) Random allocation of participants minimizes the influence of confounding factors in comparing outcomes.
(c) Observational studies always overestimate the effectiveness of medical interventions.
(d) RCTs require a much larger sample size than observational studies.

Q68. With reference to the objectives of education in India, consider the following statements:

1. Foundational Literacy and Numeracy (FLN) aims to ensure that every child acquires basic reading, writing and numeracy skills at the foundational stage of schooling.
2. The National Education Policy (NEP) 2020 emphasizes holistic and multidisciplinary education along with cognitive, ethical and socio-emotional development.
3. The Constitution of India makes the Right to Education a Fundamental Right only for children between the ages of 6 and 14 years.

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 and 3

Q69. Consider the following statements:

Statement 1: The Council of Ministers in a State is collectively responsible to the Legislative Assembly.

Statement 2: A vote of no-confidence passed by the Legislative Assembly requires the entire Council of Ministers, including the Chief Minister, to resign.

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 explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q70. Consider the following with reference to World Health Organization (WHO):

1. Every member of the United Nations automatically becomes a member of the WHO.
2. The World Health Assembly is the decision-making body of the WHO.
3. The Director-General of the WHO is appointed by the World Health Assembly.

How many of the above is/are correct?

(a) Only one
(b) Only two
(c) All three
(d) None

Q71. With reference to renewable energy integration into the electricity grid, consider the following statements:

1. A high share of rooftop solar power can create voltage management challenges in the distribution grid during periods of low electricity demand.
2. Battery Energy Storage Systems (BESS) can help reduce the mismatch between electricity generation and peak demand.

3. Rooftop solar panels generate maximum electricity during the evening peak demand hours in India.

4. Increasing the share of renewable energy eliminates the need for grid balancing and energy storage.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) Only three
(d) All four

Q72. The right to hold peaceful protests in India is primarily derived from which of the following provisions of the Constitution?

(a) Article 14
(b) Article 19(1)(a), Article 19(1)(b) and Article 19(1)(c)
(c) Article 21 only
(d) Article 32

Q73. Which of the following statements are not correct in respect of the Leader of the Opposition?

1. A party must generally have at least 15% of the total strength of the House to be recognized as the official Opposition.

2. The 10% requirement is expressly provided in the Constitution.

3. In the absence of a recognized Opposition party, there may be no formally recognized Leader of the Opposition.

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

Q74. Consider the following statements:

Statement 1: The Speaker of the Lok Sabha continues in office until immediately before the first meeting of the newly elected Lok Sabha.

Statement 2: This continuity ensures that the office of the Speaker never remains vacant between two Lok Sabhas.

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 explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q75. With reference to the Labour Force Participation Rate (LFPR) and women's employment in India, consider the following statements:

1. Labour Force Participation Rate (LFPR) includes both persons who are employed and those who are actively seeking employment.

2. A higher Female Labour Force Participation Rate (FLFPR) in a region necessarily implies a lower unemployment rate among women.

3. Expansion of labour-intensive manufacturing industries can contribute to improving women's labour force participation.

Which of the statements given above is/are correct?

(a) 1 and 3 only
(b) 2 and 3 only
(c) 1 only
(d) 1, 2 and 3

Q76. Which of the following entities in India is primarily responsible for regulating Mutual Funds and Asset Management Companies (AMCs)?

(a) Reserve Bank of India (RBI)
(b) Securities and Exchange Board of India (SEBI)
(c) Pension Fund Regulatory and Development Authority (PFRDA)
(d) Insurance Regulatory and Development Authority of India (IRDAI)

Q77. Which of the following statements are correct in respect of Foreign Direct Investment (FDI)?

1. It involves a lasting interest and a significant degree of influence in the management of an enterprise.

2. It is generally considered a more stable source of foreign capital than Foreign Portfolio Investment (FPI).

3. It is recorded under the Capital Account of India's Balance of Payments.

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 with reference to the Teesta River:

1. The Teesta River originates from the Pahunri (Teesta Khangse) Glacier in the eastern Himalayas.

2. It flows through the Indian States of Sikkim and West Bengal before entering Bangladesh.

3. It is a major right-bank tributary of the Brahmaputra River.

How many of the above is/are not correct?

(a) Only one
(b) Only two
(c) All three
(d) None

Q79. With reference to the proposed EPFO 3.0 reforms, consider the following statements:

1. The proposed framework envisages a defined contribution pension system with contributions from multiple sources, including workers, employers, government co-contributions, and aggregators for gig workers.

2. Under the proposed system, members may choose either an annuity-based pension or a Systematic Withdrawal Plan (SWP) at the time of retirement.

3. The framework proposed under EPFO 3.0 aims to extend social security coverage to gig and platform workers, aligning with the objectives of the Code on Social Security, 2020.

4. Under the proposed reforms, the Employees' Provident Fund Organisation (EPFO) plans to replace the Universal Account Number (UAN) with Aadhaar as the sole retirement account identifier.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) Only three
(d) All four

Q80. With reference to the constitutional framework governing peaceful protests and parliamentary accountability in India, consider the following statements:

1. The right to assemble peacefully and without arms is guaranteed as a Fundamental Right under Article 19 of the Constitution.

2. Parliament serves as an important mechanism for holding the Executive accountable through debates, questions and discussions.

3. The right to peaceful assembly is absolute and cannot be subjected to any reasonable restrictions by the State.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) All three
(d) None

Q81. Under US domestic law, bilateral civil nuclear cooperation agreements signed between the United States and foreign partner nations such as the recently signed US–Saudi Arabia civil nuclear agreement derive their primary legal framework from which of the following?

(a) Article IV of the Nuclear Non-Proliferation Treaty (NPT)
(b) Section 123 of the US Atomic Energy Act, 1954
(c) The IAEA Additional Protocol
(d) The US Hyde Act, 2006

Q82. With reference to Fast-Track Courts (FTCs) in India, consider the following statements:

1. There is no single central legislation that governs the establishment of fast-track courts in India.

2. Fast-Track Special Courts (FTSCs) were set up specifically for rape and POCSO Act cases, partly funded through the Nirbhaya Fund.

3. Fast-track courts derive their existence directly from Article 21-A of the Constitution.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) All three
(d) None

Q83. With reference to India's long-range air defence modernisation, consider the following statements:

1. 'Kusha' is a Long-Range Surface-to-Air Missile (LR-SAM) being indigenously developed by DRDO.

2. Kusha's maiden flight test was conducted from Abdul Kalam Island off the coast of Odisha.

3. India currently operates the Russian S-400 Triumf air defence system.

4. The Integrated Air Defence Weapon System (IADWS) programme has no relationship with the Kusha missile project.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) Only three
(d) All four

Q84. With reference to INS Malvan and the Mahe-class of naval vessels, consider the following statements:

1. Mahe-class vessels are Anti-Submarine Warfare Shallow Water Craft (ASW-SWC) meant for littoral (near-coast) operations.

2. INS Malvan is built entirely by a foreign shipyard under a technology-transfer arrangement.

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

Q85. Consider the following statements:

Statement 1: An increase in the Work Participation Rate (WPR) always indicates an improvement in the quality of employment.

Statement 2: WPR measures the proportion of people who are working, irrespective of whether the employment is regular, casual or self-employment.

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 explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q86. The phenomenon of "Antibody-Dependent Enhancement (ADE)" in dengue refers to:

(a) Antibodies providing lifelong immunity against all dengue serotypes.
(b) Increased severity of dengue when a person infected with one serotype is later infected with a different serotype.
(c) Mutation of the dengue virus due to vaccination.
(d) Development of resistance in Aedes mosquitoes to insecticides.

Q87. With reference to recent developments concerning SEBI, consider the following statements:

1. SEBI has proposed allowing Portfolio Management Services (PMS) providers to invest client funds in permitted overseas listed securities.
2. SEBI's recent action barring a former Axis Mutual Fund chief dealer from the market for 7 years relates to alleged front-running.
3. Under existing norms, Portfolio Management Services are available only to institutional investors and are barred for high-net-worth individuals.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) All three
(d) None

Q88. With reference to India's rupee-settled trade, consider the following statements:

1. India settled a significant value of its imports in rupees during March–May 2026, driven substantially by Russian oil purchases.
2. Rupee settlement of India's trade typically operates through Special Rupee Vostro Accounts held by partner-country banks with Indian banks.

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. Which of the following statements are correct in respect of Active Pharmaceutical Ingredients (APIs)?

1. An Active Pharmaceutical Ingredient (API) is the biologically active component in a medicine that produces the intended therapeutic effect.
2. India imports a significant share of bulk drug APIs, particularly from China.
3. APIs include inactive substances such as binders, preservatives, and colouring agents used in drug formulations.

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

Q90. Consider the following statements:

Statement 1: The Cauvery Water Disputes Tribunal (CWDT) gave its final award in 2007, allocating the waters of the Cauvery River among the basin States.

Statement 2: The Tribunal was constituted under the Inter-State River Water Disputes Act, 1956, to adjudicate disputes over the sharing of inter-State River waters.

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 explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q91. With reference to generic medicines, tariffs and international trade, consider the following statements:

1. Generic medicines constitute the majority of India's pharmaceutical exports to the United States.
2. Imposition of high import tariffs may encourage foreign pharmaceutical companies to establish manufacturing facilities in the importing country.
3. An increase in import tariffs on generic medicines necessarily leads to lower medicine prices for consumers in the importing country.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) All three
(d) None

Q92. Regarding the 2026 floods in Assam, consider the following statements:

1. The State experienced high-intensity rainfall events, including over 137 mm of rain within an 8- to 9-hour period in certain contiguous hill districts.
2. Initial assessments by the Assam government attributed part of the flash flooding to a "cloudburst" in Mon district, Nagaland.
3. Satellite imagery has revealed extensive excavation on river valley sides, which experts claim reduces the river's carrying capacity due to excess mud and siltation.
4. According to environmental and water resource experts, "100% afforestation" in watershed areas is a required measure to increase percolation and manage the current siltation crisis.

How many of the statements given above are correct?

(a) Only one
(b) Only two
(c) Only three
(d) All four

Q93. Which of the following statements are correct in respect of IAEA's Additional Protocol:

1. It was developed to strengthen the IAEA safeguards system after the discovery of Iraq's clandestine nuclear programme.
2. It enables the IAEA to verify not only declared nuclear material but also the absence of undeclared nuclear activities.
3. Every IAEA Member State is automatically covered under the Additional Protocol.

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

Q94. Consider the following statements:

Statement I: The economic reforms initiated in India in 1991 sought to reduce government control over economic activities.

Statement II: Industrial licensing was abolished for most industries, reducing entry barriers for private enterprises.

Statement III: Trade liberalisation and deregulation were introduced to promote competition and improve economic efficiency.

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. The Pravasi Bharatiya Bima Yojana (PBBY) is primarily intended for:

(a) All Indian citizens residing abroad irrespective of visa category
(b) Indian students pursuing higher education abroad
(c) Emigration Check Required (ECR) category workers migrating to notified ECR countries
(d) Overseas Citizens of India (OCI) cardholders returning to India

Q96. With reference to income inequality and official economic statistics in India, consider the following statements:

1. The National Household Income Survey (NHIS) is India's first nationwide survey specifically designed to estimate household income.
2. The Gini coefficient is a commonly used measure to assess income or consumption inequality.
3. The Periodic Labour Force Survey (PLFS) primarily estimates household income levels across India.
4. The Income-tax Department maintains official data on the aggregate wealth of all taxpayers in India.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) Only three
(d) All four

Q97. Which of the following statements are correct in respect of Afghanistan?

1. Afghanistan shares borders with Iran, Pakistan, Turkmenistan, Uzbekistan, Tajikistan and China.
2. The Wakhan Corridor provides Afghanistan with a narrow border with China.
3. The Amu Darya forms part of Afghanistan's northern boundary with Central Asian countries.

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

Q98. Consider the following statements:

Statement 1: The International Olympic Committee (IOC) oversees the Olympic Games.

Statement 2: International Sports Federations conduct the World Championships in their respective sports.

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

(e) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
(f) Both statement 1 and Statement 2 are correct and statement 2 does not explains statement 1
(g) Statement 1 is correct, but Statement 2 is incorrect
(h) Statement 2 is correct, but Statement 1 is incorrect

Q99. Which one of the following parliamentary devices is most commonly used by the Opposition to seek accountability from the government?

(a) Question Hour.
(b) President's Address.
(c) Budget Speech.
(d) Ordinance-making.

Q100. With reference to targeted welfare schemes and the use of Central Bank Digital Currency (CBDC) in governance, consider the following statements:

1. Welfare benefits can be delivered through a programmable CBDC wallet that restricts expenditure on specified categories of goods and services.
2. A welfare scheme may link a portion of the financial assistance with compulsory savings to promote long-term financial security.
3. Under the Constitution of India, only the Union Government is empowered to design and implement social welfare schemes for women.
4. Eligibility criteria such as income ceiling and exclusion of existing government pension beneficiaries are examples of targeted welfare delivery.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) Only three
(d) All four

Q101. Which one of the following best describes the significance of the Goldwater–Nichols Act?

(a) It established the North Atlantic Treaty Organization (NATO).
(b) It reorganised the U.S. Department of Defense to improve joint military effectiveness.

(c) It created the U.S. Department of Homeland Security.
(d) It established the U.S. Space Force.

Q102. Consider the following statements:

Statement 1: The Central Board of Film Certification (CBFC) is a statutory body functioning under the Ministry of Information and Broadcasting.

Statement 2: The CBFC has the power to ban the public exhibition of films in India without any provision for appeal.

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 explains statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Q103. With reference to the revised guidelines of the National Medical Commission (NMC) for admission of persons with disabilities to the MBBS course, consider the following statements:

1. The revised guidelines provide that eligibility of candidates with disabilities shall be determined through a functional assessment rather than solely on the basis of the disability certificate.

2. The Rights of Persons with Disabilities Act, 2016 mandates blanket exclusion of persons with benchmark disabilities from medical education.

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

Q104. Which of the following demographic indicators measures the average number of children that women intend to have during their reproductive years, rather than the total number they actually bear?

(a) Gross Reproduction Rate (GRR)
(b) Total Fertility Rate (TFR)
(c) Wanted Fertility Rate (WFR)
(d) Net Reproduction Rate (NRR)

Q105. Which of the following statements are correct in respect of Election Commissioners of India:

1. They are appointed by the President on the recommendation of a Selection Committee constituted under the 2023 Act.

2. The Chief Election Commissioner enjoys the same removal protection as a Supreme Court Judge, while other Election Commissioners can be removed only on the CEC's recommendation.

3. The Constitution itself specifies the composition of the Selection Committee.

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

Q106. Consider the following statements:

Statement I: A Privilege Motion may be moved against a Minister who is alleged to have misled the House by providing incorrect or misleading information.

Statement II: Its purpose is to protect the privileges and dignity of Parliament and its members.

Statement III: A Privilege Motion can be admitted only by the Speaker (Lok Sabha) or the Chairman (Rajya Sabha), who may refer it to the Committee of Privileges.

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

Q107. With reference to the grant of Ex-post Facto Environmental Clearance (EC) in India, consider the following statements:

1. An Office Memorandum (OM) issued by the Central Government has the same legal force as a statutory notification issued under the Environment (Protection) Act, 1986.

2. The Supreme Court has held that a blanket and perpetual mechanism for granting retrospective environmental clearances through an administrative instruction is legally impermissible.

3. The Supreme Court has recognised that, in exceptional circumstances and in public interest, a narrowly tailored mechanism for retrospective environmental clearance may be provided through a statutory notification.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) All three
(d) None

Q108. The primary objective of Environmental Impact Assessment (EIA) is to:

(a) Assess the environmental consequences of a project before granting approval.
(b) Compensate for environmental damage after project completion.
(c) Levy environmental taxes on polluting industries.
(d) Facilitate automatic environmental clearance for strategic projects.

ANSWER KEY

Q. No.	Answer	Q. No.	Answer	Q. No.	Answer	Q. No.	Answer
Q1	(b)	Q28	(b)	Q55	(c)	Q82	(b)
Q2	(a)	Q29	(a)	Q56	(a)	Q83	(c)
Q3	(b)	Q30	(c)	Q57	(b)	Q84	(a)
Q4	(a)	Q31	(c)	Q58	(b)	Q85	(d)
Q5	(c)	Q32	(c)	Q59	(c)	Q86	(b)
Q6	(b)	Q33	(d)	Q60	(a)	Q87	(b)
Q7	(a)	Q34	(d)	Q61	(a)	Q88	(c)
Q8	(d)	Q35	(a)	Q62	(b)	Q89	(a)
Q9	(b)	Q36	(b)	Q63	(b)	Q90	(b)
Q10	(a)	Q37	(a)	Q64	(a)	Q91	(b)
Q11	(c)	Q38	(d)	Q65	(a)	Q92	(d)
Q12	(a)	Q39	(c)	Q66	(b)	Q93	(a)
Q13	(d)	Q40	(c)	Q67	(b)	Q94	(a)
Q14	(a)	Q41	(a)	Q68	(d)	Q95	(c)
Q15	(c)	Q42	(a)	Q69	(a)	Q96	(b)
Q16	(c)	Q43	(a)	Q70	(b)	Q97	(d)
Q17	(a)	Q44	(b)	Q71	(b)	Q98	(b)
Q18	(a)	Q45	(d)	Q72	(b)	Q99	(a)
Q19	(a)	Q46	(c)	Q73	(a)	Q100	(c)
Q20	(d)	Q47	(c)	Q74	(a)	Q101	(b)
Q21	(d)	Q48	(c)	Q75	(a)	Q102	(c)
Q22	(a)	Q49	(a)	Q76	(b)	Q103	(a)
Q23	(a)	Q50	(c)	Q77	(d)	Q104	(c)
Q24	(a)	Q51	(d)	Q78	(d)	Q105	(a)
Q25	(c)	Q52	(b)	Q79	(c)	Q106	(b)
Q26	(a)	Q53	(a)	Q80	(b)	Q107	(b)
Q27	(b)	Q54	(d)	Q81	(b)	Q108	(a)

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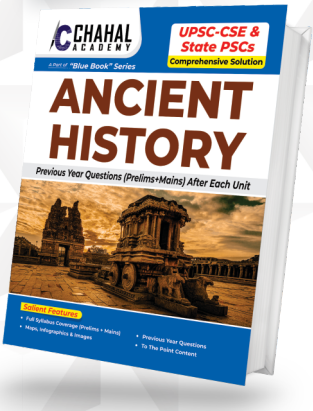

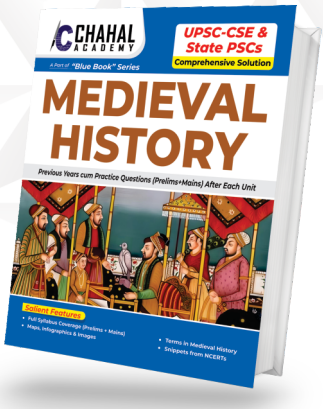

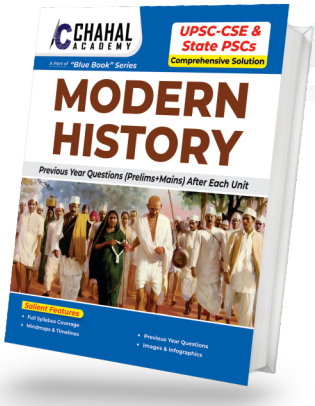

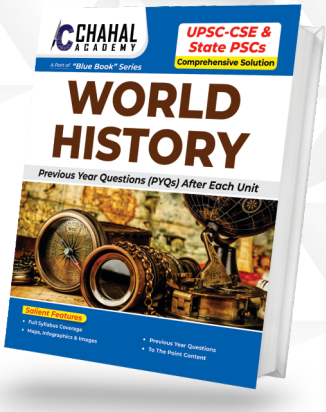

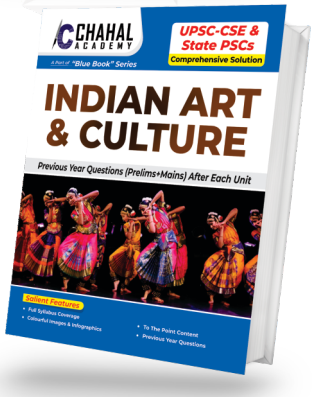

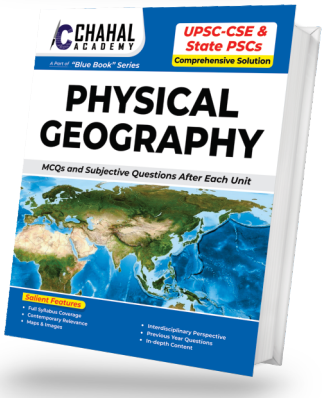

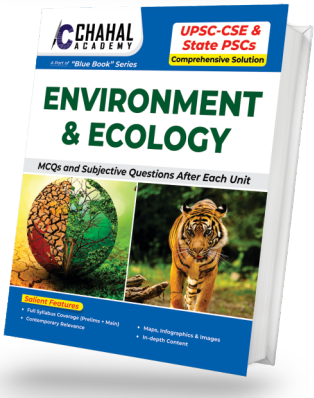

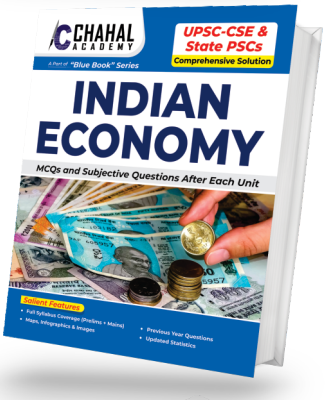

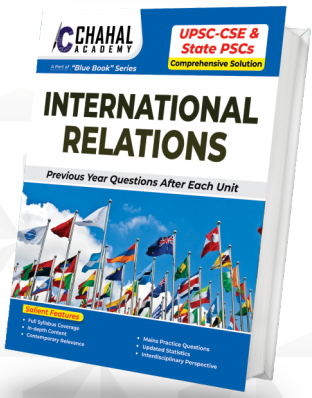

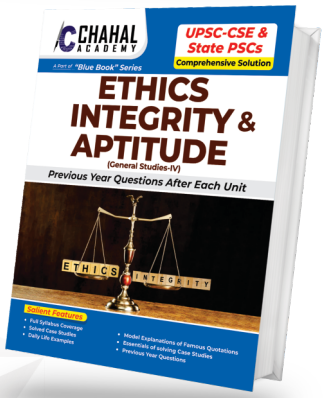

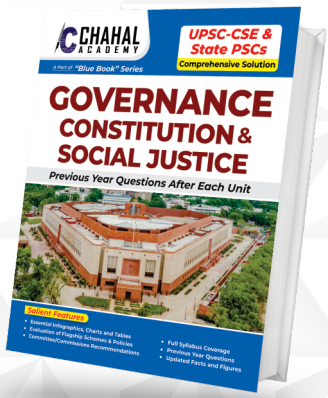

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